Oberheim Stretch

For DX Drum Machines

Owner's Manual
First Edition
May 1985

Congratulations!

The Stretch expands the sound capability of your Oberheim DX Drum Machine, by adding four additional voice channels, not unlike adding more inputs to a mixing console. Each of the new voices have quick change "ZIF" sockets[1], as well as individual outputs and tuning controls on the back of the Stretch. The Stretch voices appear along with the DX's main voices at the MIXED OUTPUTS of the DX, each with their own volume control.

If your DX does not already have MIDI, adding Stretch adds a MIDI Clock output, so that the StretchDX can synchronize other MIDI sequencers and drum machines. Stretch adds other features to your DX too, such as selectable external clock rates, programmable metronome, pre-record countdown, auto-start (when syncing to tape or other clock sources), etc. These new features are explained in the DX Owner's Manual (2nd Edition), that is included with your Stretch. Adding Stretch adds all of the features of the MIDI DX, except MIDI notes, and some other MIDI functions.
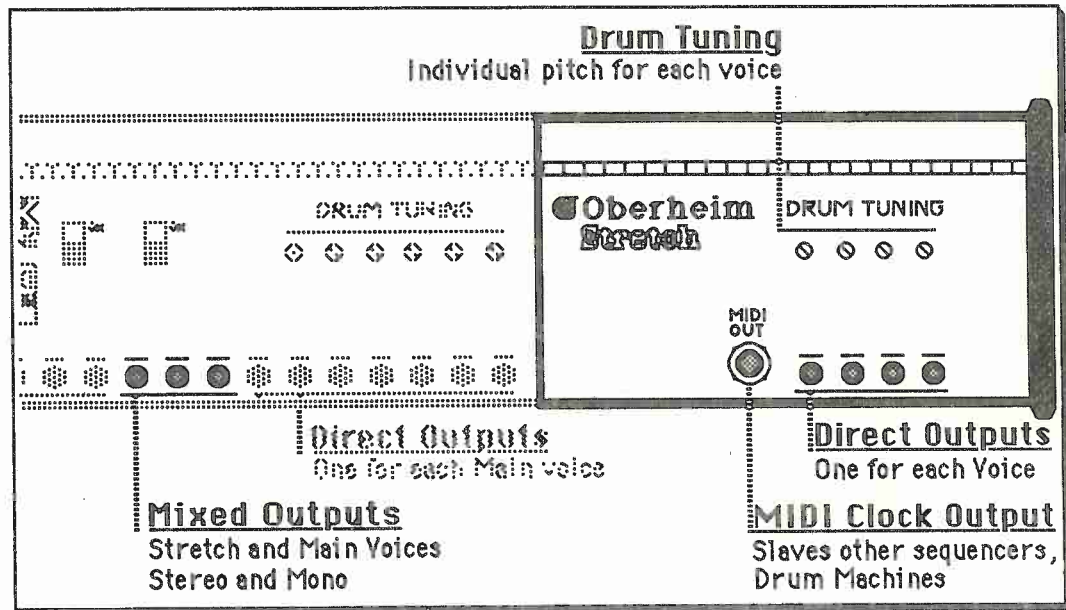
You'll Need:

INSTALLATION

By now, your Stretch should be connected to your DX, and you should have a single *Stretched* drum machine. If your Stretch is not yet connected, you will need to take it to an Authorized Oberheim Service Center for installation. A list of Authorized Service Centers is included with your Stretch.

REMEMBER: If your Stretch is not installed by an Authorized Oberheim Service Center, you will invalidate your Warranty.

SOUNDS

You will need sound chips to use in your Stretch. Your dealer should have already shown you the sounds available for the Stretch and DX. A list of sounds currently available from Oberheim is included in this guide. If your dealer is out of stock, you can order them direct from Oberheim or the distributor in your country.

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[1] Zero Insertion Force

Different Voices For Different Sounds

HARDWARE CONFIGURATIONS

The four Stretch voices are each configured a bit differently. This is so that the voice hardware can be optimized for a particular type and style of sound. These configurations are:

PERC1	PERC2	PERC3	PERC4
HIGH	SOFT	Sound1 HIGH	SOFT
MID	MED	Sound1 LOW	MED
LOW	LOUD	SOUND 2	LOUD *

* Second sound if jumpered for two chips. (see below)

All Oberheim Sound Chips for Stretch are identified with one of the following codes. These refer to the configurations of the voices as they come from the factory :

(P1) PERC1 / Used for Tom-Tom sounds. There is one sound on the chip, that plays with three different pitches when used in the PERC1 Voice, or the TOM Voice of the DX .

