CONFER III

Digital Meet-Me Voice Conference Bridge
INSTALLATION / USER MANUAL

Revision 2.3 03/23/04

FORUM
COMMUNICATIONS INTERNATIONAL
1223 N. Glenville Drive Richardson, TX 75081
Phone (972) 680 0700
Fax (972) 680 2700
info@forum-com.com

TABLE OF CONTENTS

INTRODUCTION

The CONFER III is a high-quality conference bridge providing conference capability for up to eight parties per card. Each card may be purchased in its own chassis with power supply (referred to as a CONFER III Unit), or as a plug-in card (referred to as a CONFER III Board) to be used with the optional Confer III Card Cage. Up to nine CONFER III Boards may be used in the Confer III Card Cage to provide up to 72 ports.

The CONFER III has eight 2-wire loop-start interfaces for use with virtually all central offices (COs), or Private Branch Exchanges (PBXs), which have 2-wire, loop-start station line capability (2500-type phone interfaces). **It is preferred that the station cards be capable of providing North American dial-tone, loop current interrupt (80 msec minimum), reorder tone (fast busy), or D-tone when the calling party hangs up** so that the CONFER III can release that port for other callers. Generally, Off Premise Extension (OPX) cards can be used in the PBX for assured disconnect supervision if normal station cards do not provide this. Most COs provide this supervision.

The CONFER III utilizes digital signal processing (DSP) and Pulse Code Modulation (PCM) voice signals to provide a patented full-duplex (two-way) conference with automatic level control of incoming signals for a comfortable, well balanced conference.

With proper installation, the CONFER III will provide years of excellent, trouble free conferencing. This manual should be read and understood before beginning the installation. If you have any questions, call your supplier or Forum Support Services at 972 680-0700 for help.

CONSUMER INSTRUCTIONS FOR FCC PART 68
(Exhibit J)

1. This equipment complies with Part 68 of the Federal Communications Commission (FCC) Rules and the requirements adopted by ACTA. On the outside surface of this equipment is a label that contains, among other information, the FCC registration number, the Facility Interface Code (FIC), the Service Order Code (SOC), and the Universal Service Order Code (USOC) Jack. This information must be provided to the telephone company.

   FCC Registration No: US: 2B6BR04B710-00XXX
   FIC: 02LS2
   SOC: 9.0Y
   USOC Jack: RJ11C, RJ27X
   Ringer Equivalence: 0.4B

2. FCC-compliant modular jacks are provided in this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible RJ11 plug, which is Part 68 compliant. See installation instructions for details.

3. The Ringer Equivalence (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of the RENs on a single telephone line should not exceed five.

4. If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But, if advance notice is not practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

5. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications in order to maintain uninterrupted service.

6. If trouble is experienced with the Confer III please contact Forum Communication Systems, Inc. at 972 680 0700. If the equipment is causing harm to the network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

7. Only approved modifications / repairs are to be made by you. Other repairs are to be made only by Forum Communication Systems, Inc. or its licensees. Unauthorized repairs void registration and warranty.

8. This equipment cannot be used on public coin service provided by the telephone company. Connection to a Party Line Service is subject to state tariffs. Contact the state public utility commission public service commission or corporation commission for information.

T. Raj Natarajan — 06-26-02
VP Engineering — Date

FCC COMPLIANCE

The CONFER III Unit has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The CONFER III Unit generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio communications. Operation of the CONFER III Unit in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's expense. The CONFER III Card Cage is presently pending compliance to Part 15 of the FCC rules.

SPECIFICATIONS

No. of Ports: Eight 2-wire ports, one Control / Monitor (CM) port, one audio source port, one audio monitor port.

Audio Bandwidth: 200-3200 Hz, automatic volume control to provide constant speech quality

Compatibility: Compatible with KSU / PBX systems, Centrex, CO Trunks, and other optional Interfaces. Has flexible command structure.

Power Requirements: 115 VAC, 60 Hz, 25 W (nominal)
Note: Use of a UL approved AC surge arrestor between the AC outlet and the Confer III is recommended.

Mechanical Characteristics:

CONFER III Unit
Size: 19" x 10" x 3" (approx.)
Weight: 9.75 lbs

CONFER III Card Cage (Includes Chassis and Power Supply Card)
Size: 19" x 12" x 15.75" (approx.)
Weight: 11.5 lbs
Note: User must add the CONFER III Board weight multiplied by the number of boards to be populated to the CONFER III Card Cage weight to compute the total weight)

CONFER III Board
Size: 14.3" x 8.5" x 1" (approx.)
Weight: 1.75 lbs

Operating environment:

Ambient temperature: 5° to 50° C
Relative humidity: Below 85%
Installation: Requires no modification from the existing KSU / PBX systems. The CONFER III is very easy to install.

1.0 MANUAL FORMAT

In this manual, the term "PBX" will be used to represent either PBX or KEY SYSTEM environments and the term CONFER III will be used to represent both the CONFER III Unit and the CONFER III Card Cage.

This manual covers the installation, configuration, and usage of the CONFER III. Section 2.0 covers the installation, section 3.0 covers the operational parameter settings, and section 4.0 covers the usage by conference members.

Throughout the manual, you will see references to “Auth Code” (authorization code), “VP” (Voice Package), “UG” (user greeting), “HC” (Headcount), “RM” (remote monitor), and “RA” (remote administrator). These are optional features that can be added if they were not ordered with the original Confer III system. Contact your Forum representative for information on upgrades.

2.0 INSTALLATION

The CONFER III Unit is typically used with 8 Central Office (CO) or 8 PBX station lines and the CONFER III Card Cage is typically used with 8 to 72 CO or PBX station lines. Normally, these lines should be provisioned in rotary hunt groups, one for each conference, so that only one access number (the lead number of the group) needs to be remembered. If the lines are not in a hunt group, the numbers of each line will have to be identified and assigned to each party who is to call into the conference. This latter method is less convenient but may be preferred for special applications. An additional line may be connected to the CM Port of the 1st card slot in the cage to serve as a local control/monitor port (if strapped for battery feed) or as a remote dial-in control/monitor port (if strapped for dial-in AND if Option RA present).

NOTE: The CONFER III is designed to operate with lines, which provide North American dial-tone, loop current interrupt (80 msec minimum), reorder tone (fast busy),A-tone or D-tone. The user may also terminate the call by pressing “9#’ or the entire conference by pressing *## before hanging up in systems that do not provide the signaling listed above. See Section 3.0, Configuration of CONFER III, for more detail.

All PBXs vary in operation. The best results are generally achieved by employing Off Premise Extension (OPX) cards in the PBX, rather than standard analog station cards, because OPX cards typically provide loop-current interrupt to the CONFER III when the calling party hangs up. You should check on the operation of the PBX that the Confer III ports are to be connected to. In general, the PBX ports (to be connected to the CONFER III) should be configured as they would be set up for connection to an answering machine or a voice mail system.

2.1 UNPACKING AND MOUNTING

First, check the shipping carton for any apparent damage and report any damage to the carrier. The CONFER III system is shipped as one of two configurations, a CONFER III Unit, or a CONFER III Card Cage. Either configuration is shipped fully assembled, configured specifically per your requirements (dipswitches/software pre-set), tested, and mounted in a blue metal case (CONFER III Unit) or a brushed aluminum chassis (CONFER III Card

Cage). An envelope containing manuals, a configuration sheet, and a small screw driver is also included with each shipment.

Remove the CONFER III Unit or Card Cage from the shipping box. Save the box until proper operation is confirmed. If possible, it is recommended to save the box for proper shipping in the unlikely event that the unit needs to be returned for repair. Mounting may require removal of the CONFER III Unit cover. Loosen the screws at the top and bottom of the CONFER III Unit. With these screws loosened, the cover of CONFER III Unit lifts off. The base plate of the CONFER III Unit contains all the electronic assemblies. Notice that the base plate contains four large keyhole-shaped mounting holes. The exact dimensions and spacing between these holes are shown in Fig. 1 along with mounting details. The CONFER III Card Cage can be ordered as a wall mount or rack mount chassis. For the rack mount CONFER III Card Cage simply mount the unit in the selected rack location. For the wall mount CONFER III Card Cage, the exact dimensions and spacing for the mounting holes are shown in Fig. 2 along with mounting details.

Notice that the CONFER III Unit basically consists of 1) a circuit board assembly and, 2) the power supply unit. The gain adjustment (volume control) for the AUDIO IN source and AUDIO OUT monitor jacks are mounted on the edge of the circuit board next to their respective jacks and may be accessed without removing the cover. Use the supplied small screwdriver for making any adjustments to these potentiometers if required. The Line 1 through Line 8 RJ11C connectors are also located on the edge of the circuit board with their indication LED located next to the respective jack. The conference 1 and conference 2 selection switches and their respective displays are also located on the edge of the circuit board. The control / monitor (CM) port RJ11C and its green indication LED is also located on the edge of the circuit board. The reset switch is located on the edge of the circuit board and the DSP alarm and board status LEDs are located next to the reset switch.

Connections from the CONFER III are made with RJ11C connectors or through RJ27X connectors to the demarcation point. The RJ27X connectors are only available on the backplane of the Confer III Card Cage. You will notice a green LED by each RJ11C line jack. Each of these green LEDs will illuminate when the associated 2-wire port is active (loop current is flowing), and is a convenient aid used for bridge monitoring or troubleshooting.

Power is provided through the six-foot power cord. A power on switch and green power indicator LED are located next to the power cord entry point.

The installation of CONFER III consists of drilling four mounting holes on a wooden panel (or drywall) close to the connector blocks of the KSU or PBX. Before a suitable place for the CONFER III is selected, be sure to consider the following:

Measure the length of the telephone cables to be used (not included) and make sure that the cable reaches the connector blocks from the CONFER III with sufficient slack. Also make sure that AC power cord will reach a nearby wall outlet. However, **do not plug in the unit until it has been firmly mounted to the wall and configured**.

Do not install in a location near heat sources such as radiators, air ducts, air conditioning equipment, or heavy duty machinery capable of radiating heat as well as electromagnetic interference, or in a place subject to direct sunlight, excessive dust, moisture, ice or snow, mechanical vibration, shock, strong and varying sources of electrical, or magnetic fields. A corrosive atmosphere slowly and steadily causes damage to both electrical and mechanical

connections and should be avoided.

Firmly mount the base plate or card cage at the chosen place on the wall using four screws or molly bolts (not included). Allow several inches of clearance on all sides of the CONFER III but especially on the right side of the Confer III Unit. Refer to the Figure 1 or Figure 2 of this manual for full details on the choice of the screws. Be careful not to disturb other mounted assemblies while mounting the base plate of the Confer III Unit. A correct mounting of the CONFER III Unit leaves the power supply unit on the top and the connectors to the right side.

