02R96-v2 Quick Start Guide

Getting Started with a ‘blank’ desk

To erase all memories in the desk, and return it to its factory settings, hold the SCENE MEMORY STORE switch while turning on the power. (You don’t need to do this if you have just unpacked the product from its box for the first time)!

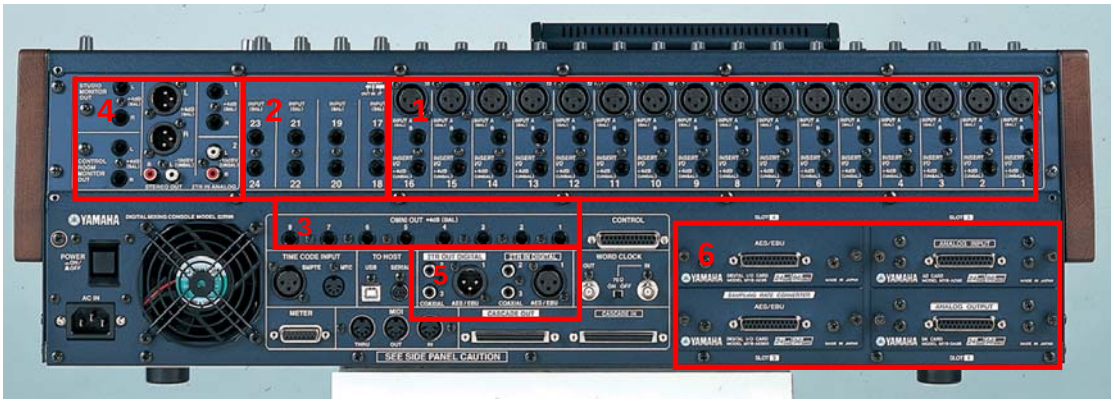
To start from blank settings without erasing the memories, just recall SCENE 00. To do this, use the SCENE MEMORY Up-Arrow/Down-Arrow switches to select Scene ‘00’ and then press RECALL.

All the faders will then move down and all the mixing functions set to their default status.

Understanding the Rear Panel

All the audio connectors are on the rear panel. They include:

1. 16 Mic inputs with XLR and TRS Jack inputs, and TRS inserts (un-balanced)
2. 8 Line inputs with TRS Jack inputs
3. 8 'OMNI' analog outputs with TRS Jacks
4. Various Stereo, Studio and Control Room outputs
5. 3x 2-Track Digital Inputs and Outputs
6. 4 option slots for expansion.

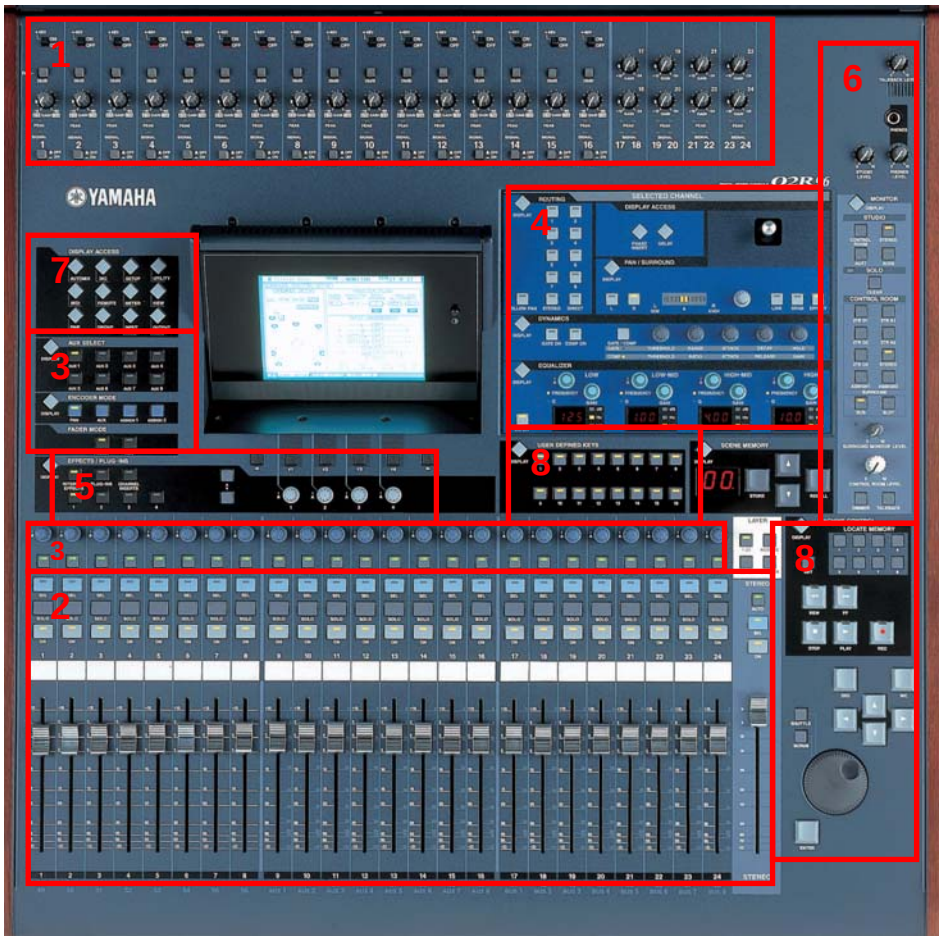


Other connectors on the rear panel are for various control and sync functions. For example, the CONTROL port (25-pin D-sub) is for low voltage GPI relays. The CASCADE IN and OUT ports are for connecting with other 02R96 consoles to share audio buses. The METER connector is for the optional Meter Bridge.

