DT-DPROG AND DT-DROM

User's Manual

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Document revisions

Date	Doc. revision	FW version	Change
29-08-2026	R1.0	V1.0	Initial document

1 Setup

Intended use

The DT-DPROG and DT-DROM ecosystem is designed to bring your vintage drum machines into the 21st century. The system provides a modern, reprogrammable flash memory alternative to the static EPROM chips used in classic drum computers.

The DT-DROM is a drop-in expansion PCB that replaces the original memory chips in machines such as the LinnDrum, Oberheim DMX, Sequential Circuits Drumtraks, and E-MU Drumulator. The DT-DPROG programmer unit connects to your computer via USB, allowing you to quickly select and upload custom drum samples using the Dtronics PC application without the need for UV erasers or complex legacy EPROM programmers.

What is included

Please ensure that your package includes the following items (depending on your ordered kit):

- DT-DPROG: Programmer
- DT-DROM: Drumexpansion unit / flash chip PCB
- USB cable
- Extra header

2 Intended use

The DT-DROM is developed to replace the following EPROM's:

- 2732
- 2764

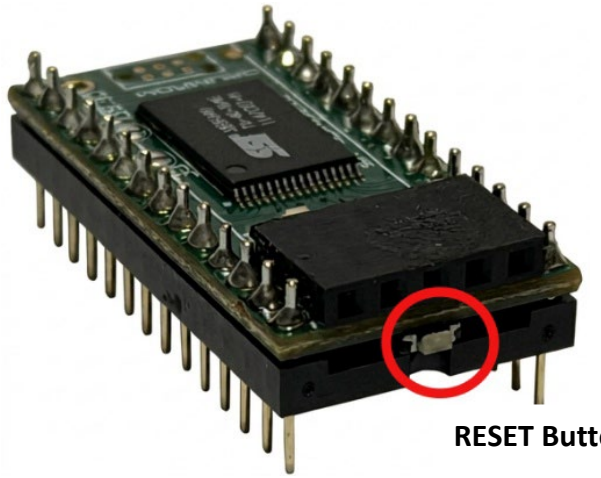
3 Operation

Flashing the DT-DROM

Programming your custom sounds onto the DT-DROM is a straightforward process. Follow the steps below to establish a connection and upload your sample file.

1. Place the DT-DROM expansion kit into the ZIF (Zero Insertion Force) socket of the DT-DPROG programmer. Secure it by lowering the locking lever.
2. Ensure the toggle switch on the programmer is in the down position (the red IC PWR LED should be off).
3. Connect the DT-DPROG to your computer using the provided USB cable.
4. The green LED will light up, indicating that the unit is receiving power. A new USB Serial Port will be created and visible in your computer's Device Manager.
5. Open the Dtronics Sample Expansion Controller software on your computer, or navigate to the online Dtronics Web Programmer. Dtronics Web Programmer
6. In the software, select and open the newly created COM port to establish the connection.

7. On the DT-DROM PCB, **press and hold the small reset button, and simultaneously flip the toggle switch on the programmer up**. The bottom red LED (IC PWR) will turn on.



RESET Button

8. In the data screen of the software, you will see the initialization and erasure process begin. The console will display the following sequence:

```
Dtronics V1.00
Selected sample: 01
ChipID: 00b7
MfgID:  00bf
Chip ID OK!
ERASING chip in 5 sec! keep switch pressed!
5
4
3
2
1
Release switch!
Erasing...
Blank check...
Checking: 0x000000 to 0x00FFFF
Checking: 0x010000 to 0x01FFFF
Checking: 0x020000 to 0x02FFFF
Checking: 0x030000 to 0x03FFFF
Checking: 0x040000 to 0x04FFFF
Checking: 0x050000 to 0x05FFFF
Checking: 0x060000 to 0x06FFFF
Checking: 0x070000 to 0x07FFFF
Chip is empty.
Give me some data to burn!
```

1. Release the RESET BUTTON when the prompt *"Release switch!"* appears on the screen.
2. Wait until the console displays *"Give me some data to burn!"*. At this point, prepare and select your combined sample file within the software.
3. Click the **"Send combined file"** button or “**Open File and send**”