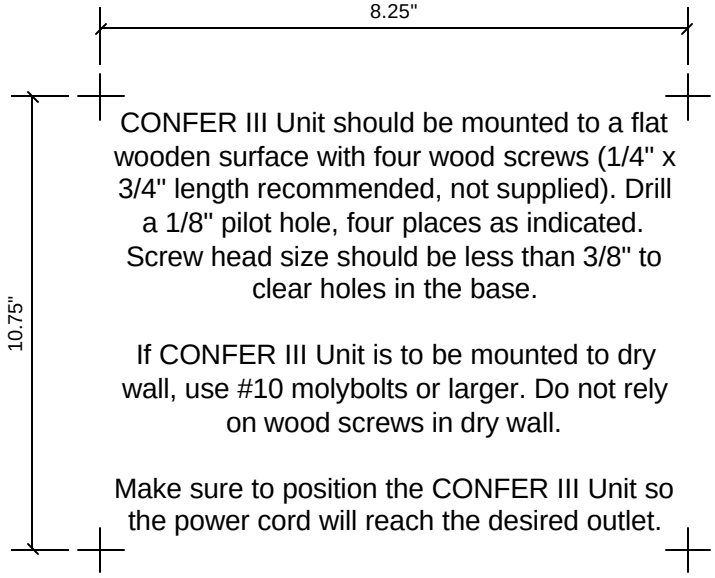


Fig. 1 Unit Mounting Holes

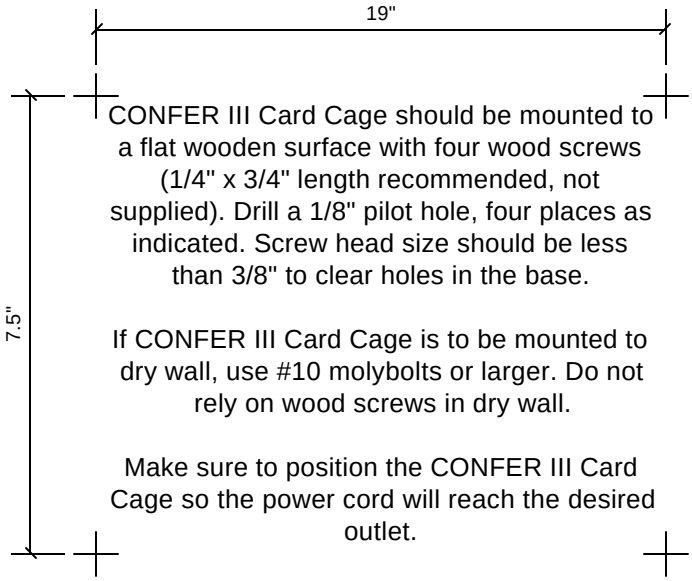


Fig. 2 Card Cage Mounting Holes

2.2 WIRING TO THE ANALOG LINES

The CONFER III comes with eight 6-position RJ11C modular jacks for ease of wiring to the CO or PBX lines. For normal 2-wire lines, Tip and Ring (T / R) pair, the center two conductors are used and are not polarity sensitive. Use quality modular cords and assure solid connections. For normal 2-wire lines on the Confer III Card Cage, the RJ27X connectors can be used. Again each of the T / R pairs is not polarity sensitive. The J12 connector provides connectivity to the first, second, and third Confer III Board from the left while looking at the Card Cage from the front. The J13 connector provides connectivity to the fourth, fifth, and sixth Confer III Board from the left while looking at the Card Cage from the front. The J14 connector provides connectivity to the seventh, eighth, and ninth Confer III Board from the left while looking at the Card Cage from the front. Refer to Figure 3 to assure proper connections to the RJ11C or RJ27X connectors.

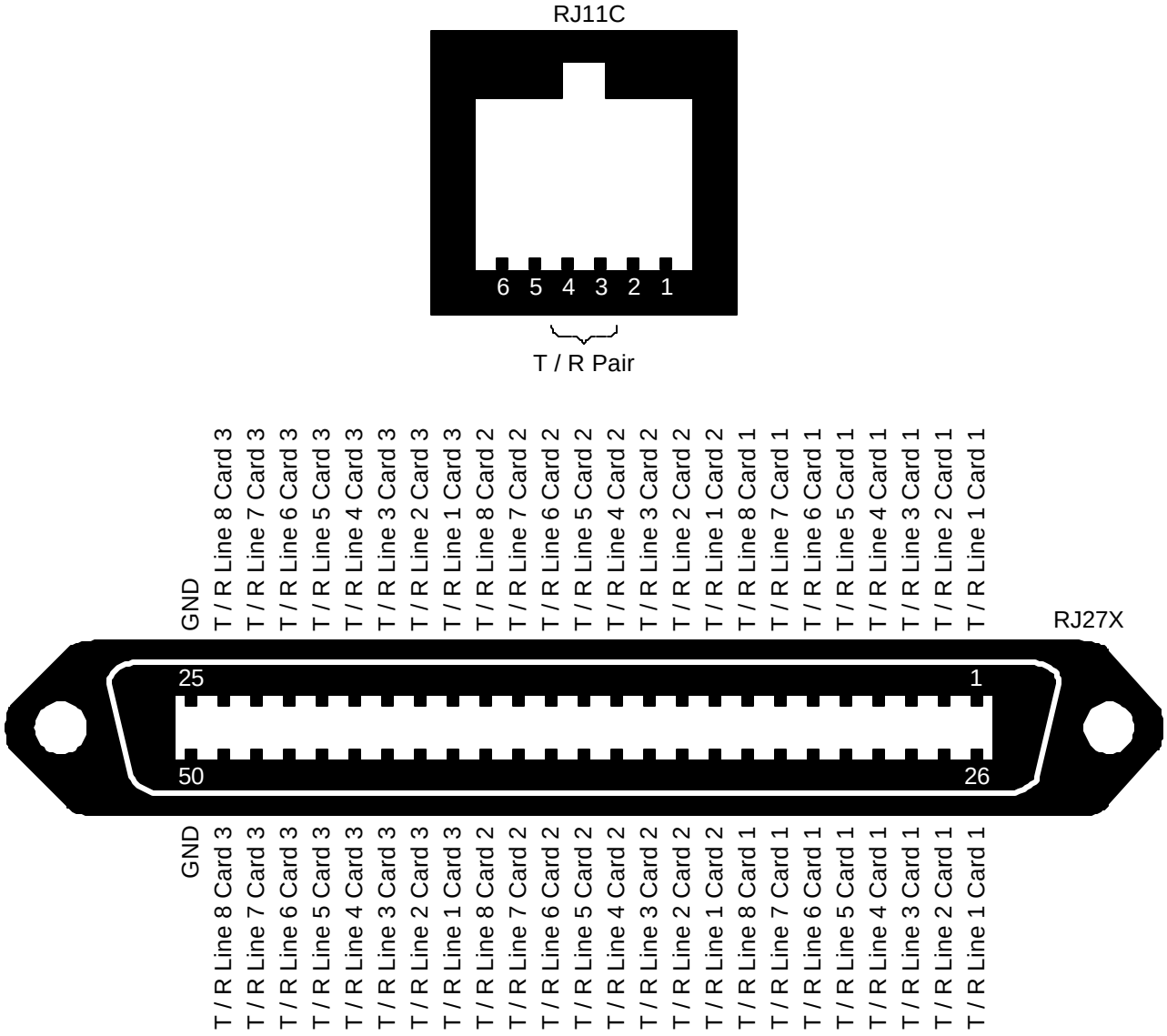


Fig. 3 RJ11C or RJ27X Connectors

FORUM COMMUNICATIONS

2.3 WIRING TO THE CONTROL / MONITOR PORT

A CM port is provided on the CONFER III. A CM phone (standard 2500-style touch tone phone), which may be located up to 1000 cable feet from the CONFER III, may be connected to this port when the CM port is configured for battery feed mode. Conversely, a CO or PBX station line may be connected to this port when the CM port is configured for dial-in mode. Note: for remote dial-in mode, Option RA (Remote Administrator) must be present. Refer to Section 3.4 for more details. The CM phone in battery-feed mode is used to set the authorization code, set authorization code override, and monitor/terminate the conference. The CONFER III CM port is implemented with a 6-position RJ11C modular jack for ease of wiring to a CO or PBX line. For a normal 2-wire line, the center two conductors are used and are not polarity sensitive. Use quality modular cords and assure solid connections. Refer to Fig. 3 to assure proper connections to the RJ11C connector.

2.4 COVER INSTALLATION AND POWER-UP

After the Confer III is mechanically installed and the wiring connections have been made, carefully replace the top cover of the CONFER III over the base plate and tighten the cover screws. The CONFER III is now ready for power-up. Unroll the AC power cord and insert the power plug into the wall outlet. Turn on the power switch (small metal toggle switch on the Confer III Unit or red rocker switch on the Confer III card cage). Notice the green power-on indicator LED (adjacent to the power switch) lights up. After power-up, the Confer III performs diagnostics. The diagnostics performed take approximately 5 seconds to run on the Confer III Unit while a Confer III Card Cage with all 9 cards present takes approximately 15 seconds to run. After the diagnostics have completed, the 7-segment displays should show the conference number that each 4-port group is assigned to. When the right hand decimal points of the 7-segment displays come on and then go off, the CONFER III has completed initialization.

NOTE: *If the Confer III Unit or any card in the Confer III Card Cage displays a* ***flashing "EE"*** *on the Display1 and Display2 indicators after power-up, it indicates a possible conflict encountered during the power-up diagnostic test phase.* ***If this occurs, re-run the test again by cycling the power "OFF" then back "ON".*** *The diagnostics will be run again.* ***If the error indicator (flashing "EE") occurs repeatedly for multiple power-up cycles, contact your Forum Representative.***

Should any objects or liquid fall into CONFER III, unplug the power cord from the wall socket and have the system checked by qualified service personnel before trying to operate. It is also important to remember that CONFER III requires an operating environment of 5-50 degrees Celsius and a relative humidity below 85%.

3.0 CONFER III CONFIGURATION SETUP

The Confer III can be tailored to your preferences through configuration switches. Configuring the Confer III for the user's facility requires a few simple settings for call termination selection and call processing preferences (usually made at the factory). These settings are made through dipswitches and selection straps located on the CONFER III Board. See Appendix A for dipswitch settings. **In most cases, the CONFER III configuration has been pre-set per your specific requirements at the factory. It is recommended that you not change any of the settings without Forum technical guidance.**

3.1 DISCONNECT METHOD SELECTION

The Confer III supports call disconnect methods used by the CO and the most popular PBXs. The call disconnect signaling expected from the CO / PBX is selected using the S4 dipswitch. The disconnect signaling options for the CONFER III include North American dial-tone, loop current interrupt (80 msec minimum), reorder tone (fast busy), D-tone, or the user may also terminate the call by pressing "9#". The call disconnect method is how the CO / PBX signals the bridge that the connected line has been disconnected at the distant end. The Confer III then, in turn releases the line at the near end, which frees the line up for another caller. The selection is made by setting three dipswitches located on the Confer III circuit board just behind the CM port. The three switches are located on the first dipswitch, S4, individual switch positions (Pos) 4 through 6. Shown below is a table that lists the dipswitch settings for the various call disconnect methods. (Also refer to Figure 4 and Appendix A)

Call Disconnect Method	S4 Pos 4	S4 Pos 5	S4 Pos 6
North American Dial Tone Detection	ON	OFF	OFF
Loop Current Interrupt	OFF	OFF	OFF
Reorder Tone	OFF	ON	OFF
D-tone	ON	ON	OFF
A-tone	ON	OFF	ON
Individual User Disconnect	OFF	OFF	ON

NOTE: Do not change factory settings without Forum technical guidance.

