

D-16**Administrator Manual****Table of Contents**

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INTRODUCTION

This document describes the configuration and administrative features of the D-16 console.

Operating Modes

There are two basic operating modes for the console, known as NORMAL MODE and CONFIGURATION MODE. In normal mode, the console operator chooses inputs, turns faders on and off, adjusts fader settings and monitor levels, and perhaps uses the talkback feature or checks the mix-minus status. The D-16 Technical Manual describes the normal mode of operation.

The instructions in this manual (the Administrator Manual) describe the configuration mode, and also explain some advanced features and options.

CONFIGURATION AND OPERATIONAL BASICS

The process of configuration allows the administrator to configure NAMES, MIX-MINUS status, and LOGIC ATTRIBUTES.

Names

With a large number of available inputs, it's convenient to be able to set up a system of NAMES by which the various inputs can be called. The D-16 console provides such a system. Each input (except for the two caller inputs) can be assigned a different name. The administrator should select names that are easily remembered and are representative of the nature of the signal that is wired to the input. For example, if you have three cart machines and two CD players, you might name them CRT1, CRT2, CRT3, CD 1, and CD 2. **Naming them MAC1, MAC2, MAC3, MAC4, and MAC5 would work as well, but the second set of names is less descriptive than the first set.**

You are limited to four characters for a name. By using a little creativity this limit should not be an obstacle.

The following default names are used by the console, and should not be used as assigned names for inputs: **Ain1, Ain2, Ain3, Ain4, Ain5, Ain6, Ain7, Ain8, Ln 9, Mic1, Mic2, Ln10, Mic3, Mic4, Din1, Din2, Din3, Din4, Din5, Din6, Din7, Din8, and Phn*** are used as default names for inputs, while **PGM, AUD, MONO, M1, M2, CF, CF 1, CF 2, MXMs, MXM1, MXM2, and Q/TB** are the unchangeable names assigned to the console buses. This caution is given to prevent duplication of names (see paragraph below). So, you can use the default input names as long as they are not used to name more than one signal, but you cannot use the default output names to name inputs.

INSTALLATION TIP

An air feed is often provided as a way for the operator to verify the integrity of the on-air signal. If you will be doing that, consider using the console's first analog input for the air feed. This will minimize the number of sources the operator has to scroll through to change the monitor feed from its normal position (for example, the PGM bus) to the air feed. Name this input "AIR" so that the operator will easily equate the name with the function.

Although you can use the same name for two different inputs, this is not a good idea. In fact, if you have two inputs, both named **FRED**, and you select **FRED** as the source for a fader, there's no telling which **FRED** you'll get. So don't duplicate the names.

With a little planning a good set of names can be developed.

Integral Mic Preamps

The console contains four mic preamps to bring mic level signals up to line level before presenting them to analog inputs. Microphones are wired to the mic pre inputs, and the mic pre outputs are wired to the desired analog inputs. There is no internal connection between the preamp outputs and any of the console's line level inputs.

The gain of the four mic preamps is adjustable. There are four trim pots, one for each mic preamp, located on the main console printed circuit board (the PR-16). The trim pots are located near the DB-25 connector that provides the in and out connections to the mic preamps at the upper left corner of the PR-16 board. They are labeled CR1 (MIC 1 GAIN), CR2 (MIC 2 GAIN), CR3 (MIC 3 GAIN), and CR4 (MIC 4 GAIN). The pots are accessible by hinging up the console's front panel, or by removing the accessory panel at the left end of the console.

Logic Port Use

It's important to remember that the logic ports have to be mapped to inputs before they will be usable. This may be stating the obvious, but machine logic ports should be wired to the same machine that feeds audio to the input to which the port is mapped. Likewise, mic logic ports should be wired to talent panels that are available for use by the person who will be using the mic to which the port is mapped.

The logic ports are fully opto-isolated.

Since each logic port has both signals that are appropriate for mic use and signals that are appropriate for line input (machine) use, in most cases not all of the logic ports pins will be used.

Mutes and Tallies

The console has two mute systems, one to mute the control room output and one to mute the studio output. The console also has two tally outputs. The first tally output is used to drive user-provided external circuitry that will in turn operate the control room on air indicator, and is called the ON AIR TALLY. It is automatically activated whenever the control room mute is activated. Thus, turning on any module that activates the control room mute also turns on the on air tally. The second tally is independent of muting, and can be used as a studio on air tally, as a skimmer control, or for any other application requiring a logic signal that depends on the ON status of one or more inputs.

