



The Business Telephone Specialists

G1E

Hybrid IP Telephone System
ISDN Digital Telephone System

*Installation &
Programming
Manual*

V 2.2.5

Notification

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IMPORTANT SAFETY INSTRUCTIONS



Installation Safety Precautions:

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch un-insulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

The **HYBREX** G1E utilizes a 3-pin grounding power supply cord. This cord is not to be attached to any building surfaces. When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Read and understand all instructions.
2. Follow all warnings and instruction marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home or office, consult your dealer or local power company.
8. The socket-outlet shall be installed near the equipment and shall be easily accessible.
9. This product is equipped with a three wire grounding type plug, this plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
10. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be damaged by persons walking on it.
11. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
12. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
13. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified service man when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassemble can cause electric shock when the appliance is subsequently used.
14. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally by following the operating instructions. Adjust only those control, that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance.
15. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
16. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS

HYBREX G1E

ISDN Digital Telephone System

General Description - Installation - Programming Manual

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General Description - Introduction

The General Description section contains an easy to understand overview of the **HYBEX**[®] G1E ISDN Digital Telephone System. It is the intent of this document to provide both technical and non-technical readers with information pertaining to the system building blocks, capabilities, key highlights, electrical, physical and environmental characteristics of the **HYBEX** G1E ISDN Digital Telephone System.

FCC Rules and Regulation

In compliance with the requirements of Part 68 of the Federal Communications Commission Rules and Regulations for connection of terminal system equipment to the telephone network and for your convenience, the following information is presented.

FCC Registration Number

The **HYBEX** G1E is registered with the FCC in a dual registration capacity enabling the system to operate as a key system only or as a hybrid system. The FCC Registration Numbers are 3A7TAI-35152-KF-E for key systems registration and 3A7TAI-36015-MF-E for hybrid operation.

Ringer Equivalence Number **0.3B**.

Notification of the Telephone Company

Customers connecting terminal equipment to the telephone network shall, upon request of the Telephone Company, inform the Telephone Company of the particular line(s) to which such connection is made, the FCC registration number and ringer equivalence number (REN) of the registered terminal equipment.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your telephone number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

This equipment is capable of providing users access to Interstate providers of operator services through the use of access codes. Modification of this equipment by call aggregators to block access dialling codes is a violation of the Telephone Operator Consumers Act of 1990.

Direct Connection to a Party-Line or Coin Operated Telephone Line is Prohibited.

Incidence of Harm to the Telephone Lines

Should terminal equipment cause harm to the Telephone Network, the Telephone Company shall, where practical, notify the customer that service may be temporarily discontinued. However, where prior notice is not practical, the Telephone Company may temporarily discontinue service, if such action is reasonable in the circumstances. In case of such un-notified temporary discontinuance of service, the Telephone Company shall:

- (a) Promptly notify the customer of such temporary discontinuance of service.
- (b) Afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance.
- (c) Inform the customer of the right to bring a complaint to the FCC pursuant to the procedures set out in Subpart E of Part 68 of FCC Telephone Equipment Rules.

Compatibility of the Telephone Network and Terminal Equipment.	
(a)	Availability of telephone interface information.
	Technical information concerning interface parameters and specifications not specified in FCC Rules, including the number of Ringers which may be connected to a particular line, which is needed to permit Terminal Equipment to operate in a manner compatible with Telephone Company communications facilities, shall be provided by the Telephone Company upon customer's request.
(b)	Changes in Telephone Company Communications Facilities, Equipment, Operations and Procedures.
The Telephone Company may make changes in its communications facilities, equipment, operations or procedures where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68 of the FCC Rules and Regulations. If such changes can be reasonably expected to render any customer Terminal Equipment incompatible with Telephone Company Communications Facilities, or require modification or alteration of such Terminal Equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing to allow the customer an opportunity to maintain uninterrupted service.	

Radio Frequency Interference	
This equipment generates and uses radio frequency energy and if not installed and used properly and in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type-tested and found to comply with the limits for a Class A computing device in accordance with the specification in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, this is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:	
	<ul style="list-style-type: none"> Re-orient the receiving antenna. Relocate the equipment with respect to the receiver. Move the equipment away from the receiver. Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

CTR 21 (98/482/EC) Declaration Network Compatibility

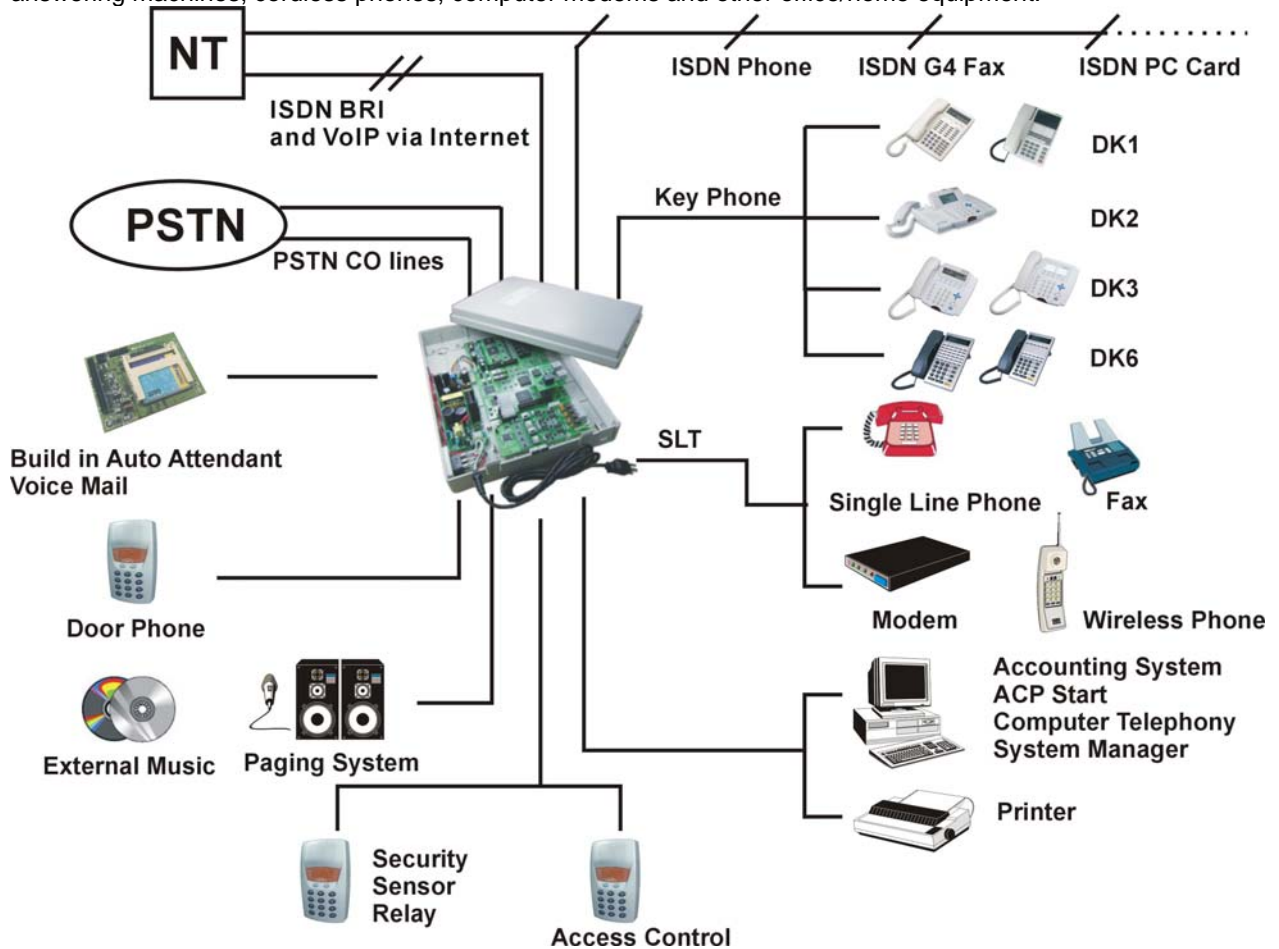
CTR 21 (98/482/EC) Declaration Network Compatibility, 'The equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTN networks provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point. In the event of problem, you should contact your equipment supplier in the first instance.'

ISDN Installation

For the ISDN unit (G1E-SIU), the G1E only offers ISDN S/T interface connection behind an NT1 device. It should not be connected to a "U" interface directly.

Description

The G1E is an advanced ISDN Digital hybrid telephone system employing a microprocessor stored program and digitally controlled solid state Time-division switching. The G1E system is specifically designed for small business as well as residential applications. At the forefront of the system design is a universal concept to adapting and connecting with a variety of communications devices. Productive **HYBEX** Digital Key Telephones offer thoughtfully designed productive feature access to keep you connected with one another and customers. Auto Telecom technology leads the industry in providing for compatibility with devices such as fax machines, answering machines, cordless phones, computer modems and other office/home equipment.



Key highlights of the G1E series include:

Economy and Efficiency

The base system is equipped to support four (4) CO lines or three ISDN BRI's, eight (8) digital stations and 0/2/4 analogue stations.. The system may be expanded to a maximum of eight (8) CO lines / **six (6) ISDN BRI's or 6 VOIP connections** Station cards may be selected to allow practically any combination ranging from all **HYBEX** DK Digital Sets to 8 Digital sets plus 20 industry standard Single Line Telephone sets, with multiple combinations of the two types. In addition to being cost effective at the initial phase and for expanding to it's maximum capacity, the G1E system also is economical to operate as it consumes about the same amount of electricity as a 60 watt light bulb at full configuration. A maximum of 8 CO lines (or 6 ISDN BRI's) and 28 Extensions can be accommodated. This allows a wide variety of applications for the system to work effectively.

Easy Installation

- “Factory Ready” - All G1E Telephone systems are "ready to go" right out of the box. A well thought out default database is factory installed on each system which meets the needs for most installations. This alleviates hours of on site time, minimizing installation costs for both dealer and customer.
- “Small & Compact” - The Key Service Unit's small size takes little space for installation.

Easy Maintenance

- Solid-state design minimizes trouble and eliminates periodic maintenance.
- Easy Expansion. Various Interface Cards for simple, modular expansion.
- Versatile programming and options for ease of selection.
- Database Flash Memory Back Up - Customer data is backed up when the power is turned off and there is no battery to replace.
- Battery Back Up (System Operation) - G1E systems can be equipped with an optional battery back up which keeps the system operational for up to 1 hour in the case of a commercial power failure.
- Customer Care Programming - Customers and service personnel can easily communicate and perform programming right over the telephone. **HYBEX** telephone systems allow programming and voice conversations to be performed at the same time.
- Advanced software upgrades – Through the RS232 connection, system software can be upgraded easily without replacing any firmware.

Flexibility of System Applications

Unlike other conventional systems in the G1E size range, the installer will find an unprecedented range of customer database programmability. In "system parameters" there are extensive options for various timing settings related to features. An array of parameters are programmable for signalling options on outside lines and internal single line telephone sets. The installer may Enable/Disable many system wide features. And in class of service, there are over 20 options for each station providing maximum flexibility for nearly any application.

Varied Extension Alternatives

You can connect proprietary **HYBEX** DK series Keyphone, Door Phones and conventional industry standard single line sets – Modem, Answering Machine, Cordless phone, etc. directly to the KSU. This feature provides you with the choice to select different extension equipment to suit individual applications.

Full ISDN and VOIP features

The G1E system allows you to access different outside line types (PSTN & ISDN and VOIP) in one box and use Full ISDN Features when accessing an ISDN Line_ such as:

- . Call Charge Metering Information
- . Caller Identification
- . Direct Inward Dialling
- . Call Forward Internal / External
- . Call Waiting
- . MSN (Multiple Subscriber Number)
- . Sub-addressing
- . User to User Signalling

You can easily control your budget by using different outside line arrangements.

Liquid Crystal Display

The DK Series Telephone Model DK1-21 / DK1-31 /DK2-21 /DK3-21 and DK6 phones are equipped with a large, easy to read LCD display. The LCD is 32 (64 for DK2-21) characters total, comprised of 2 rows by 16 characters (4 rows of 16) each. This LCD provides an invaluable tool for simplifying the use of the telephone by identifying the calling extension by name, outside lines by name and self prompting displays for feature access. Station feature usage is made simple with the help of the LCD display. Continuous prompting information is displayed during calls so that users know what to do and when to do it.

32/64-character LCD Display shows:

- Time
- Dialed telephone number
- Voice Mail Messages
- CO Line Names
- Last Number Redial
- Speed dial number
- Last number dialed
- The status of operation/function
- Absent messages
- Speed Dial Directory
- Calling Party Number and Name
- Input data during system data entry

HYBEX Telephone Model DK6-36/DK6-12





DK1-21/DK1-31 (Obsolete)



DK1-22 (Obsolete)



ACP



DK2-21



DK3-21/DK3-31

DK3-33

Specifications

MAXIMUM LOOP RESISTANCE/IMPEDANCE	
Key Telephone	Less than 40 ohms 26 AWG / 200 m
Single Line telephone	Less than 800 ohms 26 AWG / 800 m
DoorPhone	Less than 40 ohms
INTERNAL RELAY CONTACTS	
Type	SPST
Rating	1 AMP, 24VDC
Function	Door Switch, Music on Hold, etc
CABLE REQUIREMENTS	
CO/PABX Line	Twisted 1 Pair (2 wires)
ISDN BRI	Twisted 2 Pair (4 wires)
DK1 Digital Key Telephone	Twisted 1 Pair (2 wires)
Doorphone	Twisted 1 Pair (2 wires)
Door Switch	Twisted 1 Pair (2 wires)
External Sensor	Twisted 1 Pair (2 wires)
Single Line Telephone	Twisted 1 Pair (2 wires)

Mechanical Specifications (Key Service Unit)

CABINET DIMENSIONS		
425mm W	85mm D	315mm H
16.7"	3.3"	12.4"
WEIGHT		
3.9 Kg (Configuration: 4 x 8)		
8.59 lbs		

Mechanical Specifications (Battery Back Up Housing)

CABINET DIMENSIONS		
36 cm W	13 cm D	44 cm H
WEIGHT		
With Batteries -16 lbs Without Batteries- 4 lbs.		
Mounting Screws	12.25" centre to centre	

Environmental Specifications

	OPERATING CONDITIONS	STORAGE CONDITIONS
Temperature	0° to 30° C (32° to 86° F)	-40° to 66° C (-40° to 150° F)
Humidity	10 to 95% relative Non-condensing	10 to 95% relative non-condensing

Features

System Features

Account Code Capability
Attendant Console Assignment
Attendant Overflow
Automatic Line Access
Automatic Line Search
Automatic Ringdown
Automatic Wake-up
Battery Charger
Behind PABX Operation
Centrex Operation
Class Of Service
CO Line Groups
CO Line Hunting
CO Line Name Programming
CO Line Ring Types
 Linear
 Common Audible
 Circular
 Hunt
Console Assignment
Day/Night Service
 Manual/Automatic Switch
Dial 9 Group
Direct In Line
Dial By Name
Dial Mode Selection(DP/DTMF)
Dial Pulse to DTMF Conversion
Distinctive Ringing
DTMF Signalling
Dual Port Capability
End to End Signalling
Easy Installation and Operation
Flash (Programmable)
Flash Memory Backup Memory
Flexible Expansion
Flexible Ringing Assignment
Flexible Key Group Assignment
Flexible Number Plan 2,3 or 4 Digit
Flexible Time Format 12/24 Hour
Forced Account Code Assignment
Intercom
Intercom Single Digit Assignment
Intercom Ring / Voice Select
Intercom Dialling Restriction

ISDN

Call Charge Metering Information
Caller Identification
Direct Inward Dialling
Call Forward Internal / External
Call Waiting
MSN (Multiple Subscriber Number)
Sub-addressing
User to User Signalling
Host PABX Access
Hot line
Line Group Assignment
Loud Bell Assignment
Multiple Attendant Consoles
Multiple Trunk Groups
Night Transfer
On Call Programming
Paging
 Internal
 Zone
 Meet Me
Password Assignment
 DISA
 System programming
 Toll Override
Pause
Pick Up Groups
Power Fail Transfer
Security Code
Single Digit Dialling
Station Group Assignment
Station Hunting
Station Lock
System Speed Dial and Personal Speed Dial
System Date & Time Setting
System Time-Reminder Service
Telephone Directory
Toll Control
 Day / Night
Tone to pulse dialling
Trunk Queuing
Trunk to trunk connections
Uniform Call Distribution
Voice Mail Compatibility

Station Features

Advisory Messages
Access to System Programming
Account Code Capability
Auto Hold
Auto Hold Recall
Automatic Call Back
Automatic Answer-Intercom
Automatic Line Access
Automatic Redial
Automatic Volume Increase
Brokers Call
Call Duration Timer (LCD Phones)
Call Waiting
Call Forwarding
 All Calls
 Busy
 No Answer
 Busy / No Answer
 External
Call Pickup
Call Split
Call Transfer
Calling Name Display (LCD Phones)
Calling Number Display (LCD Phones)
Camp On
Chain Dialling
Conference
Dial By Name (LCD Phones)
Dial Access to Attendant
Direct Station Selection
DoorPhone Access
Do Not Disturb (DND)
Dual Color LED
Duration Time Display (LCD Phones)
Executive Override (Barge-In)
External Call Forwarding
Flash (Open Loop Timed Flash)
Hands-free Answer Back
Hearing Aid Compatibility
Headset Compatibility
Hold (Exclusive / System)
Hold Recall
I Hold Indication
I Use Indication
Intercom
Intercom ring / voice interchange
Intercom Step Call
Intercom Voice Announce
Last Number Redial
Message Waiting
Multi-Language Display
On Hook Dialling

Parts & Peripherals

System Modules

<i>Model</i>	<i>Description</i>
G1E-412P	KSU with 4 CO lines, 8 Digital ports (4 SlT ports)
G1E-412i	KSU with 2 ISDN S/T , 8 Digital ports (4 SLT ports)
G1E-612i	KSU with 3 ISDN S/T , 8 Digital ports (4 SLT ports)
G1E-TKU-4	Trunk Card : 4 CO lines
G1E-SIU-2	ISDN S/T interface with 2 circuits
G1E-SIU-3	ISDN S/T interface with 3 circuits
G1E-VIU	3 Channel VOIP card
G1E-STU-8	Station Card : 8 Digital ports
G1E-SLU-1	Single Line Card : 8 SLT ports / with CLIP (Caller ID) function
G1E-RGU	Ring Generator Unit for G1E-SLU-1

Type of Phones

<i>Model</i>	<i>Description</i>
DK6-36	Multifunction Key Telephone with 2 line LCD display, speakerphone, Handsfree, headset jack, 36 dual color keys and 7 function keys for feature access, DSS, CO Lines and speed dial.
DK6-12	Multifunction Key Telephone with 2 line LCD display, speakerphone, Handsfree, headset jack, 12 dual color keys and 7 function keys for feature access, DSS, CO Lines and speed dial
DK1-21	Multifunction Key Telephone. Includes 32 character LCD display, speakerphone, Handsfree, headset jack, 20 dual color keys and 14 function keys for feature access, DSS, CO Lines and speed
DK2-21	Multifunction Key Telephone with 4 line 64 character LCD display, speakerphone and handsfree, 22 dual color keys and 14 function keys for feature access, DSS, CO Lines and speed dial.
DK3-21	Multifunction Key Telephone. Includes 32 character LCD display, speakerphone, 10 dual color keys and 14 function keys for feature access, DSS, CO Lines and speed dial.
DPU1	Digital Door phone – weather resistant
ACP/RF	Access Control Phone with RF Proximity Card function
PX-Card	RF Proximity Card for ACP/RF
WMU-x	Wall Mount Kits for DK Series Telephones

Peripheral Devices

<i>Model</i>	<i>Description</i>
BBOX0	Battery Box without Batteries
BBOX1	Battery Box with Batteries

Optional Interface Cards

<i>Model</i>	<i>Description</i>
G1E-VMC-1	Voice Mail Unit
G1E-MSR	RS232/Relay/Sensor

System Installation - Introduction

This section provides directions for installing the system and optional equipment. The installation must be performed by qualified service personnel.

Main components of the system are:

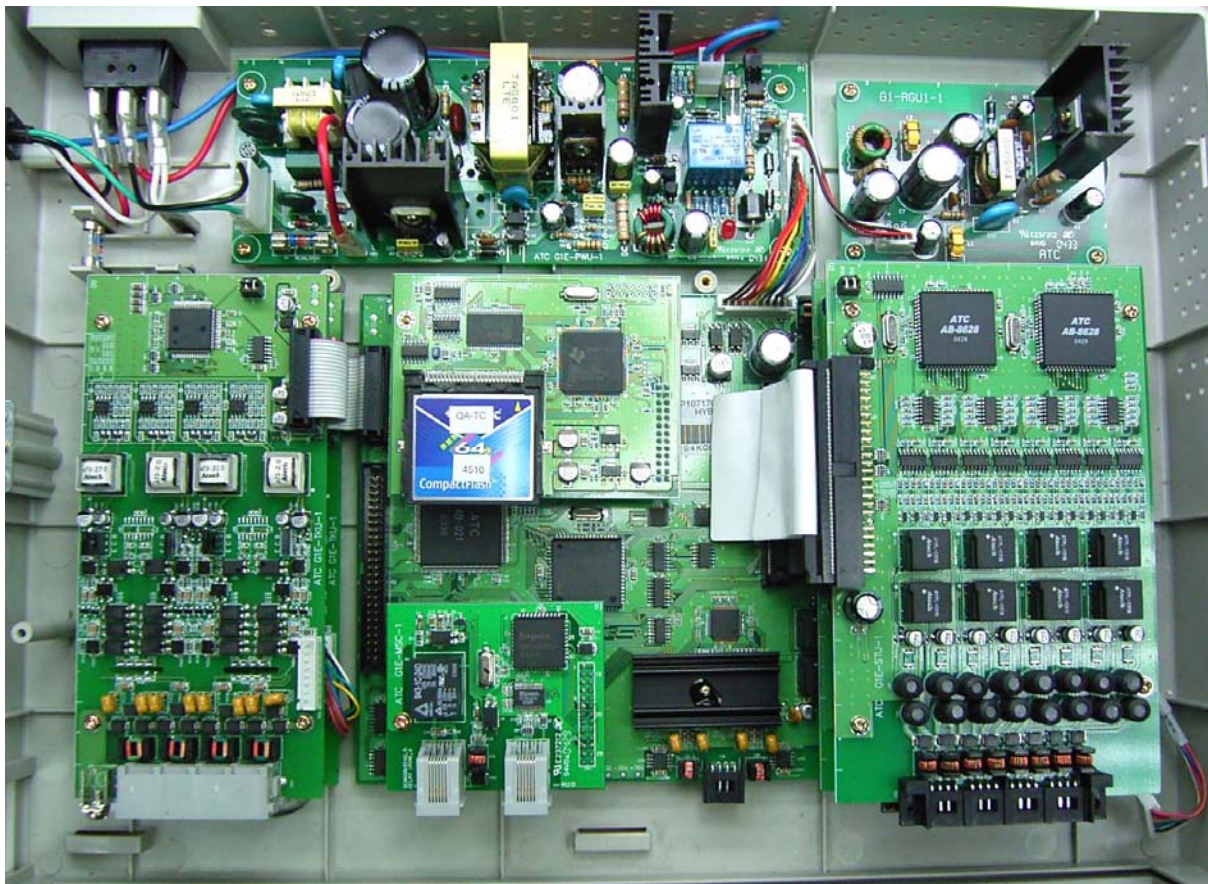
Key Service Unit, which includes:

- Power Supply Unit (G1E-PWU + (G1-RGU))
- Main Board Unit (G1E-MBU / Common Control, eight digital port circuits and 4 SLT ports) On board messaging and Auto Attendant.
- Trunk Unit (G1E-TKU / G1E-SIU / G1E - VIU)

Optional Expansion Cards:

- Trunk Card (G1E-TKU / G1E-SIU/G1E-VIU)
- Digital Station Card (G1E-STU –eight digital port circuits)
- Single Line Station Card (G1E-SLU – eight single line port circuits)
- Multi-Service Card (G1E-MSC)
- Voice Mail Card (G1E-VMC)

NOTE: Please follow the directions step by step. The G1E system should be installed in strict accordance with this manual.



Site Requirements

Location

Choosing the Right Environment

- System should be installed in a clean, dry, secure location. This location must have adequate ventilation, and a temperature from 0 °C to 30°C (32°F to 86°F), with 10% to 95% non-condensing relative humidity. DO NOT install the equipment near sources of static electricity, excessive vibration, or water. Avoid direct sunlight.

Installation Checklist

INSTALLATION REQUIREMENTS	VERIFICATION
MOUNTING SURFACE	Flat surface with adequate space for main cabinet, power supply, wiring and optional Battery Backup cabinet.
AC LINE	AC line should be dedicated exclusively to the system.
POWER OUTLET	Power Outlet must be a 3-wire grounded outlet plug. The socket outlet shall be installed near the system and be easily accessible. Input power Line capacity requirements - 10 amperes. CAUTION DOUBLE POLE/NEUTRAL FUSING ON EUROPEAN PLUGS
SURGE PROTECTION	A Surge Protector is recommended on the dedicated AC line.
VENTILATION AND TEMPERATURE	Humidity: 10% to 95% relative non-condensing Temperature: 32°F to 113°F (0 °C to 45 °C).
EARTH GROUND	A proper ground connection. (14 AWG)
SERVICEABILITY	Lighting conditions and working space adequate for future service.

Equipment Requirements

- Unpack, Check and Verify Equipment - Unpack the telephone equipment boxes and verify the contents in accordance with the packing list provided. If any discrepancies are noticed, please contact Auto Telecom or Authorized Dealers.
- Damaged Boxes - If you notice any damage to the packages, please notify both the shipper and Auto Telecom or Authorized Dealers at once.
- List of parts included in basic KSU box:
 - KSU Main Cabinet
 - Mounting Template
 - Mounting Screws
 - Station Quick Connectors
 - Spare Fuses
 - Cable Cover

Installation

- Caution**
1. **This system should be installed by qualified service personnel.**
 2. **Do not install the Power Supply unless you have read the following instructions and completed all the installation and wiring.**
 3. **STATIC SENSITIVE DEVICES! Please handle with care.**

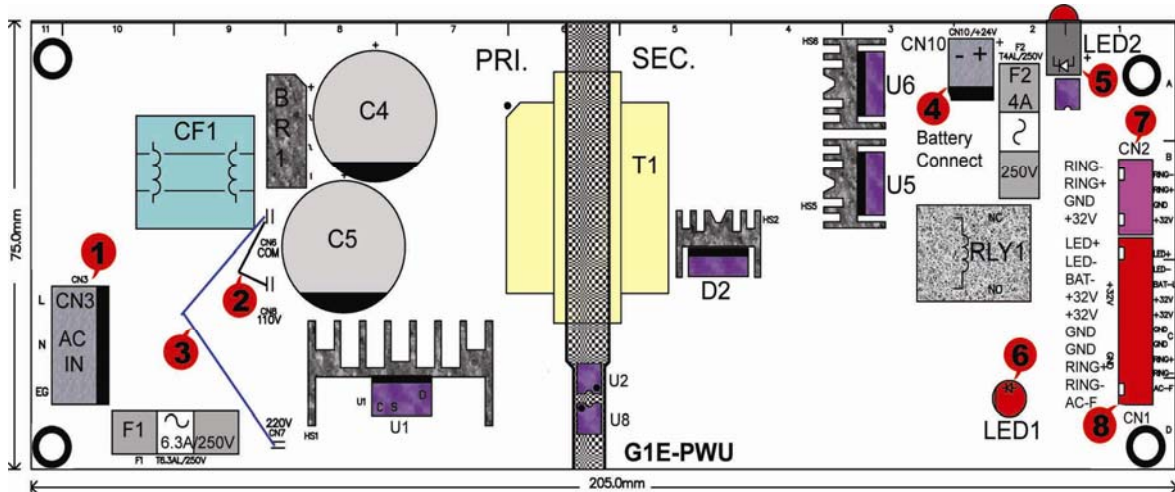
Installing expansion and optional cards

In this step you will be installing printed circuit cards on to header pins of the main board in the basic cabinet. Take your time and extra care to assure the printed circuit cards are properly aligned. After installing each option and expansion card, perform a visual inspection to assure the printed circuit card is installed properly.

1. Position the cabinet on a flat surface like a table or countertop. Avoid doing this on carpet.
2. Remove the 4 screws located at the corners of the cabinet and lift the front cover off.
3. Locate the expansion and option cards and unpack them at this time.

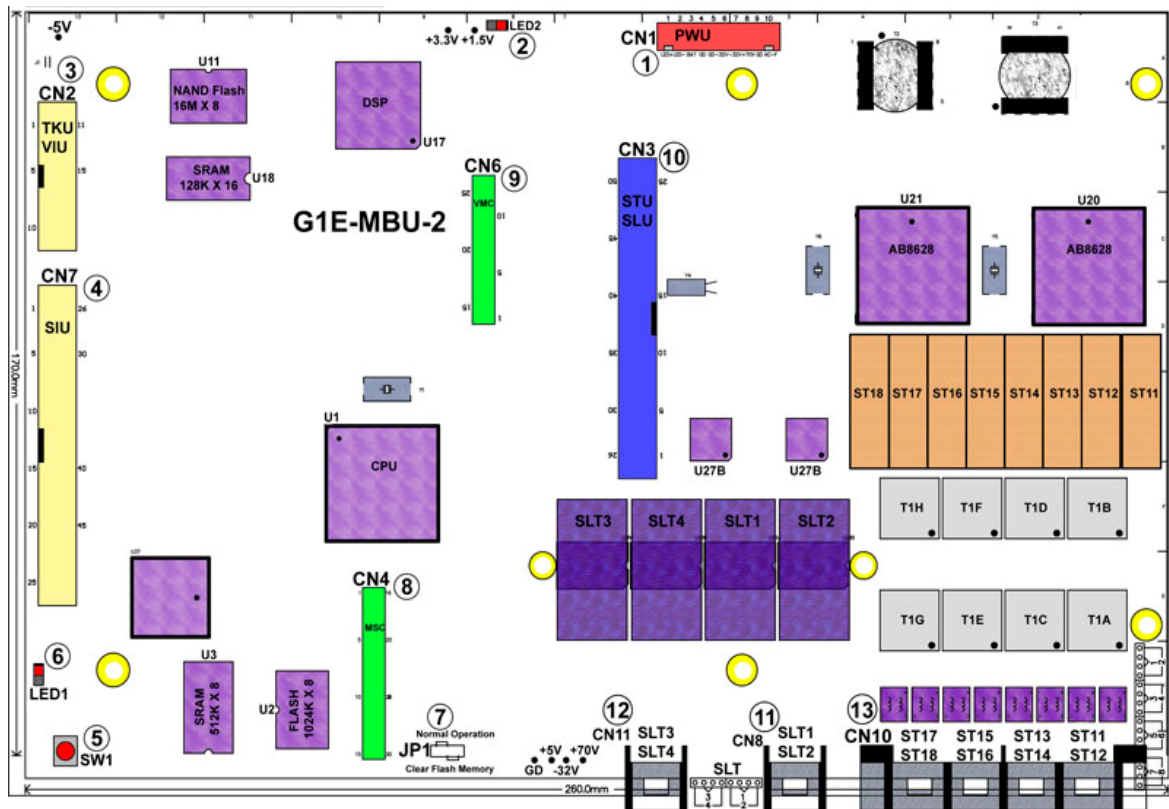
Card Introduction

G1E-PWU-Power Supply Interface Card



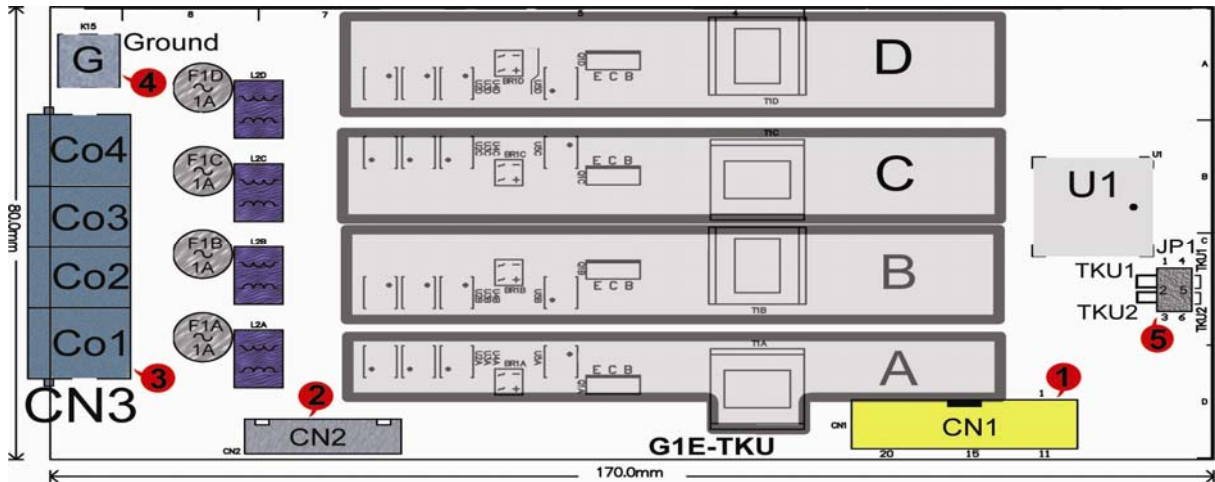
1. CN3 AC IN
2. CN6+CN8 :AC110V :90~130VAC
3. CN6+CN7 :AC220 :180~260VAC
4. CN10 :Battery Connection +24V to +27V DC
5. LED2 :LED2
6. LED1 :G1E-PWU DC +32V indication
7. CN2 : Cable connection from G1E-PWU to G1-RGU CN1
8. CN1 : Cable connection from G1E-PWU to G1E-MBU

G1E-MBU G1E-36 Main Board Unit



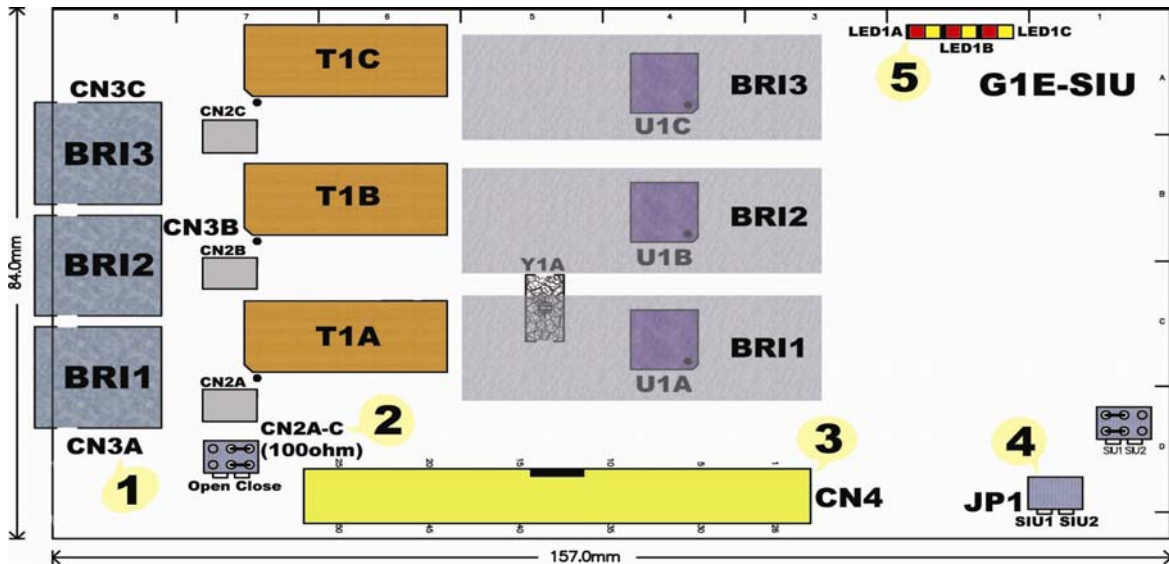
- 1.CN1 : Power connection to G1E-PWU CN1
- 2.LED2 :DSP LED
- 3.CN2 : To G1E-TKU CN1
- 4.CN7 : To ISDN/VOIP
- 5.SW1 : Reset Switch
- 6.LED1 : Power LED
- 7.JP1 : Clear Flash Memory / Normal Operation
- 8.CN4 : To G1E-MSC CN1
- 9.CN6 : To G1E-VMC CN1
- 10.CN3 : G1E-STU / G1E-SLU CN1
- 11.CN8 : SLT Ports 41-42
- 12.CN11: SLT Ports 43-44
- 13.CN10: Digital Ports 11 ~ 18

G1E-TKU 4 Port CO Line Card



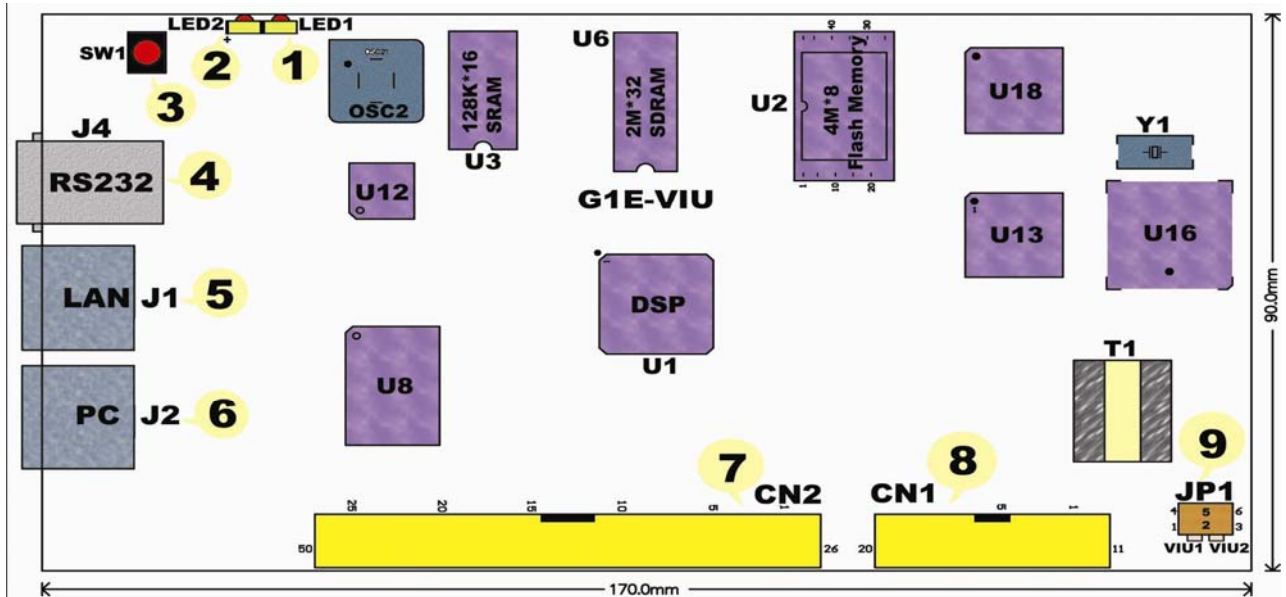
- 1.CN1 : To G1E MBU CN2
- 2.CN2 : Power fail connection to G1E-SLU CN3
- 3.CN3 : TK 1 to 4 input from Central Office
4. K15 Ground
- 5.JP1 :TKU1/TKU2 switch to select TKU1/CO1~CO4 or TKU2/CO5~CO8

G1E-SIU 3 BRA ISDN Card



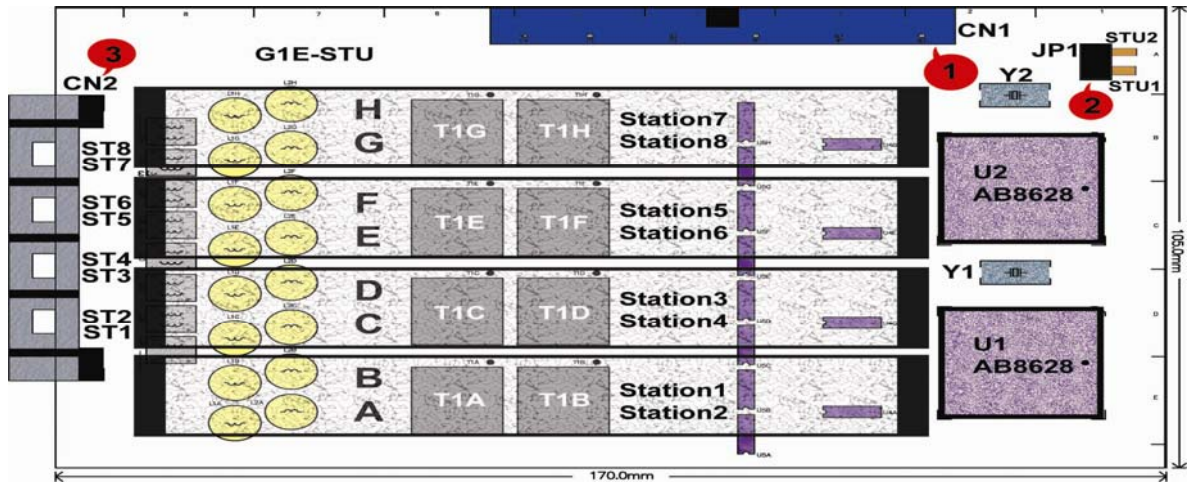
- 1.CN1 : BRA 1 to 3 input from Central Office
- 2.CN2A-C : ISDN Terminator switches
- 3.CN4 : To G1E-MBU CN7
4. JP1 :SIU1/SIU2 switch to select SIU1/CO1~CO6 or SIU2/CO7~CO12
5. LED 1A, 1B,1C For Bra connection indication

G1E-VIU 3 Port VOIP Card



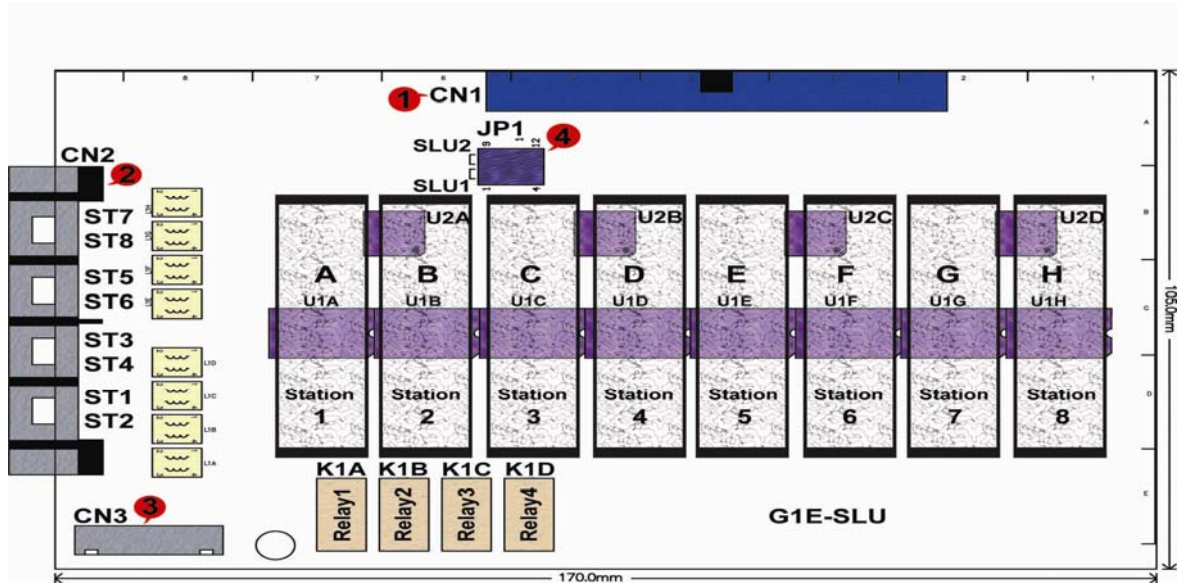
- 1.LED1 : Green steady on means VIU has registered to SIP Proxy Server successfully.
Green slow flash means it has not registered to SIP Proxy.
- 2.LED2 : Green steady on means system power is applied.
- 3.SW1 : Reset Switch
4. J4 : RS232 port.
5. J1 : LAN Port
6. J2 : PC Port
7. CN2 : To G1E MBU CN7
8. CN1 : To G1E MBU CN2
- 9.JP1 :VIU1/VIU2 switch to select VIU1/CO1~CO3 or VIU2/CO5~CO7

G1E-STU 8 Port Digital Station Card



- 1.CN1 : Connection to G1E-MBU CN3
- 2.JP1 : Switch to select STU1 / ports 21 ~ 28 or STU2 / ports 31 ~ 38
- 3.CN2 : Connection for 8 Digital stations.

