

Hughes & Kettner MSM-1 User Manual

Note: These instructions were written specifically for the Hughes & Kettner ATTAX preamp, but they apply equally to the MIDI-upgradeable amps from Hughes & Kettner: the TriAmp head and combo, the TUBE 50 head/combo and TUBE 100 head, the ATTAX 100 and ATTAX 200 heads and combo amps, and the BassBase 600 head. More [general installation instructions](#) follow this document.

Installation

1. [Connections and Control Features](#)
2. [MIDI Functions](#)
3. [Standard Setup and Cable Connections](#)
4. [Short Instructions](#)

Operation

1. [Selecting MIDI Channels and the Omni Mode](#)
2. [Storing Your Presets](#)
3. [Activating Stored Presets via MIDI](#)

Additional MIDI Setups

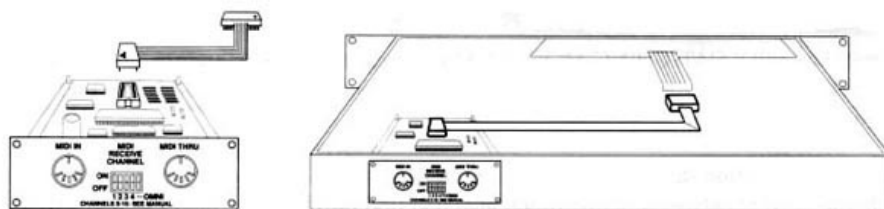
Troubleshooting

INSTALLATION PROCEDURE: MSM-1 into the ATTAX PREAMP

The ATTAX and the MSM-1 MIDI SWITCHING MODULE are electronic devices that operate on AC power. If you are not qualified to install the MSM-1, you are risking a potentially life-threatening electric shock. Do yourself a favor and ensure you leave the installation to an authorized dealer only, both a safety and a warranty requirement. It takes just a few minutes, and it is well worth waiting for.

Proceed as follows:

- Switch the ATTAX off.
- Remove the AC mains power cord from the back of the unit.
- Remove the four screws from rear panel cover plate and then remove the cover plate.
- Remove the screws from the top of the chassis.
- Lift the chassis cover off.
- Insert the MSM-1 in the module chamber and fasten it to the chassis using the four screws. Ensure the electronic components and the module inscriptions are facing up.
- Connect the MSM-1 to the ATTAX by carefully plugging the ribbon cable's connectors to the appropriate socket. Note the markings on the connectors and ensure they face the grooved portion of the socket when you plug the connectors in.

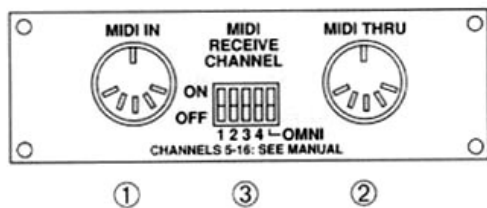


- Ensure the connector fits snugly and the connector markings match the socket's grooved portion.

Check all connections carefully. Then:

- Replace and fasten the chassis cover.
- Plug in the AC mains cable. Switch on the power.
- Press all front panel buttons, one after the other, to make sure the ATTAX functions properly.
- The ATTAX should respond to each button as it did before you installed the module (refer to the ATTAX manual).
- Follow the steps described in [Short Instructions](#) to ensure that the MSM-1 functions properly.

CONNECTIONS AND CONTROL FEATURES



1. MIDI IN JACK

The MIDI IN jack is designed to receive MIDI data. Any device capable of generating MIDI data can be connected here via its MIDI OUT jack. In most cases, a MIDI FOOT CONTROLLER or MIDI EFFECTS UNIT is the device you will use.

2 MIDI THRU JACK

The MIDI THRU jack is used if you want to relay incoming MIDI messages to an additional MIDI device, e.g. an effects processor. Simply connect the device's MIDI IN to the MSM-1's MIDI THRU. This enables you to address the ATTAX and one or more additional devices via a single MIDI command.

3 MIDI RECEIVE CHANNEL SWITCH

This five-way DIP switch determines on which MIDI channels the MSM-1 receives MIDI messages. You can select a single CHANNEL (1 through 16), or all MIDI CHANNELS at once.