Furthermore, if configuration switch S4 Pos 7 is set to ON, anyone in the conference can press *## to disconnect the entire conference.

3.2 JOIN TONE, LEAVE TONE, VOICE GREETING SELECTION

The Confer III supports join and leave tones, and voice greetings, if Option VP (Voice Package) is present, for users entering and leaving a conference. A join tone can be enabled announcing the addition of a new conference member to the conference. Likewise, a leave tone can be enabled announcing that a party has left the conference. Both join and leave tones can be disabled if the users prefer no tones. A factory-recorded voice greeting welcomes each member to the conference if option VP is present. The factory-recorded greeting can be replaced with user-recorded greetings specific to their conference if option UG is present. If users prefer, the greeting message can be overridden. These selections are made by setting two dipswitches located on the Confer III circuit board just behind the CM port. The two switches are located on the first dipswitch, S4, individual switch positions

(Pos) 1 and 2. Shown below is a table that lists the dipswitch settings for the various tone selections. (Also refer to Figure 4 and Appendix A)

Join / Leave Tone Selection	S4 Pos 1	S4 Pos 2
Leave Disabled / Join Disabled	OFF	OFF
Leave Disabled / Join Enabled	OFF	ON
Leave Enabled / Join Disabled	ON	OFF
Leave Enabled / Join Enabled	ON	ON

3.3 CONFERENCE SPEAKER ADJUSTMENT

The Confer III utilizes different gain levels for the primary, secondary, and tertiary speakers in a conference. The assignment of the speaker hierarchy changes automatically depending on who is speaking the most in the conference.

In some isolated instances, where phone lines may be mismatched within the phone system adjusting the gain is necessary to assure smooth conversation. This secondary gain selection is made by setting one dipswitch located on the Confer III circuit board just behind the CM port. The switch is located on the first dipswitch, S4, individual switch position (Pos) 3. By setting the switch to ON, the secondary speaker has a slight attenuation. By setting the switch to OFF, the secondary speaker has normal gain (this is the factory default).

3.4 CM PORT OPERATION SELECTION

A CM port may be configured for battery feed mode or dial-in mode. For battery feed mode, connect a standard 2500-style touch-tone phone to the CM port. For dial-in mode, a CO or PBX station line may be connected to the CM port. In battery feed mode, the standard phone may be taken off hook (the handset is removed from the cradle). In dial in mode, the CM port line is taken “off hook” or answered by the bridge when an incoming ring signal is detected. The bridge may then be configured by entering touchtone commands described in the following sections.

The CM port operation selection is made by setting one dipswitch and two jumpers located on the Confer III circuit board. The switch is located on the second dipswitch, S3, individual switch position (Pos) 1. By setting the switch to ON, the CM port is configured for battery feed mode. By setting the switch to OFF, the CM port is configured for dial-in mode. The jumpers JP7 and JP8 must also be placed as shown in Figure 5 to complete the configuration of the CM port.

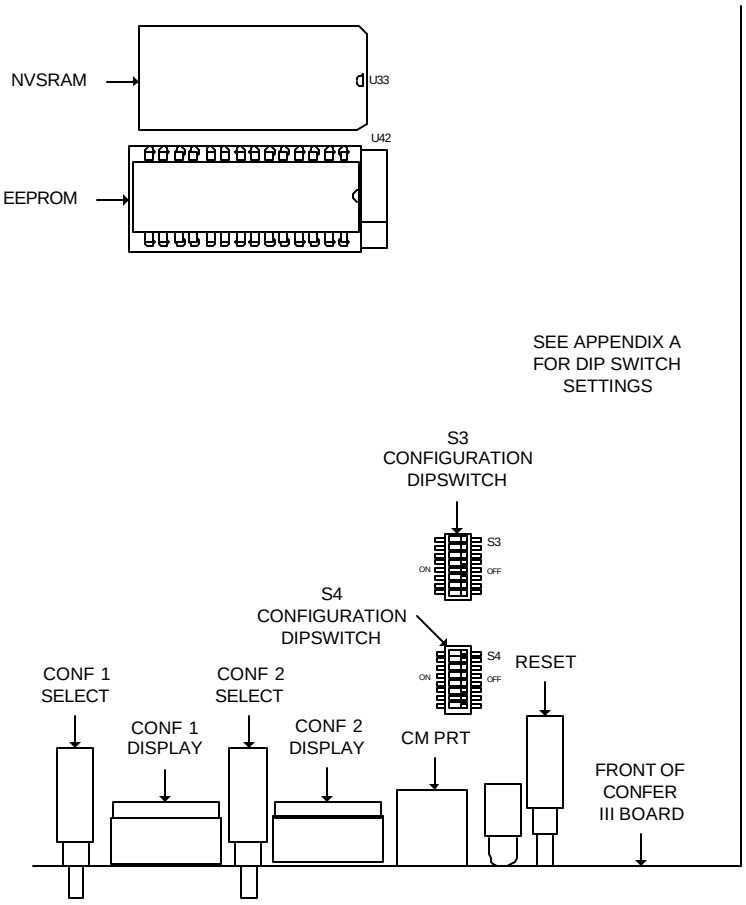


Fig. 4 Configuration Dipswitch Location

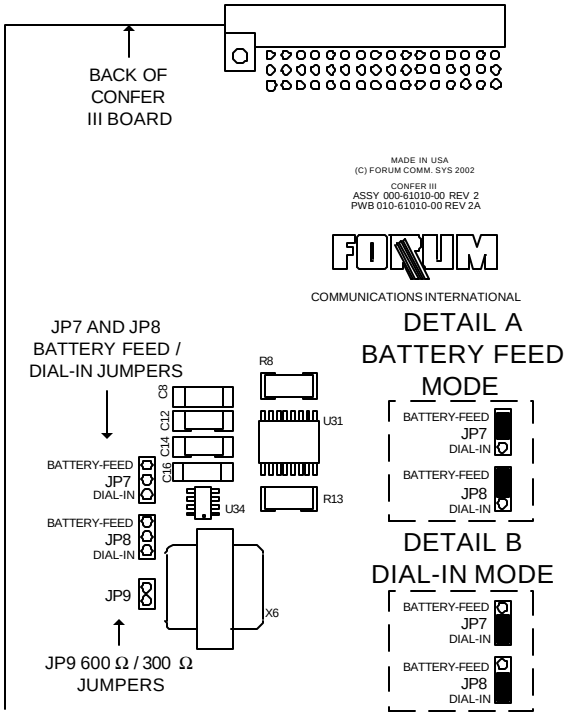


Fig. 5 CM Port Jumpers

3.5 CONFER III UNIT OPERATIONAL PARAMETER SETTINGS

This section describes how to set basic Confer III Unit operation preferences locally using pushbuttons, displays, and the CM Port phone in battery feed mode. (This will require a standard telephone unit plugged into the CM Port RJ-11 jack).

NOTE: For each operational parameter change session (auth code setting, auth code override, or greeting override), a reset is required to update the system settings in non-volatile memory. After changing parameters, press the "Reset" button (see Figure 4) and wait for the system to re-initialize prior to use (approximately 10 seconds).

3.5.1 AUTHORIZATION CODE SETTING FOR THE CONFER III UNIT

The Confer III Unit can be equipped (through the "Auth Code" Option) to require each user to enter a 4-digit security authorization code prior to entry into the conference. This authorization code can be changed or overridden through the CM port.

To set the authorization code from the CM Port:
• Take the CM Port Off-Hook, listen for the beep
• Press '7'
• Press "01" if the conference bridge is set to full 8-port or you want to set the lower 4 ports if split or, • Press "02" if the conference bridge is split and you want to set the upper 4 ports
• Press a 4-digit authorization code sequence (numbers only)
• Listen for the confirmation tone (two beeps) or voice prompt (if Option VP present), then hang up the CM Port telephone prior to making other changes

NOTE: If the Confer III Unit displays show '1' on the lower "CONF 1 DISPLAY" and '2' on the upper "CONF 2 DISPLAY", then the unit is in the "split" mode. "Split" mode means that the bridge is split into 2 independent 4-port conferences. The first conference, conference #1, is comprised of Lines1-4. The second conference, conference #2, is comprised of Lines5-8. When both displays show '1', then the bridge is configured as a single 8-port conference, conference #1, comprised of Lines1-8.

To override the authorization code:
• Take the CM Port Off-Hook, listen for the beep
• Press '2'
• Press "01" if the conference bridge is set to full 8-port or you want to override the lower 4 ports (if split) or, • Press "02" if the conference bridge is split and you want to override the upper 4 ports
• Listen for the confirmation tone (two beeps), or voice prompt (if Option VP present), then hang up the CM Port telephone prior to making other changes

3.5.2 BRIDGE PARTITIONING

The Confer III Unit can be partitioned into two independent 4-port conferences or one 8-port conference. The CONF 2 SELECT pushbutton (see figure 4) sets the bridge for single 8-port or dual 4-port bridge operation. **Note: partitioning changes can only be made when the bridge is free (no ports are in use).**

To partition the bridge into two independent four-port split conferences:
Press the CONF 2 SELECT button until the CONF 2 DISPLAY reads '2'.

The CONF 1 DISPLAY displays the conference number that conference group 1 is assigned to (the lower 4 ports Line1-Line4) and will always read '1' on the Confer III Unit. The CONF 2 DISPLAY is set to either conference 1 or conference 2. Pressing CONF 2 SELECT toggles the second conference group (Line5-Line8) between an independent 4-port conference number 2 and a combined 8-port conference number 1. When the bridge is configured "split", incoming calls to lines 1 through 4 will be placed into conference 1 while incoming calls to lines 5 though 8 will be placed into conference 2.

To partition the bridge into a single eight-port conference:
Press the CONF 2 SELECT button until the CONF 2 DISPLAY reads '1'.

3.5.3 GREETING OVERRIDE

The Confer III Unit can be equipped to provide factory voice greetings to incoming conference members (Option VP, Voice Package). If the Confer II Unit has been purchased with the VP Option, the greeting can be overriden or bypassed on a group number basis through the CM Port. Taking the CM Port Handset off hook, then pressing '9' followed by "01" for conference #1, or "02" for conference #2 followed by '1' for on or '0' for off, the greeting override for the specified conference will be set or cleared. A voice prompt will indicate the state of the greeting override after each toggle.

To set greeting override for Conference #1:
Press '9' key followed by the '"01"', and '1' on the CM Port Phone after going off hook. You will then hear "ON". Hang up the CM Port. *Turning the greeting override on will turn the greeting off when conference members call into conference #1*

To clear greeting override for Conference#2:
Press '9' key followed by the '"02"', and '0' on the CM Port Phone after going off hook. You will then hear "OFF". Hang up the CM Port. *Clearing the greeting override will turn the greeting on when conference members call into conference #2*

3.5.4 LOCAL MONITORING OF CONFERENCES FROM THE CM PORT

The Confer III Unit provides the CM Port in battery feed mode to monitor active conferences. Taking the CM Port Handset off hook, then pressing *1 or *2 will add the CM Port to conference #1/conference#2 respectively. Note: if the bridge is free (no lines active), and the CM Port selects conference #1 or #2 for monitoring, the CM Port will be added to the conference. Later, when lines on the monitored conference become active, the CM Port will hear them.

