Appendix D: Accessories

Accessory	Gentner Part Number
Tabletop Omni Microphone	910-103-160 (with cable)
Tabletop Uni Microphone	910-103-161 (with cable)
Button Omni Microphone	910-103-162 (black button)/910-103-163 (white button)
Button Uni Microphone	910-103-164 (black button)/910-103-165 (white button)
Delta Microphone	910-103-340
Acc. Kit, Side Trim	860-150-002
Wall Mount Speaker	910-103-010
Select Control Panel	910-155-050
Volume Control Panel	910-155-051

Appendix E: Serial Port Commands

The XAP 800 accepts serial commands through the serial port. The commands are then channeled along the Expansion Bus network to all interconnected XAP 800 units. The following commands pertain only to the XAP 800.

RS-232 serial port protocol is 9,600, 19,200, 38,400 (default), or 57,600 baud; 8 bits, 1 stop bit, no parity.

Conventions

This definition uses the following typographic conventions used in this document:

Convention	Description
<X>	Parameters enclosed in < > indicate and mandatory parameter.
[X]	Parameters enclosed in [ ] indicate and optional parameter.
1-8	Parameters separated by a - indicate a range between the values.
4,7,9	Parameters separated by a , indicate a list of available values.
MREF	Words in uppercase bold indicate command text.
DEVICE	Indicates the device type and device number on the Expansion Bus network. It is composed of a device type character and a device number. The device type for the XAP 800 is always 5 and the device number will always be 0 - 7.

XAP 800 Serial Commands

Command	Function	Command	Function
AAMB*†	Selects/reports Adapt Ambient setting	LVLRRATE	Sets the level report rate for the unit
AEC	Selects/reports acoustic echo canceller setting	MACRO*†	Executes macro or reports last macro executed
AGC*†	Enables/disables AGC	MASTER*†	Reports the mode of the unit
AGCSET	Selects/reports AGC settings on inputs	MAX*	Changes/rprts max gain sttng for in, out, prcs block
AMBLVL*†	Selects/reports Ambient Level	MDMODE	Enables/disables modem mode
BAUD	Sets/reports RS-232 port baud rate	MIN*	Changes/rprts min gain sttng for in, out, prcs block
CGROUP *†	Selects/reports compressor group setting	MINIT	Sets/reports modem initialization string of serial prt
CHAIRO*†	Selects/reports chairman override setting	MINMAX	Changes/reports min and max gain for in, out, proc
COMPRESS*	Sets/reports compressor on audio proc. chnl.	MLINE*†	Selects/reports coarse gain adj. on inputs 1-8
COMPSEL*†	Selects/reports comprsr activity for procs.	MMAX*†	Selects/reports max # mics for each mic gating grp
DECAY*†	Sets/reports decay rate	MPASS	Sets password setting when using modem mode
DELAY*†	Sets/reports delay rate	MTRX*	Selects/reports matrix routing of an input to output
DELAYSEL*†	Selects/reports processor channel delay	MTRXLVL*	Selects/reports matrix level at the cross point
DFLTM	Sets/reports default meter	MUTE*†	Sets/reports mute status
DID	Selects/reports device ID	NCD*†	Selects/rprts noise canc. amount for each mic chnl
DSPVER	Reports DSP firmware version	NCSEL*†	Selects/reports noise canc. on/off for each mic chnl
FILTER*	Selects/reports inpt/proc channel filter setting	NLP*†	Selects/reports non-linear proc. for each mic channl
FILTSEL*†	Enables/disables filters on inpt/proc channel	NOM*†	Selects/reports the NOM setting on output channels
FLOW	Selects/reports flow control of serial port	OFFA*†	Selects/reports Off Atten. mode for inputs 1-8
FMP*†	Sets/rprts 1st Mic Prior. for mic gating group	PAA*†	Selects/reports PA Adapt mode for specified input
FPP	Sets/reports current pass code setting	PP†	Selects/reports phantom power setting
GAIN*†	Changes/reports gain for in, out, or proc	PRESET*†	Executes preset or reports last executed preset
GATE	Reports gate status of channels 1-8	PRGSTRING	Sets/reports a programmed string
GHOLD*†	Selects/reports hold time setting	REFSEL*†	Selects/rprts outpts for mic(s) for PA adapt mode
GMODE*†	Selects/reports gating mode setting	SERECHO	Selects/reports the serial echo of the RS-232 port
GOVER*†	Selects/reports gating override setting	SERMODE	Selects/reports the serial mode of the RS-232 port
GRATIO*†	Selects/reports gate ratio setting	SIGGEN*	Selects/reports signal generator activation
GREPORT	Selects/reports gate status report frequency	SIGTOUT	Sets the signal generator time out for the unit
GRPSEL*†	Selects/rprts input gating group assignments	SLVL*†	Selects/reports mic auto level setting
LABEL	Selects/reports label of channel specified	STRING*†	Sends the specified string out the serial port
LFP†	Sets/reports status of front panel access	TOUT	Selects/reports the title screen inactivity time-out
LMO*†	Selects/reports Last Mic On mode	UID	Reports unit ID
LVL	Reports in, out, or processor level	VER	Reports unit version
LVLREPORT	Selects/reports level status		

* Command available for macro use.

† Command available for Control Panel use.

Command Structure

Commands can be either UPPER CASE or lower case. Return values are always in upper case. In order for a command to be recognized by the serial port, the command must be terminated by a carriage return. The command structure is as follows:

#DEVICE**COMMAND**[X][X]

#	indicates the start of a command line
DEVICE	represents the device type and device number
COMMAND	is the command text
[X][X]	represents any additional options in the order they appear in the command descriptions that follow

For example, a command to disable Automatic Gain Control for Mic 2 on a XAP 800 device "0" would have the command line: #50 AGC 2 M 0. In this command line, 5=XAP 800, 0=unit 0, AGC=command, 2=channel, M= mic group, 0=off state. If a command calls for a "null" value, leave a blank in the command line (for example, "#50 AGC 2 M" would return the current AGC state of Mic 2 on device 50).

Note: Commands can be upper or lower case. Also, extra spaces or tabs between arguments in text commands is allowed. For a command to be recognized by the serial port, the command must be terminated with a carriage return.

The command string will then be explained (where necessary), followed by the returned values and (where necessary) an example.

The RS-232 serial port protocol is 9,600, 19,200, 38,400 (default), or 57,600 baud; 8 bits, 1 stop bit, no parity.

Error Codes

The following are error messages and their explanations:

ERROR 1	Memory error. The box is out of internal memory. Power cycle the unit.
ERROR 2	No command found. A command was not found in the string.
ERROR 3	Unknown response. Connect with current G-Ware to upgrade dictionary.
ERROR 4	Not implemented. The command was not implemented.
ERROR 5	Argument error. The command has an argument that is out of range.
ERROR 6	Unknown command. The command is unknown to this unit.
ERROR 7	Bad checksum. The binary command's checksum is wrong.
ERROR 8	Preset or macro invalid. A preset or macro failed to program because it is too large or because its command list contained an invalid command.
ERROR 10	Queue error. The internal command queue is full. Enable flow control and use all five pins on the serial port.
ERROR 11	Command too big. The binary command is too large.

General Text Command Form Description
The RS-232 serial port protocol is 9,600, 19,200, 38,400 (default), or 57,600 baud; 8 bits, 1 stop bit, no parity.