MIDI LEARN BUTTON (front panel)

The MIDI LEARN BUTTON on the ATTAX front panel is operable after the MSM-1 is installed, and is used to assign ATTAX channel/effects combinations to various memory locations.

MIDI FUNCTIONS

MIDI is the abbreviation for Musical Instrument Digital Interface. MIDI is an international standard in which musical information, to include sound parameter changes, is translated to digital data and sent to various instruments, e.g. amps, effects devices, keyboards, etc.

The MSM-1 can process MIDI commands containing sound changes, i. e. messages that change the ATTAX channel/effects loop settings. These commands are referred to as MIDI PROGRAM CHANGE MESSAGES. They consist of a MIDI CHANNEL NUMBER and a MIDI PROGRAM number.

MIDI CHANNEL NUMBER

A typical guitar rack can contain several MIDI capable devices. You must assign each device a specific MIDI CHANNEL NUMBER to ensure the message is addressed to the right device. 16 MIDI CHANNELS (1 through 16) are available. For instance, if you assign MIDI CHANNEL NUMBER 7 to the MSM-1 (refer to Section 2.1), then the module reacts exclusively to commands addressed to MIDI CHANNEL 7.

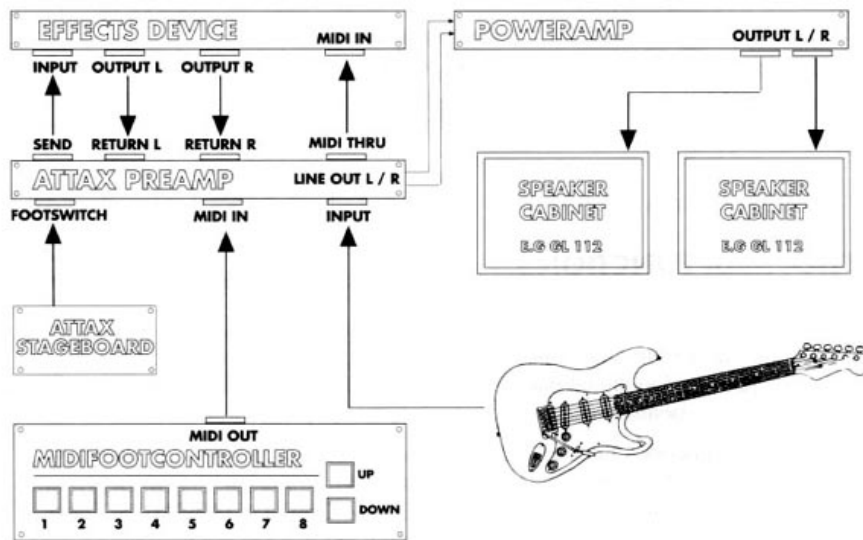
OMNI MODE

If you want to address several devices in your rack simultaneously, switch on the OMNI MODE for each device. All devices will then ignore the MIDI CHANNEL NUMBERS and respond to MIDI commands on all CHANNELS. Refer to Section 2.1 for information on how to select the MSM-1 OMNI MODE.