To monitor Conference #1:
Take the CM Port Telephone off-hook. Either wait approx 10 seconds (to be automatically added to conference #1) or Press '*1'. You will then hear a "join" tone indicating you are now part of conference #1. (When you are through, hangup).

To monitor Conference #2:
Take the CM Port Telephone off-hook. Press '*2'. You will then hear a join tone indicating you are now part of conference #2. (When you are through, hangup).

A summary of the CM Port Battery Feed Mode commands for the Confer III Unit is shown below.

	Function	Format	Example
2	**Set auth code ovrd for a conf number (1 or 2)**	***2,<conf#>,<on/off>***	**2, 01, 1**
7	**Set Auth Code for a conf# (numbers only)**	***7,<conf#>,<auth code>***	**7, 01, 2580**
9	**Set/Clear Greeting Override for a conf#**	***9,<conf#>,<on/off>***	**9, 01, 1**
*	**Steer CM Port to local group#**	****,<grp#>***	***, 1 or *,2**

conf# = "01" or "02"
Grp# = '1' (lower 4-port conf group) or '2' (upper 4-port conf group)
Auth code = 4-digit numeric sequence
On/off = '1' on, '0' off

NOTE: If you do not have the Card Cage Model, skip to section 4.0, "Conference Member Usage" for a description of how the Confer III is used by conference members.

3.6 CONFER III CARD CAGE CONFIGURATION SETTING

This section describes how to set basic Confer III Card Cage configuration preferences locally using pushbuttons, displays, and the CM Port phone in battery feed mode plugged into the CM Port connector of the **first card** (Master) in the card cage. If you have purchased the RA Option (remote administrator) for the Confer III Card Cage, please read 3.6.1 "Bridge Partitioning" to gain a basic understanding of the conference configurations and then go to section 3.7 "Remote Mode, Confer III Remote Administrator Mode" to learn how to remotely, over a phone line, partition the conferencing bridge.

3.6.1 BRIDGE PARTITIONING

Bridge Partitioning for the card cage is the process of configuring the conference resources (4-port conference resource groups) into independent global conference number groupings. For example, if you have a 3-card Confer III Card Cage, you may want to split the 24 total ports into a conference of 16-ports and a conference of 8-ports. Alternatively, you may want three conferences of 8-ports each. With the Confer III Card Cage, any combination involving multiples of 4-ports can be configured. You could even configure the 24-ports as six 4-port conferences.

Shown on the next page is an illustration of the front panel of a Confer III Card Cage that is fully populated with 9 cards (72 ports). Notice the leftmost card in card slot 1. This is the Master Card. Also notice the "Reset" button at the top of the card. Each card has a Display for each of the two 4-port conference resources which indicates the global conference number that the resource is a part of. The '1' shown on Display1 of card 1 indicates that the lower 4-port conference group (group 1) is assigned to global conference 1. The '1' shown on Display2 of card 1 indicates that the upper 4-port conference group (group 2) is also assigned to global conference 1. Therefore, conference 1 is comprised of two 4-port resources which form an 8-port conference.

Looking at card 2, we see a '2' on Display1 and a '2' on Display2. There is also a '2' on Display1 of card 3. Since there are three 2's, there are 3 x 4-port = 12 ports assigned to conference 2. Therefore, conference 2 is a 12-port conference.

There is a '3' on Display2 of card 3, two 3's on card 4, and a '3' on Display1 of card 5 which means that conference 3 is a (4 x 4-ports = 16) 16-port conference, while conference 4 is a (5 x 4-ports = 20) 20-port conference, conference 5 is a 4-port conference, conference 6 is a 16-port conference and conference 7 is a 4-port conference.

Notice the order of the conference displays is bottom to top then down to the lower display on the next card, then to the upper display and so on. For example, the numbering goes from the top Display 2 on card 2, then down to Display1 of card 3 to pick up another 4-port group for conference 2, then on the upper display, a 3 appears for the beginning of the conference 3 assignments. Generally, all conference displays are to be set up in a contiguous manner, from the far left card to the right going from the lower display to the upper display and then down and over to the next card's lower display as shown with the dashed arrows.

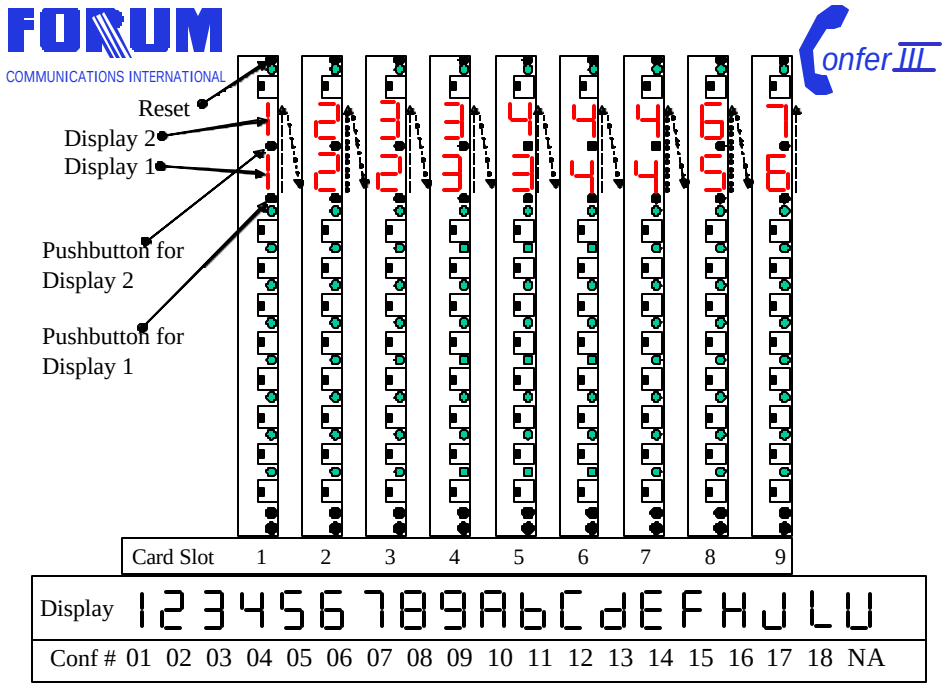


Fig. 6 Sample Conference Partition for a 9 Card Bridge

Since there are a maximum of 9 cards in the Confer III card cage configuration, and each has two 4-port conference groups, there can be a maximum of 18 4-port conferences. The display values for each of the 18 conference numbers are shown above. Notice that the conference numbers follow a special alphanumeric sequence "123456789AbCdEFHJL". For example, the letter 'C' represents conference number 12 while 'L' represents conference 18. The letter 'U' represents a card slot that is not assigned to any conference (Un-assigned).

3.6.2 HOW TO CHANGE CONFERENCE ASSIGNMENTS

To change the conference assignments and in the process, reconfigure your bridge to a different quantity of ports per conference, you will first need to place the bridge in "conference setup" mode. This is done by pressing and holding in pushbutton1 on the Master Card while momentarily pressing the Reset button on the Master Card. First, both display digits will briefly show '8' with the right-hand decimal point leds on. Then, the digits will return to their original digits with the right hand decimal led's going off. Continue holding in Pushbutton1 for several seconds until you see the right hand decimal points on both 7-segment displays turn on for a second time. When the right-hand decimal point leds turn on, you can release the pushbutton. After releasing the pushbutton, wait for approximately 10 seconds for all of the displays on all of the cards in the card cage to begin flashing. When all 7-segment displays are flashing, you have entered "conference setup" mode.

You are now in the "conference setup" mode. In this mode, you will be able to increment the display digits to the desired conference number by pressing the corresponding pushbutton1 or pushbutton2 on the card whose 4-port conference group is to be changed. Notice that by pressing pushbutton1 or pushbutton2 repeatedly, the sequence "123456789AbCdEFHJLU" is repeated, returning back to '1'. Press the pushbutton until the conference number desired is displayed. Repeat this step for each digit until all displays reflect the desired

configuration. When the displays match your desired conference configuration, press the reset button on the Master Card which will update all cards with the configuration and restart the system.

Example 1. Assume we have a 48-port Confer III Card Cage which has previously been set as shown below for conferences of 12/12/12/12 ports. Now, let's assume we need to change the configuration to three conferences of 16-ports each. Basically, we would want the final displays to look like this:

1 1 2 2 3 3
1 1 2 2 3 3

(It is recommended that the Conference Configuration Worksheet found in Appendix B be copied and filled out prior to making changes to the Confer III Card Cage).

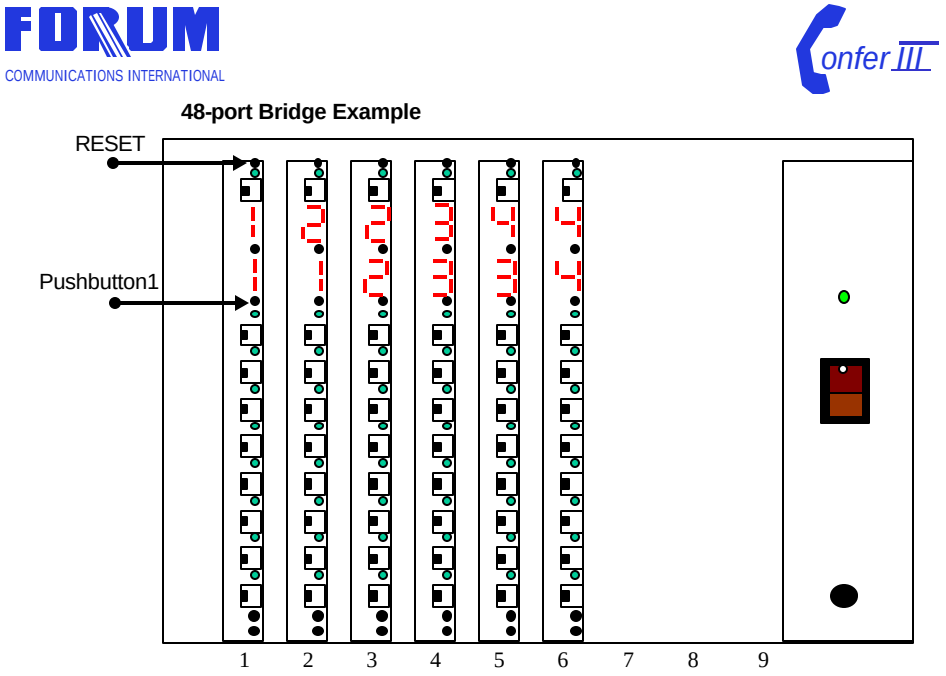


Fig. 7 Sample Conference Configuration for a 6 Card Bridge

This reviews the entire sequence of steps:

- First, get the bridge into the "conference setup" mode by pressing in and holding Pushbutton1 of the Master Card (card slot 1) while momentarily pressing the RESET pushbutton on the Master Card. Continue to hold Pushbutton 1 in for several seconds (you can release the pushbutton when you see the right-hand decimal points come on) as the cards re-boot, update displays, and then begin flashing.
- Press Pushbutton 2 on card 2 repeatedly until Display2 shows '1'
- Go to card 4 and press Pushbutton 1 until Display1 shows '2'.
- Press Pushbutton 2 on card 4 until Display2 shows '2'
- Press Pushbutton 2 on card 5 until Display2 shows '3'
- Press Pushbutton 1 on card 6 until Display1 shows '3'
- Press Pushbutton 2 on card 6 until Display2 shows '3'
- Double check the displays against your worksheet and if they agree, press the

RESET button on the Master Card, the system will re-boot and will configure itself to your settings.