Note that a pre-fade Studio line level output is available that is not affected by the studio mute. This output can be used to feed a headphone distribution amplifier in the studio to allow the talent to monitor themselves without creating feedback, or to insure that the talkback will be heard regardless of the studio mute status.

Producer Talkback Port

This port is provided to allow talkback to the studio from a location other than the console, such as a producer's office. The audio is line level. If a mic level signal is all that's available, use one of the console's mic preamps to achieve the necessary level for this port. The port is provided with an input that will accept a switch closure to activate the producer talkback, which will override any other source to the Studio.

MXM STATUS Button is Dual Purpose

The MXM STATUS BUTTON is a dual purpose button. Its main function, which it provides in the normal operating mode, is to enable display of the mix-minus status of the inputs assigned to each fader, as mentioned in the D-16 Technical Manual. It has another use in configuration mode, to switch among the various configuration sub-modes. This fact was not mentioned in the D-16 Technical Manual for purposes of clarity.

Configuration Changes Immediately Effective

As you configure mix-minus and logic attributes of an input that is currently selected by a fader, those changes become immediately effective. For this reason, great care must be taken if you configure attributes while the console is on air. Be sure that you have thought out the consequences of the configuration change to keep from having unexpected, annoying, or even scary things from happening to your air signal. If it is absolutely necessary (which it should never be) to configure the console on-air, turn OFF any fader that is mapped to a source you are configuring.

Even more important, if you make several changes while on air and then decide to cancel all the changes by performing an UNDO SESSION, a whole bunch of things will happen at once when you accept the UNDO. If the console operator is a big hulking bear, I wouldn't want to be you.

You can also cause a lot of changes at once by doing a reset to factory settings. This should also be avoided while on air.

ENTERING CONFIGURATION MODE

To begin configuring the console, press and hold the ENTER BUTTON and the MXM STATUS BUTTON until the CHANNEL DISPLAY shows “*****” and the SOURCE DISPLAY shows “**PASSWORD**”. The MXM STATUS BUTTON lights, and the first * (asterisk) character in the CHANNEL DISPLAY flashes. Turn the SELECT KNOB to cycle through the valid characters for the password (the digits **0 - 9**) until the desired first character shows (still flashing), then press the ENTER BUTTON to approve it. The first character stops blinking and the second * now begins to blink. Turn the SELECT KNOB to again cycle through the valid password characters until the desired second character shows (still blinking), then press the ENTER BUTTON to approve it. The second character stops blinking. Continue entering the password characters (four in all) in this fashion. When you have selected the last character of the password and pressed the ENTER BUTTON the password is evaluated. The correct password sequence is 1-4-1-6.

If you have entered a valid password you will be in configuration mode, ready to choose the configuration sub-mode to determine what parameter you will configure. The MXM STATUS switch lights and remains lit as long as you are in configuration mode.

If the password is entered incorrectly, the displays indicate this by showing “**WRONG PASSWORD**”, and you have another chance to enter the correct password. If after four tries you have still not entered a valid password the system reverts to normal operating mode.

While you are in configuration mode you can still change the source for a fader by following the normal operating instructions. When you have finished selecting the source you will be returned to your current place in the configuration procedure without the need to enter the password over again.

SELECTING AN INPUT TO CONFIGURE

Once you have entered configuration by successfully entering the password, your first task is to select the input you want to configure. The CHANNEL DISPLAY shows “**ANALOG 1**”, while the SOURCE DISPLAY shows the currently configured NAME for that input. Note that names are limited to four characters.

The ENTER BUTTON and the CHANNEL DISPLAY are now flashing, to indicate that pressing ENTER selects the displayed input for configuring. As you rotate the SELECT KNOB, the CHANNEL DISPLAY scrolls through the list of available inputs, and the SOURCE DISPLAY follows, showing the NAME of the input. Rotate the knob until the input you want to configure is shown in the display and press ENTER. If the input you choose is currently selected on a fader, the matching FADER DISPLAY will flash.

The digital inputs show up in the list as “**DIGITAL 1**”, etc.