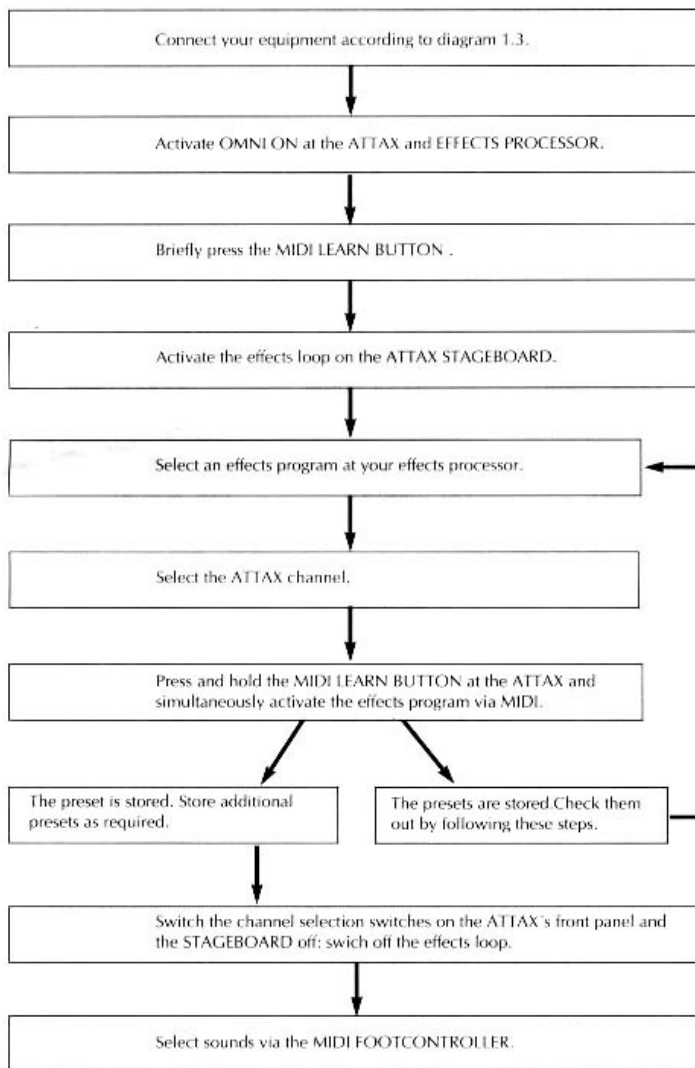
EXAMPLE

The MSM-1 is set to MIDI CHANNEL 3. A MIDI command containing a "MIDI CHANNEL 3/PROGRAM NUMBER 17" message is sent. The MSM-1 responds by activating the channel and effects loop combination saved on preset 17.

STANDARD SET-UP / CABLE CONNECTIONS



INSTRUCTIONS - THE SHORT FORM 1.4



OPERATING THE ATTAX VIA MIDI

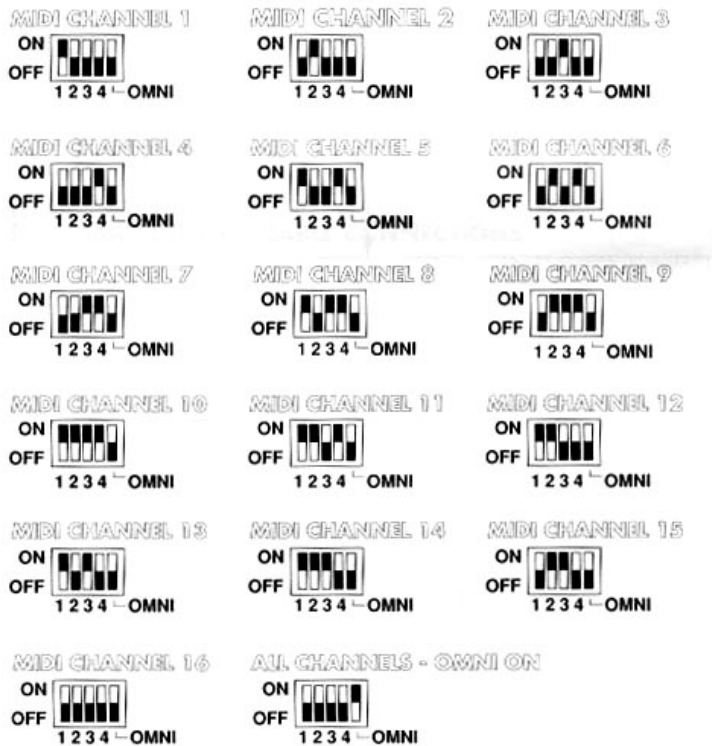
SELECTING MIDI CHANNELS AND THE OMNI MODE

Use the five-way DIP switch to select the MIDI CHANNEL and the OMNI MODE. Switch settings 1-4 determine the MIDI CHANNEL; the fifth switch is the OMNI OFF/ON switch. The OMNI ON setting ensures the ATTAX receives MIDI data on all MIDI CHANNELS, regardless of how

switches 1-4 are set.

Note: Ensure the OMNI switch is set to OFF when you want the ATTAX to receive MIDI data on a single MIDI CHANNEL (1-16).

THE FOLLOWING DIP SWITCH SETTINGS ACTIVATE THE RESPECTIVE MIDI CHANNEL:



STORING PRESETS

Once you have selected the desired MIDI CHANNEL or OMNI settings, you can start storing presets (channel/effects loop combinations).