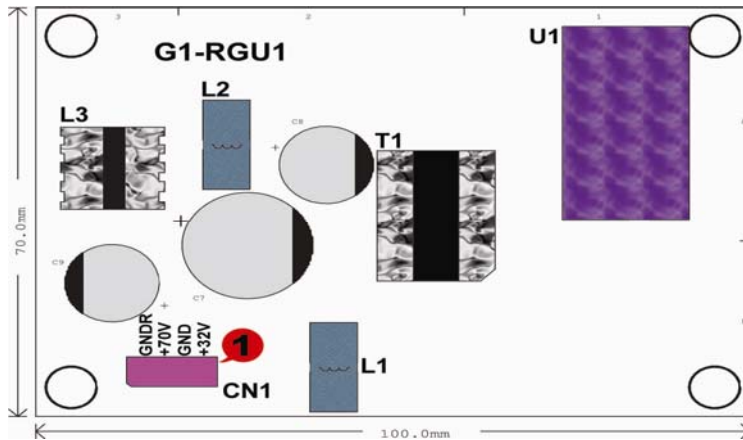
G1E-SLU 8 Port Single Line Station Card



- 1.CN1 : Connection to G1E-MBU CN3
- 2.CN2 : Connections for ST1~ST8
- 3.CN3 : Power fail connection to G1E-TKU CN2 (CO1-4 or CO5-8) to ST1~ST4
- 4.JP1 : Switch to select SLU1 ports 21 ~ 28 or SLU2 ports 31 ~ 38

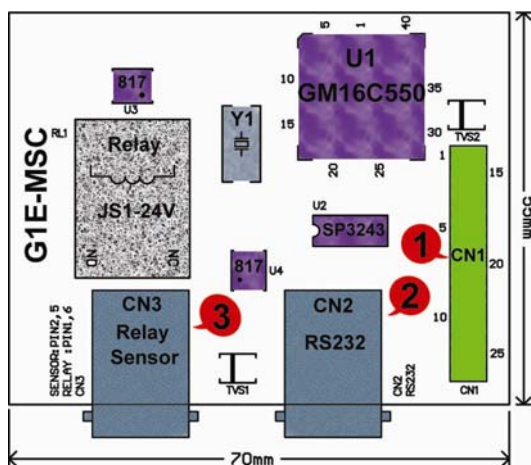
Note G1E-SLU requires the installation of the G1-RGU for correct operation

G1-RGU-Ring Generator Unit



1.CN1 : (DC 32V)/(DC 70V) to G1E-PWU CN2

G1E-MSC Multi Service Card

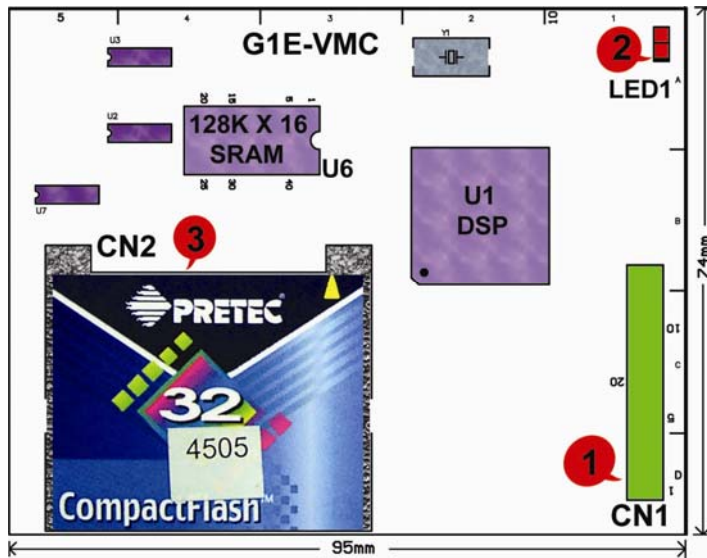


1.CN1 : Connection to G1E-MBU CN4

2.CN2 RS232: RS232 connection to PC for SM5, Winloader, SMDR etc.

3.CN3 Relay/Sensor:

G1E-VMC 4Port Voice Mail Card



- 1.CN1 : Connection to G1E-MBU CN6
- 2.LED1: Heartbeat of G1E-VMC
- 3.CN2 :CF card.

To use the VMC card the G1E must have version 002 software.

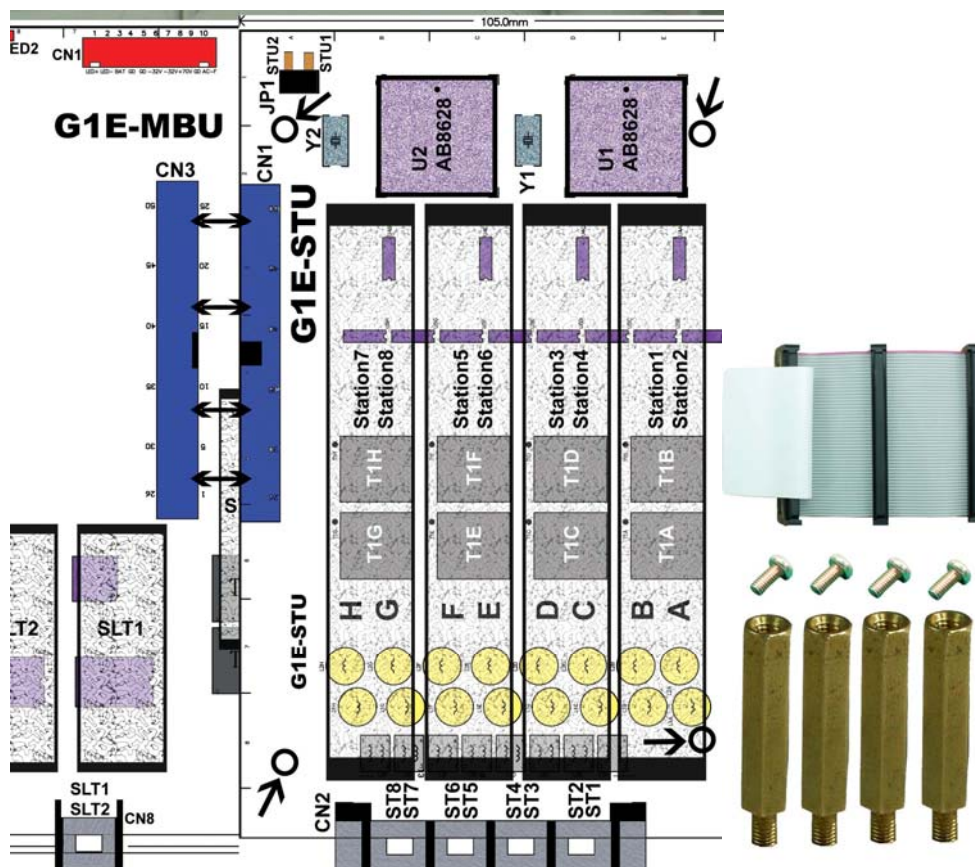
To use the Conference feature the G1E must have the VMC card installed.

CF Card	G1E-VMC (32kbps)				G1E-VMC (16kbps)			
	Total Unit	1 Unit Duration (secs)	Duration (mins)	Duration (hours)	Total Unit	1 Unit Duration (secs)	Duration (mins)	Duration (hours)
256M	1000	60	1000	16.67	1000	120	2000	33.33
512M	1000	120	2000	33.33	1000	240	4000	66.67
1G	1000	240	4000	66.67	1000	480	8000	133.33

512 and 1Gb CF cards will be future releases

For a description of the VMU and Auto Attendant setup and configuration including how to record messages see the section at the end of the Installation Manual

Install G1E-STU 8 Port Digital Station Card



Installing the first expansion card

Power off the system

Set the Jumper on the card to STU1

Install 4 brass spacers to the MBU by removing screws from the MBU and replacing with spacers

Plug the cable into the MBU and then fasten STU to spacers using the 4 screws removed from the MBU

Installing the second Expansion card

Power off the system

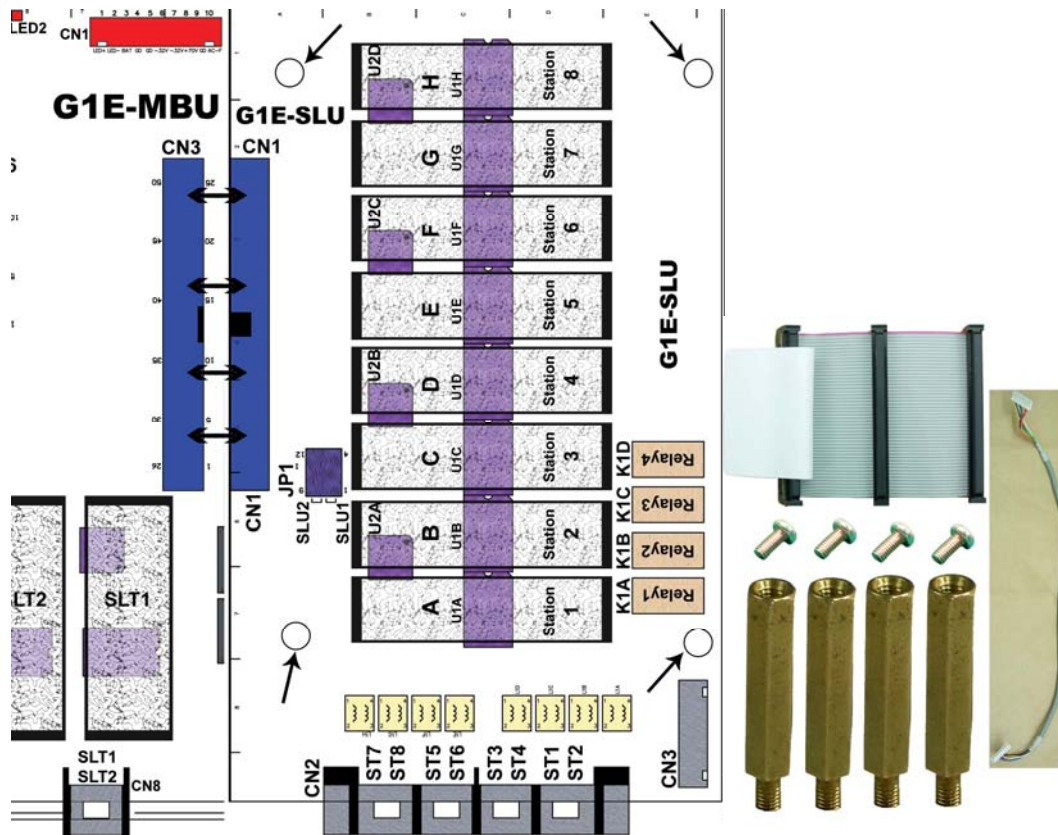
Set the Jumper on the card to STU2

Install 4 brass spacers to the first STU by removing screws from the STU and replacing with spacers

Plug the cable from the MBU to the first STU to the second STU and then fasten STU to spacers using the 4 screws removed from the first STU.

Make certain that the cable is pushed home firmly into the connector

Install G1E-SLU 8Port Single Line Station Card



Installing the first Expansion card

Power off the system

Set the Jumper on the card to SLU1

Install 4 brass spacers to the MBU by removing screws from the MBU and replacing with spacers

Plug the cable into the MBU and fasten SLU to spacers using 4 screws removed from the MBU

Installing the second Expansion card

Power off the system

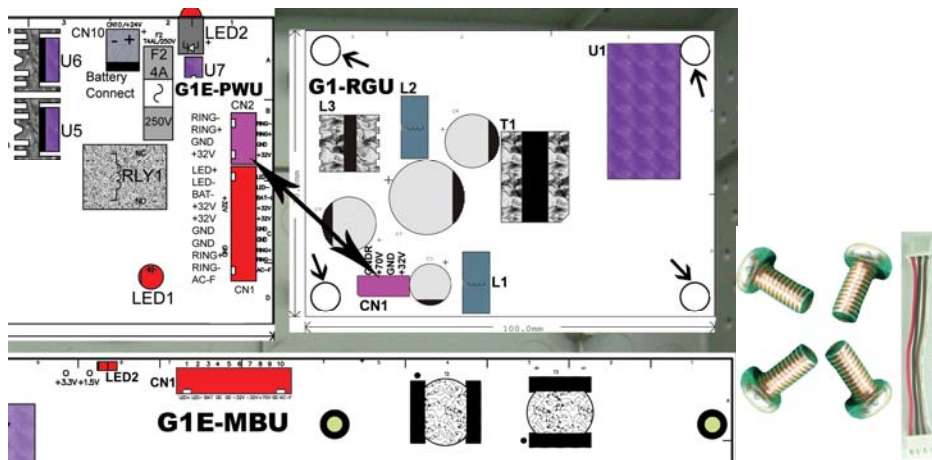
Set the Jumper on the card to SLU2

Install 4 brass spacers to the first SLU by removing screws from the SLU and replacing with spacers

Plug the cable from the MBU to the first SLU to the second SLU and fasten SLU to spacers using the 4 screws removed from the first SLU.

Make certain that the cable is pushed home firmly into the connector

Install G1-RGU- Ring Generator Unit



Power down the system before installation

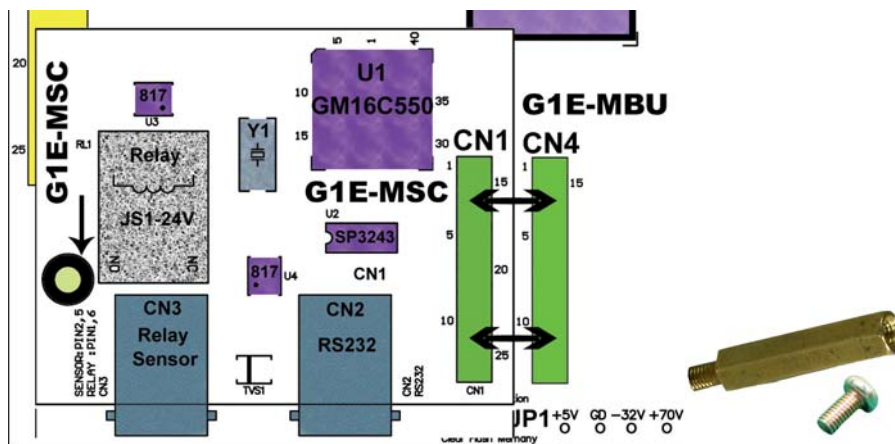
Fasten the G1E-RGU in position using the 4 supplied screws

Connect the G1-RGU CN1 to the G1E-PWU CN2 using the supplied cable

Note: The G1-RGU must be installed before installing any G1E-SLU cards.

Make certain that the cable is pushed home firmly into the connector

Install G1E-MSC Multi Service Card



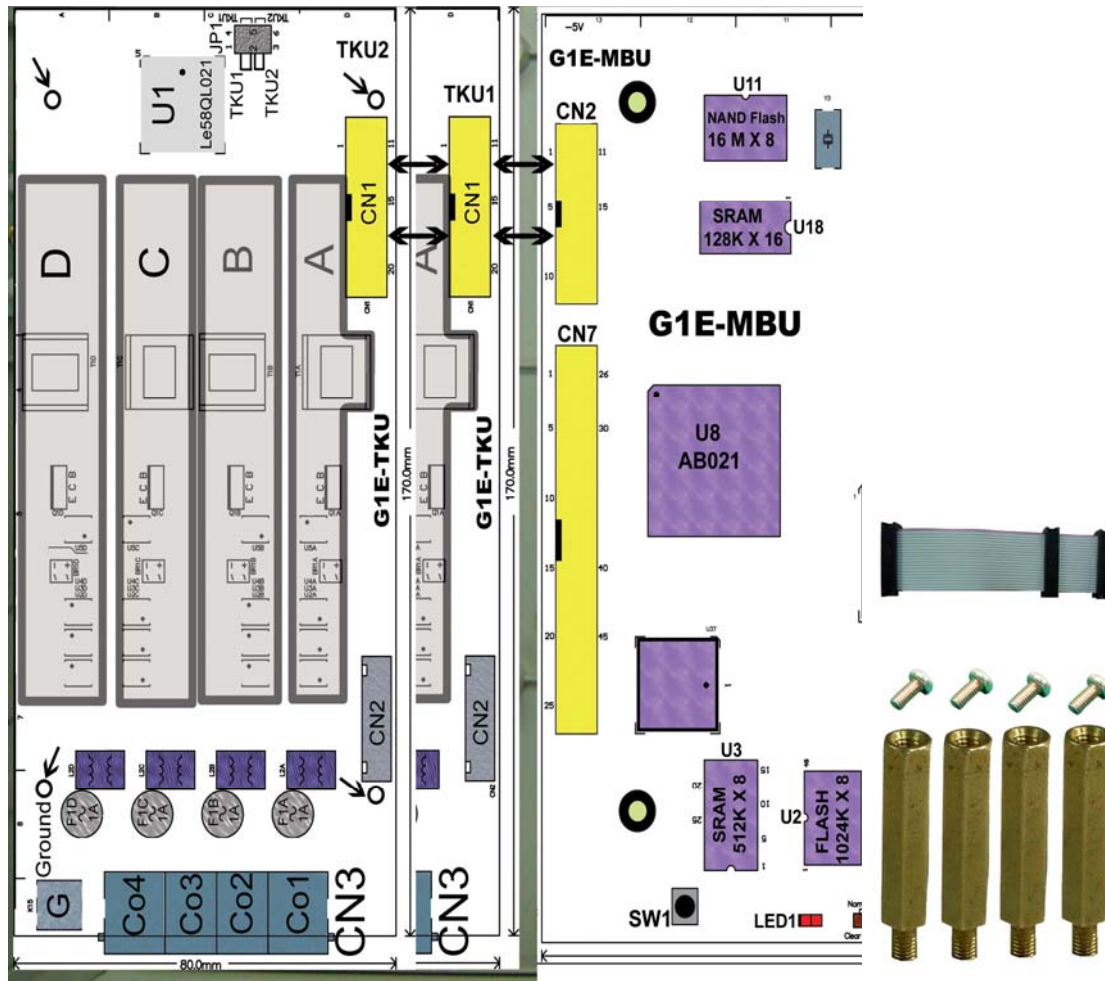
Power down the system before installation

Remove the screw from the G1E-MBU and replace with supplied spacer.

Connect G1E-MSC CN1 to G1E-MBU CN4

Replace screw to hold MSC in place.

Install G1E-TKU 4Port CO Line Card



Installing the first Trunk card

Power off the system

Set the Jumper on the card to TKU1

Mount the TKU to the case using the provided screws

Plug the cable into the MBU

Installing the second Trunk card

Power off the system

Set the Jumper on the card to TKU2

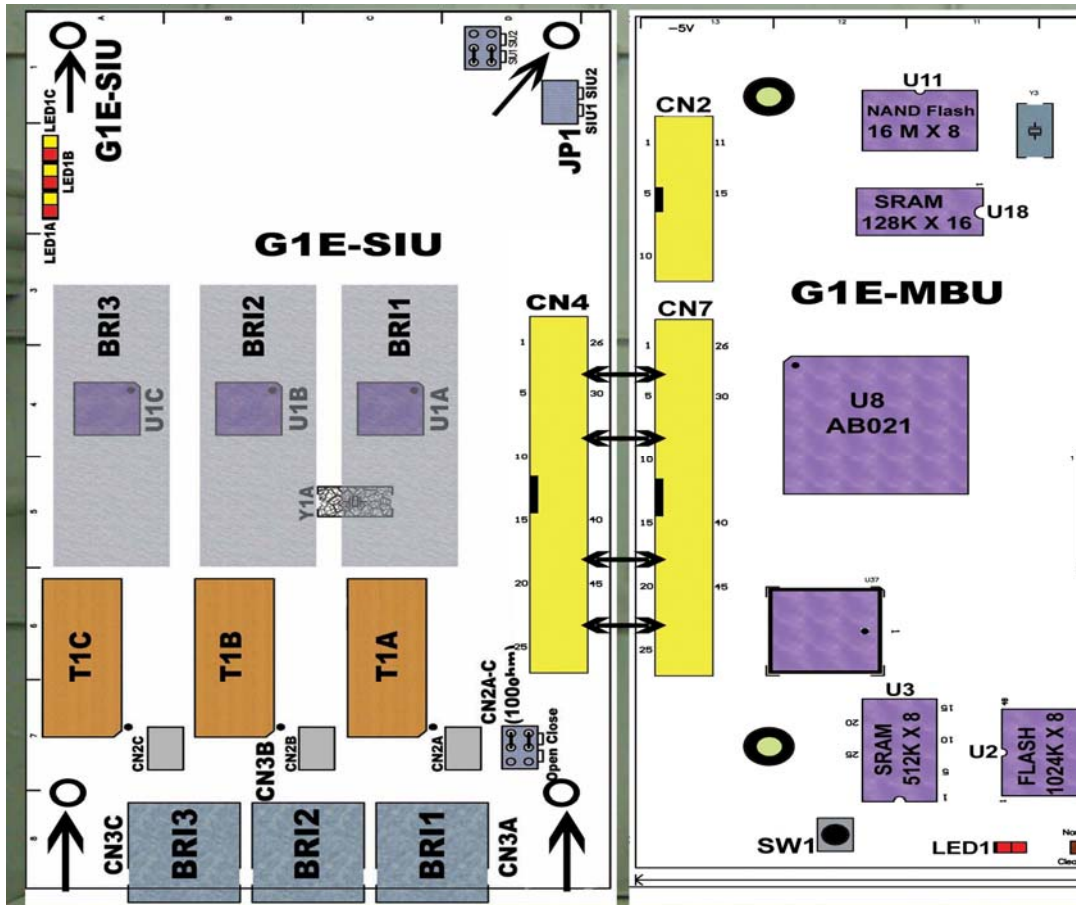
Install the 4 brass spacers to the first TKU by removing the screws from the TKU and fitting spacers

Plug the cable from the MBU to the first TKU to the second TKU and then fasten TKU to spacers using the 4 screws removed from the first TKU.

The cable from TKU card CN2 can be connected to CN3 of the G1E-SLU for power fail operation.

Make certain that the cables are pushed home firmly into the connectors

Install G1E-SIU 3 BRA Card



Installing the first ISDN Trunk card

Power off the system

Set the Jumper on the card to SIU1 position

Mount the SIU to the case using the provided screws

Plug the cable into the MBU

Installing the second ISDN Trunk card

Power off the system

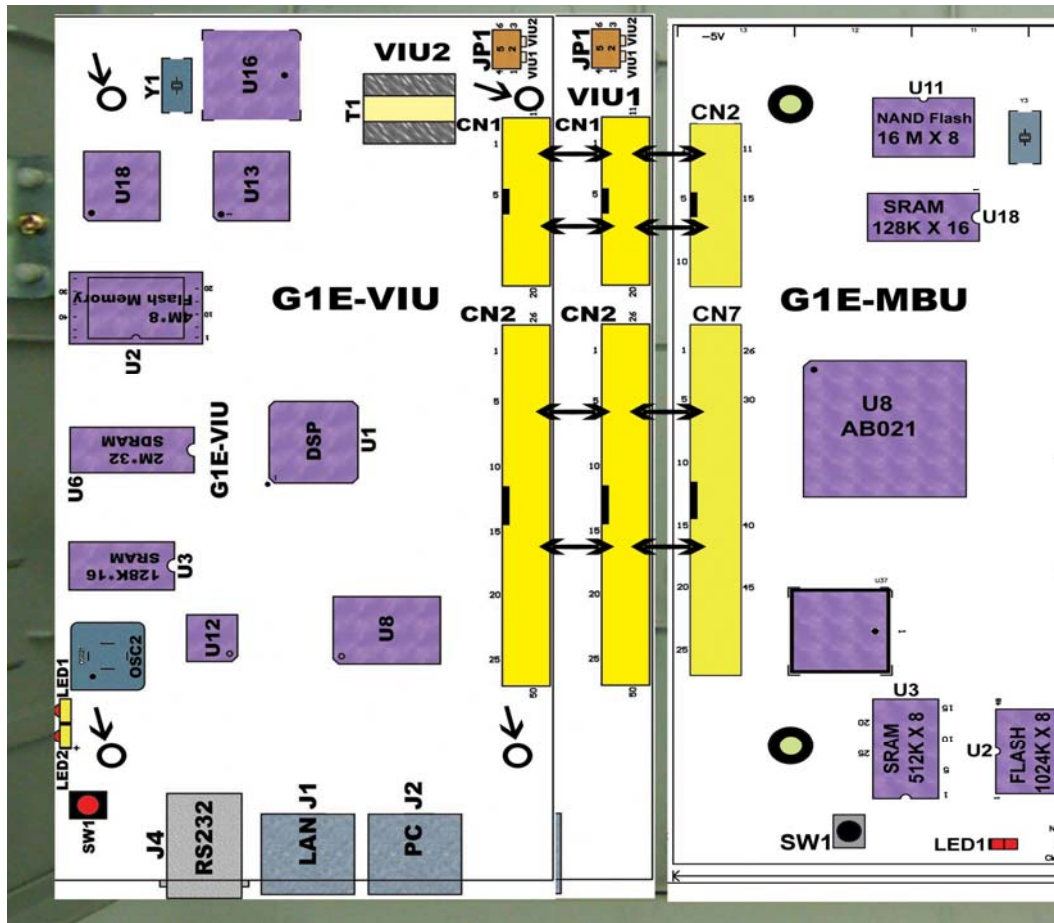
Set the Jumper on the card to SIU2 position

Install the 4 brass spacers to the first SIU by removing the screws from the SIU and fitting spacers

Plug the cable from the MBU to the first SIU to the second SIU and then fasten SIU to spacers using the 4 screws removed from the first SIU.

Make certain that the cable is pushed home firmly into the connector

Install G1E-VIU 3 VOIP Trunk Card



Installing the first VOIP card

Power off the system

Set the Jumper on the card to VIU1

Mount the VIU to the case using the provided screws

Plug the cables into the MBU

Installing the second VOIP card

Power off the system

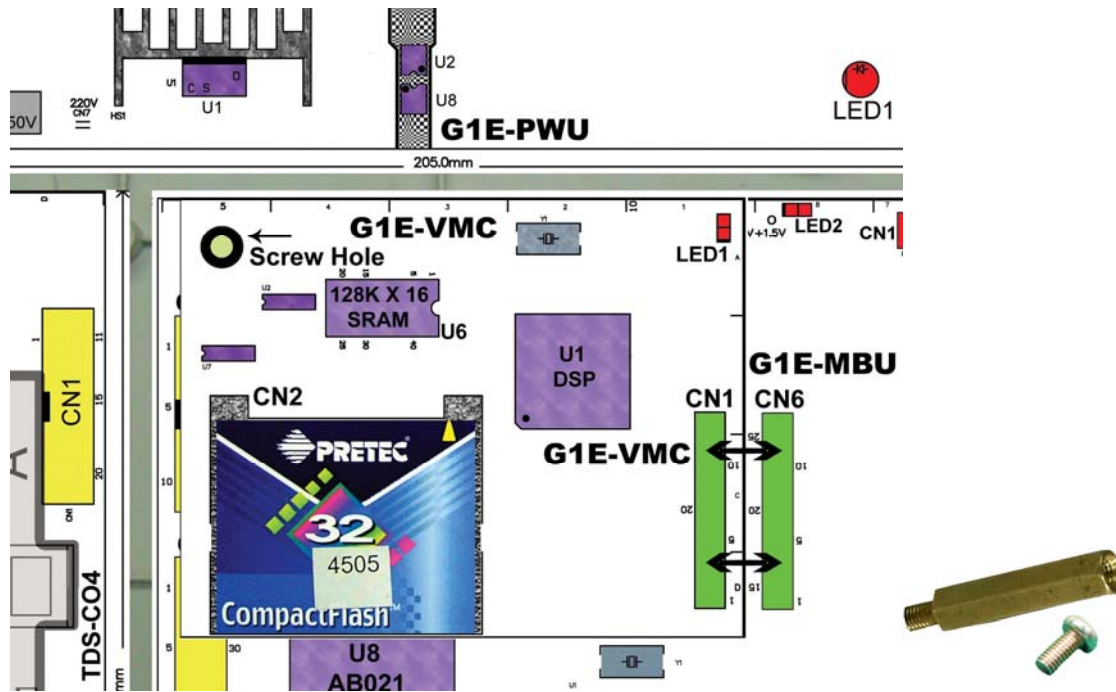
Set the Jumper on the card to VIU2

Install the 4 brass spacers to the first VIU by removing the screws from the VIU and fitting spacers

Plug the cables from the MBU to the first VIU to the second VIU and then fasten VIU to spacers using the 4 screws removed from the first VIU.

Make certain that the cable is pushed home firmly into the connector

Install G1E-VMC 4Port Voice Mail Card



- Power off the system before installing card
- Remove the screw from MBU and replace with Spacer
- Mount G1E-VMC CN1 to G1E-MBU CN6
- Screw VMC to Brass spacer

Make certain that the card is aligned correctly and pushed home firmly into the connector

For a description of the VMU and Auto Attendant setup and configuration including how to record messages see the section at the end of the Installation Manual

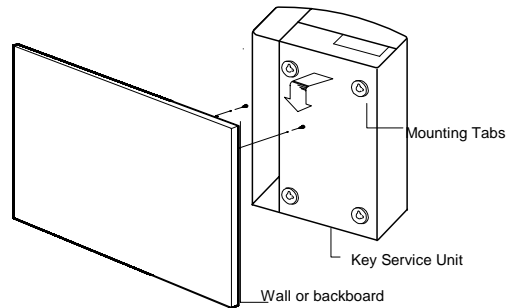
Installing the Equipment

Backboard

Be sure to plan and allow enough space to mount and connect the key service unit, power supply and system battery back up if applicable.

Key Service Unit

Use the enclosed paper template to locate the mounting position for the Key Service Unit. Drill appropriately spaced holes and mount the KSU on the wall. When mounting the KSU, make certain that there is adequate room for the system power supply and that the connecting cable between the Power Supply and the KSU will reach the KSU. The same applies for the battery back up unit.



Power Supply

Dedicated Power Source - The power supply must be connected to a dedicated AC outlet.

Be sure that the third wire earth ground of the AC circuit is connected to a good electrical ground. If a music source is installed, it must be connected to a separate AC circuit rather than the system's dedicated AC line cord.

Check Your Voltage Selection Jumper

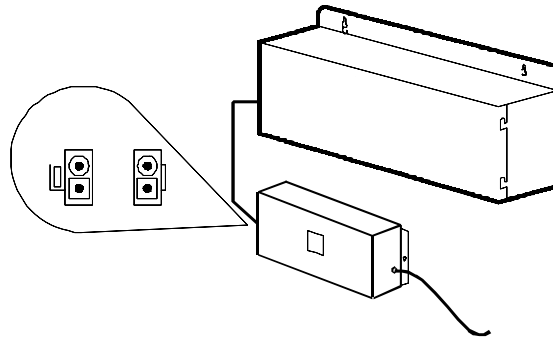
Verify that the input voltage and input voltage jumper are correct before you power on the system. The input voltage is set according to the Customer's requirement before shipping. However it is important to verify that the setting is correct prior to initial system power up.

Power Supply voltage options for the unit:

100-VAC: 100 to 120 V AC (50/60Hz) or 240-VAC: 205 to 265 V AC (50/60Hz).

Mount Power Supply

Using screws provided with the system, mount the power supply close to the KSU so that the connector reaches from the Power Supply to the KSU.



Preparing The External Battery Backup

The Key Service Unit uses one external backup battery unit containing 2 x 12v batteries in series (24 volts) for emergency power when a power failure takes place.

If you are installing an optional Battery Backup (BBOX1), make certain that there is adequate room for its installation. Make certain that the Battery Backup is mounted close enough to the Power Supply that the interconnecting cable between the Battery Backup and the Power Supply can connect.

Do Not Connect the Battery Backup at this time!

Do Not Connect the Battery Backup at this time! Battery Backup should not be connected to the System power supply until all power up testing has been completed!

Charging the Battery

The rechargeable batteries are automatically charged when the KSU is plugged in. When System is in a full-load condition (eight CO Trunks and twenty-four Extensions all in use), the batteries provide a minimum of 1 hour's consecutive use. Change the batteries every two years.

Installing or Replacing Batteries

Caution

To Reduce the Risk of Fire or Injury to persons, Read and Follow these Instructions.



1. Use only the following type and size batteries:
12 Volt 6.5 Amp/Hour "Gel-Cell" sealed batteries (2).
Dimensions, approximately 3 1/4" (H), 5 15/16" (W), 2 1/2" (D).
Power Sonic model PS660 or equivalent.
2. Do not dispose of the batteries in a fire. The cell may explode.
Check with local codes for possible special disposal instructions.
3. Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
4. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.

This product is defined as a secondary battery operated device. As such, the following instructions should also be read and followed:

1. Charge the batteries provided with or identified for use with this product only in accordance with the instructions and limitations specified in this manual.
2. Observe proper polarity orientation between the batteries and battery charger.
3. Do not mix old and new batteries in this product.
4. Do not mix batteries of different sizes or from different manufacturers in this product.

Before installing or replacing batteries, disconnect the battery supply unit to the KSU by removing the polarized battery connector at the KSU. Due to the weight of the batteries, it is advised that the battery cabinet be removed from the wall before working on it.

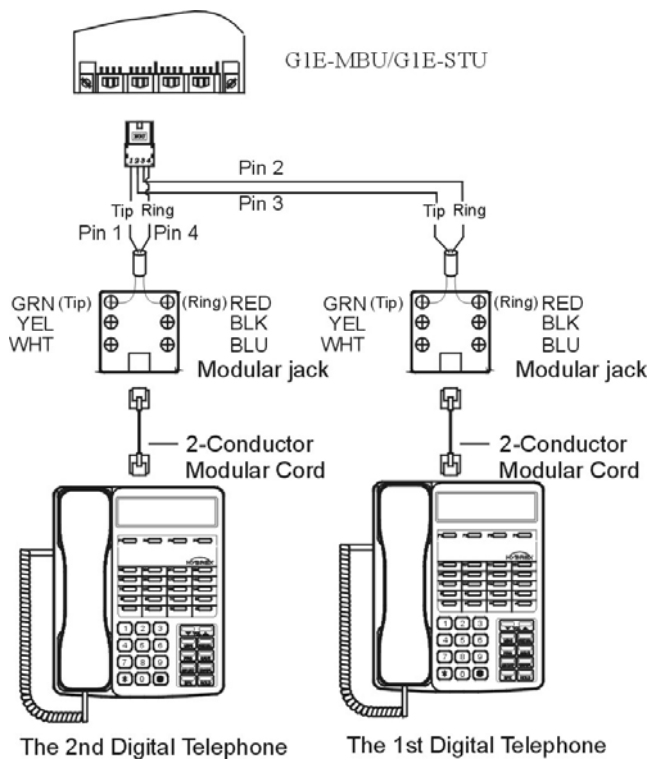
Connecting Stations

The station cabling for the G1E should be a home run from the jack to the telephone room. The termination should be at conventional 66 type connecting blocks or Krone blocks or directly to the provided station connectors. One pair twisted wiring is required for each station location. The G1E station ports are not digital twin ports and each station must be a home run to either the inner or outer pair of each DDK connector. Attention to proper cabling will go a long way towards a successful installation and minimizing service calls after installation. Some guidelines for running station cable are as follows:

- Avoid running cable parallel to fluorescent light fixtures or electrical lines not in conduit. If these obstacles are unavoidable, run the cable at right angles across them.
- Do not run station cable inside conduit already occupied by electrical wiring.
- Do not run station cable near equipment with electric motors or strong magnetic fields.
- Do not place station cable on the ground where it can be stepped on or rolled over by office furniture or office equipment.

Digital Key Telephone – DK1-21/DK2-21/DK3-21/DK3-31/DK6

- A cable cover is provided with the KSU. Station cables enter from the bottom of the KSU. Remove the cover and route the station cable through the hole. Terminate the station wires with the connectors that are provided. The stations will connect to the KSU as shown on the main panel (above) on connector locations 11 – 28.
- **Connect the stations to Inner pair for Port 1 and outer pair for Port 2 of the DDK connector.**
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- There is no polarity requirement on Tip and Ring.
- 2-conductor wiring is required for DK series Digital Key Telephones.
- For DK 1 phones open the overlay of the function key on DK1 telephone and select the 1st station position. ALL phones are to be set to this position for the G1E
- For DK, 1DK2 and DK3 phones the switch is located through the setting hole on the underside of the phone. All phones should be set to port 1.
- For DK6 phones the switch is on the underside of the phone and should always be set to first position.

