ORGAN COMPANY

BUILT IN AMERICA FOR THE WORLD

MDS-EXPANDER
OWNER'S MANUAL

MDS-EXPANDER OWNER'S MANUAL

I.   GENERAL MIDI INFORMATION

The Allen MDS-Expander responds to MIDI note and volume messages. Although traditional organ keyboards have a range of 61 notes, many MDS-Expander voices will respond to the total MIDI range of 128 notes. This allows the MDS-Expander to be used with MIDI keyboards having a greater note range than traditional organ keyboards. Some voices have been limited to the range of their acoustic counterpart for authenticity. Certain voices (such as PIANO) are also touch-sensitive when used with a MIDI device that transmits velocity information. On Allen MDS organs, velocity information is sent via the organ's expression pedals. For more information on this subject, consult your organ's owner's manual.

II.   BASIC FACTS

MDS-Expander "voices" are analogous to organ "stops." Under the "DIV" abbreviation located on the MDS-Expander front panel, for example, are listed SW, GT, PD, and CH, an indication of the organ division that will control the voice shown next to it. Any division may be changed if its factory settings do not properly correspond to the particular organ with which the MDS-Expander is connected. Consult the "MIDI FUNCTIONS" section of this manual for details concerning this procedure.

A different voice may be assigned to each MDS-Expander division, or more than one division may share the same voice.

The MDS-Expander memory contains 20 factory presets. Every preset contains a voice selection for each MDS-Expander division. Presets may be selected by pressing the PRESET button. Then, use the UP or DOWN buttons to move to the next or previous preset. The PRESET button will also function in the same fashion as the UP button, moving to the next preset each time it is pressed. When used with an Allen MDS organ, presets may also be selected from the organ's pistons. Preset contents may be altered as explained in the "MODIFYING MDS-EXPANDER PRESETS" section of this manual.

Allen MDS organs (as well as many other Allen models) have divisional MIDI couplers (stops) that, when engaged, allow transmission of MIDI messages from that particular division. Each organ division transmits MIDI information on a different MIDI channel. THE ORGAN MIDI COUPLERS THAT CORRESPOND TO THE MDS-EXPANDER DIVISIONS MUST BE TURNED ON FOR THE ORGAN TO PLAY THE MDS-EXPANDER. Factory MIDI channel settings for both the MDS-Expander and MDS organs are as follows: SW = 1, GT = 2, PD = 3, CH = 4. To change MDS-Expander MIDI settings, consult the "MIDI FUNCTIONS" section of this manual. To change MDS organ MIDI settings, consult the "RESETTING THE MIDI BASE CHANNEL" section of the organ's owner's manual.

III.   **GETTING AROUND THE FRONT PANEL**

UP & DOWN buttons: These controls are used to change the settings of all MDS-Expander functions (PRESET, DIV, VOICE, etc.). To change an MDS-Expander function setting, first press the desired function button, and then use the UP or DOWN button to change the setting within that function. To save changes, press the MDS-Expander SET button and then press the PRESET button. NOTE: with the exception of MIDI functions and tuning, changes in MDS-Expander settings will only affect the current preset. MIDI and tuning settings are "global" and do not need to be changed for each preset.

PRESET button: Moves line cursor to "Preset" sector of display. Subsequent use selects next preset number.

DIV button: Moves blinking cursor to the arrow which points to the specific division sector of display. Subsequent use selects next division.

VOICE button: Moves blinking cursor to first letter of the voice of the currently selected division. Subsequent use selects next voice in MDS-Expander voice list for that division.

TREM: Changes tremulant status of voice for currently selected division by displaying a "*" when tremulant is turned on.
(Note: Tremulant can be added only to voices where tremulant is appropriate.)

