

DMX MIDI/MEMORY EXPANSION

The DMX MIDI/MEMORY EXPANSION expands the system capability of your Oberheim DMX Drum Machine by adding MIDI input, MIDI output and increasing the total events to 7000.

INSTALLATION

You will need to take your DMX MIDI/MEMORY EXPANSION to an Oberheim Authorized Service Center for installation. Although the procedure is not difficult, installation must be performed by an Authorized Service Center in order to register the Warranty. You will invalidate your Warranty if your DMX MIDI/MEMORY EXPANSION is installed by anyone other than an Oberheim Authorized Service Center.

To obtain Warranty protection for your DMX MIDI/MEMORY EXPANSION, do the following:

1. Take your DMX Drum Machine, DMX MIDI/MEMORY EXPANSION and the Warranty Certificate on page ** to your nearest Oberheim Authorized Service Center. A current roster is included in your DMX MIDI/MEMORY EXPANSION Owner's Packet.
2. The installation of your DMX MIDI/MEMORY EXPANSION is **not** included in the purchase price. The Service Center performing the work will charge you an installation fee. The Warranty that you will obtain by having your DMX MIDI/MEMORY EXPANSION installed at an Authorized Service Center will cover parts and labor for one year should your DMX MIDI/MEMORY EXPANSION require servicing in the future.
3. When your DMX MIDI/MEMORY EXPANSION has been installed, the service technician who performed the work must complete the lower portion of the Warranty Certificate.
4. After you receive your rev. 4 DMX from the Service Center, you must complete the upper portion of the certificate and mail it to:

OBERHEIM

A Division of E.C.C. Development Corporation
2230 South Barrington Avenue
Los Angeles, CA 90064

5. When your Warranty has been registered, we will send you notification by mail. Please allow 6 to 8 weeks for delivery. If your DMX MIDI/MEMORY EXPANSION requires servicing before you receive this notification, simply present the installation receipt and the Warranty will be honored.
6. Should your DMX MIDI/MEMORY EXPANSION need servicing, do not attempt repairs yourself. Refer to the section in the back of this manual titled IF YOU HAVE A PROBLEM and contact the Service Center that performed the installation. You have certain rights and responsibilities under the Oberheim Limited Warranty and we strongly recommend that you read this chapter thoroughly.

The DMX rev.4 software provides new operational features. Some of these features are new; some were added with rev. 3. To clarify all the features we will assume you do not have rev. 3, but will note the changes in edit modes available in rev. 3 but removed in rev. 4.

DIFFERENCES BETWEEN REV.3 AND REV.4 EDIT MODES

Revision 3	Revision 4	Revision 3	Revision 4
0 AUTO START OFF	0 AUTO START OFF	14 BAR NUM ON	14 SET DRUM OUTS
0 AUTO START ON	0 AUTO START ON	14 BAR NUM OFF	
1 NO SYNC INPUT	1 MIDI CLOCK	15 DISP CLICK ON	15 SET EXT TRIGS
1 SYNC IN ON	1 DMX CLOCK	15 DISP CLICK OFF	
1 SYNC IN OFF	1 EXT CLOCK 24		
1 AUTO/SYNC ON	1 EXT CLOCK 48		
	1 EXT CLOCK 96		
2 SYNC OUT ON	2 CLOCK OUT 24	16 CLICK ON ONE	16 RCV CHAN 1...
2 SYNC OUT OFF	2 CLOCK OUT 48	16 STEADY CLICK	
	2 CLOCK OUT 96		
3 REC COUNT ON	3 REC COUNT ON	17 SET PGMD CLICK	17 XMIT CHAN 1...
3 REC COUNT OFF	3 REC COUNT OFF		
4 PLAY COUNT ON	4 PLAY COUNT ON	18 SET DRUM OUTS	18 OMNI MODE ON
4 PLAY COUNT OFF	4 PLAY COUNT OFF		18 OMNI MODE OFF
5 PLAY CLIK ON	5 PLAY CLIK ON	19 SET EXT TRIGS	19 XMIT TIME ON
5 PLAY CLIK OFF	5 PLAY CLIK OFF		19 XMIT TIME OFF
6 CNT SIGNATURE	6 CNT SIGNATURE	20 PLY SWING OFF	20 MIDI ECHO OFF
6 CNT 4 CLICKS	6 CNT 4 CLICKS	20 PLY SWING ON	20 MIDI ECHO ON
7 BEATS/MIN	7 BEATS/MIN	21 SET SWING/FLAM	21 MIDI SONG ON
7 FRAMES/BEAT	7 FRAMES/BEAT		21 MIDI SONG OFF
8 SONG LOOP ON	8 SONG LOOP ON	22 PLAY FLAM OFF	22 SET MIDI DRUM
8 SONG LOOP OFF	8 SONG LOOP OFF	22 PLAY FLAM ON	
9 VAMP ON	9 PROGRAM TEMPO	23 LONG FLAM ON	23 TRANSPOSE
9 VAMP OFF	9 MANUAL TEMPO	23 LONG FLAM OFF	
10 PROGRAM TEMPO	10 SONG TIME ON		
10 MANUAL TEMPO	10 SONG TIME OFF		
11 BEEP ON	11 BAR PLUS BEAT		
11 BEEP OFF	11 RUNNING STEP		
12 >REPEAT ON	12 CLICK ON ONE		
12 >REPEAT OFF	12 STEADY CLICK		
13 NORM RESPONSE	13 SET PGMD CLICK		
13 FAST RESPONSE			

