IRP®

Professional Sound Products

Set Up Procedure

DJ-4128-8

REMOTE MATRIX CONTROLLER

Refer to the back page for the Control Record/Programming Worksheet.
Refer to ***SYSTEM* 41 Installation Manual** for general instructions on module installation.
Refer to **DJ-4128-8 Data Sheet** for product specifications and functional diagram.

OPERATIONAL DESCRIPTION

1. The DJ-4128-8 is a set of nine programmable diode-logic matrices. These matrices are connected to the control lines of the crosspoint switches on the DJ-4126-1 Remote Controlled 8 x 8 Matrix Mixer. The programming pin-jumpers located on the DJ-4128-8 are used to complete the circuit of the crosspoint switch control line to the rear panel remote connector. From the rear panel remote connector the circuit is continued to an external remote program selector panel, and back to the rear panel remote connector to complete the circuit to ground. When a switch on the remote program selector panel is closed, the crosspoint switch control line circuit is completed to ground and the crosspoint switches on the DJ-4126-1 are turned ON to pass audio from the programmed inputs to programmed outputs.

2. The DJ-4128-8 has eight preset PROGRAMS that are remotely selected by a maintained contact closure to ground. Each program has one pin-jumper that corresponds to each of the sixty-four crosspoint switches of the DJ-4126-1. For example, a program may be set up with one input assigned to one output (one pin-jumper installed - one crosspoint switch turned ON), all inputs mixed and assigned to all outputs (64 pin-jumpers installed - all crosspoint switches turned ON) or any combination of one to sixty-four pin-jumpers installed for any combination of crosspoint switches turned ON.

3. The DJ-4128-8 has a ninth preset PROGRAM called INPUT LOCK. The sixty-four crosspoint switch control lines are connected through sixty-four pin-jumpers to ground. With the pin-jumper installed the corresponding crosspoint switch is locked ON. The INPUT LOCK program is used whenever an input is always assigned to an output.

4. The thumbwheel switch located on the front edge of the module is designed to be used in place of a remote program selector panel. The normal use of this switch is to check operation of the programs before connections are made to the external cables and panels. This switch functions the same as a remote contact closure to select programs. Position 1 thru 8 selects programs 1 thru 8. Positions 0 and 9 are open circuit. When the remote program selector panel is connected this switch must be in position 0 or 9.

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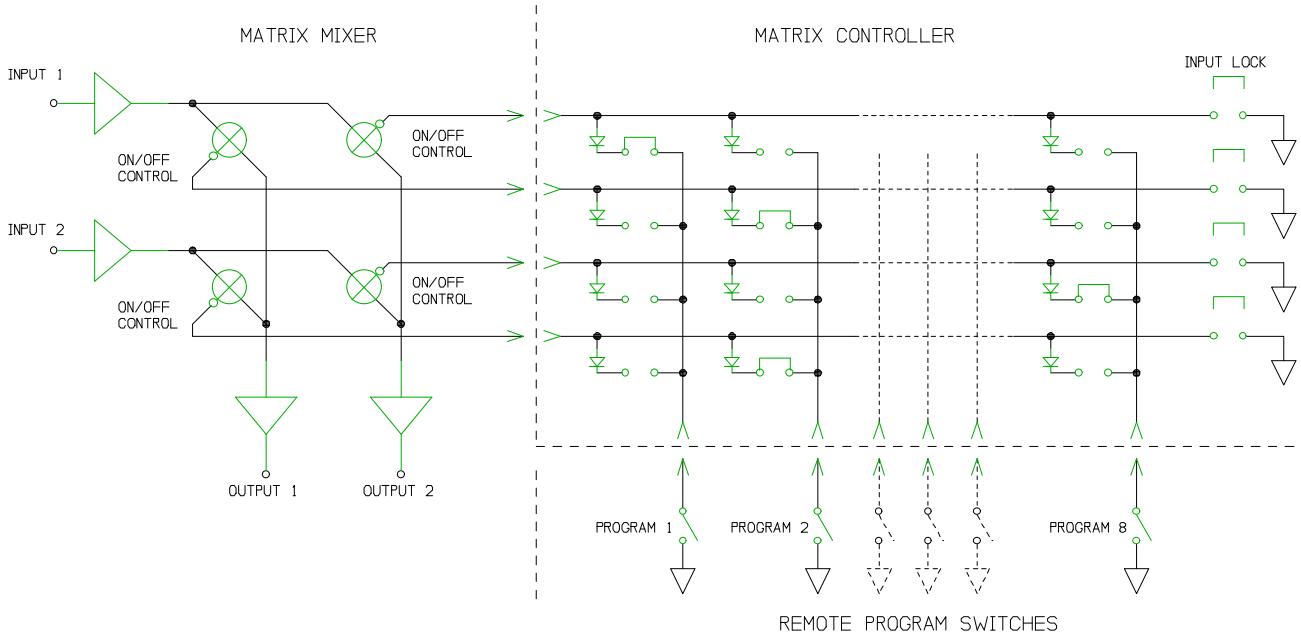
EXAMPLE: Remote Controlled Matrix Mixer with Controller