2

IV.   MODIFYING MDS-EXPANDER PRESETS

1.   Select desired preset: press PRESET, then UP or DOWN
2.   Select division for modification: press DIV, then UP or DOWN
3.   Select desired voice: press VOICE, then UP or DOWN
4.   Set desired tremulant status: press TREM, then UP or DOWN
5.   Save settings: press SET, then PRESET

EXAMPLE: To change the voice assigned to an MDS-Expander division, press the DIV button and use the UP or DOWN buttons to move the flashing cursor to the desired division. Press the VOICE button and use the UP or DOWN buttons to select the desired voice. To change the tremulant status of the voice, press the TREM button. To save changes as part of the current MDS-Expander preset, press the SET button and then press the PRESET button.

V.   RESTORING FACTORY PRE-PROGRAMMED SETTINGS FOR PRESETS

The MDS-Expander allows the user a great deal of flexibility over programming and configuration. Use the following procedure if it becomes necessary or desirable to restore the factory pre-programmed settings for presets and MIDI functions.

With the MDS-Expander's power turned off, press and hold the PRESET and DIV buttons simultaneously. Continue to hold the PRESET and DIV buttons while turning the MDS-Expander's power on. This procedure will restore all factory preset, MIDI, and tuning settings.

VI.   ASSIGNING MDS-EXPANDER PRESETS TO GENERAL ORGAN PISTONS ON ALLEN MDS ORGANS

1.   Select desired MDS-Expander Preset: press PRESET, then UP or DOWN

3

2.   Press SET button on MDS-Expander
3.   Press Organ General piston to which MDS-Expander Preset is to be set

NOTE: On MDS organs that have a Console Controller, the program change mode must be set to Preset P-Change. Consult your organ owner's manual for details.

VII. ASSIGNING MDS-EXPANDER VOICES TO DIVISIONAL PISTONS (WHERE APPLICABLE) ON ALLEN MDS ORGANS

1.   Select MDS-Expander Division to which organ division is connected: press DIV, then UP or DOWN
2.   Select desired MDS-Expander Voice: press VOICE, then UP or DOWN
3.   Press SET button on MDS-Expander
4.   Press Organ Divisional Piston to which MDS-Expander voice is to be set

NOTE: On MDS organs that have a Console Controller, the program change mode must be set to Preset P-Change. Consult your organ owner's manual for details.

VIII. DISABLING AN MDS-EXPANDER DIVISION

There are three ways to disable a single division of the MDS-Expander, while still accessing the other divisions.

1.   Turn off the associated organ MIDI coupler on Allen MDS organs. This method is acceptable when the MDS-Expander is the only MIDI device connected to the organ division in question. This stops all MIDI information transmission from that division.

2.   Select "MIDI OFF" as the division's voice (See instructions for "VOICE button" above). The organ will continue sending MIDI information to any other MIDI device in use. The MDS-Expander division will continue to respond to program change information (including

program change information sent by pistons on Allen MDS organs).

The "MIDI OFF" setting may be selected on more than one division simultaneously, and can be saved as part of a preset. Subsequent piston selection (on Allen MDS organs) will select the MDS-Expander voice currently assigned to that organ piston.

3.   Select "OFF" as the MIDI channel assignment for the desired MDS-Expander division (See "MIDI FUNCTIONS" below). Disabling a division using this method is not reversible by means of the organ's pistons or by selecting a new MDS-Expander preset. The MDS-Expander's screen display will now be blank for the division in question. This is a more permanent way of disconnecting the MDS-Expander division from the organ, while still allowing another MIDI device to respond to MIDI information. The MDS-Expander division can only be reactivated by reassigning the appropriate MIDI channel (See "MIDI FUNCTIONS" below).

IX.   MIDI FUNCTIONS

There are three MIDI information display screens. To access the first MIDI information display screen, press and hold MIDI button for 3 seconds. Subsequent use of the MIDI button will advance to the second and third MIDI information display groups. In order to return to normal playing mode, it is necessary to advance through all three MIDI information displays.

MIDI information display 1: "Control Channel" --- This is the MIDI channel on which the MDS-Expander will interpret MIDI program changes as PRESET changes. Allen MDS organs usually send MIDI messages from General pistons on MIDI channel 8. (This is true when the MIDI Base channel is set to 1. Changing the MIDI base channel of the organ also changes the channel of transmission for General Pistons. For more information on this subject, consult the Allen MDS organ owner's manual).

