



BUILT IN AMERICA FOR THE WORLD

**MDS-EXPANDER™ II
OWNERS MANUAL**

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OWNER'S MANUAL

MDS-EXPANDER™ II and MIDI DIVISION™ II

I. GENERAL MIDI INFORMATION

The Allen MDS-Expander™ II and MIDI-Division™ II are basically the same device. The Allen MDS-Expander™ II is a stand-alone unit with finished wooden sides. The MIDI-Division™ II provides the same features and is installed as part of the organ in a drawer. For this manual they will both be referred to as the MDS-Expander™ II. They both respond to MIDI note and volume change messages. Although traditional organ keyboards have a range of 61 notes, many MDS-Expander™ II voices will respond to the total MIDI range of 128 notes. This allows the MDS-Expander™ II 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 velocity touch-sensitive when used with a MIDI device that transmits velocity information. On Allen MDS, Renaissance and some Protégé organs, velocity information may be sent via the organ's expression pedals. On organs that feature OST™ keying, velocity information is sent via the organ's keyboards. For more information on this subject, consult your organ's specific owner's manual.

II. BASIC FACTS

MDS-Expander™ II voices are analogous to organ stops. Under the "DIV" abbreviation located on the 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. These division abbreviations may be changed if the settings do not correspond to the organ that the MDS-Expander™ II is connected to. See "MIDI FUNCTIONS" section of this manual for details concerning this procedure.

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

The MDS-Expander™ II memory contains 60 preset groups. Every preset contains a voice selection for each MDS-Expander™ II division.

Presets are selected by pressing the PRESET button. Use the UP or DOWN button 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. Presets may also be selected from the organ's pistons. Preset contents may be altered as explained in the "MODIFYING MDS-EXPANDER™ II PRESETS" section of this manual.

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

III. GETTING AROUND THE FRONT PANEL

UP & DOWN buttons: These controls are used to change all of the function settings (PRESET, DIV, VOICE, etc.). To change a function setting, press the desired function button and then use the UP or DOWN button to change the setting within that function. To save the changes, press the SET button of the MDS-Expander™ II and then press its PRESET buttons. **NOTE:** with the exception of MIDI functions and tuning, changes in MDS-Expander™ II settings will only affect the current group 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 group number.

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

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

TREM: Changes the tremulant status of a selected division voice and displays a * when tremulant is turned on. (Note: Tremulant can be added only to voices where tremulant is appropriate.)

IV. MODIFYING A MDS-EXPANDER™ II PRESET

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: select desired voice, press TREM
5. Save settings: press SET, then PRESET

EXAMPLE: To change the voice assigned to a division, press the DIV button and use the UP or DOWN button to move the flashing cursor to the desired division. Press the VOICE button and use the UP or DOWN button 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 preset, press the SET button and then press the PRESET button.

V. RESTORING FACTORY PRE-PROGRAMMED SETTINGS FOR PRESETS

Use the following procedure if it becomes necessary or desirable to restore the Allen Organ Company factory pre-programmed settings for presets and MIDI functions.

With the MDS-Expander™ II's power turned OFF, press and hold the PRESET and DIV buttons simultaneously. While holding the PRESET and DIV buttons turn the power on. This procedure will restore all factory preset, MIDI, and tuning settings.

VI. ASSIGNING MDS-EXPANDER™ II PRESETS TO AN ORGAN'S GENERAL PISTONS

1. Select desired MDS-Expander™ II Preset group: (press PRESET, then UP or DOWN.)
2. Press SET button on MDS-Expander™ II.
3. Press organ General piston to which MDS-Expander™ II Preset group is to be assigned.

NOTE: On organs with a Console Controller□, if you have accessed the "Program Change Mode" and changed it to USER or NO, you must reset it to PRESET, otherwise the SET function is disabled. See your Console Controller and MIDI Guide regarding Program Change Mode.

VII. ASSIGNING MDS-EXPANDER™ II VOICES TO DIVISIONAL PISTONS (WHERE APPLICABLE)

1. Select the MDS-Expander™ II Division that corresponds to the organ's division: (Press DIV, then UP or DOWN)
2. Select desired MDS-Expander™ II Voice: (Press VOICE, then UP or DOWN)
3. Press SET button on MDS-Expander™ II.
4. Press organ's Divisional Piston to which the MDS-Expander™ II voice is to be remembered by.

VIII. ACCESSING PRESETS 11 or higher (FOR ALLEN ORGANS WITH CONSOLE CONTROLLER)

This subject is detailed in the "Console Controller and MIDI Guide" that is specific to any particular Allen Organ. Please use that publication for this procedure.

NOTE: Early version Console Controllers™ will return to Preset P-Change when the organ's power is shut off.
Newer version Console Controllers™ will retain the "U", "P", or "N" settings after the organ's power is turned OFF and then ON again.

IX. DISABLING AN MDS-EXPANDER™ II DIVISION

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

1. Turn off the associated organ MIDI coupler on the organ. This method is acceptable when the MDS-Expander™ II is the only MIDI device connected to the organ division in question. This will stop all MIDI information transmission from that division.
2. Select MIDI OFF as a 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™ II division will continue to respond to program change information, including program change information sent by Allen organ's pistons.

NOTE: 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 will select the MDS-Expander™ II voice currently assigned to that piston.

