
5032-6, 5032-10, 5032-12, 5032EP-6 AND 5032EP-12

MAINFRAMES

PRODUCT OVERVIEW

The Model 5000 Series Audio Processing System is based on a family of modular cards with a large selection of features. Four basic types of processing cards are offered, as well as five mainframes, one internal universal power supply card, and the capability of using external power supplies. The cards may be intermixed in almost any desired combination, providing the flexibility required to meet the needs of almost any system.

MOUNTING GUIDELINES

In order to maintain proper airflow for component cooling, the following guidelines for mounting of mainframes must be observed:

1. The 5032 Mainframes are not designed to be installed or operated in an inverted position.
2. Equipment mounted directly above or directly below the mainframe must not materially impede airflow. It should be of open construction, similar to the 5032 mainframes, without a top or bottom plate.

CARD INSTALLATION

- >> **Power MUST be switched OFF at the Power Supply before inserting or removing any plug-in audio processing modules. The power cord MUST be disconnected before removing or inserting the power supply module. Failure to observe these precautions may result in damage to the equipment and will void the warranty.**

To insert a card in the mainframe, position it in the desired slot so that the component side of the card is to the right (as viewed from the front) and the card ejector is on the upper front corner. Slide the card in until it contacts the card edge connector.

The procedure at this point depends upon the type of card ejector which is installed. Compare the ejector with the one installed on the power supply card. If it is the same, then it is only necessary to press gently but firmly to seat the card.

If the card ejector is of the type which is longer than the one installed on the power supply, slide the card into the mainframe until the ejector is about 1/2" from the top bar. Tilt the ejector and guide its upper end into the slot in the upper bar while pressing the card gently but firmly forward until it seats in the card edge connector. When the card is seated, the card ejector will again be in a vertical position with the label facing front, and with the upper end of the card ejector in the slot in the upper bar.



Check to be sure that the card is fully seated. With either type of ejector, if the lower edge of the ejector is pulled forward, it will travel only a very short distance before resistance is met, indicating that the card is properly seated.

INPUT AND OUTPUT EXPANSION

Provision has been made on all cards except the 5202S and 5252S for expansion of inputs or outputs. Each card has an expansion input, and an expansion output. Plug-in jumpers connect the expansion inputs and/or outputs to the expansion input and/or output lines, as appropriate.

In order to simplify expansion, 5000 Series cards are designed so that the expansion input always appears on terminal 3, and the expansion output is always on terminal 4 of the card edge connectors. The mother board is designed so that the expansion output of each slot position (1 through 11) is connected to the expansion input of the slot to its immediate right, as viewed from the front (slots 2 through 12).

Most 5000 Series cards are designed to accept input and/or output expansion jumpers (see individual group specifications for details). Cards with jumper terminals must have the appropriate jumpers in place to complete the desired expansion connections.

Often, when a card is used for output expansion, the input modules are not used. Likewise, when a card is used for input expansion, the output modules are not used. Individual group data sheets list cards specifically designed for expansion. Expansion cards are assembled with the unused modules omitted for economy. They are otherwise identical to their counterparts. The model numbers of expansion cards have an "E" suffix.

It should be noted that expansion is not limited to cards of the same type or group. Cards may be mixed in any combination in order to utilize their features to create the desired system. See Figure 1 for a typical expansion example. The 5201 Main Card is in slot 2. The 5400E in slot 1 provides 4 additional inputs. The 5004E in slot 3 provides 4 additional outputs.

WIRING

Input, output, and control connections are made through the 15 position compression type screw terminal connectors associated with each card slot. Figure 2 is a generalized description of the screw terminal assignments. Consult the individual product specifications for complete details. When connecting to the screw terminals, use tinned stranded wire between 14 and 22 AWG. Be sure that all strands enter the terminal, so there is no possibility of their shorting to an adjacent terminal. **DO NOT APPLY EXTRA TINNING!** Extra tinning can result in long term loosening of the connections, resulting in erratic operation and failure.

As an aid in servicing, Table 1 lists the card edge connections for slots 1 through 12, and Table 2 gives the connections for slot 13.

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5032-12 AND 5032EP-12, SLOTS 1 THROUGH 12 5032-6 AND 5032EP-6, SLOTS 1 THROUGH 6 5032-10, SLOTS 1 THROUGH 10			
SOLDER SIDE		COMPONENT SIDE	
1.	+15V, Regulated	2.	+15V, Regulated
3.	Expansion to next connector to left (from front), Pin 4	4.	Expansion to next connector to right (from front), Pin 3
5.	Trimpot #1	6.	Trimpot #1
7.	Trimpot #1	8.	Ground
9.	Screw Terminal #1	10.	Screw Terminal #2
11.	Trimpot #2	12.	Trimpot #2
13.	Trimpot #2	14.	Ground
15.	Screw Terminal #4	16.	Screw Terminal #5
17.	Ground	18.	Ground
19.	Trimpot #3	20.	Trimpot #3
21.	Trimpot #3	22.	Ground
23.	Screw Terminal #7	24.	Screw Terminal #8
25.	Ground	26.	Ground
27.	Trimpot #4	28.	Trimpot #4
29.	Trimpot #4	30.	Ground
31.	Screw Terminal #10	32.	Screw Terminal #11
33.	Ground	34.	Ground
35.	Trimpot #5	36.	Trimpot #5
37.	Trimpot #5	38.	Ground
39.	Screw Terminal #13	40.	Screw Terminal #14
41.	Phantom Powering Voltage +48 V, Maximum	42.	Phantom Powering Voltage +48 V, Maximum
43.	-15V, Regulated	44.	-15V, Regulated