The Type ID and Device ID have the following definitions:

Type ID	Unit type	Device ID Range
Ox5	XAP 800	0x0 - 0x7, 0xff
0x4	PSR1212	0x0 - 0x7, 0xff
0x6	XAP TH2	0x0 - 0x7, 0xff

The XAP 800 accepts the commands outlined in the Serial Commands table. The structure of serial commands is as follows:

(indicates the start of a command line), Unit ID, Device ID, Command, then any additional options in the order that they appear in the command descriptions on the following pages. Commands can be either UPPER CASE or lower case. Return values are always in upper case. For a command to be recognized by the serial port, the command must be terminated by a carriage return.

For example, a command to disable mute for Mic 2 (input channel 2) on XAP 800 device "0" would have the command line: #50 MUTE 2 I 0. In this command line, 5=XAP 800, 0=unit 0, MUTE=command, 2=channel 2, I=input channel, 0=off state.

If a command calls for a "null" value, leave a blank in the command line (for example "#50 MUTE 2 I" would return the current mute state of Mic 2 on device 50).

Designations
The following tables define the relationship between alpha and numeric representations. Text commands use the alpha designation and binary commands use the numeric. In addition, different groups have different allowable channel ranges.

Table 1. Groups and Channels

Group	Alpha	Numeric	Channel Range
Inputs	I	1	1-12
Outputs	O	2	1-12
Mic Input	M	3	1-8
Gating Group	G	4	1-8
Processing	P	5	1-8
Ambient	A	6	1-8
Line Inputs	L	7	9-12
Expansion Bus	E	8	1-16
Unit	U	9	0
GPIO	Y	10	0
Matrix	X	11	0
Wall plates	W	12	0
Presets	S	13	1-32
Macros	C	14	1-255
Unknown	N	0	N/A

If a channel has a numeric value of 0xff or an alpha value of '*', the command is to be applied to all channels. For example, a group value of 0x3 and a channel value of 0xff would mean that the command is to be applied to all channels of group 3 (mic inputs).

Table 2. Gating Channel Definitions

Alpha	Numeric
1	1
2	2
3	3
4	4
A	5
B	6
C	7
D	8

Table 3. Processing Channel Definitions

Alpha	Numeric
A	1
B	2
C	3
D	4
E	5
F	6
G	7
H	8

Table 4. Expansion Bus Audio Channel Definitions

Alpha	Numeric
O	1
P	2
Q	3
R	4
S	5
T	6
U	7
V	8
W	9
X	10
Y	11
Z	12

Table 5. Expansion Bus Reference Channel Definitions

Alpha	Numeric
1	13
2	14
3	15
4	16

Acoustic Echo Canceller Enable/Disable

DESCRIPTION:

This command selects/reports the setting of acoustic echo canceller.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: [DEVICE] AEC <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
AEC	Text Command
Channel	See M in Groups and Channels, page 95
Value	
0	Echo canceller off
1	Echo canceller on
2	Echo canceller to toggle
Null	return the current mode

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command returns**
Echo canceller is set to be on for input channel 1	DEVICE AEC 1 1

Adaptive Ambient Mode

DESCRIPTION:

This command selects/reports the setting of adaptive ambient.

RETURN VALUES:

Unit always returns the last executed adaptive ambient selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> AAMB <Channel> [Value]

Where:

- DEVICE: See General Text command form Description
- **AAMB** Text Command
- Channel See Mic input in Groups and Channels (Table 1, page 95)
- Value
  - 0 adaptive ambient off
  - 1 adaptive ambient on
  - 2 adaptive ambient to toggle
  - Null return the current mode

RETURN VALUES

The command will return the updated condition of adaptive ambient in the same format as the command.

If	**Command Returns**
Adaptive ambient is to be set on channel 1	DEVICE AAMB 1 1

Ambient Level Adjust

DESCRIPTION:

This command selects/reports the setting of the ambient level.

RETURN VALUES:

Unit always returns the last executed ambient level on selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> AMBLVL <Channel> [Value]

Where:

- DEVICE: See General Text command form Description
- **AMBLVL** Text Command
- Channel See Mic Input in Groups and Channels (Table 1, page 95)
- Value
  - -80.0 to 0 Ambient level in dB
  - Null return the current level

RETURN VALUES

The command will return the updated condition of ambient level in the same format as the command.

If	**Command Returns**
The ambient level of channel 1 is -50dB	DEVICE AMBLVL 1 -50

Automatic Gain Control

DESCRIPTION:

This command selects/reports the setting of automatic gain control.

RETURN VALUES:

Unit always returns the last executed automatic gain control selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> AGC <Channel> <Group> [Value]

Where:

DEVICE:	See General Text command form Description	
AGC	Text Command	
Channel	Depends on Group. See Groups and Channels (Table 1, page 95)	
Group	I, M, L, See Groups and Channels	
Value		
	0	automatic gain control off
	1	automatic gain control on
	2	automatic gain control to toggle
	Null	return the current mode

RETURN VALUES

The command will return the updated condition of the automatic gain control in the same format as the command.

If	**Command Returns**
Automatic gain control is set to be on for input channel 1	DEVICE AGC 1 I 1

Automatic Gain Control Adjust

DESCRIPTION:

This command selects/reports the settings of the Automatic Gain Control on the input channels.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM [DEVICE]AGCSET<Channel><Group>
[Threshold Target Attack Gain]

Where:

DEVICE:	See General Text command form Description	
AGCSET	Text Command	
Channel	See Groups and Channels	
Group	I, M, L	
Threshold	-50 to 0	Select the threshold value
	Null	Return current settings
Target	-30 to 20	Select the target between -30 and 20
Attack	0.1 to 10.0	Select the attack time between 0.1s and 10s in 0.1s intervals
Gain	0.0 to 18.0	Select the gain between 0 and 18dB

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	Command returns
The AGC on channel 1 is set to have a threshold of -5, target of 5, attack time of 2s, and a gain of 18dB.	DEVICE AGCSET 1 I -5 5 2 18

Baud Rate

DESCRIPTION:

This command selects/reports the baud rate of the serial port on the unit.

RETURN VALUES:

Unit always returns the last executed baud rate selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> BAUD [Value]

Where:

DEVICE: See General Text command form Description

BAUD Text Command

Value

9600	Select baud rate of 9,600
19200	Select baud rate of 19,200
38400	Select baud rate of 38,400
57600	Select baud rate of 57,600
null	Return the current baud rate

RETURN VALUES

The command will return the updated condition of baud rate in the same format as the command.

If	Command Returns
Baud rate is selected to be 38400	DEVICE BAUD 38400
Baud rate of current unit is returned.	BAUD

38,400 is the default baud rate.

Chairman Override Mode

DESCRIPTION:

This command selects/reports the setting of chairman override.

RETURN VALUES:

Unit always returns the last executed chairman override selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> CHAIRO <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
CHAIRO	Text Command
Channel	See Mic Input in Groups and Channels (Table 1, page 95)
Value	
0	select chairman override off
1	select chairman override on
2	select chairman override to toggle
Null	return the current mode

RETURN VALUES

The command will return the updated condition of chairman override in the same format as the command.

If	**Command Returns**
Chairman override is set to be on for channel 1	DEVICE CHAIRO 1 1

Compression Select

DESCRIPTION:

This command selects/reports the compressor activation of each assignable processing channel.