INSTALLATION TIP

Take the time to plan your configuration. A chart is provided in the back of this manual to allow you to chart out your proposed configuration. Make as many copies of the blank chart as you need, then fill them out as you plan signal names, logic functions, and mix-minuses. Once you have decided on a final plan, file away a copy of the chart for future reference.

The two line inputs that can be assigned as either stereo pairs or mono sources each show up in the list three times: **“LINE 9ST”**, **“LINE 9LT”**, **“LINE 9RT”**, **“LINE10ST”**, **“LINE10LT”**, and **“LINE10RT”**. The **ST**, **LT**, and **RT** legends indicate whether you are editing the input for use as a stereo pair, a mono source from the left input, or a mono source from the right input. Generally you will know in advance how you will use these ports, and you only need to configure the source as it will be used. That is, you will either use it as a stereo pair, in which case you only need to configure the **ST** characteristics, or you will be using it as one or two mono inputs, in which case you only need to configure the **LT** and/or **RT** characteristics.

The phone channel shows up in the list as **“CALLERS”** because you can edit the phone channel mix-minus status and logic attributes, although you can’t change its name.

The monitor signals for Control Room, Studio, and headphones have logic attributes attached to them, so they are available as a source to be configured (**“MONITORS”**). Note that you can’t change this name, and the monitor signals do not feed any of the mix-minuses, so only the logic attributes of this selection are editable.

CONFIGURATION SUB-MODE SELECTION - THE MXM STATUS BUTTON

Once you’ve selected the input you want to configure, you have to decide what you want to do with it. The default choice, which flashes in the **SOURCE DISPLAY** after the input is selected, is **“NAMES”**. Other available choices, which are revealed by turning the **SELECT KNOB**, are:

“MIXMINUS” - to configure mix-minus status

“LOGIC” - to configure logic attributes

“INPUT” - to select another input to configure

“EXIT” - to exit configuration mode

“SYSTEM DEFAULT” - to restore the console to its factory preset configuration

“UNDO SESSION” - to restore the console to its status prior to entering configuration

Spin the knob to show the desired configuration sub-mode, then press **ENTER**, which has been flashing to remind you that you need to enter your choice.

At any time during configuration, you can invoke sub-mode selection by pressing **MXM STATUS**.

CONFIGURING NAMES

Upon entering the NAMES sub-mode, the CHANNEL DISPLAY continues to show the selected input, while the SOURCE DISPLAY shows the current NAME for that input, with the first character of the name flashing.

Rotate the SELECT KNOB. The first (flashing) character changes. Continue to rotate the SELECT KNOB until the SOURCE DISPLAY shows the desired first character of the NAME. Allowable characters are the digits **0 - 9**, the upper case letters **A - Z**, the space, and most of the standard punctuation marks. Once the desired character is showing, press ENTER.

The SOURCE DISPLAY now shows the current name with the second character flashing. Use the same procedure to select and enter the desired remaining characters for the new name. If an existing character is already the one you want, simply press ENTER to advance to the next character.

As you progress through the name change, if the input you are changing the name of is currently selected on a fader, the matching FADER DISPLAY reflects the name change.

After pressing ENTER to select the last name character, you are again ready to select the configuration sub-mode (see section 4.0 above). The default choice at this point is MIXMINUS. Press ENTER to select this choice, or spin the SELECT KNOB for another choice.

Remember, you can't change the names of the two caller inputs or the monitors.

It is important to note that if you press MXM STATUS to change the configuration sub-mode or exit the configuration mode while you are part way through changing a name, the new name for that input will be whatever shows in the SOURCE DISPLAY after the last ENTER press before you press MXM STATUS. For example, if you were planning on replacing the existing name **DEAN** with the new name **FRED**, but pressed MXM STATUS to switch to a new sub-mode or to exit configuration after changing only two characters, the new name would be **FRAN**.

INSTALLATION TIP

It can't be said often enough: plan out your configuration. Use names that will be meaningful to the operator.

CONFIGURING MIX-MINUS ATTRIBUTES

Upon entering the MIX-MINUS sub-mode, the CHANNEL DISPLAY shows the selected input, while the SOURCE DISPLAY shows the current MIX-MINUS ATTRIBUTES (or mix-minus **status**) for that input, with the first character flashing. If the mix-minus status has not been previously configured, the display shows the default, "NNNN".

