

# M-2600MKII

## QUICK TIPS

### **M-2600MKII Application Guide Introductory Briefing**

The M-2600MKII Series mixing console offers tremendous signal routing flexibility combined with a versatile and musical equalization system. This guide is designed to assist you in maximizing your use of the mixer. To gain the most from this guide, configure your system as outlined on pages 3 and 4.

### **Taking Advantage of the M-2600MKII's Split EQ Capability**

**The M-2600MKII Series Consoles provide four band, splittable EQ on each channel strip. HI and LOW EQ are of the shelving variety while HI MID and LO MID EQ is sweepable. Both types of equalization default to the Channel Path.**

Beneath the HI and LOW EQ is a switch labeled MONitor. Pressing this switch places the HI and LOW EQ in the monitor path. Beneath the HI MID and LO MID EQ there is another switch labeled MONitor. Pressing this switch places the HI MID and LO MID EQ in the monitor path.

Beneath the HI MID / LO MID EQ MON switch is another switch labeled EQ. This switch inserts or removes the two types of equalization from the Channel Path only. Its function is dependent upon the setting of the two MONitor switches.

By taking advantage of the MONitor switches found in the EQ section of the M-2600MKII consoles, you have the advantage of using the EQ in any combination that best suits your needs. As this level of flexibility provides countless opportunities to fine tune your mix, we encourage you to experiment with this section of the console. The following example is only one of many possible uses for splittable EQ.

**You're mixing down eight tracks from tape with a number of virtual tracks via your MIDI system. The tape recorder is feeding TAPE IN, channels 1 through 8, which are now placed in the Channel Path via the FLIP switches. As your MIDI system is huge, you are also using channel inputs 1 through 8 (LINE engaged) to accommodate the individual outputs of your drum machine. These signals are now in the Monitor path. Channel one of the console is managing both the brass parts on tape (Channel Path) and the kick drum (Monitor Path) via the MIDI system.**

You want to boost the low end punch of the kick drum. Press the upper MONitor switch in the EQ section. You can now adjust the LOW EQ control and affect a change to the kick drum.

By pressing the EQ button in the HI MID / LO MID area of the EQ section, you can now experiment with the sweepable EQ to obtain the greatest clarity from your brass parts which are in the Channel Path - ensuring this track has the bite that it needs to cut through the mix.

## **The M-2600MKII Series Console Uses In-Line Monitoring**

The M-2600 Series console uses In-Line Monitoring. What is In-Line Monitoring? This is a dual signal path configuration consisting of a Channel and a Monitor path. The console incorporates the means to feed signals to each path independently. This capability effectively doubles the number of available inputs per each channel.

### **What is the Channel Path?**

This is the signal path that is fed by the MIC and LINE inputs. The Channel Faders govern the level of this signal.

### **What is the Monitor Path?**

This is the signal path that is fed by the TAPE IN jacks. Level control for this signal path is governed by the MONitor LEVEL control.