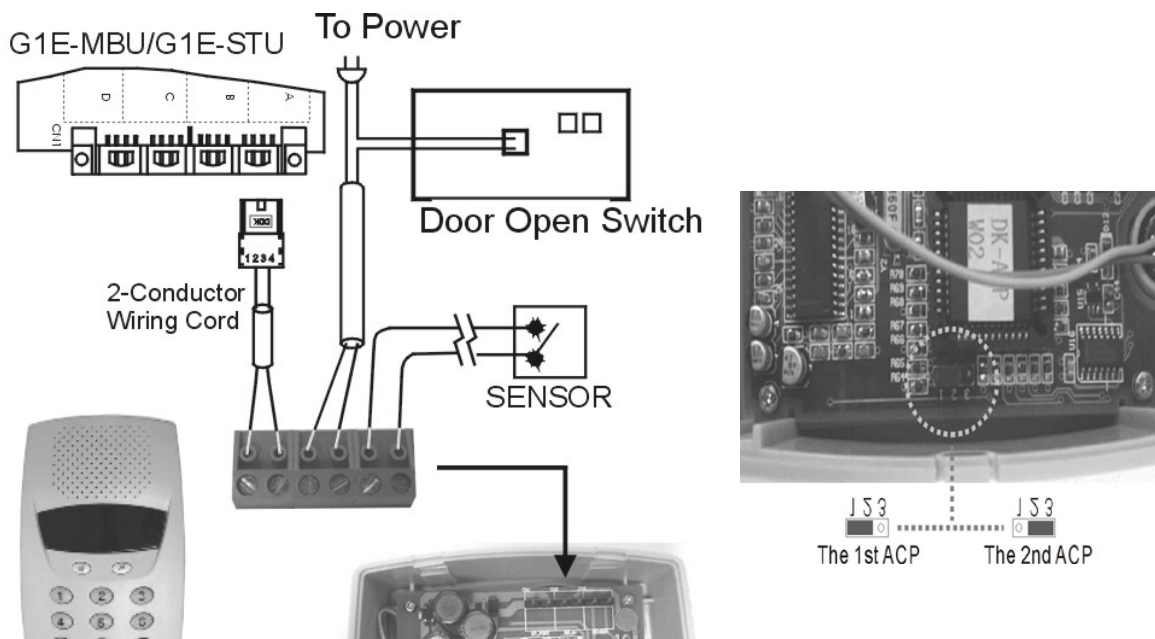


Dip to right: the 1st station.
Dip to left: the 2nd station.

CAUTION!: Avoid shorting Tip and Ring together. It may damage the G1E-MBU or G1E-STU board.

Access Control Telephone – ACP

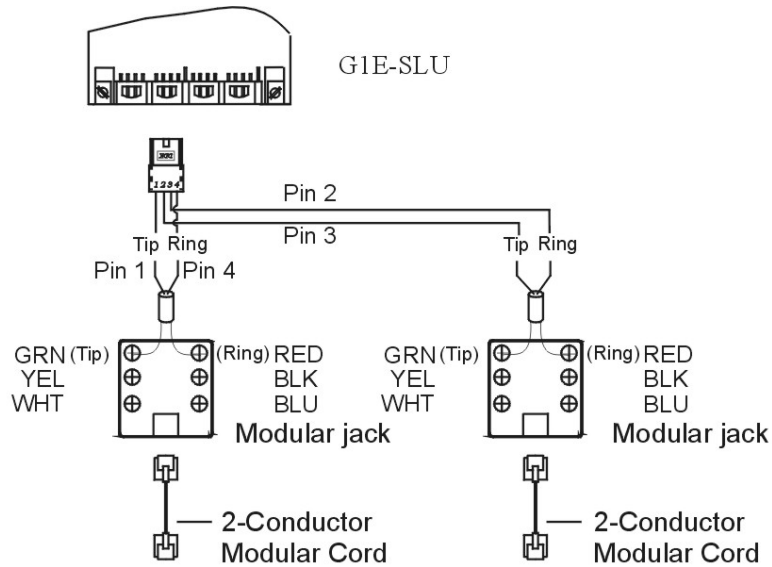
- A cable cover is provided with the KSU. Station cables enter from bottom of the KSU. Remove the cover as required and route the station cable through the hole. Terminate the station wires with the connectors that are provided. The stations will connect to the KSU as shown on the main panel (above) on connector locations 11 – 38
- Connect Tip/Ring terminals from KSU(G1E-MBU/G1E-STU) to the ACP connector (6 contacts).
- There is no polarity requirement on Tip and Ring.
- Connect Relay for applications such as door open to the ACP connector (6 contacts).
- Connect Sensor for applications such as door open alarm to the ACP connector (6 contacts).
- Mount ACP connector on to ACP itself.
- Select the 1st station jumper as shown in diagram below.
- Mount ACP on the wall.



CAUTION!: Avoid shorting Tip and Ring together. It may damage the G1E-MBU or G1E-STU board.

Single Line Telephone (connected to G1E-SLU)

- Station cables can enter from the bottom of the KSU. Remove the cover and route the station cable through the hole. Terminate the station wires with the connectors that are provided. The stations will connect to the KSU as shown on the main panel on connector locations 21-28 or 31 – 38 (Needs G1E-SLU/s installed) or 41-44.
- Connect Tip terminal with GRN terminal (screws) of the modular jack, Ring with RED.
- There is no polarity requirement on Tip and Ring.
- 2-conductor wiring is required for Single Line Telephones.



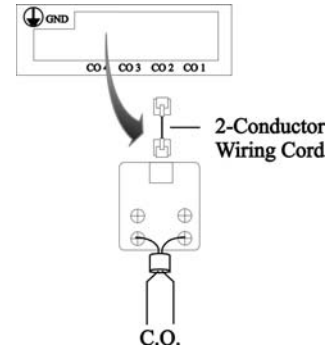
The 2nd Single Line Telephone



The 1st Single Line Telephone

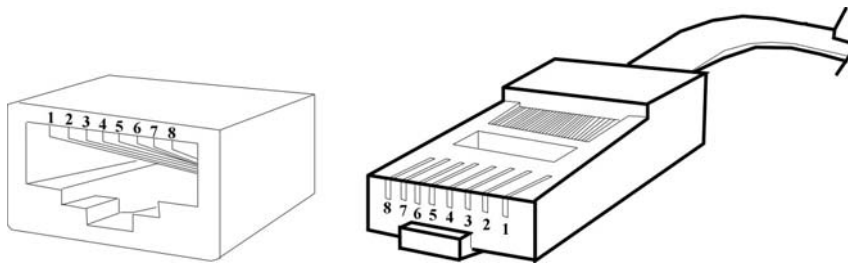
CO/PABX Connections

- Make your CO line connection to the telephone company on this connector. Pins 3 and 4 of the connector are for the CO line.
- RJ-11C (2 wire) modular connector is required.
- 2-conductor wiring is required.



ISDN S/T Connections

- Make your CO line connection to the telephone company on this connector. Pins 3 to 6 of the connector are for the CO line.
- Cable: Twisted 2 pairs
- Connector Type: RJ-45 (4 wire) modular connector is required.
- Connector PIN assignment: (Pin 1, 2, 7, 8 are reserved.)

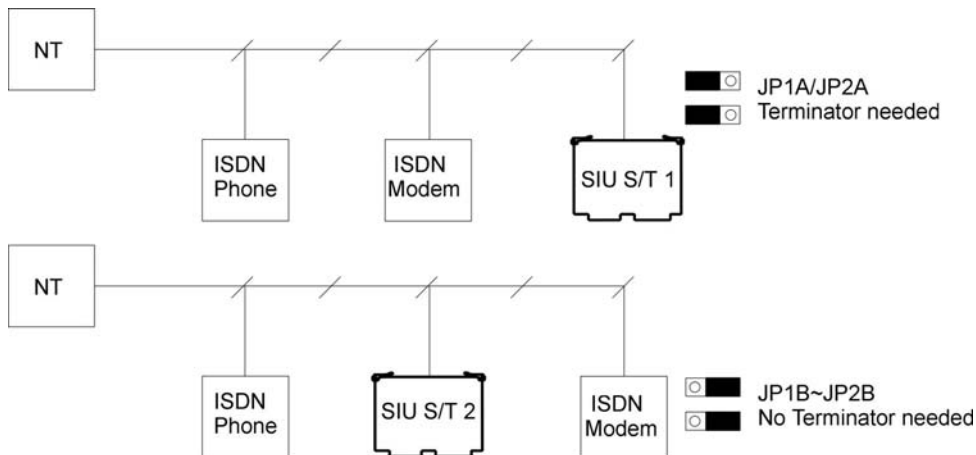


- Install/remove the terminators by adjusting the jumper JP1 (A, B, C) and JP2 (A, B, C) on SIU card. If there is no other ISDN device connected after the ISDN interface of SIU card when using point to multi-point connection, this ISDN interface port needs the terminator installed. Otherwise, remove the terminator.

Example:

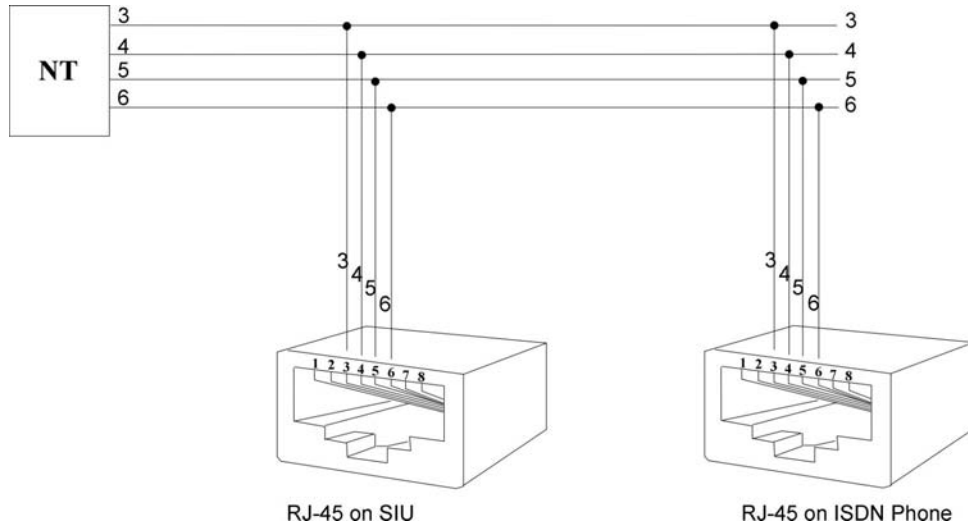
The following is the point to multi-point connection.

- The 1st ISDN interface needs the terminator because there is no other ISDN device connected after this ISDN interface of SIU card.
- The 2nd ISDN interface does not need the terminator because there is an ISDN Modem connected after this ISDN interface of SIU card.

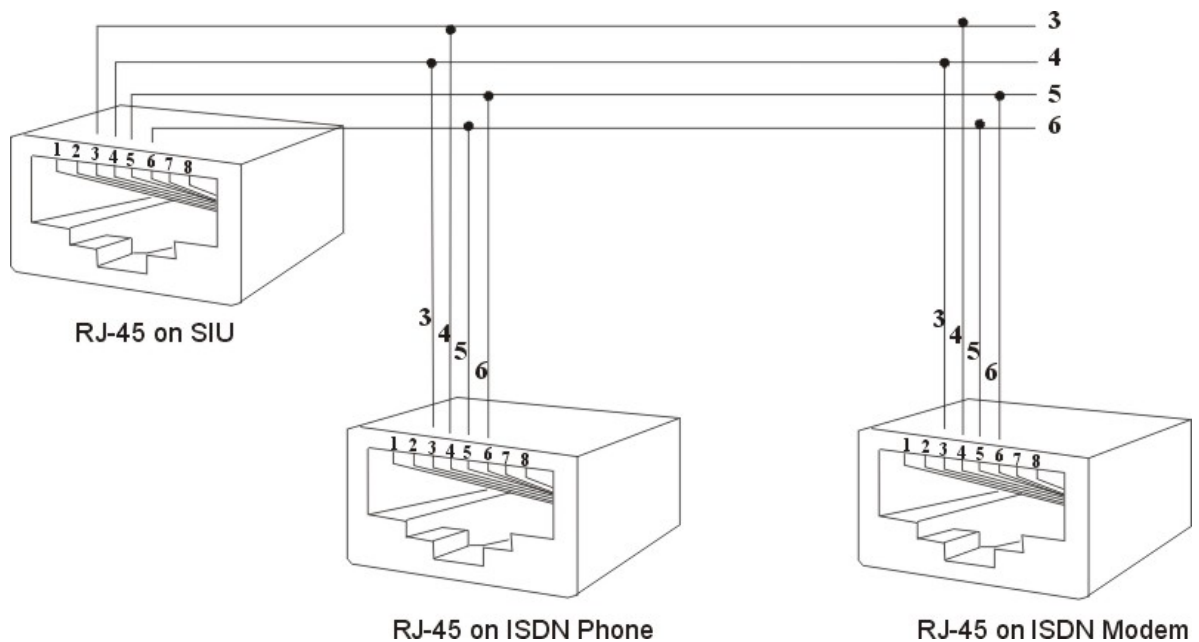


If the connection is Point to Point then the terminator must be installed always. Unless there is a specific need for Point to Multi Point connection it is strongly recommended that Point to Point ONLY is used.

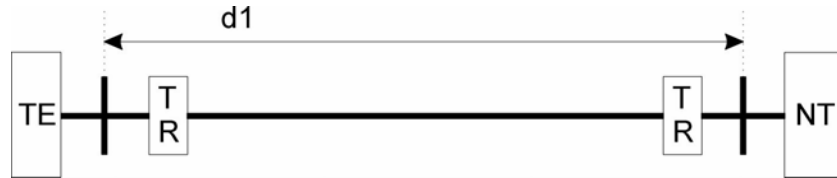
- **T-Interface Connection:**
If the user has programmed the ISDN interface of SIU to a T-Interface, the wiring should be:



- **S-Interface Connection:**
If the user has programmed the ISDN interface of SIU to a S-Interface, the wiring should be as the following:

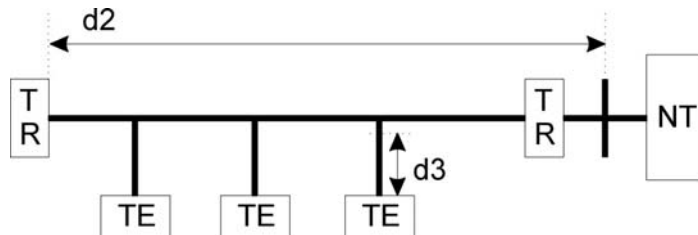


- Bus Configurations on the S/T Interface:
Point to Point:



d1: 750m ~ 1000m; Length limitation by attenuation of 6dB at 96kHz.

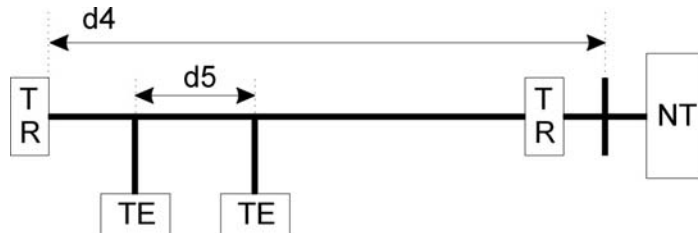
Short Passive Bus:



d2: 100m ~ 200m; Length limitation by round trip delay 10us to 14us, not by attenuation.

d3: Recommendation with a cord having a minimum length of 5m and not more than 10m. ($5m \leq d3 \leq 10m$)

Extended Passive Bus:



d4: 500m ~ 800m; Length limitation by round trip delay 10us to 14us, not by attenuation.

d5: 25m ~ 50m; Length limitation between TE's by differential round trip delay of 2us.

Optional Cabling

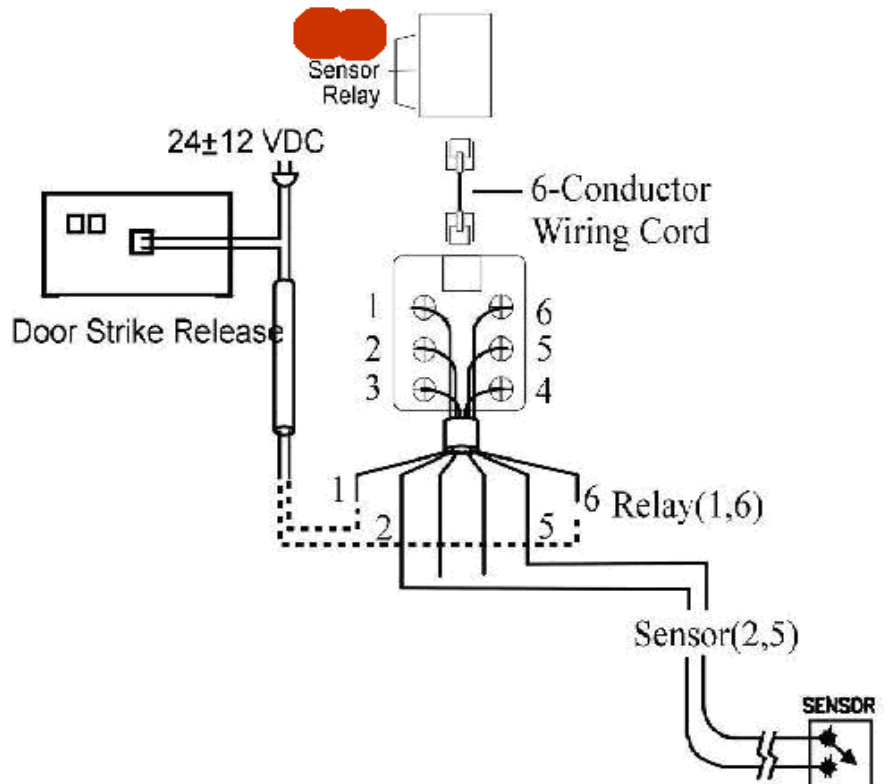
Connect a 6 conductor mounting cord from the KSU to a RJ-25 modular block.

Door Switch (Relay) Connection

- One Door Switch (24±12VDC) may be used on the G1E system.
- 2-conductor wiring is required.
- Connect the door switch to pins 1 and 6 of the RJ-11 connector.

Sensor Connection

- The Sensor connector on G1E may be used for the External Sensor input.
- The sensor may be configured for normally open or normally closed operation.
- 2-conductor wiring is required.
- Connect the sensor to pins 2 and 5 of the RJ-11 connector.
- Refer to System Programming Mode 39 -- Sensor Assignment.

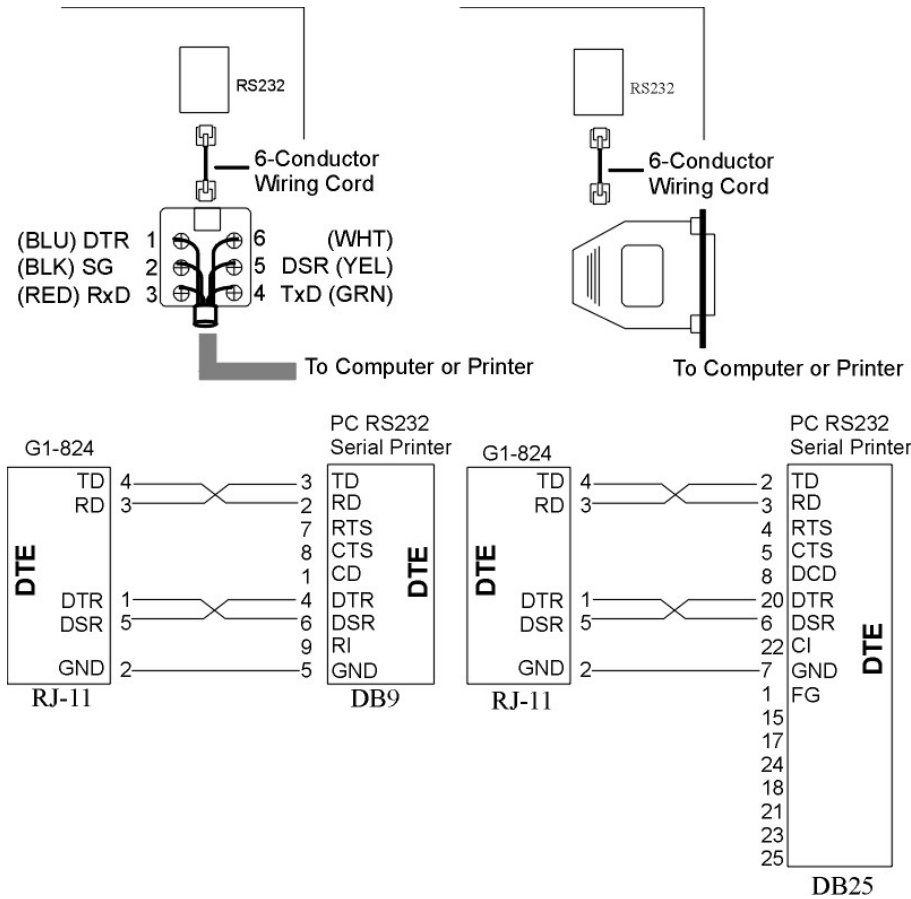


Refer to Illustration Door Switch / Sensor

RS232 Port Connection

Use the RJ-11 connector to terminate the RS232 cable. Then connect the RJ-11 to the KSU with a 6 conductor line cord. Insert the line cord into the connector labelled RS-232.

Notice: Do not exceed the cable length limitation (15M / 50 feet.) for the RS232 connection



Connect old style 2 wire devices such as follows.

G1E Device

TD (4) RD
Gnd. (2) Gnd.

DTR (1) links to DSR (5) on G1E end only.

VMU Setup

The G1E MBU contains an on board 4 Channel Auto Attendant with voice messaging. Also included is a 2 minute MOH section. In Default the MOH is pre-recorded with Auto Telecom's copyright free music.

The optional VMU card contains a 4 channel Voice Mail / Auto Attendant which when installed on the G1E-MBU will remove the Auto Attendant feature from the MBU and assign it to the VMU.

Messages recorded on the MBU AA will be replaced by messages recorded on the VMU card. Messages are recorded in Flash Ram and do not require any battery backup to maintain.

Program Mode 25 provides a copy function that allows the G1E to automatically copy messages from the MBU flash to the VMU Flash or from the VMU Flash to the MBU Flash.

For a description of this procedure see mode 25 in the Programming manual

To access the MBU Flash Ram to setup or record messages dial **8901** from the Console.

To access the VMU Flash Ram to setup or record messages dial **8902** from the Console.

External Music on Hold Source

The G1E system does not have an external Music port but relies on using the 2 Minute MOH message recorded on the MBU Flash ram. This message can be recorded by the customer to allow them to use their own message or an SLT port can be used to connect an external Music source if required.

1. Connect music source to SLT Port via Line isolator.
2. Set 43-SLT PORT-02=7
2. 05-08-08=4 or 5 (4= BGM uses Internal music, 5=BGM uses SLT music; MOH uses SLT music port).

Power On and Operational Test

Before connecting the G1E-PWU to AC power:

- Verify that input voltage and input voltage selection jumper on G1E-PWU are correct before you power up the system.
- Recheck the cabling for incorrect connections, loose wires and wiring fragments that may cause short-circuits.
- Plug the power cord into a power outlet.
- Verify the system boots properly by checking the display of a telephone set.
- You may now connect the battery back up unit if applicable.

Operational Tests

Check each telephone and CO line to verify that outgoing lines are connected properly.

Check that intercom calls can be made from extension to extension.

WARNING:

DISCONNECT THE POWER SUPPLY FROM THE AC POWER SOURCE BEFORE WIRING OR CHANGING ANY WIRING.

Connect the Battery Backup *AFTER* AC power has been connected to the Power Supply. Disconnect Battery Backup *BEFORE* disconnecting AC power from the Power Supply.

NOTICE:

ONCE THE SYSTEM OPERATES PROPERLY, PROCEED TO SYSTEM PROGRAMMING. (REFER TO THE SYSTEM PROGRAMMING MANUAL.)

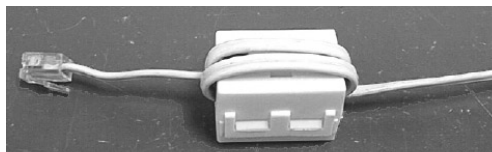
Special Immunity Protection for System and terminals

Adding **Noise Filters** to the points below can enhance the immunity capability of the system from outside environmental noise.

For Power Supply:



For Line:



PROGRAMMING INFORMATION

Model G1E - Programming Manual

Programming Information

This document contains the system forms required to program the G1E and an explanation of the parameters.

New Systems

We recommend that all new systems have the system memory reset before system programming takes place. This ensures that any extraneous information that may be present in system memory is erased and that the system database will not be corrupt.

To Reset System Memory.

Enter System Programming :
From an LCD equipped HYBEX DK Digital Telephone Set:

1. Press [PRG]. Press [7].
2. Enter Password if programmed. (New systems will not have a system password).
3. Press [SAVE].
4. LCD display will show:

PROGRAM MODE: __ (01 – 95)

5. Enter [2][5]. Press [SAVE]. Display will show:

25- Reset Data 0-9 Default

6. Enter [2].
7. System Database is now reset. LCD will display:
- 8.

PROGRAM MODE: __ (01 – 95)

8. You may commence database entry at this point, or exit system programming by pressing SPK key or by lifting and replacing the handset.

To Enter System Programming:

1. Press [PRG]. Press [7].
2. Enter Password if programmed. (New systems will not have a system password).
3. Press [SAVE].
4. LCD display will show:

PROGRAM MODE: __ (01 – 95)

5. You may begin system programming at this point.

A station can be idle or can be talking on a trunk when entering system programming mode. This allows a technician to guide a customer into program mode and make minor changes to programming remotely.

- **Remote Programming using a modem and the system manager at the Dealers site and an Modem at the customers site.**

By using this feature, a user can call the dealers service personnel and allow them to access the programming and make changes from the dealers office via Modem. The users system must have SMDR and a Modem and a spare analogue port to connect to the Modem.

The Procedures are as per the following Table.

	Customer's Location	Service Centre
1	Call the Service Centre for help.	
2		Answer the call from the Customer.
3		Guide Customer to allow the dealer into remote programming.
4	Press [SPD][prog],[*],[Stn Number of modem] [Hang up the handset].	
5	The LCD will display Remote Programming Message.	
6	Wait recall from the Service Centre.	
7		Press [SPD][PROG][#][SLT_Number][Hang Up]
8		Use System Manager to upload/download /modify and download the Customer's data.
9		Use System Manager to recall the Customer.
10		Switch the conversation back to telephone.
11	Answer the recall.	

-- VMC Software upgrades -Local --

- 1.Install a VMC card in A system
- 2.Key phone operation 「COPY flash memory data to CF card」 (System Auto Attendant stops)
- 3.LCD display "XXXX Ready! "(xxxx = 0000~26FF) After 11 minutes power off and retrieve the VMC.
- 4.Go to customer site
- 5.Power off B system install VMC card
- 6.Power on B system
- 7.Key phone operation 「COPY CF card data to flash memory」
- 8.LCD display "XXXX Ready! " (xxxx = 0000~26FF)
LED 1 will quick flash when finished, around 1 minute then power off system and take off VMC card
- 9.Power on B system the customer has G1e-E02g version.

-- VMC Software upgrades - Remote --

- 1.Two systems have VMC card
- 2.Make call to customer site and ask customer to start 「Remote upgrade」
- 3.B system key phone operation 「Allow remote upgrade」
- 4.After 30 minutes LCD display "Remote Pgm " "XXXX Ready! " (xxxx = 0000~26FF)
- 5.B system starts working and has G1e-E02g version.

Basic Programming Commands:

Note: Keys listed between [] indicate the default keys shown on a telephone set. Keys listed between { } indicate keys displayed by the programming overlay. ***See illustration Programming Overlay on the next page.***

These commands are active while in the system programming mode

[F4]{PRG} Moves to the Top Level Programming Mode Display (does not save information entered into any field unless [SAVE] is pressed first).

[F3]{SAVE} Commits the data that is showing on the LCD display into the system database.

[DSS 1]{PREV} Moves to the previous section of any multiple part form.

[DSS 2]{NEXT} Moves to the next section in any multiple part form.

[DSS 3]{LEFT} Moves the programming cursor to the left.

[DSS 4]{RIGHT} Moves the programming cursor to the right.

[DND/CN]{DON'T CARE} Enters a Wild Card (don't care) into Account Codes or Toll control entries. LCD will display d (lower case letter "d") to indicate don't care entry.

[HOLD]{PAUSE} Inserts a Pause when programming a Speed Dial Entry or for Voice Mail Programming. LCD will display p (lower case "p") to indicate a Pause entry.

[TRF/FL]{FLASH} Enters a FLASH command as part of a Speed Dial Entry. LCD will display F (upper case "F") to indicate a Flash command. Clears a digit during other entries (Passwords, etc).

[MSG]{P->T} Enters a command to convert from pulse dialling to DTMF dialling into a Speed Dial Entry. LCD will display T (upper case "T") to indicate a tone conversion command.

[MIC/AT]{CHANGE} CHANGE key. Depending on form, it will cycle through available Programming parameters.

[TRF/FL]{CLR DIGIT} Enters a FLASH command as part of a speed dial number. Clears a digit during other entries (Passwords, etc).

[SPK]{EXIT} Exits Programming. Returns telephone to normal idle mode.

[REDIAL]{CLR ALL} Clears all digits on an entry such as speed dial or account codes.

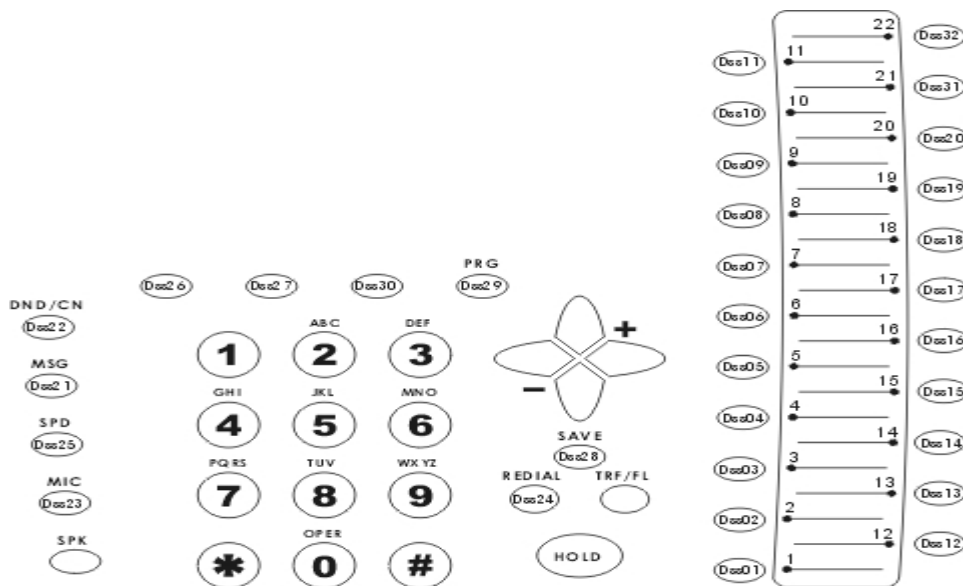
Alphanumeric Entry:

The following table indicates the capabilities of the name programming functions if they are selected on the system. System Speed Dial, Personal Speed Dial, Stations, CO Lines and Sensors may be programmed with names.

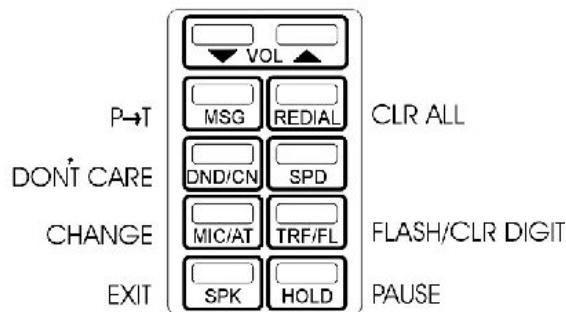
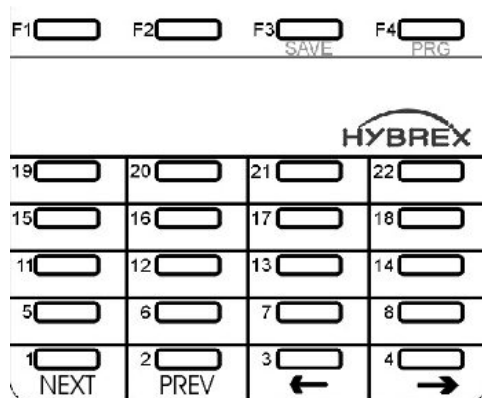
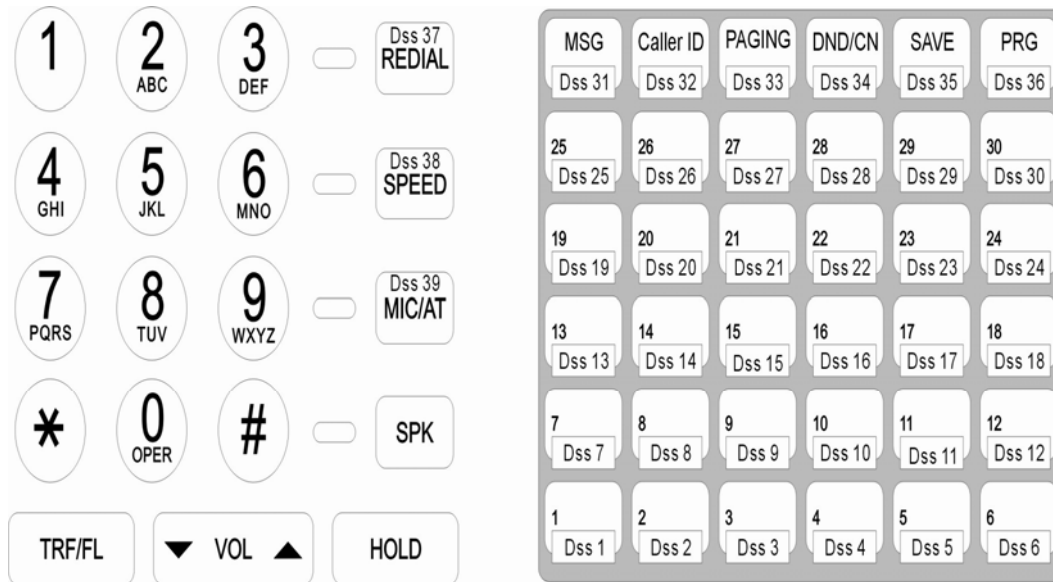
Key 1 =	(Blank Space) - 1	Key 2 =	A - B - C - 2
Key 3 =	D - E - F - 3	Key 4 =	G - H - I - 4
Key 5 =	J - K - L - 5	Key 6 =	M - N - O - 6
Key 7 =	P - Q - R - S - 7	Key 8 =	T - U - V - 8
Key 9 =	W - X - Y - Z - 9	Key 0 =	(Period). : & - 0
Key # =	() \$ #	Key * =	(Dash) / ! *
DSS Key 1 =	Backspace Cursor (Left)	DSS Key 2 =	Cursor Forward

If an entry is made that is not within valid system parameters, the HYBREX system will not accept the entry when [SAVE] is pressed. The Speaker on the programming set will return a busy tone and the LCD Display will place the programming cursor under the offending entry. You may make corrections and press [SAVE] again. If multiple errors are made, the system will continue to return you to the illegal entries as others are corrected.

It is not necessary to re-enter existing information on a multi-item form. You need enter only the information that is to be changed. You may move the cursor to the left or right in order to access only the specific entry that you want to change. You may press [SAVE] without regard for the placement of the cursor on the LCD display.



On the DK2-3 phone the function keys (21-29) will follow the same numbering scheme as the DK6 phone on a G1E. Connecting a DK2 on a softkey plan designed for a DK6 will still allow all function keys to work as per the markings on the phone.



PROGRAM MODES

Program 01-tk-IP : Day Ringing And Ringing Line Preference Assignment

01-tk-IP FLX DAY 111 000 000 000

Tk = 01-12, IP = Item Pointer (01-26)
Assigned station number.

General:

This program assigns each incoming line to ring the programmed stations. The ringing methods can be LINEAR (ring the first available station), CIRCULAR (Ring the next station following the last station who just answered an incoming call), HUNT (Ring the first assigned station for a set period of time (program mode 05-08-01) then if no answer ring the next ring assigned station then the next etc.) or COMMON AUDIBLE (All stations will ring simultaneously). See Program Mode: 35-tk-07 to assign. An overflow Ring Hunt Group can be assigned to make additional stations ring after a time interval in addition to this ring assignment. See program Mode 29-07/08.

Description:

1. This program sets Day Time ringing.
2. The station number can be 2,3,4 digits.
3. A total of 26 stations can be assigned to ring for each trunk.
4. If the location is to be assigned to no station, the location value is set to " 0 ".
5. To clear all entries press **[REDIAL]**.
6. Lunch ringing is programmed in Mode 94.

Program 02-tk-IP : Night Ringing And Ringing Line Preference Assignment

02-tk-IP FLX NIG 111 000 000 000

tk = 01-12, IP = Item Pointer (01-26)
Assigned station number.

General:

This program assigns each incoming line to ring the programmed stations. The ringing methods can be LINEAR (ring the first available station), CIRCULAR (Ring the next station following the last station who answered an incoming call), HUNT (Ring the first assigned station for a set period of time (program mode 05-08-01) then if no answer ring the next ring assigned station then the next etc.) or COMMON AUDIBLE (All stations will ring simultaneously). See Program Mode: 35-tk-08 to assign. An overflow Ring Hunt Group can be assigned to make additional stations ring after a time interval in addition to this ring assignment. See program Mode 29-07/08.

Description:

1. This program sets Night Time ringing.
2. The station number can be 2,3,4 digits.
3. A total of 26 stations can be assigned to ring for each trunk.
4. If the location is to be assigned to no station, the location value is set to 0.
5. To clear all entries press **[REDIAL]**.
6. Lunch ringing is programmed in Mode 94.

Program 03-01-IP : Door Phone Ringing Assignment

03-01-IP Door
111 112 113 114

IP = 01-26
Assigned station number.

General:

This program assigns the Door Phone/s to ring the programmed stations.

Description:

1. To assign an ACP or digital door phone to follow Mode 03 it must be set to "d" in mode 46-st-07. Otherwise it will ring the stations assigned in the Hunt Group allocated in mode 46-st-07
2. Twenty six stations can be assigned to ring for the door phone.
3. To clear all entries press **[REDIAL]**.
4. Door phone ringing time is set in Mode 05-11-07.
5. Door Relay Unlock Time is set in Mode 05-12-04.
6. Door phone Ringing frequency is set in Mode 05-03-08.

Program 04-gp-IP : Console Assignment

04-gp-IP Console
111 000 000 000

gp = Station group (01-08) IP = 01-04
Assigned station number(2 to 4 digits).

General:

This program permits the selection of the consoles in each station group. Consoles are stations that can program System speed dials, Record system Voice messages, receive hold recalls and ring when callers dial 9/0 for the operator

Description:

1. There are 8 console groups available.
2. A total of four stations can be set to be the console in each group.
3. The first assigned station is the master console.
4. To clear all entries press **[REDIAL]**. Do this in ALL unused groups.
5. It is recommended that only one console is used per group.

Program 05-01-IP : System Timing Parameters – 01

05-01-IP SYS PAR IP = 01-08
 1 1 1 1 4 2 2 1 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	Hold Recall Time	A	1=60 Sec.
02	0-9	Exclusive Hold Recall Time	A	1=60 Sec.
03	0-9	Hold Recall Timeout	A	1=60 Sec.
04	0-9	DISA & ECF Access Delay Time-Day	C	1=2 Sec.
05	0-9	Busy Remind Cycle Time	C	4=8 Sec.
06	0-9	Pause Time	D	2=800 Ms.
07	0-9	DTMF Generation Time	E	2=83 Ms.
08	0-9	Call Forward No Answer TRF. Time		1=20 Sec.

Description:

01. Hold recall time:

This parameter sets the time duration from when Hold is initiated to when the held call starts to ring (recall) the station.