Rotate the SELECT KNOB. The first (flashing) character changes. Continue to rotate the SELECT KNOB until the SOURCE DISPLAY shows the desired first character of the mix-minus status. The character indicates how, if at all, the input being configured will show up in caller feed mix-minus 1 (CF1). Allowable characters are "C" (the source is constantly present in the

specified mix-minus output, even if it is not selected by a fader, and, if it is selected by a fader, regardless of the fader's setting or ON status), **"P"** (the source is present in the specified mix-minus, regardless of the setting of the associated fader, as long as it is selected by a fader), **"A"** (the source is present in the specified mix-minus, at a strength dependent on the fader position, as long as it is selected by a fader and the fader status is ON), and **"N"** (the source is never present in the specified mix-minus, regardless of fader selection, position, or ON status). Once the desired character is showing, press ENTER.

In the special case of the phone channel the first two characters always show up as **"2"** and **"1"**, indicating that caller 2 always feeds caller 1, and vice versa. The default for the phone channel is **"21NN"**.

The SOURCE DISPLAY now shows the current mix-minus status with the second character flashing. Use the same procedure to select and enter the desired remaining mix-minus status characters (character 2, 3, and 4 relate to the CF2, MXM1, and MXM2 outputs, respectively). If an existing character is already the one you want, simply press ENTER to advance to the next character.

After pressing ENTER, you are again ready to select the configuration sub-mode. The default choice at this point is LOGIC. Press ENTER to select this choice, or spin the SELECT KNOB for another choice.

Remember, you can't change the mix-minus status of the monitors (they never appear in the mix-minus outputs).

It is important to note that if you press MXM STATUS to change the configuration sub-mode or exit the configuration mode while you are part way through changing the mix-minus status of an input, the new mix-minus status for that input will be whatever shows in the SOURCE DISPLAY after the last ENTER press before you press MXM STATUS.

INSTALLATION TIP

Plan out your mix-minus mixes. Remember, the first two mix-minuses are the feeds to caller 1 and caller 2. Decide what you want the callers to hear. The other two mix-minuses can be used for other purposes, such as remote feeds.

CONFIGURING LOGIC ATTRIBUTES

Upon entering the LOGIC sub-mode, the CHANNEL DISPLAY shows the selected input or monitor, while the SOURCE DISPLAY shows the current LOGIC ATTRIBUTES for that input, with the first character flashing. If the logic attributes have not been previously configured, the display shows the default:

Analog input	"NU-NNNNØ"
Line 9 Input	"NUMNNNNØ"
Line 10 Input	"NUSNNNNØ"
Digital Input	"NUØNNNNØ"
Caller input	"NU-NN--Ø"
Monitors	"-M2NNNN-"

Rotate the SELECT KNOB. The first (flashing) character changes. Continue to rotate the SELECT KNOB until the SOURCE DISPLAY shows the desired first character of the logic attributes. See below for a list of logic attributes, their descriptions, and the characters used to represent each attribute. Once the desired character is showing, press ENTER.

The SOURCE DISPLAY now shows the current logic attributes with the second character flashing. Use the same procedure to select and enter the desired remaining logic attribute characters. If an existing character is already the one you want, simply press ENTER to advance to the next character. If a character is not used for that input or monitor, the character displayed in that position will be a dash, and will be skipped over.

After pressing ENTER, you are again ready to select the configuration sub-mode. The default choice at this point is INPUT. Press ENTER to select this choice, or spin the SELECT KNOB for another choice.

It is important to note that if you press MXM STATUS to change the configuration sub-mode or exit the configuration mode while you are part way through changing the logic attributes of an input, the new logic attributes for that input will be whatever shows in the SOURCE DISPLAY after the last ENTER press before you press MXM STATUS.

Analog Input (Other Than Phone)

Attribute 1 - Logic Port Number

This attribute is used to map a source to a LOGIC PORT. The allowable characters are the port number "1" through "8", or "N" if the source is not assigned to a port. The default is "N".

Attribute 2 — Start / Ready

This attribute indicates both the type of start logic the port will use (USA, start and stop pulses, or European, constant start closure, acts more like a RUN) and whether the fader OFF button is illuminated by normal console logic (LOCAL control) or by a signal from a connected machine (READY

function). The allowable characters are “U” for an input using the USA interface and LOCAL, “E” for an input using the European interface and LOCAL, “A” for an input using the USA interface and READY, and “C” for an input using the European interface and READY. The default is “U”.

