OWNERS MANUAL



AUTOMATE™

WARNING: TO PREVENT ELECTRICAL SHOCK OR FIRE HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. BEFORE USING THIS APPLIANCE, READ THE OPERATING GUIDE FOR FURTHER WARNINGS.

INTRODUCTION

1. DESCRIPTION

Thank you for purchasing the Peavey Automate™. If you are not yet familiar with the operation of the Peavey Autograph™, we recommend that you take a few minutes to read the Autograph manual and familiarize yourself with its operation before proceeding with this manual.

The Peavey Automate is a 28 band, 1/3 octave graphic equalizer that is a companion to the Peavey Autograph. It can be used as a slave equalizer that tracks EQ changes made on the Autograph or as an independent equalizer that is remotely controlled from the Autograph. When the Automate is used as a remote expander, the Autograph front panel controls and display are used to control the Automate so that it operates just like the Autograph. By adding Automates, up to 16 channels of audio can be individually equalized from one Autograph.

Once curves are loaded or created in the Automate, the Autograph can be removed so that the EQ curve you have carefully created cannot be altered. However, any of the 128 stored curves can be recalled via MIDI program change commands (if enabled), or the Automate can be set to a mode that allows one of 2, 4, or 8 presets to be recalled from the front panel.

2. FEATURES

- **28-Band graphic equalizer on 1/3 octave centers**
- **26-Band constant Q filters**
- **Top and bottom bands (32 Hz and 16 kHz) are shelving filters**
- **MIDI controllable sliders, +/- 12 dB in 1 dB steps, or +/-6 dB in 0.5 dB steps**
- **128 Complete EQ curve memories**
- **Curves may be added**
- **Multi-function display**
- **Turn On/Off transient muting**
- **Compact 1 I.U. rack-mount configuration**

FRONT PANEL



1. 7-segment display
2. Select button

The Select button and display can be set for 5 different display and control modes for selecting the MIDI channel or recalling EQ curves.

3. Power ON/OFF
4. Equalizer Bypass

II. FRONT PANEL DISPLAY AND CONTROL OPTIONS

1. DISPLAY MODES

There are five different front panel display and control modes. (The Automate is shipped from the factory in Mode 1)

MODE 1:
The front panel 7 segment display indicates the Automate's MIDI listening channel. The decimal point lights to indicate when the Automate is in OMNI mode. The Select button is used to change the MIDI channel.

MODE 2:
The display functions the same as Mode 1, but the Select button is disabled.

MODES 3, 4, & 5:
In modes 3, 4, and 5, the MIDI channel is displayed and can be changed the first 3 seconds after the Automate is turned on. The select button can then be used to recall one of the available preset curves and the number of the curve is displayed.

MODE 3:
Preset curve 1 or 2 can be recalled.

MODE 4:
Preset curve 1, 2, 3, or 4 can be recalled.

MODE 5:
Preset curve 1, 2, 3,... 7, or 8 can be recalled.

2. CHANGING THE DISPLAY MODE

To change operating mode:

1. Turn off the power switch and disconnect the power cord.
2. Remove the 7 screws that secure the top.
3. Locate the header and jumper as shown in the diagram below.
4. Plug the jumper into the header in the position that corresponds with desired mode.
5. Replace the 7 screws that secure the top.

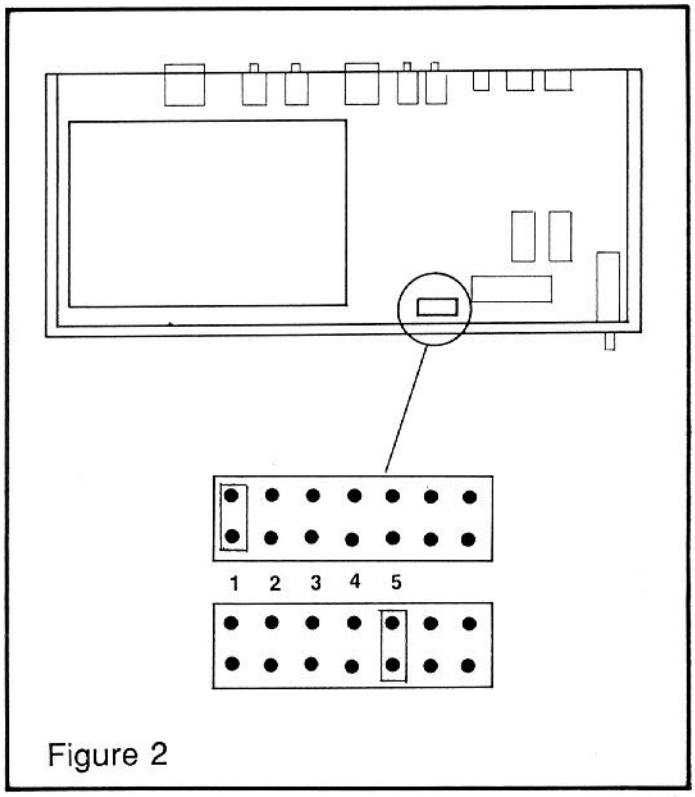


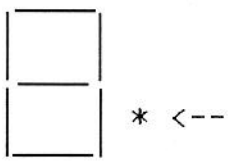
Figure 2

3. MIDI CHANNEL DISPLAY

MIDI channels 1 through 16 can be selected as described above and will appear on the display as:

CHANNEL		DISPLAY	CHANNEL		DISPLAY
1	-	1	9	-	9
2	-	2	10	-	A
3	-	3	11	-	b
4	-	4	12	-	C
5	-	5	13	-	d
6	-	6	14	-	E
7	-	7	15	-	F
8	-	8	16	-	g

The decimal point, when lit, indicates that OMNI receive mode is on.



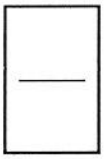
OMNI receive mode only applies to the receipt of MIDI program change and controller change commands. System exclusive messages are still only received on the selected channel.

4. TO SELECT A NEW MIDI CHANNEL

Press and hold the select button until the desired channel appears in the display. You must be either in mode 1 or press the button during the first 3 seconds after turning the power on if in modes 3, 4, or 5. There is a long delay before the display actually starts changing to prevent the channel from accidently being changed, so be patient. The channel number increases in sequence "1" through "g" first with OMNI mode off, then again with OMNI mode on.