5

The MDS-Expander's MIDI Control Channel must be the same as the Organ's General Pistons' MIDI channel in order for the organ's General Pistons to change the Presets of the MDS-Expander.

IMPORTANT: Allen MDS organs that do not have Divisional Pistons or a Console Controller transmit MIDI information from General Pistons on Channel 1. In order to change MDS-Expander Presets from the General Pistons of these organs, adjust the MDS-Expander Control Channel to 1.

MIDI information display 2: "Number of Manuals plus Pedalboard-Maximum of 4" -There can be up to 4 lines on the MDS-Expander display. This function permits selection of total number of manuals or divisions that will be displayed by the MDS-Expander. For example, a two manual organ requires only three display lines (Swell, Great and Pedal.) Use the UP and DOWN buttons to change the setting.

MIDI information display 3: "Line MIDI_Ch Symbol" --- Permits configuration of the MDS-Expander's MIDI channels, divisions, and display characteristics. "Line" refers to the display line on the MDS-Expander screen where a desired division and channel will be displayed in normal playing mode. Use the UP and DOWN buttons to select the desired channel that will be accessed from the line displayed in the line sector. Any MIDI channel between 1 and 16 and "--" (Off) can be selected. Press the MIDI button a second time to move the cursor to the Symbol sector. Use the UP and DOWN buttons to select the organ division abbreviation that will be displayed on the line indicated by the line sector (see division abbreviation list below). Subsequent use of the MIDI button will change the display to lines 2, 3, & 4. Finally, press the MIDI button again to return to normal playing mode. NOTE: these changes will affect all presets.

Division abbreviations: SW, GT, PD, CH, RC, GO, PO, SO, HW, AC, MN, CL, BD, 1

X.   **TUNING**

The MDS-Expander's tuning can be adjusted so that it will play in (or out of) tune with the organ or keyboard it is being used with.

6

Press the TUNING button, and then use the UP and DOWN buttons to raise or lower the pitch of the MDS-Expander. The tuning can be raised or lowered by up to 100 cents or one semitone.

XI.   **AUTO PLAY/ZIMBELSTERN**

The MDS-Expander's memory includes several demonstration selections as well as a Zimbelstern that can be accessed using the AUTO PLAY button. To choose a selection, press the AUTO PLAY button. Use the UP and DOWN buttons to move the cursor through the list of selections. Press the AUTO PLAY button again to start playback of the demonstration selection or Zimbelstern as indicated by the cursor. To stop the demonstration, press the AUTO PLAY button once again. Pressing any other button after stopping the demonstration will return the MDS-Expander to the normal playing mode. The list of demonstration selections will vary depending on the version of the MDS-Expander being used.

XII.   **POWER SUPPLY**

When used with Allen MDS organs, the MDS-Expander can be connected directly to the organ's power supply system. In this way, both the organ and the MDS-Expander are turned on by the organ's power switch. An optional special adapter and power receptacle must be installed by your authorized Allen representative or the warranty will be void. Improper hook-up could be hazardous and/or damage equipment.

When used with other instruments, the MDS-Expander is powered by an optional external DC power supply, that must be ordered with the MDS-Expander. Do not use power supply units from other manufacturers with the MDS-Expander, as doing so will void the warranty and may be hazardous and/or damage equipment.

XIII.   **BATTERY BACKUP**

The preset memory includes a battery backup system to ensure that settings are not lost when the MDS-Expander is turned off. The backup system uses a Lithium battery that will last for several years under normal circumstances.

7

MDS-EXPANDER SPECIFICATIONS

FRONT PANEL
* 16 Character x 4 lines backlit liquid crystal display (LCD)
* Master volume control
* Control keys: Up/down, Preset, Division, Voice, Trem, Auto play, MIDI, Tune, Set

MIDI JACKS
* In, Thru

AUDIO OUTPUT JACKS
* Left, Right, Mono (RCA type)

MIDI CONTROL
* Up to four simultaneous polyphonic instruments
* MIDI control of tremulant and volume
* 20 programmable combinations

AUTO PLAY
* Built-in demonstration selections and Zimbelstern.