Understanding the Front Panel

All the controls are on the front panel, laid out in logical areas:

1. Analog input gain, pad, insert and +48V.
2. Faders, On, Solo, Sel, Auto switches for the channels
3. Aux and Pan controls
4. Selected Channel area
5. Effect controls
6. Monitor controls
7. Display Access switches (grey diamond shapes)
8. Machine Control and Display control switches



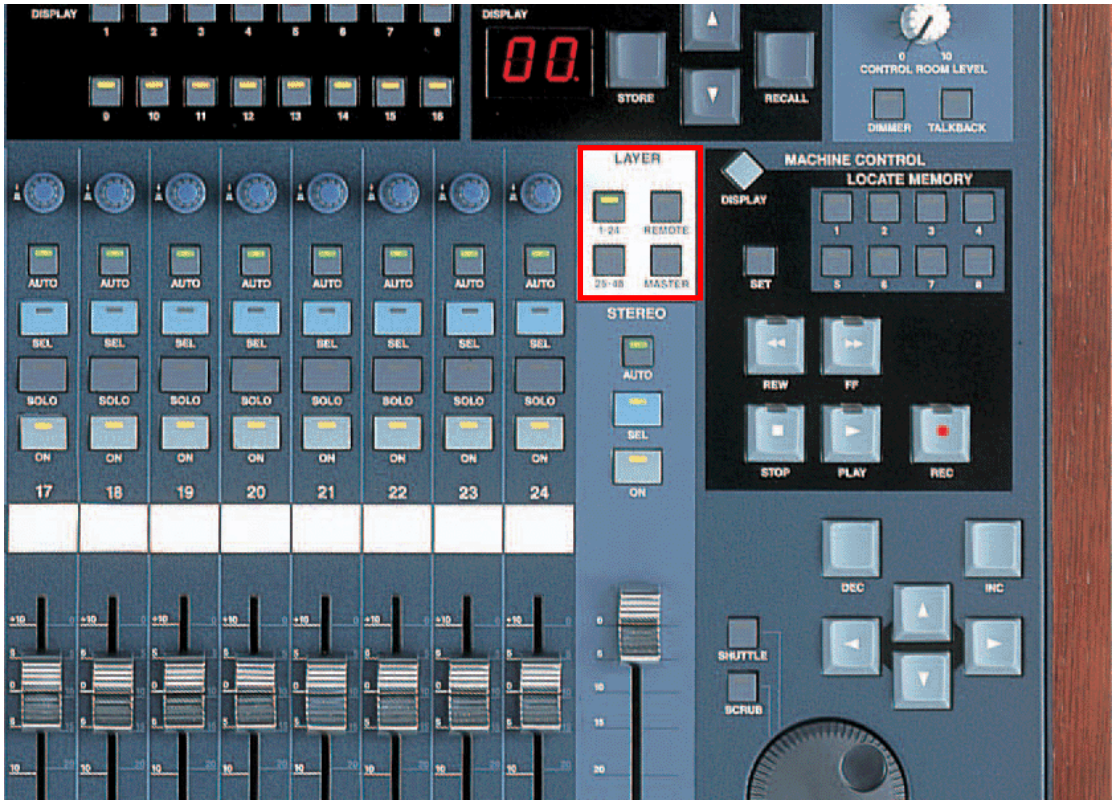
The SELECTED CHANNEL area is a fundamental concept to understand. It shows all the important functions for one channel at a time. Only one channel can be selected at any time. To select a channel (and see its settings in the SELECTED CHANNEL area), just press the SEL switch. Then press the SEL switch for another channel when you are ready to move on.

Controlling Channel Faders

There are 4 layers of faders on the 02R96:

1. Input channels 1-24
2. Input channels 25-48
3. Input channels 49-56 + Auxes 1-8 + Buses 1-8
4. Remote Layer for controlling other functions / devices.

When you change layers, all the channel settings are remembered. You just change which channels you are looking at!



Each fader controls a different input to the 02R96. This assignment is not fixed: it can be changed in the INPUT PATCH menu.
Here is the default patch:

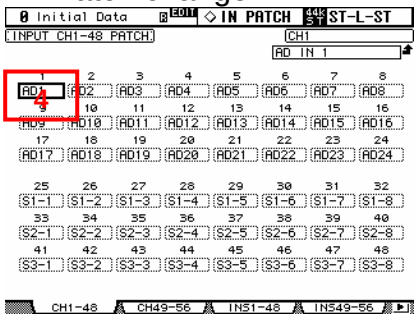
channels 1-24 control the 24 analog inputs on the top on the console;
channels 25-32 control inputs 1-8 from Slot 1;
channels 33-40 control inputs 1-8 from Slot 2;
channels 41-48 control inputs 1-8 from Slot 3;
channels 49-56 control inputs from internal Effects 1-4.

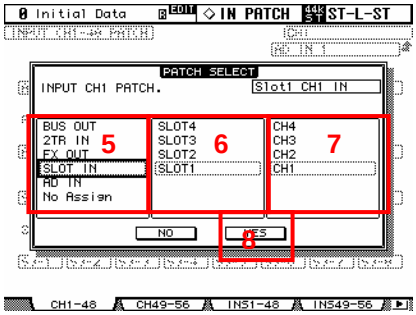
Changing INPUT PATCH

To assign different inputs to the input channels, such as the Slot 4 inputs, follow these steps:

1. press the INPUT PATCH Display Access key.

2. If necessary, press it repeatedly until the CH1-48 or CH49-56 page is displayed.
3. Press the SEL switch for the required channel (or move the cursor on the screen to the required channel number).
4. Press ENTER (by the data wheel at the bottom right corner of the console).
5. Select the type of input from the first list (AD in / Slot in / FX out and so on).
6. Press ENTER and choose the required item from the next column (Slot # or FX # for example).
7. Press ENTER and choose the required item from the last column (CH# or L/R for example).
8. Press ENTER and click YES on the screen to complete the Patch change.





ENCODER MODE / FADER MODE

The encoders above the faders can be used to edit various channel parameters. The most useful ones are Pan and Aux send.

1. To edit Pan on the encoders, just press the PAN ENCODER MODE switch and turn the required encoder. The LCD display will show the pan position in a ‘pop-up’ window.

2. To edit Aux on the encoders, press the AUX ENCODER MODE switch, then select the required AUX# (1-8) with one of the AUX SELECT switches above. The LCD display will show the Aux level in a ‘pop-up’ window.