Store presets by activating the desired channel/effects loop combinations manually or via the STAGEBOARD while simultaneously pressing the MIDI LEARN BUTTON. The ATTAX responds to PROGRAM CHANGE MESSAGES it receives.

We recommend you use the MIDI LEARN MODE when you want to assign numerous effects programs as ATTAX presets. This mode enables you to quickly store presets without having to repeatedly press the MIDI LEARN BUTTON (refer to the next page under the "Storing Several Presets" heading).

Note: If you want the stereo effects loop active in all MIDI switching operations, you can activate it via the ATTAX STAGEBOARD. Then you don't need to store the effects loop switching data for each preset.

STORING A PRESET

- Briefly press the MIDI LEARN BUTTON.
- Activate the parallel effects loop via the ATTAX STAGEBOARD.
- Select the desired effects program and dial in the desired FX-MIX setting.
- Determine the desired preamp sound via the front panel control features or the STAGEBOARD.
- Press the MIDI LEARN BUTTON again, but this time hold it down.
- Send the PROGRAM CHANGE MESSAGE via the MIDI FOOT CONTROLLER. In other words, select the active effects program again via MIDI.
- The preset is now stored. You can call it at any time via MIDI the ATTAX settings
- are modified to correspond to the preset data you just entered. Press the MIDI LEARN BUTTON again and repeat the above procedure to store additional presets.

Note: Before you can call your stored presets, you must ensure the channels selector switches on the ATTAX's front panel and on the STAGEBOARD are set to OFF (not depressed).

STORING SEVERAL PRESETS - THE MIDI LEARN MODE

This operating mode enables you to successively store a number of presets without requiring you to press the MIDI LEARN BUTTON every time. Every PROGRAM CHANGE MESSAGE the ATTAX receives ensures the current channel/effects loop combination is automatically stored as a

preset.

- Switch the ATTAX off, press and hold the MIDI LEARN BUTTON.
- Switch the ATTAX on while continuing to hold the MIDI LEARN BUTTON.
- Release the MIDI LEARN BUTTON. The ATTAX is now in the MIDI LEARN MODE.
- Select the desired effects program, ATTAX preamp sound and parallel effects loop.
- Send the PROGRAM CHANGE MESSAGE via the MIDI FOOT CONTROLLER. In other words, select the active effects program again via MIDI.
- The sound you select manually or via the STAGEBOARD is stored as a preset and assigned to the selected effects program. If you want to change the preset, use the ATTAX front panel control features or the STAGEBOARD to modify the preset and again activate the effects program via MIDI FOOT CONTROLLER.
- You can immediately select another effects program and thus store other switching combinations as presets.

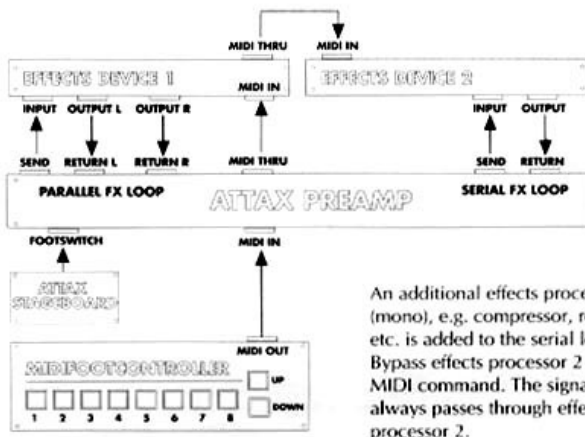
End the programming operation by briefly pressing the MIDI LEARN BUTTON.

Note: Before you can call your stored presets, you must ensure the channel selector switches on the ATTAX front panel and on the STAGEBOARD are set to OFF (not depressed).