The completed process should look like the figure below:

The bridge is now configured for 16/16/16 operation.

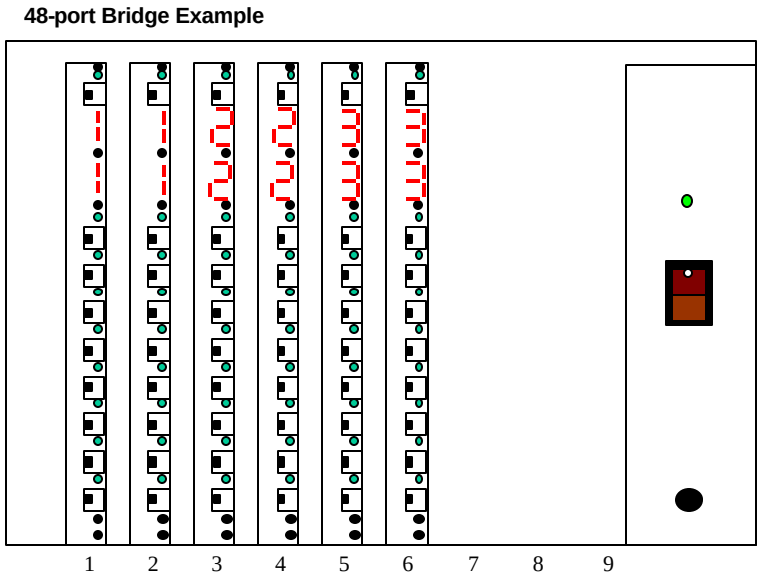


Fig. 8 Sample Conference Configuration

3.6.3 CM PORT BATTERY FEED ADMINISTRATION FUNCTIONS FOR THE CARD CAGE

A standard telephone can be used to configure settings on the Confer III Card Cage when plugged into the CM Port RJ-11 connector on card 1 (Master Card). These control functions include:

- Setting/clearing authorization code override for a conference number
- Setting the authorization code for a conference number
- Setting/clearing the greeting override for a conference number

NOTE: In order for authorization code-related functions to operate, the Auth Code Option (per card) must be present. In order for the greeting override-related function to operate, the User Greeting (UG) Option must be present. In addition, these functions may only be performed when the bridge is free (no lines in use).

In addition to administration commands entered from the CM Port, conferences may be monitored by the CM Port phone. The technician simply plugs the RJ-11 cable from the standard telephone into the CM Port connector of the card which has conferences he/she desires to monitor. A simple "steering" command (*1 or *2) selects the lower or upper 4-port group to monitor.

Shown below, is a listing of CM Port Battery Feed Confer III Card Cage functions.

Table 3.6. 3. Master CM Port (Battery Feed Mode) Confer III Card Cage Commands

	Battery Feed Master CM Port Function	Format	Example
2	**Set auth code ovrd for a conf#**	***2,<conf#>,<on/off>***	**2, 02,1**
7	**Set Auth Code for a conf# (numbers only)**	***7,<conf#>,<auth code>***	**7, 01,2580**
9	**Set/Clear Greeting Override for a conf#**	***9,<conf#>,<on/off>***	**9, 01,1**
*##	**Reset system (reboot/update cards with changes)**	***##	***##

3.6.3.1 AUTHORIZATION CODE SETTING

The authorization code option is purchased on a card basis. Some of the cards in your card cage may have the auth code option and others may not. If you have purchased an additional Confer III card with the Auth Code Option that will be added to an existing Confer III Card Cage, it will be necessary to upgrade the Configuration Ram on the Master Card (card slot 1). This can be done by shipping you a new Master Configuration RAM or, by Forum Technicians performing a remote configuration change. The remote configuration update will require your bridge to be temporarily set for CM Port dial-in mode. If you originally purchased your Confer III Unit with the CM Port set to battery feed, it will have to be temporarily set to dial-in in order for Forum to call your bridge and update the configuration. Call your Forum Representative for upgrade options.

To set the authorization code for a conference number:

• Take the CM Port phone off-hook
• Listen for a prompt tone (which occurs within 2 seconds of taking the phone off-hook)
• Press '7' (for set auth code) followed by the two-digit conference number ("01" for conf# 1, "02" for conf# 2, etc.,.) that you want to change the auth code for. If the conference number selected is assigned to a card or cards which do not have the Auth Code Option, you will hear an error tone.
• Press the new four digit authorization code sequence (numbers only, no * or #)
• If you have the VP Option, you will hear the 4 digit sequence played back with voice prompts otherwise, you will hear a two-beep confirmation tone indicating the function was successful
• Hangup the phone.
• If you want to perform additional CM Port functions take the phone off-hook and enter the function code. When finished, press the reset pushbutton on the 1st card (Master Card). This will re-boot the system and update all cards with the change

3.6.3.2 AUTHORIZATION CODE OVERRIDE SET/CLEAR

Authorization Code Override forces the Authorization Code for a conference number to be overriden allowing a user to call in and join the conference without entering the auth code.

To set/clear the authorization code override for a conference number:
• Take the CM Port phone off-hook
• Listen for a prompt tone (which occurs within 2 seconds of taking the phone off-hook)
• Press '2' (for set auth code) followed by the two-digit conference number ("01" for conf# 1, "02" for conf# 2, etc.,.) that you want to change the auth code for
• Press '0' to clear the override or '1' to set the override
• If you have the VP Option, you will hear the 4 digit sequence played back with voice prompts otherwise, you will hear a two-beep confirmation tone indicating the function was successful
• Hangup the phone.
• If you want to perform additional CM Port functions take the phone off-hook and enter the function code. When finished, press the reset pushbutton on the 1st card (Master Card). This will re-boot the system and update all cards with the changes.

3.6.3.3 GREETING OVERRIDE

The Confer III System can be equipped to provide factory voice greetings to incoming conference members (Option VP, Voice Package). If the Confer II System has been purchased with the VP Option, the greeting can be overriden or bypassed on a conference number basis through the CM Port. Taking the CM Port Handset off hook, waiting for the initial prompt tone (occurs within 2 seconds of taking the CM Port offhook, then pressing '9' followed by the conference number ("01" for conference #1) and then, pressing a '1' (for "On") or '0' (for "Off") will set the greeting override for the specified conference number A voice prompt will indicate the state of the greeting override after each change (if VP Option is present).

To set/clear the greeting override for a conference number:
• Take the CM Port phone off-hook
• Listen for a prompt tone (which occurs within 2 seconds of taking the phone off-hook)
• Press '9' (for set/clr greeting ovrd) followed by the two-digit conference number ("01" for conf# 1, "02" for conf# 2, etc.,.) that you want to change the greeting ovrd for
• Press '0' to clear the override or '1' to set the override
• If you have the VP Option, you will hear "On" or "Off" played back with voice prompts otherwise, you will hear a two-beep confirmation tone indicating the function was successful
• Hangup the phone.
• If you want to perform additional CM Port functions take the phone off-hook and enter the function code. When finished, press the reset pushbutton on the 1st card (Master Card). This will re-boot the system and update all cards with the changes.

3.6.3.4 MONITORING CONFERENCES THROUGH THE BATTERY FEED CM PORT

The CM Port phone (in battery feed mode) can be used to monitor on-going (active) conferences. Plug the CM Port phone cable into the CM Port RJ-11 connector of the card whose conference you want to monitor. Please refer back to Figure 6. For example, to monitor conference # 1, plug the phone cable into the RJ-11 of card 1 or card 2 since they are both assigned to conference #1. Take the CM Phone off-hook and press *1 for group 1. If you want to monitor conference #2, plug the cable into card 2 and press *2 (in order to select the upper 4-port group). Alternatively, you may plug the cable into card 3 and press *1 (since both upper and lower 4-port groups are assigned to conference #2).

Note: if you take the CM Port off-hook and wait 10 seconds, you will automatically be added to the lower 4-port group conference number.

While in the conference, you are an active participant with the ability to hear, talk, and select user functions such as lockout (5#), unlock (8#)or self boost (2#).

To Monitor a conference in Battery Feed mode:
• Plug the CM Port Phone cable into the card's CM Port RJ-11 connector whose conference you wish to monitor
• Take the CM Port phone off-hook
• Listen for a prompt tone (which occurs within 2 seconds of taking the phone off-hook)
• Press '*' followed by the group number '1' (lower 4-port) or '2' (upper 4-port) that you want to monitor
• You will hear the Join tone indicating your addition to the conference (The conference will not receive a join tone when you enter or a leave tone when you exit) • Hangup when you are through, repeat the sequence to select another conference for monitor

3.7 REMOTE MODE: CONFER III REMOTE ADMINISTRATOR MODE

The following sections describe how to configure a Confer III Card Cage or Confer III Unit remotely through the use of the CM Port of the Master Card strapped for "dial-in" mode AND with the RA Option present. If the RA Option was not originally purchased with your Confer III system, contact your Forum representative for upgrade information. The Remote Monitor (RM) option allows a technician to remotely monitor conferences. The RM Option is included with the RA Option or can be purchased without the RA Option.

Through the use of the "Remote Administrator" (RA) option, a maintenance technician or conference control administrator can control the Confer III from a remote telephone. Note: the "Voice Prompts" (VP) option must also be present in order for the Remote Administrator option to operate. The Voice Prompts option provides voice feedback required for remote configuration commands.

The Confer III RA Option allows a technician to remotely, over a telephone line using a standard telephone set, make configuration changes to the Confer III bridge (if the bridge is free).

3.7.1 REMOTE ADMINISTRATOR COMMANDS

Remote Administrator Commands include:

- Play back the conference number assignment for a card
- Set the conference number assignment for a card and group
- Play back authorization codes assigned to a conference number
- Set the authorization code assignment for a conference number
- Set authorization code override for a conference number
- Set CM Port authorization code
- Perform a system reset (which updates all cards with the changed parameters)
- Play the User Customized Greeting (UG) Message recorded to a conference (if UG Option present)
- Record the User Greeting Message for a conference number (if UG Option present)
- Override the Greeting Message (turn greeting on/off)

Remote Monitor Steering Commands allow a remote technician to monitor conference audio for a specified conference number

3.7.2 REMOTE ADMINISTRATOR CONFIGURATION SETUP

To aid the remote administrator in determining the current configuration of the system as well as to provide guidance through configuration setting changes, voice prompts are used. That is why the VP option must be present to support the RA option. In addition, the CM Port of Card 1 must be strapped for Non-Battery feed (dial-in) mode. If the Confer III was purchased with the RA/VP options, the straps were configured for dial-in at the factory. However, if the RA/VP options are being added after delivery, consult Figure 4 for the hardware straps and Appendix A, "CM Port Operation" for CM Port "Dial-In Mode" dip switch configuration setup.

NOTE: The CM Port must be assigned a separate unique extension number not part of any hunt group on your PBX.