3. To see the Aux send information for many channels at the same time, press the AUX SELECT DISPLAY switch. Each time this switch is pressed, it will change the LCD to a different page to see the information for other channels. In these pages Pre/Post status can be edited, and the Aux sends can be switched off by pressing ENTER while the cursor is high-lighting the level encoder.

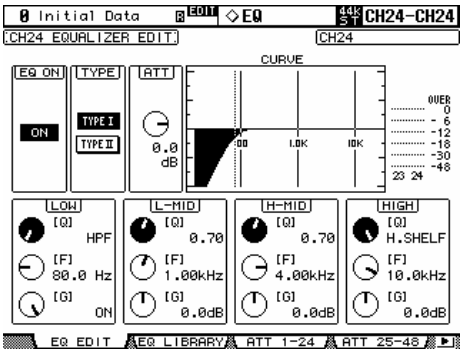
4. When the AUX FADER MODE switch is pressed, the Aux Send levels are shown on the faders instead of the channel level. Choose which Aux to see on the faders with the AUX SELECT switches (as in step 2 above). Press the FADER switch to resume normal level operation on the faders.

Using the SELECTED CHANNEL controls

When a channel is selected, its settings can be seen and controlled in the SELECTED CHANNEL area. The currently selected channel's name and number is always shown in the top-right corner of the LCD screen.

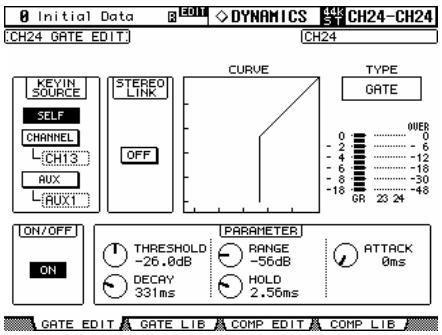
EQUALIZER

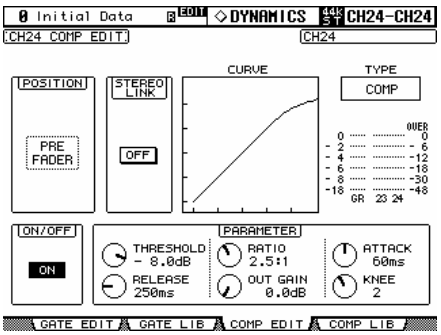
When one of the EQ controls is moved, the LCD will show the EQ edit screen. There are 4 parametric bands. To change between controlling FREQUENCY and Q, press down quickly on the encoder. Note that the LOW band can be a Low Shelf or a HPF by changing the Q to the maximum or minimum position. In the same way, the HIGH band can be a High Shelf or a LPF. There are 2 types of EQ (TYPE I or TYPE II), with slightly different sound characteristics. The ATT function is an attenuator, or digital trim to adjust the channel level pre-eq.



DYNAMICS

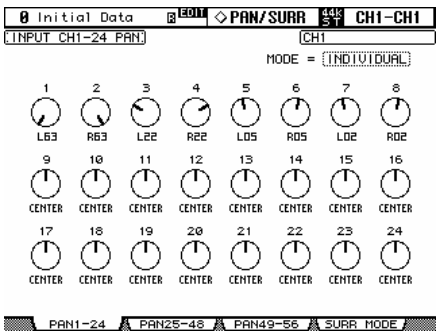
Each input channel has both a GATE and a COMP. The output channels only have a COMP. When a DYNAMICS switch or encoder is moved, the LCD shows the relevant GATE or COMP screen. Gain Reduction meters and Key-In status can also be viewed here. Usefully, the COMP can be positioned pre-eq, pre-fader (post-eq) or post-fader.

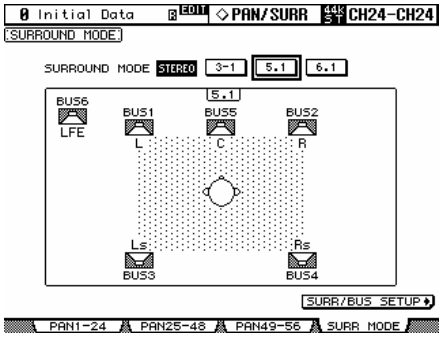




PAN

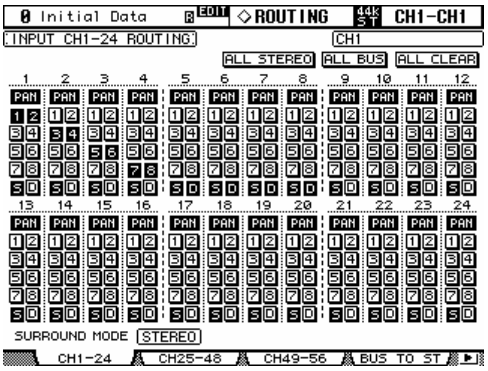
The PAN and SURROUND PAN settings of the selected input channel can be edited here (Output channels do not have Pan). The L and R switches show if the channel is the Left or Right side of a stereo pair. The Joystick is not active until a surround mode is selected. To do this, press the PAN/SURROUND DISPLAY switch so the SURR MODE page is shown. Then choose the SURROUND MODE: 3-1 or 5.1 or 6.1. This will then convert some of the buses (1-8) into Surround Buses.



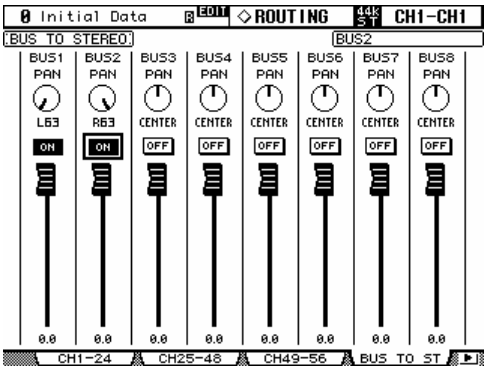


ROUTING

In this section, the Selected Channel can be routed to any of the 8 Buses, to the Stereo Bus and to a Direct Output. Just press the relevant switch to route the channel to the Bus (these switches are not available for Output Channels). The FOLLOW PAN switch ensures that the PAN of the channel will follow through to the Buses. This is particularly useful when using the Buses as stereo sub-groups (as on a typical analog console).