Attribute 3 — Mono/Stereo, Line 9 and Line 10 only

For the Line 9 and Line 10 inputs, this attribute determines if the source will be treated as two separate mono inputs or as one stereo input. “M” indicates that the source is treated as two separate mono inputs, which can be independently assigned to individual faders, and “S” indicates that the source is treated as a single stereo source. The default is “M” for Line 9 and “S” for Line 10.

The other analog inputs do not use this attribute.

Attribute 4 — CR Mute/On Air Tally

This attribute is used to allow an input to activate the CR (Control Room) mute when the fader is ON. “Y” indicates the mute is activated and “N” indicates it is not. The default is “N”. Activating the CR Mute also activates the ON Air Tally.

Attribute 5 — ST Mute

This attribute is used to allow an input to activate the ST (Studio) mute when the fader is ON. “Y” indicates the mute is activated and “N” indicates it is not. The default is “N”.

Attribute 6 — Tally 2

This attribute is used to allow an input to activate the TALLY 2 output when the fader is ON. “Y” indicates the tally is activated and “N” indicates it is not. The default is “N”.

Attribute 7 — Talkback Bus

This attribute is used to allow an input to feed the TALKBACK bus. The allowable characters are “Y” for a module that feeds the bus and “N” for one that doesn’t. The default is “N”.

Attribute 8 — Timer Restart/Fader Start

This attribute combines the Timer Restart and Fader Start features. Timer Restart, if enabled, allows the input to activate TIMER RESTART when the fader ON button is pressed. Fader Start, if enabled, allows the fader position to control the ON status: if the fader is moved up from the full down position the fader will be turned ON, *just as if* the ON button had been pressed, and will activate the port START function if the fader’s source is mapped to a logic port; if the fader is moved down to the full down position the fader will be turned OFF, *just as if* the OFF button had been pressed, and will activate the port STOP function if the fader’s source is mapped to a logic port. The

Note: Before changing this attribute be sure that the associated sources (Line 9 LT, Line 9 RT, Line 9 ST, Line 10 LT, Line 10 RT, Line 10 ST) are not assigned to a fader. Failure to observe this rule may result in having the left or right side of the line input appearing on two separate faders (for example, LINE 9 on fader 1 and MIC 1 on fader 2), resulting in undesirable interaction between the associated faders.

Note: If both features are enabled, moving the fader up from the full down position will cause the timer to be restarted.

allowable characters for this attribute are the digits “0” through “3”, interpreted as follows:

Character	Timer Restart	Fader Start
0	DISABLED	DISABLED
1	ENABLED	DISABLED
2	DISABLED	ENABLED
3	ENABLED	ENABLED

The default is “0”.

Digital Input

Attribute 1 — Logic Port Number

This attribute is used to map a source to a LOGIC PORT. The allowable characters are the port number “1” through “8”, or “N” if the source is not assigned to a port. The default is “N”.

Attribute 2 — Start / Ready

This attribute indicates both the type of start logic the port will use (USA, start and stop pulses, or European, constant start closure, acts more like a RUN) and whether the fader OFF button is illuminated by normal console logic (LOCAL control) or by a signal from a connected machine (READY function). The allowable characters are “U” for an input using the USA interface and LOCAL, “E” for an input using the European interface and LOCAL, “A” for an input using the USA interface and READY, and “C” for an input using the European interface and READY. The default is “U”.

Attribute 3 — Attenuation

For normal analog sources, the fader is run at a position 12 *dB* (dB stands for *decibel*, a measure of audio signal strength) down from maximum. This allows the console operator to increase or decrease the fader from its normal setting as required to achieve a desirable strength in the output for that signal. This works because the analog signal has been recorded with a degree of *headroom*, meaning that the maximum strength of the signal is still below the level that will result in signal *clipping* (distortion). A digital source is often recorded with no headroom. In that case, if the fader is run at a normal position, pushing the fader up can cause the signal to immediately distort. The answer to this is to build a certain amount of *attenuation* (decrease of signal level) into the fader, so that the fader may still be run at a normal position, but will not result in immediate distortion if it is brought up. The allowable characters for the ATTENUATION ATTRIBUTE are the numbers “0” through “7”. The actual amount of attenuation provided, in dB, is twice that of the character representing it. In other words, “0” gives 0 dB attenuation, “1” gives 2 dB attenuation, “2” gives 4 dB, and so on through “7”, which gives 14 dB of attenuation. The default is “0”.