Contact your Forum representative if you have any questions regarding Remote Administrator upgrade.
There are two remote modes of operation:

- Administrator Mode
- Monitor Mode

Administrator mode allows the remote administrator to check configuration settings and make changes to those settings when the **bridge is not being used for conferencing**. The bridge **must be free** to enter this mode.
Monitor mode allows the remote administrator to monitor conferences when the bridge is busy or in use. (refer to 3.8.3 "Entering Remote Administrator and Remote Monitor Modes").

After entering Remote Administrator Mode and making configuration changes or checking status, the remote administrator hangs up the telephone that is connected to the CM Port line. The CM Port line will be dropped and the system will re-boot, transferring the updated information to all of the cards in the card cage.

3.7.3 ENTERING REMOTE ADMINISTRATOR and REMOTE MONITOR MODES

Dial the telephone number of the line connected to the CM Port of the Confer III Unit or the Master Card (card #1) if you have a Confer III Card Cage. You must have the RA Option present and the bridge **must be free** (no active lines in-use) before you can call in to the CM Port and enter "Administrator Mode" for the purpose of changing the configuration of your Confer III. However, if you want to monitor in-progress conferences, you can dial in, enter the CM Port authorization code and select conferences to monitor as described below in "Monitor mode"). You must have Option RM present to remotely monitor conferences from the CM Port.

Administrator Mode
After dialing the number of the line connected to the CM Port, there will be a brief pause after the Confer III answers If the bridge is free, you will hear a prompt tone (a single tone beep). At the prompt, enter the four digit CM Port Authorization code (default "0123") immediately followed by the '#' character. You must press the '#' key within 4 seconds of the last digit of the CM Port Authorization code to enter "Administrator mode". You should then hear the voice prompt, "Administrator Mode". Now, you can enter the commands shown below in the Remote Administrator Commands table. (If the bridge is in use when you try to enter Administrator mode, you will hear a a few seconds of re-order tone (Fast Busy) followed by a hangup).

Monitor Mode
After dialing the number of the line connected to the CM Port, and after the Confer III has answered the line and played a prompt, enter the CM Port Authorization code (default "0123"). Instead of entering the '#' key immediately after the CM Port authorization code, simply wait 4 seconds and then you will hear a doorbell chime indicating that you are now in the CM Port Monitor mode. **However, you are not actively connected until you first select a conference number to monitor.** From the Monitor mode you can monitor any of the active conferences within the bridge. Just press the * key followed by the two-digit conference number that you want to enter. For example, let's say you want to monitor conference #1. You would press *01. To change the monitor to conference #2, you would press *02. While in remote monitor mode, you can also talk to the conference that you are monitoring. Furthermore, some of the commands available to conference members are

also available to you lockout/unlock(5#/8#), self boost(2#).

3.7.4 HOW TO REMOTELY CHANGE CONFERENCE ASSIGNMENTS

To change the conference assignments, and reconfigure your bridge to a different quantity of ports per conference remotely through the CM Port phone line, you will need to assess the current configuration (determine what numbers appear on each of the displays) and then set the displays to match your configuration worksheet.

Assessing the Current Configuration

Since you are remote from the Confer III system, you obviously can't see the displays to determine what conference numbers have been assigned to cards, so this information will have to be determined through voice feedback from the Confer III. Using remote function 3, "Play conference assignment for a card", the conference number assignments for the lower 4-port group and the upper 4-port group can be determined. After dialing in and entering "Remote Administrator Mode", press '3' followed by the card number. The response is a voice message indicating the conference numbers assigned to group1 and group 2.
Example: we want to know the conference assignments for card 1 (assume the display shows lower display = 1, upper display = 2:

Press '3', then '1' (card #1).
Response: "card one, group one, conference one, group 2, conference two"

It is a good idea to make a copy of the Configuration Worksheet found in Appendix B and fill in the data as you determine the current conference assignments for each card.

Make another copy of the Configuration Worksheet and fill in the desired conference assignments for each card and group. To change the conference assignments, use function 4, "Set conference assignment for a card/grp#".

Setting Conference Assignments for Each Card

To set the conference number assignment for a card's two groups (display1/display2), press '4', then the single digit card number (1 to 9), then '1' for group 1 or '2' for group 2, then the two digit global conference number ("01" through "18" for conference 1 through 18 respectively). The response is a voice message indicating the card, group, and conference number assignment.
Example: we want to set card 2, group 1 to conference #4:

Press '4', then '2' (for card 2), then '1' (for group 1), then "04" for conference #4.
Response: "card one, group one, conference four"

Continue with the '4' command until all cards/groups have been changed to match your worksheet

Setting Authorization Codes for Conferences

To set the authorization code for a conference number, press '7', the two digit conference number ("01" through "18"), followed by the four digit numeric authorization code. Note: if there are no cards present that match the conference number and have the Auth Code Option, you will get an error tone (re-order tone). You must have the Auth Code Option in order to change an auth code or override an auth code.
Example: we want to set the auth code for conference #3 to "3456":

Press '7', then "03", then "3456".

Setting/clearing Authorization Code Override for Conferences

To override an authorization code for a conference number, press '2', the two digit conference number, and '1' for on or '0' for off. If the auth code override is on, conference members calling in will not be required to enter an auth code. If the override is cleared to off, the auth code will be required for the conference. You must have the auth code option in order to perform an auth code override function otherwise you will get an error tone (re-order tone).

Example: we want to override the auth code for conference #3 :
Press '2', then "03", then "1".

Playing the Authorization Code for a Conference

To hear a voice prompt indication of the auth code for a conference, press 1 followed by the two digit conference number. If conference "01" has "2580" as its auth code and the CM Port in remote mode presses '1', "01", the voice prompt "Two, Five, Eight, Zero" will be played.

Setting the Auth Code for the CM Port

To set the Auth Code for the CM Port, press '8', followed by a four-digit numeric authorization code.

3.7.5 HOW TO RECORD/PLAY CUSTOM USER GREETING MESSAGES (UG OPTION)

If you have ordered the UG Option, you have the ability to record your own custom welcome greeting message customized for each conference number. Once a greeting has been recorded for a conference, it will replace the factory default greeting shipped with the VP Option. It will be played every time a user calls into that conference unless the greeting override for the conference number has been set. Once recorded, the message can be played back for review. The Conference's user greeting can be erased which changes the message played back to the factory default greeting. To record a user customized greeting: press '5', then the two digit conference number ("01" through "18"). A voice prompt will say ***"enter # to begin recording, press # again when you're through".*** If you decide you're not ready to record, don't press #, and after 5 seconds, you will return to "Administrator Mode". When you decide to record, press '5', and the two digit conference number again. After the voice prompt, press #. This will begin the record cycle. First, you will hear a series of four "doorbell" chimes (ding-dong sounds), then a single prompt tone beep. At the **end** of the prompt tone beep, **begin speaking**. When you are through recording, press the **# key**. You have up to 20 seconds of recording time for each conference greeting. The four doorbell chimes take approximately 5 seconds to complete. They are played while the Flash memory (where your voice message will be stored) is being erased. When the Flash memory has been erased, the prompt tone is played, indicating recording is about to begin. To hear the message that you recorded, press '6', and the two digit conference number where the message was recorded to.

If you intend to require an authorization code to be entered by each conference member, be sure to indicate so in your user greeting. For example: "Welcome to the XYZ Corporation weekly status meeting, please enter your authorization code". Conversely, if you intend to have the auth code overriden, don't mention the authorization code in your greeting. For example: "Welcome to the XYZ Corporation weekly status meeting".

To Record a User Greeting for a Conference Number:

- Press 5

• Press the two-digit conference number
• Listen for the voice prompt “press pound to begin recording, press pound again when you’re through”
• Press ‘#’
• After hearing 4 doorbell chimes, get ready to speak just after the Prompt tone beep…
• Record your greeting, press the ‘#’ key when you’re through.
• To listen to your recording, press 6 and the conference number you recorded the greeting to.

If you want to change a conference’s greeting back to the default factory greeting “Welcome to the Confer III Bridge”, press 0 followed by the two digit conference number. You will hear four doorbell chimes as the user greeting is being erased. Any subsequent calls for that conference number will have the default greeting played (unless greeting override has been set for that conference).

Shown below in Table 3.7.4.1 is a summary of Remote Administrator functions.

Table 3.7.4.1 Remote Administrator Commands

	Remote Administrator Function	Format	Example
1	**Play auth code assigned to a conference#**	***1,<conf#>***	**1, 01**
2	**Set auth code ovrd for a conference#**	***2,<conf#>,<on/off>***	**2, 02,1**
3	**Play conference assignment for a card**	***3,<card#>***	**3, 1**
4	**Set conference assignment for a card/grp#**	***4,<card#>,<grp#>,<conf#>***	**4, 1,2,02**
5	***Record User Greeting Message for a conf#**	***5,<conf#>***	**5, 03**
6	***Play User Greeting Message for a conf#**	***6,<conf#>***	**6, 01**
7	**Set Auth Code for a conference#**	***7,<conf#>,<auth code>***	**7, 01,2580**
8	**Set Auth Code for CM Port (RA Option)**	***8,<auth code>***	**8, 0123**
9	**Greeting Override for a conference#**	***9,<conf#>,<on/off>***	**9, 01, 1**
0	***Erase Greeting for a conference#**	***0,<conf#>***	**0, 01**
*n	**monitor a conference# n (RM Option)**	***,<conf#>***	***, 01**

* Note: record/play/erase user greeting: must have option UG present

Remote Administrator Command Format

conf# - two digit global conference number entered from the CM Port Remote telephone ranges from “01” to “18”. The corresponding 7-segment Display value is shown below in table 3.7.4.2.

