

TECH NOTE

Fastrack VS Verion 2.1 and later

YAMAHA 02R DIGITAL AUDIO MIXER



The Fastrack VS hybrid editing system interfaces to the Yamaha 02R Digital Audio Mixer with a 6-pin DIN to 9-pin RS-422 serial control cable and Yamaha 02R audio mixer MIDI protocol. Direct control of each individual fader and the learning of manual adjustments are possible.

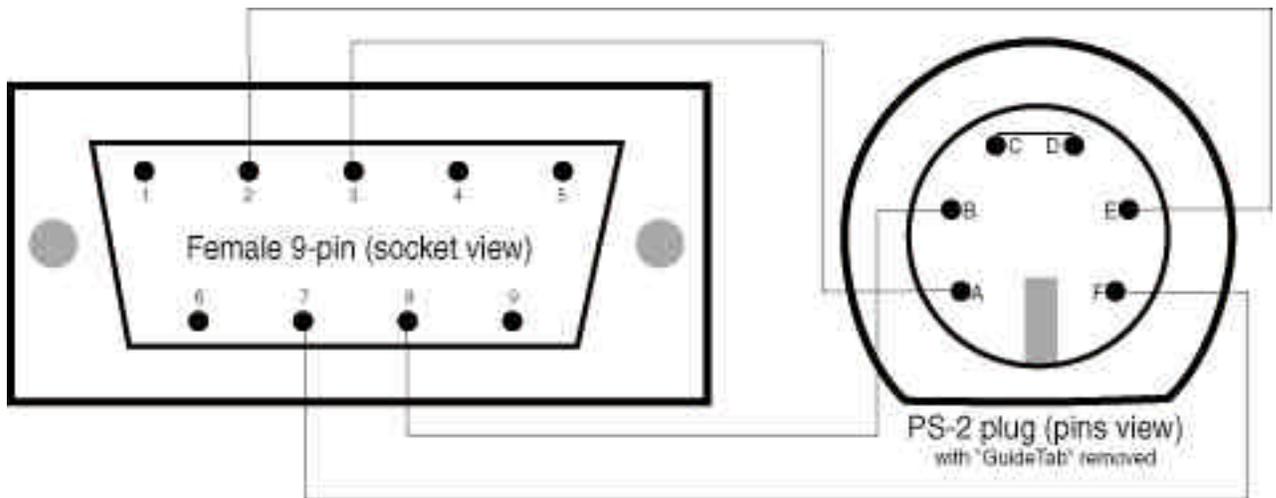
START WITH A FRESH 'MEMORY'

Since Fastrack directly controls the motorized faders on the 02R audio mixer, first ensure that there are no memories regarding their initial levels. Clear all settings and/or preferences by recalling Scene Memory 0. Use the Scene Memory increment/decrement buttons to select scene memory 0 "0 Initial Data." Press the Recall button.

INTERCONNECT CABLE ADAPTER

An interconnect cable adapter can be constructed using a PS-2 mouse/keyboard plug and wire and a Serial RS-422 female connector. This adapter connects between the HOST port on the Yamaha 02R and a serial (male-male) cable attached to the Fastrack serial breakout (or use a male connector if your cable is long enough to reach the Fastrack serial breakout).

Since the numbering on PS-2 connectors varies or is frequently missing, please refer to the *letter* positions noted here for the PS-2 plug (the 9-pin conforms to standards). Both 9-pin connector and PS-2 plug are viewed from the "front."



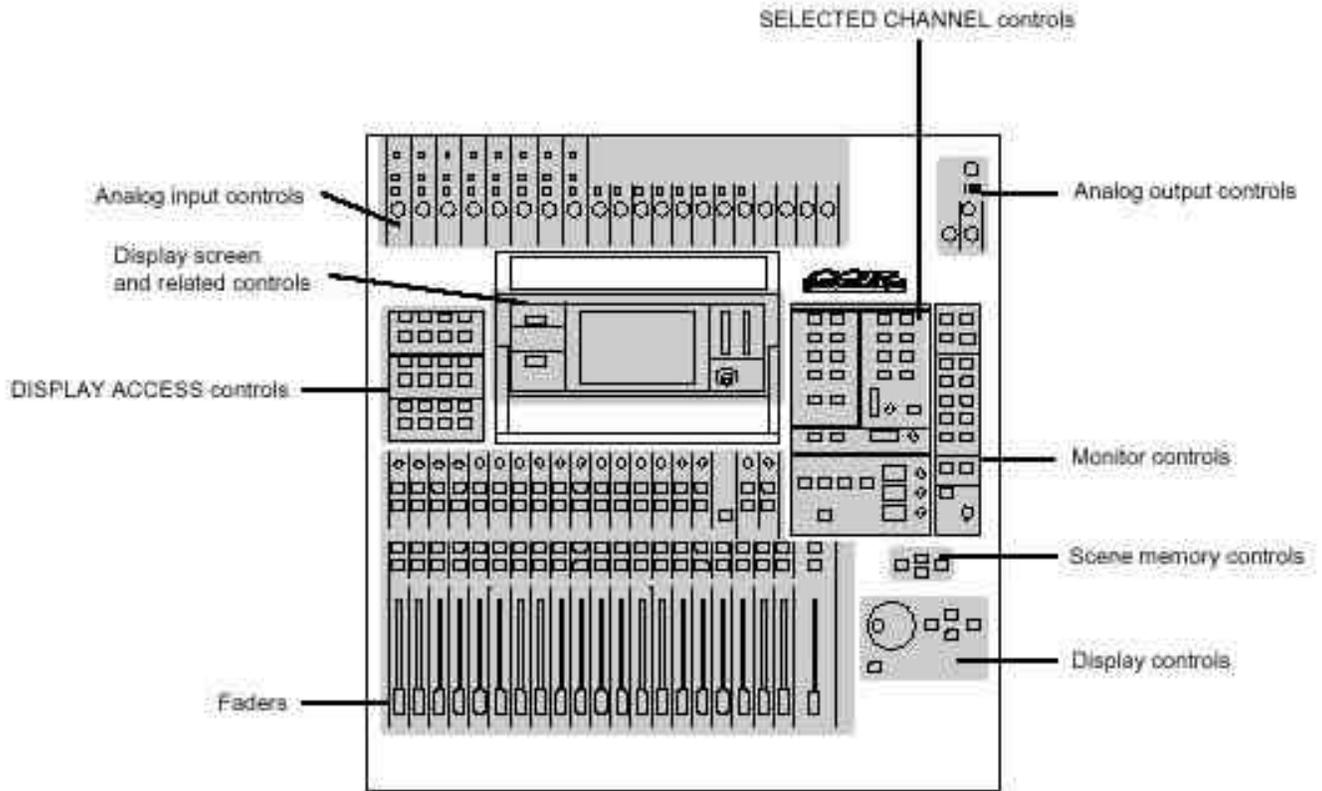
Serial 9-pin	PS-2 plug
2	E
7	F
3	A
8	B
	C & D jumpered

