



DT-81Z

User's Manual version V1.2

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Document revisions

Date	Version	Change
20-11-2025	R1.1	Initial document
10-03-2026	R1.2	Firmware update Midi Channel selection

1 Setup

Intended use

The DTronics DT-81Z is a custom-tailored hardware desktop-controller for the classic FM-synthesizers TX81Z, DX100, DX21 and DX27 by Yamaha. It comes in a sturdy desktop format. It offers a vast amount of dedicated controls to allow for hands-on-control of these instruments via MIDI. To be precise: 37 trim pots and 17 back-lit switches allow for immediate control over the parameters of the TX81z and compatible synthesizers. Connection is via the included MIDI-cable while power is supplied via USB-C (cable included). Bring new life these synthesizers on stage and in your studio!

The DT-81Z is intended to create new sounds for your synthesizer.

The DT-81Z has a hardware controlled MIDI merger. This makes it possible to play your connected synth over MIDI when the DT-81Z is attached in a reliable way.

What is included

Please ensure that your DT-81Z includes the following:

- DT-81Z Programmer
- USB cable

Installation

Connecting the DT81Z to your TX81z is easy. Connect the MIDI OUT of the DT81Z to the MIDI IN of the TX81z.

Connect the MIDI OUT of your keyboard to the MIDI IN of the DT81z controller.

Power the DT81Z by connecting the USB-C cable to a power supply

2 Operation

Powering On & Off

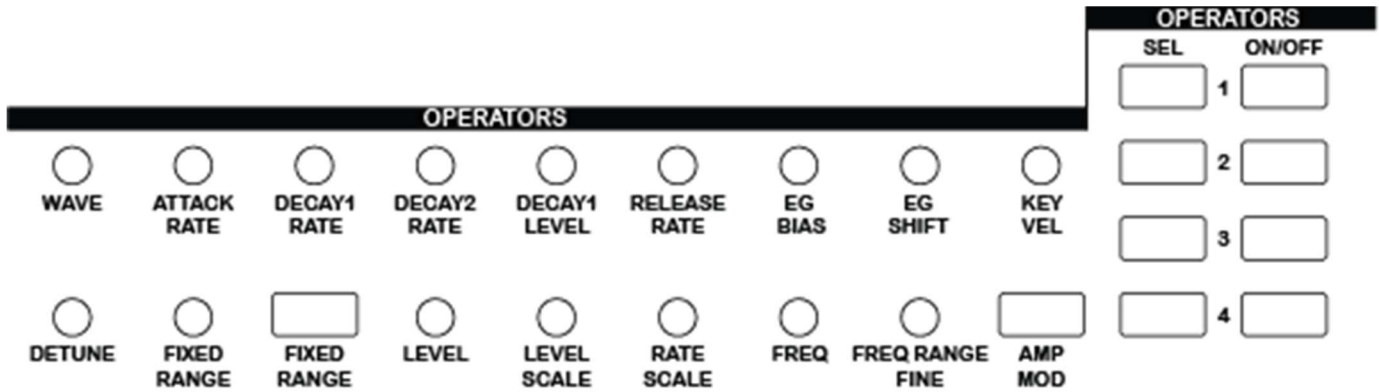
Powering on or off the DT81Z by pressing the power button located at the back of the DT81Z will automatically wake up or put the programmer to sleep.

Firmware Version

The INIT button lights up for approximately 2 seconds and then turns off. After that, the INIT button flashes the firmware version number. For example:

1 flash - pause - 2 flashes indicates version 1.2.

3 Operator Section



Operator Select

Use the 4 OP SEL (Operator Select) buttons to select any of the 4 operators. Up to 4 operators can be selected at the same time. Now all knobs of the operator section will affect to the selected operators.

Operator On/Off

Press the OP ON/OFF buttons to turn any operator On or Off.

4 MIDI channel

Viewing the Current MIDI Channel

When you power on the DT-81z, the device performs a startup sequence where the LEDs light up in sequence:

RED, GREEN, BLUE, WHITE.

Once the sequence completes, the **INT LED** will illuminate.

The current MIDI channel is displayed via the **OPERATOR ON/OFF LEDs** in **GREEN**, using a binary calculation:

- OP1 = +1
- OP2 = +2
- OP3 = +4
- OP4 = +8

Note: The base channel is 1 (all LEDs off). To find your channel, add the values of the lit LEDs to 1.

Examples:

	Base =	OPERATOR LED ON	MIDI channel
Channel 1: All LEDs OFF	1	+ 0	= 1
Channel 2: OP1 ON	1	+ 1 (OP1 = +1)	= 2
Channel 6: OP1 & OP3 ON	1	+ 1 (OP1 = +1) + 4 (OP3 = 4)	= 6
Channel 9: OP4 ON	1	+ 8 (OP1 = +8)	= 9

Setting the MIDI Channel

1. Power on the DT-81z.

2. The **INT LED** will flash to indicate the current firmware version (e.g., *Flash – Pause – Flash, Flash = v1.2*).
3. Wait for the initial light show (Red, Green, Blue, White) to finish.
4. Once the **INT LED** goes on, **press and hold INT** until the light turns off.
5. Use the **OPERATOR ON/OFF** buttons to select your desired MIDI channel (indicated in **GREEN**).
6. Refer to the values below to set your channel:
 - **OP1 = 1 | OP2 = 2 | OP3 = 4 | OP4 = 8**
7. Press the **INT button** again to save your settings and exit.

MIDI Channel	OP1 (+1)	OP2 (+2)	OP3 (+4)	OP4 (+8)
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF
9	OFF	OFF	OFF	ON
10	ON	OFF	OFF	ON
11	OFF	ON	OFF	ON
12	ON	ON	OFF	ON
13	OFF	OFF	ON	ON
14	ON	OFF	ON	ON
15	OFF	ON	ON	ON
16	ON	ON	ON	ON

5 Firmware Update

Firmware Update Procedure

To update your DT-81z firmware, follow these steps:

1. **Preparation:** Disconnect all standard DIN MIDI cables. Connect the DT-81z to your PC via a **USB cable**.
2. **Enter Update Mode:** Press and hold the **INT button** while turning on the DT-81z. The **INT LED** will remain lit, indicating it is ready for the transfer.
3. **Transfer File:** Use a MIDI utility program (such as **MIDI-OX** or **Bome Send SX**) to send the new firmware .syx file to the device.
4. **Status:** The **INT LED** will flash continuously during the upload process.
5. **Completion:** Once the upload is finished, the DT-81z will automatically reset and display the new firmware version number during the startup sequence.

DO NOT TURN OFF OR DISCONNECT
THE DT-81Z WHILE UPDATING.

6 Product pictures





Power consumption: +/- 1W (DC 5V)
Weight: 661 g
Dimensions: 278(W) x 163(D) x 40(H) mm