### **Flipping Channel and Monitor Paths**

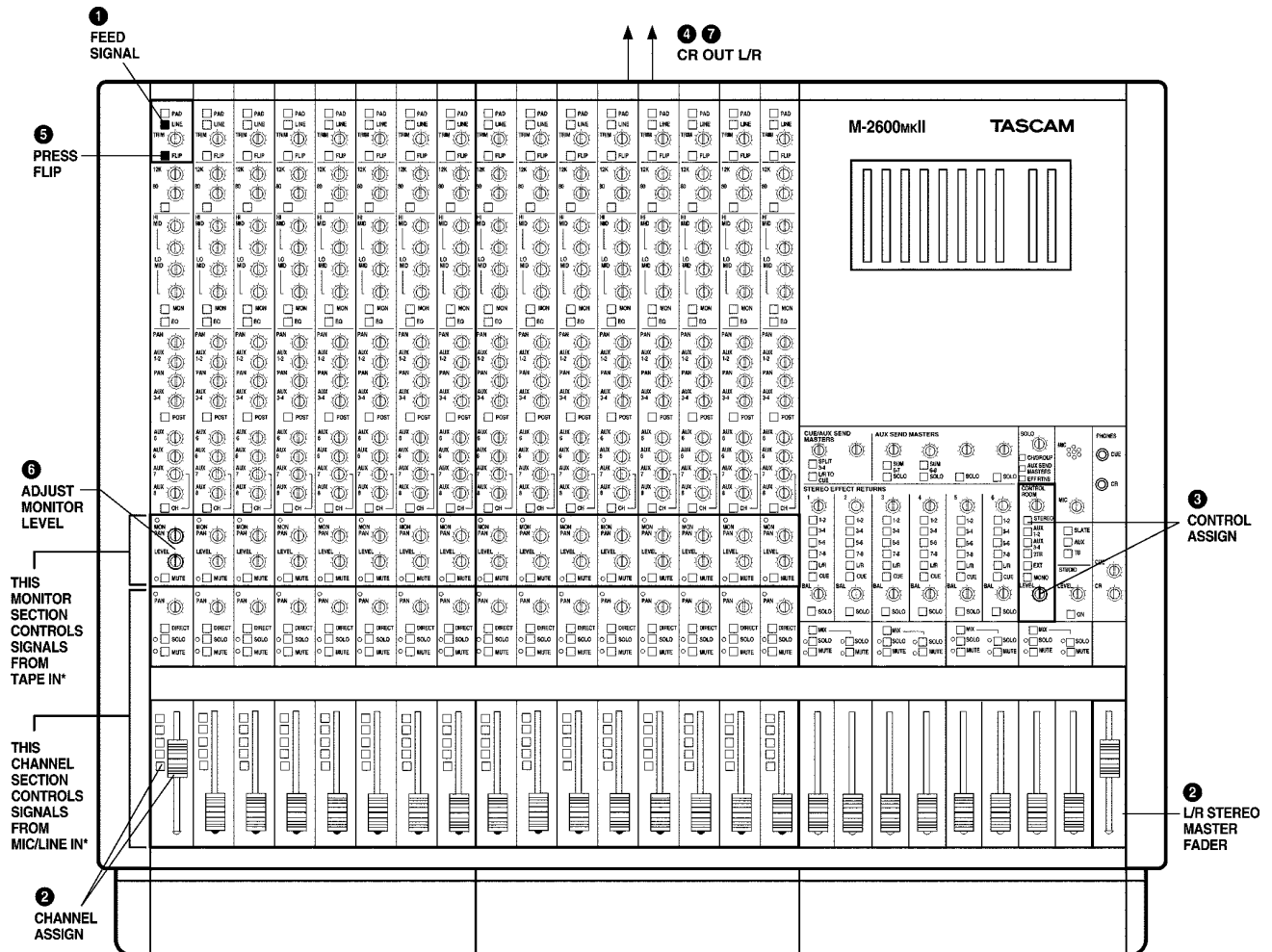
The Channel and Monitor paths can be "flipped", or inverted, by means of the FLIP switch. Pressing FLIP causes the MIC/LINE inputs to now feed the MONitor LEVEL control while the TAPE IN jack now feeds the Channel Fader.

### **Channel / Monitor Path Explanation with the M-2600MKII**

**To easily understand the relationship between the Channel and Monitor paths, "zero" the mixer as described at the rear of this guide and then perform the following:**

- 1) Feed signal to LINE INPUT, Channel 1, making certain the LINE switch at the top of the channel strip is engaged and FLIP is disengaged.
- 2) With the CHANNEL ASSIGN switch for Channel 1 set to L-R, raise both the Channel Fader and the Stereo L-R Master Fader.
- 3) Make certain the STEREO switch is engaged in the CONTROL ROOM ASSIGN area of the console and that the LEVEL is up.
- 4) You should now hear that signal via the CONTROL ROOM L-R Outputs and are listening via the Channel Path.
- 5) While still feeding signal, press the FLIP switch - notice there is no sound present
- 6) Now turn the Channel 1, MONitor LEVEL control to raise the volume of the signal
- 7) You are now listening to this signal via the Monitor Path

# Channel / Monitor Path Illustration



## Typical 8-Track Configuration with the TASCAM M-2600MKII Series Consoles

Make your system connections as follows:

### 8-Track to M-2600MKII connections

- 1) Connect Recorder Outputs 1-8 to M-2600MKII TAPE IN 1-8
- 2) Connect GROUP OUTPUTS 1-8 Module #1 to Recorder Inputs 1-8

**TIP!** It is strongly recommended that you use color-coded cables for this purpose as it will visually assist you while inspecting your connections. Match the colors for both Inputs and Outputs.

