



MULTICOM 2000[®]

Administrative Communications System

Operating Instructions

Compliance

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment 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. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques del la class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

Software Release

The information supplied in these instructions is applicable to systems with at least the following software revision levels:

System Software Level – 5.0

Administrative Telephone Software Level – 5.12

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Introduction

Bogen's Multicom 2000 is a microprocessor-based communications systems. The system combines the features of an electronic telephone network with the capabilities of a sound and program distribution system. Optional functions further increase the versatility of the system.

Telephonic Features:

- Two-way communication between stations.
- Normal/Urgent/Emergency calling from staff stations.
- Call transfer/call forward/call conference capabilities.
- Remote answer.
- DTMF push-button dialing telephones. Standard dial and busy tones. Special ring signals on administrative phones announce emergency, urgent and normal, outside line calls, and calls waiting.

Sound System Features:

- Emergency All-Call and Emergency Alarms capture complete system priority. Four alarm tones are available.
- Built-in audio program interface. Choose from three program sources and distribute program to any speaker, zones, or all speakers.
- 8 paging zones. Single-zone paging.
- 8 time signaling zones.
- 8 separate time signalling schedules.
- 1024 programmable events.
- Manual tone activation; 8 tones available plus external audio.

Additional Features Available:

- Integration with Bogen Multi-Graphic equipment.
- Emergency announce link.
- Selective outside line access and ability to receive outside calls.
- Direct Inward Station Access (DISA) permits control of system functions from off-site telephone.
- Media control function.
- Relay control function to activate external equipment.
- Program clock control.
- Computer interface for remote diagnostics/programming.
- Select 3, 4, 5, or 6 Digit Dialing
- 911 Dial Prefix
- Factory Reset

Note: *The Emergency Announce Link requires a loudspeaker at the calling location and at the emergency announce station.*

Station Types and Access Levels

Each station port in the Multicom 2000 system is assigned an access level. The access level determines the type of equipment that can be connected to the port, as well as the ability to control different system functions.

Staff Station

A staff station consists of a loudspeaker and call switch, or a loudspeaker and telephone handset. Staff stations can receive calls from enhanced staff, administrative and outside line stations. Each staff station is programmed to ring one administrative station during "day" hours and one administrative station during "night" hours. The station's access level determines its call-in ability as follows:

Level 1 - Can make a normal or emergency call.

Level 2 - Can make an urgent or emergency call.

Level 3 - Can make an emergency call.

Enhanced Staff Station

An enhanced staff station consists of a DTMF dialing telephone and loudspeaker. System functions are initiated by pressing designated keys of the telephone dial pad. The access level of the station determines the ability to initiate system functions as follows:

Level 4

- Dial an administrative station.
- Make an emergency call to a designated administrative station (requires loudspeaker at calling location).
- Direct outside line call to Emergency 911.
- Turn program material on/off at that location.
- Remote answer.
- Ring for incoming outside line calls. (If the station is in use, an outside line calling in results in a call-waiting tone over the handset of the called party. The outside line will ring in when the station hangs up.)
- Access outside line (must be programmed).
- Call forward (Enhanced to Enhanced or Enhanced to Administrative).

Level 5 – Level 4 capabilities, plus:

- Call any staff or enhanced staff station.
- Conference call. (The third party in a conference call or call transfer can be any staff, enhanced staff, administrative or DISA station programmed for outgoing calls.)
- Transfer call.

Level 6 – Level 5 capabilities, plus:

- All-station page (all-call).
- Single-zone page.

Administrative Station

An administrative station consists of a Model MCDS4 administrative telephone and optional loudspeaker. The administrative telephone is equipped with an alphanumeric display panel. The display panel normally shows the numbers and calling status of the first four stations calling in to that particular station (the display can be scrolled to show the numbers of other calling stations). The display also shows the time, day of the week, the current time-signalling schedule, and the call-forward status (if active).

System functions are initiated by pressing designated keys of the telephone dial pad. Operation of system functions is assisted by the use of menus which appear on the display panel. The access level of the station determines the ability to initiate system functions as follows:

Level 7

- Dial any station.
- Direct outside line call to Emergency 911.
- Turn program material on/off at that location.
- Scroll/Clear/Auto-Dial call-waiting queue.
- Conference call.
- Transfer call.
- Call forward (Administrative to Administrative only).
- Assign media functions (optional).
- All-station page (all-call).
- Emergency all-call page.
- Remote answer.
- Ring for incoming outside line calls. (If the station is in use, an outside line calling in results in a call-waiting tone over the handset of the called party. The outside line will ring in when the station hangs up.)
- Access outside line (must be programmed).

Level 8 – Level 7 capabilities, plus:

- Select program source.
- Distribute/cancel program.
- Activate alarm signals.
- Activate/reset external relay drivers.
- Single-zone page.

Level 9 - Level 8 capabilities, plus:

- Manually activate tone signals.
- Bump/join conversation in progress.
- Access the system's Setup and Initialization menu systems and change system parameters.

Outside Line Stations

An optional feature of the Multicom 2000 system permits connection to outside telephone lines. This feature uses an optional circuit card which provides up to eight outside line station ports. Up to 2 telco cards can be installed in a system for a maximum of 15 outside lines on a fully expanded system.