After a pre-determined recall time (see 05-01-03: Hold Recall Timeout), if the station still does not answer, the hold call will automatically transfer to the Console.

02. Exclusive Hold recall time:

This parameter sets the time duration from when Exclusive hold is initiated to when the held call starts to recall the station.

After a pre-determined recall time (see 05-01-03: Hold Recall Timeout), if the station still does not answer, the held call will recall to the Console in addition to the holding station.

03. Hold Recall Timeout:

This parameter sets the time between a call recalling to a holding or transferring station and then recalling to the console if unanswered.

See timing table Grade A for parameters of these 3 features.

04. DISA & ECF Access Delay Time - Day

This parameter sets the time duration that a DISA/ECF trunk will ring prior to connection by the system during Day mode. Stations can answer during this time.

- 0 = Automatic connection, no ring to the stations.
- 1-8 = Automatic connection after 2-254 seconds ringing.

See timing table grade C for parameters for this feature.
 See mode 05-11-04 for night and mode 05-17-4 for Lunch delay.

05. Busy Remind Cycle Time (Off-Hook Ringing):

This parameter selects the length of time an incoming trunk call rings the system before a busy ring assigned station is reminded of the call. A muted, one-second ring will be given to the station through the speaker to indicate the call. The tone will be repeated every busy remind time interval. This parameter also sets the timing for the SLT Camp-On feature (see Mode 05-08-03 to extend timing for SLT Camp on tone) and the camp on tone for key stations.

See timing table Grade C for parameters of this feature.

06. Pause Time:

This parameter sets the system pause time duration for speed dial entry, trunk access time and voice mail call forwarding tone delay.

See timing table Grade D for parameters of this feature.

07. DTMF Generation Time:

This parameter permits the selection of DTMF Generation output time. The generation time may need to be lengthened to access some Voice Mail or answering machines.

See timing table Grade E for parameters of this feature.

08. Call Forward No Answer Transfer Time:

This parameter sets the duration between calling a station which has set call forward no answer, and the transfer of the call to the station to which it has been forwarded.

0 = 10 sec. 1 = 20 sec. 2 = 30 sec. 9 = 100 sec.

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	Unit
A	30	60	90	120	150	180	210	240	253	-	Sec.
C	0	2	4	6	8	15	30	60	120	254	Sec.
D	400	600	800	1000	1200	1400	1600	1800	2000	2200	ms.
E	48	64	80	100	114	132	156	164	180	196	ms.

Program 05-02-IP : System Timing Parameters – 02

05-02-IP SYS PAR IP = 01-08
 5 5 1 2 1 2 2 4 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	SLT Dial Tone Timeout	C	5=15 Sec.
02	0-9	SLT Inter-Digit Timeout	C	5=15 Sec.
03	0-9	Auto Redial Ringing Time		1=10 Sec.
04	0-9	SLT Release Signal		2=200 ms.
05	0-9	Flash Time - Key Phone	B	1=80 ms.
06	0-9	SLT Hold Signal	I	2=100 ms.
07	0-9	Ring On Time	G	2=240 ms.
08	0-9	Ring Off Time	F	4=4 Sec.

Description:

01. SLT Dial Tone Timeout:

This parameter is for Single Line Telephones. If a key is not pressed before the assigned time period expires when Dial Tone is given, a Busy Tone will be heard.

02. SLT Inter-Digit Timeout:

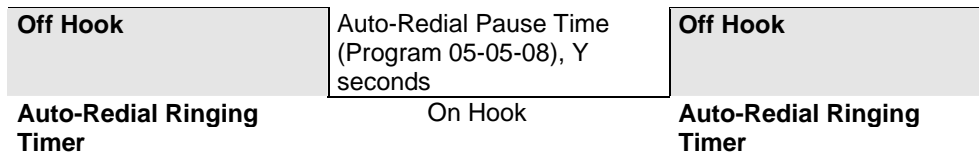
This parameter is for Single Line Telephones. If the interval between digits dialed exceeds the assigned time period, a Busy Tone will be given.

See timing table Grade C for parameters of these features.

03. Auto Redial Ringing Time – PSTN lines:

This parameter is the time duration for which the system will redial the telephone number automatically and then hang up during Auto Redial on PSTN lines. ISDN lines will hang up immediately if the called number is busy.

1 = 10 sec. 2 = 20 sec. 9 = 90 sec.



04. SLT Release Signal:

This parameter is the time duration of depressing the hook switch of an SLT that the system will see as a hang up, the system will take it as a hold signal if less than this time but longer than the SLT hook flash time.

0 = 100 ms 1 = 200 ms 2 = 300 ms 3 = 400 ms 4 = 600 ms
 5 = 800 ms 6 = 1000 ms 7 = 1200 ms 8 = 1400 ms 9 = 1600 ms

05. Exchange Line Flash Time - Key Phone & Analogue Phone:

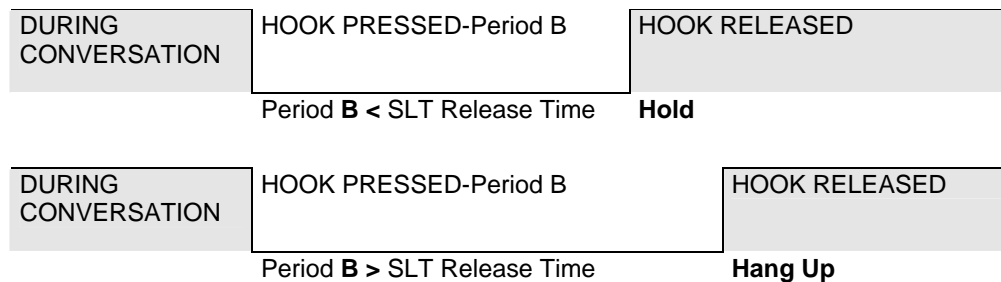
This parameter permits the selection of Flash time for Key stations when pressing the [TRF/FL] key or an analogue phone which presses flash and then dials 800 while connected to an outside line. After dialling 800 the flash signal will be sent to the exchange line and the analogue phone will reconnect to the exchange line.

See timing table Grade B for parameters of this feature.

06. SLT Hold Signal:

This parameter permits the selection of the Flash time from a single line telephone that the system will see as a Hold signal if the time is greater than the hold signal but less than the SLT release time.

See timing table **Grade I** for parameters of this feature.



07. Ring On Time:

This parameter allows the system to identify Ring On Time Interval from the Exchange. See timing table Grade G for parameters of this feature. This parameter should never be changed without a clear understanding of the operation of the feature.

08. Ring Off Time:

This parameter allows the system to identify Ring Off Time Interval from the Exchange. This parameter should never be changed without a clear understanding of the operation of the feature.

See timing table Grade F for parameters of this feature.

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	Unit
B	40	80	160	240	400	600	800	1000	1200	1400	ms.
B(UK, Italy, Aust)	60	80	100	120	140	160	180	200	300	600	ms.
C	0	2	4	6	8	15	30	60	120	254	Sec.
F	2	2	2	3	4	5	6	7	8	9	Sec.
G	0	160	240	360	440	560	640	760	840	960	ms.
I	70	80	100	200	300	400	500	600	700	800	ms.

Program 05-03-IP : System Timing Parameters – 03

05-03-IP SYS PAR	IP = 01-08
0 0 1 9 0 3 0 6	System Default.

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Make / Break Ratio	0=33/66
02	0-1	Automatic Trunk Search	0=Yes
03	0-1	Intercom Call Signalling Method	1=Ring
04	0-9,d	PABX (Centrex) Outgoing Code	9=9
05	0-9	Toll Access Code	0=0
06	2-4	Station Numbering Plan	3=3
07	0-1	Internal Dial Tone Pattern	0=Steady
08	0-9	Door Phone / ACP Ringing Frequency	6= Ring Freq 6

Description:

01. Make/Break Ratio:

This parameter permits the selection of a Make/Break Ratio for Dial Pulse signalling.

0 = 33/66

1 = 40/60

02. Automatic Trunk Search:

This parameter allows the system to search for an available trunk according to the assigned dial 9 trunk group when automatic dialling features are used; i.e., Speed Dial, Save Redial, Redial, etc.

0 = Allowed

1 = Not Allowed

03. Intercom Call Signalling Method:

This parameter selects the Intercom calling method. The user can still override this selection by dialling 3 after initiating an intercom call. Individual stations can be set to automatic microphone switch-on in mode 46-st-03 and thus override the system wide ring method.

0 = Voice Signalling.

1 = Ring Signalling.

04. PABX (Centrex) Outgoing Code: (Refer to Program 35-TK-01):

This parameter assigns the PABX outgoing call access code for Redial and Save Redial when the system is installed behind a PABX.

It is used when Trunk Lines are set to be PABX lines in Mode 35-TK-01.

This assignment also enables the system to identify whether the user's dialling is a PABX's Intercom call or an Outgoing call for toll restrictions.

05. Toll Access Code:

The first digit that is checked for verification of a toll call. This has no effect on toll restriction within the system. It is only used to notify SMDR that a particular call is a toll call. See Mode 14-01-03. With 8 digit local numbering plans in use this parameter is not always useable.

0 = beginning with 0, 1 = 1, 2 = 2,9 = 9

06. Station Numbering Plan:

This parameter assigns the number of digits used for the station numbering plan. 2, 3, or 4 digits may be used. In the G1E the system will set this parameter to 3 digits automatically at the time of system initialisation.

2 = 2 Digits

3 = 3 Digits

4 = 4 digits

07. Internal Dial Tone Pattern:

This parameter assigns the pattern of internal dial tone. If the parameter is set to 0 or 1 then analogue phones will receive the special DND tone if call forward or DND has been set for that extension. Item 2 (and 6) is particularly designed for use when there is a Voice Mail system connected to the system as some Voice mail units have problems with the broken dial tone. Item 6 will also provide what is known as Stutter dial tone to extensions when they are left a message, useful where phones do not have a message light. When this is enabled as well as MW direct to handsets by other methods the phones with messages will receive both Message light and stutter dial tone.

Setting	Intercom	DND	CFW	MW
0	Steady	SP.	SP.	Steady
1	Interrupted	SP.	SP.	Interrupted
2	Steady	Steady	Steady	Steady
3	Interrupted	Interrupted	Interrupted	Interrupted
4	Steady	SP.	SP.	Interrupted
5	Interrupted	SP.	SP.	Steady
6	Steady	Steady	Steady	Interrupted
7	Interrupted	Interrupted	Interrupted	Steady

MW: Message Waiting. DND: Do not disturb. CFW: Call Forward.

08. Door Phone Ring Pattern:

This parameter allows for different ring patterns for the Door Phone. This Parameter will also affect the ACP phone. If this mode is set to = 0 then the ACP will follow the extension ringing frequency otherwise it will follow settings in this Mode.

0 = Continuous ring

1-8 = Ring using Ring frequency 1 to 8 of the DK handset.

9 = Background Music

Program 05-04-IP : System Timing Parameters – 04

05-04-IP SYS PAR IP = 01-08
 4 1 0 0 0 0 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Default
01	0-9	System baud Rate Setting	4=9600
02	0-1	Dial 9 Flag	1=Enable
03	0-8	Action for Call Duration Limiting	0=Warning
04	0-1	12/24 Hours Clock	0=12 Hours
05	0-9	SLT Hookflash Answer Delay	0=None
06	0-4	Speed Dialling Distribution	0=100 Sets
07	0-1	Single Digit Intercom	0=Disable
08	0-4	Message Waiting Method - Analogue Phones	0=90v DC

Description:

01. System Baud Rate Setting:

This parameter sets the system Baud rate setting for SMDR and CTI applications. The baud rate settings between 1200 and 9600 are the settings that should be used. DO NOT USE 19200 as it contains an ISDN test procedure that will cause conflict with Call Accounting. Setting 8 = 115200 is for G1E monitor program and software upgrade only. G1E Monitor must be enabled in mode 05-24.

0=1200 1=2400 2=4800 3=7200 **4=9600** 5=19200 6=38400
 7=57600 8 = 115200

02. Dial 9 Flag:

This parameter sets if a station can access an outgoing line by dialling 9. If this parameter is disabled the station can still access an outgoing line by pressing a line key.

0 = Can not access dial 9 feature 1 = Can access dial 9 feature

03. Action for Call Duration Limiting:

This parameter decides what action will be taken if a station has limit call duration enabled in Mode 40-nnnn-03. Settings 0 to 3 are for outgoing calls only. The outside party will also hear the warning tone.

0 & 5 = Continuous Warning Tone after Timeout.
 1 & 6 = 1 second Warning Tone for each cycle of Limit Call Duration
 2 & 7 = At 10 seconds before Timeout, 1 second Warning Tone,
 At 5 seconds before timeout, continuous Warning Tone,
 At timeout the line is released.
 3 & 8 = At 1 minute before timeout, 1 second warning tone,
 At 30 seconds before timeout, continuous warning tone
 At timeout the line is released.

Related System Programming Mode: 05-04-03, 40-st-03

04. 12/24 Hours Clock:

0 = 12 Hours Clock 1 = 24 Hours Clock

05. SLT Hookflash Answer Delay:

This parameter when enabled will prevent an SLT phone from activating a Hookflash until the time set has expired.

0 = disable 1 = 1 sec. 2 = 2 sec. 9 = 9 sec.

06. Speed Dialling Distribution:

This parameter sets the number of speed dial numbers allocated to the system speed dial. Adding extra numbers to system Speed Dial reduces the number of personal Speed Dial numbers available to share between individual stations.

0 = System 100 (100 to 199)	: Individual 800/400
1 = System 200 (100 to 299)	: Individual 700/300
2 = System 300 (100 to 399)	: Individual 600/200
3 = System 400 (100 to 499)	: Individual 500/100
4 = System 500 (100 to 599)	: Individual 400/000
5 = System 600 (100 to 699)	: Individual 300/000
6 = System 700 (100 to 799)	: Individual 200/000
7 = System 800 (100 to 899)	: Individual 000/000
8 = System 900 (100 to 999)	: Individual 000/000

Numbers after backslash indicate sets available with name feature enabled.

07. Single Digit Intercom:

Single digit intercom allows the stations to call up to 5 other stations by dialling one digit only (1 to 5). This feature is for the Hotel / Motel Environment. Up to eight different groups may be programmed. If a group is not programmed with any entries then stations which are in the same number station group will be able to make intercom calls without dialling the room to room dialling prefix (6).

0 = Disable 1 = Enable

08. Message Waiting Method for Analogue Phones:

If the setting is 90VDC the analogue phone will receive a 90VDC signal when left a message. This is for use with the industry standard MW telephones to turn on message lamp.

If the setting is Ring, the analogue phone will receive 30 seconds intercom ringing every 5 minutes until the station answers.

If the setting is 250 ms. ring the analogue phone will receive two 250 ms. ring burst every 5 minutes. This is for use with the special telephones to turn on the message lamp.

0 = 90V DC 1 = Ring 3 = Two 250 ms. Ring

Program 05-05-IP : System Timing Parameters – 05

05-05-IP SYS PAR IP = 01-08
 1 0 0 0 3 1 1 0 System Default.

Item Pointer	Display Data	Programming Data Description	Default
01	0-3	Morning Call Type	1=Music
02	0-1	Meter Pulse Detect	0=Enable
03	0-5	Speed Dial Unrestricted-1	0=0
04	0-9	Speed dial Unrestricted-2	0=0
05	0-7	Name Feature For Extensions, Trunks, Speed dials	3=enable
06	0-	Reserved	0=
07	0-9	Auto Redial Times	1=2 Times
08	0-9	Auto Redial Pause Time	0=10 Sec.

Description:

01. Morning Call:

This parameter is for the Hotel/Motel environment to decide what an extension will hear upon receiving a wake up call.

- 0 = Voice message (requires VMU)
- 1 = Back-ground music or DND tone.
- 2 = VSC + Record Morning Call History via SMDR
- 3 = Back-ground music or DND tone + Record Morning Call History via SMDR

Each station can be set in Mode 44-st-08 to decide whether to hear Background Music or DND tone. To record Morning call dial [8901][Password (Default=1234)][2][3][3] from the console.

02. Metering Detector:

If setting is Enable, the system will detect the metering signal from the Exchange during the conversation.

- 0 = Enable
- 1 = Disable

03, 04. Speed Dial Unrestricted 1, 2:

If 03, 04 settings are A, B, then the speed dial codes from 100 to AB0 are not toll restricted. For example if the settings are 1 and 1 then Speed dials up to 110 can be used by stations whether they conflict with toll restrictions or not. Individual stations can be restricted from using this feature in Mode 45-st-07. If 03, 04 settings are set to 0, 0, then all speed dial codes are toll restricted if the station using the speed dial is restricted.

05. Name Function:

This parameter enables the naming feature for trunks, extensions and speed dials.

Features \ Values	0	1	2	3	5	7
Display Name instead of number for Extension		V		V	V	V
Directory Dial for Speed Dial			V	V		V
Directory Dial for Extension					V	V

V: The feature is enabled.

Note 1: When any of the above features are enabled the total number of speed dial sets will be reduced. See Mode 05-04-06.

Note 2: For setting name for Extension/Speed dial/Trunk, Please refer to the programming mode 43 / 09 /35.

Note 3: For setting "Directory Dial" key, Please refer to mode 07.

06. Reserved:**07. Auto Redial Times:**

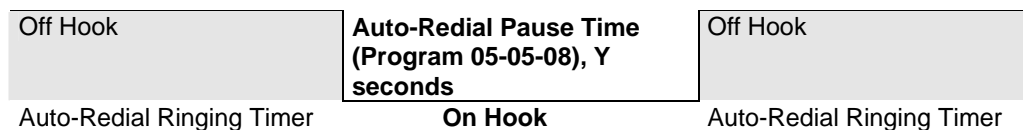
This parameter is to set the number of auto redial times which the system will attempt.

0 = 0 times 1 = 2 times 2 = 5 times 3 = 9 times 4 = 19 times
5 = 29 times 6 = 39 times 7 = 49 times 8 = 59 times 9 = 69 times.

08. Auto Redial Pause Time:

This parameter is the time duration between the system hanging up an auto redial attempt and starting to redial automatically.

0 = 10 Sec. 1 = 20 Sec. 2 = 30 Sec. 9 = 100 Sec.



Program 05-06-IP : System Timing Parameters – 06

05-06-IP SYS PAR IP = 01-08
 7 4 0 2 0 3 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	TRF Busy Recall Timeout	M	7=60 Sec.
02	0-9	TRF Idle Recall Timeout	M	4=30 Sec
03	0-1	ISDN Audio		0=a law
04	0-9	Polarity Reversal		2=Enable
05	0-1	Operator Code		0=0
06	0-9	Unsupervised Conference And ECF Time Setting		3=3 Min.
07	0-1	Hold Method for SLT		0=Flash
08	0-2	Station Hunting Group Ring Method		0=Common

Description:

01. Transfer Busy Recall Timeout:

This parameter sets the time duration between transferring a call to a busy party and automatic transfer back to the transferring party when the called party is busy.

02. Transfer idle Recall Timeout:

This parameter sets the time duration between transferring a call to a station and automatic transfer back to the transferring party when the called party does not answer.

See timing table Grade M for parameters of these 2 features.

03. ISDN Audio

This parameter sets ISDN Audio type. It should never be necessary to change this mode as the software defaults will be set for each market.

0 = a law

1 = u law

04. Polarity Reversal:

This parameter is to enable the Polarity Reversal detection feature for incoming caller hang up detection in Australia and some European countries. See Mode 14-01-08 for SMDR setting. Telecom will need to enable polarity reversal at the exchange. When reversal is enabled the system will hang up the exchange line when the incoming caller hangs up and the exchange sends a reversal to the system.

0 = Disable

1 = Enable for 1 second delay.

2 = Enable after 2 seconds delay.

2-9 =Delay for 1-8 Seconds and then detect Polarity Reverse Signal

05. Operator Code:

This parameter is to set whether to dial "0" or "9" for the operator or for accessing a CO. line.

- 1 = Dial "9" for operator, "0" for C.O. line.
- 0 = Dial "0" for operator, "9" for C.O. line.

06. Unsupervised Conference and ECF Time Setting:

This parameter sets the time that the system will allow an Unsupervised Conference or External Call Forward to continue before sending a warning tone to the parties and then disconnecting the call. If either party sends a DTMF digit (0-9) to the system the timer will reset and allow the call to continue for the time setting. If reversal supervision is used it will override this setting.

- 0 = No Limit
- 1 = 1 Min.
- 2 = 2 Min.
- 3 = 3 Min.
- 4-9 = 4 Min.

07. Hold Feature for SLT:

This parameter is to set whether Single Line Telephones use [FLASH] (or [Hook-switch]) or [FLASH, 7] (or [Hook-switch, 7]) to place a call on Hold.

- 0 = Normal -----> Using [FLASH] or [Hook-switch] to put a call on Hold.
- 1 = Alternate --> Using [FLASH, 7] or [Hook-switch, 7] to put a call on Hold.

08. Station Hunting Group Ring Method:

This parameter sets the ring method used in the station hunting groups. Pilot numbers for hunt groups are set in Mode 67 and Day/Night ring stations are set in Mode 68 & 69. Individual Hunt Group Ring type is programmable in program 67-gp-02 and will over ride the system wide setting made here.

- 0 = Common
- 1 = Linear
- 2 = Circular

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	Unit
M	5	10	15	20	30	40	50	60	70	-	
M(Taiwan)	12	16	20	24	30	60	90	120	180	-	

Program 05-07-IP : System Timing Parameters – 07

05-07-IP SYS PAR IP = 01-08
 0 0 0 0 0 0 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Intercom Searching		0=Disable
02	0-1	Toll Override Prevention from quick dial		0=Disable
03	0-1	Paging Alert Tone		0=Enable
04	0-7	DISA Transfer To Console - No Dialling		0=Enable
05	0-1	Keyphone Toll Override Prevention		0=Disable
06	0-9	SMDR Digit Mask		0=Disable
07	0-9	Meter Pulse Detect Delay Time		0=0 Ms.
08	0-	Reserved		0=

Description:

01. Intercom Searching:

If setting is enable, when calling an internal station which is busy or does not answer, pressing [4] will call the next station which is in the same station group as the called station. If setting is disable then there will be no transfer.

0 = Disable 1 = Enable when busy
 2 = Enable when no answer 3 = Enable when busy or no answer

02. Toll Override Prevention from quick dial:

To protect toll override control when a Key phone selects a trunk and quickly dials one digit and overriding the toll control. If Enabled then after selecting a trunk the first digit dialled will be delayed one pause interval.

0 = Disable 1 = Enable

03. Paging Alert Tone:

This parameter enables/disables the paging alert tone.

0 = Enable page alert tone =1 Disable page alert tone

04. DISA Recall To Console - No Dialling:

If this function is activated, when a DISA call is answered but the caller does not dial any digits or a station number the system will recall the Operator after the assigned DISA Transfer Time no dialling (Mode 05-08-07). If this function is disabled the call will be disconnected after Transfer Time No Dialling elapses.

This parameter also is used to clear the VMU channels after 10 minutes of operation where problems are found with locked up VMU channels.

0 = Recall To Operator 1 = No Recall To Operator

05. Toll Restriction Override Prevention:

If the setting is Disable, after accessing a line a user will be able to use a DTMF generator directly to the network rather than the DTMF signal generated within the KSU. The result of this is that Toll restrictions can be over-ridden.

If setting is Enable, then no audio will be sent from the handset until 3 digits are received by the KSU from the key station dial pad preventing Toll restrictions being overridden. This parameter will be automatically disabled on any lines which are set to Pulse dial.

0 = Disable

1 = Enable

06. SMDR Digit Mask:

If setting is "0", then the full length of the telephone number will be output to the SMDR. If setting is n, then the length of the telephone number will be n digits long.

n = 0 to 9

07. Meter Pulse Detect Delay Time (CO release guard time):

This parameter is also used to insert a pause between a line being released and being able to be re-selected for outward dialling.

See timing table grade K for parameters for this feature.

08. Reserved**TIMING TABLE**

Grade	0	1	2	3	4	5	6	7	8	9	unit
K	0	1	2	3	4	5	6	7	8	9	sec.

Program 05-08-IP : System Timing Parameters – 08

05-08-IP SYS PAR IP = 01-08
 3 0 3 0 7 2 4 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-9	Ring Hunt Time Setting	C	3=6 Sec.
02	0-1	DSS Access To Other Trunk Group		0=Enable
03	0-9	SLT Camp On Tone		9=t x 9
04	0-1	DISA Transfer Group (No Answer)		0=Station Group
05	0-8	SLT Programming digit		7=7 + Code
06	0-9	DISA Transfer Time No Answer or Busy		2=24 Sec.
07	0-9	DISA Transfer Time No Dialling		4=4 Sec.
08	0-1	Music source selection		0=MBU Flash

Description:

01. Ring Hunt Time Setting:

If setting is n, Then when an incoming call rings the first ring assigned extension and that extension is busy, after n seconds the call will ring the second of the ring assigned extensions. If the 2nd extension is busy the call will go to the 3rd extension immediately. All stations which have been passed by the ring assignment will receive off hook busy remind. Up to 26 stations can be in the ring group. If the setting is 0 then only the first ring assigned station will ring.

See timing table C for parameters of this feature.

02. DSS Access To Other Trunk group:

This feature enables or disables the ability of stations to use a DSS key to answer Ringing CO lines not in their own group.

0 = Enable. 1 = Disable

03. SLT Camp On Tone:

This feature enables a tone to indicate call waiting for a busy Analogue phone and sets the interval between tones. The interval between tones will be the Off Hook Busy Remind Interval (t) x by the setting in this parameter. Off Hook Busy Remind Time is set in Mode 05-01-05.

0 = Disable 1 = t x 1 2 = t x 2 9 = t x 9

04. DISA Transfer Group:

This parameter decides to which group an unsuccessful DISA call will be transferred if the called station has transfer enabled in Mode 46-st-04.

0 = Console for the Called Station's group (Mode 41-st-01)
 1 = Console for the Incoming Trunk's group (Mode 36-gp)

05. SLT Programming Digit:

This feature changes the programming digit used by an Analogue phone to perform its programmable features. For example call forward is normally 701, If this parameter is set to 3 the call forward code will be 301. If the setting is 0 then the analogue phones cannot do programming. If the setting is 8 it is necessary to press [*][#] before accessing programming or dialling any 8 codes. This will allow the use of digits 1 to 8 as the first digits of station numbers.

0 = Disable 1 = 1xx 2 = 2xx 3 = 3xx 4 = 4xx 7 = 7xx
 8 = [*][#][7] for programming, [*][#][8] to access functions beginning with 8.

06. DISA Transfer Time No Answer:

An incoming call is answered by the DISA voice message and transferred to the called extension. If the called extension does not answer after this time duration the voice card will announce the status of the station (no answer). or if the station is busy will announce the status (busy) immediately and then retry the station the number of times set in Mode 05-11-06 and depending on the settings for individual stations in Mode 46-st-04 will also transfer the call to the console of the group specified in Mode 05-08-04, transfer the call to the console only or disconnect the call.

0 = 8 Seconds 1 = 16 Seconds 2 = 24 Seconds 9 = 80 Seconds

07. DISA Transfer Time No Dialling:

This parameter sets the time that a DISA call will wait after the voice message is completed before transferring to the console if no digits are dialled by the caller. Do not set this to less than about 3 seconds for normal operation.

0 = 0 Seconds 1 = 1 Second 2 = 2 Seconds 9 = 9 Seconds

08. Music source selection

This parameter sets the Music Source for the Internal Background Music and CO Music on Hold.

<i>Set Data</i>	<i>B.G.M</i>	<i>MOH</i>	<i>Set Data</i>	<i>BGM</i>	<i>MOH</i>
0	Inbuilt Storage	Inbuilt Storage	5	Inbuilt Storage	SLT MOH
1	Inbuilt Storage	Inbuilt Storage	6	Inbuilt Storage	Internal Tone
2	Inbuilt Storage	Inbuilt Storage	7	Inbuilt Storage	Internal Tone
3	Inbuilt Storage	Inbuilt Storage	8	Inbuilt Storage	Inbuilt Storage
4	SLT BGM	SLT MOH	9	Inbuilt Storage	Inbuilt Storage

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
C	Dis.	2	4	6	8	15	30	60	120	254	sec.

Program 05-09-IP : System Timing Parameters – 09

05-09-IP SYS PAR IP = 01-08
 0 1 0 0 0 1 5 2 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Reserved		0=
02	0-1	Busy Console Queuing (Intercom Calls)		1=Enable
03	0-9	Clear Forward - Loop Disconnect Detection		0=Disable
04	0-9	DISA Busy Tone Detection		0=Disable
05	0-	Reserved		0=
06	0-9	ACD-1 Enable Time	O	1=10 Sec
07	0-9	ACD-1 Segment 2 Recall Time	P	5=25
08	0-9	ACD-1 Release Time	Q	2=10 min

Description:

01. Reserved

02. Console Queuing:

This feature enables the busy console(s) to have an intercom call(s) queued to it(them). If the station dials the operator (by 0 or 9) and all the consoles are busy, the system will put this call in the queue to wait for the operators to be free. The calling station will hear ring back tone instead of busy tone and the first operator in the group will receive the Busy Remind Signal. The first operator to go on-hook will receive the call.

0 = Disable 1 = Enable

03. Clear Forward Signal Detection - Loop Disconnect

This feature enables loop disconnection as a Clear Forward Signal.

- 0= Do not detect this signal.
- 1= The Loop Disconnecting Signal > 80 ms.
- 2= The Loop Disconnecting Signal > 130 ms.
- 3= The Loop Disconnecting Signal > 180 ms.
- 4= The Loop Disconnecting Signal > 230 ms.
- 5= The Loop Disconnecting Signal > 810 ms.
- 6= The Loop Disconnecting Signal > 860 ms.
- 7= The Loop Disconnecting Signal > 910 ms.
- 8= The Loop Disconnecting Signal > 960 ms.
- 9= The Loop Disconnecting Signal > 1010 ms.

04. DISA Busy Tone Detection:

This feature allows the system to recognize busy tone from the exchange line during DISA operation for clearing down the call.

- 0 = Disable
- 1 = Australia busy tone (420 Hz, 375ms on/off)
- (400 Hz, 375ms on/off)
- 2 = Italian busy tone (420 Hz, 500ms on/off)
- 3 = Mexico busy tone (420 Hz, 250ms on/off)

- 4 = South African busy tone (400 Hz, 500ms on/off)
 5 = Spanish busy tone (420 Hz, 200ms on/off)
 6 = New Zealand busy tone (400 Hz, 250ms on/off)
 7 = Taiwanese busy tone (480 Hz + 620 Hz, 250ms on/off and 500ms on/off)
 8 = Indonesia busy tone (500hz 250ms on/off)
 (500hz 500ms on/off)
 (420hz 250ms on/off)
 (420hz 500ms on/off)
 (1000hz Continuous on)
 9 = Israel (450-470Hz 700 Ms)
 d = Pakistan (450+-40ms on:240+-40ms off:340+-40ms)

05. Reserved:**06. ACD-1 Enable Time:**

This parameter is to set the time duration before the system answers an incoming call when the ring assigned station(s) are busy if the operator overflow feature is enabled. The incoming call will show as a normal ring signal on the DSS key and can be answered by the operator at any time even while the voice message is playing to the caller. Operator Overflow (ACD-1) is enabled in mode 29-tk-02.

See timing table Grade O for settings for this

07. ACD-1 Segment 2 Recall Time:

This parameter sets the time an ACD-1 call which has been answered by the Overflow message will stay on hold in the ring queue before the system will play the second part of the ACD-1 message to apologize for the continuing delay. The call back time for the second message starts at 5 seconds and increases in 5 second increments. The message will be played to the caller every time the recall time is reached until answered by the operator or the caller hangs up.

See timing table Grade P for settings for this parameter.

08. ACD-1 Release Time:

This parameter sets the time at which the system will release the incoming caller during ACD-1 operation when it has not been answered by an operator. The system will play a warning message to the caller before releasing the call. If polarity reversal is used for incoming call clear down then this parameter should be disabled.

See Timing table Grade Q for settings for this parameter

Timing Tables

Grade	0	1	2	3	4	5	6	7	8	9	unit
O	5	10	15	20	25	30	35	40	45	50	secs.
P	Dis	5	10	15	20	25	30	40	50	60	Secs.
Q	0	5	10	15	20	25	30	35	40	45	Mins

Program 05-10-IP : System Timing Parameters – 10

```
05-10-IP SYS PAR IP = 01-08
d d d d d d d d System Default.
```

Item Pointer	Display Data	Programming Data Description	Default
01	0-9,*,#	Leading Digit 1 For Voice Mail Forwarding	d= None
02	HOLD	Leading Digit 2 For Voice Mail Forwarding	d= None
03	DND	Leading Digit 3 For Voice Mail Forwarding	d= None
04		Leading Digit 4 For Voice Mail Forwarding	d= None
05		Leading Digit 5 For Voice Mail Forwarding	d= None
06		Leading Digit 6 For Voice Mail Forwarding	d= None
07		Leading Digit 7 For Voice Mail Forwarding	d= None
08		Leading Digit 8 For Voice Mail Forwarding	d= None

Description:

This parameter allows the system to insert digits before the call forwarded station number when the call forward is received by the voice mail port if Standard Protocol is selected. If the station numbering is only 2 or 3 digits the system will insert additional digits if the Voice Mail requires more. The last digits of the voice mail box number will still have to be the same as the station numbering for correct recognition. The HOLD key can be used to insert a pause in the DTMF tone sending and will display as a (p). The DND key is no digits sent and is shown as (d).

Example:

The *HYBEX* is set to 2 digit numbering but the voice mail requires 4 digits. The voice mail also requires a pause between answering the call and the tones being sent. Set this parameter to the following

```
05-10-IP SYS PAR
p 1 1 d d d d d
```

When the call forwarded station 11 is answered by the voice mail port after the pause time the digits 1111 will be sent to the port by the system. If station 11's voice mail box is 1111 then the mailbox number 1111 will be automatically opened by the tones.

There are 2 different Voice Mail Protocols available in the *HYBEX* series depending on the setting in Mode 05-12-05. If this mode is set to 0 then the Protocol will be the leading digits entered in this Mode plus the Station Number of the forwarded station. If Mode 05-12-05 is set to 1 then the Enhanced Protocol shown on the following page will be used.

Enhanced Protocol

Internal Call	Call Forward - All Calls (Ext)	C11 + STB + STA
	Call Forward - Busy (Ext)	C12 + STB + STA
	Call Forward - No Answer (Ext)	C13 + STB + STA
	Direct Call From Extension	C14 + STA + STA
	Record Call From Extension	C15 + STA + STA

Incoming CO Line and ISDN Indial

	Call Forward - All Calls (CO)	C21 + STB + TRK
	Call Forward - Busy (CO)	C22 + STB + TRK
	Call Forward - No Answer (CO)	C23 + STB + TRK
	Direct Call from Trunk	C24 + TRK + TRK
	Transfer Back to Voice Mail	C25 + STB + TRK

Definition:

1. CNM - 2 Digits N: Forward Type 1-9 (1 Digit)
M: Leading Digit Type 1-9 (1 Digit)
2. STA: Calling Station Number (2 - 4 Digits)
3. STB: Called Station Number(2 - 4 Digits)
4. TRK: Incoming Trunk Number (2 Digits)

The station number will always be 4 digits. The number will be padded out with leading 0's

Example: C21 + STB + TRK -> Trunk number = 02, STB = 234 - DTMF --> 2 1 0 0 2 0 2 3 4

Answer Digit When a called station answers the System will play **[DTMF A]**.

Busy Digit. When a called station is busy the system will play **[DTMF B]**.

Disconnect Digit. The system will play **[DTMF C]** when an inside station disconnects or when a V/M is connected to a TK which receives polarity reversal or Loop Disconnect.

These 3 functions will considerably speed up the operation of the V/M as it will not have to wait to listen to tones to see what is happening with calls.

Answering Machine Operation:

When activated this function allows the caller to set call forward to the Voice Mail as usual but then monitor calls to the Voice Mail from his key phone (on hook) and if they wish can lift the handset and take the call back from the Voice Mail. To enable the user presses **[SPK] [7][7][3][1]** and to disable presses **[SPK] [7][7][3][0]**.

Record Function:

This function is dependant on the Recording Unit being capable of inserting the recording tone to alert the caller they are being recorded. To record it is necessary for the Key phone to have a **[RECORD]** key which is **FCN 34** . During a call the STN presses the **[RECORD]** button and the Voice Mail will answer if a port is available and the system will send the Protocol 15 + STN NO + STN No.

Voice Mail System Leading Digit Format (TCI version only)

1+ extension number	= CFWD All Calls	(Replaces 11 and 21eeeeexxx)
2+ extension number	= CFWD Busy	(Replaces 12 and 22eeeeexxx)
3+ extension number	= CFWD No Answer	(Replaces 13 and 23eeeeexxx)
4+ extension number	= Direct Call to Voice Mail (Station)	(Replaces 14eeeeexxx)
5+ extension number	= Call Record	(Replaces 15eeeeexxx)
6+ extension number	= Recall to Voice Mail	(Replaces 25eeeeexxx)
7+ CO trunk number	= Incoming CO Call	(Replaces 2400tt00tt)

. How to enable answer machine

The key phone sets all call forward to voice mail [86]

Press [FN:27] to enable answer machine feature (The led will switch on)

Program 05-11-IP : System Timing Parameters – 11

05-11-IP SYS PAR IP = 01-08
 0 0 1 2 0 2 5 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-4	DTMF Caller ID Leading Digit		0=None
02	0-1	DISA Password – 1 / 50 Sets		0=1
03	0-2	Select Music on Hold or Ring Back Tone		1=MOH
04	0-1	DISA & ECF Access Delay Time - Night	C	2=Wait
05	0-3	DISA Special Function Access		0=[8],[9],[*],[#]
06	0-9	DISA Re-check Times To Busy Console		2=4 Times
07	0-9	Door Phone Ringing Time		5=30 Sec.
08	0-8	DISA Single Digit Dialling		0=Disable

Description:

01. DTMF Caller ID leading Digit:

This parameter defines the start digit of DTMF caller ID signal. The system will omit the start digit for CLI data on the display phone and CLI list.

02. Number of DISA Passwords:

This parameter when enabled will increase the number of DISA passwords from 1 to 50. At the default setting of 0 the DISA password will be set in mode 13-02. If the parameter is set to 1, 50 passwords are available and they will be the same as the forced account codes numbers (50-99). Forced account codes are set in Mode 17-(01-99).

0 = 1 password 1 = 50 Passwords

03. Select Music on Hold or Ring Back Tone:

This parameter selects what the incoming caller will hear during Ring Transfer and Hold Recall conditions. The feature is designed for Australia to prevent the caller incorrectly recognizing the HYBREX's International Ring Back Tone as a disconnect or engaged signal and hanging up even though their call is still in progress.

0 = Ring Back Tone 1 = Music On Hold 2 = Silence

04. DISA & ECF Access Delay time – Night:

This parameter sets the time duration that a DISA / ECF trunk will ring prior to connection with Voice message during night switch. Stations can answer during this time interval.

0 = Automatic connection, no ring to the stations.
 1-8 = Automatic connection after 2-254 seconds ringing.

See timing table grade C for parameters for this feature.
 See mode 05-01-04 for Day and Mode 05-17-04 for Lunchtime delay.

05: DISA Special Function Access:

This parameter sets which of the system functions are able to be accessed by DISA callers.

- 0 = DISA can access an outside line by [9]/[0] + Password.
User can access mail box from external call by [#]
- 1 = DISA cannot access an outside line by [9]/[0] + Password.
User can access mail box from external call by [#]
- 2 = DISA can access an outside line by [9]/[0] + Password.
User cannot access mail box from external call by [#]
- 3 = DISA cannot access an outside line by [9]/[0] + Password
User cannot access mail box from external call by [#]

06. DISA Re-check Times To Station/Console:

This function sets the number of times that an unsuccessful DISA call will attempt to retry a station and or transfer to a console after the ringing time set in Mode 05-08-06 depending on the setting for individual stations in Mode 46-st-04. If polarity reversal or Clear Forward is available and enabled, set this parameter to 9 and the call will continue to retry until the caller hangs up.

0 = 2 times 1 = 3 times 2 = 4 times 8= 10 times 9 = Infinite times

07. Door Phone Ringing Time:

This parameter sets the time that Door Phone ring assigned stations will ring for when the Door Phone button is pressed.