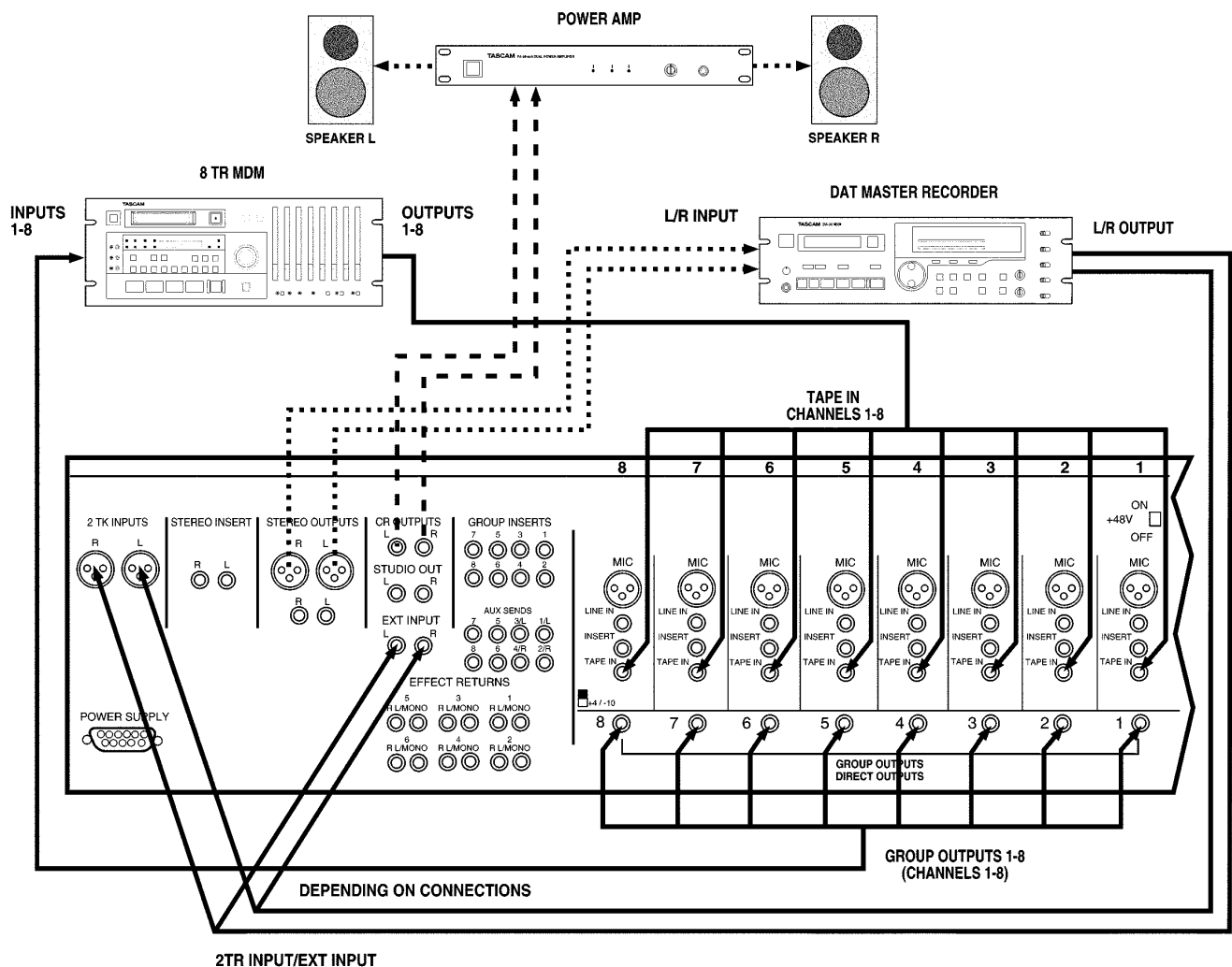
## DAT Master Recorder to M-2600MKII connections

- 1) Depending upon the connections on your master recorder, connect the STEREO OUTPUTS L&R (XLR or RCA connectors) of the M-2600MKII to the L&R Inputs of your mastering deck
- 2) Depending upon the connections on your master recorder, connect the L&R outputs of the mastering deck to either the M-2600MKII's 2TR INPUT or the EXT INPUTS

**TIP! Be advised that monitoring your master recorder will be a function of the Control Room Assign switches - either "2TR" or "EXT".**

## M-2600MKII to Reference Monitors

- 1) Connect the CR OUTPUT (Control Room) Left and Right to the left and right inputs of your power amplifier
- 2) Connect the left and right speakers to their respective terminals on the power amplifier



## Typical 16-Track Configuration with the TASCAM M-2600MKII Series Consoles

Make your system connections as follows:

### 16-Track to M-2600MKII Connections

- 1) Connect Recorder Outputs 1-16 to M-2600MKII TAPE IN 1-16
- 2) Connect GROUP OUTPUTS 1-8 Module #1 to Recorder Inputs 1-8
- 3) Connect GROUP OUTPUTS 1-8 Module #2 to Recorder Inputs 9-16

***TIP! It is strongly recommended that you use color-coded cables for this purpose as it will visually assist you while inspecting your connections. Match the colors for both Inputs and Outputs.***

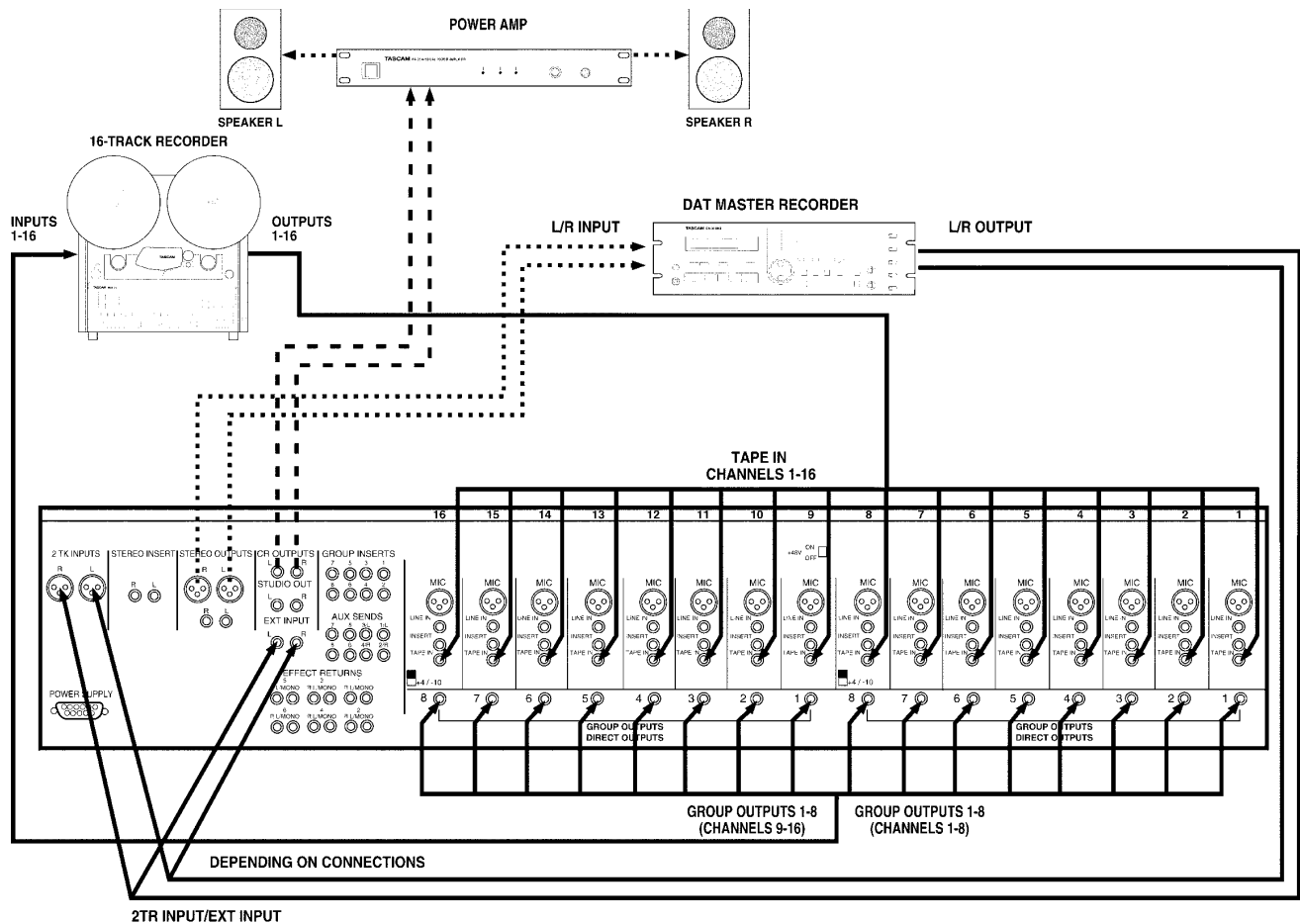
### DAT Master Recorder to M-2600MKII Connections

- 1) Depending upon the connections on your master recorder, connect the STEREO OUTPUTS L&R (XLR or RCA connectors) of the M-2600MKII to the L&R Inputs of your mastering deck
- 2) Depending upon the connections on your master recorder, connect the L&R outputs of the mastering deck to either the M-2600MKII's 2TR INPUT or the EXT INPUTS