POWER SUPPLY
* Direct from organ when used with Allen MDS organs
* External DC power supply available for other applications

DIMENSIONS

Height:	3.45"	(8.5 cm.)
Width:	9.50"	(24.18 cm.)
Depth:	10.79"	(27.1 cm.)
Weight:	3 lb. 12 oz.	(1.70 kg.)

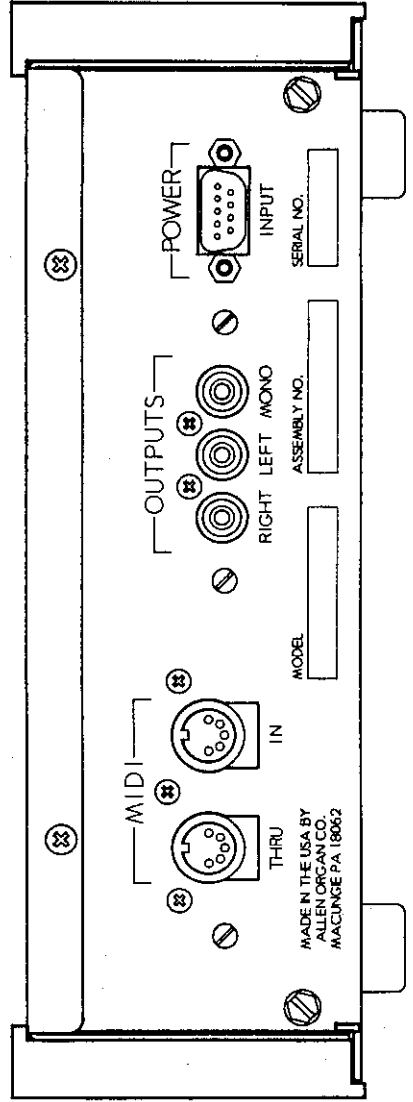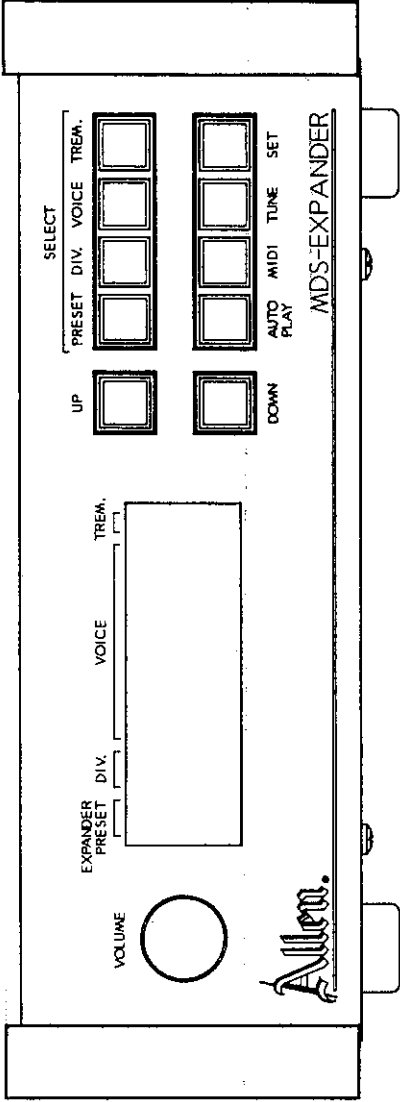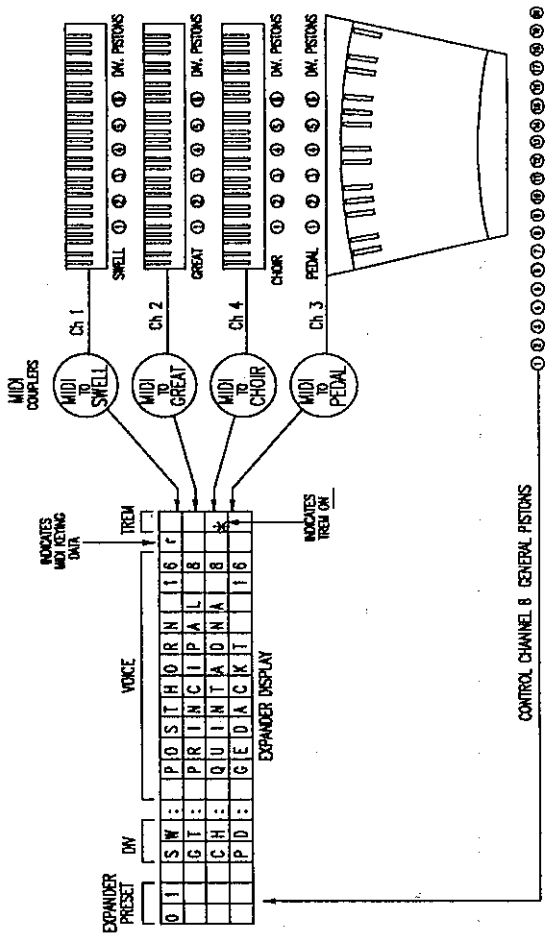Specifications subject to change without notice or obligation.