The ability to access the outside lines for the purpose of placing outside calls can be assigned to any enhanced staff or administrative station in the system. This ability can be restricted to making local calls only or unrestricted, permitting local or long-distance calls.

There are two programmable levels for outside line stations:

Level 10 – The station port will ring a designated "day" or "night" staff, enhanced staff or administrative telephone for outside line calls. Administrative telephones annunciate outside line calls with a special ringing tone.

Level 11 – The station port will provide Multicom 2000 system dial tone when accessed from an outside telephone (DISA). This feature can be restricted by a password.

- **If a password is required**, functions available are: Call a station loudspeaker (no preannounce/privacy tone) or station telephone; make all-station & single-zone page (no preannounce/privacy tone); access the Setup menu.
- **If a password is not required**, functions available are: Call a station loudspeaker (preannounce/privacy tone) or station telephone; make all-station & single-zone page (preannounce/privacy tone); remote answer; access the Audio Program menu, Media Assign menu, External Driver menu, and Manual Tone menu.

Notes: When an outside line is requested, the system will check to see if the station has any private lines. If no private lines exist, or if none are available, the system will check to see if any outside lines are assigned to ring the calling station. If a line is found and not in use, it will be assigned to the calling station. If no line is found, the system will hunt all outside lines (Outside lines and DISA lines can be both incoming and outgoing or restricted to incoming calls).

Operation of Staff Stations

Loudspeaker with Call Switch

To make a normal call (or urgent call if the station is programmed for Level 2 access), press the call switch. You will hear a tone over the loudspeaker when the call is answered. Speak into the loudspeaker.

To make an emergency call, quickly press and release the call switch at least four times. You will hear a tone over the loudspeaker when the call is answered or when the call is transferred to the emergency announce link (if not answered in 15 seconds and the option is activated). Speak into the loudspeaker for help.

Loudspeaker with Telephone Handset

To make a normal call (or urgent call if the station is programmed for Level 2 access), lift the handset off the hook switch and replace it. You will hear a tone over the loudspeaker when the call is answered. If you want to have a private conversation, lift the handset. The conversation will automatically switch from loudspeaker to handset.

To make an emergency call, lift the handset off the hook switch and flash the switch at least four times. Replace the handset on the hook switch. You will hear a tone over the loudspeaker when the call is answered or when the call is transferred to the emergency announce link (if not answered in 15 seconds and the option is enabled). Speak into the loudspeaker for help.

Notes: If your station has been programmed as a Level 3 station, a single press of the call switch (or single flash of hook switch) will initiate an emergency call. You will hear a tone over the loudspeaker when the call is answered or when the call is transferred to the emergency announce link within 15 seconds (if this option is enabled). Speak into the loudspeaker for help.

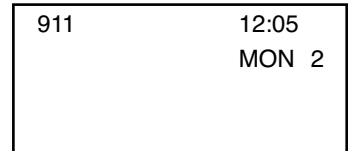
In some installations, a station may have two (2) call switches or a handset and call switch (such as a dedicated emergency-call switch). Your training instructor will be able to instruct you as to the use of switches in these configurations.

Operation of Enhanced Staff Stations

To make a normal call to a loudspeaker, lift the handset and dial the three-digit number of the desired station. Precede this number with the $\text{\textcircled{X}}$ key if you want to call a station telephone instead of the loudspeaker. You will hear a preannounce tone when you are connected to the loudspeaker and a privacy beep every 16 seconds that you don't speak. If you call a telephone, you will hear the ringing tone.

To make an emergency call, lift the handset and flash the hook switch at least four times, then replace the handset (or press the dedicated emergency-call switch, if so equipped). You will hear a tone over the loudspeaker when the call is answered or when the call is transferred to the emergency announce link if not answered in 15 seconds (and this option is enabled). Speak into the loudspeaker for help.

To make an Emergency 911 Outside Line Call to Outside Emergency Facilities, lift the handset and dial 911. If the station has a display, 911 will then be displayed on the station and the station will be directly connected to outside Emergency Facilities, plus a display notification of the call will be sent to the Administrator's station along with the station number that dialed the call.



System Functions for Enhanced Staff Stations

The chart below lists system functions available to enhanced staff stations, access levels, and dial sequences.