5. EQUALIZER BYPASS

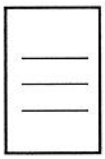
The Automate equalizer can be bypassed by pressing the bypass switch located below the power switch on the front panel. When the equalizer is bypassed, the center bar of the display lights as shown below:



When the equalizer is bypassed, the subsonic filter remains in the circuit to protect the speaker system.

6. MIDI ACTIVITY

Whenever a valid MIDI message is received by the Automate, the display indicates MIDI activity by displaying 3 horizontal bars as shown below.



III. AUTOGRAPH REMOTE CONTROL OF THE AUTOMATE

This manual assumes that you are familiar with the operation of the Peavey Autograph. If you are unfamiliar with the Autograph, take a few minutes to go through the Autograph manual with the Autograph.

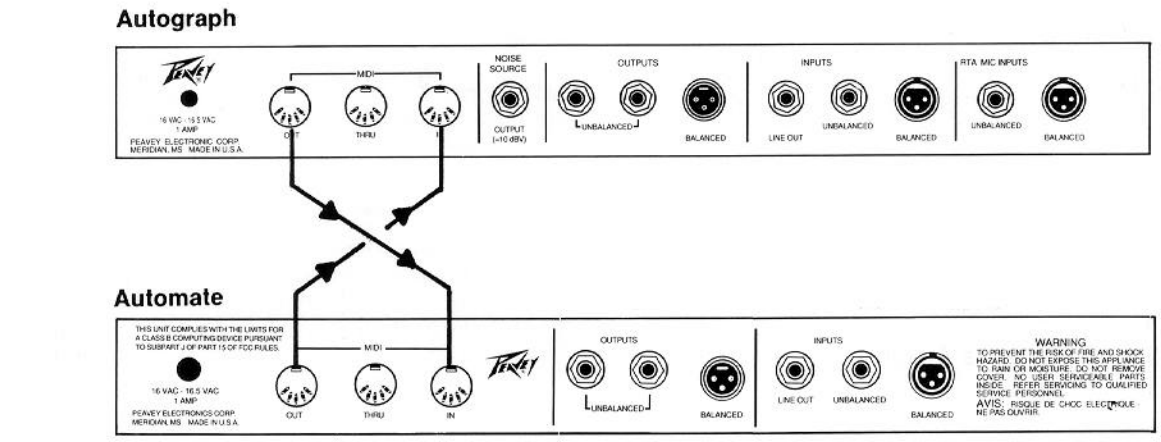
NOTE: The Autograph must have software version 2.00 or later to remotely control the Automate. If your Autograph has an earlier version as shown in the display when first turned on, see your Peavey dealer for an update.

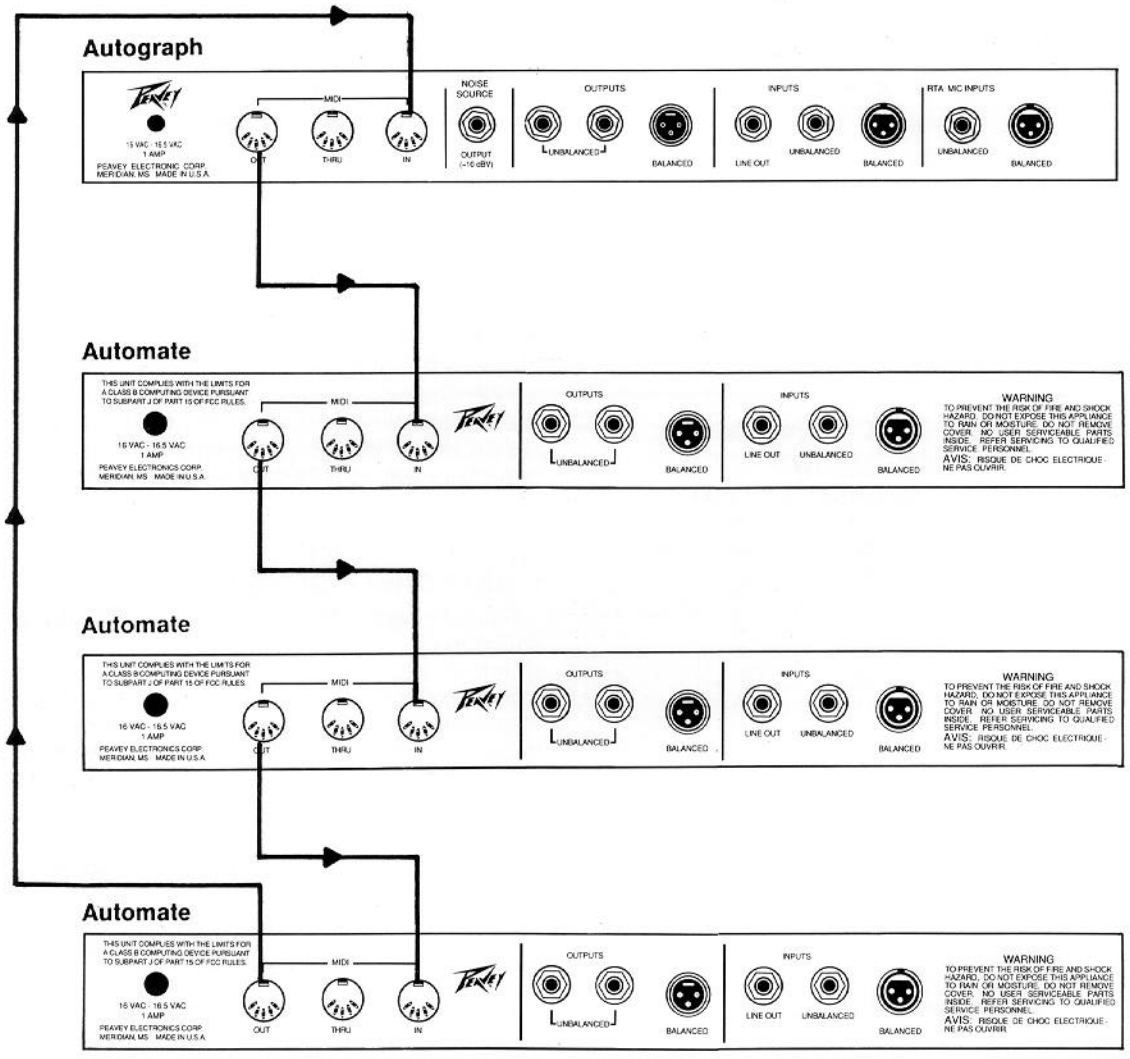
1. MIDI COMMUNICATION

When the Autograph is in the "Remote" mode to control an Automate, MIDI system exclusive messages are used which must be on the receiving units channel. The communication in this mode is two-way. For each message that the Automate receives, it must send a return message that either contains the requested information (like current EQ curve data, label for a preset, etc.) or acknowledges the receipt of information.

