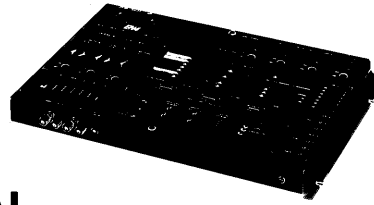


EN4

OWNER'S MANUAL

ELECTRONIC MULTI CONTROLLER

Fostex
RP DIGITAL SERIES

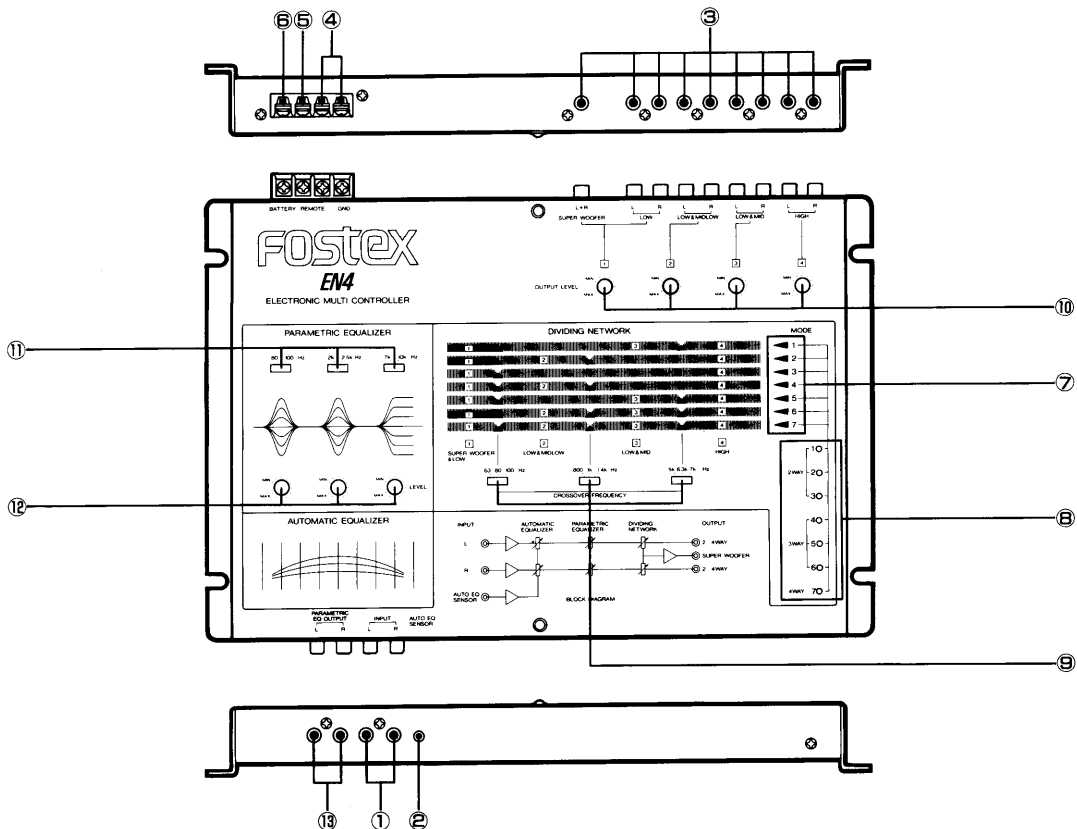


INTRODUCTION

The automatic equalizer, parametric equalizer and dividing network in the Fostex Model EN4 Electronic Multi-Controller will serve as the core in the Fostex digital series at constructing a high performance car audio system of the future.

BEFORE OPERATING

- If this equipment is not correctly interconnected (wired), not only could breakdown occur but full performance and best sound cannot be expected. Be sure it is correctly connected by reading the item on "connections."
- Install in the car where it will not be wet by high humidity and rain.
- If the fuse blows, check for any mistakes in connection and replace with the proper capacity fuse. If it should blow again after replacing, consult your dealer for repairs.
- This equipment is designed for cars of minus ground.



THE CONTROLS AND THEIR FUNCTIONS

- 1) INPUT jack (RCA pin jack)
Check the application mode and plug into the correct jack.
- 2) Automatic equalizer sensor jack (Mini plug)
When the exclusive pickup (optional) is plugged in, it catches the car vibration to operate the equalizer.