Function	Level	Dial Sequence
Alarm Distribution	4, 5, 6	$\text{\textcircled{\#}}$ $\text{\textcircled{9wxy}}$ xxxx $\text{\textcircled{9wxy}}$ $\text{\textcircled{\#}}$ $\text{\textcircled{1oz}}$ - $\text{\textcircled{9wxy}}$ $\text{\textcircled{\#}}$ $\text{\textcircled{5jkl}}$
Audio Program On/Off	4, 5, 6	$\text{\textcircled{\#}}$ $\text{\textcircled{9wxy}}$ (Toggles)
Call Forward * : All Calls	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{7prs}}$ $\text{\textcircled{1oz}}$ plus Arch. No.
When Busy	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{7prs}}$ $\text{\textcircled{2abc}}$ plus Arch. No.
When No Answer	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{7prs}}$ $\text{\textcircled{3def}}$ plus Arch. No.
When Busy or No Answer	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{7prs}}$ $\text{\textcircled{4ghi}}$ plus Arch. No.
Cancel Call Forward	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{7prs}}$ $\text{\textcircled{5jkl}}$
Conference/Transfer Call	5, 6	Flash Hook, Dial No. when second party answers, Flash Hook to Conference or Hang up to Transfer
Dial Administrative Station	4, 5, 6	nnn (Dial Speaker) $\text{\textcircled{X}}$ nnn (Dial Phone)
Dial Staff Station	5, 6	nnn (Dial Speaker) $\text{\textcircled{X}}$ nnn (Dial Phone)
Emergency All-Call	4, 5, 6	$\text{\textcircled{\#}}$ $\text{\textcircled{9wxy}}$ xxxx $\text{\textcircled{9wxy}}$ $\text{\textcircled{\#}}$ $\text{\textcircled{1oz}}$
Emergency 911 Outside Line	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{1oz}}$ $\text{\textcircled{1oz}}$
Place Outside Line Call * *	4, 5, 6	$\text{\textcircled{9wxy}}$ $\text{\textcircled{8tuv}}$ (Wait for Dial Tone)
Remote Answer	4, 5, 6	$\text{\textcircled{7prs}}$ $\text{\textcircled{X}}$ nnn
Single-Zone/All-Station Page	6	$\text{\textcircled{\#}}$ $\text{\textcircled{1oz}}$ - $\text{\textcircled{\#}}$ $\text{\textcircled{8tuv}}$ / $\text{\textcircled{\#}}$ $\text{\textcircled{0oper}}$

xxxx = 4-Digit System Password Backwards

nnn = 3-Digit Architectural Number

* Call forward to other enhanced staff or administrative stations. No call forward to/from emergency announce station.

** Outside Line Calls can be restricted to local calls only. Must be programmed for outside line access.

Operation of Administrative Stations

To call any station loudspeaker, lift the handset and dial the 3-digit architectural number of the desired station. Precede this number with the * key if you want to call a station telephone instead of the loudspeaker. The number you are calling will appear on the top line of the display panel as you dial. You will hear a pre-announce tone when you are connected to the loudspeaker and a privacy beep every 16 seconds that you don't speak. If you call a telephone, you will hear the ringing tone. To switch the use of the asterisk so that the preceding number called with an asterisk connects to the loudspeaker and the number alone rings the station, dial **6MNO * # # * * # 1oz**. To restore the original functionality of the asterisk key, dial **6MNO * # # * * # 0OPER**.

Queue Operation for Incoming Calls

Each administrative telephone is equipped with a display panel which normally shows the time, day of week, and current time signalling schedule:

12:00	Time
MON 2	Day-of-Week, Schedule

If a normal or urgent call from a staff station is placed, the architectural number of the calling station appears on the top line of the display and the phone rings for 45 seconds. If the call remains unanswered, the number remains on the top line for an additional 60 seconds (during which time, the call can be auto-dialed) and is then placed in the queue according to priority and time Urgent/Normal, older calls first (see illustration below).

If an emergency call from a staff or enhanced staff station is placed, the architectural number appears on the top line of the display along with the word HELP. The phone will sound a special ring signal and will continue to ring until the call is answered. If the emergency announce option is activated, the call will be routed to the emergency announce loudspeaker after 15 seconds, however, the administrative phone will continue to ring until the call is answered.

Emergency Call

Urgent Call

Normal Call

Normal Call *(Arrow indicates additional calls in the queue)*

110E	HELP	12:00
120U		MON 2
100		2
105	▼	

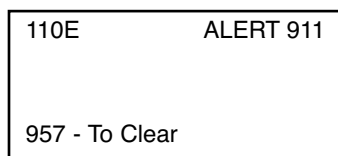
An emergency call will interrupt a non-emergency call in progress at the designated administrative telephone.

911 Emergency Outside Line Calls

911 Alert Operation

Systems with One Administrative Telephone

If **911 is dialed from a Staff Station**, the architectural number of the calling station appears on the top line of the administrative display along with the phrase ALERT 911. The Alert can be cleared by that administrative telephone by dialing 957.



If **911 is dialed from the administrator of a system that is programmed with a single administrative telephone**, there will not be a 911 Alert generated on that administrative telephone. However, the administrative display will indicate that 911 was called.

Systems with More Than One Administrative Telephone

A system is considered to have more than one administrative telephone if it is programmed with one level 9 station and an additional one or more stations of levels 7, 8, or 9. This can also include wall displays.

If **911 is dialed from a Staff Station** (such as a classroom), then all the administrative telephones, including any wall displays, will show the 911 Alert. The Alert can be cleared by any of the administrative telephones by dialing 957.

If **911 is dialed by one of the administrative telephones in the system**, all of the other administrative telephones will receive the 911 Alert.

Any administrative telephone that has the 911 Alert displayed can dial 957 to clear the Alert. If the Alert has not been cleared, then the administrative station that originated the 911 call, upon hanging up, will receive the message to dial 957 to clear the Alert.

Note: An Emergency 911 Outside Line Call will interrupt an emergency or non-emergency call at the designated administrative station.