2. MIDI CONNECTIONS BETWEEN THE AUTOGRAPH AND AUTOMATE

To establish the required two-way communication, the Autograph and Automate(s) are wired in a loop. The MIDI output of the Autograph goes to the MIDI input of the first Automate. The Automate is MIDI output then goes to the MIDI input of the next Automate, until the output of the final Automate is connected to the MIDI input of the Autograph.


Autograph
MIDI
OUT
THRU
IN
NOISE SOURCE
OUTPUT (-10 dBV)
OUTPUTS
UNBALANCED
BALANCED
INPUTS
LINE OUT
UNBALANCED
BALANCED
RTA MIC INPUTS
UNBALANCED
BALANCED
16 VAC - 16.5 VAC
1 AMP
PEAVEY ELECTRONIC CORP.
MERIDIAN, MS MADE IN U.S.A.
Automate
THIS UNIT COMPLIES WITH THE LIMITS FOR A CLASS B COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 OF FCC RULES.
16 VAC - 16.5 VAC
1 AMP
PEAVEY ELECTRONICS CORP.
MERIDIAN, MS MADE IN U.S.A.
WARNING
TO PREVENT THE RISK OF FIRE AND SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR.


Autograph
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3. SETTING THE MIDI CHANNEL FOR REMOTE COMMUNICATION

The Autograph and each Automate must be set to a different MIDI channel. If an Automate is set to the same channel as another Automate or the master Autograph, proper communication will not take place.

TECHNICAL EXPLANATION

When an Automate receives a system exclusive message that is not on its channel, it echoes the message to its MIDI output. System exclusive messages that the Automate receives on its listening channel are not echoed to its output. So, if more than one Automate were on the same channel, messages would never reach the second Automate. If an Automate were on the same channel as the Autograph master, that Automate would intercept messages intended for the master and an error message would appear on the Autograph's display.

A. ASSIGN PAGE FUNCTIONS

1. SELECTING AN AUTOMATE FOR REMOTE CONTROL

For this section, connect one Automate to the Autograph and follow along with the instructions.

Set the Autograph to MIDI channel 1 and the Automate to MIDI channel 2.

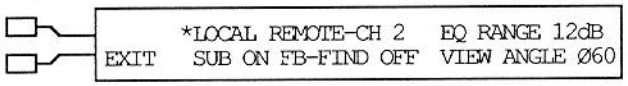
Press the Assign button on the Autograph.

Use the left or right (< or >) cursor keys to move the blinking cursor to the left of Remote channel select.

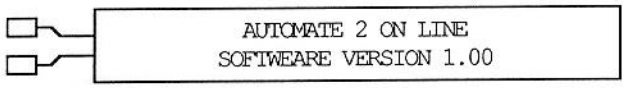


Use the Up or Down cursor keys (∧ or ∨) to select the channel of the Automate that you wish to control.

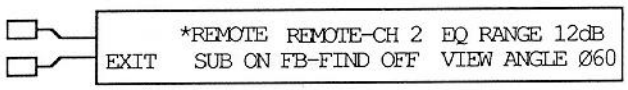
Now move the cursor to the left of the "LOCAL" mode label.



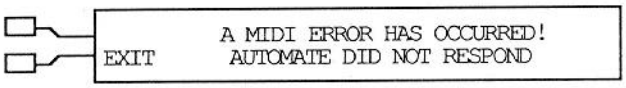
Press either the Up or Down cursor keys (∧ or ∨) to toggle the Autograph into the Remote control mode. If the Automate responds with all of the appropriate data, the following display will momentarily appear on the Autograph.



The assign page then reappears with the Local label replaced by Remote, and EQ range and Subsonic switches reflecting the way the Automate is set.



If, instead of the above message, the following message appeared,



check to see that:

— The MIDI output of the Autograph is connected to the MIDI input of the Automate.

— The MIDI output of the Automate is connected to the MIDI input of the Autograph.

— The remote channel that you selected in the Autograph display is the same as the channel that the Automate is set to (MIDI channel 2).

— The Autograph is set to a different MIDI channel than any of the Automates.

— The Autograph is set to receive MIDI system exclusive messages.

This message will appear any time during remote operation of the two-way communication between the Autograph and Automate is lost.

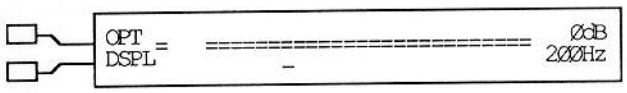
To return to control of the Autograph, position the cursor to the left of the "REMOTE" model label. Press either the up or down cursor key to get into Local Mode.

2. EQ RANGE, SUBSONIC FILTER, AND FEEDBACK FIND

The 40 Hz subsonic filter and EQ range can now be changed in the remote Automate by positioning the blinking cursor to the left of the desired parameter, then using the UP or DOWN keys to change that parameter. This is the same way that these functions would be changed on the Autograph. However, because the feedback-find feature works with the line signal going through the Autograph, you cannot access this feature while in the REMOTE mode.

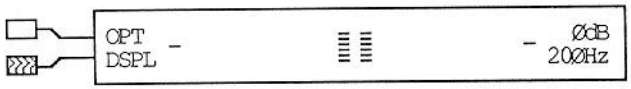
3. EQ DISPLAY AND FUNCTIONS

Press the EQ function selector button.