***TIP! Be advised that monitoring your master recorder will be a function of the Control Room Assign switches - either "2TR" or "EXT".***

## M-2600MKII To Reference Monitors

- 1) Connect the CR OUTPUT (Control Room) Left and Right to the left and right inputs of your power amplifier
- 2) Connect the left and right speakers to their respective terminals on the power amplifier



## Direct / Group Switching with the M-2600MKII Series Consoles

The M-2600MKII Series consoles provide a set of 8 Group / Direct Outputs for each 8 channel module. For example, the M-2600MKII/24 has 24 channels or three 8 channel modules. Each of these three modules incorporates a set of 8 Group / Direct Outputs and each set of Group Outputs carries the identical signals. By incorporating a DIRECT switch on each channel strip, it is extremely easy to route signal directly to a track on the recorder without having to physically repatch the recorder. Pressing the DIRECT switch changes the Group Output jack to the Direct Output jack of the Channel path for that module.

How do we use the Group Outputs as opposed to the Direct Outputs? When we want to route multiple mixer input channels to one or two specific tape tracks, we typically use the Group Outputs in conjunction with the Channel Assign switches located toward the bottom of each channel strip. If we simply want to route an individual channel input to a single tape track, it makes sense to use the Direct Outputs, as this enables us to bypass another gain stage that would occur by routing that signal via a Group Output.

The following example is based on the assumption that your system is cabled as outlined in the 8 or 16 track configurations. In order to better understand this Group / Direct relationship, "zero" the mixer as described at the rear of this guide and then perform the following:

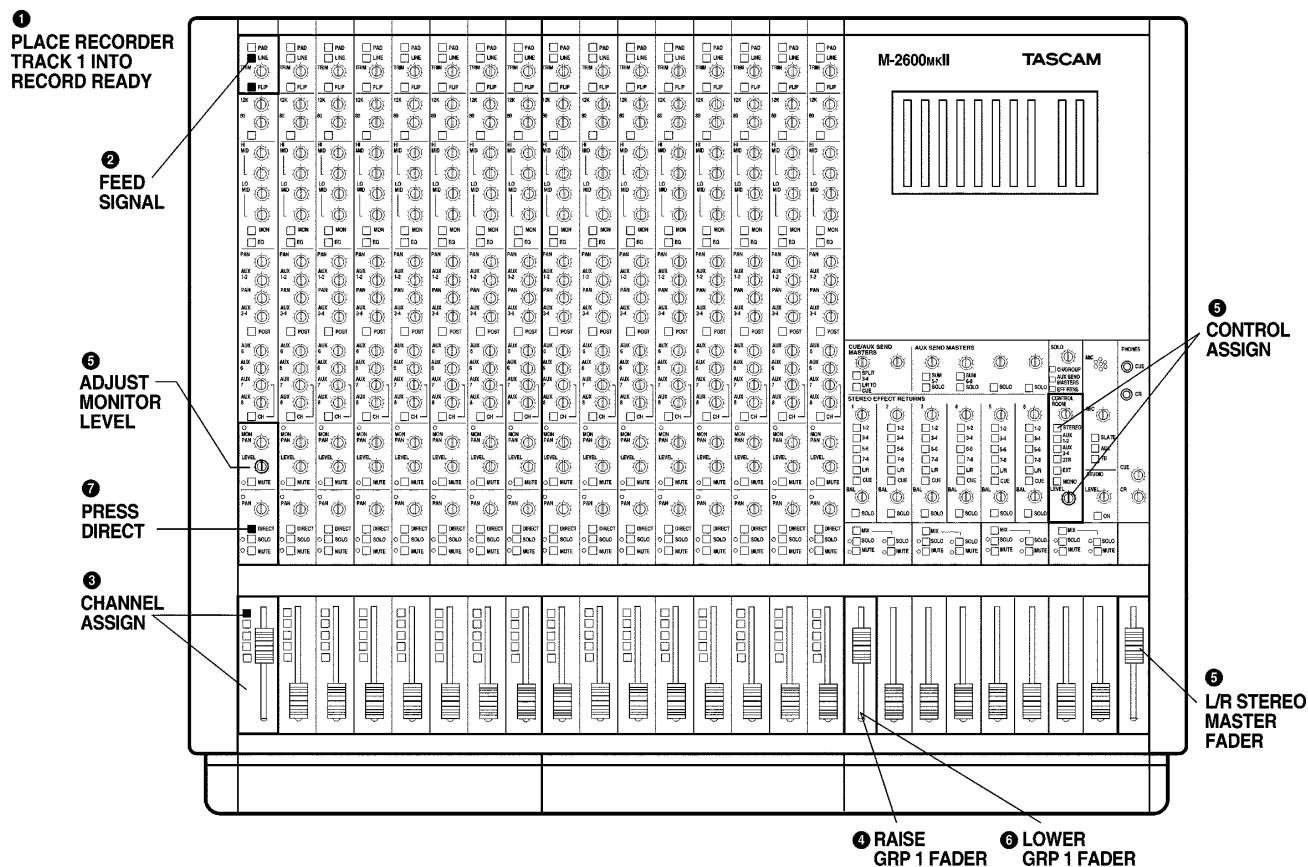
- 1) Place track one on your recorder into RECORD READY status
- 2) Feed signal to the Channel 1 LINE input, making certain the LINE switch at the top of that channel strip is engaged and FLIP is disengaged
- 3) Locate the CHANNEL ASSIGN switches positioned at the bottom of this channel strip, press 1-2 and raise the channel fader to a reasonable level
- 4) Raise the Group 1 fader - keeping an eye on your recorder so that you set a reasonable level
- 5) Assuming you wish to hear this signal - raise the MONitor LEVEL for Channel 1, making certain Control Room Assign is set to STEREO and the CR LEVEL control and Stereo L-R Master Fader are both raised