If **911 is Placed During an All-Call**, the administrative telephone that placed the All-Call will be alerted when the All-Call is completed. The other administrative station will be alerted immediately. If the 911 Alert is cancelled prior to completing the All-Call, the administrative station that placed the All-Call will not receive an Alert.

Using Auto-Dial and Scroll to Return Calls

You can use the Auto-Dial function to call the station number appearing on the top line of the display panel.

Lift the handset and press **(*)** **(*)**. The call-waiting queue shifts down one line and the word ADIAL appears on the top line. A small arrow points to the number on the second line and the call is placed.

Auto Dial	12:00
120 U ◀	MON 2
100	
105	

ADIAL replaces station 120 U on the top line. An arrow points to the station being Auto-Dialed.

You can scroll the queue to place any station number on the top line of the display, and then use the auto-dial function to return the call.

Lift the handset and press **(#)**. The display appears as shown below. Press **(#)** to scroll the queue. (Note: You will be prompted to WAIT for the action of each key press to be completed.) When the desired number appears on the top line of the display, press **(*)** twice. The word ADIAL and the arrow will appear as above and the call is placed.

Zone?	
120 U	
100	# Scr Q
105	* Clr Q

Press **(#)** to Scroll queue

Press **(*)** to Clear queue (see below)

Clearing the Call-Waiting Queue

To clear all calls from the call-waiting queue, lift the handset and press **(#)**. The display shown below will appear. Press **(*)** to select the Clear Queue function. The display will then prompt you to press **(1 or 2)** to proceed or any other key to abort. If you proceed, the display will confirm the function and the queue (at that phone only) will be cleared.

Clear Queue?
*-Yes
Hang up to Exit

Press **(*)**

Queue	12:00
Erased	MON 2

Single-Zone and All-Call Paging

To make a single-zone or all-call page, lift the handset and press **(#)**. The display shown below will appear. Press the number keypad corresponding to the zone you want to page (1 through 8). To make an all-call page, press **(0 OPEN)** (the local speaker will be muted). Speak into the handset to make the page. Hang up the handset to end the page.

Zone ?	12:00
120U	MON 2
100	
105	

Enter number of the zone you want to page or **(0 OPEN)** for All-Call.

Hang up the handset to exit this function.

Using the Main Menu System

System functions can be accessed using the dial sequences shown in Keypad Access to System Functions on page 20. Administrative telephones also have a "Main Menu" display system to assist the user in initiating system functions. To view the menu, lift the handset and press **9wxy**. The menu appears showing the first three selections. To scroll the menu to see the other selections, press the **⏪** **⏩** keys.

<p>- Main Menu -</p> <p># - Alarms</p> <p>2 - Audio Program</p> <p>3 - Media</p> <hr/> <p>4 - External</p> <p>5 - Setup</p> <p>6 - Manual Tone</p> <p>7 - Call Forward</p> <p>8 - Outside Line</p> <p>9 - Media Control</p>
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The Main Menu appears when you press **9wxy**.

To scroll the menu, press the **⏪** **⏩** keys.

To select a function, press the corresponding number key. The display will then prompt the user to enter additional information, confirm the initiation of the function, or provide a new menu to permit the selection of choices available for that function.

Alarms

The Alarms menu lets you make an emergency all-call or initiate one of four alarm tones. Hanging up the phone stops the page/alarm. Press **⏪** **⏩** key to scroll the menu. Press **0OPER** to escape and return to the main menu.

Note: Diagrams include menu selections not immediately displayed (those beneath the dashed line). Press the scroll buttons on the MCDS4 Phone to view these selections.