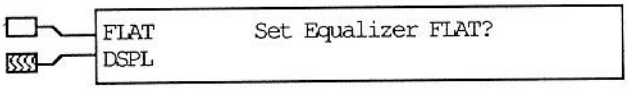


The EQ display now shows the curve of the remote Automate.

Pressing the DSPL soft key once will select the vertical 6 band EQ display mode.



Pressing the DSPL soft key again will select the "Set Equalizer Flat" display.



Pressing the DSPL soft key a third time will return you to the original EQ display. Because the Automate does not have an RTA, the EQ over RTA display is omitted.

Use the cursor keys to adjust the equalizer. As you see, the buttons and display behave the same as when you are in the "Local" mode controlling the Autograph. You may notice, however, that the rate the cursor scrolls as you hold the button down to raise or lower the level of a band may vary slightly as the number of Automates in the loop is increased.

Pressing the "OPT" key brings up the ADD EQ curve display which works the same as the corresponding Autograph display. Pressing the UP or DOWN keys with the cursor to the left of ADD toggles the ADD mode on and off. When the cursor is at the added program number, pressing the up or down keys changes the program preset that is added to the current EQ curve. The change actually takes place when you release the button.

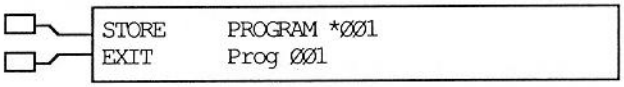
Pressing the EXIT soft key returns you to EQ display.

If you press the NEXT soft key, the "compare two curves" display appears. This also functions the same as the Autograph.

4. STORE

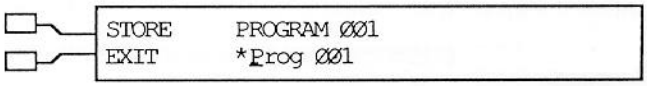
The store display and functions are the same as those in the Autograph.

To store a curve, press the STORE button.



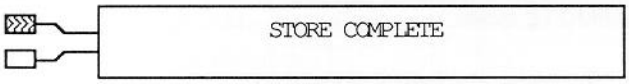
Now, using the UP ∧ or ∨ DOWN keys, select the Program preset location where you wish to store the current EQ curve. The user label at the bottom of the display will be updated to reflect the selected preset when the button is released.

To change the user label, press the RIGHT > arrow key and the display will look like this:



The underline cursor indicates the character of the label to be modified. Use the UP ∧ or ∨ DOWN keys to select a new character. The LEFT or RIGHT arrow keys are used to select which of the 8 character positions you wish to change.

To store a curve, press the STORE soft key (The top soft key). The display will momentarily show:



Your curve and label are now stored. If you have the Automate front panel set to modes 3, 4, or 5, where the user can recall preset curves, be sure to store the curve in a location that can be accessed.

5. RECALL

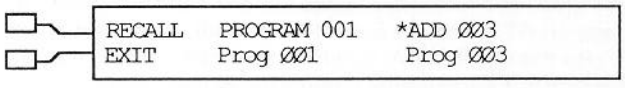
The RECALL display and functions are the same as those in the Autograph.

To recall a stored EQ curve, press the RECALL button and the recall display will appear.



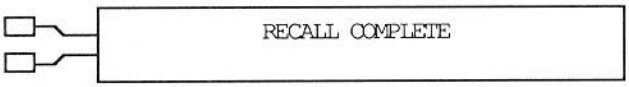
Use the UP ∧ or ∨ DOWN arrow keys to select the program preset curve to recall. The user label at the bottom of the display will not be updated to reflect the newly selected preset until the button is released.

Pressing the RIGHT arrow > key will move the cursor to the left of the ADD label and allow the selected preset curve to be recalled with or without an ADD curve.



If the ADD function is on, the cursor may be moved to the right to select the program preset number to be added. For more information on adding curves, refer to the Autograph manual.

To recall the selected curve, press the recall soft key (top soft key). The following display will momentarily appear.

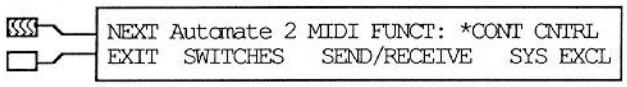


Recall Complete.

B. MIDI PAGE FUNCTIONS

1. MIDI MAIN MENU

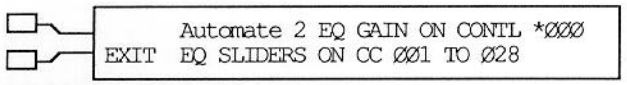
Press the MIDI selector button and the following display will appear.



Use the left or right (< or >) cursor keys to select the desired function. Then press the "NEXT" soft key to go to that display.

2. SETTING MIDI CONTINUOUS CONTROLLERS

Select the set continuous controllers function (Place the cursor to the left of "CONT CNTRL"). Now press the "NEXT" soft key. The following display will appear.

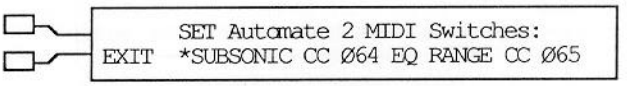


Individual EQ "sliders" can be controlled via MIDI continuous controller messages. The controller numbers are assigned in this page. The 29 sliders are configured as a contiguous block, starting with EQ gain, then the 32 Hz band, followed by 40 Hz, on up to the 16 kHz band. The starting controller number can be changed by using the up or down (∧ or ∨) cursor keys to a value ranging from 0 to 92.

NOTE: You may notice, as you change the controller number, that the display will skip some blocks of numbers. This happens because the Autograph checks for conflict between the Gain and EQ Slider block and the Subsonic and EQ Range MIDI controller switches, and skips numbers that would cause more than one control to be assigned to one number.

3. MIDI Subsonic and EQ Range switches

The Subsonic filter and EQ Range can be changed by using MIDI controller change commands. The controller number assigned to each of these switches is selected in the MIDI Switches display.

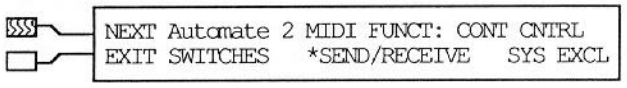


Pressing the LEFT < or > RIGHT cursor keys selects either the subsonic or EQ range controller and the UP ∧ or ∨ DOWN keys change the controller number.