RETURN VALUES:

Unit always returns the last executed compressor selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> COMPSEL <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
COMPSEL	Text Command
Channel	See Processing in Groups and Channels
Value	
0	Parameter to disable the compression on specified channel
1	Parameter to enable the compression on specified channel
2	Parameter to toggle the compression on specified channel
Null	Parameter to return the current state

RETURN VALUES

The command returns the current or updated compressor selection of the channel

If	**Command Returns**
Compressor selection for channel A is enabled	DEVICE COMPSEL A 1

Compressor Adjust

DESCRIPTION:

This command selects/reports the setting of the compressor on audio processing channels.

RETURN VALUES:

Unit always returns the last executed compressor adjustment in the same form as above.

TEXT FORM DETAILS

COMMAND FORM <DEVICE>COMPRESS<Channel> [Threshold Ratio Attack Release Gain]

Where:

- DEVICE: See General Text command form Description
- **COMPRESS** Text Command
- Channel See Processing in Groups and Channels (Table 1, page 95)
- Threshold
  - 30 to 20 Select the threshold value
  - Null Return current compression
- Ratio
  - 1-20 Select the ratio between 1 and 20
- Attack
  - 0 to 100 Select the attack time between 0ms and 100ms in 0.5ms intervals
- Release
  - 100 to 2000 Select the release time between 100ms and 2000ms in 5ms intervals
- Gain
  - 0 to 20 Select the post gain between 0 and 20dB

RETURN VALUES

The command will return the updated condition of the compressor in the same format as the command.

If	**Command Returns**
The compressor on channel A is set to have a threshold of 5, ratio of 5, attack time of 20ms, a release time of 200ms, and a gain of 0	DEVICE COMPRESS A 5 5 20.00 200 0.00

Compressor Group Select

DESCRIPTION:

This command selects/reports the setting of the compressor group on each assignable processing channel.

RETURN VALUES:

Unit always returns the last executed compressor group selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> CGROUP <Channel> [Value]

Where:

- DEVICE: See General Text command form Description
- **CGROUP** Text Command
- Channel See Processing in Groups and Channels (Table 1, page 95)
- Value
  - Value =0 select compressor group disabled
  - Value =1 select compressor group 1
  - Value =2 select compressor group 2
  - Value =3 select compressor group 3
  - Value =4 select compressor group 4
  - Value =Null return the current mode

RETURN VALUES

The command will return the updated condition of compressor group in the same format as the command.

If	**Command Returns**
Assignable processing channel A is desired to be in the compressor group 2	DEVICE CGROUP A 2

Decay Adjust

DESCRIPTION:

This command selects/reports the setting of the decay rate for a specified input.

RETURN VALUES:

Unit always returns the last executed decay rate selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> DECAY <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
DECAY	Text Command
Channel	See Mic Input in Groups and Channels (Table 1, page 95)
Value	
1	set decay rate to slow
2	set decay rate to medium
3	set decay rate to fast
Null	return the current decay rate

RETURN VALUES

The command will return the updated condition of decay rate in the same format as the command.

If	**Command Returns**
The decay rate of channel 1 is slow	DEVICE DECAY 1 1

Delay Select

DESCRIPTION:

This command selects/reports the delay activation of each assignable processing channel.

RETURN VALUES:

Unit always returns the last executed delay selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: [DEVICE] DELAYSEL <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
DELAYSEL	Text Command
Channel	See Processing in Groups and Channels (Table 1, page 95)
Value	
0	Parameter to disable the delay on specified channel
1	Parameter to enable the delay on specified channel
2	Parameter to toggle the delay on specified channel
Null	Parameter to return the current state

RETURN VALUES

The command returns the current or updated delay selection of the channel

If	**Command Returns**
Delay selection for channel A is enabled	DEVICE DELAYSEL A 1

Default Meter

DESCRIPTION:

This command selects/reports the setting of the default meter.

The position values are:

Alpha	Numeric	Level position
I	1	input level
A	2	after gain adjustment, but before filter
N	3	after filter but before gate (non-gated level)
G	4	after gate (gated level)

RETURN VALUES:

Unit always returns the last executed default meter selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> DFLTM [Channel] [Group Position]

Where:

- DEVICE: See General Text command form Description
- **DFLTM** Text Command
- Channel See Groups and Channels (Table 1, page 95)
- Group 'I', 'O', 'M', 'L'. See Groups and Channels (Table 1, page 95)
- Position Position in the channel of the meter. See the tables above.

RETURN VALUES

The command will return the updated condition of the default meter in the same format as the command.

If	Command Returns
Default meter is selected for input channel 1 position 2	DEVICE DFLTM 1 I A

Delay Adjust

DESCRIPTION:

This command selects/reports the setting of delay adjust on the assignable processing channels.

RETURN VALUES:

Unit always returns the last executed delay selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> DELAY <Channel> [Value]

Where:

- DEVICE: See General Text command form Description
- **DELAY** Text Command
- Channel See Processing in Groups and Channels (Table 1, page 95)
- Value
  - 0.00 to 500.00 delay in milliseconds
  - Null return the current delay in milliseconds

RETURN VALUES

The command will return the updated condition of the delay in the same format as the command.

If	Command Returns
Delay is set to be 140ms on audio processing channel A	DEVICE DELAY A 140

Device ID

DESCRIPTION:

This command selects/reports the device ID.

RETURN VALUES:

Unit always returns the last executed device ID selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> DID [Value]

Where:

DEVICE: See General Text command form Description

DID Text Command

Value

0-7 device ID

Null return the current device ID

RETURN VALUES

The command will return the unit ID in the same format as the command.

If	Command Returns
The device ID is 0	DEVICE DID 0

Filter

DESCRIPTION:

This command selects/reports the setting of filters on input and audio processing channels.

RETURN VALUES:

Unit always returns the last executed input filter selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM:

<DEVICE> FILTER <Channel> <Group> <Node> [Type Frequency Gain Bandwidth]

Where:

DEVICE: See General Text command form Description

FILTER Text Command

Channel See Groups and Channels (Table 1, page 95)

Group 'M', 'P' See Groups and Channels (Table 1, page 95)

Filter

1-4 node of a Mic input filter

1-15 node of an audio processing filter

Type

0 None

1 select All Pass

2 select Low Pass

3 select High Pass

4 select Low Shelving

5 select High Shelving

6 select Parametric Equalizer

7 select CD Horn

8 Bessel Crossover

9 Butterworth Crossover

10 Linkwitz-Riley Crossover

11 Notch = -80

Null return the current mode

Frequency Parameter to select the corner frequency (Hz) of the filter

Type	**Range**
0	N/A
1-6, 8-11	20-20,000
7	500-5,000

Gain

Type	Range
1 - 3	N/A
4-5	-15 to +15dB
6	-15 to +15dB
7	N/A
8-9	12, 18, 24dB/octave
10	12, 24dB/octave
11	-80; nonadjustable

Bandwidth

Type	Range
1 – 3	N/A
4 - 5	N/A
6	.05 to 5.00
7	N/A
8-10	2 = low pass 3 = high pass
11	.05 to 5.00

RETURN VALUES

The command will return the updated condition of the filter in the same format as the command.

If	Command Returns
the filter of input channel 1 node 1 is not known and it is set as a low pass filter at 200Hz. <DEVICE> FILTER 1 M 1	DEVICE FILTER 1 M 1 2 200
The filter of audio processing channel B node 2 is set for low shelving at 3K with a gain of -10dB	DEVICE FILTER B P 2 4 3000 -10
The filter of input channel 3 node 3 is set to be a PEQ with center frequency of 5K BW of 1 octave and gain of -15dB	DEVICE FILTER 3 M 3 6 5000 -15 1.00
The filter of audio processing channel 2 node 2 is a CD horn with center frequency of 4K	DEVICE FILTER B P 2 7 4000
The filter of all audio processing channels node 3 is a high pass Linkwitz-Riley crossover with corner frequency of 12K and slope of 24dB/octave	DEVICE FILTER * P 3 10 12000 24 3

Filter Select

DESCRIPTION:

This command turns on and off the filters on input and audio processing channels.