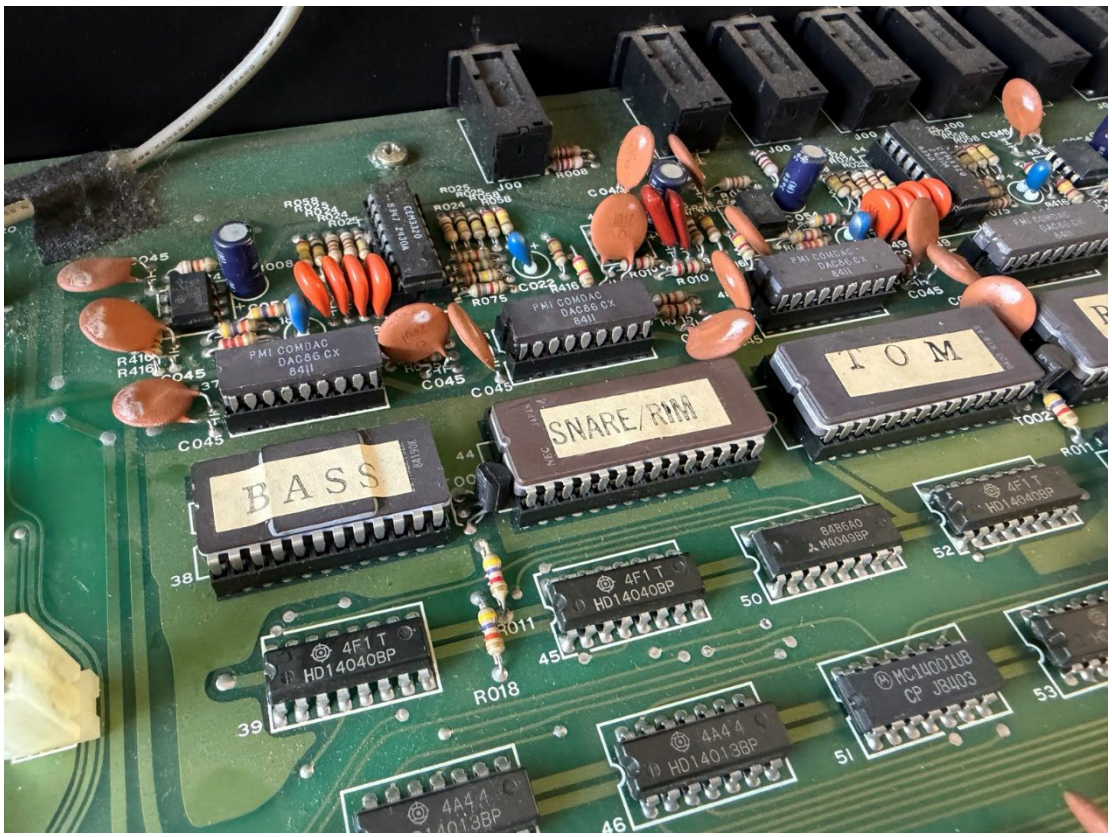
4. The data will now be transmitted to the flash chip. Because the file size is 512KB and is sent over a serial connection, the transfer process will take some time. The yellow data LED will blink during this process. Please wait patiently until the system indicates that the upload is fully completed.
5. **Important:** Always ensure the toggle switch is in the down position (red LED is off) before you remove the DT-DROM from the programmer.

Important: Do not disconnect the USB cable or flip the toggle switch while the yellow data LED is flashing and the transfer is in progress, as this will result in a corrupted upload.

Installing the DT-DROM into your drum machine

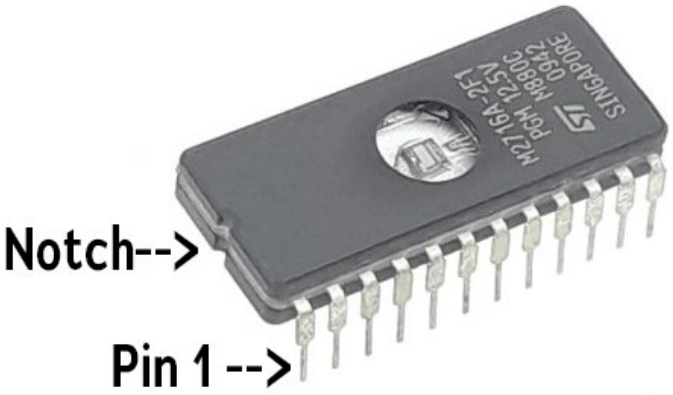
WARNING: Always ensure your drum machine is powered off and unplugged from the mains before opening the enclosure. To prevent damage from Electrostatic Discharge (ESD), touch a grounded metal object before handling the internal components.