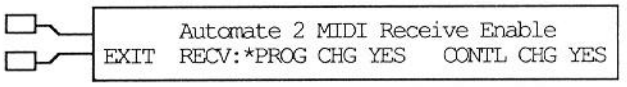
4. MIDI SEND AND RECEIVE ENABLE

The receipt of MIDI program change and controller change commands can be enabled or disabled in this display.

In the MIDI main menu, move the blinking cursor to the left of the SEND/RECEIVE label.



Press the NEXT soft key to go to the send/receive display.



Use the LEFT < or > RIGHT arrow keys to select the parameter to change and the UP ∧ or ∨ DOWN keys to toggle the receive enable between YES and NO.

5. MIDI SYSTEM EXCLUSIVE (DUMP PRESET)

To dump one or all presets from the Automate to the Autograph, connect only one Automate to the Autograph as shown below.

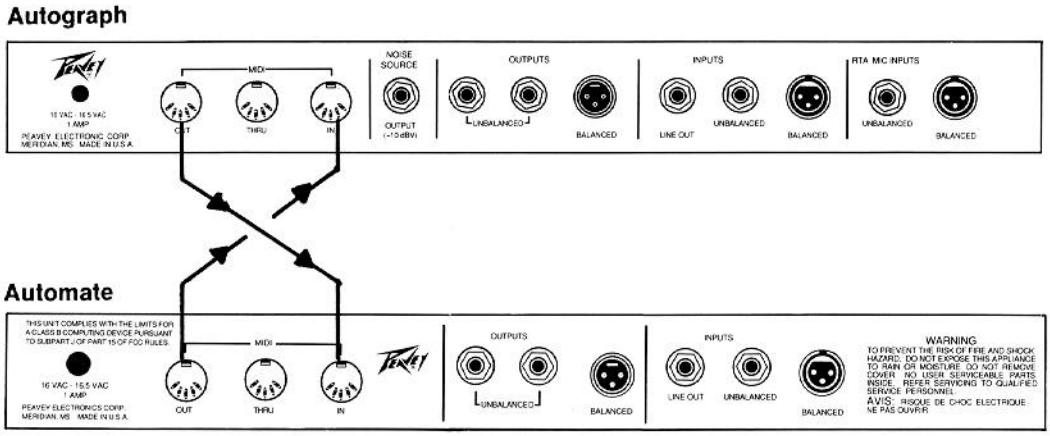


Figure 3

Set both units to the SAME MIDI channel.

On the Autograph, select Remote mode to control the Automate.

NOTE: Dumping preset curves from the Automate to the Autograph will destroy the existing Autograph curve stored in that preset location. For example: If you dump preset #1 from the Automate to the Autograph, the Autograph's preset #1 will be replaced with preset #1 dumped from the Automate.

Press the MIDI button. Now use the left or right cursor keys to move the blinking cursor to the left of the SYS EXCL label.

```
NEXT Automate 1 MIDI FUNCT: CONT CNTRL
EXIT SWITCHES   SEND/RECEIVE   *SYS EXCL
```

Press the NEXT soft key and the following display will appear.

```
EXECUTE   Automate 1 SYSTEM EXCLUSIVE
EXIT          *DUMP PRESET ØØ1
```

Use the up or down cursor keys to select the preset to be dumped or select ALL to dump all 128 presets. (ALL is below 001 or above 128)

Press the EXECUTE soft key to send the Dump request to the Automate.

The Autograph will display:

```
SYSTEM EXCLUSIVE
  IN PROGRESS
```

The Automate will show the three bar MIDI activity display.

To dump presets to another device, you can either send a MIDI dump request from that device as described in the MIDI System Exclusive specification; or you can proceed as instructed above, but, just before pressing the EXECUTE soft key, connect the receiving device to the MIDI output of the Automate. The Autograph will show the following message on the display.

```
SYSTEM EXCLUSIVE
DUMP PRESET SENT
```

When performing a system exclusive dump from the Automate, its MIDI output need not be connected to the Autograph MIDI input.

6. AUTOMATE MIDI COMMAND SUMMARY

The Automate responds to MIDI program change commands by recalling the Preset EQ curve requested. The Automate must be listening on the correct MIDI channel or be in OMNI mode. When the Automate receives a valid program change command, it will display 3 bars in its front panel display.

The Automate will receive MIDI controller commands that are on the correct MIDI channel and for controller numbers assigned to EQ sliders or switches. The Automate responds by displaying the 3 bar MIDI activity indicator and by changing the appropriate EQ slider or switch. When in OMNI mode, the Automate will receive MIDI controller changes messages sent on any channel.

The system exclusive messages that the Automate sends and receives are outlined in the MIDI implementation section.

7. FACTORY RESET OF MEMORY

If you have changed many of the MIDI communication parameters or if you wish to erase all of the EQ curves stored in memory, you can reset the Automate's memory to the factory settings.

CAUTION: When the following action is performed, all of the stored curves, EQ settings, and other setup changes are returned to the factory settings. ALL STORED CURVES ARE LOST! If you wish to save any of the stored curves, use a MIDI System Exclusive dump to

the Autograph, or to a floppy disk storage product such as the Peavey MIDI Librarian™.

Connect the Automate and Autograph together via MIDI.

Turn the Automate power on and the Autograph power off.