RETURN VALUES:

Unit always returns the last executed filter selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM:

<DEVICE> FILTSEL <Channel> <Group> <Node><On/Off>

Where:

DEVICE: See General Text command form Description

FILTSEL Text Command

Channel See Groups and Channels (Table 1, page 95)

Group 'M', 'P' See Groups and Channels (Table 1, page 95)

Node

1-4, * node of a Mic input filter (* for all)

1-15, * node of an audio processing filter (* for all)

Type

0,1,2 0 for Off, 1 for On, 2 to Toggle

RETURN VALUES

The command will return the updated condition of the filter in the same format as the command.

First Mic Priority Mode

DESCRIPTION:

This command selects/reports first Mic priority mode for a gating group.

RETURN VALUES:

Unit always returns the last executed first Mic priority selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> FMP <Channel> [Value]

Where:

DEVICE: See General Text command form Description

FMP Text Command

Gating Group See Gating Group in Groups and Channels (Table 1, page 95)

Value

0 select first Mic priority mode to be disabled

1 select first Mic priority mode to be enabled

2 select first Mic priority mode to toggle

Null return the current mode

RETURN VALUES

The command will return the updated condition of the first Mic priority mode in the same format as the command.

If	Command Returns
First Mic priority mode is enabled for gating group A	DEVICE FMP A 1
First Mic priority mode is disabled for gating group A	DEVICE FMP A 0

Flow Control

DESCRIPTION:

This command selects/reports the flow control of the serial port on the unit. Hardware flow control is implemented using DTR and DSR.

RETURN VALUES:

Unit always returns the last executed flow control selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM <DEVICE> FLOW [Value]

Where:

DEVICE: See General Text command form Description

FLOW Text Command

Value

0	disable flow control
1	enable hardware flow control
2	to toggle flow control on/off
Null	return the current flow control setting

RETURN VALUES

The command will return the updated condition of flow control in the same format as the command.

If	Command Returns
Flow control is disabled	DEVICE FLOW 0
Flow control is set to hardware (DTR/DSR)	DEVICE FLOW 1

Front Panel Passcode

DESCRIPTION:

This command sets and reports the current passcode setting for the unit. Each character in the password represents a button on the front panel. See button assignment table below. When the user is requested to unlock the front panel, they must press the buttons in the sequence of the stored password.

BUTTON ASSIGNMENT TABLE:

Value	Button represented
1	Up arrow button
2	Enter button
3	ESC button
4	Down arrow button
5	Meter button

RETURN VALUES:

Unit always returns new value of passcode in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> FPP <char1> <char2> <char3> <char4> <char5>

Where:

DEVICE: See General Text command form Description

FPP Text Command

char1 - char5

1 – 4	See button assignment table above for description
CLEAR	Parameters to clear the passcode
Null	parameter to return current passcode

RETURN VALUES

The command returns the current or updated condition of the front panel passcode.

If	Command Returns
Front panel passcode is set to UP, UP, DOWN, DOWN, ENTER	DEVICE FPP 11442

Gain Adjustment

DESCRIPTION:

This command changes or reports back the input gain for an input, output or assignable processing block.

RETURN VALUES:

Unit always returns the value of gain adjustment command in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GAIN <Channel> <Group> [Value A/R]

Where:

- DEVICE: See General Text command form Description
- **GAIN** Text Command
- Channel See Groups and Channels (Table 1, page 95)
- Group 'I', 'O', 'M", 'P', 'L' See Groups and Channels (Table 1, page 95)
- Value
  - X=-99 to 99 ** Parameter to set the gain
  - X= Null Parameter to return the current gain
- A/R
  - X=R Parameter to indicate relative
  - X=A Parameter to set the gain to an absolute value
  - X= Null Parameter will default to R (relative)

** Note: Values indicate entry range only. Actual internal range of the gain stage is from -65 to 20. Absolute values will be limited to the internal gain range and values below –65 will mute the channel.

RETURN VALUES

The command returns the current or updated condition of the gain adjustment command.

If	Command Returns
If the gain is to be lowered by 3dB on input channel 2 and the actual gain is at –3dB, send device gain 2 I-3 R	DEVICE GAIN 2 I -6 A
The gain is to be set to 12dB on output channel 4	DEVICE GAIN 4 O 12 A

Gate Hold Time Adjust

DESCRIPTION:

This command selects/reports the setting of hold time.

RETURN VALUES:

Unit always returns the last executed hold time selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GHOLD <Channel> [Value]

Where:

DEVICE:	See General Text command form Description	
GHOLD	Text Command	
Channel	See Mic input in Groups and Channels (Table 1, page 95)	
Value		
	0.10-8.00	select hold time of 0.10 to 8.00 seconds
	Null	return the current hold time

RETURN VALUES

The command will return the updated condition of the hold time in the same format as the command.

If	**Command Returns**
Hold time is set for 1 second on channel 1	DEVICE GHOLD 1 1.00

Gate Status

DESCRIPTION:

This command reports the gate status of channels 1-8. This command is read only.

RETURN VALUES:

Unit always returns the last executed gate status selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM <DEVICE> GATE

Where:

DEVICE:	See General Text command form Description
GATE	Text Command

RETURN VALUES

The command will return the updated condition of the signal presence status of line inputs 9-12 and gate status of channels 1-8. Represented as a hex number.

If	**Command Returns**
Channels 1 and 2 are gated on	DEVICE GATE 03
Channels 1 and 3 are gated on	DEVICE GATE 05
Channels 1, 4 and 7 are gated on	DEVICE GATE 49

Gate Ratio Adjust

DESCRIPTION:

This command selects/reports the setting of the gate ratio.

RETURN VALUES:

Unit always returns the last executed gate ratio selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GRATIO <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
GRATIO	Text Command
Channel	See Mic Input in Groups and Channels (Table 1, page 95)
Value	
0-50	Parameter to set gate ratio (dB)
Null	Parameter to return the current gate ratio (dB)

RETURN VALUES

The command will return the updated condition of the gate ratio in the same format as the command.

If	**Command Returns**
The gate ratio of channel 1 is 15dB	DEVICE GRATIO 1 15

Gate Reporting

DESCRIPTION:

This command selects/reports the gate status.

RETURN VALUES:

Unit always returns the current gate status reporting frequency in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GREPORT <Mode>

Where:

DEVICE:	See General Text command form Description
GREPORT	Text Command
Mode	0 = Off, 1 = On, 2 = Toggle

RETURN VALUES

The command will return the updated condition of the gate status reporting in the same format as the command.

If	**Command Returns**
The gate status is reported	DEVICE GREPORT 1

Gating Group

DESCRIPTION:

This command selects/reports which gating group each input is assigned. There can only be one selection per input.

RETURN VALUES:

Unit always returns the last executed gating group selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GRPSEL <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
GRPSEL	Text Command
Channel	See Mic in Groups and Channels (Table 1, page 95)
Value	See Gating Group in Groups and Channels (Table 1, page 95). If the value is null, the current state is returned.