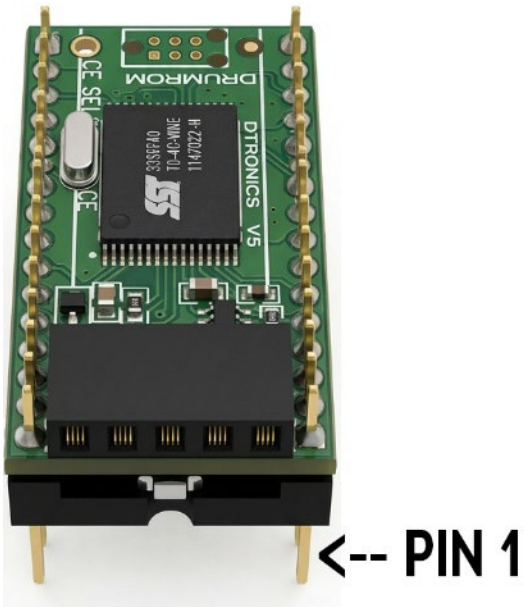
1. **Open the drum machine:** Carefully open the casing of your vintage drum machine to access the voice board (refer to the original service manual of your specific machine, such as the LinnDrum or Oberheim DMX, for the exact screw locations).



2. **Locate the target socket:** Identify the EPROM chip you wish to replace (for example, the Kick, Snare, or Tom ROM).

IMPORTANT: Once the casing is open, **take a picture** of the internal board before you remove anything. Make sure the orientation of the original chips (the notch on the IC) is clearly visible in your photo. Reversing the orientation of the DT-DROM during installation can cause damage to the unit or the drum machine, so this photo will serve as a crucial guide for reassembly.