Press and hold the RECALL and STORE keys on the Autograph while turning the Autograph's power on. The following display will appear.

```
WARNING:RESET OF Automate MEMORY
        PROCEED WITH CAUTION!!!
```

Now simultaneously press the left and right cursor keys. The display will change to:

```
EXECUTE    RESET Automate 2 MEMORY
EXIT       Use UP or DOWN keys to Select
```

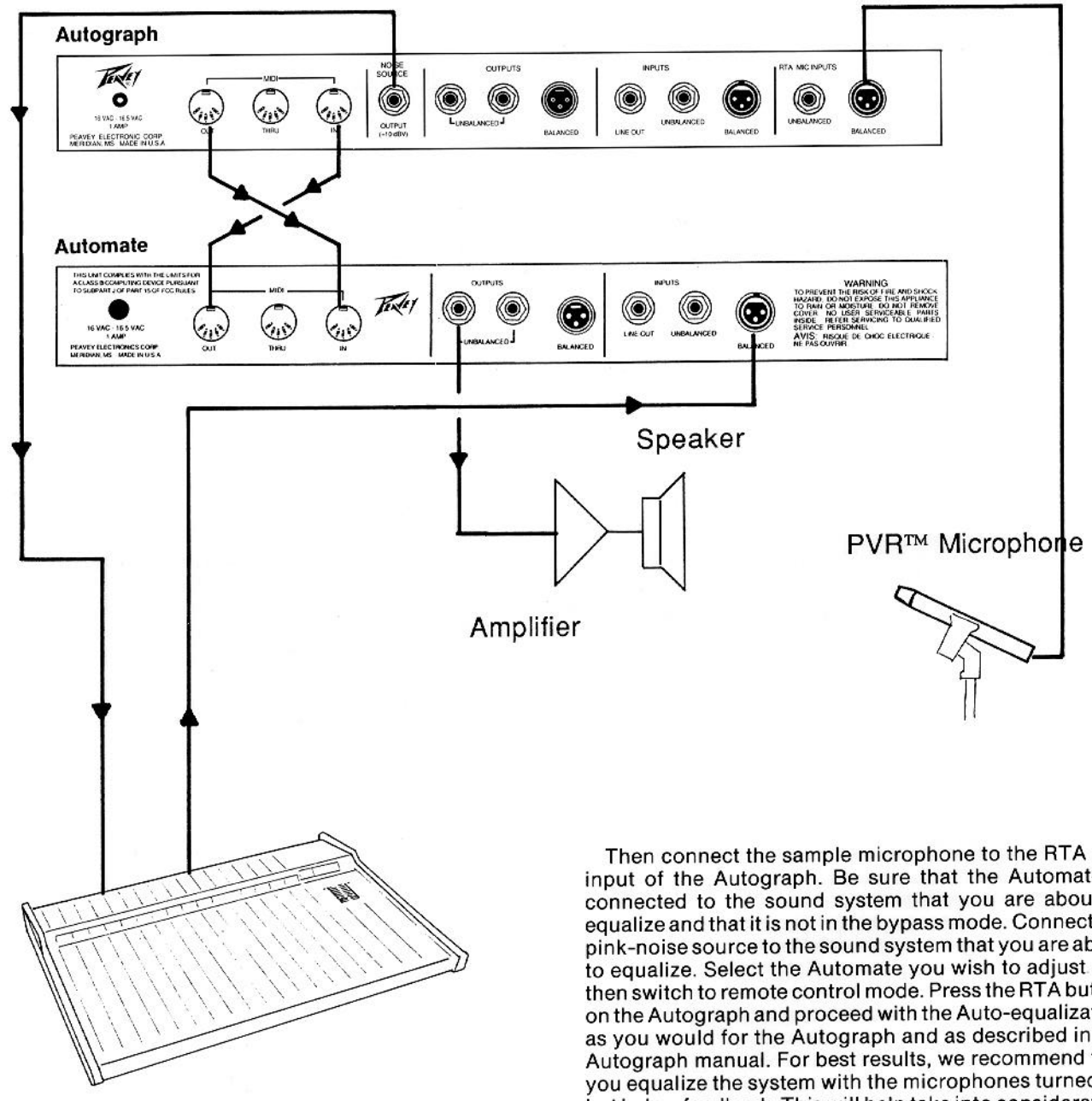
Use the up or down cursor keys to select the number of the Automate to reset.

Press the EXECUTE soft key (top soft key) to perform the memory reset. Pressing the EXIT soft key aborts reset.

8. RTA EQUALIZATION USING THE AUTOGRAPH AND AUTOMATE

The RTA built into the Autograph can be used to remotely equalize a sound system with the Automate. The RTA and auto-equalization functions look identical to those for the Autograph alone, but the Automate is actually adjusted instead of the Autograph. First, connect the Autograph and Automate as shown below.

Figure 5



Then connect the sample microphone to the RTA mic input of the Autograph. Be sure that the Automate is connected to the sound system that you are about to equalize and that it is not in the bypass mode. Connect the pink-noise source to the sound system that you are about to equalize. Select the Automate you wish to adjust and then switch to remote control mode. Press the RTA button on the Autograph and proceed with the Auto-equalization as you would for the Autograph and as described in the Autograph manual. For best results, we recommend that you equalize the system with the microphones turned on but below feedback. This will help take into consideration the affect of acoustic interaction between the microphones and speakers on the system's frequency response.

After completing the equalization of the system with the Automate, press the EQ button to examine the resulting curve. If some bands are set to large amounts of boost, you may wish to cut them manually before proceeding to store the curve. You should pay particular attention to the lowest and highest frequency bands. If all looks well, then store the curve in one of the 128 presets. If you plan on using the front panel recall feature on the Automate, be sure to store the curve in one of the locations that the front panel can access. For the recall of two preset curves mode, it must be stored in locations 1 or 2. For the recall of 4 preset curves mode, it must be in 1, 2, 3, or 4. For recall of 8, it must be stored in 1 to 8.

IV. THE AUTOMATE TRACKS THE AUTOGRAPH

1. DESCRIPTION

In this mode of operation, the Automate will always have the same EQ curve as the Autograph it's connected to. As the EQ curve is manually adjusted, the same changes will be made in the Automate. This mode can be useful for stereo operation when you want to equalize both channels the same to maintain proper stereo imaging.