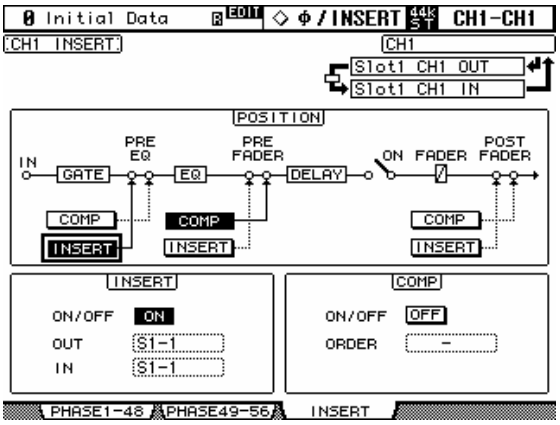


Buses can be routed to Stereo (just like Sub-Groups on an analog console). To do this, press the ROUTING DISPLAY switch to see the BUS TO ST screen. Here Buses 1-8 can be routed, panned and mixed to the Stereo Bus. Use the cursor keys, data wheel and ENTER switch to adjust the parameters.



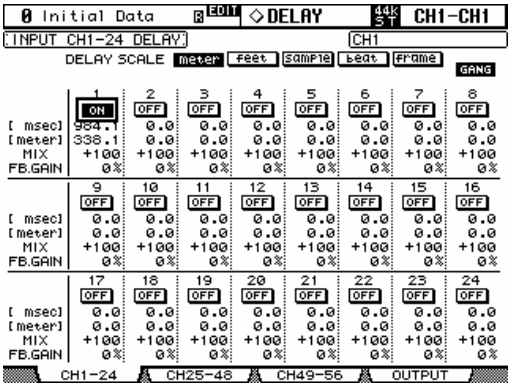
PHASE / INSERT

Press this DISPLAY ACCESS switch to see Phase and Insert information on the LCD. Phase reverse is only available for input channels. Insert is available for all channels. Inserts need to be patched, choosing which rear-panel connection (or internal Effect) to use for INSERT OUT and INSERT IN. The INSERT POSITION can also be changed here.



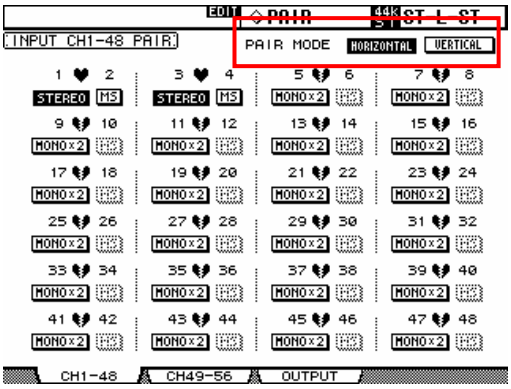
DELAY

Press this DISPLAY ACCESS switch to see Delay settings for each channel. All input and output channels have a delay function. The maximum possible delay time varies with sample rate. At 44.1KHz, the maximum possible delay time is 984.1ms. Input channels have a FB.GAIN (Feedback Gain) and MIX parameter to create a simple delay effect. The DELAY SCALE can be changed to see the delay time in equivalent distance, number of samples, beats-per-minute or number of Frames (linked to Time-Code Frame Rate).



CHANNEL PAIR

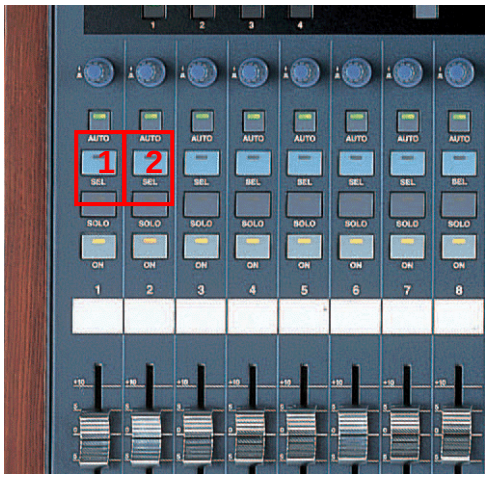
If some Stereo input sources are used, such as a Synthesizer or CD player, it could be useful to pair the relevant channels together. There are two modes for pairing channels, as selected in the PAIR menu.



Horizontal mode allows odd numbered channels to be paired with their adjacent even numbered channel.
Vertical mode allows channels on the top fader layer (1-24) to be paired with the equivalent channel on the layer below (25-48).
Channels 49-56 and the output channels can only be paired Horizontally.

When channels are paired, they share the same fader level, the same ON, EQ, Gate, Comp, Aux settings. Pan and Routing parameters remain separate.

To quickly pair channels without using the LCD screen, first [1] hold down the SEL switch for the Left channel, then [2] also hold down the SEL switch for the Right channel (or vice versa) for half a second. This only works in Horizontal Pair Mode.

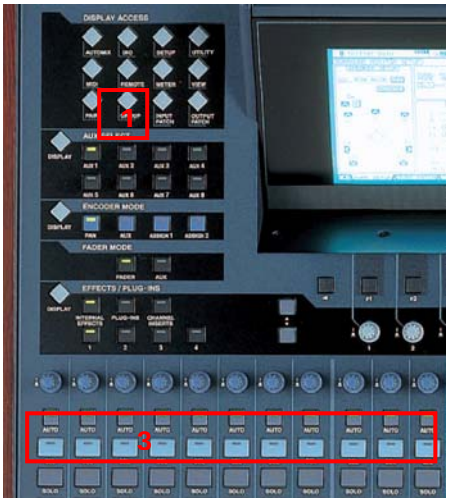


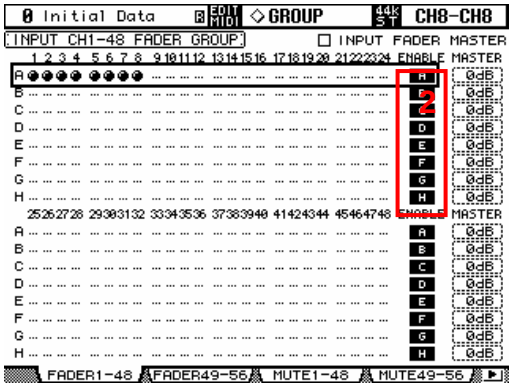
FADER GROUPS

Fader Groups are useful for controlling many faders by just moving one fader. There are 8 Fader Groups available for input channels and 4 Fader Groups for output channels.