REV. 4 EDIT MODES

- 0 AUTO START OFF When Auto-Start is OFF, the DMX will not detect external signals until you press PLAY.
- 0 AUTO START ON When Auto-Start is ON, external signals (EXTERNAL CLOCK or SYNC-TO-TAPE) will cause the DMX to enter play mode automatically. Because the DMX is always looking for a clock signal in this mode, any signal (even noise) that is present at the CLOCK IN or SYNC IN jacks will place the DMX in Play. This may cause occasional false starts. However, the DMX will not false start once the leader tone is present at SYNC IN. You can only Auto-Start from Select Sequence or Select Song modes.
- 1 MIDI CLOCK MIDI clock, when selected the clock source is received from MIDI at a rate of 24 clocks per 1/4 note.
- 1 DMX CLOCK DMX clock, when selected the internal clock source is used.
- 1 EXT CLOCK 24 External clock 24, when selected the clock source is external received at 24 clocks per 1/4 note.
- 1 EXT CLOCK 48 External clock 48, when selected the clock source is external received at 48 clocks per 1/4 note.
- 1 EXT CLOCK 96 External clock 96, when selected the clock source is external received at 96 clocks per 1 /4 note.
- 2 CLOCK OUT 24 Clock out 24, when selected the clock is sent from the DMX at 24 clocks per 1 /4 note.
- 2 CLOCK OUT 48 Clock out 48, when selected the clock is sent from the DMX at 48 clocks per 1 /4 note.
- 2 CLOCK OUT 96 Clock out 96, when selected the clock is sent from the DMX at 96 clocks per 1/4 note.
- 3 REC COUNT ON When record count is on there is a count down after selecting RECORD.
- 3 REC COUNT OFF When record count is off there is not a count down after selecting RECORD.
- 4 PLAY COUNT ON When play count is on there is a count down after selecting PLAY.
- 4 PLAY COUNT OFF When play count is off there is not a count down after selecting PLAY.
- 5 PLAY CLIK ON When play click is on the metronome is enabled to the mixed output.
- 5 PLAY CLIK OFF When play click is off the metronome is disabled to the mixed output. The back panel CLICK OUT is not affected.
- 6 CNT SIGNATURE When set to count signature the count down (both record and play) counts at the current signature. For example: if the current signature is 7/8, the count down would consist of seven eighth-note clicks.
- 6 CNT 4 CLICKS When set to count 4 clicks the count down is 4 clicks at the current click value.
- 7 BEATS/MIN When set to beats per minute the tempo will be displayed in beats/min.
- 7 FRAMES/BEAT When set to frames per beat the tempo will be displayed in frames/beat. This only affects the display and does not change the actual tempo.