The example below shows a remote controlled 2 x 2 matrix mixer with remote controller and remote program switches. In this figure, PROGRAM 1 has been jumpered so that Input 1 routes to Output 2 when the switch is engaged. When PROGRAM 2 is active, Output 1 is a mix of Input 1 and Input 2. PROGRAM 8 sends Input 2 to Output 2. Simultaneous activation of PROGRAM 1 and PROGRAM 8 will mix both inputs to Output 2. When PROGRAM 1, PROGRAM 2, and PROGRAM 8 are active together, Output 1 and Output 2 both have a mix of Input 1 and Input 2. All the INPUT LOCK pin-jumpers are shown disconnected from their respective terminals.



INSTALLATION SET-UP

1. Make tables of all eight preset PROGRAMS for the matrix mixer configurations, plus one for INPUT LOCK programming. Arrange each table as a column of eight outputs. Following each output, individually list each input which mixes to that output. Make this same table for each of the eight preset PROGRAMS and for the INPUT LOCK programming. Define a descriptive title for each preset PROGRAM (such as: COMBINE ROOMS 1, 3 AND 4), and include these tables with the project documentation.

Following are some possible tables for a 5-room combining system:

INPUT LOCK DEFAULT CONDITION - ALWAYS CONNECTED

DJ-4128-8 (#1)
Output #1 (ROOM 1 AMPLIFIER) from Input #1 (ROOM 1 MIXER)
Output #2 (ROOM 2 AMPLIFIER) from Input #2 (ROOM 2 MIXER)
Output #3 (ROOM 3 AMPLIFIER) from Input #3 (ROOM 3 MIXER)
Output #4 (ROOM 4 AMPLIFIER) from Input #4 (ROOM 4 MIXER)
Output #5 (ROOM 5 AMPLIFIER) from Input #5 (ROOM 5 MIXER)
Output #6 ..... not connected
Output #7 ..... not connected
Output #8 ..... not connected

PROGRAM 1 COMBINE ROOM 1 & ROOM 2

DJ-4128-8 (#1) - PRESET #1
Output #1 (ROOM 1 AMPLIFIER) from Input #2 (ROOM 2 MIXER)
Output #2 (ROOM 2 AMPLIFIER) from Input #1 (ROOM 1 MIXER)

PROGRAM 2 COMBINE ROOM 2, ROOM 3 & ROOM 5

DJ-4128-8 (#1) - PRESET #2
Output #2 (ROOM 2 AMPLIFIER) from Input #3 (ROOM 3 MIXER)
from Input #5 (ROOM 5 MIXER)
Output #3 (ROOM 3 AMPLIFIER) from Input #2 (ROOM 2 MIXER)
from Input #5 (ROOM 5 MIXER)
Output #5 (ROOM 5 AMPLIFIER) from Input #2 (ROOM 2 MIXER)
from Input #3 (ROOM 3 MIXER)

2. Transfer the output mix information in each of the programming tables to the DJ-4128-8 Programming Worksheet on the back page. On the Programming Worksheet, observe the eight horizontal rows of pin-jumpers. Each horizontal row of pin-jumpers corresponds to one of the outputs in the matrix mixer. The top row is Output 1, and the bottom row is OutputÊ8.