2. CONNECTIONS AND SETUP

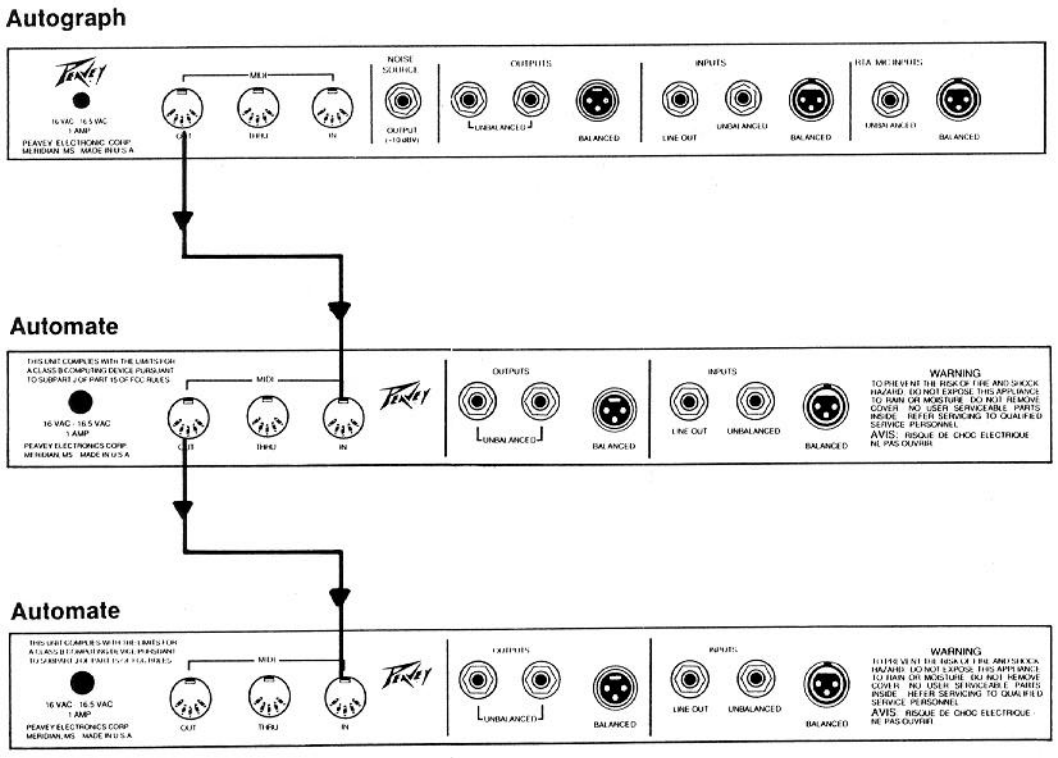
Connect the MIDI output of the Autograph to the MIDI input of the Automate.

Set both the Autograph and Automate to the same MIDI channel, or set the Automate to the OMNI receive mode.

Set the Autograph to send MIDI program change and controller change messages. The Automate must also be set to receive these messages.

Be sure that both the Autograph and Automate have the EQ sliders and MIDI switches set to the same MIDI controller numbers.

Figure 6



NOTE: The Autograph and Automate are set up, ready for communication from the factory.

Now, as you manually adjust an EQ slider on the Autograph, the same change is being made on the Automate. You can confirm that the Automate is getting the messages if the Automate display changes to 3 bars when an EQ change is made.

What we have not yet considered is that the two equalizers may contain different EQ curves when we start. Each time an EQ band is adjusted on the Autograph, the corresponding band on the Automate will be set the same. However, if you don't adjust all bands of the equalizer, then the unadjusted bands may be set differently. It is best to either set both equalizers flat or recall identical curves before starting manual adjustment.

We also must consider what happens when a curve is recalled on the Autograph. Performing a recall on the Autograph causes the corresponding preset on the Automate to be recalled. But if the Autograph and Automate have different curves stored in their preset memories, the two EQ curves will be different. The best way to solve these problems is to dump the desired preset curves (or ALL presets) via a system exclusive dump from the Autograph to the Automate. Then recall one of those curves to assure that both units have the same EQ settings. If you create a new curve and store it in the Autograph, be sure to remember to also dump the preset containing the new curve to the Automate.

If you want additional Automates to track the master Autograph, connect each in turn to the MIDI output of the previous Automate. Taking the signal from the Automate's MIDI output instead of its thru keeps the MIDI signal from deteriorating as multiple units are added.

AUTOMATE™ SPECIFICATIONS

All specifications are typical unless otherwise noted.
0 dBV = 1 Volt

All specifications are referenced to nominal output level
(0 dBV) unless otherwise noted.

All measurements are wideband 20 Hz to 20 kHz unless otherwise stated.

NOTE: All specs measured at 1V RMS input and unbalanced output. All sliders at mid position, all switches out unless otherwise noted.

Frequency Response: (Balanced and Unbalanced Outputs)
+/- 1 dB 20 Hz - 20 kHz

Distortion:
Less than .01% (20 - 20K) .005% Typical

Common Mode Rejection Ratio (CMRR):
36 dB Typical

Input Impedance:
Unbalanced: 20K ohms
Balanced: 20K ohms (equal impedances to ground)

Output Impedance:
Unbalanced: 1K ohms
Balanced: 2K ohms

Maximum Input Level:
Unbalanced: +23 dBV (14V RMS)
Balanced: +23 dBV (14V RMS)

Maximum Output Level:
Unbalanced: +17 dBV (7V RMS)
Balanced: +23 dBV (14V RMS)

Nominal Input Level:
Unbalanced: 0 dBV (1V RMS)
Balanced: 0 dBV (1V RMS)

Nominal Output Level:
Unbalanced: 0 dBV (1V RMS)
Balanced: +6 dBV (2V RMS)

Input Headroom:
Nominal = 23 dB

Output Headroom:
Unbalanced: 17 dB
Balanced: 17 dB

Output Noise: Unbalanced Output
EQ Out: -95 dBV
EQ In, all Flat: -90 dBV

Filter Bandwidth:
1/3 Octave

Filter Frequencies:
31.6, 40, 50, 63, 80, 100, 125, 160, 200, 250, 316, 400, 500, 630, 800, 1K, 1.25K, 1.6K, 2K, 2.5K, 3.16K, 4K, 5K, 6.3K, 8K, 10K, 12.5K, 16K

Filter Q:
4.77
40 Hz to 12.5 kHz

Shelving Filters:
32 Hz and 16 kHz are 12 dB octave

Maximum Boost & Cut Filters:
+/- 12 dB (+/- 12 dB Position)
+/- 6 dB (+/- 6 dB Position)

Maximum Boost & Cut Gain: (WideBand Gain)
+/- 12 dB (+/- 12 dB Position)
+/- 12 dB (+/- 6 dB Position)

Subsonic Low Cut Filter:
18 dB per octave

Frequency:
40 Hz

DANGER

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS, BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.
THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL dBA, SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.
EAR PLUGS OR PROTECTORS IN THE EAR CANALS OR OVER THE EARS MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS AS SET FORTH ABOVE. TO INSURE AGAINST POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFICATION SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