Here is how to link faders together in a Group:

1. Access the GROUP displays on the LCD.
2. Choose a Group (A to H for inputs, Q to T for outputs) using the Cursor keys (bottom right of the console).
3. Press the SEL switches for the required channels to include them in the Group.





Now, when one fader in the Group is moved, all the others move by the same amount. If one fader in the Group needs to be moved without the others, then hold that channel's SEL switch while pushing the fader (but not while the GROUP menu is displayed, or the channel will be removed from the Group).

Channels cannot be in more than one Fader Group at the same time.

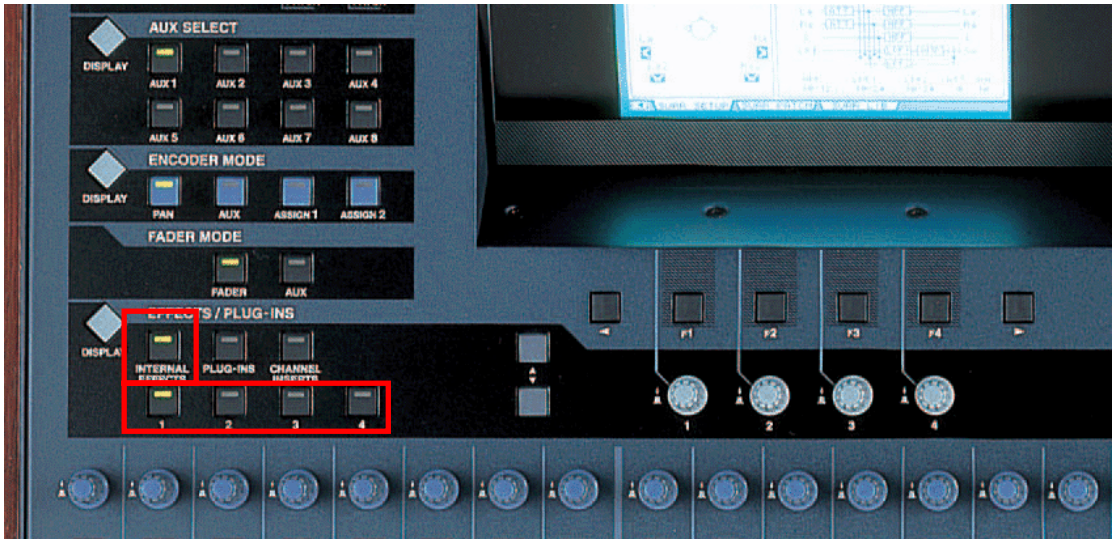
MUTE GROUPS

Mute Groups are useful for switching On/Off many channels by just pressing one switch. There are 8 Mute Groups available for input channels and 4 Mute Groups for output channels. To assign channels to a Mute Group, follow the same 3 steps as made for a Fader Group, but while viewing the MUTE GROUP screens (Groups I to P are for Inputs, Groups U to X are for Outputs).

Once a Mute Group is made, when the ON switch for one channel is pressed, all the other channels in the same Group are also switched On/Off.

EFFECTS

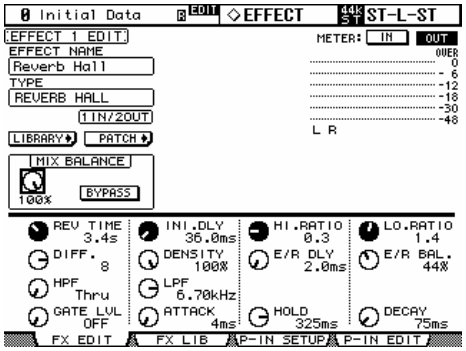
There are 4 Multi-Effects Units inside 02R96. They can be viewed on the LCD by pressing the INTERNAL EFFECTS switch, and then pressing one of the switches 1-4 below.

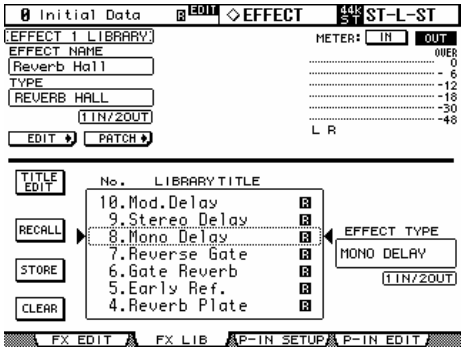


EDITING AN EFFECT

The Effect parameters can be edited using the 4 encoders below the LCD. Use the Up/Down arrow switches next to these encoders to move to the other rows of parameters when an effect has more than 4 parameters to edit.

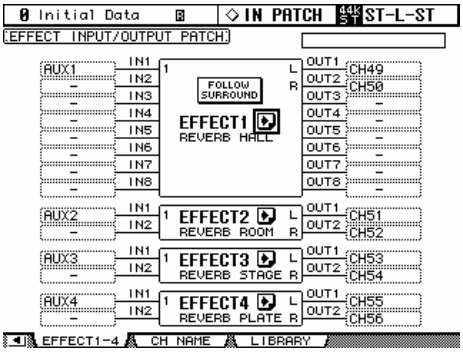
To change the type of effect (from Reverb to Delay for example), press the EFFECTS/PLUG-INS DISPLAY switch to see the FX LIBRARY. Then scroll through the list with the data wheel, and press ENTER with the cursor over the RECALL button on the left of the screen.