   Within the horizontal OUTPUT rows, notice that each row is broken into eight horizontal pin-jumper headers. This arrangement makes eight columns of horizontal headers on the DJ-4128-8. Each column of horizontal headers corresponds to one of the preset PROGRAMS for the DJ-4126-1 matrix mixer. The column to the far right (nearest the front edge of the module) is preset PROGRAM 1, and the column of horizontal headers farthest to the left (closest to the back panel) is PROGRAM 8.

   Examine one of these pin-jumper headers and notice that the eight positions are numbered 1 through 8 from left to right. Position numbers 1 through 8 on each pin-jumper header are the respective inputs 1 through 8 to the DJ-4126-1 matrix mixer. Pin-jumpers installed on a header define the input mix to the respective output for the corresponding preset PROGRAM configuration.

   Notice the vertical header just to the left of each horizontal OUTPUT row. This header is numbered 1 through 8, from the bottom to the top of the header. The header position numbers correspond to the matrix mixer inputs. Pin-jumpers installed on this header are the INPUT LOCK mix programming for the respective output.

   Mark an X on the Programming Worksheet in every position where a pin-jumper needs to be installed on the DJ-4128-8. This worksheet exactly matches the pin-jumper positions on the DJ-4128-8, and serves as the control record for the module.

3. Pre-program the matrix mixer preset PROGRAMS on the DJ-4128-8 by placing a pin-jumper in every header position where an X was marked on the Programming Worksheet.

4. Connect the DJ-4128-8 to the DJ-4126-1 using the supplied ribbon cables (IRP P/N 995-0103-2).

5. Carefully insert the DJ-4128-8 and Remote Matrix Mixer modules into the System 41 mainframe while keeping the ribbon cables connected. Be sure to remove power to the mainframe whenever inserting and removing modules.

6. Wire the inputs and outputs to the DJ-4126-1 according to the methods described in the System 41 Installation Manual.

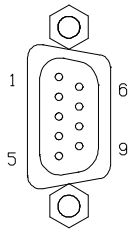
7. Use the thumbwheel switch on the DJ-4128-8 to verify that all preset matrix mixer signal routing and mixing PROGRAMS operate correctly. If a signal routing is incorrect, pull out the DJ-4128-8 from the mainframe to inspect the placement of the programming pin-jumpers. Modify the pin-jumper positions as required until the preset PROGRAM routing is correct, then re-install the DJ-4128-8 to the mainframe.

8. When all preset PROGRAMS are operating correctly from the thumbwheel switch on the DJ-4128-8, set the thumbwheel switch to position 0 or position 9. Connect the remote switches to the Remote Control connector on the DJ-4128-8. The wiring to this connector is detailed in the accompanying table. A maintained dry-contact switch (or open-collector transistor logic) closure to ground activates each preset PROGRAM.

9. Verify the correct operation of the remote control switches. Should incorrect operation appear, check for any short and/or open circuit connections in the remote wiring and correct the difficulty.