(P2) PERC2 / Designed for Snare Drums, and other sounds that utilize dynamics. One sound per chip that plays with three different volume levels in the PERC2 Voice of the Stretch, or the SNARE or BASS Voices of the DX..

(P3) PERC3 / Designed for percussion sound combinations, such as Cowbell / Rimshot. Two sounds per chip: one of them plays with two pitches when used in the PERC3 Voice of the Stretch, or two volumes when used in the PERC Voice of the DX.

(P4) PERC4 / One long sound on one larger-capacity chip, with three volume levels. Used for Cymbals. These chips will fit the CYMBAL Voice of a MIDI DX, as well as PERC4 of Stretch *if the jumper change suggested below is not implemented.* These chips are also identified by the "256" in their name.

NOTE FOR MIDI DX OWNERS:
You may wish to have your Service Center reconfigure your PERC4 Voice, by changing the jumpers as shown below. With this configuration, *two* P1 or P2 Sound Chips can be used in the PERC4 Voice *at the same time.* The top two buttons play one chip (with two volumes) while the bottom buton plays the other chip. This configuration is good for longer percussion sound combinations, such as CONGA + CONGA SLAP, or TIMBALE + TIMBALE RIM. Any two sounds with P1 or P2 designations can be used at once.

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│ Jumpers for two chips in PERC4:            │
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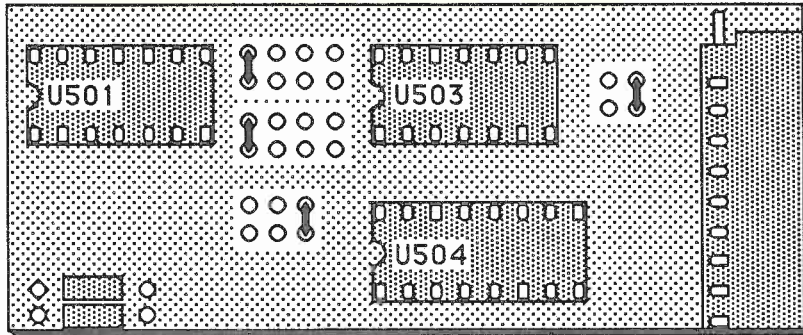

For more information about changing the configurations of the Stretch Voices, see the Stretch Service Manual.

The Limitation Of Stretch And Getting Around It

The four Stretch voices are paired with four of the DX's voices (HIHAT, TOM, CYMBAL, & PERC--not SNARE or BASS) for recording purposes, much the same as the grouping within each DX Voice. This means that the DX Voice and its paired Stretch Voice cannot be triggered at the *exact* same moment. However, the Voices can play within 1/192 note, and will ring out over each other.

While the DX Voice and its Stretch Pair can not play at the exact same moment, they can play together like a flam. Here's how:

> RECORD one of the Voices at the desired beat in the Sequence.
>
> Stop recording, and set the QUANTIZE to "OFF".
>
> Enter STEP mode, and use the arrow buttons to advance through the sequence until the previously recorded voice is heard.
>
> Press the desired button of the paired voice. This will record the paired voice 1/192 note after the original voice.

Oberheim DX Sound Chips
(May 1985)

TOMS
P1	DXTOM (Acoustic)
P1	ELECT TOM
P1	ROTOTOM

SNARE DRUMS
P2	FAT SNARE
P2	ELECT SNARE
P2	ELECT SNARE 2
P2	BEAT SNARE
P2	REGGAE SNARE

BASS DRUMS
P2	ELECT BASS
P2	BEAT KICK

HI-HATS
P2	ELECT HAT
P5	LONG HIHAT

CYMBALS
P5	LONG RIDE
P4	LONG RIDE 256
P5	HEAVY RIDE
P4	CRASH 256

PERCSSION
P1	CONGA
P1	CONGA SLAP
P1	TIMBALE
P1	RIMBALE RIM
P3	TAMB+RIMSHOT
P1	COWBELL
P2	BONES
P2	FINGER SNAP
P3	COWBELL+RIM

EFFECTS
P5	NOISE CRASH
P5	REVERSE SNARE/CLAP
P3	CLICK+CLAP
P3	SCRATCH
P2	SHOT
P3	PUNCH+ZAP

COMPATABILITY CHART

FITS:	STRETCH	MIDI DX	NON-MIDI DX	DMX
P1	PERC1	TOM	TOM	ELTOM
P2	PERC2	SNARE, BASS	SNARE, BASS	ELSNARE, ELKIK
P3	PERC3	PERC	PERC	SCRATCH
P4	PERC4	CYMBAL		
P5			CYMBAL	CYMBAL3, NOISE