0 = 5 Sec. 1 = 10 Sec. 2 = 15 Sec. 3 = 20 Sec 9 = 50 Sec.

08. DISA Single Digit Dialling:

This feature allows a DISA caller to dial stations by 1 digit (1-8) using the Hunt Groups (01-08) settings in Mode 67, 68, and 69 to set which station(s) will be dialled by each digit. See mode 05-16-03 for additional setting information.

- 0=Disable
- 1=Enable at Day
- 2=Enable at Night
- 3=Enable at Day & Night
- 4=Enable at Noon
- 5=Enable at Noon & Day
- 6=Enable at Noon & Night
- 7=Enable at Noon & Night & Day

Please reference 05-16-03

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
C	0	2	4	6	8	15	30	60	120	254	sec.

Program 05-12-IP : System Timing Parameters – 12

05-12-IP SYS PAR IP = 01-08
 0 0 0 2 7 0 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Call Transfer Method – Key Telephone		0=Key Phone
02	0-	Reserved		0=
03	0-1	Exclusive hold capability		0=Yes
04	0-9	Door Unlock Relay Activation Time		2=3 Sec.
05	0-7	Voice Mail Call Forward Protocol Type / mute digits		7=Enhanced
06	0-1	Linear/Circular Trunk group access		0=Linear
07	0-9	LED indication of Check in / Check out on DSS console		0=Disable
08	0-	Reserved		0=

Description:

01. Call Transfer Method – Key Telephone:

This parameter allows users to use the same call transfer method as single line telephones on digital key telephones for internal Call transfer. It also adds the ability to transfer a trunk call to another trunk (External Call Transfer) using the Transfer key rather than the Unsupervised Conference facility.

0 = Use Key phone's call transfer method. 1 = Use single line telephone's call transfer method.
 2 = Use Key phone's call transfer method and TRF for Trunk To Trunk.
 3 = Use single line telephone's call transfer method and TRF for Trunk To Trunk.

Note: When parameter is set to 2 or 3 the G1-VMC must be Installed

02. Reserved

03. Exclusive Hold Capability:

If this parameter is enabled all stations can use the Exclusive Hold Function. If the parameter is disabled no stations will be able to place calls on Exclusive hold.

0 = Enabled 1 = Disabled

04. Door Unlock Relay Activation Time:

This parameter sets the time that the door unlock relay will remain activated after the Door Unlock function is activated by the user. The Door unlock relay is programmed in Mode 06.

0 = 1 Sec. 1 = 2 Sec. 2 = 3 Sec. 9 = 10 Sec.

05. Voice Mail Call Forward Protocol Selection and Muting Leading Digits :

This parameter selects between Standard Voice Mail Call Forward Protocol and the Enhanced Protocol. For a full description of Voice Mail Protocol see Mode 05-10. It will also set the muting of the leading digits

Setting Value	0	1	2	3	4	5	6	7
VMS Leading Digit Type	Short	Long	Short	Long	Short	Long	Short	Long
Mute Leading Digit	No	No	Yes	Yes	No	No	Yes	Yes
Leading Digit for Auto Attendant (VMS)	No	Yes	No	Yes	No	No	Yes	No

“Short” type: Use the Leading Digit programmed in program 05-10.

“Long” type: Use 10 Leading Digits.

“Mute Leading Digit”: The caller will not hear the DTMF signal during the transmission of leading digits.
System will occupy the last intercom link for this feature.

Related System Programming Mode: 05-10, 43-cn-03, 50-ST-05

06. Linear/Circular Trunk Group Access:

If this parameter is set to 0 then line selection will be the first available trunk in the users dial (9-0) group. If the parameter is set to 1 then the lines will be selected in a Circular fashion till all lines have been used and then the selection will start again. Do **NOT** use Circular with PSTN lines unless there is a very good reason as call collision will result.

0 = Linear

1 = Circular.

07. LED indication of Check in / Check out:

This parameter disables or enables the LED indication for Check in/Check out features for the DSS consoles and DSS Keys.

0 = Disable

1= Enable

The LED indications are as follows:

Red and slow flash: If the Reception has checked out an extension, the LED for extension will slow flash red.

Green: When the checked out extension's room has been cleaned by the cleaner(maid), they can dial [776] from the phone and hang up. The LED for that extension will go Green. This means the room is ready for a new guest.

Red: The room is checked in and the phone is in use.

Off: The room is checked in and idle.

08.Reserved:

Program 05-13-IP : System Timing Parameters – 13

05-13-IP SYS PAR IP = 01-08
 0 0 0 0 0 0 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Intercom Hot Key Dialling		0=No
02	0-1	Immediate SMDR output		0=Disable
03	0-1	Caller ID Buffer Block Size		0=52 Sets
04	0-9	Reserved		0=
05	0-1	CLI Record Storing Method for LCD Phones		0=No. Only
06	0-1	CTI-Trunk Status Report		0= Disable
07	0-7	Least Cost Routing(LCR) – Weekly Holiday 1		0= Disable
08	0-7	Least Cost Routing(LCR) – Weekly Holiday 2		0= Disable

Description:

01. Intercom Hot Key Dialling:

This parameter when enabled allows stations to dial a call On Hook without having to lift the handset or press the **SPK** key.

0 = Disable 1= Enable

02. Immediate SMDR output

This parameter when enabled will send the SMDR output to the PC/Printer immediately a call is made. This allows external software to know who is dialling out or who is ringing into the system at this moment. In applications such as the Internet Cafe, when the customer dials out, the system will send out the SMDR information immediately. The external software can then start to count the cost from the beginning of the call. If the credit is 1 hour and time is expired, the external software could cut the connection by sending commands back to the KSU.

0 = Disable 1= Enable

03. Caller ID Buffer Block Size

This sets the block size of the Caller ID buffer:

05-13-03	Memory Block Size	Max. Memory blocks/set
0	10 sets	52
1	20 sets	26
2	30 sets	17
3	40 sets	13

Refer to Mode 83 to allocate the buffers to the use of LCD Digital Phones.

04. Reserved

05. CLI Record Storing Method For LCD Phones:

This parameter chooses which records and how many are stored for LCD phones when CLI is fitted to the system..

0= Store CLI telephone numbers.
1= Store CLI names
5=Display Name and number

If mode 05-13-05 = 1, pressing [CLI History] key, system will display CLI number and name. Pressing [MIC/AT] will display the date/time the call took place.

06. CTI-Trunk Status Report

Enabling this parameter will output the trunk status report for CTI applications. Currently 4 is the correct setting for Ct Star applications

0= Disable 4= Enable extension status report output
5= Enable Trunk output & 50-st-04

07. Least Cost Routing – Weekly Holiday 1

This parameter set the first weekly holiday for Least Cost Routing feature.

0 = No weekly holiday, 1= Monday, 2= Tuesday 7= Sunday

Related system Programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02

08. Least Cost Routing – Weekly Holiday 2

This parameter set the second weekly holiday for Least Cost Routing feature.

0 = No weekly holiday, 1= Monday, 2= Tuesday 7= Sunday

Related system programming: 05-13-07. 05-13-08, 75, 76, 77, 78-st-01, 78-st-02

Program 05-14-IP : System Timing Parameters – 14

05-14-IP SYS PAR IP = 01-08
 0 0 0 0 0 3 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	SLT LCR Switch on Delay for PSTN		0=Disable
02	0-	Reserved		0 =
03	0-	Reserved		0=
04	0-	Reserved		0=
05	0-	DISA DTMF Detect Delay Time		0=Disable
06	0-1	CID Delay Ring Time		0=Disable
07	0-	Reserved		0=
08	0-	Reserved		0=

Description:

01. SLT LCR Switch on Delay For PSTN.

This parameter delays the connection of SLT phones direct to PSTN lines when LCR is in use to prevent the SLT dialling from conflicting with the LCR dialling.

0 = Disable 1 = 3 seconds delay. 4 = 6 seconds delay.

02. Reserved:

03. Reserved

04. Reserved:

05. DISA DTMF Detect Delay Time:

This parameter will delay the system from detecting DTMF tones on a DISA call for a selected period of time after DISA answers

0 = Disable 1 = 1 Second 9 = 9 seconds

06. CID Delay Ring Time

This parameter delays the DISA transfer to ensure that CID information is available and is transferred with the DISA call to the receiving station. If Mode 05-17-07 CID Call Screening is enabled it will not work unless the parameter is enabled.

0 = Disable 1 = 1 Sec 2 = 2 Sec 9 = 9 Sec.

07. Reserved:

08. Reserved:

Program 05-15-IP : System Timing Parameters – 15

05-15-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 0 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-7	VMU Date Stamp Method		0=Disable
02	0-1	3.1K Audio for SLT		0=3.1K
03	0-	Reserved		0=
04	0-	Reserved		0=
05	1-	Reserved		2=
06	1-	Reserved		0=
07	0-	Reserved		0=
08	0-	Reserved		0=

Description:

01. VMU Date Stamp Method:

This parameter selects date time stamp for the VMU card.

English way = 0 Chinese way = 1

02. 3.1K Audio for SLT:

This parameter sets analogue phone ports for either audio 3.1k or speech.

0 = 3.1k, 1 = speech

03. Reserved:

04. Reserved:

05. Reserved:

06. Reserved:

07. Reserved:

08. Reserved:

Program 05-16-IP : System Timing Parameters – 16

05-16-IP SYS PAR IP = 01-08
 0 0 0 0 0 0 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	Midnight Reset		0=Disable
02	0-1	Reserved		0=
03	0-8	DISA Single Digit Dialling Level		0=One Level
04	0-8	VMU language Service		0=Disable
05	0-9	Reserved		0=
06	0-1	Reserved		0=
07	0-3	ACP data output format		0= CTI
08	0-3	Reserved		0=

Description:

01. Midnight Reset:

The Midnight reset parameter will restart the system at midnight and clear all Ram. If set to 2 it will also force any VM ports to clear.

0 = Disable 1 = Enable 2 = Enable & if VM Locks Up will cut off at normal time.

02. Reserved

03. DISA Single Digit Dialling Level:

0 = One level. System plays VMU standard greeting after DISA answers the incoming call. Users can dial either the extension number or the single digit service.

1 = Two levels. When incoming call rings in to the system, the external party will hear the "Company Greeting to announce "Press 1 to access different department by single digit service".

2= Two levels. When incoming call rings in to the system, the external party will hear the "Company Greeting to announce "Press 2 to access different department by single digit service".

8= Two levels. When incoming call rings in to the system, the external party will hear the "Company Greeting to announce "Press 8 to access different department by single digit service".

04. VMU Language service:

This enables two language service for VMU.

0 = Feature is disabled.

1 = Press 1 to select second language service.

2 = Press 2 to select second language service.

.....

8 = Press 8 to select second language service.

9= Company greeting + second language (exp:day+2nd day,Night+2nd Night...)

05. Reserved:

06. Reserved:

07. ACP Data Output Format:

This parameter sets the format of ACP data output. The output can be in plain text or CTI output format.

0=CTI format output to RS232, and ACP data output=ON
1=Text format output to RS232, and ACP data output=OFF
2=CTI format output to RS232, and ACP data output=ON
3=Text format output to RS232, and ACP data output=ON

08. Reserved:

Program 05-17-IP : System Timing Parameters – 17

05-17-IP SYS PAR IP = 01-08
 0 0 1 0 0 0 0 0 System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-1	DSP Trunk Conference (not recommended)		0=Disable
02	0-1	VMU Compression		1=32k
03	0-1	DISA Transfer Announce Extension Number		0=No
04	0-8	DISA & ECF Access Delay Time - Lunch		0=0
05	0-9	DTMF CID Leading Digits		0=None
06	0-1	DTMF CID Trailing Digits		0=None
07	0-2	CID Call Block or Transfer to Voicemail		0= No
08	0-3	Minimum Mailbox Record Time		0=Disable

Description:

01. DSP Trunk Conference:

This parameter enables the use of the DSP chip to provide a trunk conference. This is not a recommended feature as performance is not perfect.

0 = Disable 1 = Enable

02. VMU Compression:

The default setting for the VMU is 16KBPS compression rate. For customers who want to increase the compression rate and gain an improvement in Voice quality this parameter allows the compression rate to be doubled to 32KBPS. This will halve the available amount of storage time on the VMU.

0 = 16KBPS 1 = 32KBPS

03. DISA Transfer Announce Extension Number:

When DISA transfers a call it will announce the extension number if this parameter is enabled.

0 = Disable 1 = Enable

04. DISA & ECF Access Delay Time – Lunch Mode:

This parameter sets the time duration that a DISA / ECF trunk will ring prior to connection to the voice message during Lunch time. Stations can answer during this time.

0 = Automatic connection, no ring to the stations.
 1-8 = Automatic connection after 2-254 seconds ringing.

See timing table grade C for parameters for this feature.
 See mode 05-01-04 for Day delay time and 05-11-04 for Night Delay time.

05. DTMF CID Leading Digits :

This parameter enables/disables the display of Leading digits on DTMF Call ID

example: D0289661356C

Leading code =D

Trailing code = C

0= no code 1=A 2=B 3=C 4=D 5=* 6=# 7=only display telephone number

06. DTMF CID Trailing Digits:

This parameter enables/disables the display of Trailing digits on DTMF Call ID

example: D0289661356C

Leading code =D

Trailing code = C

0= no code 1=A 2=B 3=C 4=D 5=* 6=# 7=only display telephone number

07. CID Call Block or Transfer to Voice Mail:

This parameter allows to system to reject or send to a virtual Voicemail, incoming calls based on the CID received from the call. When a call is rejected the LED for the line will flash but there will be no audible ring. CID numbers to be screened must be specified in Mode 09 system speed dial. Mode 05-14-06 must also be enabled to make this feature work.

0 = Disable 1 = LED Flash only 2 = Transfer to Virtual Mailbox. (Default Mail box: 141)

Associated program modes 09, 05-05-05, 05-14-06, 43-51-05, 43-52-05, 43-53-05

08. Minimum Mail Box Record Time:

This parameter sets the minimum length message that the VMU Mailboxes will record. If the Busy Tone detect takes a period of time to clear down the call then the mailbox owner will hear busy tone and may think calls are being cut off. Setting this parameter will not allow any call to be recorded until the time is reached.

0 = Disable 1 = 1 second 2 = 2 seconds 3 = 3 seconds
4 = 4 seconds 9 = 9 seconds

TIMING TABLE

Grade	0	1	2	3	4	5	6	7	8	9	unit
C	0		4	6	8	15	30	60	120	254	sec.

Program 05-18-IP : System Timing Parameters – 18

05-18-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 8 5	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-1	Dial out History Feature		0=Disable
04	0-	Reserved		0=
05	0-	Reserved		0=
06	0-	Reserved		0=
07	0-9	High Frequency Level of DTMF Generator		0=
08	0-9	Low Frequency Level of DTMF Generator		0=

Description:

01. Reserved:

02. Reserved:

03. Dial Out History Feature:

This parameter enables a dial out history memory buffer. When this feature is enabled the user can press [Redial] and using the Up/down volume keys can scroll through the last 10 dialled out numbers and then by pressing the [SPK] key dial any of the numbers.

0 = Disable 1 = Enable

04. Reserved:

05. Reserved:

06. Reserved:

07. High Frequency Level of DTMF Generator:

This parameter modifies the level of the High frequency DTMF Generator. **This should not be modified under any circumstances.**

0 = -16.8dBm 1 = -16 dBm 2 = -14.8dBm 3 = -13.4dBm 4 = -12.4dBm

5 = -11.4dBm 6 = -10.2dBm 7 = -9 dBm 8 = -8.5 dBm 9 = -7.8 dBm

08. Low Frequency Level of DTMF Generator :

This parameter modifies the level of the low frequency DTMF Generator. **This should not be modified under any circumstances.**

0 = -16.8dBm 1 = -16 dBm 2 = -14.8dBm 3 = -13.4dBm 4 = -12.4dBm

5 = -11.4dBm 6 = -10.2dBm 7 = -9 dBm 8 = -8.5 dBm 9 = -7.8 dBm

Program 05-19-IP : System Timing Parameters – 19

05-19-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 0 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-	Reserved		0=
04	0-9	Silence Detect for VMU		0=Disable
05	0-	Reserved		0=
06	0-	Reserved		0=
07	0-	Reserved		0=
08	0-	Reserved		0=

Description:

01. Reserved:

02. Reserved:

03. Reserved:

04. Silence Detect For VMU:

This parameter enables Silence detection for the Voice Mail to disconnect a call after receiving this period of silence from the caller.

0 = disable 1 = 10s 2 = 20s 3 = 30s 4 = 40s 5 = 50s 9
= 90s

05. Reserved:

06. Reserved:

07. Reserved:

08. Reserved:

Program 05-20-IP : System Timing Parameters – 20

05-20-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 0 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-	Reserved		0=
04	0-	Reserved		0=
05	0-	Reserved		0=
06	0-	Reserved		0=
07	0-	Reserved		0=
08	0-	Reserved		0=

Description:

01. Reserved:

02. Reserved:

03. Reserved:

04. Reserved:

05. Reserved:

06. Reserved:

07. Reserved:

08. Reserved:

Program 05-21-IP : System Timing Parameters – 21

05-21-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 0 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-	Reserved		0=
04	09	Reserved		0=
05	0-	Reserved		0=
06	0-	Reserved		0=
07	0-	Reserved		0=
08	0-	Reserved		0=

Description:

01. Reserved:

02. Reserved:

03. Reserved:

04. Reserved:

05. Reserved:

06. Reserved:

07. Reserved:

08. Reserved:

Program 05-22-IP : System Timing Parameters – 22

05-22-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 0 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-	Reserved		0=
04	0-	Reserved		0=
05	0-	Reserved		0=
06	0-	Reserved		0=
07	0-	Reserved		0=
08	0-	Reserved		0=

Description:

01. Reserved:

02. Reserved:

03. Reserved:

04. Reserved:

05. Reserved:

06. Reserved:

07. Reserved:

08. Reserved:

Program 05-23-IP : System Timing Parameters – 23

05-23-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 1 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-	Reserved		0=
04	0-	Reserved		0=
05	0-	Reserved		0=
06	0-	Reserved		0=
07	0-1	DSP Watchdog Reset		0=Disable
08	0-1	Remote and Local Program Update Verification		1=Enable

Description:

01. Reserved:

02. Reserved:

03. Reserved:

04. Reserved:

05. Reserved:

06. Reserved:

07. DSP Watchdog Reset:

This parameter when enabled will reset the DSP when it fails

0 = Disable 1 = Enable

08. Remote and Local Program Update Verification:

This parameter enables verification of program updates either local or Remote.

0 = Disable 1 = Enable

Program 05-24-IP : System Timing Parameters – 24

05-16-IP SYS PAR	IP = 01-08
0 0 0 0 0 0 0 0	System Default.

Item Pointer	Display Data	Programming Data Description	Timing Table	Default
01	0-	Reserved		0=
02	0-	Reserved		0=
03	0-	Reserved		0=
04	0-8	G1E Monitor System Tracking		0=Disable
05	0-	Reserved		0=
06	0-1	G1E Monitor RS232 Output		0=Disable
07	0-3	G1E Monitor DSP trace		0=Disable
08	0-3	G1E Monitor VMC Trace		0=Disable

Description:

01. Reserved:

02.Reserved:

03. Reserved:

04. G1E Monitor System Tracking

This parameter enables the G1E monitor system and handset tracking features.

- 0= Disable
- 2 = enable monitor Tx to DK phone trace
- 3 = enable monitor Tx to DK phone trace
- 4 = enable monitor SWITCH ACTION trace
- 5 = enable monitor SWITCH ACTION trace
- 6 = enable monitor SWITCH ACTION trace & monitor Tx to DK phone trace
- 7 = enable monitor Tx to DK phone trace &monitor SWITCH ACTION trace

05. Reserved:

06. G1E Monitor Output:

This parameter enables/disables the G1E monitor RS232 output

0 = disable output monitor to RS-232 1 = enable output monitor to RS-232

07. G1E Monitor DSP trace:

This parameter enables/disables the G1E monitor DSP (Digital Signal Processor) Trace

0 = Disable
1 = enable monitor DSP trace
2 = monitor DSP Write Codec & download External program
3 = enable monitor DSP trace , monitor DSP Write Codec & download External program

08. G1E Monitor VMC Trace:

This parameter enables /disables the G1E monitor VMC (Voice Mail Card) trace.

0 = Disable 1 = enable monitor VMC trace
2 = enable monitor VMC R/W CF card pointer table & download External program
3 = enable monitor VMC trace enable monitor VMC R/W CF card pointer table & download External program

Program 06-IP : Relay Assignment

06-St-01 Relay 00	IP = 01 System Default.
----------------------	----------------------------

Item	Display
Pointer Data	Description
-----	-----
00(00) 00-06	Relay of MSU/MSC
xxxx 00-06	Relay of ACP (extension: xxxx)

Description:

MSU/MSC card and ACP device have 1 dry contact relay.

No voltage is provided by the system, the installer will have to provide their own source to suit the application. Only use the relays to switch 24V DC / 90V AC at 1A. They are only designed for low voltage control circuits. All Relays are Normally Open contacts and will close on activation of the function for which they have been programmed.

Assign the required Relays one of the following functions.

<u>Set data</u>	<u>Function</u>
00	No Operation
01	Music On Hold
02	Door open
03	Reserved for future use
04	Trunk loud bell
05	Station loud bell
06	System Alarm

MSU/MSC card and ACP device have 1 dry contact relay.

Program 07-gp-IP : Flexible Key Group Assignment

07-gp-IP KEY GRP
TK: nn Gp = 01-08 IP = 01-25 (DSS Key Number)
TK number for the key

07-gp-IP KEY GRP
xxx Gp=01-08 IP=01-25 (DSS Key Number)
Station number for the key

07-gp-IP KEY GRP
FN: ff Gp=01-08 IP=01-25 (DSS Key Number)
Function number for the key

General:

This program assigns 8 groups of Flexible key plans for Key phones.
Each Key phone can be assigned to use two groups (Mode 41-st-(02 & 03)).

Description:

Each key can be assigned as either a **Trunk**, a **Station** or a **Function**.
To change the assignment from TK to Station or to Function or vice versa, press the **{Change}** key before setting.

nn = 01-10 - Trunk Key (1 to 10) **xx** = 10-69 - Station Key (2 digits)
xxx = 100-699 - Station Key (3 digits) **xxxx** = 1000-6999 - Station Key (4 digits)
ff = 00-65 - Function Key (0 to 65)

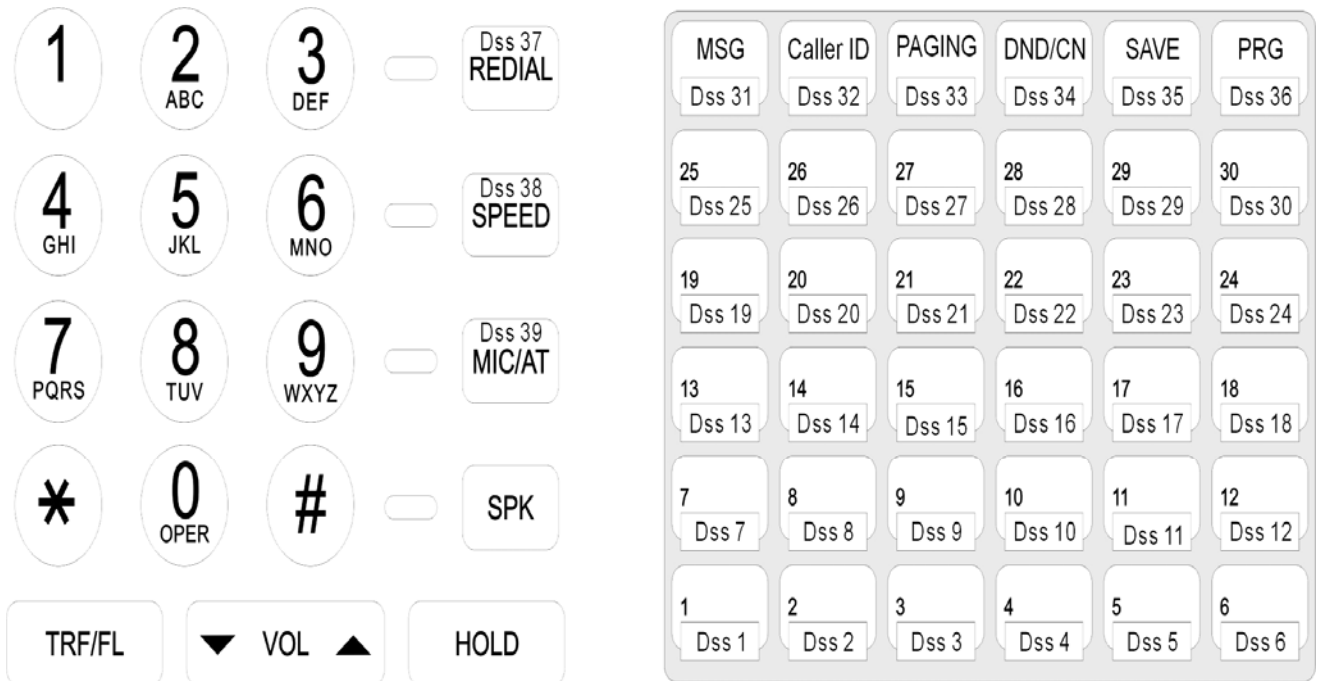
ff Code	Function		
00	One Touch DSS Speed Dial	26	Swap (Call Split) ^{*2}
01	Program	27	Answer Machine Emulation
02	Do Not Disturb/Conference	28	Volume down
03	Message Waiting/Pulse-Tone	29	Headset Function key
04	Microphone/ AUTO answer	30	Zone Paging (Internal) 7
05	Speed Dial	31	Zone Paging (Internal) 8
06	SAVE	32	CLI History
07	Redial	33	Zone Paging (External) 1
08	Volume Up	34	Voice Mail On Line Record
09	Forced Account Code	35	Pickup Own Group
10	Voice Set up	36	Pickup All Groups
11	User Speed Dial Set up ^{*3}	37	Pickup Group
12	Console User Speed Dial Set up ^{*3}	38	Loop Key Group 1 -
13	Console System Speed Dial ^{*3} Set up	39	Loop Key Group 2
14	Security Code Set up	40	Loop Key Group 3
15	Help List ^{*3}	41	Loop Key Group 4
16	Temporary Security Code	42	Loop Key Group 5
17	Check In ^{*3}	43	Loop Key Group 6
18	Check Out ^{*3}	44	Loop Key Group 7
19	Charge Inquire ^{*3}	45	Loop Key Group 8
20	All Paging (Internal)	46	Toll Password
21	All Paging (External)	47	Console- Morning Call Assign
22	All Paging (Internal/External)	48	Alarm Assign
23	Zone Paging (Internal)		
24	1A2 Emulation Privacy		
25	Zone Paging (Internal) 2 Or Voice Mail Transfer Key (A01Gx version only) ^{*1}		

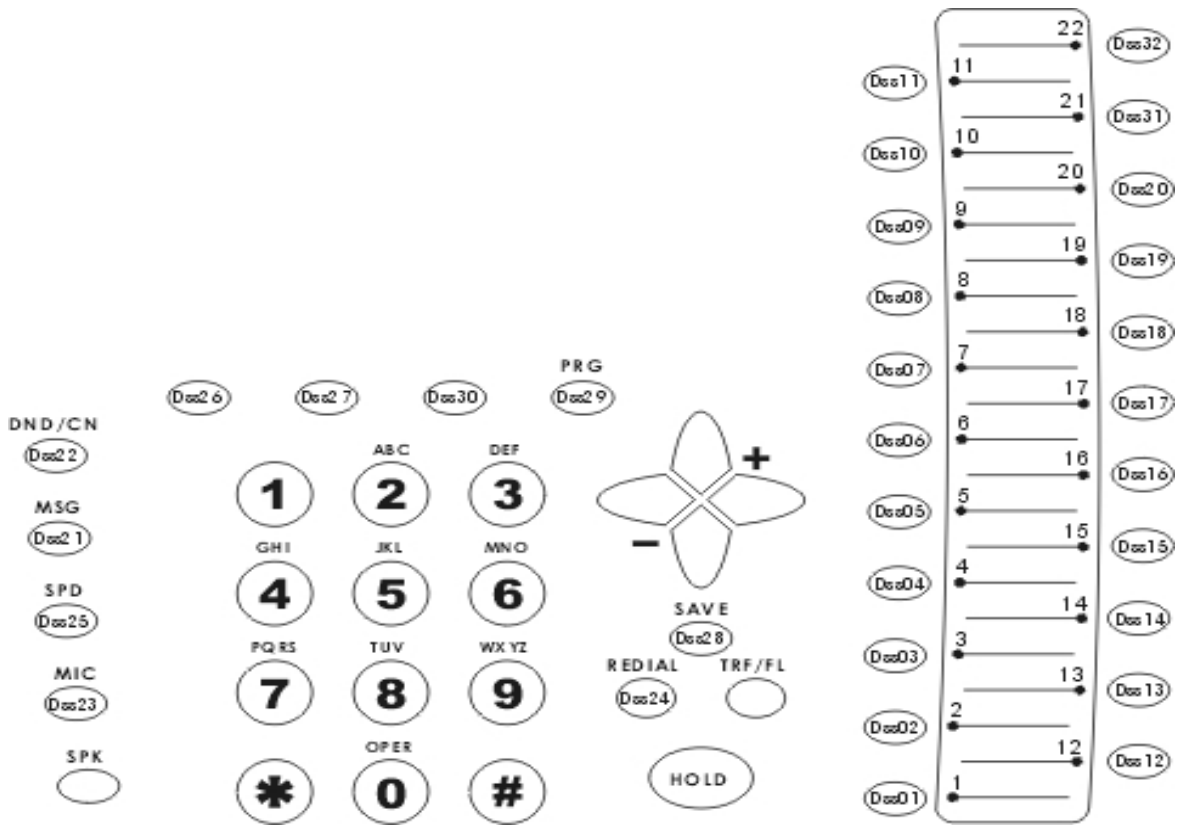
ff Code	Function		
49	Console- Set up Alarm		
50	Console- Set up System Time	60	Door Phone
51	Message Select ^{*3}	61	Reserved
52	Day / Night	62	Directory key (for name search)
53	Call Forward	63	Pre-dial key
54	Forward Busy ^{*3}		
55	Forward No Answer ^{*3}		
56	Meet me Page		
57	Shift Key		
58	Meter Rate Setting ^{*3}		
59	Hotel/Motel Function		

Note:

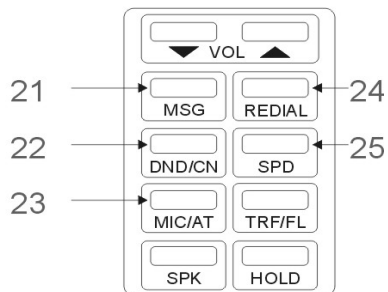
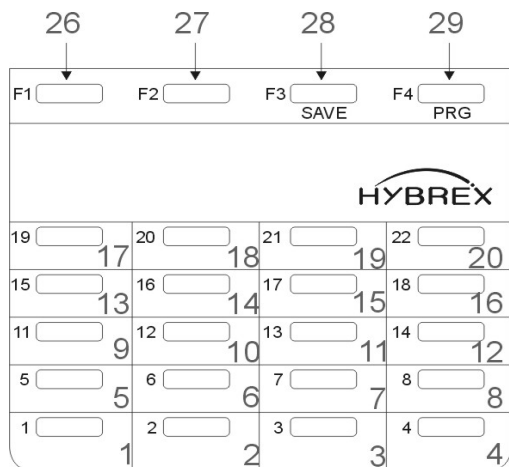
- ^{*1}: An extension during a call can press this function button to hold the call and the system will request a Mail Box number, the extension can key in an extension mail box or press [DSS-ST] to input a Mail Box number, after the extension inputs a Mail Box, this call will be transferred to the Voice Mail and into the requested Mail Box.
- ^{*2}: An extension during a call can press this function button to swap (Call Split) between two calls on separate trunks.

Related System Programming Mode: 07(code 26), 44-st-03





DK2 DSS key position



Program 08-gp-IP : Flexible DSS Console Key Group Assignment

08-gp-IP KEY GRP TK: nn	Gp = 01 IP = 01-66 (DSS Key Number) TK number for the key
-----------------------------------	--

08-gp-IP KEY GRP xxx	Gp=01 IP=01-66 (DSS Key Number) Station number for the key
--------------------------------	---

08-gp-IP KEY GRP FN: ff	Gp=01 IP=01-66 (DSS Key Number) Function number for the key
-----------------------------------	--

General:

This program assigns 1 group of Flexible key plan for the DSS consoles.

Description:

Each key can be assigned as either a **Trunk**, a **Station** or a **Function**.

To change the assignment from TK to Station or to Function or vice versa, press the **{Change}** (MIC/AT) key before setting.

nn = 01-32 - Trunk Key (1 to 32)	xx = 10-69 - Station Key (2 digits)
xxx = 100-699 - Station Key (3 digits)	xxxx = 1000-6999 - Station Key (4 digits)
ff = 00-65 - Function Key (0 to 65)	

Note: For function code ff, please refer to mode 07. There is no shift key function for the DSS console.

Program 09-nnn-DP : System Speed Dial

09-nnn-DP TK:tt nn nnn = 100-999 DP = 01-30 tt = 01-10 nn = 40-43
nnnnnnnnnnnnnnnnnn Telephone number.

General:

This program permits the assignment of up to 900 sets of system speed dialling codes. If Names are enabled (default) then only 500 Speed dials are available. If all 500 are allocated with names to System Speed dial then there are no Personal speed dials available for users. In default 100 System Speed dials are enabled (100-199)

Description:

nnn = 100-999 = Speed dial code, up to 900 sets in total.
DP = 01-30 = Digit Pointer for telephone number. 30 digits per speed dial code.
tt = 01-10 = Pre-assigned CO line number.
nn=40 : CID Call Blocking is enabled. It will not ring but LED will be flashing.
nn=41 : CID Call Blocking is enabled. The call will be transferred to the virtual voice mail (No. 141).
nn=42 : CID Call Blocking is enabled. The call will be transferred to the virtual voice mail (No. 142).
nn=43 : Call Blocking is enabled. The call will be transferred to the virtual voice mail (No. 143).
A VMC must be installed to allow Call Blocking transfer to Virtual Voice Mail to be enabled.
Call Blocking is enabled in Mode 05-17-07.
Press the **{Change}** key twice to change or clear the settings for CID Call Blocking.

Pre-Assigned CO Line

Press the **{Change}** key to change or clear the Pre-assigned CO line number. This CO line is the dedicated outgoing line for the speed dial code. If the user presses a speed dial code without selecting a CO line first, the system will select this CO Line automatically. If no CO line is assigned, the system will select an available CO line according to the assigned Dial 9 group (Program 41-nnnn-04). A line may also be selected directly by the user.

Telephone Number

30 digits maximum may be entered in each memory. In addition to the digits 1 to 0, *, # the following can also be stored: Pause, Flash, Pulse to DTMF. Each function occupies one digit.

"Pause" is represented by the **[HOLD]** key. -- P
"Flash" is represented by the **[TRF/FL]** key. -- F
"Pulse to DTMF" is represented by the **{P->T}** key. -- T

i) Pause:

During dial procedures on PSTN line, the dialling will wait for a programmable period(Refer Program 05-01-06).
During dial procedures on ISDN line, the dialling will wait for the called party to answer the call.

For example,

Store 29611356ppp506 in speed dial and use this speed dial on ISDN line to dial out. The system will dial 506 in DTMF after the called party answers the call (it could be the auto attendant or voice mail)

ii) Flash : This will make a loop disconnection of a pre-assigned duration. (Refer program mode 05-02-05).
iii) Pulse to DTMF : If the dialled signal is "pulse", it will change to "DTMF".

Note: Pressing **{Don't Care}** will erase the digit which the cursor is on.
Pressing **[REDIAL]** will erase all the assigned digits.

Associated program modes. 05-05-05, 05-04-06, 05-17-07, 43-51-05, 43-52-05, 43-53-05.

Program 10-GP-IP : Intercom or DISA Single Digit Assignment

10-gp-IP S.D.I. 000 000 000 000 000	Gp = 01-08, IP = 01-05 (digit 1 to 5) Station number for digit 1 to 5
--	--

General:

This program permits the stations in one or more station groups to call a specific station by dialling one digit only. The settings in this Mode are used by Single Digit Dialling (see Mode 05-04-07 to enable).

Description: Single Digit Intercom.

When single digit dialling is enabled then the Station to station call pre-fix digit (6) must be dialled to call another extension.

If a particular group has no entries programmed, the stations in the same number station group will not have single digit dialling and will not have to use the station to station prefix.

Program 11-IP : Date and Time Setting

11-IP Date/Time IP = 01-06
08 27 06 18 16 4 Setting Data

Item Pointer	Display Data	Programming Data Description
01	01-12	Month.....
02	01-31	Day.....
03	00-99	Year.....
04	00-23	Hour.....
05	00-59	Minute.....
06	1-7	Week day (Monday = 1, Tuesday = 2)..

General:

This program permits the setting of system Date & Time.

Description:

The Date & Time will be held during a power failure on the G1E. There is no need to reset the Time after power is restored.

Program 12-nn : System Alarm Clock

12-nn Alarm nn = Alarm schedule (01-10)
hh mm dd Setting Time

Location Pointer	Display Data	Programming Data Description
hh	00-23	Hour.
mm	00-59	Minute.
dd	00-99	Duration.

General:

This program permits the assignment of 10 time schedules for alarm clock purposes.

Description:

When the assigned time is reached, Background music will be broadcast over all Key telephones, which are idle. The time duration for alarm clock music is programmable (00 to 99 minutes.).

Program 13-nn : Password

13-nn Password
dddddddd

nn = Password Assigned (01-08)
Setting password

General:

This program permits the assignment of 9 different passwords in the system.

Description:

The password length is from 1 to 8 digits. All unused digit positions must have 'd' entered in them.

Password No. 1 = Programming Password. System Default is None.

Password No. 2 = DISA Password.

Password No. 3 = Toll Free. System Default is 8655.

Password No. 4 = DISA Monitor Password.

Password No. 5 = Reserved

Password No. 6 = Alarm password

Password No. 7 = VMU Password

Password No. 8 to 9 = Future.

How to use the DISA Monitor feature

1. Incoming call answered by the DISA greeting
2. Press [#] and hear "Please enter the extension number"
3. Enter admin number [99]/[999]/[9999] (Reference 05-03-06)
4. Hear "Please enter the password"
5. Key in password by 1234 (Mode 13-07 default = 1234____)
6. Hear "To setup greeting message press 1"
7. Press [6] to access environment monitor.
8. Hear "Please enter the extension number"
9. Press the extension number of an extension that has a Microphone and is Idle.
10. The outside party can listen to the extension for 2 minutes.
11. After timeout they will hear busy tone, If they want to continue then pressing 1~9 any key will stop the busy tone and delay the 05-06-06 timer.
12. To return to the main menu press [*] and hear "To setup greeting message press 1 ..."
13. If busy tone or p.r. or break is detected then the line will disconnect.

ACP call out has busy tone detect, pressing [1~9] can extend talk time by (05-06-06)

- A. ACP pressing [CALL] button in night Mode will call Hot Line SPD
. Mode 47-acp=SPD:101
. Night mode (Mode 20 or console presses [PROG][TRF][TRF])

- B. ACP presses [ST_NO][CALL] and ST_NO call forward all to SPD
. ST_NO press [PROG][8][DSS1][89661356][SAVE]

- . ST_NO press [PROG][1][DSS1]
- . ACP presses [ST_NO][CALL] to make call.

C. Security feature active, outside party press [CALL] button will call SPD:105

E. How to clear call

- . P.R.
- . Busy tone
- . Break
- . Press [*]

F. How to extend talk time when hearing busy tone?

- . Press [1] ~ [9] any key to delay timer 05-06-06

G. Security system

- . Security Function key
 - Mode 07-GP-IP=FN:61(Security key)
- . Sensor setting
 - Mode 39
 - First position = Function 05 (Security feature)
 - 2nd position = Sensor state
 - 01 = Normal open
 - 02 = Normal close
 - Clear : Press [Redial]
- . Password
 - Mode 40-ACP-08=0 all Mode 17 passwords can open door
 - Mode 40-ACP-08=1~48 Mode 17-set(1~48) password can open door
- . Dial Out number
 - MODE 09-100~104 call police office —call out
 - MODE 09-105 outside party pressing [call] button at ACP will dial out this number.