Note: The jumper between the top two pins on the PS-2 plug is essential for status reporting from the 02R mixer to Fastrack so it can "learn" manual changes to fader levels.

MIXER CONNECTIONS

Connect an RS-422 (9 pin) serial control cable from a Fastrack VS "COM" or "P#" port to 9pin end of the above adapter. Connect the P/S2 (or mini-DIN) 6-pin adapter plug to the "TO HOST" MIDI port on the rear of the 02R console.

MONITORING



Control Room monitor controls set to ST (Stereo) and C-R Level set to hear output



Monitoring to amplifier and speakers is from the Control Room or Studio Outs (1/4" TRS) connections
Program Out is from the STEREO OUT ANALOG (XLR) connections

FASTRACK VS SETUP

Assign the following audio Start and Count values in the Source Assignment page [SHIFT]+[ASGN] in Fastrack VS for the 02R setup (**two channels** per device in this example):

Track	On	Name	Class	Device	Auto	Port	Pool	V-Switcher		AudioMixer
								Video	Start	Count
1	<input checked="" type="checkbox"/>	Profile 1	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr1	xp1	1	1	2
2	<input checked="" type="checkbox"/>	Profile 2	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr2	xp1	2	3	2
3	<input checked="" type="checkbox"/>	Profile 3	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr3	xp1	3	5	2
4	<input checked="" type="checkbox"/>	Profile 4	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr4	xp1	4	7	2
5	<input checked="" type="checkbox"/>	Profile 5	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr5	xp1	5	9	2
6	<input checked="" type="checkbox"/>	Profile 6	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr6	xp1	6	11	2
7	<input checked="" type="checkbox"/>	Profile 7	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr7	xp1	7	13	2
8	<input checked="" type="checkbox"/>	Profile 8	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr8	xp1	8	15	2

Note: Under Audio Mixer (upper right), the two columns represent the **Start** number for the first fader of each source, and the **Count** for each source (1=mono, 2=stereo, 4, etc). The next Start depends on the prior Count.

Assign the following audio Start and Count values in the Source Assignment page [SHIFT]+[ASGN] in Fastrack VS for the 02R setup (**four channels** per device in this example):

Track	On	Name	Class	Device	Auto	Port	Pool	V-Switcher		AudioMixer
								Video	Start	Count
1	<input checked="" type="checkbox"/>	Profile 1	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr1	xp1	1	1	4
2	<input checked="" type="checkbox"/>	Profile 2	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr2	xp1	2	5	4
3	<input checked="" type="checkbox"/>	Profile 3	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr3	xp1	3	9	4
4	<input checked="" type="checkbox"/>	Profile 4	PROFILE	XP	<input type="checkbox"/>	GV011250:Vtr4	xp1	4	13	4
5	<input type="checkbox"/>		none		<input type="checkbox"/>					
6	<input type="checkbox"/>		none		<input type="checkbox"/>					
7	<input type="checkbox"/>		none		<input type="checkbox"/>					
8	<input type="checkbox"/>		none		<input type="checkbox"/>					

Note: Notice the different TYPE of audio mixer selected: 02R_4CH.MIX for four channels of audio.

AUDIO MIXER FILES

The specific mixer protocol files to be used on the Assignment Page [Shift]+[Assign] are found at C:\Fastrack\Fruntime\Mixer folder . The 2 channel version of the 02R driver is labeled 02R_2CH.MIX. Note the differences from the 4 channel version are in the Name and the FaderCount portions of these *.MIX files.



```
02R_2ch.MIX - Notepad
File Edit Format Help
[[Initial]
Name=02R_4
Class=YamahaHost
Type=1
AutoLearn=1
Address=051F3031720D
#Address=051F3033440D

[Connection]
Baudrate=38400
parity=NONE

[Parameters]
FaderCount=2
FaderValueZeroDB=103

[Timing]
CommandDelay=1
```



```
02R_4ch.MIX - Notepad
File Edit Format Help
[[Initial]
Name=02R_4
Class=YamahaHost
Type=1
AutoLearn=1
Address=051F3031720D
#Address=051F3033440D

[Connection]
Baudrate=38400
parity=NONE

[Parameters]
FaderCount=4
FaderValueZeroDB=103

[Timing]
CommandDelay=1
```