Attribute 4 — CR Mute/On Air Tally

This attribute is used to allow an input to activate the CR (Control Room) mute when the fader is ON. “Y” indicates the mute is activated and “N” indicates it is not. The default is “N”. Activating the CR Mute also activates the ON Air Tally.

Attribute 5 — ST Mute

This attribute is used to allow an input to activate the ST (Studio) mute when the fader is ON. “Y” indicates the mute is activated and “N” indicates it is not. The default is “N”.

Attribute 6 — Tally 2

This attribute is used to allow an input to activate the TALLY 2 output when the fader is ON. “Y” indicates the tally is activated and “N” indicates it is not. The default is “N”.

Attribute 7 — Talkback Bus

This attribute is used to allow an input to feed the TALKBACK bus. The allowable characters are “Y” for a module that feeds the bus and “N” for one that doesn’t. The default is “N”.

Attribute 8 — Timer Restart/Fader Start

This attribute combines the Timer Restart and Fader Start features. Timer Restart, if enabled, allows the input to activate TIMER RESTART when the fader ON button is pressed. Fader Start, if enabled, allows the fader position to control the ON status: if the fader is moved up from the full down position the fader will be turned ON, *just as if* the ON button had been pressed, and will activate the port START function if the fader’s source is mapped to a logic port; if the fader is moved down to the full down position the fader will be turned OFF, *just as if* the OFF button had been pressed, and will activate the port STOP function if the fader’s source is mapped to a logic port. The allowable characters for this attribute are the digits “0” through “3”, interpreted as follows:

Note: If both features are enabled, moving the fader up from the full down position will cause the timer to be restarted.

Character	Timer Restart	Fader Start
0	DISABLED	DISABLED
1	ENABLED	DISABLED
2	DISABLED	ENABLED
3	ENABLED	ENABLED

The default is “0”.

Phone Input

Attribute 1 — Logic Port Number

This attribute is used to map a source to a LOGIC PORT. The allowable characters are the port number “1” through “8”, or “N” if the source is not assigned to a port. The default is “N”.

Attribute 2 — Start / Ready

This attribute indicates both the type of start logic the port will use (USA, start and stop pulses, or European, constant start closure, acts more like a RUN) and whether the fader OFF button is illuminated by normal console logic (LOCAL control) or by a signal from a connected machine (READY function). The allowable characters are “U” for an input using the USA interface and LOCAL, “E” for an input using the European interface and LOCAL, “A” for an input using the USA interface and READY, and C for an input using the European interface and READY. The default is “U”.

Attribute 3 — Not Used

This attribute is not used for a phone input.

Attribute 4 — CR Mute/On Air Tally

This attribute is used to allow an input to activate the CR (Control Room) mute when the fader is ON. “Y” indicates the mute is activated and “N” indicates it is not. The default is “N”. Activating the CR Mute also activates the ON Air Tally.

Attribute 5 — Auto Select

This attribute is used to allow a phone bus assignment to switch the caller on feed to be the same bus, minus the caller. “Y” indicates the caller feed will be switched and “N” indicates it will not. The default is “N”.

Attribute 6 — Not Used

This attribute is not used for a phone input.

Attribute 7 — Not Used

This attribute is not used for a phone input.

Attribute 8 — Timer Restart

This attribute is used to allow an input to activate TIMER RESTART when the fader ON button is pressed. “1” indicates the restart is activated and “Ø” indicates it is not. The default is “Ø”.

INSTALLATION TIP

With Phone Auto Select enabled, the caller ON mix-minus feed “follows” the phone bus assignment. Assign the phone to PGM and the caller ON feed becomes PGM minus the caller. Pressing the AUD button cancels the PGM assignment, the phone is assigned to AUD, and the caller ON feed becomes AUD minus the caller.

Monitors

Attribute 1 — Not Used

This attribute is not used for monitors.

Attribute 2 — Encoded Sample Rate Information

This attribute sets the encoded bits in the digital output data stream that specify the output sample rate. “N” indicates none indicated, “L” indicates 32 kHz, “M” indicates 44.1 kHz, and “H” indicates 48 kHz. Changing this setting does **not** change the actual sample rate, only the encoded data bits that specify the sample rate.