REMOTE CONNECTOR PIN OUTS

PIN	FUNCTION
1	PROGRAM 1
2	PROGRAM 2
3	PROGRAM 3
4	PROGRAM 4
5	PROGRAM 5
6	PROGRAM 6
7	PROGRAM 7
8	PROGRAM 8
9	GROUND



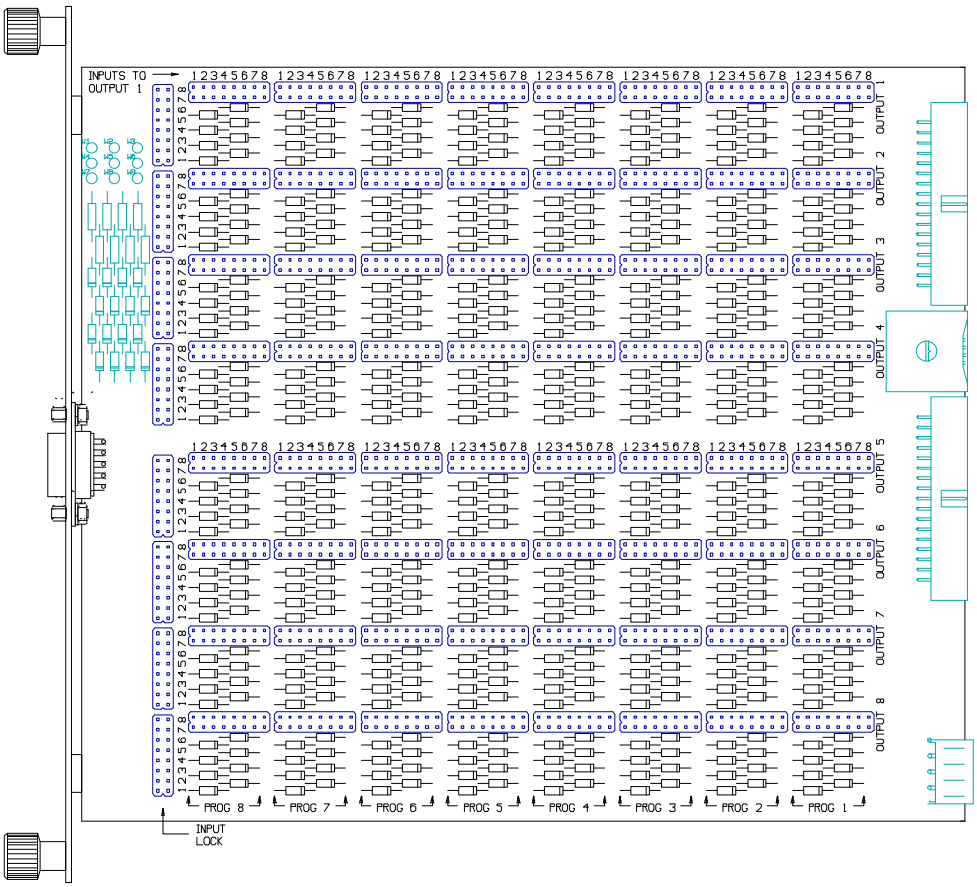
10. To increase the number of independent preset PROGRAMS beyond eight, use two or more DJ-4128-8 Remote Matrix Controller modules connected to the DJ-4126-1. Use the same procedure outlined in steps 1 through 9, referring to all the DJ-4128-8 modules together in each step. In step 7, where the preset PROGRAMS are verified, leave the thumbwheel switch in position 0 or 9 for all DJ-4128-8 modules except the module whose PROGRAMS are being checked.

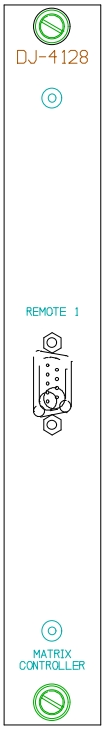
    Note: When using more than one DJ-4128-8 to control one DJ-4126-1, multiple connector ribbon cables are required. Please contact the factory for ordering information.

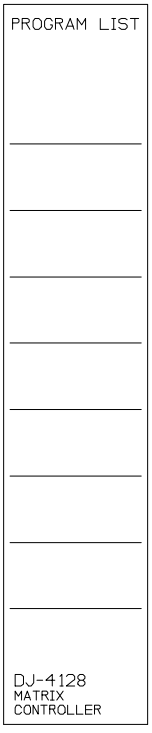
11. When multiple DJ-4126-1 modules are being controlled by one or more DJ-4128-8 modules, again follow steps 1 through 9. Every DJ-4126-1 module connected to a common Remote Matrix Controller will engage the same matrix crosspoint switches for all preset PROGRAMS. This particular configuration is often used for remote stereo source selection and routing.

    Note: When using more than one DJ-4126-1 in a system controlled by one DJ-4128-8, multiple connector ribbon cables are required. Please contact the factory for ordering information.