Table 3.7.4.2. Conf# Values

Conf #	7-Segment Display	Conf#	7-Segment Display
"01" **conference 1**	**1**	***"10"*** **conference 10**	**A**
"02" **conference 2**	**2**	***"11"*** **conference 11**	**B**
"03" **conference 3**	**3**	***"12"*** **conference 12**	**C**
"04" **conference 4**	**4**	***"13"*** **conference 13**	**D**
"05" **conference 5**	**5**	***"14"*** **conference 14**	**E**
"06" **conference 6**	**6**	***"15"*** **conference 15**	**F**
"07" **conference 7**	**7**	***"16"*** **conference 16**	**H**
"08" **conference 8**	**8**	***"17"*** **conference 17**	**J**
"09" **conference 9**	**9**	***"18"*** **conference 18**	**L**

on/off – '0' for OFF, '1' for ON.

card# - single digit card number ranges from '1' to '9' (card 1 is the leftmost card as looking at the front of the cards)

grp# - single digit group number '1' for lower 4-port conference group and '2' for upper 4-port conference group on each card. Each card has two 4-port "groups" which can be assigned to the same or separate global conference numbers.

auth code – four-digit authorization code assigned to a global conference number

Examples from Table 3.7.4.1 Explained:

1. 1, 01 = play authorization code assigned to conference number "01" (conference 1)
   a. Response: voice message indicating the authorization code assigned to conference 1; example: "two", "five", "eight", "zero"
2. 2,02,1 = set authorization code override for conference number "02" to ON
   a. Response: voice message: "conference two", "auth code override", "on"

3. 3,1 = play conference assignment for card 1
    a. Response: voice message indicating conference assignments to card: “card”, “one”, “group”, “one”, “conference” “one”, “group”, “two”, “conference”, “two”. This means that the lower 4-port group of card 1 is assigned to conference 1 while the upper 4-port conference is assigned to conference 2. (The lower 7-segment display would show a ‘1’ while the upper 7-segment display would show a ‘2’)
4. 4,1,2,02 = set the conference assignment for card 1, group 2, to conference “02”
    a. Response: voice message indicating new conference assignment: “card”, “one”, “group”, “two”, “conference”, “two”. This means that the upper 4-port conference group of card 1 is now assigned to conference 2.
5. 5,03 = record customized user greeting for conference 3. The CM Port user presses ‘#’ to begin the user greeting message for conference 3, waits for the previously recorded message to be erased, waits for the prompt tone, records the message, then presses ‘#’ again when finished.
    a. Response: voice message prompt: “please press pound to begin recording, when you’re through, press pound again”. CM Port user presses ‘#’ if he/she wants to record a new voice message or just waits 5 seconds if he/she decides not to. If ‘#’ pressed, there are a quantity of 4 “doorbell” chimes indicating the erase cycle in progress for the previously recorded message. When the erase cycle is complete, there is a slight pause, then a prompt tone is play indicating the start of recording. After the completion of the recording, the CM Port user presses ‘#’ to end the recording.
6. 6,01 = play user greeting recorded for global conference number 1.
    a. Response: the user customized greeting previously recorded for conference number 1 will be played.
7. 7,01,2580 = set authorization code for conference 1 to “2580”
    a. Response: the authorization code entered will be played: “two”, “five”, “eight”, “zero”.
8. 8,0123 = set the authorization code for the remote administrator CM Port to “0123”
    a. Response: the authorization code entered will be played: “zero”, “one”, “two”, “three”.
9. 9,01,1 = User custom greeting override for global conference number “01”
    a. Response: the state of the greeting override (“on” or “off”) will be indicated through a voice prompt.
10. 0,01 = Erase user custom greeting for global conference number “01”
    a. Response: quantity of 4 “doorbell” tones will be heard while the previously stored user greeting message is being erased. After the greeting is erased, the factory default greeting will be used for the specified conference.

4.0 CONFERENCE MEMBER USAGE

4.1 CALLING IN TO THE CONFERENCE AS A USER

Dial the number of the line(s) or hunt group connected to the Confer III. When the Confer III answers, you will hear a greeting (if the VP Option is present) and a prompt to enter the auth code (if the auth code is present for the card). The factory default authorization code is 2580. (Note: if auth code override is set, the prompt to enter the auth code will not be heard and you will be placed in the conference without requiring an auth code). After successfully entering the conference, you will hear a join tone. Other members of the conference will also hear the join tone if enabled. The join tone is a two-tone low-to-high chime sound.

To join the conference:
• Dial the number of the line (or hunt group) connected to the Confer III bridge
• Wait for the bridge to answer your call and play the greeting message
• Enter the four-digit authorization code (default 2580) Note: you do not have to wait for the greeting/prompt to finish before entering the auth code
• Listen for the join tone, the conference is now in progress

4.2 PARTICIPATING IN THE CONFERENCE

As each new member joins the conference, a join tone is played both to the joining member and the conference members. If the join tone enable dip switch setting is set to off, only the new conference member will hear the join tone.

Lockout Function

After all of the expected members have entered the conference, the conference can then be locked to keep out additional callers that try to enter the conference on unused ports. In other words, if all six members of a conference were present in an 8-port Confer III bridge, the conference call in sequence would be considered complete. However, any subsequent calls to the 7th or 8th port could cause a disturbance to the conference (if the authorization code option is not present or if authorization code override is enabled). To preclude wrong number or telemarketer calls from being answered on the un-used ports, the lockout feature is used. After lockout is activated, the bridge ignores any subsequent calls to the un-used (inactive) ports. After the initial conference setup is complete, any member of the conference can press 5# to place the bridge in the lockout state. After first entering lockout, a “locked” voice prompt is played to the conference (if VP option present) otherwise, a three-tone audio prompt is played (rising pitch represents locked and falling tone pitch represents un-locked). To unlock the bridge, and allow incoming calls to be answered, any member of the conference can press 8#. An “unlocked” voice prompt indicates return to normal answer mode (if VP option present) otherwise a three-tone prompt is played.

To place the conference in lockout:

Press 5# from any conference members' phone. The "locked" voice prompt will be heard by all conference members if the VP option is present, otherwise a tone sequence is played.

To unlock the conference:

Press 8# from any conference members' phone. The "unlocked" voice prompt will be heard by all conference members if the VP option is present, otherwise a tone sequence is played.

Self-Boost

The Confer III provides a special receive audio level boost function that allows a user to increase their audio level going into the conference. The moderator of the conference can instruct the user that sounds weak to press 2#. The weak sounding user will then get 3dB of additional gain into the conference. The self-boost feature is used to increase the signal level from weak lines.

To self-boost user's outgoing volume:

Press 2# from a user's phone. The conference will now hear an increased level coming from the boosted user's phone.

Self-Mute

The self-mute function is used when a user wishes to mute ambient noise coupled into their microphone or just wants to listen only. The Confer III provides a mute on / mute off toggle function accessed by pressing 6#. Initially, all calls are in the un-muted mode. So, the first 6# sequence will place the user in the muted mode. A subsequent pressing of 6# will toggle the mode to un-muted. A "muted" / "un-muted" voice prompt is played with each toggle to let the user know which mode he/she is in if the VP Option is present, otherwise tones indicate muted/unmuted by rising/falling two-tone pitch.

To mute / un-mute user's outgoing audio:

Press 6# from the user's phone. Listen for the "mute" or "un-muted" voice prompt. Press 6# again to toggle between states.

Headcount

The "Headcount" function is used when anyone in the conference wishes to know the number of active participants currently in the conference. (The Headcount option must be present along with the VP option in order to activate the Headcount function). The Headcount function is useful to ensure the security and privacy of your conference . It is important to know that the number of lines actually in the conference matches the number of participants expected prior to beginning the conference meeting. Any of the conference members can press "*42" to get a voice message indicating the number of active participants. For example, if one of the members of conference #1 presses "*42" and there are five members in the conference, everyone in conference #1 will hear the voice prompt, "five". After the conference participants are all present and verified with the "Headcount" function, the conference can be "locked" (see Lockout function) and begun. If the Headcount Option was not originally purchased with your Confer III system, contact your Forum representative for upgrade information

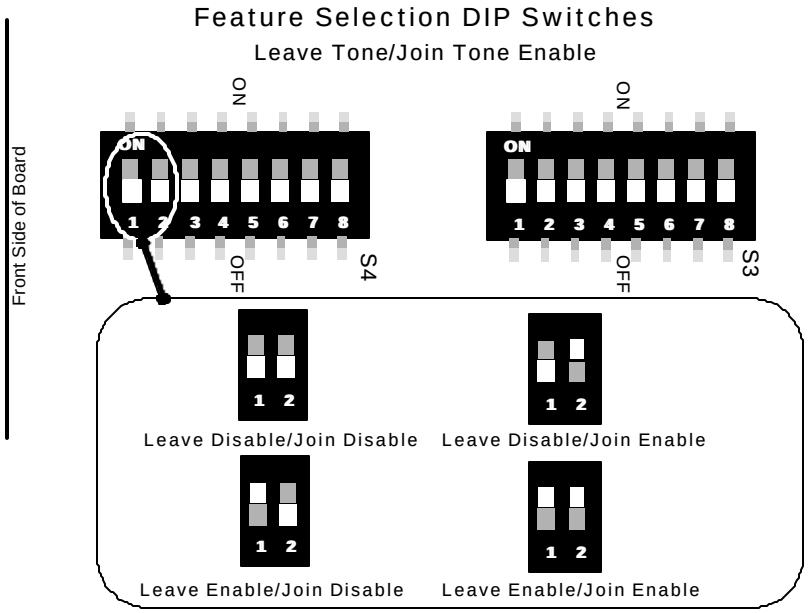
To determine the number of conference members in the conference:

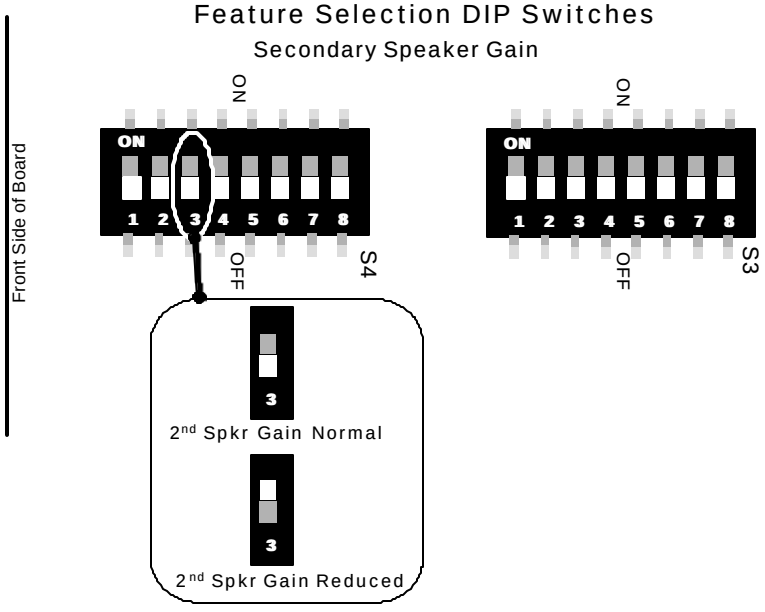
Press *42 from any of the users' phone. Listen for the voice prompt indicating the number of conference members active in the conference.

Audio Input/Output Port

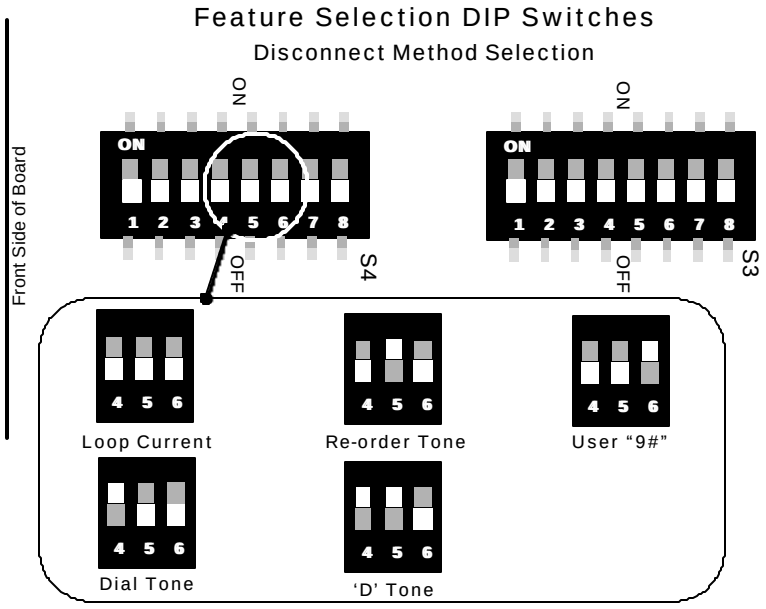
The audio output / input ports are located just below the LINE1 RJ-11 connector. The audio output port provides an audio conference output signal. This signal is typically used for recording of the conference. The audio input port provides a means of inserting an external signal into a conference. The mating connectors for the audio output / input jacks are a mono 2.5mm plug. The ports can also be used as a source / monitor for a Public Address System for adding the conference capability to a large meeting.