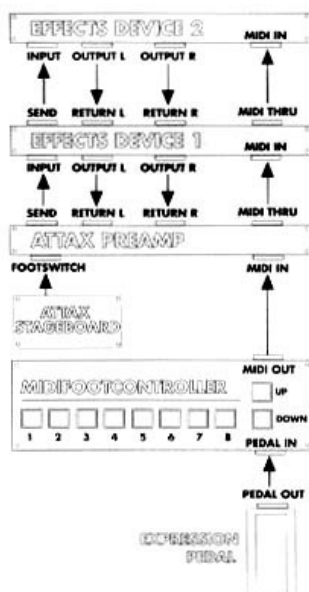
ACTIVATING STORED PRESETS VIA MIDI

- Switch the ATTAX on.
- Ensure the MIDI CHANNEL setting is identical for the ATTAX, the effects processor, and the MIDI FOOT CONTROLLER
- Ensure the channel selector switches on the ATTAX's front panel and on the STAGEBOARD are set to OFF (not depressed).
- Ensure the STAGEBOARD LEDs are not illuminated and the effects loop is inactive.
- Now the ATTAX control features are switched according to the data in the stored presets.
- Briefly press the MIDI LEARN BUTTON if you want to return to the front panel/STAGEBOARD switching mode once the ATTAX was switched via MIDI.

ADDITIONAL MIDI SETUPS 3.0



An additional effects processor (mono), e.g. compressor, reverb, etc. is added to the serial loop. Bypass effects processor 2 via a MIDI command. The signal always passes through effects processor 2.



An additional effects processor (stereo) is added to effects processor 1's loop. Select the effects processor BYPASS via MIDI. Use the FX switching programs to bypass both effects processors for a dry ATTAX sound.

The ATTAX MIDI THRU jack relays all MIDI data, thus allowing MIDI CONTROL CHANGE MESSAGES to be sent on to the effects processors. You can then use an EXPRESSION pedal to continuously change parameters in the effects processors.

TROUBLESHOOTING

1) THE MSM-1 IS INSTALLED, BUT YOU CAN'T SWITCH THE ATTAX VIA MIDI.

- The external device is set to the wrong MIDI channel -> Set the MIDI channel as described in Sec. 2.1 or activate the omni mode.
- No presets are stored -> Store presets as described in Section 2.1
- No PROGRAM CHANGE MESSAGES are sent to the ATTAX -> Check to see if the external device is actually sending PROGRAM CHANGE MESSAGES.
- The MIDI cable is defective -> Replace the cable and connect the devices as described in section 1.3

2) THE CLEAN AND/OR CRUNCH CHANNELS WILL NOT ACTIVATE PROPERLY VIA MIDI

- The channel selector switches on the front panel or Stageboard are still active -> Switch the appropriate front panel or Stageboard channel selector switches off.

3) THE PARALLEL EFFECTS LOOP REMAINS ACTIVE WHEN YOU SWITCH THE EFFECT LOOP VIA MIDI, EVEN THOUGH THE PROGRAMMING DOES NOT CALL FOR AN ACTIVE PARALLEL LOOP.

- The ATTAX Stageboard FX switch is active. -> Briefly press the MIDI LEARN BUTTON. If the corresponding LED on the Stageboard lights, then the FX switch is active. Switch it off.

4) THE EFFECTS LOOP IS ACTIVE, BUT NO EFFECTS ARE AUDIBLE.

- The FX-MIX pot is rotated to the dry position -> Dial in more effects signal to the mix.
- The effects processor's send and return jacks are not currently connected to the ATTAX -> Correct the cable connections.

5) AFTER YOU SWITCHED THE ATTAX VIA MIDI, YOU CAN'T ACTIVATE THE CRUNCH AND/OR CLEAN CHANNELS VIA THE FRONT PANEL OR STAGEBOARD SWITCHES. DITTO FOR THE EFFECTS LOOP.

- The ATTAX is not in the standard operating mode (CLEAN channel, effects loops "OFF") -> Press the MIDI LEARN BUTTON or Briefly switch the attax off.

6) THE ATTAX REVERTS BACK TO THE STANDARD MODE DURING MIDI SWITCHING OPERATIONS (CLEAN CHANNEL, EFFECTS LOOP "OFF"). THE EFFECTS LOOP IS SUDDENLY DEACTIVATED.

- The AC mains power supply was interrupted. -> Check the mains cable, plug, and all extension chords for defects.