Table 1 - 5032 Mainframe
Card edge connector pin assignments, processing card slots



5032-12 AND 5032EP-12, SLOT 13 5032-6 AND 5032EP-6, SLOT 7 5032-10, SLOTS 11 AND 12			
SOLDER SIDE		COMPONENT SIDE	
1.	No Connection	2.	Ground
3.	Ground	4.	Ground
5.	Ground	6.	+15V, Regulated
7.	Ground	8.	+15V, Regulated
9.	Ground	10.	+15V, Regulated
11.	Ground	12.	Ground
13.	Ground	14.	-15V, Regulated
15.	Ground	16.	-15V, Regulated
17.	Ground	18.	-15V, Regulated
19.	Ground	20.	Ground
21.	Ground	22.	Ground
23.	Ground	24.	Ground
25.	Ground	26.	Ground
27.	Ground	28.	Ground
29.	Ground	30.	Ground
31.	Phantom Powering Bus	32.	Ground
33.	Phantom Powering Bus	34.	Ground
35.	Ground	36.	AC Line Low
37.	Ground	38.	No Connection
39.	Ground	40.	No Connection
41.	Ground	42.	No Connection
43.	Ground	44.	AC Line High

Table 2 - 5032 Mainframe
Card edge connector pin assignments, power supply slot

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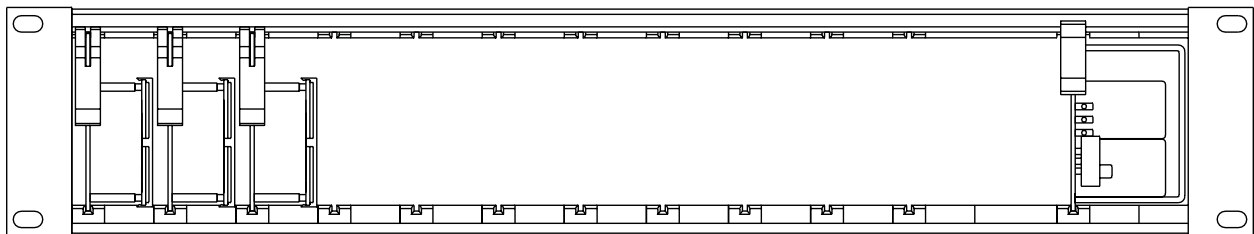


Figure 1 - Input and output expansion example

MODEL 5032 MAINFRAME

BACKPLANE TERMINAL CONNECTIONS AND TRIMPOTS

NOTES

1. GAIN SET TRIM POTS ARE LOCATED ON MOTHER BOARD ONLY, AND ARE INSTALLED ONLY AS NEEDED. VALUES ARE 200 OHMS FOR THE 150M, AND 10 k FOR ALL OTHER MODULES.
2. HIGH SIDES OF INPUTS OR OUTPUTS ARE MARKED '+' (SCREW TERMINALS 1, 4, 7, 10, AND 13). LOW SIDES ARE MARKED '-' (SCREW TERMINALS 2, 5, 8, 11, AND 14). ALL SHIELDS ARE GROUNDED (SCREW TERMINALS 3, 6, 9, 12, AND 15, MARKED 'S' ON THE MOTHER BOARD).
3. FOR INPUT AND OUTPUT SCREW TERMINAL ASSIGNMENTS, REFER TO SPECIFICATIONS FOR INDIVIDUAL CARD TYPES.
4. WHEN CONNECTING TO THE COMPRESSION TYPE SCREW TERMINAL CONNECTORS, USE TINNED STRANDED WIRE BETWEEN 14 AND 22 AWG. BE SURE THAT ALL STRANDS ENTER THE TERMINAL, SO THAT THERE IS NO POSSIBILITY OF THEIR SHORTING TO AN ADJACENT TERMINAL. **DO NOT APPLY EXTRA TINNING!** EXTRA TINNING CAN RESULT IN LONG TERM LOOSENING OF THE CONNECTIONS, RESULTING IN ERRATIC OPERATION AND FAILURE.

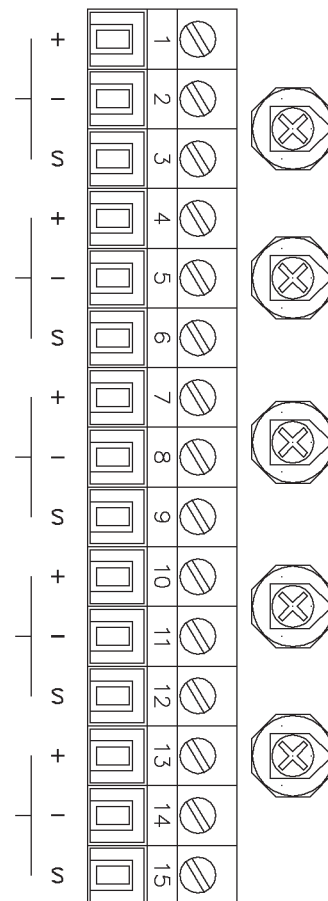


Figure 2 - 5032 Mainframe
Rear panel connections and trim pots

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