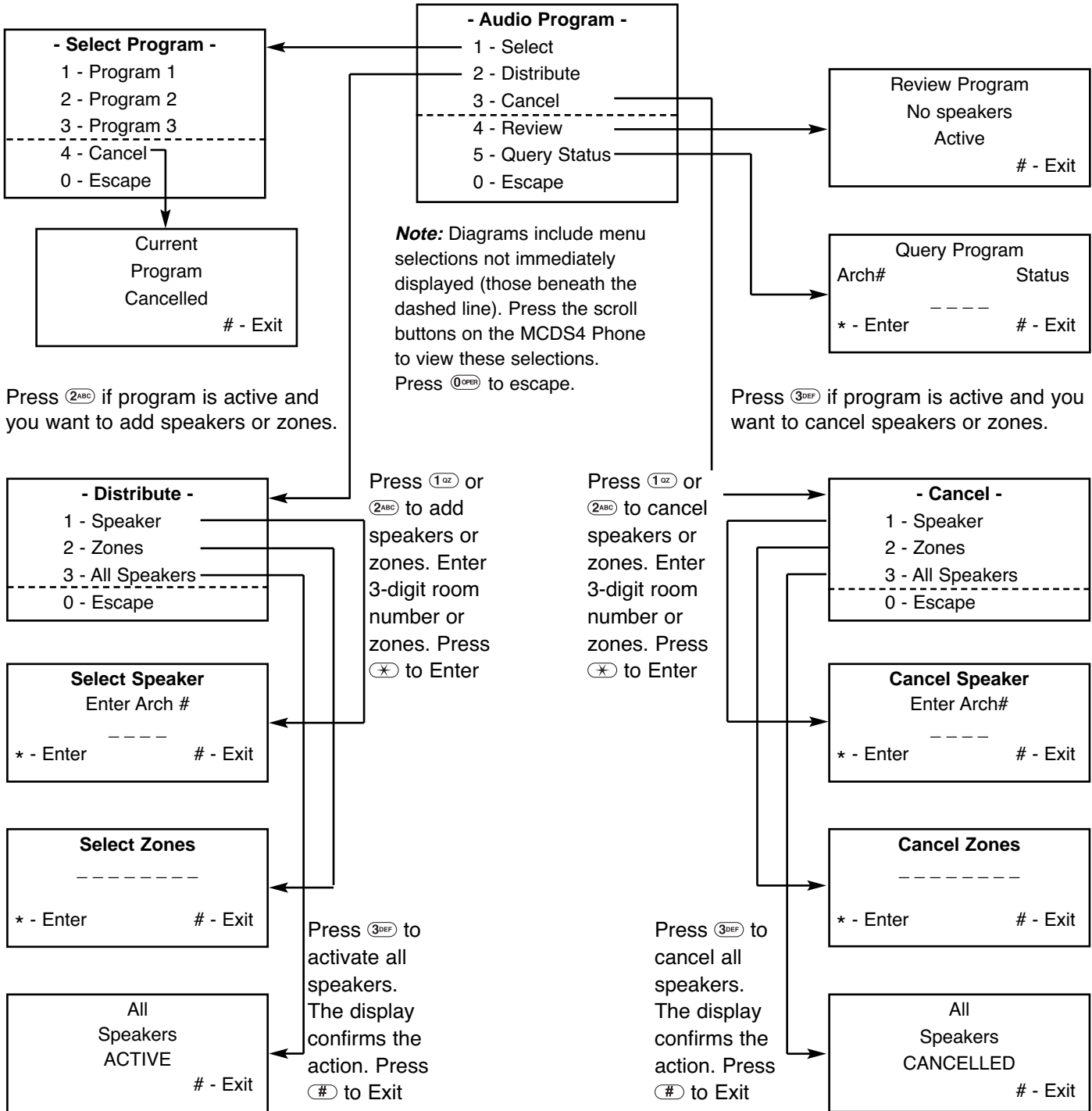
<p>- Alarms -</p> <p>1 - All Call</p> <p>2 - Alarm 1</p> <p>3 - Alarm 2</p> <hr/> <p>4 - Alarm 3</p> <p>5 - Alarm 4</p> <p>0 - Escape</p>
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The Alarms menu lets you make an Emergency All-Call or sound one of four alarms.

Press **⏪** **⏩** key to scroll the menu.

Audio Program

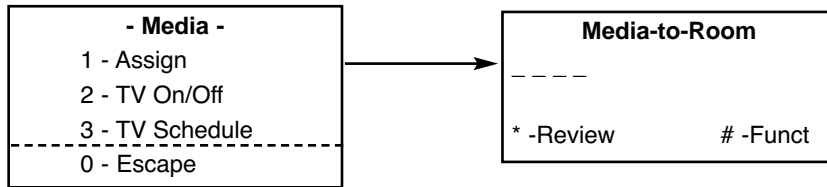
The Audio Program menu controls the selection and distribution of program material. If a program source is connected, the administrative telephone's speaker will be connected regardless of whether or not the program has been distributed. This allows monitoring of program source prior to distribution.



Media Assign

The Media Assign menu controls the assignment of remotely located video equipment to a station. The menu is used with the telemedia control option. The operator enters the architectural number of the media station number and the assigned architectural room number is returned (the cursor is positioned under room).

To enter a station assignment, with the cursor positioned under room, enter a valid station architectural number then press **#** to change the function of the ***** key to "Enter", and press *****.



Note: Diagrams include menu selections not immediately displayed (those beneath the dashed line). Press the scroll buttons on the MCDS4 Phone to view these selections. Press **0** to escape.

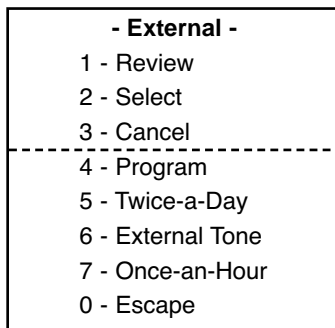
Enter the media architectural station number and the architectural room number assigned is returned. To exit this menu, press **#** to change the function of the ***** key to "Exit", and then press *****.

To review the media to room assignments, press **#** to change the function of the ***** key to "Review". Pressing ***** will then scroll through the current assignments (the cursor is positioned under room).

To delete any information displayed, press **#** to change the function of the ***** key to "Delete". Pressing ***** will then delete the currently displayed information.

External

The "External" menu lets you review, select, or cancel external relay driver control circuits.



The External menu lets you review, select, or cancel Relay Driver Control circuits (P5 pins 9-6).

Note: Diagrams include menu selections not immediately displayed (those beneath the dashed line). Press the scroll buttons on the MCDS4 Phone to view these selections. Press **0** to escape.