***TIP! You are now feeding the recorder via the GROUP OUTPUT.***

- 6) Lower the Group 1 fader - signal disappears
- 7) Press DIRECT located near the bottom of the Channel 1 strip - signal reappears

***TIP! You are now feeding the recorder via the DIRECT OUTPUT.***

## Direct / Group Switching Illustration



## Using an Effect Send / Return Loop to Achieve a Wet Mix for the Talent and a Dry Mix for the Engineer

During recording, a vocalist may find it preferable to hear some reverb added to the mix even though the engineer wants to print "dry" to tape. This type of situation is easily accommodated by the M-2600MKII.

Since AUX 1-2 and AUX 3-4 may currently be in use for the purpose of creating a Cue Mix, this example will use AUX 5 for the effects loop. Proceed as follows:

- 1) Patch in the reverb unit via AUX SEND and RETURN #5 - set the reverb's WET/DRY balance to WET
- 2) In the M-2600MKII's AUX MASTER section, locate Effects Return 5 and press the Effects Return Assign switch identified as CUE

Using AUX 5 to add reverb to the vocalist will now have the returning effects signal routed to the CUE/AUX 1-2 buss. This will enable the vocalist to hear reverb while the signal to tape and to the Monitor mix remain "dry".



## Summing AUX 5&7 or 6&8 - Why Would I Want to do That?

That's a good question! Let's take a look. Imagine you are using an M-2600MKII/16 with a sixteen track recorder. You are also running virtual tracks via your MIDI sequencer. Time code is on track 16. It's time for mixdown.

In this situation, recorder outputs 1-15 will be feeding TAPE IN, channels 1-15 at the console. FLIP will be engaged on these channels so the tape signals are now in the channel path and you have level control of those tracks via the channel faders. The outputs of your various synths, samplers and drum machines will be feeding twelve of the available sixteen LINE inputs at the console. These signals are now in the Monitor path.

You want to use the same reverb on selected tape tracks (Channel path) as well as some of the synth and sampler parts (Monitor path). On the M-2600MKII, Aux sends 5&6 get their signals from the Channel path while Aux sends 7&8 get their signals from the Monitor path. By summing either AUX 5&7 or 6&8 via the corresponding SUM switches in the console's Aux Master section, you can effectively treat these sends as a single effects send.

Summing these Aux sends will enable you to add reverb via AUX 5 to selected tape tracks and to selected synth/sampler parts via AUX 7. In similar fashion, you could use a single delay unit on AUX 6&8. When connecting your effects loop, you can send to the processor from either AUX SEND 5 or 7 when they are summed. When summing these effects sends, it is advisable to keep the AUX SEND Master controls at equal levels.

