# ENGL

Z12
MIDI Footswitch
Operator´s Manual

Congratulations on your choice, the ENGL Custom Footswitch Z-12. It is an ultra-modern, system-conform MIDI Footcontroller that let you access 128 MIDI program locations (01 - 128). Program selection can be executed via any of the 16 specified MIDI channels (Poly 1-16). We equipped the ENGL MIDI Footcontroller with several practical features that facilitate utilitarian, comfortable handling: 12 buttons enable direct access to all program locations within a bank. Autocounting enables you to access banks that are located greater distances from the currently active program (e.g. switching from Program Location 04 to Program Location 78) without requiring a great deal of tap dancing. Simply hold the UP or DOWN buttons depressed until you scroll to the desired bank. Autostop ensures the original bank is not bypassed so that you can quickly return to it if desired. The right display numeral flashes (01 position) when the bank of the current Program Location is exited and lets you know that you must enter the one position for the newly selected bank to activate the desired MIDI program location. Another especially handy feature of the ENGL Footcontroller: When you connect it to the ENGL MIDI Interface Z-7 (new version with the small switch on the rear panel) or the ENGL Switcher Z-11, the Footcontroller is supplied with power via the MIDI connector cable. In other words, you no longer need a separate power supply cord, only the MIDI control cable that connects the Footcontroller to your setup.

Contents: 1. MIDI Footcontroller; 2. Operating Instructions
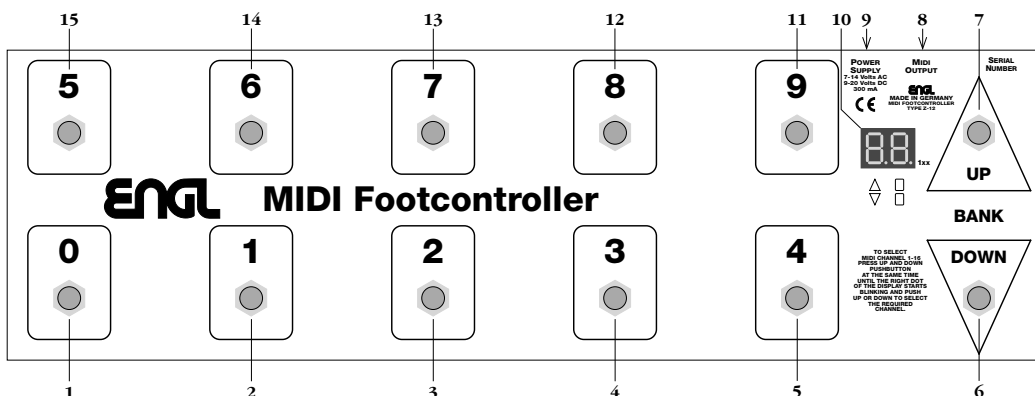
1."Program Location Number 0" Button:
When you press this button, the Footcontroller sends MIDI Program Location 10, 20, 30 ... to 120 in the respective bank.
In the first bank 01 to 09, this button is inactivate. In other words, when you press this button in the first bank, no Program Change message is sent. This is indicated by a dash at the far right position of the the 7-segment display. After you power the Footcontroller up, the ENGL logo runs across the 7-segment display. When you press a Program Location Number button, the corresponding Program Location of the first bank is sent. The exception: 0. Here the dash appear in the right display.
2."Program location Number 1" Button:
When you press this button, the Footcontroller sends MIDI Program Location 01, 11, 21... to 121 in the respective bank.
3."Program location Number 2" Button:
When you press this button, the Footcontroller sends MIDI Program Location 02, 12, 22... to 122 in the respective bank.
4."Program location Number 3" Button:
When you press this button, the Footcontroller sends MIDI Program Location 03, 13, 23... to 123 in the respective bank.
5."Program location Number 4" Button:
When you press this button, the Footcontroller sends MIDI Program Location 04, 14, 24... to 124 in the respective bank.
6. "DOWN" Button, Bankdown (& MIDI Channel selection):
When you press this button, the first bank lower than the current bank is selected; the one position flashes to indicate that you have exited the current bank and that you must enter the desired Program Location Number (0-9) before a new MIDI Program Location is sent/activated. After you enter a Program Location Number, the selected MIDI Program Location appears in the display and the one position illuminates continually. If you want to activate a more remote Program Location, you can either change locations in steps by repeatedly pressing the button, or more comfortably by holding the button down to scroll continually.
MIDI Channel selection: After you power the Footcontroller up, MIDI Program Change commands are sent via Poly Channel 1. Use the following procedure to select another MIDI Channel: Press the UP (7) and DOWN buttons simultaneously until the dot at the right position of the display flashes. Now use the UP or DOWN buttons to select the desired Poly Channel. You can terminate Channel Selection mode manually by selecting a MIDI Program Location. If you do not press a button, the Footcontroller automatically terminates Channel Selection mode after an interval of approx. 10 seconds.
7. "UP" Button, Bankup (& MIDI Channel selection):
When you press this button, the first bank higher than the current bank is selected; the one position flashes to indicate that you have exited the current bank and that you must enter the desired Program Location Number (0-9) before a new MIDI Program Location is sent/activated. After you enter a Program Location Number, the selected MIDI Program Location appears in the display and the one position illuminates continually. If you want to activate a more remote Program Location, you can either change locations in steps by repeatedly pressing the button, or more comfortably by holding the button down to scroll continually.
MIDI Channel selection: After you power the Footcontroller up, MIDI Program Change commands are sent via Poly Channel 1. Use the following procedure to select another MIDI Channel: Press the UP and DOWN (6) buttons simultaneously until the dot at the right position of the display flashes. Now use the UP or DOWN buttons to select the desired Poly Channel. You can terminate Channel Selection mode manually by selecting a MIDI Program Location. If you do not press a button, the Footcontroller automatically terminates Channel Selection mode after an interval of approx. 10 seconds.