USING AN EFFECT

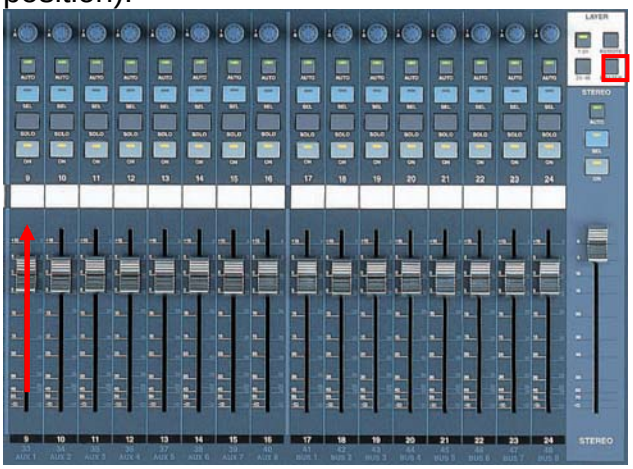
Before an effect can be used properly, it needs to be patched. The default patch (factory setting) has Aux 1-4 patched to the inputs of FX1-4 respectively. The stereo outputs of FX1-4 are patched to input channels 49-56 respectively. This is convenient, but can be changed if necessary. For example, an effect could be inserted in just one channel using the INSERT OUT and IN patch. To change the FX patching, go to the EFFECT1-4 page in the INPUT PATCH display menu.



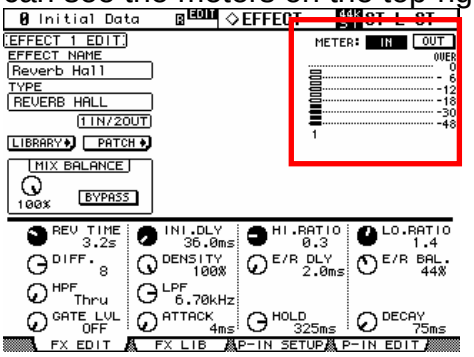
ROUTING AUDIO THROUGH AN EFFECT

1. First, audio needs to be routed into the effect. If the default patch is used, first turn up Aux 1 send level for the required channel.

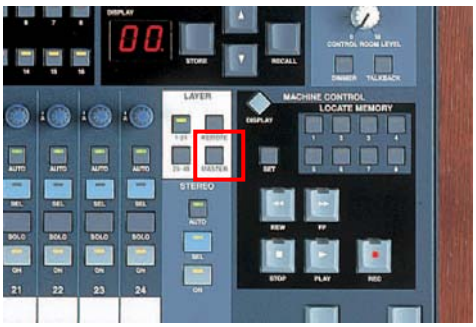
2. Check that the Aux 1 Master fader is up to 0dB (that is its default position).



3. Already audio should be seen on the level meters of Effect 1. You can see the meters on the top-right corner of the FX EDIT screen.



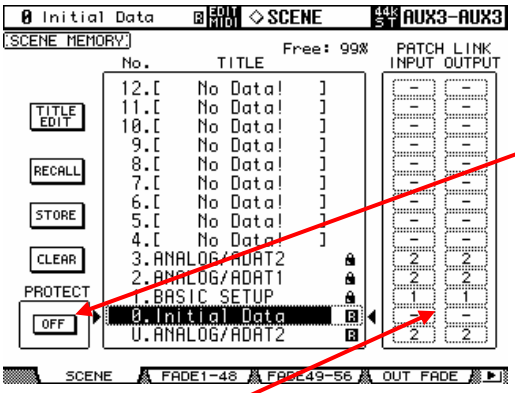
4. Then push up faders 49 and 50 to start hearing the effect's output in the Stereo bus.



SCENE MEMORY

There are 99 SCENE MEMORIES available in 02R96. Each Scene stores all the mixing parameters, including all input channel, output channel and Effects parameter data.

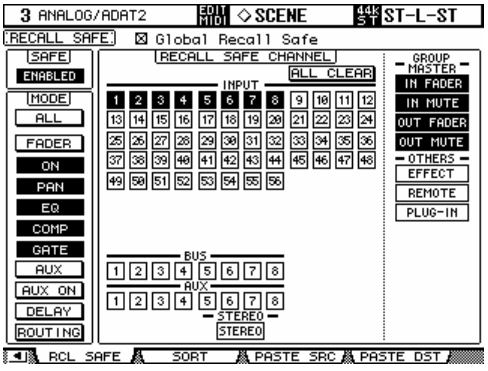
The SCENE MEMORY list can be seen by pressing the SCENE DISPLAY switch.



When a SCENE is stored, a name can be entered. If a SCENE is PROTECTED, it cannot be overwritten when STORE is pressed. This avoids erasing something by mistake.

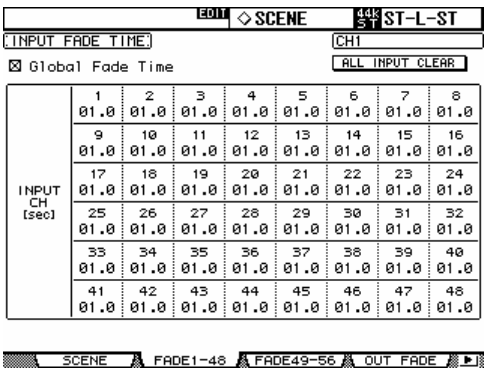
The PATCH LINK feature can be useful if different Scenes need different Patch settings. Patch information is not stored in the scenes, but is stored in the INPUT PATCH and OUTPUT PATCH libraries (accessed from the relevant DISPLAY ACCESS switches). Then the Patch libraries can be linked to the Scenes so they are recalled at the same time as the scene.

RECALL SAFE



In this screen, choose which parameters will not be over-written when recalling a Scene. When the Global Recall Safe box is checked (at the top of the screen), the chosen parameters will be safe in all Scenes. Otherwise, these settings will only apply to the current Scene once it is stored.