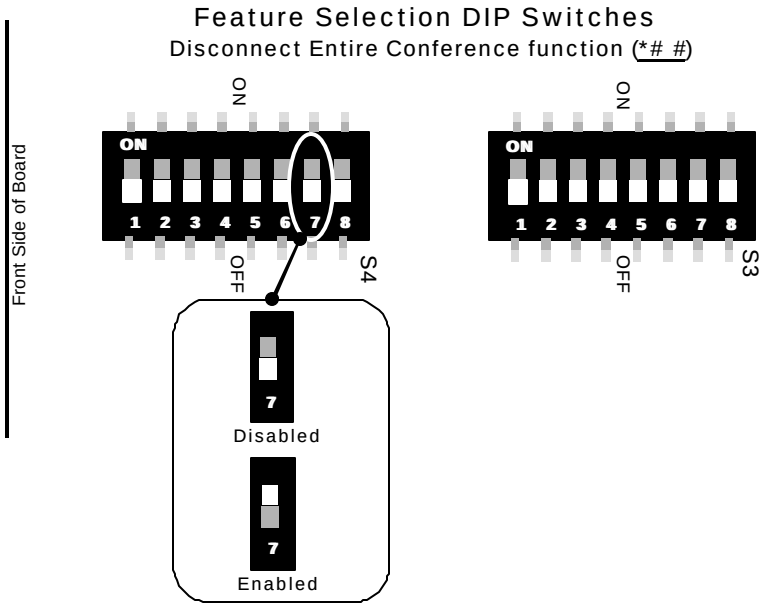
Appendix A
Confer III Configuration Switch Settings





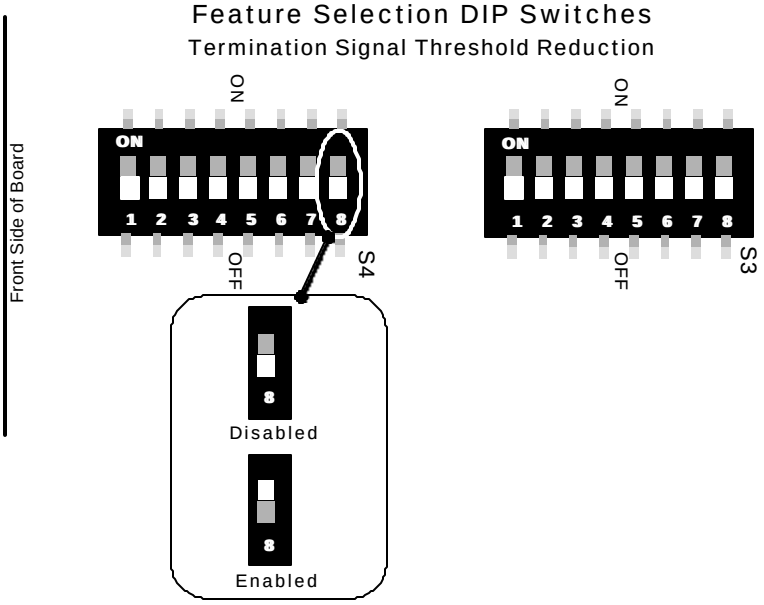
FORUM COMMUNICATIONS


Feature Selection DIP Switches
Disconnect Method Selection
Front Side of Board
ON
OFF
1 2 3 4 5 6 7 8
S4
S3
4 5 6
Loop Current
Re-order Tone
User "9#"
Dial Tone
'D' Tone


Feature Selection DIP Switches
Disconnect Entire Conference function (*# #)
Front Side of Board
ON
OFF
1 2 3 4 5 6 7 8
S4
S3
7
Disabled
Enabled

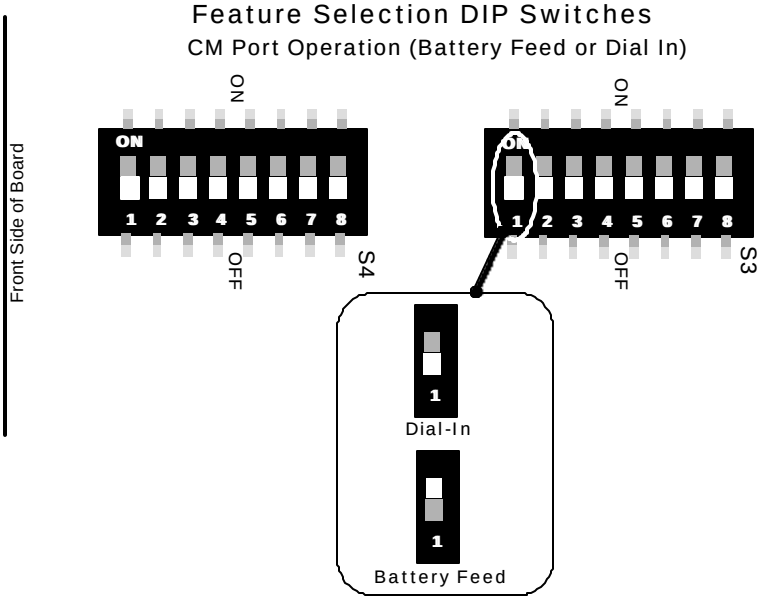
Feature Selection DIP Switches

Termination Signal Threshold Reduction



Feature Selection DIP Switches

CM Port Operation (Battery Feed or Dial In)



Appendix B

Confer III Configuration Worksheets

Confer III Card Cage Conference Assignment Sheet

Confer III Conference Assignments								
Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #
Group 1 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #	Group 2 Conf #
Card 1	Card 2	Card 3	Card 4	Card 5	Card 6	Card 7	Card 8	Card 9

Authorization Code Assignment Sheet

Global Conf#	7-Seg Display	Auth Code	Auth Cd Ovrd	User Greeting
01	1			
02	2			
03	3			
04	4			
05	5			
06	6			
07	7			
08	8			
09	9			
10	A			
11	b			
12	C			
13	d			
14	E			
15	F			
16	H			
17	J			
18	L			

Appendix C

Typical Configurations

Summarized Case	Config Case	Auth Code Option	Auth Code Ovrd	VP Option	Greeting Ovrd	UG Option	User Greeting Erased	CM Port Config Mode	Conf Locked
1	1	no	no	no	x	x	x	no	no
	2	yes	yes	no	x	x	x	no	no
	3	yes	yes	yes	yes	x	x	no	no
2	4	yes	no	no	x	x	x	no	no
3	5	yes	no	yes	yes	x	x	no	no
	6	yes	no	yes	yes	yes	no	no	no
	7	yes	no	yes	yes	yes	yes	no	no
4	8	yes	no	yes	no	no	x	no	no
	9	yes	no	yes	no	yes	yes	no	no
5	10	yes	no	yes	no	yes	no	no	no
6	11	yes	yes	yes	no	yes	no	no	no
7	12	x	x	x	x	x	x	yes	no
	13	x	x	x	x	x	x	no	yes

Description of Typical Configuration Settings (Summarized Cases)

1. User calls in to the bridge. Result: the ringing line is answered. The user hears the <join tone> and is added to the conference. In Config Case 3, the user hears the join tone without the welcome greeting (even though the Voice Option is present) because the Greeting Override for the conference has been set.
2. User calls in to the bridge. Result: the ringing line is answered. The user hears a <prompt beep> and enters the auth code. Upon succcessful auth code entry, the user hears the <join tone> and is added to the conference.
3. User calls in to the bridge. Result: the ringing line is answered. The user hears the factory voice prompt, <"Please enter your authorization code">, <prompt beep>. Upon successful auth code entry, the user hears the <join tone> and is added to the conference. In Config Case 7, the factory greeting was played because the User Greeting Message was erased.
4. User calls in to the bridge. Result: the ringing line is answered. The user hears the factory greeting <"Welcome to the Confer III Bridge">, The user then hears the factory voice prompt, <"Please enter your authorization code">, <prompt beep>. Upon successful auth code entry, the user hears the <join tone> and is added to the conference. In Config Case 9, the factory voice greeting was played because the User Greeting Message was erased.
5. User calls in to the bridge. Result: the ringing line is answered. The user hears the custom user greeting recorded for that specific conference <"*user's greeting*">, The user then hears the <prompt beep>. Upon successful auth code entry, the user hears the <join tone> and is added to the conference. Since the Auth Code Option is present and the Auth Code Ovrd is not set, the Confer III will expect an authorization code to be entered. **Therefore, the customized user greeting should also include a reference to entering an auth code.** Example: *"Welcome to the weekly XYZ Corporation Conference Call. Please enter the authorization code."*

6. User calls in to the bridge. Result: the ringing line is answered. The user hears the custom user greeting recorded for that specific conference <"*user's greeting*">, The

user then hears the <join tone> and is added to the conference. Since the Auth Code Option is present and the Auth Code Ovrd is set, the Confer III will **not** expect an authorization code to be entered. Therefore, the customized user greeting should **not** include a reference to entering an auth code. Example: *"Welcome to the weekly XYZ Corporation Conference Call."*

7. User calls in to the bridge. Result: the ringing line is not answered because in Config Case 12, the CM Port was in administrative mode and in Config Case 13, the conference was locked. This illustrates the fact that when the CM Port is configuring the bridge (changing auth codes, greeting override, or auth code override), no incoming lines will be answered.

Appendix D

Confer III Dial Out Option

With the "Dialout" Option, a conference member (with moderator privilege) can temporarily step out of a conference, dial a line and then bring the line into the conference extending the capability of the bridge beyond the basic "meet-me" functionality. With four easy to use commands, dial out allows a moderator to bring-in conference members that may have forgotten to call in or add members that the situation dictates.
Summary of dialout commands:

Moderator Privilege Command (*67):
*67 – gives moderator privilege to a line currently in the conference (you must press *67 before any dialout functions can be performed. Also, only one line in the conference can be the "Moderator". If the current moderator hangs up and another line presses *67, that line becomes the new moderator.

Dialout Command (*36):
*36 – removes the moderator from its current conference, seizes an un-used line in the conference group, and connects the moderator to the seized line in a private connection. The moderator then dials the desired number of the party. If the called party is busy or out-of-service, the moderator can press *33 to drop the connection and return to the conference.

Drop Private Party Command (*33):
*33 – drops the current private connection and returns the moderator to the conference.

Add Private Party to the Conference Command (*32):
*32 – adds the moderator and the private party into the conference.

A typical dialout sequence example:
Line 1 is in an 8-port conference with Line 3 and Line 5 and needs to dialout and bring in a new conference member.

Action: Line 1 presses "*67" (Moderator Privilege).
Result: Line 1 hears a doorbell type tone indicating moderator privilege has been activated Line 1 is now the moderator.

Action: Line 1 presses *36 (Dial Out)
Result: Line 1 hears dial tone. Line 1 then dials the number of the party.

Action: After establishing a private connection, the moderator presses *32 (Dialout Add).
Result: Line 1 and the called party are added to the conference, all members hear a join tone (if join tone enabled).