RETURN VALUES

The command returns the current or updated gating group selection of the channel

If	**Command Returns**
Gating group selection for channel 1 is A	DEVICE GRPSEL 1 A

Gating Mode

DESCRIPTION:

This command selects/reports the setting of gating mode.

RETURN VALUES:

Unit always returns the last executed gating mode selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GMODE <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
GMODE	Text Command
Channel	See Mic Input in Groups and Channels (Table 1, page 95)
Value	
1	select gating mode to auto
2	select gating mode to manual on
3	select gating mode to manual off
Null	return the current mode

RETURN VALUES

The command will return the updated condition of the gating mode in the same format as the command.

If	**Command Returns**
Gating mode is set for auto on channel 1	DEVICE GMODE 1 1

Gating Override

DESCRIPTION:

This command selects/reports the setting of gating override.

RETURN VALUES:

Unit always returns the last executed gating override selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> GOVER <Channel> [Value]

Where:

DEVICE:	See General Text command form Description
GOVER	Text Command
Channel	See Mic Input in Groups and Channels (Table 1, page 95)
Value	
0	select gating override to off (does contribute)
1	select gating override to on (does not contribute)
2	toggle gating override
Null	return the current mode

RETURN VALUES

The command will return the updated condition of the gating mode in the same format as the command.

If	**Command Returns**
Gating override is set for on for channel 1	DEVICE GOVER 1 1

Label

DESCRIPTION:

This selects/reports the label of the specific channel identified in the unit.

RETURN VALUES:

Unit always returns the label command in the same form as above.

TEXT FORM DETAILS

COMMAND FORM:

<DEVICE> LABEL <Channel><Group>[In/Out String]

Where:

DEVICE:	See General Text command form Description
LABEL	Text Command
Channel	See Groups and Channels (Table 1, page 95)
Group	'I', 'O', 'M', 'G', 'P', 'L', 'E', 'U', 'W', 'S', 'C'
In/Out	For Expansion Bus groups specifies input to the matrix or output from matrix. For other groups this parameter is not used.
String	String of up to 20 characters representing the label text. NULL to query and CLEAR to clear the label.

RETURN VALUES

The command will return the label in the same format as the command.

If	**Command Returns**
The label for input channel 3 is "Gentner Mic"	DEVICE LABEL 3 I Gentner Mic
The label for the unit is Room 1	DEVICE LABEL Ø U Room 1

Last Mic On Mode

DESCRIPTION:

This command selects/reports last Mic on mode for the specified gating group. There can be only one selection per gating group.

RETURN VALUES:

Unit always returns the last executed last Mic on selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> LMO <Channel> [Value]

Where:

DEVICE: See General Text command form Description

LMO Text Command

Gating Group See Gating Group in Groups and Channels (Table 1, page 95)

Value

Value =0 Parameter to select last Mic mode to be disabled

Value =1-8 Parameter to select last Mic mode to be enabled on a specified channel between 1 – 8

Value =* Parameter to select last Mic mode to be last Mic

Value =Null Parameter to return the current mode

RETURN VALUES

The command will return the updated condition of the last Mic mode in the same format as the command.

If	**Command Returns**
Last Mic mode is enabled for gating group A as last Mic	DEVICE LMO A *
Last Mic mode is disabled for gating group A	DEVICE LMO A 0

Level

DESCRIPTION:

This command reports the level of an input, output, processing block or ambient level. This command is read only. The position values are:

Alpha	Numeric	Level position for groups 1 (ch. 1-8) & 3	Level position for groups 1 (ch. 9-12) & 7	Level pos. for grp 2	Level position for group 5
I	1	input level	input level	input level	level into processor
A	2	after gain adjustment, before filter	input level after gain adjustment	level after gain adj.	amount of compression
N	3	after filter but before gate (non-gated level)	N/A	N/A	level after compressor & filters
G	4	after gate (gated level)	N/A	N/A	N/A
R	5	echo return loss	N/A	N/A	N/A
E	6	echo return loss enhancement	N/A	N/A	N/A
T	7	ERL + ERLE	N/A	N/A	N/A
D	8	impulse duration (tail time)	N/A	N/A	N/A
C	9	AGC	AGC	N/A	N/A

RETURN VALUES:

Unit always returns the last executed LVL selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> LVL <Channel> <Group> [Position Value]

Where:

<DEVICE>:	See General Text command form Description
LVL	Text Command
Channel	See Groups and Channels (Table 1, page 95)
Group	'I', 'O', 'M', 'P', 'A', 'L'
Position	Position in audio channel. See position table above.
Value	Returned level value measured in dB

RETURN VALUES

The command will return the updated level of the selection in the same format as the command was issued. All return gain values are absolute and reflect the actual internal gain.

If	Command Returns
The level of Input 9 is desired	DEVICE LVL 9 I I –10
The level of the non-gated Input 3 is desired	DEVICE LVL 3 I N –6

Level Report

DESCRIPTION:

This command selects level status reporting.

The position values are:

Alpha	Numeric	Level position for groups 1 (ch. 1-8) & 3	Level position for groups 1 (ch. 9-12) & 7	Level pos. for grp 2	Level position for group 5
I	1	input level	input level	input level	level into processor
A	2	after gain adjustment, before filter	input level after gain adjustment	level after gain adj.	amount of compression
N	3	after filter but before gate (non-gated level)	N/A	N/A	level after compressor & filters
G	4	after gate (gated level)	N/A	N/A	N/A
R	5	echo return loss	N/A	N/A	N/A
E	6	echo return loss enhancement	N/A	N/A	N/A
T	7	ERL + ERLE	N/A	N/A	N/A
D	8	impulse duration (tail time)	N/A	N/A	N/A
C	9	AGC	AGC	N/A	N/A

BINARY FORM DETAILS

COMMAND FORM: <Header><Argument 1><Argument 2>

COMMAND ID: 30

ARGUMENT SIZE: 2 words

ARGUMENT FORM:

Name:	Channel	Group	Position		Mode
Size	8 bits	8 bits	16 bits		32 bits
Type	Unsigned integer	Unsigned intgr	Unsigned intgr		Ungnd integer
Range	See Grp and Channels (Table 1, page 95)	1, 2, 3, 5, 6, 7, (I, O, M, P, A, L)	**Group**	**Value**	0-2
			1 (Ch1-8)	1-9	
			(Ch 9-16)	1-2, 9	
			2	1-2	
			3	1-9	
			5	1-3	
			6	0	
			7	1-2, 9	

RETURN VALUES:

Unit always returns the current level reporting frequency in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> LVLREPORT <Channel> <Group> [Position Mode]

Where:

DEVICE: See General Text command form Description

LVLREPORT Text Command

Channel See Groups and Channels (Table 1, page 95)

Group 'I', 'O', 'M', 'P', 'A', 'L'

Position Position in audio channel. See position table above.

Mode

- 0 Delete level from list of levels to be reported
- 1 Add specified level to list of levels to be reported
- 2 Toggle

RETURN VALUES

The command will return the updated condition of the level reporting in the same format as the command.

If	Command Returns
The level of the non gated Input 3 is to be reported	DEVICE LVLREPORT 3 I N 1

Level Report Rate

DESCRIPTION:

Sets the level report rate for the unit and activates/deactivates level repeating.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM DEVICE LVLRRATE [Value]

Where:

DEVICE:	See General Text command form Description
LVLRRATE	Text Command
Value	0 to stop reporting but leave statuses set, 1 to stop reporting and clear all report statuses, 50 – 1000ms

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

Example

#50 Lvlrrate 100 repeats a meter every 100ms.