CAUTION

THIS MIXING CONSOLE/EFFECTS DEVICE/PREAMP HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE SIGNAL (VOLTAGE) FOR PLAYING MODERN MUSIC. IMPROPER USE OF THE GAIN/EQUALIZER CONTROLS AND/OR IMPROPER USE OF INTERNAL/EXTERNAL BUSSES **MAY** CREATE CLIPPING (SQUARE WAVES) AND POSSIBLY CAUSE SUBSEQUENT DAMAGE TO THE LOUDSPEAKER SYSTEMS. EXTENDED OPERATION OF THE GAIN/EQUALIZATION CONTROLS IN THEIR MAXIMUM POSITIONS IS THEREFORE **NOT** RECOMMENDED. PLEASE BE AWARE THAT **MAXIMUM POWER** CAN BE OPTAINED WITH VERY LOW SETTINGS OF THE **GAIN/EQUALIZATION** CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

IT IS COMMON PRACTICE AMONG USERS OF SOUND REINFORCEMENT EQUIPMENT TO IDENTIFY THE INDIVIDUAL CHANNELS WITH A STRIP OF TAPE PLACED ABOVE OR BELOW THE ROW OF VOLUME FADERS. MANY TYPES OR BRANDS OF TAPE HAVE A VERY STRONG ADHESIVE WHICH CAN INHIBIT THE PAINT ON THE FACEPLATE AND ACTUALLY REMOVE THE PAINT WHEN THE TAPE IS REMOVED. WE STRONGLY RECOMMEND THAT SCOTCH TAPE NOT BE USED ON PAINTED SURFACES NOR ANY OTHER TAPE THAT IS NOT ESPECIALLY DESIGNED FOR SUCH APPLICATIONS. MEDIUM OR LIGHT ADHESIVE MASKING OR MIXER LABEL TAPE IS RECOMMENDED IF TAPE IS USED. ANY TAPE LEFT ON PAINTED SURFACE FOR EXTENDED PERIODS WILL BE DIFFICULT TO REMOVE. NEVER USE CLEAR OR SCOTCH TAPE FOR THESE APPLICATIONS.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
    A. The power supply cord or plug has been damaged.
    B. Anything has fallen or been spilled into the unit.
    C. The unit does not operate correctly.
    D. The unit has been dropped or the enclosure damaged.
16. The user should not to attempt to service this equipment. All service work should be done by a qualified service technician.

MODEL **MIDI Implementation** **Date: Sept. 1989**
Version: 1.01

Function. . .		Transmitted	Recognized	Remarks
Basic Channel	Default Channel	1 1-16	1 1-16	
Mode	Default Messages Altered		1,3	memorized Omn; on/off
Note Number	True Voice			
Velocity	Note ON Note OFF	X X	X X	
After Touch	Key's Ch's	X X	X X	
Pitch Bender		X	X	
Control Change		O	0-120 0 Volume 1 Band 1 (32Hz) " " 28 Band 28 (16kHz) 64 Subsonic Filter on/off 65 EQ Range 6/12dB	Programmable EQ Vol., Bands 1-28 Programmable as a block Subsonic, EQ Range Individually Programmable Controller value 0 to 63; off 64 to 127; on 0 to 63; 6dB 64 to 127; 12dB
Prog Change	True #	O	0-127	
System Exclusive		O	O	
System Common	: Song Pos : Song Sel : Tune	X X X	X X X	
System Real Time	: Clock : Commands	X X	X X	
Aux Messages	: Local ON/OFF : All Notes Off : Active Sense : Reset	X X X X	X X X X	
Notes				

Mode 1: OMNI ON, POLY
Mode 2: OMNI ON, MONO
Mode 3: OMNI OFF, POLY
Mode 4: OMNI OFF, MONO

O: Yes
X: No

THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.
Ces clauses de garantie ne sont vaiables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixees par le distributeur national et assuree par lui selon la legislation en vigueur.
Diese Garantie ist nur in den USA and Kanada gultig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen.
Esta garantia es valida solamente cuando el producto es comprado en E.U. continentales o en Canada. Todos los productos que sean comprados en el extranjero, estan sujetos a las garantias y servicio que cada distribuidor autorizado determine y ofrezca en los diferentes paises.

ONE-YEAR LIMITED WARRANTY/REMEDY

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) year from date of purchase, PROVIDED, however that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions and limitations hereinafter set forth:

PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions and limitations hereinafter set forth.

CONDITIONS, EXCLUSIONS AND LIMITATIONS OF LIMITED WARRANTIES

These limited warranties shall be void and of no effect if:

a. The first purchase of the product is for the purpose of resale; or
b. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
d. The serial number affixed to the product is altered, defaced or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will:

a. In the case of tubes or meters, replace the defective component without charge;
b. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option;
and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

In order to obtain service under these warranties, you must:

a. Bring the defective item to any AUTHORIZED PEAVEY DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product.
If the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.

OR

b. Ship the defective item, prepaid, to:

PEAVEY ELECTRONICS CORPORATION
International Service Center
Highway 80 East
MERIDIAN, MS 39301

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items:
If the defect is remedial under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Peavey's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of $500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment.

UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESS, LIMITED WARRANTIES, AS HEREINABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESS WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

In the event of any modification or disclaimer of express or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

INSTRUCTIONS — WARRANTY REGISTRATION CARD

1. Mail the completed WARRANTY REGISTRATION CARD to:

PEAVEY ELECTRONICS CORPORATION
POST OFFICE BOX 2898
MERIDIAN, MISSISSIPPI 39302-2898

   a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. **There will be no identification card issued by Peavey Electronics Corporation.**
2. IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESS:
   a. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.
   b. Notice of address changes — If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.
3. You may contact Peavey directly by telephoning (601) 483-5365.
4. Please have the Peavey product name and serial number available when communicating with Peavey Customer Service.

Features and specifications subject to change without notice.

Peavey Electronics Corporation / 711 A Street / Meridian, MS 39302-2898 / U.S.A. / (601) 483-5365 Telex: 504115 / Fax: 484-4278
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