

USING AN ALLEN MDS-2 EXPANDER¹ WITH YOUR PETERSON ICS-4000™

This section explains the nuances of programming patch changes that will operate an Allen MDS-2 Expander onto MIDI pistons or MIDI preset stops via the ICS-4000. You should first become familiar with the sections of the ICS-4000 Users' Instruction Manual called "PROGRAMMING A MIDI PISTON TO SEND A SIMPLE PATCH", "PROGRAMMING MULTIPLE LAYERS ON A MIDI PISTON", and optionally the section called "SENDING A MIDI PATCH VIA THE CDU". Then decide whether you will use the Allen MDS-2 to play a solo voice or multiple voices, and follow the steps below accordingly. You must follow the steps in the order shown.

Newer Allen MDS-2 Expanders have a feature specifically for accessing individual voices primarily for solo use. When voices are accessed with this method, there are only 12 notes of polyphony available. (If more than 12 notes are played simultaneously, only the first 12 will actually sound.)

If multiple voices are desired rather than a solo voice, the Allen presets provided in the MDS-2 Expander should be used. These presets permit up to 4 simultaneous voices. (On older MDS-2 Expanders this was the only method of remotely selecting voices.)

Accessing Solo Voices on Newer MDS-2 Expanders

The voices in newer Allen MDS-2 Expanders can be accessed directly by sending a "patch" with the desired channel/program number. This MIDI message can be sent directly from the ICS-4000's CDU as explained in the section of this manual called "SENDING A MIDI PATCH VIA THE CDU".

Example: A piston could be set:

Keybd	Ch#	Prg#	
S	9	2	Swell playing Harpsichord 8 & 4 on MIDI channel 9 (Allen voice #2)

When you wish to select more than one voice at a time, we recommend layering the sequential MIDI messages on a MIDI piston or preset stop, which is accomplished as follows:

1. Referring to the detailed instructions in the sections of this manual called "PROGRAMMING A MIDI PISTON TO SEND A SIMPLE PATCH" and "PROGRAMMING MULTIPLE LAYERS ON A MIDI PISTON", program the first layer on a MIDI piston or MIDI preset stop control to include the desired keyboard, channel number, and program number.

2. Create additional layers on the same MIDI piston or MIDI preset stop, which should again contain the desired keyboard, its default channel number, and the program number corresponding to the voice you want to enable.

Refer to the Allen MDS-2 Expander manual for a list of the available program/voice numbers. The MDS-2 Expander voice numbers are “one” based (1 = Off).

Using the MDS-2 Pre-Sets for Multiple Voices (and for older MDS-2s)

Programming piston (patch) changes in the ICS-4000 that will operate an Allen MDS-2 Expander¹ is accomplished as follows:

Program the Allen MDS-2 Expander

1. Program the Allen MDS-2 Expander presets with the desired voices for each manual. (Refer to the Allen MDS-2 Expander instruction manual for details.)

Each of the 20 preset windows can be programmed with a different voice on each line. Thus "layered" patches consisting of a different voice for each keyboard or multiple voices on one keyboard can be achieved.

2. When the voice/manual combinations have been set as desired (for a particular window), push the MDS-2 Set button. "Set Capture" will be displayed.

3. Press the desired preset button.

4. Repeat this process for each of the Allen MDS-2 Expander presets.

Program the ICS-4000

The presets in Allen MDS-2 Expanders can be accessed by sending one or more patches with the desired channel/program numbers followed by a patch that selects the desired Allen preset. These MIDI messages can be sent sequentially directly from the ICS-4000's CDU as explained in the section of this manual called "SENDING A MIDI PATCH VIA THE CDU", but for convenience we recommend layering the sequential MIDI messages on a MIDI piston, which is accomplished as follows:

5. Referring to the detailed instructions in the sections of this manual called "PROGRAMMING A MIDI PISTON TO SEND A SIMPLE PATCH" and "PROGRAMMING MULTIPLE LAYERS ON A MIDI PISTON", program the first layer on a MIDI piston to include the desired keyboard, its default channel, and program number 1*

Note: We strongly recommend using the default channel assignments for each keyboard, which are 9=Swell, 10=Great, 11=Choir, 12=Pedal, and 13=Solo (top manual of four). Avoid using channels 1-4 which are often used for organ keying

data, and MIDI channel 8 which is used to select presets on the Allen MDS-2 Expander.

6 . If more than one keyboard is to be played from this preset, repeat the above steps for each of the keyboards. Use a different MIDI channel number for each keyboard.

7. A final layer must be programmed to select the Allen¹ preset. Any keyboard number can be used here. The channel number must be set to 8 and the program number selects the Allen preset.

As an example, a layered piston could be set as follows, in the order shown:

Keybd	Ch#	Prg#	
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S	9	1	Swell playing on MIDI channel 9
G	10	1	Great playing on MIDI channel 10
C	11	1	Choir playing on MIDI channel 11
P	12	1	Pedal playing on MIDI channel 12
A	8	5	Allen ¹ preset #5 selected on channel 8

("A" = "any keyboard can be used")

9. Repeat steps 5-8 for each of the desired pistons or preset stops.

1. Allen MDS-2 Expander is a trademark of Allen Organ Co., Macungie, Pennsylvania