8 MIDI OUTPUT Port at the Footcontroller's side panel:
Standard 5-pin diode jack for connecting the MIDI cable. Connect this output to the MIDI IN jack of a MIDI device. As an alternative to the power supply socket (9), you can route the power supply (see Table for voltage specifications) via Pin 1 and Pin 2 (center) of the MIDI cable. To supply the power to the footcontroller use a 5 pole diode cable.

9 POWER SUPPLY socket - Foot controller power circuit:
If you do not route the power supply via the MIDI cable, you must connect an external power pack here. You can use standard power packs that supply either 9-20 volts DC or 7-15 volts AC and approx. 300 mA current. Ensure the power pack you choose bears the requisite safety certification. The polarity of the socket is insignificant.

10 Two-increment, 7-Segment LED Display.
This display inidcates the selected MIDI Program Location. When you change banks, the right position flashes until you press a Program Location button to activate a new Program or return to the original bank. The right decimal point indicates Program Locations higher than 100 by illuminating continually. If the decimal point flashes, the Footcontroller is in Channel Selection mode and the Channel Number (01 -16) appears in the display.
After you power the Footcontroller up, the ENGL logo runs across the display until you press a button.

11 Program Location Number 9" Button.
When you press this button, the Footcontroller sends MIDI Program Locations 09, 19, 29, ... to 119 in the respective bank. In the last bank (120 to 128), this button is inactive. In other words, if you press it while this bank is active, no Program Change message is sent and a dash appears in the right position of the 7-segment display.

12 "Program location Number 8" Button:
When you press this button, the Footcontroller sends MIDI Program Location 08, 18, 28... to 128 in the respective bank.

13 "Program location Number 7" Button:
When you press this button, the Footcontroller sends MIDI Program Location 07, 17, 27... to 127 in the respective bank.

14."Program location Number 6" Button:
When you press this button, the Footcontroller sends MIDI Program Location 06, 16, 26... to 126 in the respective bank.

15 "Program location Number 5" Button:
When you press this button, the Footcontroller sends MIDI Program Location 05, 15, 25... to 125 in the respective bank.
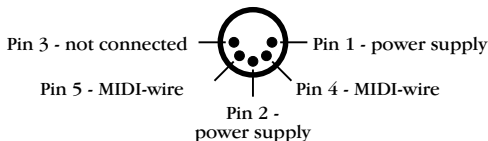
Technical Data:
Power supply: External power pack 7-15 volts AC or 9-20 volts DC, approx. 300 mA; Maximum power consumption by the
Footcontroller: approx. 100 mA. Alternative power supply via MIDI cable Pin 1 and Pin 2 (center);
Consult Table below for pin assignments.
System:　　　Controller AT 89C51 with internal 4k FLASH memory for software (protected, 12 MHz system clock).
Dimensions:　(L x W x H) 50 x 15 x 5 cm
Weight:　　　approx. 2,8 kg

MIDI OUTPUT Port pin assignments:

Pin 3 - not connected　　Pin 1 - power supply
Pin 5 - MIDI-wire　　　Pin 4 - MIDI-wire
Pin 2 -
power supply