Lock Front Panel

DESCRIPTION:

This command sets and reports the status of front panel access for the unit. When the unit is locked, access is not allowed to the unit until the unit is unlocked either by a serial command or by entering in the front panel password.

ARGUMENT TABLE:

Value	Action
0	Unlock Panel
1	Lock panel
2	Toggle value
3	Lock when timed out

RETURN VALUES:

Unit always returns the current state in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> LFP [Value]

Where:

DEVICE: See General Text command form Description

LFP Text Command

Value:

Value = 0-3 See argument table for description

Value = Null Parameter to return current passcode

RETURN VALUES

The command returns the current or updated condition of the Front panel lock.

If	**Command Returns**
Front panel is unlocked	DEVICE LFP 0

Macro Execution/Reporting

DESCRIPTION:

This command executes a specified macro or reports the last macro executed. There are 255 macros that can be specified.

RETURN VALUES:

Unit always returns the last executed macro in the same form as above.

TEXT FORM DETAILS

COMMAND FORM <DEVICE> MACRO <Value>

Where:

DEVICE: See General Text command form Description

MACRO Text Command

<Value>

1-255 Value to execute user macros

RETURN VALUES

The command will return the macro that is to be executed and then execute the macro after completion of the macro.

NOTE: The response indicates execution of the macro, but does not indicate that each command within the macro was executed.

Master

DESCRIPTION:

This command reports the mode of the unit. The mode can be Master or Slave.

RETURN VALUES:

Unit always returns the master command in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MASTER <Value>

Where:

DEVICE: See General Text command form Description

MASTER Text Command

Value

1 select master unit

2 select slave unit

Null return the current mode of the unit

RETURN VALUES

The command will return the mode of the unit in the same format as the command.

If	Command Returns
Selection is for a single unit	DEVICE MASTER 1

Matrix

DESCRIPTION:

This command selects/reports the matrix routing of an input to an output. The values allowed are:

Alpha	Numeric	Description
0	0	Cross point disabled
1	1	Cross point enabled
2	2	Cross point toggle
N	3	Non-Gated (Mic ch. 1 –8 only)
G	4	Gated (Mic ch. 1 – 8 only)

RETURN VALUES:

Unit always returns the last executed MTRX selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM:

<DEVICE> MTRX < SrcChannel > < SrcGroup > < Dest Channel > <Dest Group> [Value]

Where:

DEVICE: See General Text command form Description

MTRX Text Command

Src Channel See Groups and Channels (Table 1, page 95)

Src Group ‘I’, ‘M’, ‘P’, ‘L’, ‘E’ See Groups and Channels (Table 1, page 95)

Dest Channel See Groups and Channels (Table 1, page 95)

Dest Group ‘O’, ‘P’, ‘E’ See Groups and Channels (Table 1, page 95)

Value See table at beginning of command. A value of null returns the current mode.

RETURN VALUES

The command will return the updated condition of the MTRX information in the same format as the command.

If	Command Returns
The cross point of Input 9 is selected to be present on Output 4	DEVICE MTRX 9 I 4 O 1
The gated audio of Input 1 is selected to be present on Expansion Bus W	DEVICE MTRX 1 I W E G

Matrix Attenuation Adjust

DESCRIPTION:

This command selects/reports the matrix level at the cross point.

** Note: Values indicate entry range only. Actual internal range of the gain stage is from –60 to 0 and absolute values will be limited to the internal gain range. Absolute levels below –60 will mute the gain stage.

RETURN VALUES:

Unit always returns the last executed MTRXLVL selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM:

<DEVICE> MTRXLVL < SrcChannel > < SrcGroup > < Dest Channel > <Dest Group> [Value A/R]

Where:

DEVICE:	See General Text command form Description
MTRXLVL	Text Command
Src Channel	See Groups and Channels (Table 1, page 95)
Src Group	'I', 'M', 'P', 'L', 'E' See Groups and Channels (Table 1, page 95)
Dest Channel	See Groups and Channels (Table 1, page 95)
Dest Group	'O', 'P', 'E' See Groups and Channels (Table 1, page 95)
Value	Selects the amount of attenuation at cross point in dB. If null command returns current attenuation
A/R	
X=R	parameter to indicate relative
X=A	parameter to set the gain to an absolute value
X=Null	parameter will default to R (relative)

RETURN VALUES

The command will return the updated level of the matrix for the selected source and destination in the same format as the command was issued. All return gain values are absolute and reflect the actual internal gain in the matrix.

If	Command Returns
Input 9 and Output 9 cross point level is desired (level was previously set to –10dB)	DEVICE MTRXLVL 9 I 9 O –10
Input 3 and Expansion Bus W cross point level is desired to be –6dB	DEVICE MTRXLVL 3 I W E –6

Maximum Gain Setting

DESCRIPTION:

This command changes or reports back the maximum gain setting for an input, output or assignable processing block.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: DEVICE MAX <Channel> <Group> [Value]

Where:

- DEVICE: See General Text command form Description
- **MAX** Text Command
- Channel See Groups and Channels (Table 1, page 95)
- Group I, O, M, P, L
- Value
  - -65.00 – 20.00 Parameter to set the maximum gain setting
  - Null Parameter to return the current setting

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command Returns**
The maximum gain setting on input channel 2 is 10dB	DEVICE MAX 2 I 10

Maximum Number of Microphones

DESCRIPTION:

This command selects/reports the maximum number of microphones for each gating group.

RETURN VALUES:

Unit always returns the last executed maximum number of microphones selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MMAX <Channel>[Value]

Where:

- DEVICE: See General Text command form Description
- **MMAX** Text Command
- Gating See Groups and Channels (Table 1, page 95)
- Value
  - 0 select maximum number of microphones to unlimited
  - 1-8 select maximum number of microphones to 1-8
  - Null return the current maximum number of microphones

RETURN VALUES

The command will return the updated condition of the maximum number of microphones in the same format as the command.

If	**Command Returns**
MMAX is 4 for gating group A	DEVICE MMAX A 4
MMAX is unlimited for gating group A	DEVICE MMAX A 0

Mic/Line Adjust

DESCRIPTION:

This command selects/reports the setting of coarse gain adjustment on the input channels 1-8. The three settings are 0dB, 25dB, and 55dB.

RETURN VALUES:

Unit always returns the last executed coarse gain adjustment selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MLINE <Channel>[Value]

Where:

DEVICE:	See General Text command form Description
MLINE	Text Command
Channel	See Mic Input in Groups and Channels (Table 1, page 95)
Value	
1	select coarse gain adjustment to 55dB
2	select coarse gain adjustment to 25dB
0	select coarse gain adjustment to 0dB (Line Level)
Null	return the current coarse gain adjustment

RETURN VALUES

The command will return the updated condition of the coarse gain adjustment in the same format as the command. If the command sent changes the state for that channel, the new updated state is returned.