- 3) OUTPUT jack (RCA pin jack)
The various super woofer outputs are obtained here for 2 ~ 4 way depending on the setting of this equipment.
- 4) Ground terminal
Wire this directly to the metal part (chassis) of the car. After wiring, check for proper operation as it may not operate properly or create noise depending on the point of connection.
- 5) Remote terminal
The power amplifier ON/OFF control supply is connected here.
- 6) Car battery power supply terminal
This terminal is connected to the car battery plus (+) pole. Be sure to use a 1A fuse between this terminal and the car battery pole.
- 7) Dividing network selector indicating LED
Operating modes of each circuit is indicated when the mode selector switches 1 ~ 7 are pressed.
- 8) Dividing network selecting switch
The switch for selecting 2 way, 3 way or 4 way, depending on the type of application. (If you may push more than 2, only one circuit will be active as priority is given to the switch pressed first.)
- 9) Crossover frequency selecting switch
Each crossover frequency is selected to LOW ~ HIGH.
- 10) Dividing network OUTPUT level controller
The various output levels are controlled for SUPER WOOFER/LOW, LOW & MIDLOW, LOW & MID, HIGH.
- 11) Parametric equalizer frequency selecting switch
The required equalizing frequencies are set (3 point switching).
- 12) Parametric equalizer level controller
Controls the equalizing output level.
- 13) Parametric EQ jack (RCA pin jack)
Signals from the INPUT and passing through the parametric EQ are directly output here.

METHOD OF USING THE DIVING NETWORK

Mode 1 (2 way) 

The crossover frequency is set by the 5K/6.3K/7KHz selector only. The super woofer frequency is set by the 63/80/100Hz selector. As the output signals are obtained at 1, 3, 4, these are connected to the power amplifier.

Mode 2 (2 way) 

The crossover frequency is set by the 800/1K/1.4KHz selector only. The super woofer frequency is set by the 63/80/100Hz selector. As the output signals are obtained at 1, 2, 4, these are connected to the power amplifier.

Mode 3 (2 way) 

The crossover frequency is set by the 63/80/100Hz selector only. As the output signals are obtained at 1, 4, these are connected to the power amplifier. These are convenient for upgrading the system by adding a super woofer to the presently used speaker.

Mode 4 (3 way) 

The crossover frequency is set by the 63/80/100Hz and the 800/1K/1.4KHz selector. As the output signals are obtained at 1, 2, 4, these are connected to the power amplifier.

Mode 5 (3 way) 

The crossover frequency is set by the 63/80/100Hz and the 5K/6.3K/7KHz selector. As the output signals are obtained at 1, 3, 4, these are connected to the power amplifier.

Mode 6 (3 way)

The crossover frequency is set by the 800/1K/1.4KHz and the 5K/6.3K/7KHz selectors. The super woofer frequency is set by the 63/80/100Hz selector. As the output signals are obtained at 1, 2, 3, 4, these are connected to the power amplifier.

Mode 7 (4 way)

The crossover frequency is set by the 63/80/100Hz, 800/1K/1.4KHz and 5K/6.3K/7KHz selectors. As the output signals are obtained at 1, 2, 3, 4, these are connected to the power amplifier.

* Signals for the SUPER WOOFER (L+R)/MONO and LOW (L, R)/STEREO are constantly and simultaneously output at 1. These can be used to suit your application.

HOW TO USE THE PARAMETRIC EQUALIZER

In the parametric equalizer of the EN4, the frequency which will be the important factor in determining the car audio tone is selected and set to allow adjusting the room sound environment as desired and to compensate for different types of car. The range for LOW is 80/100Hz, MID is 2K/2.5KHz and HIGH is 7K/10KHz, and each can be selected at two points. The level of each frequency range can be adjusted by individual level control pots. These controls should be effectively used to match the sound to the particular car type and room acoustics.