To **Review** the status of the external relay drivers, press **1**. A display will appear showing the current status of the four (4) external relays.

To **Select** an external relay driver, press **2**. Select the desired relay driver and press the appropriate key. The display will confirm the action. Press **0** to escape.

To **Cancel** an external relay driver, press **3**. Select the desired relay driver and press the appropriate key. To cancel all relay drivers, press *****. The display will confirm the action. Press **0** to escape.

To **Program** a relay driver, press **4**. Enter relay number, on time, and off time. To exit this menu, press **#** to change the function of the ***** key to "Exit", and then press *****.

To set **Twice-a-Day** closure, press **5**. You can set hour and number of seconds of closure (press **1**), and days of week (press **2**). Press **#** to exit.

To set **External Tone**, press **6**. Enter external tone number. Press **#** to exit.

To set **Once-an-Hour** closure, press **7**. Enter minutes and duration. Press **#** to exit.

Setup

The Setup menu is protected by a password and is available only from administrative stations assigned to Level 9.

The Setup menu permits setting the following parameters:

- Day/Time
- Time Signaling Events
- Time Zones
- Page Zones

The Setup menu also provides access to the Initialization/Diagnostic menu displays. These menus are protected by password and permit setting the following:

System Parameters

- Bell Duration
- Queue Time out
- Day Start Time
- Night Start Time
- Emergency Link
- Password
- Architectural Dialing On/Off
- Pre-announce Tone On/Off
- Privacy Beep On/Off

Station Parameters

- Station Access Level
- Station Architectural Number
- "Day" Administrator
- "Night" Administrator
- Outside Line Access/DISA Password

Software Revision Level

Architectural/Station Number Cross Reference

Select 3, 4, 5, or 6 Digit Dialing

911 Dial Prefix

Diagnostic Tests

- System Tests
- Card Tests

Factory Reset




Manual Tone


Selecting Manual Tone (No. 6 from Main Menu) displays the Initiate Tone menu and lets you initiate any of 8 tone signals over all system loudspeakers assigned to any of the 8 time zones. If no speakers have been assigned to any time zones, no tone will be heard.

- Initiate Tone -
1 - Tone 1
2 - Tone 2
3 - Tone 3

4 - Tone 4
5 - Tone 5
6 - Tone 6
7 - Tone 7
8 - Tone 8
9 - Program 2
0 - Escape

The Initiate Tone menu lets you initiate any of 8 tone signals.

Press   key to scroll the menu. Press  to escape to the Main menu.

Press the keypad corresponding to the tone number you want to initiate. The display will confirm the action. Press  to stop the tone and exit the display (or hang up).

Call Forward



The Call Forward menu lets you forward calls to another administrative telephone. When call forwarding is activated a CF will appear on the lower right corner of the display. Upon entering the menu, an arrow will appear next to the active selection. No arrow appears if no selection is active.

- Call Forward -
1 - All
2 - Busy
3 - No Answer




4 - Busy/No Ans.
5 - Cancel
0 - Escape




Press the keypad corresponding to the type of call forwarding desired.




Press  to Cancel.




Press   key to scroll the menus.






Press  to escape to the Main menu.

To forward all calls to another number, press . Enter the architectural number of the station you want to receive the call. Press  to enter. Press  to exit the menu.

To forward calls when your line is busy, press . Enter the architectural number of the station you want to receive the call. Press  to enter. Press  to exit the menu.

To forward calls when there is no answer (15 seconds), press . Enter the architectural number of the station you want to receive the call. Press  to enter. Press  to exit the menu.

To forward calls when the line is busy or when there is no answer, press . Enter the architectural number of the station you want to receive the call. Press  to enter. Press  to exit the menu.

To cancel call forwarding, press . The display will prompt you to press  to cancel or  to exit. If you press , the display will confirm the action. Press  to exit.

Note: The emergency link station cannot call forward to stations. No station can call forward to an emergency link station.

Outside Line

The outside line menu will prompt you to wait until you hear dial tone before entering the number. The display will echo the number as you dial.

If you have a restricted line, you will be unable to dial more than 10 digits. For the first 30 seconds, the call cannot be transferred nor conferenced. Two outside lines may be joined in a conference call with any station programmed for outside line use. If the station phone hangs up, the outside lines are dropped.

<p>- Outside Line - Wait For Dial Tone Then Dial #</p>
--

The outside line menu prompts you to wait for dial tone before dialing the number.

Media Control

Connection to a media station is via 1 of 2 ways. Assignment is made either through the **9wxy** menu or by the station calling the media station architectural number directly. If a connection is made via the **9wxy** menu, only a logical connection is made. The assigned phone must dial **9wxy 9wxy** or the media station architectural number to connect physically to the media station. A tone will be heard periodically as long as the assigned station is physically connected.