If	**Command Returns**
Coarse gain is set to be 55dB on input channel 1	DEVICE MLINE 1 1

Minimum Gain Setting

DESCRIPTION:

This command changes or reports back the minimum gain setting for an input, output or assignable processing block.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: DEVICE MIN <Channel> <Group> [Value]

Where:

DEVICE:	See General Text command form Description
MIN	Text Command
Channel	See Groups and Channels (Table 1, page 95)
Group	I, O, M, P, L
Value	
-65.00 – 20.00	Parameter to set the minimum gain setting
Null	Parameter to return the current setting

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command Returns**
The minimum gain setting on input channel 2 is –10dB	DEVICE MIN 2 I –10

Minimum and Maximum Gain Setting

DESCRIPTION:

This command changes or reports back the minimum and maximum gain setting for an input, output or assignable processing block.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: DEVICE MINMAX <Channel> <Group> [Minimum Maximum]

Where:

DEVICE:	See General Text command form Description
MINMAX	Text Command
Channel	See Groups and Channels
Group	I, O, M, P, L
Minimum	
-65.00 – 20.00	Parameter to set the minimum gain setting
Null	Parameter to return the current settings
Maximum	
-65.00 – 20.00	Parameter to set the maximum gain setting

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command Returns**
The minimum gain setting on input channel 2 is –10dB and the maximum is 10dB	DEVICE MINMAX 2 I –10 10

Modem Initialization String

DESCRIPTION:

This command sets/reports the modem initialization string of the serial port when in modem mode.

RETURN VALUES:

Unit always returns the last executed modem initialization string in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MINIT [String]

Where:

DEVICE:	See General Text command form Description
MINIT	Text Command
String	
String =1-80 characters	Parameter to select string characters to be sent to the modem when the unit is initialized
String=CLEAR	Parameter to clear the modem initialization string
String =Null	Parameter to report the current string

RETURN VALUES

The command will return the updated state in the same form as the command.

Modem Mode

DESCRIPTION:

This command enables or disables the modem mode for the unit. When the modem mode is enabled, the modem initialization string is sent out the serial port and the serial port now requires a password before a command is processed. After five minutes of serial inactivity the passcode will be requested to continue serial activity.

RETURN VALUES:

Unit always returns the last executed modem mode in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MDMODE [Value]

Where:

DEVICE: See General Text command form Description

MDMODE Text Command

Value

0	select modem mode to off
1	select modem mode to on
2	toggle modem mode state
Null	report current modem mode state

RETURN VALUES

The command will return the updated condition of MDMODE in the same format as the command.

If	**Command Returns**
Modem mode is enabled	DEVICE MDMODE 1

Modem Password

DESCRIPTION:

This command sets the current password setting for the unit when using modem mode. The password must be entered in twice.

RETURN VALUES:

Unit always returns the last executed modem password in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MPASS [String]

Where:

DEVICE: See General Text command form Description

MPASS Text Command

String

String =0-12 characters	Parameter to select up to 12 string characters as the modem password
String=CLEAR	Parameter to clear the current password
String =Null	Parameter to report the current password

RETURN VALUES

Once the command is given, the unit responds by echoing back the command, followed by "RE-ENTER PASSWORD" string. The command must then be re-entered exactly as entered previously. Then, the command will be echoed back, followed by an "OK," indicating that the password has been changed.

Mute

DESCRIPTION:

This command selects/reports the setting of mute on input, output or processing channels.

RETURN VALUES:

Unit always returns the last executed mute selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> MUTE <Channel> <Group> [Value]

Where:

<DEVICE>:	See General Text command form Description
MUTE	Text Command
Channel	See Groups and Channels (Table 1, page 95)
Group	'I', 'O', 'M', 'P', 'L'. See Groups and Channels (Table 1, page 95)
Value	
0	select mute off
1	select mute on
2	select mute to toggle
Null	return the current mode

RETURN VALUES

The command will return the updated condition of mute in the same format as the command.

If	**Command Returns**
Mute is set to be on for input channel 1	DEVICE MUTE 1 I 1

Noise Cancellation Depth Adjust

DESCRIPTION:

This command selects/reports the setting of the noise cancellation amount for each microphone channel.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: [DEVICE] NCD <Channel> <Value>

Where:

DEVICE:	See General Text command form Description
NCD	Text Command
Channel	See M in Groups and Channels
Value	
6 - 15	Set Noise cancellation from 6 to 15dB
Null	Return the current mode

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command Returns**
Noise cancellation on channel 1 is set to 10dB	<DEVICE> NC 1 10

Noise Cancellation Select

DESCRIPTION:

This command selects/reports the setting of the Noise Cancellation for each microphone channel.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: [DEVICE] NCSEL <Channel> <Value>

Where:

DEVICE: See General Text command form Description

NCSEL Text Command

Channel See M in Groups and Channels

Value

- 0 Enable Noise Cancellation
- 1 Disable Noise Cancellation
- 2 Toggle Noise Cancellation
- Null Return the current mode

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command returns**
Noise cancellation on channel 1 is enabled	<DEVICE> NCSEL 1 1

Non-Linear Processing Adjust

DESCRIPTION:

This command selects/reports the setting of the Non-linear processing for each microphone channel.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: [DEVICE] NLP <Channel> <Value>

Where:

DEVICE: See General Text command form Description

NLP Text Command

Channel See M in Groups and Channels

Value

- 0 select Non-linear processing to OFF
- 1 select Non-linear processing to Soft
- 2 select Non-linear processing to Medium
- 3 select Non-linear processing to Aggressive
- Null return the current mode

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command returns**
Non linear processing on channel 1 is set to soft	<DEVICE> NLP 1 1

Number of Open Microphones Mode

DESCRIPTION:

This command selects/reports the setting of Number of Open Microphones (NOM) on output channels.

RETURN VALUES:

Unit always returns the last executed NOM selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> NOM <Channel> [Value]

Where:

DEVICE:	See General Text command form Description	
NOM	Text Command	
Channel	See Output in Groups and Channels (Table 1, page 95)	
Value		
	0	select NOM off
	1	select NOM on
	2	select NOM to toggle
	Null	return the current mode

RETURN VALUES

The command will return the updated condition of NOM in the same format as the command.

If	**Command Returns**
NOM is set to be on for output channel 1	DEVICE NOM 1 1

Off Attenuation Mode

DESCRIPTION:

This command selects/reports the off attenuation mode of input channels 1-8.

RETURN VALUES:

Unit always returns the last executed off attenuation selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> OFFA <Channel> [Value]

Where:

<DEVICE>:	See General Text command form Description	
OFFA	Text Command	
Channel	See Mic in Groups and Channels (Table 1, page 95)	
Value		
	0-60	select off attenuation level (dB)
	Null	return the current off attenuation level

RETURN VALUES

The command will return the updated condition of the off attenuation level in the same format as the command.

If	**Command Returns**
Off attenuation mode for channel 1 is set for 15dB	DEVICE OFFA 1 15
Off attenuation mode for channel 1 is set for 0dB	DEVICE OFFA 1 0

PA Adaptive Mode

DESCRIPTION:

This command selects/reports PA adaptive mode for the specified mixer. There can be only one selection per mixer.

RETURN VALUES:

Unit always returns the last executed PA adaptive selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> PAA <Channel> [Value]

Where:

<DEVICE>:	See General Text command form Description
PAA	Text Command
Channel	See Mic in Groups and Channels (Table 1, page 95)
Value	
0	select PA adaptive mode to be disabled
1	select PA adaptive mode to be enabled
2	select PA adaptive mode to toggle
Null	return the current mode

RETURN VALUES

The command will return the updated condition of the PA adaptive mode in the same format as the command.

If	**Command Returns**
PA adaptive is enabled for Mic 1	DEVICE PAA 1 1
PA adaptive is disabled for Mic 1	DEVICE PAA 1 0

PA Reference Select

DESCRIPTION:

This command selects/reports which output is used for each mic as a reference for power amp adaptation mode. There can be only one selection per mixer.