MODULE DETAIL







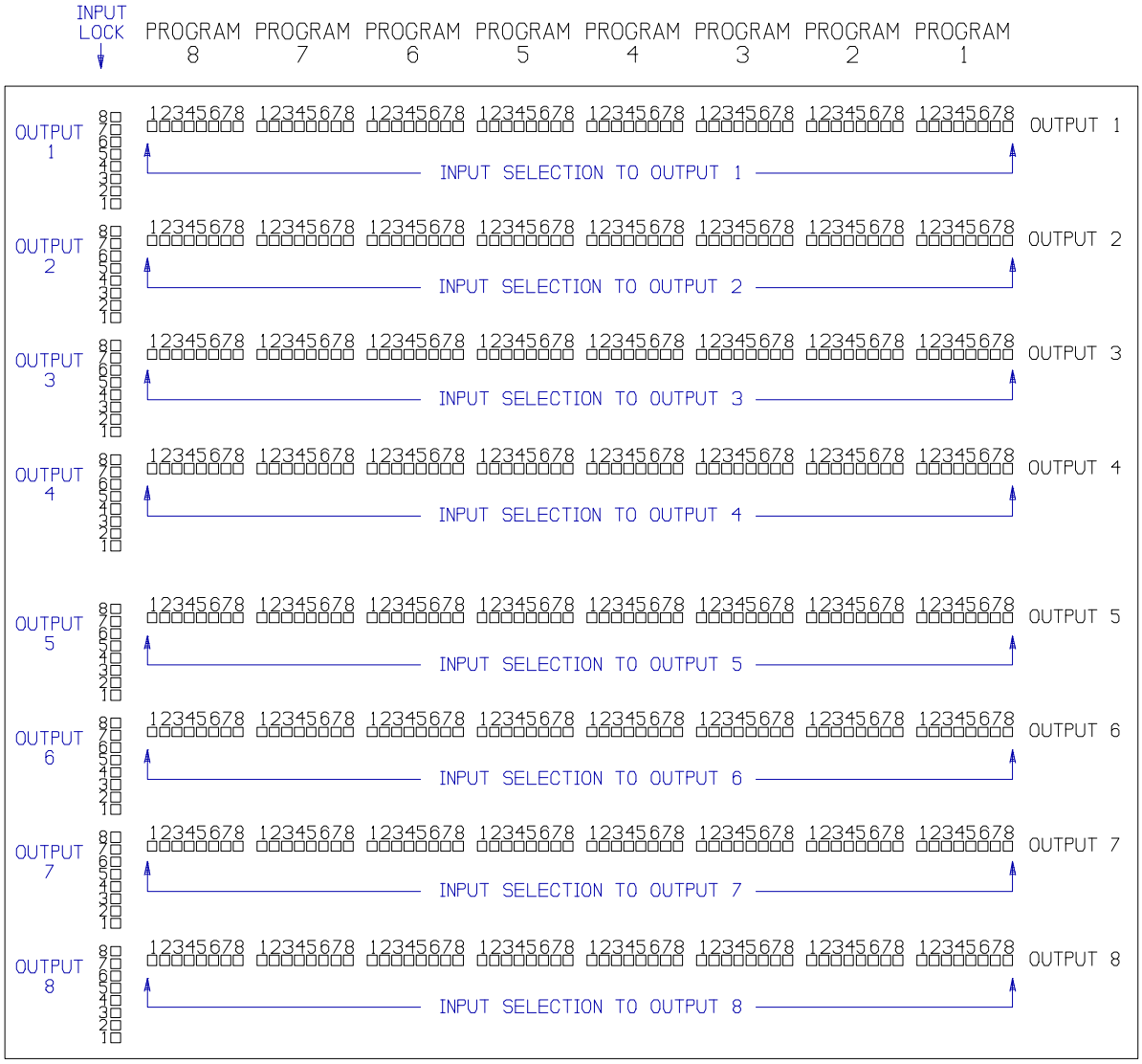
REAR PANEL **DOCUMENTATION PANEL**

Control Record &

Programming Worksheet

DJ-4128-8

REMOTE MATRIX CONTROLLER



Mainframe #_____

Module Position #_____

Contractor_____

Installer_____

Job_____

Date _____