## Monitoring Provisions of the M-2600MKII

**To monitor your work, be certain to use the CONTROL ROOM Outputs of the M-2600MKII to feed your amplifier and speakers. This will enable you to take advantage of the various monitoring options available at the Control Room section of the console. Use the L-R Stereo Master Outputs to feed your Master Recorder.**

By connecting your system in this manner, you will be able to achieve the greatest monitoring flexibility from your mixer. By examining the Control Room section of your console, you will find the following monitoring options:

- 1) Stereo: The usual monitoring option since the Monitor path normally feeds the stereo mix
- 2) AUX 1-2 , 3-4: Pressing these switches enables you to monitor either the CUE mix or the stereo effects - depending upon how these are being used
- 3) 2TR: Press this to listen to the device connected to the 2TR IN connectors
- 4) EXT: Press this to listen to the device connected to the EXT INPUT connectors
- 5) MONO: Pressing this switch changes the monitor mix from stereo to monaural - enabling you to check for phase discrepancies

The LEVEL control found in the Control Room section of the M-2600MKII determines the overall level of the signals you are monitoring in the Control Room.

In similar fashion, the STUDIO ON and LEVEL controls enable you to place a second pair of speakers elsewhere in the studio. This could be used to provide the talent with the means to monitor tracks in addition to headphones. The STUDIO ON switch enables the send to the STUDIO OUTPUTS. Signal source is determined by the Control Room Assign switches.

## **Providing Separate Cue and Monitor Mixes with the M-2600MKII Series Consoles**

**Frequently, it will be desirable to provide separate mixes for the talent and engineer. During recording, the talent may want their instrument level higher than the rest of the mix while the engineer may prefer a more level balance between all parts.**

Remember that AUX 1-2 get their signals from the Channel Path (normally Inputs) while AUX 3-4 get their signals from the Monitor Path. TAPE IN feeds the Monitor Path.

### **Engineer Uses the Monitor Section for his Mix**

- 1) Set Pan and Level for all signals returning via TAPE IN
- 2) Control Room Assign will normally be set to STEREO
- 3) Control Room Level and L-R Stereo Master fader must be raised

***TIP! This mix will be present at the Control Room L&R outputs and the CR PHONES jack.***

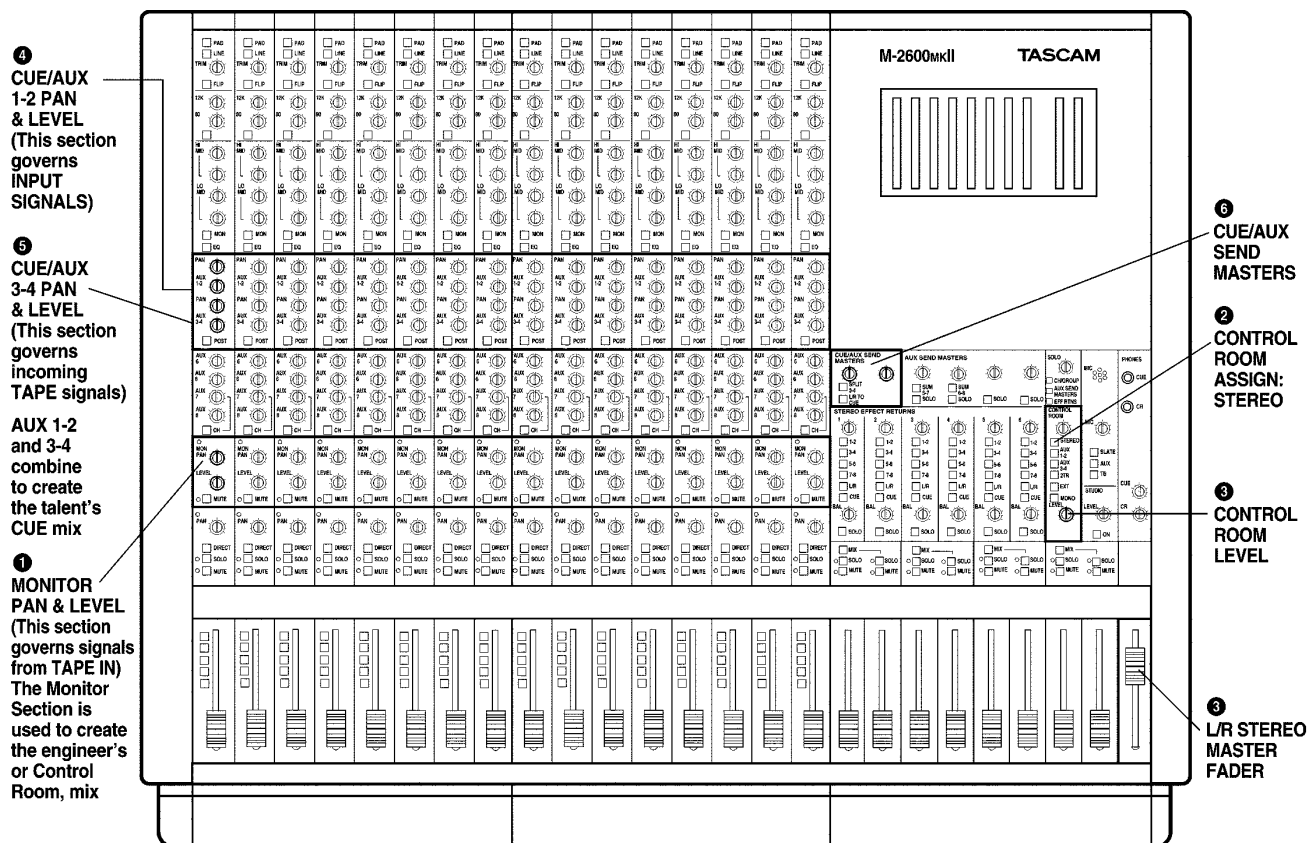
Note: Should the engineer wish to monitor the Cue mix, this can be easily accomplished by pressing either AUX 1-2 or AUX 3-4 in the Control Room Assign area. As these two Aux sends are normally summed, the signals from both Channel and Monitor paths will be present in either setting.