RETURN VALUES:

Unit always returns the last executed REFSEL selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> REFSEL < Reference Channel > < Reference Group > [Channel]

Where:

<DEVICE>:	See General Text command form Description
REFSEL	Text Command
Channel	See Mic in Groups and Channels (Table 1, page 95)
Reference Group	'O', 'E'. See Groups and Channels (Table 1, page 95)
Reference Channel	O: see Groups and Channels (Table 1, page 95) E: see Expansion Bus Reference channels in Groups and Channels (Table 1, page 95)

RETURN VALUES

The command will return the updated condition of the REFSEL mode in the same format as the command.

If	**Command Returns**
REFSEL is set for output channel 1 for Mic 1	DEVICE REFSEL 1 O 1

Phantom Power

DESCRIPTION:

This command selects/reports the setting of phantom power.

RETURN VALUES:

Unit always returns the last executed phantom power selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> PP <Channel> [Value]

Where:

- <DEVICE>: See General Text command form Description
- **PP** Text Command
- Channel See Mic in Groups and Channels (Table 1, page 95)
- Value
  - 0 select phantom power off
  - 1 select phantom power on
  - 2 select phantom power to toggle
  - Null return the current phantom power mode

RETURN VALUES

The command will return the updated condition of the phantom power in the same format as the command.

If	Command Returns
Phantom power is set to be on for channel 1	DEVICE PP 1 1

Preset Execution/Reporting

DESCRIPTION:

This command selects/reports the state of a preset.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: DEVICE PRESET <Channel> [Value]

Where:

- DEVICE: See General Text command form Description
- **PRESET** Text Command
- Preset NULL to Query Last Preset; See Preset in Groups and Channels
- State
  - 0 Set the preset state to off
  - 1 Execute the preset and set the state to on
  - 2 Execute the preset and set the state to off
  - Null Return the current preset state

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	Command Returns
Preset 1's state is active (on)	DEVICE PRESET 1 1

Program String

DESCRIPTION:

This command sets/reports a programmed string.

RETURN VALUES:

Unit always returns the specified program string in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> PRGSTRING <ID> [String]

Where:

DEVICE:	See General Text command form Description
PRGSTRING	Text Command
ID	string identifier 0 - 7
String	
String =1-80 characters	Parameter to select string characters to be sent when the execute string command is issued
String=CLEAR	Parameter to clear the current string
String=Null	Parameter to report the current string

RETURN VALUES

The command will return the specified program string

If	**Command Returns**
Program string #3 is MUTE	DEVICE PRGSTRING 3 MUTE

Serial Echo

DESCRIPTION:

This command selects/reports the serial echo of the RS-232 port.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: DEVICE SERECHO [Value]

Where:

DEVICE:	See General Text command form Description
SERECHO	Text Command
Value	

0	Select serial echo to off
1	Select serial echo to on
2	Toggle the serial echo
Null	Return current serial echo

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command Returns**
Serial echo is to be set to echo all ports	DEVICE SERECHO 1

Serial Mode

DESCRIPTION:

This command selects/reports the serial mode of the RS-232 port.

RETURN VALUES:

Unit always returns the last executed serial mode selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> SERMODE [Value]

Where:

<DEVICE>: See General Text command form Description

SERMODE Text Command

Value

1 select serial mode as text

2 select serial mode as binary

Null return current serial mode

RETURN VALUES

The command will return the updated condition of the serial mode in the same format as the command.

If	**Command Returns**
Serial mode is to be set for text	DEVICE SERMODE 1

Signal Generator

DESCRIPTION:

This command selects/reports of the signal generator activation.

RETURN VALUES:

Unit always returns the last signal generator activation in the same form as above.

TEXT FORM DETAILS

COMMAND FORM

<DEVICE> SIGGEN <Channel> <Group> [Type Amplitude Frequency]

Where:

<DEVICE>:	See General Text command form Description	
SIGGEN	Text Command	
Channel	Null to return current setting; See Groups and Channels (Table 1, page 95)	
Group	'I', 'M', 'L'	
Type		
0	Turn signal generator off	
1	select pink noise generator	
2	select white noise generator	
3	select tone generator	
Amplitude		
-60 to +20	amplitude in dB; NULL for type 0	
Frequency		
20 to 20,000	frequency in Hz (only needed when using tone generation)	

RETURN VALUES

The command will return the updated condition of the last signal generator activation in the same format as the command.

If	**Command Returns**
Signal Gen is Pink noise for microphone channel 1 with level of 20dB	DEVICE SIGGEN 1 M 1 20

Signal Generator Time Out

DESCRIPTION:

Sets the signal generator time out for the unit.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM DEVICE SIGTOUT [Value]

Where:

DEVICE:	See General Text command form Description	
SIGTOUT	Text Command	
Value	0	Disable time out
	1 – 30	Set time out in min
	Null	Return the current rate

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

Speech Level Control Enable/Disable

DESCRIPTION:

This command selects/reports the setting of speech level control for a microphone.

RETURN VALUES:

Unit will return the updated state of the last selection in the same form as the command.

TEXT FORM DETAILS

COMMAND FORM: [DEVICE] ALC <Channel> [Value]

Where:

DEVICE: See General Text command form Description

SLVL Text Command

Channel See M in Groups and Channels

Value

0	Speech Level Control off
1	Speech Level Control on
2	Speech Level Control to toggle
Null	Return the current mode

RETURN VALUES

Unit will return the updated state of the last selection in the same form as the command.

If	**Command returns**
Speech Level Control is set to be on for input channel 1	DEVICE SLVL 1 I 1

String Execution

DESCRIPTION:

This command sends the specified string out the serial port.

RETURN VALUES:

Unit always returns ID of the string in the same form as above.

TEXT FORM DETAILS

COMMAND FORM <DEVICE> STRING [Value]

Where:

DEVICE: See General Text command form Description

STRING Text Command

Value

0 - 7	String to execute
Null	Parameter to return last executed string

RETURN VALUES

The command will return the last string executed. If the command executed a string, the string that was executed is returned.

Time Out Select

DESCRIPTION:

This command selects/reports the inactivity time out before returning to the unit title screen.

RETURN VALUES:

Unit always returns the last executed timeout selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> TOUT [Value]

Where:

DEVICE: See General Text command form Description

TOUT Text Command

Value

0	select disable unit time out
1-15	select time out of 1 to 15 minutes
Null	return the current mode

RETURN VALUES

The command will return the updated condition of time out in the same format as the command.

If	**Command Returns**
Time out is set to 3 minutes	DEVICE TOUT 3

Unit ID

DESCRIPTION:

This command reports the unit ID. This command is read only.

RETURN VALUES:

Unit always returns the last executed unit ID selection in the same form as above.

TEXT FORM DETAILS

COMMAND FORM: <DEVICE> UID [Value]

Where:

DEVICE: See General Text command form Description

UID Text Command

Value UID of box in hex

RETURN VALUES

The command will return the unit ID in the same format as the command.

If	**Command Returns**
UID	DEVICE UID XXXXXXXX

Version

DESCRIPTION:

This command reports the version of the unit. This command is read only.

RETURN VALUES:

Unit always returns the version command in the same form as above.

TEXT FORM DETAILS

COMMAND FORM <DEVICE> VER [Value]

Where:

DEVICE:	See General Text command form Description
VER	Text Command
Value	command issued with null, command returns the current version in the form MM.mm.rr where MM is major version mm is minor version rr is release ID

RETURN VALUES

The command will return the version in the same format as the command.

If	**Command Returns**
VER	DEVICE VER X.X