MSM-1 MIDI MODULE INSTALLATION

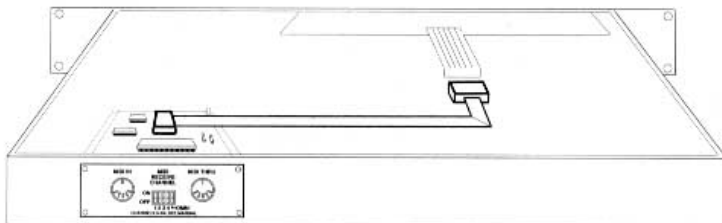
I. GENERAL INFORMATION

The MSM-1 MIDI Module is designed for installation in Hughes & Kettner products. These devices each feature a port located on its rear panel. A plate bearing the inscription "TO INSTALL MIDI MODULE:..." covers the port. In order to install the MSM 1, this cover plate must be removed so that the device's circuit board becomes accessible (refer to Sections II. and III.).

The MSM 1 is connected to your device via the included cable. This cable is the MSM I's power conduit. It is also the communications medium for the two devices: it relays your amp's operating status to the MSM-1 and sends switching information.

Ensure only authorized service personnel install the MSM 1.

Always ensure the AC mains plug is removed from the wall socket before opening the main device's chassis.



II. INSTALLATION IN 19" DEVICES (e.g. ATTAX Preamp or TUBEMAN PLUS)

1. Unplug the AC mains lead.
2. Remove the cover plate by loosening the four retainer screws.
3. Remove the 19" device's chassis cover by loosening its retainer screws.

4. Insert the MSM 1 MIDI Module in the open port. Ensure the inscription on the module matches the rear panel inscriptions, i.e. the module is right side up. Insert and fasten the four cover plate screws to secure the module.
5. Insert the included flat cable connector plug in the MSM I's socket so that the colour-coded wire faces the notch on the socket.
6. The device's circuit board features an identical socket. Insert the other flat cable



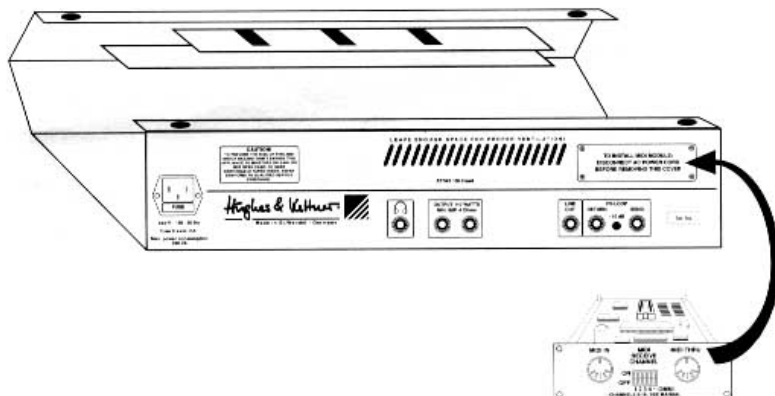
IC-socket with marker notch

connector in this socket in the same manner, i.e. so that the color-coded wire faces the notch on the socket.

7. Ensure both connectors are seated properly. Replace the chassis cover and fasten the retainer screws.
8. All MIDI functions are accessible once the device is powered up. Run through all switching operations to ensure the device is functioning properly.

INSTALLATION IN AMPS/COMBOS (e.g. ATTAX 100, ATTAX 200)

1. Unplug the amp's AC mains lead.
2. Remove all connectors (e.g. spring reverb or speakers).
3. Remove the amp's chassis by loosening the retainer screws at the top of the amp. Do not allow the chassis to drop.
4. Remove the port's cover plate on the chassis' rear panel.
5. Insert the MSM 1 MIDI Module in the open port. Fasten the four cover plate screws to secure the module. Ensure the inscription on the module matches the rear panel inscriptions, i.e. the module is right side up.



6. Insert the included flat cable connector plug in the MSM I's socket so that the color-coded wire faces the notch on the socket.
7. The amp's circuit board features an identical socket. Insert the other flat cable connector in this socket in the same manner, i.e. so that the color-coded wire faces I the notch on the socket.



IC-socket with marker notch

8. Ensure both connectors are seated properly.
9. Remount the amp chassis to the housing and secure all cable connections (e.g. spring reverb, speakers, AC mains).
10. All MIDI functions are accessible once the amp is powered up. Run through all switching operations to ensure the amp is functioning properly.