### **Talent Uses a Combination of AUX 1-2 (Monitor Input) and AUX 3-4 (Monitor Tape) for a Separate Mix**

- 4) Set Pan and Level of AUX-1-2 to adjust and monitor live input
- 5) Set Pan and Level of AUX 3-4 to adjust those parts coming from tape via TAPE IN
- 6) Make certain the AUX 1-2 and AUX 3-4 Master Sends are set for adequate level. Unity Gain is at roughly the 2 O'Clock position

***TIP! This mix will be present at both the AUX 1/L- 2/R (also AUX 3-4) outputs and the PHONES CUE jack.***

## Separate Monitor and Cue Mix



## Using Stereo Effects with the M-2600MKII Series Consoles

The M-2600MKII Series consoles provide four mono and two stereo effects sends. These consoles provide six stereo effects returns. The two stereo sends are identified as AUX 1-2 and AUX 3-4. These are the same two AUX sends that function as CUE sends during the recording process.

As AUX 1-2 and AUX 3-4 are normally summed, you will want to press the SPLIT 3-4 switch in the Aux Master Section of the console when using these as stereo effect sends. This will enable you to use two discreet stereo effects processors with the M-2600MKII.

### Make Your Connections as Follows:

- 1) Connect AUX 1/L and 2/R to the left and right processor inputs
- 2) Connect the processor left and right outputs to the EFFECT RETURN 1\* left and right
- 3) Set the WET/DRY balance on the signal processor to WET

\* While the processor outputs can be connected to any of the six stereo returns, it is advisable to align the sends and returns numerically. This will assist you in remembering the function of each particular effects "loop". As you add more connections to the console, you would be well advised to make written note of these various connections.

## Using the M-2600MKII's Talkback Facilities

The M-2600MKII incorporates a flexible talkback system for communication purposes. The MIC control governs the output level of the built-in talkback microphone. The three Talkback Assign switches enable you to use the system to best suit your needs.

- 1) SLATE: This sends the talkback signal to all eight Group busses at once; press and hold this button when you want to place a memo on the recorder such as "Take 3," etc.
- 2) AUX: This sends the talkback signal to all AUX busses, enabling you to communicate with the talent wearing headphones that are fed by any of the AUX sends
- 3) TB: Press and hold this switch to send the talkback signal to the STUDIO Output - even if the STUDIO ON switch is disengaged or the STUDIO LEVEL is down

## "Zeroing" the M-2600MKII

"Zeroing" the mixer is frequently performed at the start of a new project as a cautionary measure to ensure the engineer that the signal being monitored is "flat" as opposed to the inclusion of any unwanted EQ, and free of any external signal processing. This is also done to prevent damaging connected components such as amplifiers and speakers by accidentally feeding too much signal.

### Zeroing the Mixer is Accomplished in the Following Manner:

- 1) Bring all the faders down.
- 2) Set the level of *all* controls, such as TRIM, CUE/AUX SEND, CUE/AUX SEND MASTER, CR, SOLO, and STUDIO to their full counter-clockwise position.
- 3) Set all EQ and PAN controls to the center position.
- 4) Make certain *all* switches, such as Channel Assign, MON and FLIP are in the "up" (or "off") position.
- 5) Ensure that phantom power is disabled, except for the module you need to connect the condenser mic to.