-To start security system

1. Key phone presses [FN:61]

The sensor will display in key phone led
 Normal => Green led
 Error => Red led

Keyphone presses [1] system counts down from 60 to 0 seconds then starts the security system.

2.By ACP

[PROG][5]

The sensor state will display
 Normal => ACP led display PASS
 Error => ACP led display ERR

Enter [PASSWORD] + [#]
 will start security system.

- Stop security system

1. Keyphone press [FN:61]+[PASSWORD]+[#]
2. ACP [PROG]+[7]+[PASSWORD]+[#] (If call out in progress the line will be cut off)

. Operation when security system active?

1. Key phone and SLT fire alarm
2. Up to 30s use [777] cancel by console the alarm will stop.
3. Or call out to police office
 - a. Search idle trunk
 - b. Dial SPD:100~SPD104

-
- c. Play alarm message
 - d. After 1 minute hung up wait for 3 seconds repeat a~d
 - e. If receive [*] or busy tone or P.R. stop alarm

5. Alarm password active

When user uses [PROG][*][PASSWORD][#] to open the door

- a. Search idle trunk
- b. Dial SPD:100~SPD104
- c. Play alarm message
- d. After 1 minute hung up wait for 3 seconds repeat a~d
- e. If receive [*] or busy tone or P.R. stop alarm

6. Outside party presses [CALL] button

- Ring Hunt group
 - a. Search idle trunk
 - b. Dial SPD:105
 - c. Play message to ask user to press [*] to talk to door.
 - d. After 1 minute hung up
 - e. If receive [*] will connect ACP and C.O.
 - f. If busy tone or P.R. or 2 minutes timeout => disconnect.

Program 14-01-IP : SMDR Specifications

14-01-IP S.M.D.R. IP = 01-08
 0 0 0 0 0 2 1 0 0 System Default

Item Pointer	Display Data	Programming Data Description	
01	0-9	Call Duration Start Time	0=00 Sec.
02	0/1	Record Incoming Call	0=Record
03	0/1	Record Local Call	0=Record
04	0/1	Record Incoming Call No Answer	0=Record
05	0/1	Print out the Title	0=Yes
06	00-99	Number of records between titles	21=21
07	0-	Reserved	0=
08	0-3	Polarity Reversal/Mini Call Accounting	0=No

General:

This program assigns SMDR parameters.

Description:

01. Call duration start time:

This parameter assigns the start time for the Call duration timer.

0 = 00 seconds 1 = 05 seconds 2 = 10 seconds 3 = 15 seconds
 4 = 20 seconds 9 = 45 seconds

02. Record Incoming Calls:

This parameter decides whether incoming calls will be recorded.

0 = Record 1 = Do not Record

03. Record Local Calls:

The system decides which are local calls by the toll access code set in Mode 05-03-05.

04. Record Incoming Calls No Answer:

This parameter decides whether unanswered incoming calls will be recorded.

0 = Record 1 = Do not Record

05. Print out the Title:

This parameter decides whether the system will output the description of each column.

0 = Print out the Title. 1 = Do not print out the Title.

06. Number of records between the Title:

This parameter permits the assignment of the number of records between each Title. If the Number = 00, The whole SMDR feature will be disabled.

07. Reserved:**08. Polarity Reversal / Mini Call Accounting:**

If reversal is disabled, the system will start the call timer after accessing a CO line.

If reversal is enabled, the system will start the call timer after the called party answers.

0= Not Detect P.R. / Normal SMDR format output

1= Detect P.R. / Normal SMDR format output

2= Not Detect P.R. / Simple SMDR format output

3= Detect P.R. / Simple SMDR format output

4 = Mini Call Accounting G21648 only.

* If the Mini-Accounting Feature has been enabled, the system will not record the call without any meter pulses being received.

* When the Mini Call Accounting feature is enabled it is necessary to set Administration phones to not record calls against them in Mode 45-st-08. This will prevent the system memory from being used to record calls unnecessarily. If administration phones are allowed to record their calls and are not checked out regularly then they will fill the system memory and prevent other calls being recorded. The G1E can store up to 350 records.

SMDR OUTPUT DATA FORMAT

<u>ST.</u>	<u>TK</u>	<u>S</u>	<u>TELEPHONE NUMBER</u>	<u>Account</u>	<u>MM/DD</u>	<u>START</u>	<u>DURATION</u>	<u>RING</u>	<u>UNIT</u>
112	01		001188629645752	12345678	10/02	08:35	00:02'35"		
115	02		Incoming	87654321	10/02	08:45	00:10'20"	00'10"	
000	03		Incoming no answer		10/02	12:00		00'35"	
112	04		001188629645752	FAC:01	10/02	12:10	00:02'00"		
112	03	X	FAC or PSW error		10/02	12:30			
112	05	X	001		10/02	12:35	00:00'05"		
121	01	#	0294150100		10/02	14:15	00:00'55"		
117	01	*	0294150100		10/02	14:15	00:03'10"		
	05		0418220212		10/02	21:01	00:02'30"		
D-03	D		<< D I S A OFF >>		10/02	21:00	00:02'40"		
112	02		DDI Num: 94150112		10/02	08:45	00:10'20"	00'10"	
	03		CLI NoAns:294176288		10/02	12:00	00:00'00"	00'35"	
111	05		CLI Num: 294150100		10/02	12:35	00:00'05"	00'05"	
	05		DDI NoAns:94150112		10/02	12:37	00:00'00"	00'27"	

TITLE DESCRIPTION:

ST = Station No. : 11 to 6999, D = DISA
TK = Trunk No. : 01 to 10,
S = Status : # = Hold, * = Answered the hold, X = Cut off by toll restrictions.
Telephone Number : First 24 digits
Account : 8 digits in total
MM/DD : Month/Day
Begin_Time hh:mm : The start time of accessing the trunk line.
Duration_Tm hh:mm:ss : Time duration of the call.
Ring_Tm mm:ss : Incoming ring time.
Unit 00000 : Meter Pulse Count

CASE EXPLANATION:

CASE 1: October 2, 08:35 A.M., Station 112 made a call (telephone No. is 00116495256611) through line 1. The call lasted 2 minutes and 35 seconds, Account code No. 12345678 was entered for the call and 12-meter pulses were recorded.

CASE 2: October 2, 08:45 A.M., An incoming call on line 2, rang for 10 seconds, station 115 answered the call and stored an Account No. 87654321.

CASE 3: October 2, 12:00 P.M., An incoming call through line 3, rang for 35 seconds, no one answered and the call was abandoned.

CASE 4: October 2, 12:10 P.M., Station 112 made a Long Distance call through line 4 by Forced Account Code 1 and 23 meter pulses were recorded.

CASE 5: October 2, 12:30 P.M., Station 112 made a call by Forced Account Code but was denied because of a wrong code.

CASE 6: October 2, 12:35 P.M., Station 116 made a call, which was restricted.

CASE 7: Line 1 was used by station 121 for 55 seconds then put on hold. One meter pulse was recorded against this station for its section of the call.

CASE 8: The held line 1 was answered by station 117 and he occupied the line for 3 minutes and 10 seconds. Four meter pulses were recorded against this station for its section of the call.

CASE 9: Incoming Line 3, using the DISA function, made an outside call 018220212 on line 5. The Duration time is for line 5. 3 meter pulses were recorded for this call.

CASE 10: DISA is completed. The Duration time is for line 3.

CASE 11: Incoming call on an ISDN system. The number displayed is the Indial number dialled by the calling party. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialled or the CLI information of the incoming caller

CASE 12: An incoming call rang for 35 seconds and no one answered. The CLI number of the calling station is displayed.

CASE 13: An incoming call on line 5 (ISDN) was answered by station 111. The SMDR displayed the CLI number (294150100) of the calling party and the extension number (112) of the calling party. The extension number shown is what the system will receive if the call is from another Hybrex with **ISDN**. The format may be different or non-existent from other telephone systems or on PSTN lines. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialled or the CLI information of the incoming caller. The number 94150100 is the pilot number of the Indial group.

CASE 14: An incoming call rang for 27 seconds and no one answered. The Indial number the calling station dialled is displayed.

SMDR OUTPUT DATA FORMAT - With CID Output

ST.	TK	S	TELEPHONE NUMBER	Account	MM/DD	START	DURATION	RING	UNIT
112	01		001188629645752	12345678	10/02	08:35	00:02'35"		00012
112	02		DDI Num:94150112		10/02	08:45	00:10'20"	00'10"	
	03		CLI NoAns:294176288		10/02	12:00	00:00'00"	00'35"	
111	05		CLI Num: 294150100		10/02	12:35	00:00'05"	00'05"	
	05		DDI NoAns:94150112		10/02	12:37	00:00'00"	00'27"	

Case 1: Outgoing call. All information remains as before.

Case 2: Incoming call on an ISDN system. The number displayed is the Indial number dialled by the calling party. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialled or the CLI information of the incoming caller

Case 3: An incoming call rang for 35 seconds and no one answered. The CLI number of the calling station is displayed.

Case 4: An incoming call on line 5 (ISDN) was answered by station 111. The SMDR displayed the CLI number (294150100) of the calling party. The system can be programmed on a station by station basis to select whether calls to that station will display the Indial number dialled or the CLI information of the incoming caller. The number 94150100 is the pilot number of the Indial group.

Case 5: An incoming call rang for 27 seconds and no one answered. The Indial number the calling station dialled is displayed.

Note: Maximum of 25 SMDR records can be stored in the system temporarily.

Program 17-nn : Forced Account Code

17-nn FCAC CODE _____ dd

nn = Forced Account Code (01-99)
Forced account code (8 digits max.) Day level-Night Level

General:

This program creates **99** Forced Account codes.

Description:

The forced account code will temporarily override a station's toll restrictions. 99 codes of up to 8 digits maximum are allowed. If the system is fitted with a call accounting output the entry for a call made using a forced account code will display the code used in the account code column. The actual numbers of the code will not be displayed for security reasons, the reading will show FAC:XX. XX is the forced account code number 01 to 99.

The Forced Account Code will not be displayed on the screen of Executive phones when it is entered.

Digit "d" is keyed in by **{Don't care}** button and means " Any digit " ("don't care").

Digit "_" is keyed in by **[TRF/FL]** button and means " No digit ".

Clear all digits by pressing **[TRF/FL]** to insert a line in place of the original entry.

The last two digits dd are for toll class selection – Day and Night. The forced account code will open the call from the stations normal class to the Class set for Day and Night.

First d: for Day time Toll Class.

Second d : for Night time Toll Class.

Do not use Redial to clear forced account code entries as this will insert "don't care" which will allow any digit as a forced account code.

Forced Account codes are also used by the ACP (Digital Door Phone) to unlock the door relay of the ACP or system.

The Forced Account Codes may also be used as DISA passwords to allow call accounting to show which user was making an external call using DISA from outside the system. Forced Account Codes 50 to 99 can be used for this purpose. This feature will need to be enabled in Mode 05-11-02.

Program 18-nn-TK : Assign Toll Plans To Trunk Lines

18-nn-tk Toll
0000000000

nn = Toll plan number (00-09), tk = (01-10)
Toll class for each trunk (class 0-9)

General:

This Mode assigns Toll Plans to trunk lines. The Toll plans are to be written in Modes 51 to 59 and 61 to 66.

Description:

10 toll plans can be used.

Each Toll Plan assigns each trunk line a Toll Class. It is possible to allow a toll class to have different restriction level on a line by line basis.

Example 1: Mode 18-00 is set to 0000dddddd. Any station in the system which is set to toll class 0 will be unrestricted on lines 1 to 4 but will be unable to dial out on lines 5 to 10.

Example 2: Mode 18-01 is set to 111100dddd. Any station in the system which is set to toll class 1 will be restricted by toll class 1 on lines 1 to 4, will be unrestricted on lines 5 and 6 but will be unable to dial out on lines 7 and 10.

To assign toll plans to stations, see Program **41-st-05**, **41-st-06**.

Toll Classes:

Class	Function	Prog. Mode
0	Unrestricted	Default
1	Use Mode 51 for the Unrestricted numbers. Use Mode 61 for the Restricted numbers	Mode 51,61
2	Use Mode 52 for the Unrestricted numbers. Use Mode 62 for the Restricted numbers	Mode 52,62
3	Use Mode 53 for the Unrestricted numbers. Use Mode 63 for the Restricted numbers	Mode 53,63
4	Use Mode 54 for the Unrestricted numbers. Use Mode 64 for the Restricted numbers	Mode 54,64
5	Use Mode 55 for the Unrestricted numbers. Use Mode 65 for the Restricted numbers	Mode 55,65
6	Use Mode 56 for the Unrestricted numbers. Use Mode 66 for the Restricted numbers	Mode 56,66
7	Use Mode 57 for the Unrestricted numbers.	Mode 57
8	Use Mode 58 for the Unrestricted numbers.	Mode 58
9	Use Mode 59 for the Unrestricted numbers.	Mode 59
*	Use Mode 51-56 for unrestricted numbers. Use Mode 61-66 for all restricted numbers	
D	Cannot access the trunk line.	

Program 20-nn- : Set Day – Time / Lunch Time Schedule

20-nn Day Time 00 00 00 00 00	nn = Day schedule pointer (00-06) Setting data
----------------------------------	---

General:

This program assigns day, night and lunch time from Sunday to Saturday for automatic night switching.

Description:

The system is capable of switching automatically between day / lunch break / night settings using the time parameters set in this Mode. To change from manual to automatic night switching the console presses **[PRG]** / **[TRF/FL]** / *. Pressing * toggles between the 3 modes.

If a Function key has been set to function 52 then pressing this key will change from Day to night mode by one touch but will not change between Automatic and Manual switching.

00 = Sunday
01 = Monday
02 = Tuesday
03 = Wednesday
04 = Thursday
05 = Friday
06 = Saturday

Example

20-01 Day Time 08 30 17 00 12

20-01 Day Time 30 13 30

On Monday the system will switch from Night time to Daytime start at 8:30 in the morning, will switch to lunchtime start at 12:30, switch back to daytime at 13:30 and switch to Night time at 17:00. To program no lunchtime leave the entries for items 03 and 04 on 00.

Program 25 : Reset Data to System Default

25 - Reset Data
0 - 9 Default

General:

This program resets all data to System Default. All new systems must be reset to default before any programming in case corruption has been caused during handling or shipping. It will also be necessary to reset to default after a software upgrade is installed. When using item 3 or 4 these must be done AFTER the system reset is performed.

Description:

1 = System data will be reset to system default except System Speed Dial Programming.

2 = The system data will be totally reset to system default.

WARNING: All user-defined data will be lost.

3 = For all Stations set

44-st-02=1 (Hold Feature restricted)

44-st-03=1 (Call Split Feature restricted)

This feature is for Hotel/Motel operation. After setting this Mode it is necessary to reprogram the Console and any Administration phones in Mode 44-st-02 to allow them to place calls on hold.

4 = For all stations set

40-st-01=0 (Barge In not allowed)

40-st-02=0 (Monitor not allowed)

It is strongly recommended that this parameter is used on ALL systems to prevent accidental Barge In operations being misinterpreted as cross talk. In some software versions these settings are 0 in default. All other system programming information remains unchanged when using 3 or 4.

6 = Copy Voice Prompt from MBU Nand flash to VMU CF card

This parameter transfers AA Greeting messages from the MBU AA Flash to the VMU Flash.

This feature takes several minutes to achieve. Do Not interrupt . When the transfer is in operation the LED on the VMU and the LED on the MBU adjacent will fast flash in unison until the transfer is complete.

7 = Copy VMU data to Nand Flash on MBU

This parameter transfers AA Greeting messages from the VMU Flash to the MBU Flash.

This feature takes several minutes to achieve. Do Not interrupt . When the transfer is in operation the LED on the VMU and the LED on the MBU adjacent will fast flash in unison until the transfer is complete.

8 = Reset CF card data on VMU card

9 = Reset DSP

= update the loader, LCD displays "Update Loader SW", Press [1] to update loader .

Program 29-tk-IP : Trunk Specifications – 2

29-tk-IP TK SPEC
0 0 0 2 0 0 0 0

tk = 01-12, IP = 01-08
System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Trunk Receive Gain	0= 0db
02	0-8	ACD-1 Function Enable	0=Disable
03	0~9	Trunk Transmit Gain	0= 0db
04	0-8	Set Ring Frequency (DK Handsets)	2= Frequency 2
05	0-9	Allow Audible Ring for Incoming Calls	0=All Stations
06	0-1	Polarity Reverse Detection. Individual Trunk-outgoing.	0=Disable
07	0-9	CO Delayed Ring Timer to Hunting Group	0=Disable
08	0-9	CO Delayed Ring Overflow Hunting Group	0=The 1 st Hunting Group

General:

This program permits each trunk line to be assigned different parameters.

Description:

01. Trunk Receive Gain:

This parameter can adjust the system's analogue TKU interface to adapt to different CO loop resistance. For long lines where the Receive audio may be low this parameter will allow Receive loudness to be boosted.

0 = 0db 1 = 1db 2 = 2db - 9 = 9 db

02. ACD-1 Function Enable:

This parameter enables or disables the ACD-1 function for each trunk individually and is able to select whether ACD-1 operates in Day or Night or Both Modes.

0 = Day Time - Disable ACD function, Night Time - Disable ACD function
 1 = Day Time - Disable ACD function, Night Time - Enable ACD function^{*1}
 2 = Day Time - Disable ACD function, Night Time - Enable ACD function^{*2}
 3 = Day Time - Enable ACD function^{*1}, Night Time - Disable ACD function
 4 = Day Time - Enable ACD function^{*1}, Night Time - Enable ACD function^{*1}
 5 = Day Time - Enable ACD function^{*1}, Night Time - Enable ACD function^{*2}
 6 = Day Time - Enable ACD function^{*2}, Night Time - Disable ACD function
 7 = Day Time - Enable ACD function^{*2}, Night Time - Enable ACD function^{*1}
 8 = Day Time - Enable ACD function^{*2}, Night Time - Enable ACD function^{*2}

*1: Enable ACD-1 function only when all ring assigned stations are busy.

*2: Enable ACD-1 function when 05-09-06 timer has elapsed even if ring assigned stations are idle.

03. Trunk Transmit Gain:

This parameter can adjust the system's analogue TKU interface to adapt to different CO loop resistance. For long lines where the Transmit audio may be low this parameter will allow Send loudness to be boosted.

0 = 0db 1 = 1db 2 = 2db - 9 = 9 db

04. Set Ring Frequency (DK handsets):

This feature allows each trunk to ring at DK handsets with its own individual ring frequency and override the frequency set by the user for all calls.

- 0 = As per the key phone's ring setting.
- 1~8 = Use the ringing frequency 1~8 of key phone as the trunk's ring.

05. Allow Audible Ring for Incoming Calls:

This feature allows either some or all stations which are ring assigned in Mode 01 or 02 to receive the audible ring signal when a trunk rings at the station. If the audible signal is disabled the station will still be able to answer a call by lifting the handset only, if they are ring assigned in Mode 01 or 02

- 0 = All stations assigned in Mode 01 & 02 will receive audible signal for an incoming call
- 1 = Only the first station assigned in Mode 01 & 02 will receive audible signal for an incoming call. The other ring assigned stations will still be able to answer a call by lifting the handset only
- 2 = The first 2 stations assigned in Mode 01 & 02 will receive audible signal for an incoming call. The other ring assigned stations will still be able to answer a call by lifting the handset only 3 to 8.....
- 9 = The first 9 stations assigned in Mode 01 & 02 will receive audible signal for an incoming call. The other ring assigned stations will still be able to answer a call by lifting the handset only.

06. Polarity Reverse Detection – Individual trunk-Outgoing:

This parameter allows individual trunks to be enabled to detect Polarity Reverse on B party answer without having to Enable all trunks system wide. This allows a system to have a mix of lines on one system and only some of them will have reversal and some not. Mode 14-01-08 will enable system wide Reversal settings.

- 0= Disable
- 1 = Enable

07. CO Delayed Ring Timer to Hunting Group:

This parameter sets the delayed ring time for an incoming call to the hunting group. If the stations in the Ring Assignment (mode 01/02) do not answer the incoming call within below timing, the call will overflow to the pre-assigned hunting group (mode 29-TK-08). The Ring assigned stations will continue to ring.

- 0 = Disable this feature
- 1 = 8 sec. 2 = 16 sec. 3 = 24 sec. 4 = 32 sec. 5 = 40 sec.
- 6 = 48 sec. 7 = 56 sec. 8 = 64 sec. 9 = 72 sec.

Related System Programming Mode: 29-Tk-07, 29-Tk-08, 67, 68, 69

08. CO Delayed Ring Overflow Hunting Group:

This parameter sets the pre-assigned overflow Hunting Group for an incoming call. If the stations in the Ringing Line Preference Assignment (mode 01/02) do not answer the incoming call within the pre-assigned timing (mode 29-TK-07), the call will overflow to the pre-assigned hunting group.

- 0 = Overflow to Hunting Group 1
- 1 = Overflow to Hunting Group 2
- 2 = Overflow to Hunting Group 3
-
- 8 = Overflow to Hunting Group 9
- 9 = Overflow to Hunting Group 10

Related System Programming Mode: 29-Tk-07, 29-Tk-08, 67, 68, 69

Program 35-tk-IP : Trunk Specifications – 1

35-tk-IP TK SPEC
0 1 0 0 3 0 0 0

tk = 01-12, IP = 01-08
System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Trunk Type	0=CO
02	0-1	Dialling Signal	1=DTMF
03	0-8	External Call Forward	0=No
04	0-8	DISA	0=No
05	0-3	Pick Up	3=Yes
06	0-9	Loud Bell	0=No
07	0-5	Inward Line Ringing Type - Day	0=Com
08	0-5	Inward Line Ringing Type - Night	0=Com

General:

This program permits every trunk line to be assigned different parameters.

Description:

01. Trunk Type:

- 0 = CO. = Trunk line is Central Office line.
- 1 = PABX. = Trunk line is installed behind a PABX or Centrex.

02. Trunk Signal:

- 0 = Pulse = Trunk dialling signal is Dial Pulse.
- 1 = DTMF = Trunk dialling signal is DTMF (Touch-Tone).

03. External Call Forward - ECF:

- 0 = No ECF.
- 1 = ECF to system speed dial 101
- 2 = ECF to system speed dial 102
- 3 = ECF to system speed dial 103
- 4 = ECF to system speed dial 104
- 5 = ECF to system speed dial 105
- 6 = ECF to system speed dial 106
- 7 = ECF to system speed dial 107
- 8 = ECF to system speed dial 108

04. DISA/ECF (Direct Inward System Access/External Call Forward):

- | | |
|-----------------------|---------------------|
| 0 = Day - Disable | Night - Disable |
| 1 = Day - Disable | Night - DISA Enable |
| 2 = Day - DISA Enable | Night - Disable |
| 3 = Day - DISA Enable | Night - DISA Enable |
| 4 = Day - Disable | Night - ECF Enable |
| 5 = Day - ECF Enable | Night - Disable |
| 6 = Day - ECF Enable | Night - ECF Enable |
| 7 = Day - DISA Enable | Night - ECF Enable |
| 8 = Day - ECF Enable | Night - DISA Enable |

05. Pick Up:

0 = Day - can not	Night - can not
1 = Day - can not	Night - can
2 = Day - can	Night - can not
3 = Day - can	Night - can

Can = An incoming call on this line can be answered by non-ringing stations.

Can not = An incoming call on this line can not be answered by non-ringing stations.

This feature is to assign "Private Lines" in conjunction with the programming of dial 9 groups, or to prevent incoming calls being answered by users other than the ring assigned stations.

06. Loud Bell:

Refer to Program 06 to assign Relay to operate for a Loud Bell.

0 = No Operation.

1 = RELAY on the MSC (R) will be activated when the trunk is ringing.

The system does not provide any voltage from the assigned relay. A separate ring voltage and ring device will need to be provided by the installer

07. Inward Line Ringing Method Assignment (Day):

As described in Program 01-tk-IP, there are four ringing methods plus a Private line setting:

COMMON AUDIBLE

Ring all assigned Extensions simultaneously.

LINEAR

Each incoming call rings the first available Extension in order of the Extensions assigned in **Program 01-tk**.

CIRCULAR

The first incoming call on each trunk rings the first assigned Extension, the 2nd incoming call on that trunk rings the next station, etc.

HUNT

If an incoming line rings an extension which is busy or does not answer, after the assigned Hunt Time (Program **05-08-01**), the call will ring the next available extension assigned in the same group. If the next ringing station is busy then the call will immediately move to the next ring assigned extension but if the station does not answer then the call will wait for the Hunt time and then ring the next assigned extension. Once the ring assignment has passed a station which is busy then it will provide Off Hook Busy Remind signal and when the station is free if the call is still unanswered the station will commence ringing for that call. Stations which do not answer a call will also continue to ring until the call is answered.

PRIVATE

This is for an incoming private line. The station that owns this private line can set call forward (All, Busy, No Answer) for this private line to the Voice Mail Port (See Program **43-ST-02**) or off premises.

0 = Day - COMMON AUDIBLE	1 = Day - LINEAR	2 = Day - CIRCULAR
3 = Day - HUNT	4 = Day - PRIVATE	

08. Inward Line Ringing Method Assignment (Night):

As described in Program 02-tk-IP, there are four ringing methods plus a Private line setting: All settings in item 08 are the same as item 07.

0 = Night - COMMON AUDIBLE
3 = Night - HUNT

1 = Night - LINEAR
4 = Night - PRIVATE

2 = Night - CIRCULAR

To set a trunk name -

1. Enter system programming Mode 35.
2. Depress **{Change}** to enter the Name mode.
3. Input the name for the related trunk by the following function keys.

Key Pad	Depress 1 time	Depress 2 times	Depress 3 times	Depress 4 Times	Depress 5 Times
1	,	.	:	1	Space
2	A	B	C	2	;
3	D	E	F	3	/
4	G	H	I	4	_
5	J	K	L	5	-
6	M	N	O	6	'
7	P	Q	R	S	7
8	T	U	V	8	+
9	W	X	Y	Z	9
0	ä	ü	ñ	ö	0
*	%	^	&	*	(
#	\$!	@	#)

4. Press **{SAVE}** to store the data.
5. The next trunk port will appear ready to program names.

Program 36-gp-tk : Trunk Group Assignments

36-gp-IP TK GRP 01 02 03 04 05	gp = 01-08, IP = 01-12 trunks to be included
-----------------------------------	---

General:

This program permits each trunk line to be assigned to different Trunk groups. There are eight groups in total.

Description:

In the bottom data-setting area, the trunk number (01-12) means that the trunk is included in the specified group. Press **[REDIAL]** to clear all entries from the table before entering the required trunks. Always set outgoing calls to start from the highest fitted trunk and program in descending order to the lowest trunk fitted. This will prevent call collision particularly in systems with SLT'S using PSTN trunks. An additional 8 groups are available by utilising the groups available in Mode 38 for the dial 87 trunk groups. If a station is allocated no dial 9/0 group in Mode 41-st-04 but is then allocated a Dial 87 group in mode 46-st-01 then this station will use that group as its dial 9/0 group giving a total of 16 groups available.

There are 12 trunks maximum in a trunk group.

This parameter will work with the following features:

- . Dial 9 or 0 access to trunk group.
- . Tenant service.

Related System Programming Mode: 36, 38, 41-ST-04, 46-ST-01

Program 37-tk : Busy Out Trunks

37-tk Busy Out 0000000000

tk = 01-12
Busy out Type

General:

This program permits the trunk line to be locked by a Technician.

Description:

This feature is used when the user does not want to use the trunk or to remove a problem line. When the trunk is set to BUSY OUT, the LCD display on the phone will display " Access denied " when that line button is pressed.

- 0 = Line is unlocked
- 1 = Busy for Outgoing calls
- 2 = Busy for Incoming and Outgoing calls (set loop on)
- 3 = Busy for Incoming and Outgoing calls (set line LED on)

Program 38-gp-tk : Dial 87 Trunk Group Assignments

38-gp-IP TK GRP 01 02 03 04 05	gp = 01-08, IP = 01-12 trunks to be included
-----------------------------------	---

General:

This program permits each trunk line to be assigned to different Trunk groups which can be accessed by dialling [87]. There are 8 groups in total. This group will be available to a station in addition to or instead of it's dial 9 group. Always set outgoing calls to start from the highest fitted trunk and program in descending order to the lowest trunk fitted. This will prevent call collision particularly in systems with SLT'S. Press **[REDIAL]** to clear all entries in the table before entering required trunks.

Description:

This program is different from Program Mode 36-gp-tk. This program is used for dialling [87] or [9] to access a Trunk Line.

Once a dial [87] group has been programmed it will need to be assigned to the stations that are to use it in Mode 46-Stn-01.

Related System Programming Mode: 36, 38, 41-ST-04, 46-ST-01

Program 39-IP : Sensor Assignments

39-STN-IP Sensor
FN S

Stn 00 – 000 – 0000 Is for sensor on MSC card

39-STN-IP Sensor
FN S

St-ACP is for sensor on ACP

ST	IP	Display Data	Programming Data Description
00(00)	01	00-18	SENSOR #1 on G2-MSU Card
	02	0-2	SENSOR #1 Contact Type

Description:

The G1E-MSU and each ACP provide 1 Sensor.

FN= Function No. **S=Sensor Type**

Each Sensor can be assigned one of the following 18 functions in items 39-ST in the GDS-600.

<u>Set data</u>	<u>Function</u>
00	No Operation
01	Fire Alarm
02	Break Alarm
03	Door Phone 1
04	Reserved for future use
05	Security feature
18	Reserved for future use

The SENSOR type may be normally open or normally closed.

0 = Disable Sensor function

1 = Normally Open

02 = Normally Closed

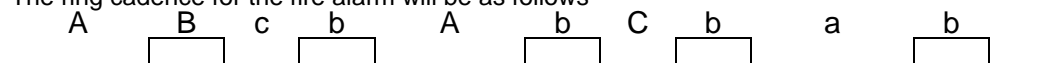
The applications are as the following:

1 = Fire Alarm: Sensor detects fire, all idle extensions will be rung and all busy extensions will Hear the alarm tone. The fire alarm will continue for 10 minutes.
Pressing **[7][7][7]** from the console will stop the fire alarm.
The LCD display will show FIRE ALARM !!!! when the alarm is activated.

2 = Break Alarm

.The Sensor detects the signal appears, all idle extensions will be rung.
.The Sensor detects the signal disappears, all extensions will stop ringing.
The LCD display will show BREAK ALARM !!!! when the alarm is activated.

Individual stations can be programmed to not receive the Break Alarm in Mode 45-st-06.
The ring cadence for the fire alarm will be as follows



a = 1.25 seconds On b = 0.25 seconds off c = 0.25 seconds on.

If door key has been set in mode 07 and mode 39, the Door key on DSS will get the following indications:

<u>LED Indication</u>	<u>Door Phone Status</u>
Off	Normal Close for Sensor
Red-Slow Flashing	Normal Open for Sensor
Red-Fast Flashing	Door Phone Is Calling
Green on	This Station is talking to Door Phone
Red on	Some other Station is talking to Door Phone

Security feature

- 1.[PROG][7][SAVE][39][135][SAVE][REDIAL](Clear)[05][1](Normal open)
[SAVE]
- 2.09-105=29611356
- 3.17-01=1234dddd
- 4.36-01=01 02 03 04
- 5.67-01=55 0
- 6.68-01=111 112 113 114
- 7.ACP(135)press [PROG][5]You can see PASS or ERR to check sensor state
[1234][#] To enable Security feature
- 8.Or Keyphone presses [FN:61] the system will count down 1 minute enable security feature.
- 9.ACP(135) presses [CALL] button
- 10.ST:111 , ST:112 ,ST:113 and ST:114 Ringing
- 11.System will get TK:01 (Mode 36 search idle trunk)and dial out 29611356
then play "Message 227"
Someone is pressing your doorbell. please press [*]
to talk to the visitor, and press [*] again to end the conversation.
- 12.Outside party(TK:01) press [*] (before 1 minute timeout)can talk with
ACP(135) and all extension stop ringing.
- 13.Outside party(TK:01) press [*] again will cut off the line.
- 14.Outside party press [0] to open the door.
- 15.After user returns the ACP(135) presses [PROG][7][1234][#] to disable security feature
- 16.Or Keyphone presses [FN:61][1234][#] to disable security feature.

Related System Programming Mode:07,09,17,36,67,68,69

Program 40-stn-IP : Station Class of Service – 1

40-stn-IP STCOS st = Extension NO.(2-4 digits). IP = 01-08
 0 0 0 0 0 0 0 0 System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-9	Override Level	0= Not allowed
02	0-9	Monitor Level	0= Not allowed
03	0-9	Limit Call Duration	0=No
04	0-3	Station Loud Bell	0=No
05	0-1	Access Paging	0=Yes
06	0-1	Receive Paging	0=Yes
07	0-1	Security Code Status	0=None
08	00-99	Forced Account Code	00=All

General:

This programming Mode permits each station to be assigned a different Class of Service.

Description:

01. Override Level:

Higher level stations can override lower level stations, equal levels may override each other.

0 = Disable 1 = Lowest level 9 = Highest level

02. Monitor Level:

Higher level stations can monitor lower level stations, equal levels can not monitor each other.

0 = Disable 1 = Lowest level 9 = Highest level

03: Limit call duration:

Conversation will be interrupted by a Busy Tone. A warning tone will be given 10 seconds before the end of the timed duration. (see Mode 05-04-03 to set call limiting action)

0 = No limit 1 = 3 min. 2 = 5 min. 3 = 10 min. 4 = 15 min. 5 = 20 min.
 6 = 30 min. 7 = 40 min. 8 = 50 min. 9 = 60 min.

Related System Programming Mode: 05-04-03, 40-st-03

04. Station Loud Bell:

Refer to Program 06 to assign Relay to operate for a Loud Bell.

0 = No operation

1 = Operate relay on the MSC card when calls are received on this station.

The system does not provide any voltage from the assigned relay. A separate ring voltage and ring device will need to be provided by the installer.

05. Access Paging:

0 = The "All Page" signal can be broadcast by this station.

1 = The "All Page" signal can not be broadcast by this station.

06. Receive Paging:

0 = The "All Page" signal can be received by this station.

1 = The "All Page" signal can not be received by this station.

This feature is useful for someone who should not be disturbed by paging calls.

07. Security code status:

0 = The station is unlocked. (Can make outgoing calls.)

1 = The station is locked. (Can not make outgoing calls.)

If a phone becomes locked accidentally or the user forgets their lock code, this parameter will unlock the phone. There is no way of finding what the lock code was.

08. Forced account code:

There are 99 forced account codes which can be used on the system. Each user can be allocated use of one or all of these. If a station has a Forced Account Code 01-99, the user can key [PRG][4] and the force account code to override toll restrictions for one call only.

If the setting is from 01-99 then this Account Code ONLY can be used by the station. If the setting is 00 then the station can use any one or all Account Codes.

Refer to Mode 17: Create Forced Account Code

04. Dial 9 trunk group/ SLT Port as MOH Source:

When a station selects a trunk line by dialling 9, the system finds an available trunk according to the dial 9 group assignment. If a trunk is not in a stations assigned dial 9 group then the station will not be able to make outgoing calls on that trunk.

0= use "Dial [87] trunk group" as "Dial 9 trunk group". (see mode 46-ST-01).

That is, Dial 9 can access the "Dial [87] trunk group". Using this setting can extend Dial 9 trunk groups from 8 to 16.

1= search in the 1st tk group 2 = in 2nd tk group 8= in 8th tk group

If the Extension is an SLT port it can be used as an additional MOH input allowing individual tenants to each have their own Message on Hold. The port is set to type 7 in Mode 43-port-02 then in Mode 41-slt-04 user can allocate which trunk group will use this port as a MOH source. The current drawn from the SLT port MUST be limited to no more than 10ma to prevent damage. A line isolator will achieve this.

0 = All Trunk groups

1-8 = Trunk group 1 to 8

Related System Programming Mode: 36, 38, 41-ST-04, 46-ST-01

05. Toll plan - Day:

This parameter assigns the toll plan to be used by the station in day mode.

Refer to Mode 18 for Toll plan details.

06. Toll plan - Night:

This parameter assigns the toll plan to be used by the station in night mode.

Refer to Mode 18 for Toll plan details.

07. Port number:

This is for checking only, the system will automatically show the correct port number. It is not possible for the user to change or remove this parameter.

In the G1E, the port number consists of 2 digits

11~18: station ports on the G1E-MBU

21~28: station ports on the 1st G1E-STU or G1E-SLU card.

31~38: station ports on the 2nd G1E-STU or G1E-SLU card.

41~44: SLT station ports on MBU

Program 42-stn-IP : Register Memory Blocks for Individual Speed Dial

42-stn-IP SPD-T st = Station No. (2-4 digits) IP = 01-02
b1 b2 blocks (2 max.) for a Station

b1: Block 1 of Individual Speed Dial Codes (00-09 or DSS11~DSS20)
b2: Block 2 of Individual Speed Dial Codes (DSS1-10) (**Digital phone only**)

General:

This program divides sets of **Individual Speed Dial** into blocks for use by Stations.

Description:

- If in program **05-04-06**, the Individual Speed Dial Codes are assigned:
500 sets, the maximum blocks in this program are **50** blocks.
400 sets, the maximum blocks in this program are **40** blocks.
300 sets, the maximum blocks in this program are **30** blocks.
- Each block has 10 sets of Individual Speed Dial.
- Each set has up to 30 digits.
- Speed Dial Codes 00~09 shares the same memory block with DSS11~DSS20.
- Each Station can use up to 2 blocks (20 sets of Individual Speed Dial.)
- If names are enabled then the number of blocks available is half.

Example:

42-13-IP SPD-T **13:** Station No. (2-4 digits)
01 02 **01 02:** Station 553 can use block **01** and **02** for Individual
Speed Dial (20 sets)

42-15-IP SPD-T **15:** Station No. (2-4 digits)
04 00 **04 00:** Station 105 can use block **04** (10 sets) for Individual
Speed Dial (00-09 or DSS11~20), **00** : for no block.

42-18-IP SPD-T **18:** Station No. (2-4 digits)
00 03 **00 03:** Station 550 can use block **03** for Individual Speed Dial
(DSS 1-10)

- * Refer to **Keyphone Operation, G.04** for the programming of Individual Speed Dial.
- * Be sure to program these parameters before programming speed dial on key phones.

If problems are encountered with stations not being able to program speed dial numbers, check this parameter to be sure that speed dial locations are available to the station. If the station card was fitted at the time of system initialisation then the blocks will have been allocated automatically.

default 11= 01 02

:
36= 01 02

05-04-06	0	1	2	3	4	5	6	7	8	9
05-05-05=0 No name	80,	70,	60,	50,	40,	30,	20,	10,	0,	0
05-05-05=1 With name	40,	30,	20,	10,	00,	00,	00,	00,	00,	00

Program 43-cn-IP : Port Specifications

43-cn-IP Port
stn 0 1 0 00 02

cn = Port No. (2 digits) IP = 01-06

Parameters for the port

cn = Position Number on Card (11-68)

11~18: station port on G1E-MBU

31~38: station port on the 2nd G1E-STU or G1E-SLU card.

21~28: station port on the 1st G1E-STU card.

41~44: SLT ports on G1E-SIU MBU.

Item Pointer	Display Data	Programming Data Description	Default
01	nnnn	Station Number (2 to 4 digits)	System
02	0-9	Equipment Type	System
03	1-9	DSS Soft key Plan	1=1
04	0-	Reserved	0=
05	00-50	Voice Mail Box Capacity	00= disabled
06	00-90	Maximum Voice Mail Message Length	02= 1 Minute

General:

This program permits each port to be assigned different parameters and station numbers.

Description:

01. Station number:

Use this setting to assign station numbers for the Flexible Numbering Plan. The allowed number range is 10-69, 100-699, 1000-6999. If it is necessary to use digits 7 or 8 as part of the station numbering scheme then Mode 05-08-05 must first be set to 8 to prevent confusion between control codes/programming digits and Station numbers.

02. Equipment type:

0 = None connected	1 = Digital Phone without LCD
2 = Digital Phone with LCD	3 =
4 = Single Line Telephone	5 = DSS
6 = Dual port	7 = SLT Port used as MOH input.
8 = Voice Mail Port	9 = ISDN Device
D = Door phone/ACP	- = SLT Paging port (press [FLASH] key)
T = Fax Port (press [MSG] for T)	

Types 0 to 5 and d are recognized by the system automatically.