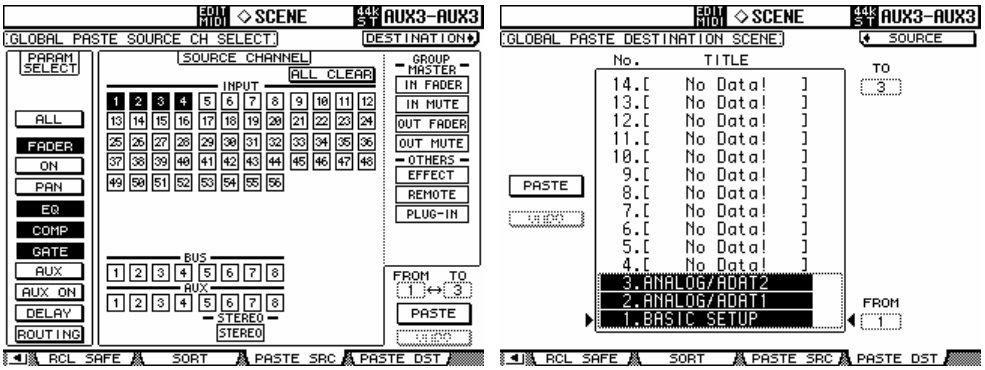
SCENE FADE



Normally when a Scene is recalled, the Faders move instantly to their stored position. Using the Fade Time function, the faders can be programmed to move slowly, taking up to 30 seconds to complete their movement. Checking the Global Fade Time box will give the same Fade Time to every Scene. After setting the Fade Time for one channel, double-click the ENTER switch to copy the time to all Input or Output Channels.

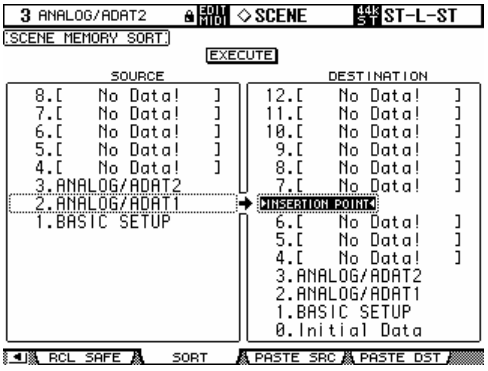
SCENE COPY / PASTE

If some settings need to be copied from one Scene to some others, the PATSE SRC and PASTE DST LCD screens can be used.



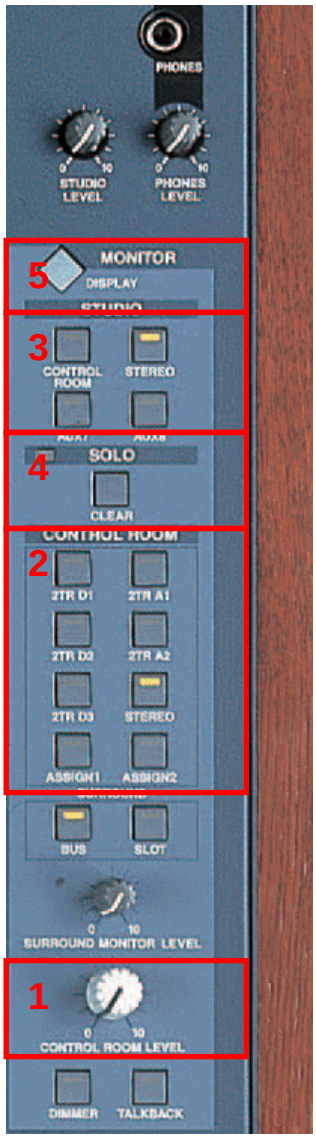
In the PASTE SRC screen, choose which parameters of which channels should be copied.
In the PASTE DST screen, choose which Scene Memories should be updated. The maximum number is 10 Scenes for each operation.

To move a Scene to a different position in the Library, use the SORT screen in the SCENE MEMORY menu:



MONITOR

In this section of the console, the operator chooses what to listen to, and controls the listening level.



1. The CONTROL ROOM LEVEL adjusts the main listening level. The DIMMER switch can quickly dim the speakers by 20dB or so.

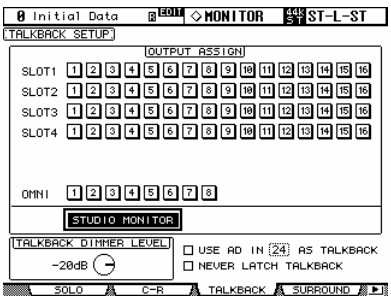
2. The CONTROL ROOM switches choose what to listen to in the Control Room monitors, (and in the headphones).

3. The STUDIO switches choose what to listen to in the Studio monitors. Pressing the CONTROL ROOM switch will route the Control Room signal also to the Studio.

4. The SOLO CLEAR switch will switch off the SOLO switches for all channels.

5. The MONITOR DISPLAY switch accesses the many extra monitor functions on the LCD.

There is a small TALKBACK microphone built in to the top right corner of the console, and it has a level controller. The TALKBACK on/off switch is located directly below the CONTROL ROOM LEVEL pot. To route TALKBACK to different outputs, access the TALKBACK display in the MONITOR menu:



02R96-v2 Tips & Short-Cuts

Using the ‘SEL’ switches

1. CHANNEL PAIR

Hold ‘SEL’ for one channel and press ‘SEL’ for the adjacent channel to make a stereo pair. This works for input and output channels, so long as the left side is an odd number and the right side is an even number. The channel with the SEL switch you hold first is the master channel for the pair: its settings are copied to the other channel (except for pan and bus routing). Repeating this action breaks the stereo pair, to make the channels mono again.

2. CHANNEL COPY

Select the source channel with its SEL switch, then press the CHANNEL COPY switch (this must be assigned to a USER DEFINED KEY). Then press the SEL switch of the destination channel and click PASTE (also assignable to a USER DEFINED KEY).

NOTE _____

The parameters which are copied are determined on the PREFERENCES 2 page in the SETUP menu.