Attribute 3 — TB Level Attenuation

This attribute sets the TALKBACK level attenuation to a fixed amount. The digits 0 - 7 indicate the degree of attenuation (with “0” being no attenuation and “7” being the maximum attenuation). The default is “2”. This will affect the level of TALKBACK signal as it interrupts the studio, but will not affect the direct TALKBACK output level.

Attribute 4 — CUE Interrupt Of CR

This attribute determines if cue audio will interrupt the Control Room output when a fader goes into cue. “N” indicates that cue does not interrupt the Control Room output. “Y” indicates that cue interrupts both the left and right Control Room outputs. The default is “N”.

Attribute 5 — CUE Interrupt Of HDPN

This attribute determines if cue audio will interrupt the headphone jack output when a fader goes into cue. “N” indicates that cue does not interrupt the headphone jack output. “Y” indicates that cue interrupts both the left and right headphone jack outputs. The default is “N”.

Attribute 6 — Auto Select Of CR

This attribute is used to allow the Control Room monitor source to automatically switch to PGM when the CR MUTE is active, and back to its previous selection when CR mute becomes inactive. “N” indicates the monitor source will not be switched and “Y” indicates that it will be switched. The default is “N”.

Attribute 7 — Auto Select Of ST

This attribute is used to allow the Studio monitor source to automatically switch to PGM when the ST MUTE is active, and back to its previous selection when ST mute becomes inactive. “N” indicates the monitor source will not be switched and “Y” indicates that it will be switched. The default is “N”.

Attribute 8 — Not Used

This attribute is not used for monitors.

INSTALLATION TIP

Select your air signal as the normal CR monitor source and have the operator use headphones. With Auto Select enabled and the operator mic set to mute the CR, the operator will hear the air signal when the operator mic is off, and PGM when the mic is on. The Studio Auto Select works in a similar fashion.

EXITING CONFIGURATION MODE

To exit the configuration mode, press **MXM STATUS** and rotate the **SELECT KNOB** until the **SOURCE DISPLAY** shows **“EXIT”**, then press **ENTER**. The **MXM STATUS BUTTON** light goes out and the **ENTER BUTTON** stops flashing. Please note that once you have left the configuration mode in this way it will be necessary to enter the password again before you can do more configuration.

Resetting Configuration To Factory Default — Master Reset

To reset the configuration to the factory default settings, press **MXM STATUS** and rotate the **SELECT KNOB** until the combined **CHANNEL** and **SOURCE** displays show **“SYSTEM DEFAULT”**. Press **ENTER**. The combined display now shows **“CONFIRM DEFAULT?”**. Press **ENTER** once more to accomplish the reset, or press **MXM STATUS** to cancel it. If you confirm the reset the combined display shows **“RESET TO FACTORY”**, or if you cancel reset the combined display shows **“RESET CANCELED”**. In either case the **ENTER BUTTON** stops flashing, the **MXM STATUS BUTTON** flashes, and you need to press **MXM STATUS** to select the next configuration sub-mode.

NOTE: Resetting the configuration to the factory default settings may affect a lot of things at once, including what audio is on what fader, and whether or not mutes are in force, etc. Do not do a factory default reset while on-air!



Important!

UNDOING THE SESSION — OOPS!

To **UNDO** a configuration session, press **MXM STATUS** and rotate the **SELECT KNOB** until the combined **CHANNEL** and **SOURCE** displays show **“UNDO SESSION”**. Press **ENTER**. The combined display now shows **“CONFIRM UNDO?”**. Press **ENTER** once more to accomplish the **UNDO**, or press **MXM STATUS** to cancel it. If you confirm the reset the combined display shows **“SESSION UNDONE”**, or if you cancel reset the combined display shows **“UNDO CANCELED”**. In either case the **ENTER BUTTON** stops flashing, the **MXM STATUS BUTTON** flashes, and you need to press **MXM STATUS** to select the next configuration sub-mode.

NOTE: Undoing a configuration session may affect a lot of things at once, including what audio is on what fader, and whether or not mutes are in force, etc. Do not do a session undo while on-air!



Important!