Type 6 allows an SLT port to be paired to a Digital Extension providing a pseudo Hybrid port. Once set the SLT phone can be given the same extension number as a Digital Extension and when the number is called both Phones will ring. Either phone can answer and once one answers then a call to the same number will show busy. The call can be placed on hold by one of the extensions and retrieved from the other or can be transferred to other extensions by the normal method. The Station COS of the digital phone will be allocated to the SLT automatically.

Type 7 allows an SLT port to be used as an additional MOH input allowing tenanted systems to have different messages played to different trunk groups during Call Hold. Once an SLT port is set to MOH then in Mode 41-slt-04 the port can be allocated to all or individual trunks groups as a hold source.

Type - allows the SLT port to be used for an External Paging Port.

Both SLT Music Port and SLT Paging port MUST have a line isolator unit fitted.

Example

43-118-06 Port 118 2 1 0 08 02

Means: The total mail box capacity for extension 118 is 1200 to 4800 secs (40 units, 20 min to 80 mins.) and the maximum length for each voice mail message is 60 sec to 240 secs.(2 units).

To set an extension name and Hotel printout name-

1. Enter system programming Mode 43.
2. Depress **{MIC}** to enter the Name mode.
3. Input the name for the related extension by the following function keys.

Key Pad	Depress 1 time	Depress 2 times	Depress 3 times	Depress 4 Times
1	Q	Z	Space	1
2	A	B	C	2
3	D	E	F	3
4	G	H	I	4
5	J	K	L	5
6	M	N	O	6
7	P	R	S	7
8	T	U	V	8
9	X	Y	Z	9
0	.	:	&	0
*	-	/	!	*
#	()	\$	#
DSS23	Cursor Left			
DSS24	Cursor Right			

4. Press **{SAVE}** to store the data.
5. The next extension port will appear ready to program names.

Program 44-stn-IP : Station Class of Service – 2

44-stn-IP STCOS st = Station No. (2-4 digits) IP = 01-08
 0 0 0 0 1 0 0 0 System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	System Alarm	0=Enable
02	0-1	Hold feature	0=Enable
03	0-1	Call Split	0=Enable
04	0-1	Manual Line	0=No
05	0-1	Headset feature	1=Enable
06	0-1	Use Engineering Password	0=Enable
07	0-1	DTMF Receiver Control for Voice mail Ports	0=Normal Timeout.
08	0-1	Station Alarm Signal Type	0=Music

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. System Alarm:

If the setting is disable, the station will not receive system alarm clock signals.

- 0 = The "System Alarm" signal will be received on this station.
- 1 = The "System Alarm" signal will not be received on this station.

02. Hold feature:

If the setting is disable, the station will not be able to place calls on hold.

- 0 = Hold function allowed
- 1 = Hold function not allowed

03. Call Split:

If the setting is disable, the station will not be able to activate call splitting function. When activated and the station presses hook flash after placing a call on hold the call will not be retrieved. Dialling 9 (or 0) or 72 will retrieve the held call.

- 0 = Call Splitting function allowed
- 1 = Call Splitting function not allowed

Related System Programming Mode: 07(code 26), 44-st-03

04. Manual Line:

If the setting is Enable, lifting the handset of the station will call the operator directly without dialling any digits.

0 = Disable

1 = Enable

05. Headset feature:

When headset feature is enabled by the user (code is SPK 775) they can then use the **[SPK]** key to go on or off hook. If this programming mode is disabled the user cannot switch between handset and headset mode.

0 = Disable

1 = Enable

06. Use Engineering Password:

If the setting is disable the station is unable to use the engineering password to enter programming mode.

0 = Enable

1 = Disable

07. DTMF Receiver Control for Voice mail Ports:

This program controls the operation of DTMF detectors for each Voice mail Port. The parameter is set to free DTMF detectors quickly for systems with high Voice Mail traffic.

0 = After the Voice Mail dials the extension number, The system releases the DTMF receiver after the timeout of mode 05-02-02.

1 = After the Voice Mail dials the extension number, The system releases the DTMF receiver immediately.

08. Station Alarm Signal:

This parameter decides what the station will hear when a station alarm or Morning Call is activated.

0 = (set in mode 05-05-01) default Back Ground Music

1 = Busy tone

Program 45-stn-IP : Station Class of Service – 3

45-stn-IP STCOS st = Station No. (2-4 digits) IP = 01-08
 0 0 0 0 0 0 0 0 System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Intercom Call Limitation	0=Disable
02	0-	LMS hear MOH at idle state	0=No
03	0-	Ring increase	0=No
04	0-1	Allow Trunk Access	0=Yes
05	0-1	Intercom Calls To Different Station Groups	0=Yes
06	0-1	Receive Break Alarm	0=Yes
07	0-1	Allow Unrestricted Speed Dial	0=Yes
08	0-1	Record Station's SMDR Data	0=Yes

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. Intercom Call Limitation:

If this setting is enabled, the station can not make an intercom call by dialling a station number. Under this condition, the Key Phone still can press a Flexible Key to make an intercom call or the Key Station or Analogue phones can call a station using the "Single Digit" feature.

0 = Disable

1 = Enable

02. LMS hear MOH at idle state:

0=disable

1=enable

03. Ring Increase

This parameter will enable the Ring Volume of an incoming trunk to increase over time if not answered.

0 = Disable

1 = Enable

04. Allow Trunk Access:

If this function is disabled then the station will be unable to access any trunks for incoming or outgoing calls.

0 = Enable

1 = Disable

05. Intercom Calls to Different Station Groups:

If this function is disabled then stations will not be able to make intercom calls outside their own station group (Mode 41-st-01). This parameter is for use in tenancy arrangements where each company wish's to remain totally separate although some stations can still be allowed this function, for instance a shared Receptionist.

0 = Enable 1 = Disable

06. Receive Break Alarm:

If this parameter is disabled then the station will not receive the Break Alarm signal if one has been programmed in Mode 39.

0 = Enabled 1 = Disable

07. Allow Unrestricted Speed Dial Access:

If this parameter is disabled then the station will not be able to access any of the Speed Dial numbers which have been unrestricted in Mode 05-05-03/04 if they conflict with the stations toll restrictions.

0 = Enabled 1 = Disable

08. Record Station's SMDR Data (future):

If this parameter is disabled then calls to and from this station will not recorded or output to the SMDR for the Mini Call Accounting feature. When the Mini Call Accounting feature is enabled (see Mode 14-01-08) then all stations which are used for administration should have this feature disabled to prevent using memory unnecessarily to record their calls. If calls are allowed to accumulate against stations which are not checked in or out regularly then the system memory buffer will become full and calls will not be recorded.

0 = Record 1 = Do not Record

Program 46-stn-IP : Station Class of Service – 4

46-stn-IP STCOS st = Station No. (2-4 digits) IP = 01-08
 1 1 0 3 0 7 d 0 System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-8	Dial [87] Trunk Group	1= 1
02	0-9	Send Message Wait Signal Level	0= 1
03	0-2	Automatic Answer Capability / Internal CLIP	0= No
04	0-7	DISA/ISDN Indial Recall Capability	3= Recall
05	0-9	Maximum Number Of Transfer Times Allowed	0= No Limit
06	0-7	Door Unlock/DND/CFWD Access	7= Yes
07	0-9	ACP Door Phone Hunt Grp./Permanent C/FW Grp.	0= d
08	0-7	SLT Ring Cadence Settings	0= Normal

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. Dial [87] Trunk Group:

If this setting is from 1 to 8, after the station dials [87] (or dials [9]), the system will automatically search for a free line which is assigned in group 1 to 8 in Program Mode 38.

If the setting is 0, then no dial 87 group is available to this station.

Related System Programming Mode: 36, 38, 41-ST-04, 46-ST-01

02. Message Waiting Level:

The Stations assigned higher levels can leave message for stations with the same or lower levels. Ten levels (0-9) are available (9=highest level, 0=lowest level). Stations which are set to 0 can not send a message wait and can only receive a message wait from Stations which are class 9.

9 = Can do Message Waiting to Stations assigned level 0-9;

0 = Can not do Message Waiting (lowest level).

03. Automatic Answer Capability (Keyphone) / Internal CLIP(Caller ID) function:

For Digital Key Telephone:

This parameter if enabled will automatically switch on the microphone of the station if it receives an intercom call. This setting is independent of whether the system is set to voice or ring signalling for intercom calls.

0 = No 1 = MIC permanently on. 2 = MIC will switch on for Intercom calls

For Single Line Telephone (Connected to G1E-SLU card or MBU SLT Port):

This enables system to send internal and external CLIP(Caller ID) signals to the single line telephone

0 = Disable CLIP

1 = Enable to send SDMF(number without name) CLIP to the single line telephone

04. DISA/ISDN Indial Recall Capability:

If this parameter is enabled then when a DISA or ISDN Indial call rings an extension but the station is busy or does not answer (depending on setting) after the voice message announcing the status of the station is heard then the system will recall the operator after the assigned DISA transfer time. Using settings 1 to 3 the called station will continue to ring until the console answers the call. Using Settings 5 to 8 the call will ring the station for 1 cycle (Mode 05-08-06) and then camp on to the console only and cease to ring the called station. If the parameter is set to 0 then the call will stay at the station until answered or terminated. If the extension is a Fax or Modem on ISDN DID then the setting must be 4 to prevent Fax or Modem calls being sent to an operator if the extension is busy.

- 0 = No Recall to Operator
- 1 = Recall to Operator/No Answer
- 2 = Recall to Operator/Busy
- 3 = Recall to Operator/No Answer or Busy
- 5 = Recall to Operator/no Answer
- 6 = Recall to Operator/Busy
- 7 = Recall to Operator/No Answer or Busy
- 4 = ISDN Indial calls ringing a busy station will receive busy signal.

05. Maximum Re-Transferred Times:

This feature allows the user or the automatic attendant console to re-transfer the same call for the number of times set in this parameter.

- 0 = No Limit
- 1 = Allow 6 times
- 2 = Allow 7 times
- 3 = Allow 8 times
- 8 = Allow 13 times
- 9 = Allow 14 times

06. Door Unlock/DND/CFWD Access:

	0	1	2	3	4	5	6	7
Door Unlock	Disallow	Allow	Disallow	Allow	Disallow	Allow	Disallow	Allow
DND	Disallow	Disallow	Allow	Allow	Disallow	Disallow	Allow	Allow
CFWD	Disallow	Disallow	Disallow	Disallow	Allow	Allow	Allow	Allow

This parameter allows or disallows the station from accessing the Door Unlock, Do Not Disturb and Call Forward features as per the table.

07. ACP Door Phone Hunt Group/Permanent Call Forward Group:

This parameter allocates the hunt Group that the ACP will call if it is programmed as a Door Phone and the Call button is pressed.

- 0 = Group 1
- 1 = Group 2
- = Group 3
- d = Mode 3

If the Extension is not an ACP then this parameter sets the Permanent Call Forward destination Hunt Group for the Station. If the Station user sets a Call Forward manually then it will override this setting but after cancelling the manual Call forward then this setting will be enabled again.

See also Mode 78-st-04 – Call Forward No Answer permanent setting.

08. SLT Ring Cadence Settings:

If the Station is an SLT then this parameter will set the ring Cadence for calls as follows.

- 0 = Normal
- 1 = Always Trunk ring pattern,
- 2 = Always Intercom ring pattern
- 3 = Special Ring
- 4 = Fax Ring

Program 47-stn-IP : Hot Line Assignment

47-stn HOT LINE 000	St = Station No. (2-4 digits) Data. (Extension Mode)
------------------------	---

47-stn HOT LINE SPD:000	St= Station No. (2-4 digits) Data. (SPEED DIAL Mode)
----------------------------	---

General:

This feature allows a user to lift the handset and directly call a specific outside party through System Speed Dial or an Intercom Extension without dialling any digits.

* Pressing **[SPK]** on a Keyphone allows the Hot line to be over-ridden.

Description:

1. Enter a System Speed Dial Number for an outgoing call or a Station Number for an Intercom call.

Example:

47-115 HOT LINE SPD:101	115 = Station No. (3 digits) 7 Speed Dial 101 (for example: 94150100)
----------------------------	---

When the user lifts the handset, the System will automatically call 9425010 through System Speed Dial 101.

2. Press **{MIC}** to select a hot line Intercom. (Press again to go back to SPD assignment), the display shows:

47-115 HOT LINE 00	• Enter an Extension number 118
-----------------------	--

47-115 HOT LINE 118	• The system calls Extension 118 when the handset is lifted.
-------------------------------	---

The Hot Line is the recommended method of connecting a Fax machine to the system. Use a spare analogue port and make the Fax extension a Hot Line to an unused Speed Dial number and allocate the fax line to be used by that Speed Dial. Do not program any number into the Speed Dial. When the fax goes off line it will select the Fax line and then wait for the Fax to dial the number required.

Program 50-stn-IP : Station Class of Service – 5

50-stn-IP STCOS
0 0 0 0 0 0 0 0

st = Station No. (2-4 digits) IP = 01-08
System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	ACP Warning Signals	0=Disable
02	0-1	Call Forward Indication	0=Enabled
03	0-1	ISDN Incoming Call Display type	0=CLI
04	0-1	CTI-Extension Status Report	0=Disable
05	0-1	VMS Leading Digits for Intercom Calls	0=Enable
06	0-1	ACP Door Unlock Relay	0=ACP Relay
07	0-1	ACP Door Open Control	0=Card or P/Word
08	0-1	ACP Phone Operation Type	0=Door Phone

General:

This program permits each station to be assigned to a different Class of Service.

Description:

01. ACP Warning Signals:

This Parameter enables the warning signals for the ACP/RFID unit. The warning signals are Case Open Alarm and Unplug Alarm.

0 = Disable

1 = Enable

02. Call Forward Indication:

This feature will disable the flashing SPK key on a handset that has enabled Call Forward.

0 = Disable

1 = Enable

03. ISDN Incoming Call Display Type:

This parameter selects what will be displayed on the screen of an LCD phone when an incoming call is received, either the CLI number or the ISDN Indial number. This will also select what will be displayed on the SMDR output for incoming calls. This setting also allows the naming of Indials or CLI numbers using System Speed Dial Name / numbers. If this setting is a 1 then when an incoming call with CLI or an Indial number rings the G1E will search the System Speed dials and if this number is entered then the name associated with it will be displayed on the screen. Because ISDN CLI currently omits the 0 on CLI It will be necessary to set Mode 84 – Home Area code to correct the settings before searching. The Indial number is entered as the standard 7/8digit number without area code.

0 = CLI / Name

1 = ISDN Indial Number / Name

04. CTI-Extension Status Report:

Enabling this parameter will output the extensions status report for CTI applications. This parameter will need to be enabled before CTI will work with this station.

0 = Disable 1 = Enable

05. VMS Leading Digits For Intercom Calls:

Enabling (disabling) this parameter allows the system to send (not send) the leading digit information of the extension when making an intercom call to the voice mail. This allows the operator to transfer someone's call directly to the selected Voice mail box.

0 = Enable 1 = Disable

Related System Programming Mode: 05-12-05

06. . ACP Door Unlock Relay:

This parameter can select KSU relay or ACP relay as its Door unlock relay. If the MSC relay is enabled then both the ACP relay and the MSC relay will operate for that doorphone. This will allow a more secure door opening method when multiple ACP'S and Door unlocking are used.

0= Use ACP relay.

1= Use G1e-MSC Relay (mode 06-00 needs to be assign to '2') and ACP relay

Related System Programming Mode: 05-12-04, 06

07. ACP Door Open Control

This parameter sets what action is required to open the door lock from an ACP / RFID phone.

0 = RF Proximity card OR Password 1 = RF Proximity Card AND Password.

08. ACP Phone Operation Type:

This parameter sets whether The ACP phone is used as a Door Phone or as a Wall Mounted Telephone

0 = Door Phone 1 = Wall Mounted Phone

Program (51 to 59)-code-IP : Toll Plans – Allowed Digits – Class 1 to 9

51-code-01 Allow

code = code no 01-16, IP = 01-12
System default

General:

This program sets allowed exception numbers for Toll Class 1. These Modes should be read in conjunction with Modes 61 to 66.

Description:

There are 16 codes for each Toll Class and each code contains up to 12 digits

In default any station allocated to Toll Plans 1 to 6 will be able to dial unrestricted until the associated Modes are programmed.

Allowed entries in this Mode are 0 to 9, d and _. d = Don't care and means that any digit can be dialled in this position. _ = No digit is allowed to be dialled beyond this position. If a digit is allowed as the beginning of a number then the entry should be filled with don't care's to the end of the line or the caller will not be able to dial the full number.

Modes 51 to 56 are used in conjunction with Modes 61 to 66 and Modes 57 to 59 are used independently.

Toll Classes:

Class	Function	Prog. Mode
0	Unrestricted	Default
1	Use Mode 51 for the Unrestricted numbers. Use Mode 61 for the Restricted numbers	Mode 51,61
2	Use Mode 52 for the Unrestricted numbers. Use Mode 62 for the Restricted numbers	Mode 52,62
3	Use Mode 53 for the Unrestricted numbers. Use Mode 63 for the Restricted numbers	Mode 53,63
4	Use Mode 54 for the Unrestricted numbers. Use Mode 64 for the Restricted numbers	Mode 54,64
5	Use Mode 55 for the Unrestricted numbers. Use Mode 65 for the Restricted numbers	Mode 55,65
6	Use Mode 56 for the Unrestricted numbers. Use Mode 66 for the Restricted numbers	Mode 56,66
7	Use Mode 57 for the Unrestricted numbers.	Mode 57
8	Use Mode 58 for the Unrestricted numbers.	Mode 58
9	Use Mode 59 for the Unrestricted numbers.	Mode 59
*	Use Mode 51-56 for unrestricted numbers. Use Mode 61-66 for all restricted numbers	000
D	Cannot access the trunk line.	

Note 1: Default numbers in Mode 61, 62, 63, 65, 66 are: dddddddd

Note 2: Default numbers in Mode 51, 52, 53, 55, 56, 57, 58, 59 are:-----

Note 3: d: Don't care: any digit is allowed in this position.

Note 4: _: The system does not allow any digits dialled after this symbol.

Default : 59-01=000ddddddddd

Program (61 to 66)-code-IP : Toll Plans – Restricted Digits – Class 1 to 6

61-code-01 Restrict dddddddddd	Code = code no 01-16, IP = 01-12 System default
-----------------------------------	--

General:

This program sets Restricted numbers for Toll Class 1. These Modes should be read in conjunction with Modes 51 to 56.

Description:

There are 16 codes for each Toll Class and each code contains up to 12 digits
In default any station allocated to Toll Plans 1 to 6 will be able to dial unrestricted until the associated Modes are programmed.

Allowed entries in this Mode are 0 to 9, d and _. d = Don't care and means that any digit can be dialled in this position. _ = no digit is allowed to be dialled beyond this position. If a digit is allowed as the beginning of a number then the entry should be filled with don't care's to the end of the line or the caller will not be able to dial the full number.

Modes 51 to 56 are used in conjunction with Modes 61 to 66 and Modes 57 to 59 are used independently and do not have an associated restriction table.

In Default stations which are allocated Toll Plans 0 to 6 are able to dial any numbers.
When a station is allocated Toll Plans 7 to 9 they can dial no digits until the plans are programmed.

Mode 51 and 61 combine to produce Toll Plan 1, Mode 52 and 62 combine to produce Toll Plan 2 and so on up to Mode 56 and 66 for Toll Plan 6. Toll Plans 7, 8 and 9 are associated with Mode 57, 58 and 59.

The principle of these Toll Plans up to Plan 6 is to deny unwanted digits in Mode 61 to 66 and then allow any exceptions for these digits in Mode 51 to 56. If 0dddddd is entered in Mode 61 and 04dddddddddd_ and 01ddddddd are entered in Mode 51 then a station allocated to Toll Plan 1 will be able to dial any local number plus 04 anything (Australian Digital and CDMA Mobile phones) . Any other number beginning with 0 will be disallowed.

This example is based on the Australian network for the city of Sydney (area code 02, local calls start with the digits 8 and 9) where an 8 digit local numbering scheme is in place and allows local calls plus mobiles (04x)

Set Mode 41-11-05/06 = 7

When this mode is set and Mode 57 is still at default then station 11 will be totally restricted.

Set Mode 57 to the following,

Mode 57-01 = 8ddddddddd
Mode 57-02 = 9ddddddddd

Station 11 will now be only able to dial numbers beginning with 8 and 9 .
To allow mobiles program Mode 51 to the following.

Mode 57-03 = 04ddddddddd

Example 2: All calls except ISD and 19 numbers.

Set Mode 41-11-05/06 = 1

When this mode is set and Mode 51 and 61 are still at default then station 11 will be unrestricted.

Set Mode 61 to the following,

Mode 61-01 = 00ddddddddd
Mode 61-02 = 19ddddddddd
Mode 61-03 = 14ddddddddd

Station 11 will now be only able to dial numbers beginning with digits 2 to 8 plus service calls.

To allow mobiles (04X) free calls (1800xxxxxx) program Mode 51 to the following.

Mode 52-01 = 1800ddddddd
Mode 52-02 = 04ddddddddd

Program 67-gp-IP : Hunt Group Pilot Number

67-gp HUNT NO
- - - 0

GP = 01-10
System default

Item Pointer	Display Data	Programming Data Description	Default
01	00-10	Hunting Group Pilot Number	---
02	0-9	Hunting Group Ring Method	0 = Common

General:

This program sets Pilot Numbers for Hunting Groups 1 to 10 and their ringing method.

Description:

01. Hunting Group Pilot Number:

There are 10 Hunt Groups available in the G1E. Each Hunt Group is assigned a Pilot Number in this Mode. The pilot number can be any valid unused number and will have the same number of digits as the station-numbering scheme used in the system (2, 3 or 4).

On the G1E Hunt group pilots can be assigned to be rung from Single Digit DISA.

02. Hunting Group Ringing Method:

Assign one of 3 ringing methods for each hunting group.

0 = Common 1 = Linear 2 = Circular 3~9= Follow programming mode 05-06-08

Once Hunting Ring Type is set here or in Mode 05-06-08 then ringing this pilot number will access the stations in the group according to the ringing method selected and the order in which they are programmed in Mode 68 (Day) and Mode 69 (Night). Each Hunt Group can be from 1 to 16 stations.

There are 3 types of Ring available, Common, Linear and Circular.

If **Common Ring** is enabled then calling the pilot number will always ring all available stations in which they are programmed in Mode 68 or 69.

If **Linear Ring** is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.

If **Circular Ring** is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

Stations can remove themselves from receiving Hunt calls by using the DND key but this will also prevent them from receiving direct calls.

It is still possible to call each station in the Hunting group directly by dialling it's own individual station number. If a station in a Hunt Group has set call forward to a station or another Hunt Group (for instance Voice Mail Group) then only direct calls to the station will be forwarded. If Hunt calls come to the station and it is call forwarded it will still ring for the call.

Related System Programming Modes: **05-06-08, 67, 68, 69**

Program 68-gp-IP : Hunt Group Assignment – Day

68-GP-IP HUNT DA
000 000 000 000

GP = 01-10, IP = 01-16
System default

General:

This program sets Stations into Hunting Groups 1 to 10 for the G1E and assigns the order in which they will be accessed during Daytime.

Description:

There are 10 Hunt Groups available and 16 stations can be assigned into each group for Day and Night time.

There are 3 types of Ring available, Common audible ,Linear and Circular.

If Common Audible is enabled then all stations will ring simultaneously.

If Linear Ring is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.

If Circular Ring is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

It is still possible to call each station in the Hunting group directly by dialling its own individual station number.

Related System Programming Mode: 05-06-08, 67, 68, 69

Program 69-gp-IP : Hunt Group Assignment – Night & Lunchtime

69-GP-IP HUNT NI 000 000 000 000

GP = 01-10, IP = 01-16
System default

General:

This program sets Stations into Hunting Groups 1 to 10 for the G1E assigns the order in which they will be accessed during Night time and Lunchtime.

Description:

There are 10 Hunt Groups available and 16 stations can be assigned into each group for Day and Night time.

There are 3 types of Ring available, Common audible ,Linear and Circular.

If Linear Ring is enabled then calling the pilot number will always call the first available station in the order in which they are programmed in Mode 68 or 69.

If Circular Ring is enabled then the stations will be called one after the other for each succeeding call until all have taken a call and then the Ring will revert to the beginning of the Ring assignment and then repeat the process.

It is still possible to call each station in the Hunting group directly by dialling its own individual station number.

Related System Programming Mode: 05-06-08, 67, 68, 69

Program 70-Cd-IP : ISDN Interface Specifications Program – G1E

70-Cd-IP S/T TYP
111111

Cd = 01-04, IP = 01-06
System default

General:

To assign the ISDN interface to “S” interface or “T” interface.

Description:

Cd= 01 is to assign the “S” or “T” interface for the ISDN port on G2-SIU card.

0= “S” interface. It can connect two ISDN devices. Use Program 43-CN to set the Device Station Number (Station Type is 9).

1= “T” interface. It can be connected to “NT” interface of ISDN line.

Cd= 02 is for test purposes only.

0= Loopback disabled

1= Loopback enabled

Cd= 03 is for connection method.

0= Point to Point (recommend ‘0’ for internal ISDN S interface use if only one ISDN device connected) Default setting

1= Point to Multi-point 2= Point to Multi-point and ignore the unknown MSN or DDI number (not assigned in mode 72)

This application is normally for other ISDN devices (e.g. ISDN TA, ISDN video conference, ISDN card, ...) that are hooked to the NT1 with the G1E.

For Australian networks the usual connection is Point To Point. Network features such as Diversion will only work on Point to Point on the Telstra network

Cd= 04 is for the ISDN PLL (Phase Loop Lock)

0= Auto detect

1= Lock this ISDN line for PLL. Signal.

Note:

The following table is the Cross Reference Table for physical position of ISDN interface and programming position.

		Cd			
		Cd=01	Cd=02	Cd=03	Cd=04
IP	IP=01/02/03	1 st /2 nd /3 rd port of 1 st SIU	1 st /2 nd /3 rd port of 1 st SIU	1 st /2 nd /3 rd port of 1 st SIU	1 st /2 nd /3 rd port of 1 st SIU
	IP=04/05/06	1 st /2 nd /3 rd port of 2 nd SIU	1 st /2 nd /3 rd port of 2 nd SIU	1 st /2 nd /3 rd port of 2 nd SIU	1 st /2 nd /3 rd port of 2 nd SIU

Example:

70-01-IP S/T TYP
110111

It sets the 1st, 2nd, 4th, 5th, 6th ISDN interface to “T” interface and 3rd interface to “S” interface.

The user can program the station number in program mode 43, port 61~68.

Program 71-Cd-IP : Calling Line Identification Presentation

71-Cd-IP CLIP Table ddddddddddddd

Cd = 01-06, IP = 01-12
System default

General:

To assign up to 6 specific numbers that an extension can present to the Exchange on an outgoing call.

Description:

This parameter can substitute CLIP information that will be presented to the Exchange when a Station makes an outgoing call. Not all exchanges will accept and pass on this information and if a CLIP is entered in mode 71 that is not a valid number in the assigned range of the customer the exchange will ignore this information also. Mode 71 contains 6 different tables which once programmed can be allocated to Stations in Mode 78-stn-06. Many exchanges are quite specific in the way they will accept CLIP. Some want local number, some want National number with area code and some want National number with area code but without the leading 0.

Program 72-St : ISDN Called Party Extension Number Assignment

72-Stn ST NUM
ddddddddddd 00

St= Extension Number
System default

General:

To assign an ISDN MSN/DDI number to a station or station hunting group.

Description:

- Each incoming ISDN MSN or DDI number can ring a station or a hunting group.
- If ISDN MSN or DDI number is assigned for a station in this mode and this station is used to make an external call, the called party will receive the ISDN CLI number from this station.
- A Maximum of 12 digits can be assigned.

Example: A

72-112 NUM
29611356ddd 00

If the outside party calls ISDN number
29611356, station 112 will be rung.

Example: B

72-60 NUM
29611356ddd 01

If the outside party calls ISDN number
29611356, station hunting group 01 will be
rung.

When assigning a Group to ring for an Indial number, select an unused station number from the ISDN extension ports of 41-48, 51-58 or 61-68 and then assign the Indial number and the Hunt group number.

Program 73-St : ISDN Extension Sub-Address Assignment

73-St ST Sub Add
ddd

St= Extension Number
System default

General:

To assign the ISDN Sub-Address Numbers to the internal extensions.

Description:

- If the ISDN incoming call has the information of the Sub-Address number, system will ring this desired extension directly.
- Each extension can have its own Sub-Address Number. If there are two extensions that have the same Sub-Address Number, only the first extension can be rung.
- Maximum 4 digits can be assigned.

Example:

73-553 ST Sub Add
1234

Assign an identifying Sub-Address Number
1234 to extension 553 for the ISDN incoming
call.

Program 75-Num-IP : LCR - Analysis Table

75-Num-IP Dg Tab	Num = 001-500
----- 00	System Default.

Item Pointer	Display Data	Programming Data Description	Default
01-10	0~9, *	Under routing digits-	#, -, d
11-12	01~20	Routing Table	00

General:

This program assigns the routing table for the specific dialled number.

Description:

500 specific dialled numbers can be assigned.

20 routing tables can be used.

Each specific dialled numbers must be assigned to a routing table (routing tables are in Mode 76).

The dialled digits could be 0~9, *, #. 'd' is the wildcards. '-' means no digit.

When a number is analysed and entered into mode 75 the entry must be complete to the end of the entry. If the digit 1 is entered for example it must be followed by dddddddd to the end of the entry.

Related system Programming: 05-13-07, 05-13-08, 75, 76, 77, 78-st-01, 78-st-02

All numbers that need to be dialled have to be analysed in Mode 75 and allocated to a route in Mode 76 to allow the digits to be dialled correctly. Do not forget to allocate a route to 000 as a priority to make certain that this route is not blocked.

Even if a number is not to be modified or rerouted in any way it should be allocated in Mode 75 to go to a route table in Mode 76 which will allow it to select a trunk and dial out using default settings.

Call flow is as follows.

A call is analysed in mode 75 and sent to mode 76.

In mode 76 if the call is to be handled the same 24 hours a day then it should be assigned in part C which has no start or finish time.

The call is assigned a dial 9 group and then sent to a modify table in mode 77 if required.

If the call is to be assigned to a route that has a limited number of available trunks the call can be programmed to a second route if all available trunks in the first route are in use. The second (and third and fourth) routes can assign a trunk group and a modify table each.

If a call is assigned to a Modify table in mode 77 the modify table can if needed remove a specified number of digits from the leading edge of the number and then insert up to 12 digits in their place or it can leave the number intact and insert the digits in the leading edge.

When the LCR programming is complete the feature should be enabled station by station in mode 78-stn-01/02

Program 76-Num-Tm : LCR – Routing Table

76-Num-Tm Rou Ta Num = 01~60 Tm = Time Schedule A, B, C
 00 00 0 00 0 00 System Default.

Item Pointer	Display Data	Programming Data Description	Default
01,02	00~23	Start Hour of this Route Table	00
03,04	00~23	End Hour of this Route Table	00
05	0~8	1 st priority trunk group for dialling	0
06,07	00~99	Modify table for the 1 st priority trunk group	00
08	0~8	2 nd priority trunk group for dialling	0
09,10	00~99	Modify table for the 2 nd priority trunk group	00
11	0~8	3 rd priority trunk group for dialling	0
12,13	00~99	Modify table for the 3 rd priority trunk group	00
14	0~8	4 th priority trunk group for dialling	0
15,16	00~99	Modify table for the 4 th priority trunk group	00

General:

This program assigns different time schedules, the priority to select different trunk groups and the modifying tables for the routing tables.

Description:

20 routing tables can be used for normal operation plus 20 for the first holiday and another 20 for the second holiday.

3 time schedules can be assigned for each routing table.

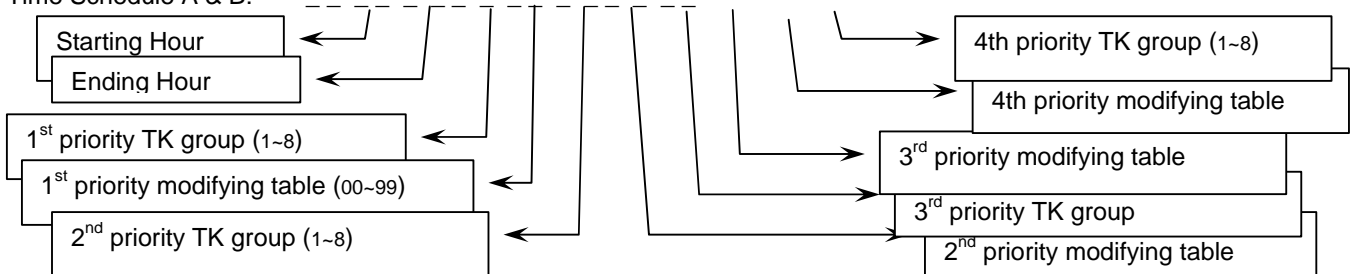
4 priority trunk groups can be assigned for each routing table. (If there is no trunk group assigned here, system will use Dial 9 trunk group instead.)

4 modifying tables can be assigned for each routing table.

For weekly holiday 1, system will refer to 76-(21~40).

For weekly holiday 2, system will refer to 76-(41~60).

Time Schedule A & B:



Time schedule C does not have the Starting/Ending hour setting. Only priority trunk groups and modifying tables need to be assigned. . If only 1 Time Zone is to be used then use Time Schedule C which will automatically cover 24 hours if Schedule A and B are blank.

Related system Programming: 05-13-07, 05-13-08, 36, 41-ST-04, 75, 76, 77, 78-st-01, 78-st-02

Program 77-Num : LCR – Modifying Table

77-Num-IP Mo Tab	Num = 01~99
00 dddddddddd	System Default.

Item Pointer	Display Data	Programming Data Description	Default
01-02	00~10	Deleted Digit Length	00
03-12	0~9, *, #, -, d, T, p	Added Digits	ddddddddd

General:

This program designs the rules for changing the dialled number to the routed number.

Description:

The system will delete the first nn digits (if required) and then add the assigned digits in front of the dialled numbers. Up to 10 digits can be assigned to be inserted.

The added digits can be 0~9, *, #, p, T.

'd' is the wildcard.

'-' is no digit.

'p' is the pause character.

'T' = means to chain to next modifying table with current one for long digit strings.

Related system Programming: 05-13-07, 05-13-08, 75, 76, 77, 78-st-01, 78-st-02

Program 78-stn-IP : Station Class of Service – 6

78-stn-IP STCOS st = Station No. (2-4 digits) IP = 01-08
 0 0 0 0 0 0 0 0 System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-5	LCR - Routing Level	0= Disable LCR
02	0-1	LCR – Direct Access a Trunk	0= Not Allowed
03	0-	Reserved	0=
04	0-9	Call Forward No Answer Transfer Group	0= None
05	0-9	External Notification – Voicemail	0= Disable
06	0-9	Calling Line Identification Presentation	0=Mode 72
07	0-1	Ring Line Preference	0=Disable
08	0-	Reserved	0=

Description:

01. LCR Routing Level

This parameter assigns the LCR routing level for each station.

0 = Disable LCR.

1 = Allow this station to use the 1st priority trunk group only.

2 = Allow this station to use the 1st and the 2nd priority trunk groups only.

3 = Allow this station to use the 1st~3rd priority trunk groups only.

4 = Allow this station to use the 1st~4th priority trunk groups.

5 = Allow this station to use the 1st~4th priority trunk groups. If there are no available trunks in the 1st~4th priority trunk groups, the system will allow this station to use normal dialling.

Related system Programming: 05-13-07, 05-13-08, 75, 76, 77, 78-st-01, 78-st-02

02. LCR – Direct Access a Trunk

This parameter assigns the right of the station to select a trunk directly when LCR is enabled.

0 = Do not allow to access a trunk direct (need to dial 9 (or 0) first).

1 = Allow this station to access a trunk direct (by pressing line key button). System will assign any pre-assigned idle trunk for this extension.

2 = Allow this station to access a trunk direct (by pressing line key button). System will assign any dedicated idle trunk for this extension. Stations which have this facility enabled can only, access trunks, which are in their own trunk group set in 41-STN-04. LCR Routing will still apply for the calls but if the LCR route (mode 76) has the trunk group set to 0 which means use station trunk group.

Related system Programming: 05-13-07, 05-13-08, 75, 76, 77, 78-st-01, 78-st-02

03. Reserved:

04. Call Forward No Answer Transfer Group:

This parameter sets the Permanent Call Forward No Answer destination Hunt Group for the Station. If the Station user sets a Call Forward manually then it will override this setting but after cancelling the manual Call forward then this setting will be enabled again.

See also Mode 46-stn-07 – Call Forward Busy permanent setting.

0 = Disable 1 = Group 1 2 = Group 2 - 9 = Group 9

05. External Notification – Voicemail:

The system will check stations every 30 seconds looking for new mail messages. If yes, the system will select an idle CO line to dial out xx times according to the setting in mode 78-st-05. After the number is dialled, system will announce “you have x new message, please enter your password” four times . If the entered password is correct and all new messages are heard, system will stop dialling. System will only use one CO line to activate the notification function at a time.

Mode 78-st-05 = 0 Disable the notification.

Mode 78-st-05 = 1 Dial the specified number three times to notify the user.

Mode 78-st-05 = 2 Dial the specified number six times to notify the user.

:

Mode 78-st-05 = 9 Dial the specified number until the user answers and enters the correct password

06. Calling Line Identification Presentation:

This parameter selects what CLIP information will be presented to the Exchange when a Station makes an outgoing call. Not all exchanges will accept and pass on this information and if A CLIP is entered in mode 71 that is not a valid number in the assigned range of the customer the exchange will ignore this information also. Special CLIP information can be entered in mode 71 which contains 6 different tables.

MODE-78-ST-06 = 0 caller party number follow MODE-72-st to dial

MODE-78-ST-06 = 9 CLIR

MODE-78-ST-06 = 1-8 refer to MODE-71 (01-08)

07. Ring Line Preference:

This parameter sets whether an extension will answer a trunk ringing at that extension by lifting the handset or will need to press the DSS key of the ringing trunk or use pickup if the trunk is not displayed.

0 = Auto Answer 1 = Manual Answer

08. Reserved:

Program 83-st-IP : Register Memory Block for CLI history buffer

83-st-IP CLI-T
b1 b2

st = Station No. (2-4 digits) IP = 01-02
blocks (2 max.) for a Station

b1/b2: Block 1/2 of CLI buffer for each extension

General:

This program divides sets of **CLI history buffer** into blocks for use by extensions.

Description:

- Program **05-13-03**, the Individual CLI history buffers are assigned:

05-13-03	Memory Block Size	Max. Memory blocks
0	10 sets/Block	52 Blocks
1	20 sets/Block	26 Blocks
2	30 sets/Block	17 Blocks
3	40 sets/Block	13 Blocks

- Each station can use up to 2 blocks.
- The next assigned block must be null or continuous after the first assigned block number for each extension. That means if the first assigned block number is "n" then the next assigned block must be "0 = null" or "n+1".

Example:

Mode 05-13-03=0

83-113-IP CLI-T
01 02

13: Station No. (2-4 digits)
01 02: Station 113 can use block **01** and **02** for CLI history buffer and it could store 20 sets (=10 + 10).

Mode 05-13-03=1

83-115-IP CLI-T
04 00

15: Station No. (2-4 digits)
04 00: Station 115 can use block **04** (20 sets) for CLI history buffer. **00:** for no block.

Mode 05-13-03=3

83-118-IP CLI-T
03 00

18: Station No. (2-4 digits)
03 00: Station 118 can use block **03** for CLI history buffer and it could store 40 sets, **00:** for no block.

Related System Programming Mode: 05-13-03, 83

Program 84-IP : Home Area Code

84-01-01 NNN

NNN = Assigned home area code (3 digits maximum)

General:

This program assigns the home area code for the CID redial feature.

Description:

- 3-digit input maximum for this entry.
- The home area code can include the toll access code prefix.

Example:

For example, G1E is located in Taipei.

Toll access code in Taiwan is '0'

Taipei area code is '2'

Set mode 84 to '02d'.

- When ISDN rings in to G1E system, the received number is 2-80710002. If you have set mode 84 as above, system will delete '2' and dial 80710002 for smart redial.
- When analogue PSTN line rings in to G1E system, the received number is 02-29645752. If you have set mode 84 as above, system will delete "02" and dial 9645752 for smart redial.
- When ISDN rings in to G1E system, the received number is 3-80710001. If you have set mode 84 as above, system will add "0" and dial 03-80710001 for smart redial.
- When analogue PSTN line rings in to G1E system, the received number is 03-22489202. If you have set mode 84 as above, system will dial 03-22489202 for smart redial.
- If you set 'ddd' in mode 84, system will dial back the original received number direct.