HOW TO USE THE AUTOMATIC EQUALIZER

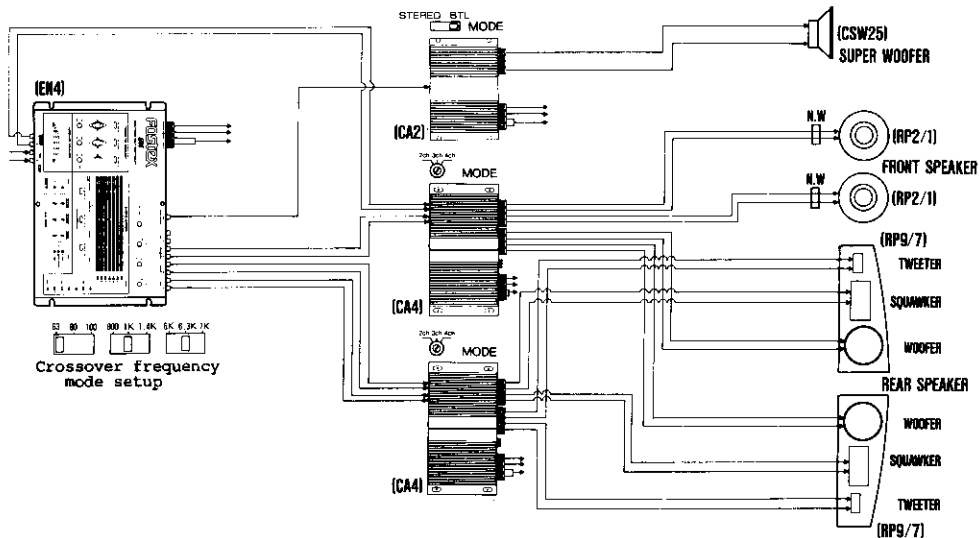
The automatic equalizer is used by connecting the optional exclusive pickup to the EN4 AUTO EQ SENSOR jack and installing the pickup at a point most sensitive in catching the car vibration (the chassis inside the trunk is most suitable). The pickup will catch vibration of the traveling car and from the running engine, and automatically compensate the frequency range affected by the vibration to adjust the sound to a pleasing quality.

CONNECTIONS

Set the output mode (either one of 1 ~ 7) by referring to the system example, connect the input and others to the amplifier.

The procedures are:

- 1) Set the output mode by either 1 ~ 7 and depending on which mode from 2 way to 4 way, connections are made to the output jacks (RCA pin jack) and power amplifier input jacks (RCA pin jack).
- 2) Connect the speaker systems to the power amplifier (Be careful not to mistake the wiring to the low, mid and high range speakers, and the \pm and L, R polarities.).
- 3) Connect the inputs (Be careful of the L, R polarities.).
- 4) Connect the car battery, remote terminals and the ground wire.



CAUTION:

To avoid accidental short circuits in making the connections, always disconnect the battery cables.

- Be careful to route the battery cable, from the + pole of the battery to the BATTERY terminal, so that it will not be pinched or cut by the passenger seat slide rail.
- Use wires larger than AWG 16 x 2 conductor (twisted 4.6mm² x 2 cond.) for the power supply cable and ground wire.
- Use a positive method such as crimped or soldered lugs in connecting the power supply cables. This is to prevent stray strands from shorting the circuit.

SPECIFICATIONS

Composition

Switchable to 2, 3, 4 way, dividing network section Parametric equalizer section for sound field compensation
Automatic equalizer section
3D OUT jack (For LOW only)

Network section specs

LOW ↔ M.LOW
63Hz, 80Hz, 100Hz
M.LOW ↔ MID
800Hz, 1KHz, 1.4KHz
MID ↔ HIGH
5KHz, 6.3KHz, 7KHz

18dB/oct

Equalizer section specs

80Hz, 100Hz
2KHz, 2.5KHz
7KHz, 10KHz

-10 ~ 10db

Automatic EQ section specs

Input impedance 56Ω
Output impedance 2KΩ
S/N ratio 100dB(IHF-A)

Power supply

DC 14.4V, minus GND (11 ~ 16V)

Fuse

1A (external mounted)

Physical dimensions

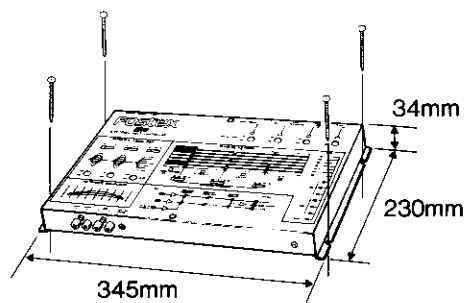
345(W) x 230(D) x 34(H)mm

Weight

2.3kg

NOTES ON INSTALLING

1. Neatly bundle the wiring with straps separately for power supply, inputs and outputs, and secure them firmly to the board.
2. Set the power panel facing upwards. Do not cover or place any object on the panel surface.



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