- 8 SONG LOOP ON When song loop is on the song will repeat from the beginning.
- 8 SONG LOOP OFF When song loop is off the song will stop when reaching the end.
- 9 PROGRAM TEMPO When program tempo is selected, the tempo follows the programmed value for each sequence.
- 9 MANUAL TEMPO When manual tempo is selected, the tempo is under manual control. Note: the current tempo is always remembered when recording a sequence.
- 10 SONG TIME ON When song time is on the song time is displayed.
- 10 SONG TIME OFF When song time is off the song time is not displayed. This is useful with long songs. When calculating the time of a long song the DMX's response time will slow down.
- 11 BAR PLUS BEAT When bar plus beat is on the display will show the current bar and flash a decimal point at the click value (a star is flashed on beat 1 of a measure).
- 11 RUNNING STEP When running step is on the display will show the beat as current beat over current click value. Example: if the signature is 7/8 and the click is set to 1/16 notes, on beat 5, the display will read 10/16.
- 12 CLICK ON ONE When set to click on one there will always be a click on the first beat of the sequence. Sometimes this mode causes the click to be uneven. For example: One bar of 7/8 with 1 /4 note click.
- 12 STEADY CLICK When set to steady click, the click will function like a traditional metronome and will not restart on the down beat.
- 13 SET PGMD CLICK Holding down any combination of drums first, then pressing RECORD will cause a Click output in play, but only when that combination of drums occurs on the same beat. This allows the click to be used as a programmable trigger output. The normal steady metronome click will still be given in record mode. The click can be disabled entirely by pressing RECORD while Holding ERASE. Note: that this overrides all other click enables. Click can be set to Normal by hitting RECORD while holding no drums. Note: this affects the rear panel CLICK OUT as well as the mixed metronome.
- 14 SET DRUM OUTS Hitting a drum button while Holding RECORD enables the output for that drum. Hitting a drum button while Holding ERASE disables that drum. Holding RECORD while holding ERASE enables all the drums. Note: this affects only the audio, the drums can still be recorded and erased. Try using this with SET PGMD CLICK while driving an arpeggiator clock with the DMX.
- 15 SET EXT TRIGS Playing an external trigger while Holding a drum button assigns that drum to that trigger. Playing a trigger while Holding ERASE disables the trigger. Note: since this particular Edit Parameter does not allow triggers to be played accurately in real time, only use this mode to set triggers, not to play them.

- 16 RCV CHAN 1... This sets the MIDI channel the DMX will receive on. If OMNI Mode is ON the DMX will received on all channels.
- 17 XMIT CHAN 1... This sets the MIDI channel the DMX will transmit on.
- 18 OMNI MODE ON When OMNI mode is ON the DMX receives MIDI information on ALL 16 MIDI channels.
- 18 OMNI MODE OFF When OMNI mode is OFF the DMX receives only on the receive channel set with edit parameter 16.
- 19 XMIT TIME ON When on the DMX will send a MIDI clock out at a rate of 24 clocks per 1 /4 note.
- 19 XMIT TIME OFF When off the DMX does not send the MIDI clock.
- 20 MIDI ECHO OFF When off the DMX does not echo data received to it's MIDI out.
- 20 MIDI ECHO ON When on the DMX echoes any data that the DMX will accept to it's output. Example: the DMX will respond a Start song, this will be echoed to the output. The DMX does not respond to a Tune request, this will not be echoed.
- 21 MIDI SONG ON When on the DMX will change songs via MIDI command. The DMX must be stopped for the command to be accepted.
- 21 MIDI SONG OFF When off the DMX will not change.
- 22 SET MIDI DRUM On a MIDI drum machine, the drum buttons are transmitted as MIDI notes. This function allows you to set a MIDI note to a particular drum button. Playing a note into the MIDI IN while holding a drum button sets the note to that drum. Playing a note into the MIDI IN while holding ERASE sets the note not to play any drum. A drum can be programmed to several notes, but a note can only be programmed to one drum. These MIDI notes must be in a 32 note range. Pressing RECORD and COPY reset the notes to default settings. Pressing RECORD and ERASE clears all settings.
- 23 TRANSPOSE The range of the MIDI notes can be set with this parameter. Play a note into the MIDI IN while Holding RECORD. This will set the note to be the bottom of the 32 note range. The display will show the value.

NOTE: The phrase "any combination of drums" means any combination of up to 8 drums with a limit of one drum per voice. Thus pressing BASS 1 and BASS 2 has the same effect as only pressing BASS 3. On all columns of drum buttons, the lowest button has priority.

INTERFACE GUIDE

INSTRUMENT	EXTERNAL CLOCK DMX MASTER	EXTERNAL CLOCK DMX SLAVE	MIDI CLOCK DMX MASTER OR SLAVE
OBERHEIM			
Non-MIDI DX w/out Stretch	96	96	NO
Non-MIDI DX with Stretch	96, 48, 24	96, 48, 24	NO
MIDI DX with or w/o Stretch	96, 48, 24	96, 48, 24	YES
DMX	96	96	NO
DSX	96	96	NO
EMU			
Emulator II	24	24	NO
Drumulator	96	24	YES
FAIRLIGHT			
CMI (w/General Interface Card)	96	96	NO
KURZWEIL			
250	96	96	NO
LINN			
LinnDrum	48	96	NO
9000	48	48	YES
PPG			
Wave 2.3	NO	48	NO
ROLAND			
MSQ-700	NO	NO	YES
MSQ-100	NO	NO	YES
TR-909	NO	NO	YES
TR-707	NO	NO	YES
SEQUENTIAL			
SixTrak	96	NO	YES
DrumTracks	96	NO	YES
64 Sequencer	96	NO	NO
YAMAHA			
RX-15	96	96	YES
RX-11	96	96	YES
QX-1	NO	NO	YES
QX-7	NO	NO	YES