Program 85-nn-IP : Overlay Area Code

85-nn-01 NNN

Nn = 01~05

NNN = Assigned overlay area code (3 digits)

General:

Some larger cities in the United States have exhausted an entire area code. Instead of separating portions and assigning unique area codes to different geographic regions, the Telco has instead introduced an overlay area code. This program assigns 5 sets of overlay area code for CID redial feature.

Description:

- The overlay area code is 3-digit format.
- 5 sets of overlay area code can be assigned for the CID redial feature.

Program 86-nnn-IP : Office Code Redial Pattern

86-nnn
N

nnn = office code
N = Redial Pattern

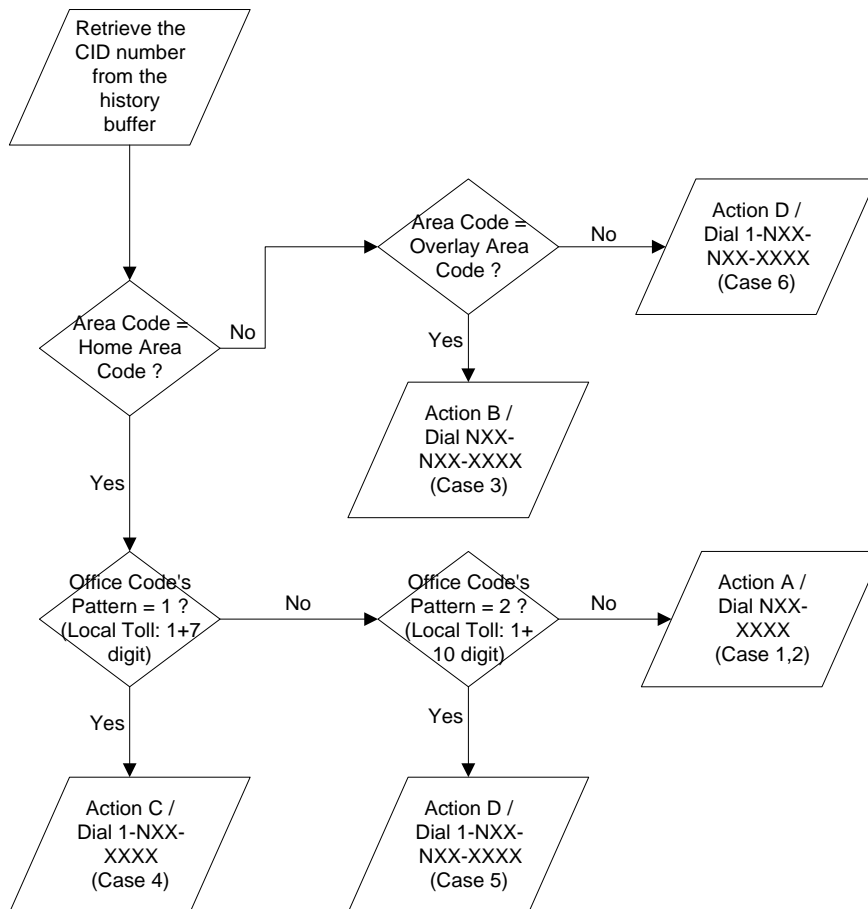
General:

This program assigns the redial pattern for different office codes.

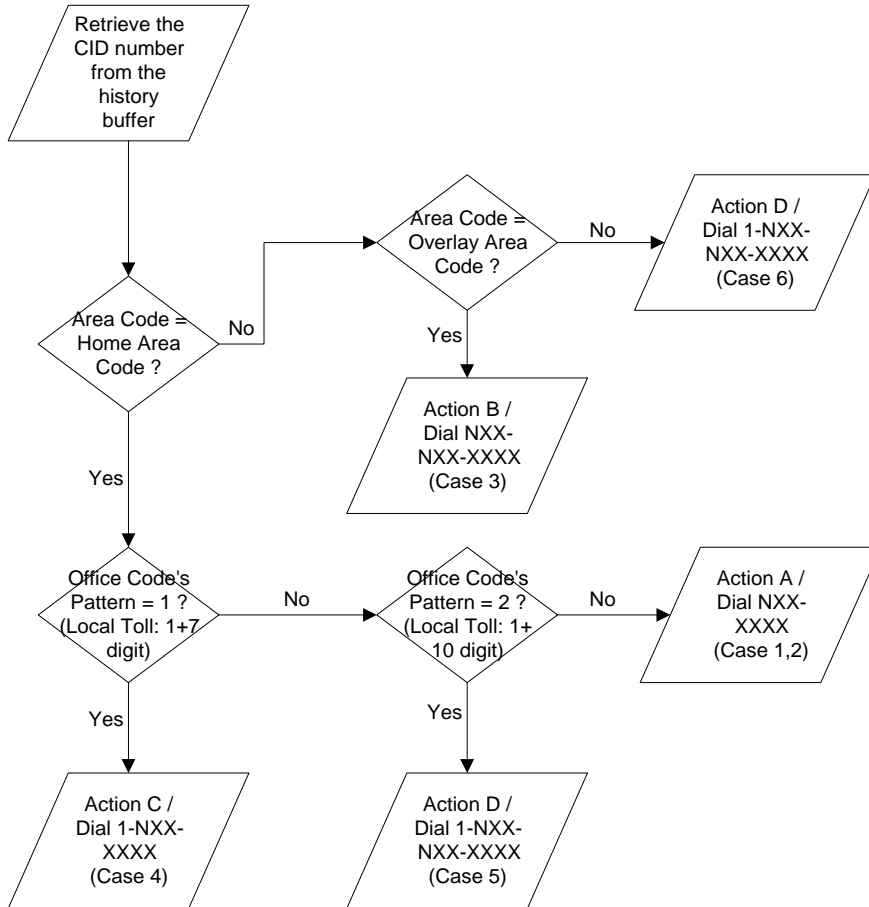
Description:

- 0 = Redial pattern is NXX-XXXX (Local call: 7 Digit)
- 1 = Redial pattern is 1-NXX-XXXX (Local Toll: 1 + 7 Digit)
- 2 = Redial pattern is 1-NXX-NXX-XXXX (Local Toll: 1 + 10 Digit)

CID Redial Feature for USA Market



CID Redial Feature for USA Market



Program 87-CN-IP : ASSIGN DOORPHONE FOR KEY CARD

87-nn-01 Card In
0000000000000000

nn = card Number 01-99
IP = 01-24 = ACP port number

General:

This program assigns which Key cards can be used on which ACP port to unlock a door.

Description:

Before a key card can be used to operate a door relay it must be enabled in this program mode. A key card can be enabled to unlock more than one door if multiple ACP's are fitted.

0 = Denied entry

1 = Allowed entry

G1E	MBU	STU 1	STU 2
Extension port	11-18	21-28	31-38
ACP port	1-8	9-16	17-24

Program 88-DP : REGISTER KEY CARD

Register Card
ST:___

Station number of ACP

General:

This program registers key cards for use.

Description:

Before a key card can be used with an ACP it must first be registered to it. Once the key card is registered then it will be necessary to proceed to mode 87 to allow the key card to open the door relay associated with the ACP.

To register a key card enter the station number of the ACP

Register Card
ST:115

Press **SAVE**

Wait Registering
Slide please

Place the Key Card over the Speaker position on the ACP and when the ACP beeps remove the Key card and press **SAVE**.

Register Store
Card:01

Press **SAVE**

Registration ok!
Card:01

Program 89-CN-IP : DELETE KEY CARD

89-nn-01 Serial
FFFFFFFF

nn = card number

General:

This program assigns allows the De-registration of the key cards from a system.

Description:

Enter the number (01-99) of the key card to de-register

De-Register Card
Card:01

Press **SAVE**

89-01-01 Serial
FFFFFFFF

Press **REDIAL** to clear the digits

89-01-01 Serial
00000000

Press **SAVE** and the LCD display will move on to the next Key card number.

89-02-01 Serial
00000000

FFFFFFFF: Means Card was registered.

00000000: Means Card was deregistered.

Program 91-TM : ACP TIME LOCK – Assign Time

91-TM Table
00 00 00 00

TM = Time Schedule (00~15)

General:

This program assigns different time schedules for the ACP time lock. Cards assigned in such programmed period can be used to open the ACP door.

Description:

The first 4 digits are starting time and the last 4 digits are stopping time. There are a total of 16 schedules which can be assigned.

91-00 Table
08 30 17 30

Press **SAVE**, means time schedule 00 is from 08:30 to 17:30.

91-01 Table
21 00 22 00

Press **SAVE**, means time schedule 01 is from 21:00 to 22:00.

Program 92-CN : ACP TIME LOCK – Assign Card

92-CN-01 Card In
TM

CN = Card Number (01~99)

General:

This program assigns different ACP time lock schedule for ACP. Cards assigned in such programmed period can be used to open the ACP door.

TM= 00~15 (Mode 91)

Description:

92-06-01 Card In
02

Press **SAVE**, means card 06 use ACP time lock schedule 02 (mode 91-02).

Program 93 : MINI CALL ACCOUNTING AOC ADDITIONAL NUMBER CHARGING

93-01 Table 01

01 = Table (01~20)

----- 00 00

General:

This program assigns additional charging for numbers dialled under Mini Call Accounting that is not provided By the Central Office.

Description:

Telstra's ISDN service has a feature known as Advice Of Charge which provides charging information to ISDN lines as data which can be displayed and used by the Telephone system for Mini Call Accounting or SMDR Output. Not all calls are provided with charging information in particular mobiles and this mode allows an estimated mobile charge to be added to the Mini Call Accounting charging for numbers that are specified here. Up to 20 numbers of 5 digits each can be programmed. If the whole 5 digits are not specified the Don't Care symbol must be entered to the end of the line as usual.

Mode 93 = 123456 AA BB

Hotel+4 = CC DD

The formula of Call Charge is:

If BB is not set to 0

Call Charge = Round(TT/BB) x AA x CC x DD

If BB is set to 0

Call Charge = AA x CC x DD

Where:

AA= Cost per Unit

BB= Seconds per Unit

CC= Server Rate

DD= Decimal point is 2 digits (0=0.01) or 5 digits (5=0.00001)

TT = Talking Time (by second)

Example C: (Australia local Call with fixed charge rate)

- The setting for Hotel 4 and Mode 93 are as follows:

✧ Mode 93 = 8ddddd 22 **00** (AA = 22, **BB = 00**)

✧ [HOTEL][4] = 04 00 (CC = 04, DD = 00)

- One call is 1'18"

The Call Charge will be:

Call Charge = AA x CC x DD = 22 x 04 x 0.01 = 0.88

Example C: (Australia Internet Call)

- The setting for Hotel 4 and Mode 93 are as follows:

✧ Mode 93 = 0918dd 25 60 (AA = 25, BB = 60)

✧ [HOTEL][4] = 04 00 (CC = 04, DD = 00)

- One call is 3'50" (TT= 230 seconds)

The Call Charge will be:

Call Charge = Round(TT/BB) x AA x CC x DD = Round(230/60) x 25 x 4 x 0.01 = 4.00

Example E: (Australia Mobile Call)

- The setting for Hotel 4 and Mode 93 are as follows:

✧ Mode 93 = 412ddd 01 06 (AA = 01, BB = 06)

◇ [HOTEL][4] = 04 00 (CC = 04, DD = 00)

- One call is 3'50" (TT= 230 seconds)

The Call Charge will be:

$$\text{Call Charge} = \text{Round}(\text{TT}/\text{BB}) \times \text{AA} \times \text{CC} \times \text{DD} = \text{Round}(230/06) \times 01 \times 4 \times 0.01 = 1.56$$

The Mini-Call-Accounting output will be:

TK	DATE	TIME	DURATIO N	TELEPHONE NUMBER	UNITS	COSTS
01	07.09	05:36	00:00'07"	812345678	000022	000000.88
01	07.09	05:37	00:01'18"	823456789	000022	000000.88
01	07.09	05:40	00:03'50"	0918123456	000100	000004.00
01	07.09	05:27	00:01'12"	0918654321	000050	000002.00
01	07.09	05:31	00:03'50"	412345678	000039	000001.56
TOTAL:					000233	000009.32

Note:

1. The maximum units for each record is 65535.
2. The maximum total units is 999999.
3. Related System Programming Modes: 14-01-08=4 07-GP-Item=FN:59

Program 94-tk-IP : Lunchtime Ringing And Ringing Line Preference Assignment

95-tk-IP FLX DAY
11 12 13 14 15

Tk = 01-12, IP = Item Pointer (01-26)
Assigned station number.

General:

This program assigns each incoming line to ring the programmed stations during Lunch Time. The ringing methods can be LINEAR (ring the first available station), CIRCULAR (Ring the next station following the last station who just answered an incoming call), HUNT (Ring the first assigned station for a set period of time (program mode 05-08-01) then if no answer ring the next ring assigned station then the next etc.) or COMMON AUDIBLE (All stations will ring simultaneously). See Program Mode: 35-tk-08 to assign. The G1E Lunchtime ring type will follow the night ring type. An overflow Ring Hunt Group can be assigned to make additional stations ring after a time interval in addition to this ring assignment. See program Mode 29-07/08. The ringing stations will be the night members programmed in mode 69.

Description:

1. This program sets Lunch Time ringing.
2. The station number can be 2,3,4 digits.
3. A total of 26 stations can be assigned to ring for each trunk.
4. If the location is to be assigned to no station, the location value is set to " 0 ".
5. To clear all entries press **[REDIAL]**.
6. Day and Night ring assignment are set in Mode 01 and 02.

Program 95-tk-IP : Trunk Specifications – 3

95-tk-IP TK SPEC tk = 01-12, IP = 01-08
 0 0 0 0 0 0 0 0 System Default

Item Pointer	Display Data	Programming Data Description	Default
01	0-1	Detect Fax Signal	0=Disable
02	0-1	Reserved	0=
03	0-8	Reserved	0=
04	0-8	DISA and ECF – Lunch Time Delay	0=No
05	0-3	Reserved	3=
06	0-9	Reserved	0=
07	0-5	Reserved	0=
08	0-5	Reserved	0=

General:

This program permits each trunk line to be assigned different parameters.

Description:

01. Detect Fax signal

This parameter enables a line to detect the Fax CNG tone and if present the line will be transferred to the SLT port that is allocated as a fax port in Mode 43-cn-02.

Once the SLT port is set as a Fax port (43-CN-02 = T) press [MSG] for T then enable DISA for that line and Fax detection will be enabled.

0 = Disable 1 = enable

02. Reserved:

03. Reserved:

04. DISA and ECF Lunch Time setting:

During Lunch time setting the system will follow the settings for DISA or ECF night set in Mode 35-tk-03/04 if the following settings are set to either DISA or ECF. If set at default (0) then no DISA or ECF will take place even if ECF or DISA is set for night time.

0 = Disable 1 = DISA 2 = ECF

05. Reserved:

06. Reserved:

07. Reserved:

08. Reserved:

Programming Cross Reference

Incoming Calls

RINGING ASSIGNMENT

01-tk-stn	Day Ringing And Ringing Line Preference Assignment
02-tk-stn	Night Ringing And Ringing Line Preference Assignment
05-01-05	Busy Reminder Tone Interval (Off-Hook Ringing / Busy - Camp-On)
05-02-07	Ring On Timer (Minimum ring to be detected)
05-02-08	Ring Off Timer (Time to hold signal during silent period)
05-08-01	CO Hunt Interval
20-nn	Day/Night Service Schedule
29-tk-07	CO Delayed Ring Timer to Hunt Group
29-tk-08	CO Delayed Ring Overflow Hunt Group
35-tk-07	Day Ring Type
35-tk-08	Night Ring Type
94-tk-Stn	Lunch ring assignment

Outgoing Calls

DIAL '9'

05-04-02	Dial '9' Enable/Disable
05-06-05	Operator Code 9/0
36-grp-tk	Dial '9/0' Group Assignment
38-grp-tk	Dial 87 Group assignment
41-stn-04	Stations Dial '9/0' Group Assignment
46-stn-01	Stations Dial '87' Group Assignment

PABX OUTGOING CODE

05-03-04	Code for outside line in PABX (If trunk/trunks are served by PABX)
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TRUNK SPECIFICATIONS

05-01-06	Pause Time Duration (For Speed Dial Pauses)
05-01-07	DTMF Generation Time
05-02-05	Flash Time to CO (For Special CO Features or Centrex)
05-02-07	Ring On Time (Minimum ring signal detected)
05-02-08	Ring Off Time (Time to hold signal during silent period)
05-03-01	Make/Break Ratio
29-tk-01	Trunk Receive Gain
29-tk-03	Trunk Send Gain
29-tk-04	Trunk Ring Frequency
35-trk-01	Trunk Type (PABX/CO)
35-trk-02	Trunk Signalling Type (dial pulse/DTMF)

SPEED DIAL

05-01-06	Pause Duration for Speed Dial pauses
05-03-02	Automatic Trunk Search During Speed Dial, Auto Redial, Saved Redial, etc.
05-04-06	Speed Dial Distribution
05-05-03/04	Speed Dial Unrestricted / system
09-spd-xx	System Speed Dial Locations
42-stn-01/02	Register Memory Block for Personal Speed Dial

45-st-07 Speed Dial Unrestricted / Station

AUTO-REDIAL

05-02-03 Auto-Redial Off Hook (wait for answer) Timer
05-03-02 Automatic Trunk Search
05-05-07 Auto-Redial Attempts (Quantity)
05-05-08 Auto-Redial Time (Inter-Call) between attempts

Intercom Calls

INTERCOM CALL SIGNALLING

05-03-03 Intercom call signalling to electronic telephone sets
46-st-03 Automatic MIC switching

STEP CALL

05-07-01 Intercom Step Call Type
41-stn-01 Station Group Assignment

DIAL TONE PATTERN

05-03-07 SLT Dial Tone Pattern Options
05-04-07 Intercom Single Digit Dialling

SINGLE DIGIT INTERCOM

10-grp-xx Single Digit Dialling Assignment
41-stn-01 Station Group Assignment

DIRECT STATION SELECT

07-grp-key Flexible Key Group Assignment
41-stn-02 Keyphone Flexible Key Group Assignment

DIAL 0 (CALL OPERATOR)

05-06-05 Operator/CO access codes
44-stn-04 Manual Line

INTERCOM DIALLING RESTRICTION

45-stn-01 Intercom Dialling Restriction

Busy/During Conversation

HOLD AND HOLD RECALL

05-01-01 Hold Recall Timer (Time until station is warned of hold call)
05-01-02 Exclusive Hold Recall Timer (Same operation as hold recall)
05-01-03 Hold Recall Time out (Time before call is rerouted to Operator - After Hold Recall Timer has expired.)
05-07-04 DISA Recall Capability
05-12-03 Station ability to place call on Exclusive Hold
44-stn-02 Station ability to hold a call

BUSY REMIND / CAMP-ON

05-01-05 Busy Reminder Interval (Time between notifications)
05-08-03 SLT Camp On tone

CALL SPLIT

44-stn-03 Call Split

TRANSFER

05-06-01 Transfer Recall Timer Blind transfer (Camp-On / Busy)
 05-06-02 Transfer Recall Timer blind transfer (No Answer)
 05-08-06 DISA No Answer Recall (To Message) Timer
 05-08-07 DISA Transfer Time (No Digits Dialed)

MESSAGE WAITING LEVEL

46-stn-02 Message Waiting Level

OVERRIDE

40-stn-01 Override Level

DISA

05-01-04 Delayed DISA Access Time - Day
 05-07-04 DISA Recall Capability
 05-08-04 DISA Operator Recall Location (No Answer)
 05-08-06 DISA No Answer Recall Timer
 05-08-07 DISA Transfer Timer - No digits dialed
 05-11-04 DISA Access Delay Time - Night
 05-11-06 DISA Transfer Count - Console busy
 05-11-02 DISA Password - Optional extra passwords
 05-11-05 DISA Special Digit Acceptance
 05-17-04 DISA Access Delay Time - Lunchtime
 35-tk-04 DISA / External Call Forward Status
 46-stn-04 DISA Recall Capability (No Answer/Busy)
 95-tk-04 DISA / ECF Lunchtime

DISA SINGLE DIGIT DIALLING

05-04-07 Intercom Single Digit Dialling Enable
 05-11-08 DISA Single Digit Dialling
 10-grp-stn Single Digit Dialling Assignment
 20-nn Day/Night Service Schedule

Night Service

02 Night Ringing And Ringing Line Preference Assignment
 09-spd-nn System Speed Dial 101~109 for ECF
 20-nn Day/Night Service Schedule
 35-tk-03 External Call Forward Location (Speed Dial Assignment)
 35-tk-04 DISA/ECF, Day/Night Status

Group Assignments**CONSOLE ASSIGNMENT**

04-grp-stn Assign Stations to be consoles by group

FLEXIBLE KEY GROUP ASSIGNMENTS

07-grp-key Key Group Layout Assignment
 41-stn-02 Assign stations to Key Groups
 41-stn-03 Assign Shift key group to stations

DIAL '9/0' TRUNK GROUPS

36-grp-trk Assign trunks to groups for Dial '9/0'
 41-stn-04 Assign stations a Dial '9' group

DIAL '87' TRUNK GROUPS

38-grp-trk Assign trunks to groups for Dial '87'
46-stn-01 Assign stations a Dial '87' group

GROUP ASSIGNMENT FOR STATIONS (PAGE ZONE, PICK UP, SINGLE DIGIT)

41-stn-01 Assign stations to station groups

Call Control

TOLL RESTRICTION

05-05-03 Set a portion of system speed dial for no restriction (Hundreds)
05-05-04 Set a portion of system speed dial for no restriction (Tens)
05-03-05 Toll Access Code (Usually a '0') for SMDR only
18-pln-trk Assigning Toll Class by Toll Plan/Trunk used
41-stn-05 Station Day Toll Plan Assignment
41-stn-06 Station Night Toll Plan Assignment
51~59 Allowed (Exception) Tables for Toll classes 1~9
59 Common Permitted Code
61~66 Restrict (Deny) Tables for Toll classes 1~6

FORCED ACCOUNT CODES

17-nn Creating Account Codes
40-stn-08 Assigning Account Codes to Stations

CALL LIMIT

05-04-03 Call Limit Type
40-stn-03 Call Limit Duration (Class of Service - per station)

PASSWORDS

13-01 System Programming Password (default=none)
13-02 DISA Password (for using a trunk on DISA call)
13-03 Toll Override Password
13-04 Password for Monitoring over DISA (default=none)
13-07 VMU Password
13-09 LCR Password

STATION LOCK/UNLOCK

40-stn-07 Station Lock/Unlock Status

BUSY OUT A TRUNK

37-tk-x Taking a trunk out of service

INTERCOM DIALLING RESTRICTIONS

45-stn-01 Restrict station to station intercom dialling

System Clock

DATE AND TIME SETUP

05-04-04 12/24 hour time format
11- Set system time
20-nn Day/Night schedule Definition

SYSTEM ALARM

12-nn System Alarm Clock
44-stn-01 Stations to include (notify) in system alarms

WAKE UP CALLS

05-05-01 Wake up signalling type

Station Numbering05-03-06 Digit length selection (2, 3, or 4 digits)
43-port-01 Station number (extension) Assignment**Single Line Telephone**05-02-01 Dial Tone Timeout
05-02-02 Interdigit Timeout
05-02-04 Hook switch Disconnect Timer
05-02-06 Minimum Flash Timer (used to recognize a hook switch flash for hold)
05-04-08 Message Waiting Status Setup
05-06-07 Single Line Telephone Hold Procedure
05-07-02 Toll fraud Protection (Calling Proof)
05-08-03 SLT Busy Remind Tone Timer
05-08-05 SLT Feature Programming Access Code
45-stn-02 Setting Single line type (VM port, Dual Port)**Miscellaneous****MONITOR**

40-stn-02 Station Monitor Level

PAGING40-stn-05 Station Paging Access
40-stn-06 Receive Page Over Speaker
41-stn-01 Station Page Group**CALL FORWARD NO ANSWER TRANSFER TIME**

05-01-08 Call Forward-No Answer Timer

HOT LINE09-spd-nn System Speed dial number for Hot Line use
47-stn-xx Hot Line destination for a station**Optional Services****DOOR PHONE & DOOR SWITCH**03-01-ext Stations to ring upon Door Phone Activation
05-12-04 Door Relay Activation Timer
06-01-fn Relay Assignment (for Door Phone latch release)**Voice Mail Integration**01 Day Ringing Assignment
02 Night Ringing Assignment
05-02-04 Single Line Telephone Release (Disconnect) Timer
05-02-06 Single Line Telephone Minimum Flash Timer
05-06-07 Single Line Telephone Hold Procedure
05-10 Voice Mail Leading Digits
05-12-05 Voice Mail Integration Type

Programming Operations

ACD-1 operation

ACD-1 operation is best described as Operator Overflow handling for incoming calls. It operates on any inwards ringing trunk except for Direct Inial calls ringing their assigned station. It does not allow the caller to dial a destination it is purely a Call Queuing system. If the customer requires callers to be able to dial a destination then the system should be set for Auto Attendant (DISA) operation rather than ACD-1.

ACD-1 is standard on the G1E and operates on the built in voice messages The DSP has 4 channels available to handle incoming calls simultaneously but as it releases the call after playing the message a 4 channel VSC can handle many more trunks in ACD-1 operation.

ACD-1 when enabled answers incoming calls after a programmable time interval, plays a message to the caller and place the call on hold in a queue for the ring assigned stations. A second message can be programmed to play after a programmed time interval to apologise for the continuing delay. This message will repeat at the time interval specified until the caller is answered. A third message can be programmed to operate at a minimum 5 minute time to announce that there is no one available to take the call and disconnect the caller.

A trunk which is answered by ACD-1 will always indicate that it is ringing on the trunk DSS key and by an audible ring signal even after being answered by ACD-1. If the ring assigned stations become free or are free and pick up the phone while the call is being queued then they will automatically answer the call following the normal Ring Line Preference rules. If however the caller is being played a Voice message then they will not be automatically answered until the message is complete and they are returned to the ringing queue. As the DSS button is still indicating incoming ring the operator can manually press the DSS button of the trunk and pull the call back from the Voice message and answer this way.

ACD-1 can be configured to answer in 2 ways, firstly when ALL the ring assigned stations are busy (or DND) after the programmed time interval or to always answer at the programmed time irrespective of the status of these stations.

When the second option is used it is recommended that the ACD-1 be enabled only for day time operation and that the system be set to Automatic day / night switching to prevent callers being answered after hours and queued even though the premises are unattended.

Clear down of unanswered calls.

Once a call has been answered by the system then there is an issue of what happens if the caller hangs up before being answered. In default this call will continue to ring until answered by an operator or being cut off by the Timer in mode 05-09-08. This will become annoying to operators if they are continually answering calls and hearing busy tone. The VMU card has Busy Tone Detection capability and in most cases enabling this will clear down calls once busy tone is heard.

It is also possible to enable either Polarity reversal for incoming calls or Clear Forward depending on the country. These are features that are provide by the Central Office and will need to be enabled by them. In some cases there will be charges involved.

Related programming modes

05-06-04	Polarity Reversal for Incoming calls (Australia)
05-09-03	Clear Forward Signal detection (NZ, USA and other markets)
05-09-04	DISA Busy Tone Detect
05-09-06	ACD-1 Answer Delay time
05-09-07	ACD-1 Message 2 Delay time
05-09-08	ACD-1 Disconnect Message Delay Time
29-tk-02	ACD enable

Recording the ACD-1 Messages

A Console must be used to record messages. In default the Console station 111.

From the console dial 8901 and enter the password when prompted, if AVMC is fitted then dial 8902 to record ACD-1 messages on the VMC.

Press 2 to record greeting message

Press 2 to record ACD greeting messages

Press 1 to record ACD greeting message

Record the greeting and press # to complete recording

Press 2 to record ACD Delay message

Record the greeting and press # to complete recording

Press 3 to record ACD Cut off message

Record the greeting and press # to complete recording

This is a simplified version of operation. Follow the voice prompts on the VMU for complete operation.

Programming ACD-1

This assumes that you have followed the previous instructions to program and record ACD-1 messages.

Set the timers in Mode 05-09-(06-07-08) to select answer time, second message time and disconnect time.

Decide whether Busy Tone Detect, Polarity reversal or Clear Forward is needed and set the appropriate mode to suit your network

ACD-1 is enabled on a trunk by trunk basis in Mode 29-tk-02. The options are as follows,

0 = Day Time - Disable ACD function, Night Time - Disable ACD function

1 = Day Time - Disable ACD function, Night Time - Enable ACD function^{*1}

2 = Day Time - Disable ACD function, Night Time - Enable ACD function^{*2}

3 = Day Time - Enable ACD function^{*1}, Night Time - Disable ACD function

4 = Day Time - Enable ACD function^{*1}, Night Time - Enable ACD function^{*1}

5 = Day Time - Enable ACD function^{*1}, Night Time - Enable ACD function^{*2}

6 = Day Time - Enable ACD function^{*2}, Night Time - Disable ACD function

7 = Day Time - Enable ACD function^{*2}, Night Time - Enable ACD function^{*1}

8 = Day Time - Enable ACD function^{*2}, Night Time - Enable ACD function^{*2}

*1: Enable ACD-1 function only when all ring assigned stations are busy.

*2: Enable ACD-1 function when 05-09-06 timer has elapsed even if ring assigned stations are idle.

The recommended setting for most applications is to set each trunk to = 6.

This means that the trunk will be answered at the time selected in Mode 05-09-06 whether the ring assigned stations are busy or not and the first message will be played.

DISA and Auto Attendant operation

DISA operation includes the Auto Attendant for handling Caller selected routing for incoming calls and the option to dial through the system utilizing system trunks to dial to another destination.. It operates on any inwards ringing trunk except for Direct Indial calls ringing their assigned station. If the customer requires callers to be able to dial a destination then the system should be set for Auto Attendant (DISA) operation. Incoming callers can be given the option of dialing a full extension number, a single digit to a multiple number of destinations or selecting an outside trunk, entering a password and dialing back into the network to another destination.

DISA when enabled answers incoming calls after a programmable time interval, plays a message to the caller giving them the dialing options, waiting a period of time to allow dialing to take place and then if nothing is dialed or an invalid number is dialed it will play the invalid number dialled message and then normally transfer the call to the operator(s). It is also possible to program the system to disconnect these calls.

Several pre-recorded messages are programmed for DISA operation to play after a programmed time interval to indicate the progress of the call including Console Busy, extension busy, extension no answer even a call cut off message if absolutely necessary. Messages will repeat at the time intervals specified until the caller is answered if full supervision is available when the caller hangs up..

A trunk which is answered by DISA will indicate solid red on the trunk DSS key after being answered by DISA. Until answered it will ring on ring assigned stations and can be answered by these stations until the DISA cuts in. If however the caller is being played a Voice message then they will not be automatically answered until the message is complete and they are returned to the ringing state.

Clear down of unanswered calls.

Once a call has been answered by the system then there is an issue of what happens if the caller hangs up before being answered. In default this call will continue to ring until answered by an operator or being cut off by the Timers in mode 05-08-06 and the number of retries allowed in Mode 05-11-06. This will become annoying to operators if they are continually answering calls and hearing busy tone. On the G2 there are 3 options to clear down calls. The first and most desirable option is to use DISA busy tone detect which will set the VMU to listen for busy tone received when the incoming caller hangs up and clear down the call. Also available are the Polarity reversal for incoming calls or Clear Forward depending on the country. These are features that are provide by the Central Office and will need to be enabled by them. In some cases there will be charges involved.

Related programming modes

05-01-04	DISA answer delay time – Day
05-11-04	DISA answer delay time – Night
05-06-05	Polarity Reversal for Incoming calls (Australia)
05-06-06	Unsupervised conference and ECF setting.
05-07-04	DISA transfer to console – no dialling.
05-08-06	DISA Transfer time – Busy/No Answer
05-08-07	DISA Transfer time no dialling
05-09-03	Clear Forward Signal detection (NZ, USA and other markets)
05-09-04	DISA busy tone detect
05-11-04	DISA Special function access
05-11-06	DISA retry times
05-11-08	DISA Single digit dialling enable
05-15-01	Extended VMU service
05-16-03	DISA Single Digit Dialling level
05-16-04	VMU Language service
05-17-04	DISA Access delay time – lunch
10-gp	DISA Single digit destination
13-02	DISA password setting
35-tk-04	DISA enable
46-st-04	DISA action for unsuccessful call for each station

Recording the DISA Messages

A Console must be used to record messages. In default the Console station is 111. From the console dial 8901 and follow the voice prompts to record Company Greeting messages. Full instructions for recording greetings are given by the Voice prompts. If the VMC crad is fitted then dial 8902 to record DISA messages. The VMU also contains default greeting messages for each mode but that message says only "x greeting message not recorded"

All prompts except the initial greeting message are already recorded on the MBU. The user should only need to program Day, Night, Lunch Time, Holiday and extended greetings as required.

Programming Standard DISA

This assumes that you have followed the previous instructions to record DISA messages.

Set the timers in Mode 05-01-04 and 05-11-04, 05-17-04 to select answer time for Day, Night and Lunch

Set in mode 05-07-04 whether unsuccessful or no dial calls will revert to the operator or be disconnected.

Set in Mode 05-08-06 the time interval between retries when the call is attempting to connect to a station. It is important that the DISA timer is set to longer than the Call forward no Answer timer or DISA calls may not go to the VM when required.

Set in Mode 05-08-07 the time interval that is left for the customer to complete dialing after hearing the greeting message.

If Polarity reversal or Clear Forward are used then set the appropriate mode to suit your network. It is preferable to use DISA busy tone detect to clear down calls as no input is required from the Exchange and no additional charges can be incurred.

If callers are to access an outside line after DISA answer then this must be enabled in Mode 05-11-05. Calls through the system using this feature will be controlled by mode 05-06-06 which is a timer to make certain that calls do clear down when 2 trunks are tied together. When a timer is set the parties to the call will receive a tone just prior to the time elapsing and can send a DTMF digit to the system to extend the call for another time period before again alerting the parties to the next timeout period.

Set Mode 05-11-06 to the number of retries that an unanswered call or a call to a busy station will make before cutting the call. If supervision is available to clear down when the caller hangs up or DISA Busy tone detect is used then this should be set to 9 which means that it will retry until the caller hangs up.

Mode 05-15-01 sets the date stamp setup whether it is US order or English order.

Mode 05-16-03/04 Enables / Disables dual language service and selects which digit to dial to access the second language service after DISA answer.

If Callers are allowed to access an outside line then a password must be set in Mode 13-02

DISA is enabled on a trunk by trunk basis in Mode 35-tk-04. The options are as follows,

0 = Day - Disable	Night - Disable
1 = Day - Disable	Night - DISA Enable
2 = Day - DISA Enable	Night - Disable
3 = Day - DISA Enable	Night - DISA Enable
4 = Day - Disable	Night - ECF Enable
5 = Day - ECF Enable	Night - Disable
6 = Day - ECF Enable	Night - ECF Enable
7 = Day - DISA Enable	Night - ECF Enable

Programming Single Digit DISA

Single Digit DISA uses all the same programming modes plus the following

Set mode 05-11-08 to enable single digit DISA and select which time periods single Digit DISA will be activated (Day/Night etc)

Mode 10 selects the destination of each single digit dialed by the caller. The digits 1 to 5 are available for use. To call any extension in the system direct once single digit is enabled the caller should firstly dial 6 followed by the full extension number.

Example

10-gp-IP S.D.I. 511 513 522 600 000
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In the above example an incoming DISA caller who dials 1 will call station 511, dialling 2 will call station 513, 3 will call Station 522. 600 has been assigned as a Hunt Group Pilot number so a DISA caller dialling 4 will call the Station hunting group which has 600 as it's pilot Number. Dialling 5 will allow the caller to dial the full extension number of any extension, which starts with 5, e.g. 555. Pilot numbers are set in Mode 67 and Hunt groups are programmed in Mode 68 and 69.

Installing ACP's

The ACP is similar in appearance to a normal doorphone with a numeric keypad, 2 extra keys(Call and PRG) and a 4 character LED display. The ACP has a built in relay, a sensor output and a case alarm for security.

The ACP phone can be connected to any Digital port up to the maximum number of ports available minus One. It is recommended that one Digital phone be provide for programming so that changes can be made and registration of cards done easily on site.

It is not weatherproof and must be mounted in a sheltered location. For better weather resistance without the security features there is also available a digital doorphone with a metallic case, a single button and no LED display.

Available also is a PC program to track access to areas controlled by the ACP. A standalone program called ACP3 is for customers who are not using CT Star and there is also a tracking program in CT Star for the ACP. Read the Access Control Help file for details of these programs.

About security.

The ACP has a built in relay which can be used to unlock the associated door however where security is an issue the system can be programmed to use the relay on the optional MSU card . Because the ACP could be opened by unauthorized users to short out the relay contacts there is also a case alarm which is an Opto coupler on the PCB with a plastic moulding on the case which keeps the Opto coupler permanently open. Even a small movement of the case compared to the mounting bracket will send an alarm to the system.

What can you use an ACP for?

Simple doorphone with door unlock from internal extensions only

A doorphone with door unlocking by code from the doorphone.

A doorphone with unlocking by proximity card from the doorphone.

A doorphone with unlocking by proximity card AND/OR code from the doorphone.

A wall mounted Handsfree phone with access to external lines if required and all of the unlocking and access features.

Security feature where, when the doorphone is pressed the system can call an external phone number, connect the called number to the Doorphone and allow the called party to unlock the door if required.

Relevant programming modes

Mode 03. Doorphone Ring assignment

Mode 05-03-08 Doorphone Ring frequency

This parameter allows for different ring patterns for the Door Phone and ACP

0=Handset frequency 1 to 8 = Frequency 1 to 8 9 = Background Music

Mode 05-11-07 Doorphone Ring time

The time that the Door Phone will ring assigned stations when the Door Phone button is pressed.

Mode 05-12-04 Door Relay unlock time

The time that the door relay will remain closed after the Unlock function is activated.

Mode 17 Forced Account Codes

Used as a code to allow users to unlock the door from the ACP

Mode 46-st-07 ACP/Doorphone Hunt Group assignment

Selects which Hunt Group will ring when the button of this doorphone is pressed. If set to a "d" the doorphone will ring stations set in Mode 03

Mode 50-st-08 ACP warning Signals

Deactivates Case Open Alarm and ACP unplug Alarm

Mode 50-st-06 ACP Door Unlock relay

Selects whether the internal or the system relay will be used by the ACP/ Doorphone

Mode 50-st=07 ACP Door Open Control Type

Selects whether to open the door by Code, Swipe Card or Code plus Swipe card

Mode 50-st-08 ACP Phone operation type

Selects whether the ACP phone is able to act as a normal phone.

Mode 67-68-69 Hunt Group programming for Ring assignment.

How to set up as a doorphone.

The doorphone can be connected to any Digital port on the system. There is an A/B jumper on the PCB to select Port 1 or Port 2. When the phone is installed if the Call button is pushed without any programming then the user will hear an error tone. This is because the default is to ring Hunt Group number 1 and this will have no members hence the error tone. To use the default hunt group create a Pilot number and assign members to the Hunt Group for Day and Night in mode 67(01)-68(01)-69(01) or set Mode 46-st-07=d and the Doorphone will ring the stations assigned in Mode 03. If the Doorphone is to unlock the door then select which relay to use in Mode 50-st-06 and wire the door mechanism to this relay. Once the relay is set up then the internal station while talking to the Doorphone presses 0 to open the door. Adjust the doorphone ring time in Mode 05-11-07 to suit the customer and the Relay unlock time in Mode 05-12-04 to allow enough time for access through the door.

How to unlock the door from the ACP using Forced Account Codes

The ACP can be used to unlock the door to allow access by staff to a building or to a secured area of the building by using Forced Account Codes. 48 Forced Account codes can be programmed and used in both G1 and G2. When programming a FAC remember that all 8 digits must be programmed so if a code of 12343 is needed then it is programmed 1234dddd and then 1234 will work as a code. To unlock the door on the ACP press PRG (Left Control Key) 7, FAC, #

For details of the Access Control Feature using swipe Cards see the Access Control Help File. For details of the Security feature see the Security feature Help File.



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All data and specifications are subject to change without notice.



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