D-16 LOGIC MAP

Input		Channel		Port		PortType		Atten		CRmute/ Tally1		STmute		Tally2		TB		TmrRst/ FdrStart	
		range	choice	range	choice	range	choice	range	choice	range	choice	range	choice	range	choice	range	choice	range	choice
ANALOG 1		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 2		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 3		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 4		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 5		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 6		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 7		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
ANALOG 8		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
LINE 9ST		1..14		0..8		U,E,A,C		*M,S		Y,N		Y,N		Y,N		Y,N		0..3	
LINE 9LT		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
LINE 9RT		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
LINE10ST		1..14		0..8		U,E,A,C		*M,S		Y,N		Y,N		Y,N		Y,N		0..3	
LINE10LT		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
LINE10RT		1..14		0..8		U,E,A,C		--	--	Y,N		Y,N		Y,N		Y,N		0..3	
CALLERS	-----	--		0..8		U,E,A,C		--	--	Y,N		*Y,N		--	--	--		0..1	2 1
DIGITAL 1		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 2		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 3		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 4		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 5		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 6		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 7		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
DIGITAL 8		1..14		0..8		U,E,A,C		0..7		Y,N		Y,N		Y,N		Y,N		0..3	
*Mono/Stereo																			
*AutoSel																			
Input		Channel		SampleRate		TB Atten		CR Cue INT		HDPN Cue INT		CR AutoSel		ST AutoSel		MxmStat		MxmStat	
		range	choice	range	choice	range	choice	range	choice	range	choice	range	choice	range	choice	range	choice	range	choice
MONITORS	Name	--	--	--	--	N,L,M,H	0..7		Y,N	Y,N		Y,N		Y,N		Y,N	--	--	-----

This page may be freely copied for planning and documenting console configuration.

D-16 LOGIC ATTRIBUTES SUMMARY									
	1	2	3	4	5	6	7	8	
Analog Source	N, 1..8	U, E, A, C	M, S	Y, N	Y, N	Y, N	Y, N	0..3	
	N	U	M (9), S (10)	N	N	N	N	0	
	Logic port mapping	Logic port START & OFF characteristics	Line 9 and 10 inputs only – mono / stereo	CR mute	ST mute	Tally 2	TB source	Timer restart and fader start	
	N: no logic port, 1..8: the logic port assigned to this source	U: PULSE start, LOCAL off, E: CONSTANT start, LOCAL off, A: PULSE start, READY off, C: CONSTANT start, READY off	M: mono, S: stereo does not apply to analog inputs 1 – 8	Y: channel ON or in CUE activates CR mute, N: mute not activated	Y: channel ON activates ST mute, N: mute not activated	Y: tally 2 activated when channel ON, N: tally 2 not activated	Y: source feeds TB bus, N: source does not feed TB bus	1 or 3: pressing ON button restarts event timer, 2 or 3: moving fader up from full down position turns channel ON, 0: both features off	
Digital Source	N, 1..8	U, E, A, C	0..7	Y, N	Y, N	Y, N	Y, N	0..3	
	N	U	0	N	N	N	N	0	
	Same as Analog Source	Same as Analog Source	Digital inputs Attenuation level	Same as Analog Source	Same as Analog Source	Same as Analog Source	Same as Analog Source	Same as Analog Source	
			0: no attenuation, 1: -2dB, 2: -4 dB, etc., up to 7: -14dB						
Phone Source	N, 1..8	U, E, A, C	--	Y, N	Y, N	--	--	0..1	
	N	U	--	N	N	--	--	0	
	Same as Analog Source	Same as Analog Source	Does not apply	Same as Analog Source	PHONE auto select	Does not apply	Does not apply	Same as Analog Source	
					Y: auto select active, N: auto select not active				
Monitors	--	N, L, M, H	0..7	Y, N	Y, N	Y, N	Y, N	--	
	--	M	2	N	N	N	N	--	
		Sample rate indication in AES bitstream	Attenuation for TB level	CUE interrupt of CR	CUE interrupt of HDPN jack	PGM auto select when CR mute active	PGM auto select when ST mute active		
		N: none indicated, L: 32 Khz, M: 44.1 Khz, H: 48 Khz	0: no attenuation, 7: maximum attenuation	Y: cue interrupts CR, N: no interrupt	Y: cue interrupts HDPN jack, N: no interrupt	Y: CR source switches to PGM, N: no auto select	Y: studio source switches to PGM, N: no auto select		