Other Short-Cuts

1. EQ Gain to 0dB

To reset the gain of an EQ band to 0dB, press and hold the Freq/Q encoder for one second.

2. EQ Reset

To return the whole Parametric EQ for a channel to its default settings, press the Freq/Q encoders for the LOW and HIGH bands at the same time.

3. AUX ON/OFF

To access the AUX SEND ON/OFF switches quickly, press and hold the required AUX SELECT switch. Then the CHANNEL ON switches above the faders become the AUX SEND ON switches for the selected Aux.

TIP_____

This can be useful for creating a MIX-MINUS. First set an AUX to ALL NOMINAL, using the switch at the top of the SEND1-24 page in the AUX DISPLAY menu, then hold the AUX SELECT switch to switch off the send for the required ‘minus’ channel.

4. AUX SOLO

To solo an AUX MASTER while still viewing an INPUT FADER LAYER, press the required AUX SELECT switch once to select it, and once again to SOLO it. Pressing a third time will cancel the SOLO. While the AUX is in SOLO, its SELECT switch will flash.

NOTE

This function can be disabled in the SOLO page of the MONITOR menu, with the AUX/SOLO LINK option.

5. Copy STEREO Mix to an AUX

Press and hold an INPUT FADER LAYER switch, then press an AUX SELECT switch, and click YES in the confirmation box on the LCD. This copies the fader levels to the selected AUX sends. Make sure the Aux sends are all PRE by clicking the GLOBAL PRE switch on the SEND1-24 page in the AUX DISPLAY menu.

NOTE

Repeat the same procedure for each fader layer to copy the whole mix to the Aux sends, as only one layer is copied at a time.

TIP

This is useful for making a quick headphone mix in a recording session (where AUX 7 and 8 can be sent directly to the STUDIO MONITOR OUT), or making a quick stage-monitor mix for a guest musician at a live performance.

6. SCENE FADE TIME Copy

To assign the same fade time to all channels, first enter the required FADE TIME for one channel, then double-click ENTER to copy the time to all the other input or output channels.

Other Tips

1. TOUCH SENSE FADER enable / disable

Touch Sense faders can be either very useful or very annoying, depending on the engineer's working style and the application. To change the Fader Touch Sense settings, access the PREFER2 display in the SETUP menu.

2. FADER / MUTE GROUP ASSIGN

The default settings of USER DEFINED KEY bank F is for INPUT GROUP ASSIGN functions. Keys 1-8 are for Input FADER GROUPS, and Keys 9-16 are for Input MUTE GROUPS. To assign a channel to a group, select the channel and press the relevant USER DEFINED KEY in BANK F. The USER DEFINED KEY will then light up to confirm the assignment.

NOTE

A Channel cannot be in more than one FADER GROUP at a time, and cannot be in more than one MUTE GROUP at a time.

3. DCA / VCA FADERS

To have DCA (or analog VCA) style Fader Masters, first check the INPUT FADER MASTER box near the top of the FADER GROUP display page. Then view the REMOTE menu, and select USER ASSIGNABLE LAYER as the TARGET. After that, all the GROUP MASTER FADERS can be selected to appear on the REMOTE FADER LAYER, along with any other channels chosen by the user.

4. MUTE MASTER Switches

USER DEFINED KEY bank G, by default, consists of the twelve MUTE GROUP MASTER switches. But first the INPUT MUTE MASTER and OUTPUT MUTE MASTER boxes must be checked in the MUTE GROUP display menu. Then the Mute Groups will behave in a similar way to those on a typical analog console: each channel's ON switch is independent, while the Mute Master switches will mute all the assigned channels, causing their ON switches will flash.

5. SCENE MEMORY Auto Update

In the PREFERENCES1 page of the SETUP menu, the Scene MEM Auto Update option can be found. When this is switched on, the last mixing settings are memorised just before the next Scene is recalled. Then when a previous Scene is recalled, its last settings are recalled first. Press RECALL again to access the original scene settings. So two memories for each scene are kept: the original settings, and the last settings.

6. Return to Current Scene

When scrolling through the SCENE MEMORY list, it is easy to forget which is the current Scene. To force the display to show the current Scene number again, press both SCENE UP and DOWN keys simultaneously.

7. Use the same Studio Monitors for Surround and Stereo Monitoring

To allow this, switch on the MONITOR L/R TO C-R option in the SURROUND page of the MONITOR menu. Then the Front Left and Right speakers can be connected to the Control Room outputs while the other Surround speakers can be connected to spare OMNI or SLOT Outputs. When mixing in Surround, turn the CONTROL ROOM LEVEL pot up to maximum, and use the SURROUND MONITOR LEVEL pot as the listening level. Make sure STEREO is not selected as the CONTROL ROOM SOURCE at this time (or switch the Stereo Master channel off). When returning to Stereo mixing, remember to turn the CONTROL ROOM LEVEL down again.

8. Monitoring a Surround Mix from Tape/Disk

To directly monitor a previously recorded mix, without using channels on the mixer, first connect the source to a SLOT input. Then assign the correct input channel to the correct surround channel on the SURR PATCH page of the MONITOR menu. Do this for as many playback sources as are required (for multiple 'stems' for example). Then in the SURROUND page of the MONITOR menu, choose which SLOT inputs (as assigned in the SURR PATCH page) will be monitored when the SLOT switch is pressed (just above the SURROUND MONITOR LEVEL encoder).

9. USER DEFINED KEYS

Here are some suggested uses for these keys, apart from the defaults:

Scene +1/-1 Recall: to recall the next or the previous Scene.
OSC On/Off: to control the internal Oscillator.
Talkback Assign: to choose the talkback destination.
Studio Manager: open and close various windows in the 02R96 Editor software on PC or Mac.

10. Initialize Memories

To erase all the memories in the console and return it to is initial settings, first switch off the console. Then switch it on again while holding the SCENE STORE switch. Choose INITIALIZE to erase all the libraries and return to the default settings.

Check for the latest downloads at
www.yamahaproaudio.com