3. Select OFF as the MIDI channel assignment for the desired MDS-Expander™ II 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™ II preset. The MDS-Expander's display screen will now be blank for the division in question. This is a more permanent way of disconnecting the MDS-Expander™ II division from the organ, while still allowing another MIDI device to respond to MIDI information. The MDS-Expander™ II division can only be reactivated by reassigning the appropriate MIDI channel (See MIDI FUNCTIONS next section).

X.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 groups. 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™ II will interpret MIDI program changes as PRESET or USER changes. Allen organs usually send MIDI messages from General pistons on MIDI Channel 8. (This is true when the organ's 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 specific Allen organ owner's manual.)

IMPORTANT: Allen MDS and Protégé organs that do not have Divisional Pistons or a Console Controller™ transmit MIDI information from General Pistons on MIDI Channel 1. In order to change MDS-Expander™ II Presets from the General Pistons of these organs, adjust the MDS-Expander™ II's MIDI Control Channel to 1. An organ's manual MIDI stop tablet or drawknob must be turned on for the organ to send note ON and note OFF information from that manual.

Again, the MDS-Expander™ II'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 Preset Groups of the MDS-Expander™ II. Normally this number is either 8 or 1.

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

MIDI information display 3: "Line MIDI_Ch Symbol" – This permits configuration of the MDS-Expander's MIDI channels, divisions, and display characteristics. "Line" refers to the display line on the MDS-Expander™ II screen where the division abbreviation shown under "Symbol" will be are displayed in normal playing mode. The number under MIDI_Ch refers to the MIDI channel number assigned to this line and division abbreviation. Use the

UP and DOWN buttons to select the desired MIDI channel that will be accessed from the line displayed in the line sector. MIDI channels from 1 through 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 and only one MIDI channel may be assigned per line and that MIDI channel cannot be used again.

Division abbreviations: SW, GT, PD, CH, RC, GO, PO, SO, HW, AC, MN, CL, BD,
1, 2, 3, 4

XI. TUNING

The MDS-Expander™ II tuning can be adjusted so that it will play in (or out of) tune with the organ or keyboard it is being used with. Press the TUNING button, and then use the UP or DOWN button to raise or lower the pitch of the MDS-Expander™ II. The tuning can be raised or lowered by up to 100 cents or one semitone.

XII. AUTO PLAY/ZIMBELSTERN

The MDS-Expander™ II includes 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 front panel button after stopping the demonstration will return the to the normal playing mode.

XIII. POWER SUPPLY

When used with Allen MDS and Protégé organs, the MDS-Expander™ II can be connected directly to the internal power supply system of most Allen organs. Since the Allen MIDI Division™ is built into Allen organs, it always utilizes the organ's internal power supply. In this way, both the organ and the MDS-Expander™ II 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™ II is powered by an optional external DC power supply that must be ordered with the MDS-Expander™ II. Do not use power supply units from other manufacturers with the MDS-Expander™ II, as doing so will void the warranty and may be hazardous and/or damage equipment.

XIV. BATTERY BACKUP

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

MDS-EXPANDER™ II VOICES listed with their program numbers.

1	MIDI Off	42	Bourdon 16	85	Orchestral Clarinet
2	Harpsichord 8 & 4	43	Gedackt 16	86	Orchestral Oboe
3	Harpsichord 16 & 8	44	Quintdena 16	87	Bassoon
4	Lute	45	Principal 16	88	Orch French Horn
5	Harp	46	Klarine 4	89	Brass Ensemble
6	Celesta	47	Clarion 4	90	Bugle
7	Music Box	48	Rohrshalmei 4	91	Trumpet
8	Handbells	49	Rohrshalmei 8	92	Wood Harp 4
9	Arco Strings	50	Barpfeife 8	93	Wood Harp 8
10	Choir	51	Musette 8	94	Marimba
11	Piano 16	52	Cromorne 8	95	Vibes
12	Piano 8	53	Krumet 8	96	Glockenspiel
13	String Bass	54	Rankett 8	97	Orchestral Bells
14	Electric Piano	55	Vox Humana 8A	98	Xylophone
15	Electric Bass/ Electric Piano	56	Vox Humana 8B	99	Sub Xylophone
		57	Hautbois 8	100	Tympani
16	Chrysoglott	58	English Horn 8		
17	Chimes	59	French Horn 8		
18	Cast Bells	60	Clarinet 8		
19	Zimbal III	61	Tuba 8		
20	Cymbale III	62	Trumpet 8		
21	Mixture IV-A	63	Trompette 8		
22	Mixture IV-B	64	Spanish Trumpet 8		
23	Grand Mixture IV	65	Posthorn 8		
24	Fife 1	66	Musette 16		
25	Septieme 1 1/7	67	Basson 16		
26	Quintflöte 1 1/3	68	Dulzian 16		
27	Sesquialtera II	69	Clarinet 16		
28	Principal Sesquialtera II	70	Rankett 16		
		71	Diaphone 16		
29	Principal 5 1/3	72	Trumpet 16		
30	Quint 5 1/3	73	Trompette 16		
31	Viole 4	74	Tuba 16		
32	Harmonic Flute 4	75	Posthorn 16		
33	Harmonic Flute 8	76	Electric Organ 1		
34	Gedackt 8A	77	Electric Organ 2		
35	Gedackt 8B	78	Electric Organ 3		
36	Flute 8 & 4	79	Piccolo		
37	Flute 8 & 2	80	Flute		
38	Quintadena 8	81	Solo Violin		
39	Principal 8	82	Octave Violin		
40	Principal 10 2/3	83	Cello A		
41	Gross Quint 10 2/3	84	Cello B		