MDS-EXPANDER VOICES

ORGAN VERSION	ORCHESTRAL VERSION
Harpsichord 8' & 4'	Harpsichord 8' & 4'
Arco Strings	Lute
Choir	Harp
Piano	Celesta
Chimes	Handbells
Flute Harmonique 4'	Arco Strings
Flute Harmonique 8'	String Bass
Gedackt A 8'	Choir
Gedackt B 8'	Piano 16'
Quintadena 8'	Piano 8'
Principal 8'	Electric Piano
Gedackt 16'	Chimes
Quintadena 16'	Electric Organ 1
Principal 16'	Electric Organ 2
Rohrschalmei 4'	Electric Organ 3
Rohrschalmei 8'	Piccolo
Barpfeife 8'	Flute
Musette 8'	Cello
Krumet 8'	Clarinet
Rankett 8'	Oboe
Vox Humana A 8'	Bassoon
Vox Humana B 8'	French Horn
English Horn 8'	Brass Ensemble
French Horn 8'	Bugle
Clarinet 8'	Trumpet
Trompette 8'	Posthorn 8'
Spanish Trumpet 8'	Posthorn 16'
Posthorn 8'	Wood Harp 4'
Clarinet 16'	Wood Harp 8'
Trompette 16'	Marimba
Posthorn 16'	Vibes
Zimbelstern	Glockenspiel
	Orchestral Bells
	Xylophone
	Tympani
	Tym/Perc-Lo (MIDI notes 0-1, Bass Drum, note 2, Cymbal, and note 3, Snare Drum accessed via digital sequencer. MIDI notes 4-127, Tympani, accessible from organ).

SELECT

PRESET DIV. VOICE TREM.

UP

DOWN

AUTO PLAY   MIDI TUNE SET

MDS-EXPANDER

EXPANDER PRESET DIV. VOICE TREM.

VOLUME

Allen.

POWER   INPUT   SERIAL NO.

OUTPUTS   RIGHT LEFT MONO   ASSEMBLY NO.

MIDI   THRU   IN   MODEL

MADE IN THE USA BY
ALLEN ORGAN CO.
MACUNGIE PA 18062

10

SWELL · DIV. PISTONS
GREAT · DIV. PISTONS
CHOIR · DIV. PISTONS
PEDAL · DIV. PISTONS

Ch 1
Ch 2
Ch 4
Ch 3

MIDI COUPLERS

MIDI TO SWELL
MIDI TO GREAT
MIDI TO CHOIR
MIDI TO PEDAL

INDICATES MIDI KEYING DATA
TREM
INDICATES TREM ON

VOICE

EXPANDER DISPLAY

CONTROL CHANNEL 8 GENERAL PISTONS

DIV
EXPANDER PRESET

01	SW:	POSTHORN	16	*
	GT:	PRINCIPAL	8	
	CH:	QUINTADNA	8	*
	PD:	GEDACKT	16	

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NOTES

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