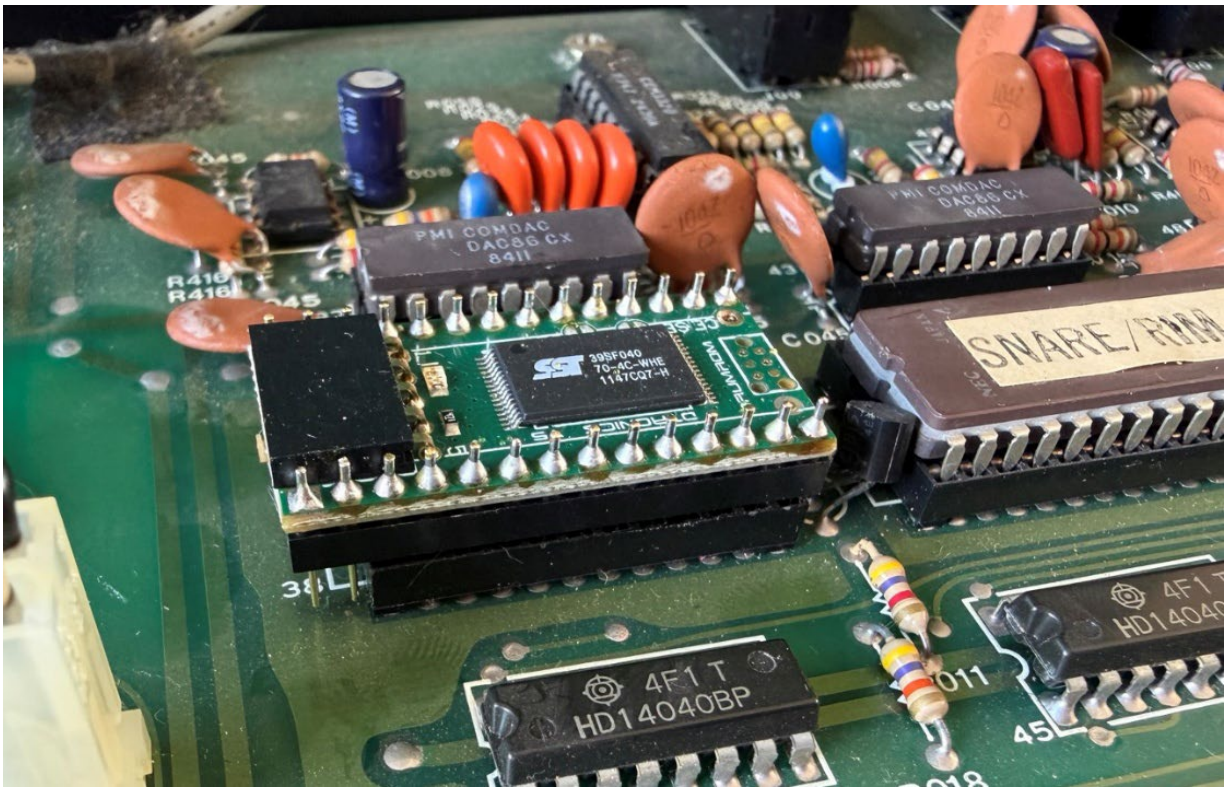




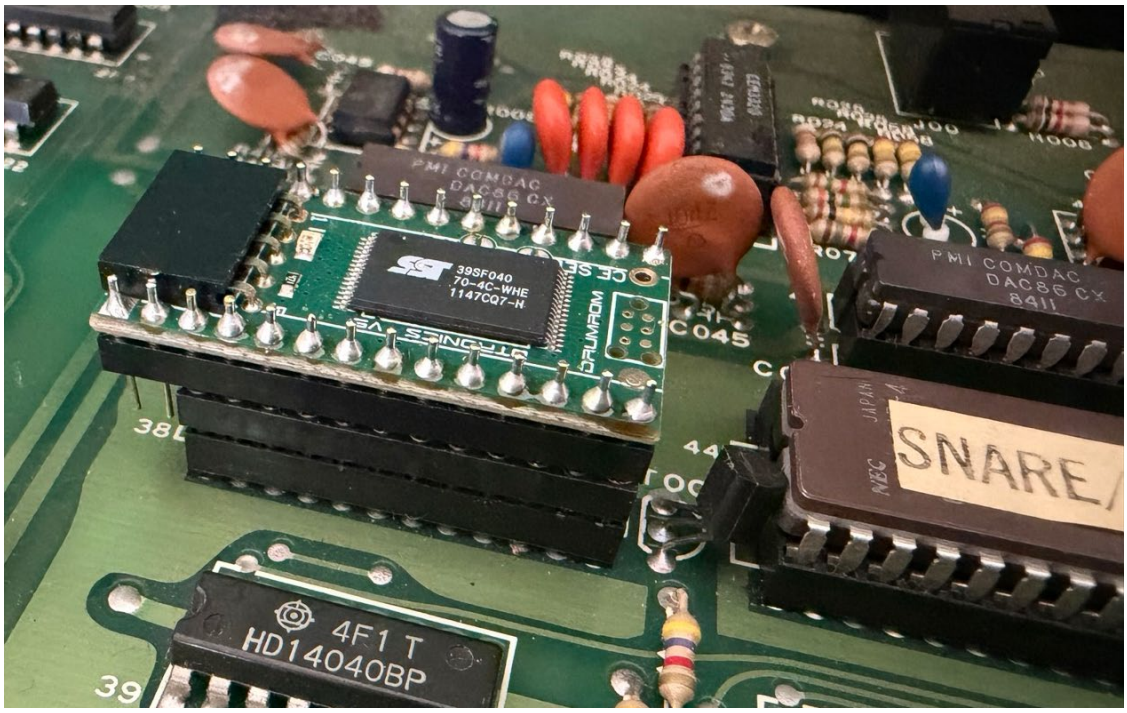
Determine the type of the ROM

2764 EPROM Replacement: Align Pin 1 of the DT-DROM directly with Pin 1 of the drum machine's socket.

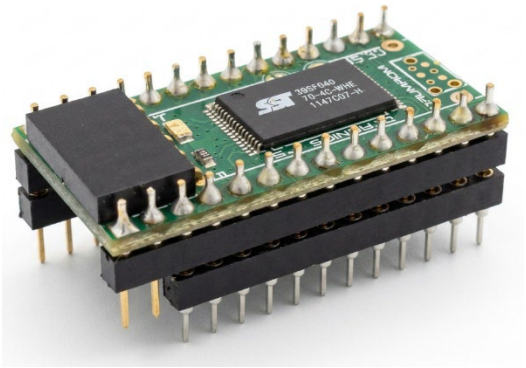
2732 EPROM Replacement: Because the DT-DROM footprint is larger than a standard 2732 socket, you must insert Pin 3 of the DT-DROM into Pin 1 of the drum machine's socket. The top pins of the DT-DROM (Pin 1 and Pin 24) will overhang and stick out above the socket. If there is not enough physical clearance inside the drum machine, it may be necessary to clip off these top pins or use the included header to raise the DT-DROM.