The station remains logically connected to the media controller even if the phone is hung up. No other station can connect to a media station that is logically connected to any other station. Once a station is logically connected, dialing **9wxy 9wxy** or the media station architectural number reconnects to the media station. No commands will be accepted by the media controller from the phone until a physical connection is established. The assigned station can logically disconnect from the media station by dialing **9wxy 9wxy** (if the confirmation tone is not heard through the handset) and then dialing *** 0 OPEN**. Alternately, the logical connection can be cancelled by dialing the **9wxy 3DEF** menu on the administrative phone, and pressing the delete key while the assignment is displayed. The Media Control menu operates the following media functions:

<p>- Media Control - 1 - Play 2 - Pause 3 - Stop ----- 4 - Rewind 5 - Fast Forward 6 - Channel Up 7 - TV/VCR 8 - Display 9 - Channel Down 0 - Power # - 2nd Function * 0 - Disconnect</p>

Note: Diagrams include menu selections not immediately displayed (those beneath the dashed line). Press the scroll buttons on the MCDS4 Phone to view these selections.

Many more can be added but not displayed.

Do not leave the phone physically connected to the media station for long periods of time since this can prevent calls from being placed by other phones.

Note: If a station is already connected to one media station, a busy signal will be heard if an attempt is made to call another media station. If a media station is reserved, the station dialing the media station will hear a busy signal.

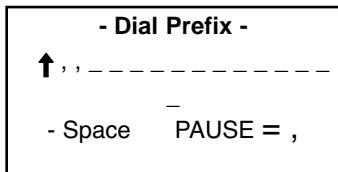
Emergency 911 Outside Line Call

To access outside 911 Emergency Facilities, dial 911 directly from Multicom 2000. 911 can be dialed from any Multicom telephone that has dialing capabilities and is programmed for Level 4 or higher. Outside line restrictions do not apply when dialing 911.




To access 911 facilities you must have an outside telephone line connected to the Multicom 2000 MCTCA port or to the PBX connected to the Multicom.

If connecting to an outside line using a PBX, you may be required to use dialing prefixes. Up to 15 dial prefixes, including pauses, can be programmed into Multicom to access a PBX directly.

Dialing 911 from Multicom will access the PBX through the MCTCA port, it will then dial the pre-programmed prefixes to access an outside line and automatically dial the 911 digits.



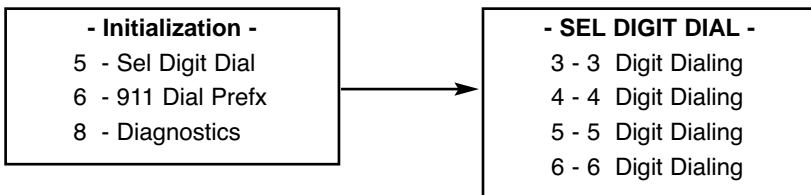
The PBX programming sequence for the Multicom 2000 911 dialing prefixes are:
Dial 9 5 (password) 6 (password) 6

Note: A 2 second delay between digits can be added by pressing the  key. The  is displayed as a comma ", " in place of a digit. Press  to add a space or to erase a previously entered digit.

Note: If there are no dial prefixes entered, then 911 will be dialed directly through the Multicom telephone card.

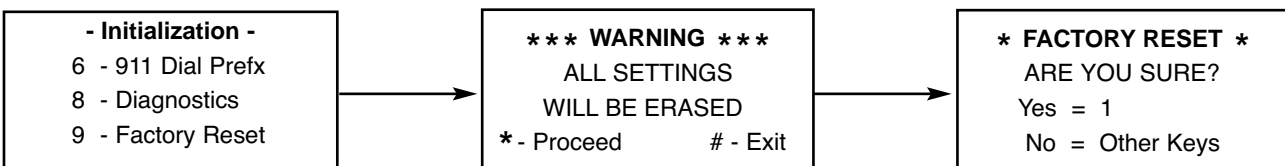
Select 3, 4, 5, or 6 Digit Dialing

You can select the number of dial digits the system will use. Select from 3 digit to 6 digit dial. If a system has stations programmed and the number of dial digits are changed from a higher number to a lower number of digits, the most significant digits will be cut off. If there are at least two stations remaining that will have the station number, an error will be displayed and the change will not occur. You must then clear all programmed stations first or renumber all the stations that would become duplicate station numbers.



Factory Reset

This command will clear all programmed parameters and will reset the Multicom 2000 back to the factory default settings. This is non-reversible and you will be given a warning prior to executing the reset command.



System Functions for Administrative Stations

The chart below lists available functions for administrative stations, the access level required, and the dial sequence required to access the specific function:

<u>Function</u>	<u>Level</u>	<u>Dial Sequence</u>
Alarm All-Call	7, 8, 9	9WXY # 1 OZ
Alarm Distribution	8, 9	9WXY # 2ABC - 9WXY # 5JKL
All-Call	7, 8, 9	# 0OPER
Audio Program On/Off	7, 8, 9	* 9WXY (Toggle)
Auto-Dial	7, 8, 9	* *
Bump Conversation	9	Wait 10 seconds during busy
Call Forward All Calls	7, 8, 9	9WXY 7PRS 1 OZ plus Arch. No.
Call Fwd When Busy	7, 8, 9	9WXY 7PRS 2ABC plus Arch. No.
Call Fwd When No Answer	7, 8, 9	9WXY 7PRS 3DEF plus Arch. No.
Call Fwd When Busy or No Answer	7, 8, 9	9WXY 7PRS 4GHI plus Arch. No.
Cancel Call Forward	7, 8, 9	9WXY 7PRS 5JKL
Conference/Transfer Call	7, 8, 9	Flash hook, Dial No., Flash hook When second party answers, flash hook to conference or hang up to transfer.
Dial Administrative Station	7, 8, 9	nnn (Dial Speaker), * nnn (Dial Phone)
Dial Staff Station	7, 8, 9	nnn (Dial Speaker), 1 OZ * nnn (Dial Phone)
Distribute/Cancel Program	8, 9	9WXY 2ABC 2ABC/9WXY 2ABC 3DEF
Emergency 911 Outside Line	7, 8, 9	9WXY 1 OZ 1 OZ
External Functions - Review/Select/Cancel	8, 9	9WXY 4GHI 1 OZ - 9WXY 4GHI 3DEF
Join Conversation	9	* # nnn
Manually Initiate Tone	9	9WXY 6MNO 1 OZ - 9WXY 6MNO 8TUV
Media Assign	7, 8, 9	9WXY 3DEF
Place Outside Line Call	7, 8, 9	9WXY 8TUV (programmable)
Remote Answer	7, 8, 9	7PRS * nnn
Scroll/Eraser Queue	7, 8, 9	# # / # *
Select Program Source	8, 9	9WXY 2ABC 1 OZ 1 OZ - 9WXY 2ABC 1 OZ 3DEF 9WXY 2ABC 1 OZ 4GHI (Cancels)
Setup Menu	9	9WXY 5JKL pppp
Single Zone Page	8, 9	# 1 OZ - # 8TUV

Notes: nnn = 3-Digit Architectural Number pppp = 4-Digit Password

Other Sequences

1 OZ * then hang up - sends a time update to the administrative telephone

2ABC * * Baud rate change

7PRS * nnn allows any ringing phone to be answered (nnn = architectural station no.)

An enhanced staff or administrative station can answer the first displayed station on the queue of another administrative station (after it ceases to ring) by dialing 7PRS * nnn, where nnn is the architectural number of the administrative telephone.

Summary of Main Menu System

9 #	Alarms Menu	9 4 3	Cancel Menu
9 # 1	All-Call	9 4 3 1	Cancel External #1
9 # 2	Alarm #1	9 4 3 2	Cancel External #2
9 # 3	Alarm #2	9 4 3 3	Cancel External #3
9 # 4	Alarm #3	9 4 3 4	Cancel External #4
9 # 5	Alarm #4	9 4 3 *	Cancel All External
9 # 0	Escape to Main Menu	9 4 3 0	Escape to External Menu
9 1	Emergency Menu	9 5	Setup Menu - Password Required to Proceed. See Installation & Setup Instructions for Menu Options
9 1 1	Emergency 911 Outside Line		
9 2	Audio Program Menu	9 6	Manual Tone Menu
9 2 1	Select Program Menu	9 6 1	Initiate Tone #1
9 2 1 1	Select Program #1	9 6 2	Initiate Tone #2
9 2 1 2	Select Program #2	9 6 3	Initiate Tone #3
9 2 1 3	Select Program #3	9 6 4	Initiate Tone #4
9 2 1 4	Cancel Current Program	9 6 5	Initiate Tone #5
9 2 1 0	Escape to Audio Program Menu	9 6 6	Initiate Tone #6
9 2 2	Distribute Menu	9 6 7	Initiate Tone #7
9 2 2 1	Select Speaker	9 6 8	Initiate Tone #8
9 2 2 2	Select Zones	9 6 9	Program 2 (External Audio Source)
9 2 2 3	Select All Speakers	9 6 0	Escape to Main Menu
9 2 2 0	Escape to Audio Program Menu	9 7	Call Forward Menu
9 2 3	Cancel Menu	9 7 1	Call Forward All Calls
9 2 3 1	Cancel Speaker	9 7 2	Call Forward When Busy
9 2 3 2	Cancel Zones	9 7 3	Call Forward When No Answer
9 2 3 3	Cancel All Speakers	9 7 4	Call Forward When Busy or No Answer
9 2 3 0	Escape to Audio Program Menu	9 7 5	Cancel Call Forward
9 2 4	Review Program	9 7 0	Escape to Main Menu
9 2 5	Query Program Status	9 8	Outside Line
9 2 0	Escape To Main Menu	9 9	Media Control
9 3	Media Assign Menu	9 9 1	Play
9 3 1	Assign	9 9 2	Pause
9 3 2	Television On/Off	9 9 3	Stop
9 3 3	Television Schedule	9 9 4	Rewind
9 3 0	Escape To Main Menu	9 9 5	Fast Forward
9 4	External Menu	9 9 6	Channel Up
9 4 1	Review Menu	9 9 7	TV/VCR
9 4 2	Select Menu	9 9 8	Display
9 4 2 1	Select External #1	9 9 9	Channel Down
9 4 2 2	Select External #2	9 9 0	Power
9 4 2 3	Select External #3	9 9 #	2nd Function
9 4 2 4	Select External #4	9 9 * 0	Disconnect
9 4 2 0	Escape to External Menu		

Notes

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