Installing the DT_DROM in a 2732 socket



Installing the DT_DROM in a 2732 socket with extra header.

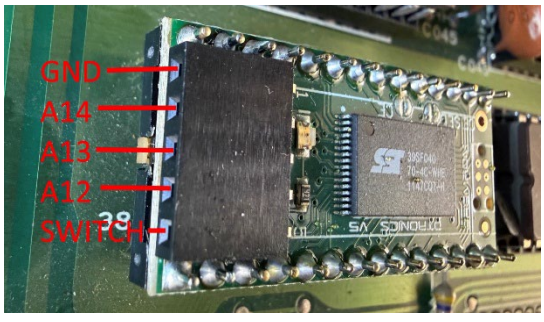


3. **Remove the original EPROM:** Using a dedicated IC puller or a small flathead screwdriver, gently pry the original EPROM out of its socket. Alternate lifting from both ends to avoid bending the pins or damaging the socket. Store the original chip safely.
4. **Check the orientation:** Orientation is critical. Look at the empty socket on the drum machine's motherboard; it will have a small notch or a printed marker on one side indicating 'Pin 1'. Locate the corresponding marker or notch on the DT-DROM module.
5. **Insert the DT-DROM:** Carefully align the pins of the DT-DROM with the holes in the vintage DIP socket. Double-check the orientation.
6. **Press firmly:** Once aligned, apply gentle but firm pressure evenly across the top of the DT-DROM to seat it into the socket. Ensure no pins are bent underneath or sticking out on the sides.
7. **Test the machine:**

   Once installed, power on the drum machine. The onboard LED will flash to indicate the currently selected sample number (ranging from 1 to 16). Close the drum machine enclosure, reconnect the power cord, and power on the unit. Trigger the specific instrument to hear your newly programmed sound!

8. **External switch**

   It is also possible to use a external pushbutton to change sounds.
   You can connect the pushbutton between the GND and SWITCH pin on the header.

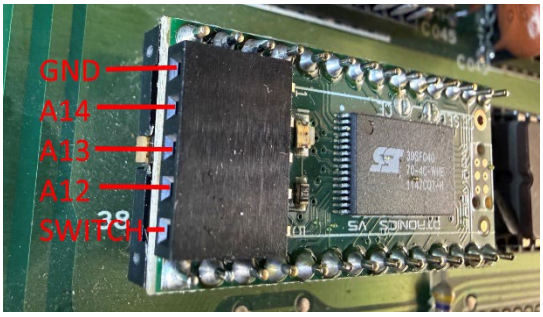
   

   Press the connected external pushbutton to cycle to the next available sound in your multibank.

   The DT-DROM automatically **saves** your selected sound, ensuring it remains active even after the drum computer is powered off.

4 Multi-bank usage

It is possible to use the DT-DROM in a multibank configuration.
The address lines (A12, A13, A14) on the header are used to select the right part of the memory.



With a multibank configuration, you store multiple different sounds on a single DT-DROM chip instead of just one sound per chip. Because modern flash memory is much larger than the original chips, a single module can hold up to 8 different 2732-type sounds or 4 different 2764-type sounds.

Please contact us if you want to use this. And we discuss the options for your machine.

5 Specifications

DT-DPROG (Programmer Unit)

EAN
7081313125744
Interface
USB 2.0 (Provides both power and serial data)
Socket
High-quality 28-pin ZIF (Zero Insertion Force) socket
Controls
Hardware toggle switch for IC Power control
Indicators
Green LED (5V Power), Yellow LED (Data RX/TX), Red LED (IC Power active)
Enclosure
Robust 3D-printed textured housing tailored for studio environments
Replacement for EPROM 2732 (4KB) or 2764 (8KB)

DT-DROM (Expansion Unit)

EAN
7081311697236
Memory Type
SST 39SF040 Flash Memory (Reprogrammable)
Capacity
512 KB

Format

Custom PCB with standard 28-pin DIP footprint (Drop-in EPROM replacement)

Compatibility

Standard 27-series / 28-series EPROM sockets (LinnDrum, DMX, Drumtraks, etc.)