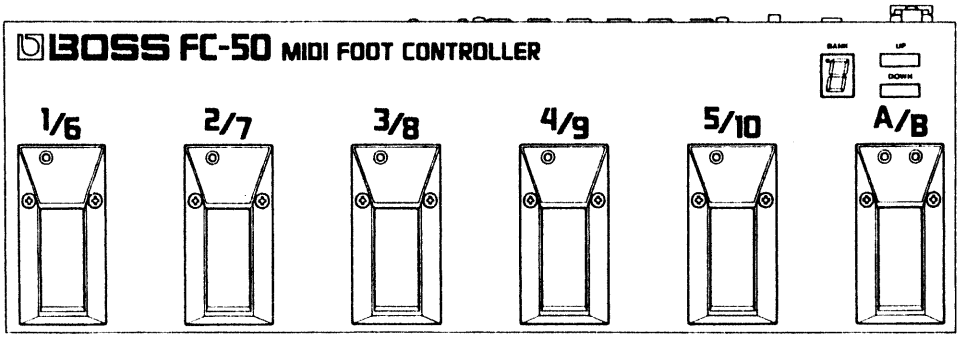
BOSS

# FC-50 MIDI FOOT CONTROLLER

## Owner's Manual



For Germany

## Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

MIDI FOOT CONTROLLER FC-50

(Gerät Typ Bezeichnung)

in Übereinstimmung mit den Bestimmungen der

Amtsbl. Vfg 1046/1984

(Amtsblattverfugung)

funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Roland Corporation Osaka/Japan

Name des Herstellers/Importeurs

For the USA

## RADIO AND TELEVISION INTERFERENCE

**WARNING** — This equipment has been verified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC rules. Operation with non-certified or non-verified equipment is likely to result in interference to radio and TV reception.

The equipment described in this manual generates and uses radio frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J, of Part 15, of FCC Rules. These rules are designed to provide reasonable protection against such a interference in a rasidential installation. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by the following measure:

- Disconnect other devices and their input/output cables one at a time. If the interference stops, it is caused by either the other device or its I/O cable. These devices usually require Roland designated shielded I/O cables. For Roland devices, you can obtain the proper shielded cable from your dealer. For non Roland devices, contact the manufacturer or dealer for assistance.

If your equipment does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures:

- Turn the TV or radio antenna until the interference stops.
- Move the equipment to one side or the other of the TV or radio.
- Move the equipment farther away from the TV or radio.
- Plug the equipment into an outlet that is on a different circuit than the TV or radio. (That is, make certain the equipment and the radio or television set are on circuits controlled by different circuit breakers or fuses.)
- Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV. If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission:

"How to Identify and Resolve Radio – TV Interference Problems."

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 004-000-00345-4.

For Canada

**CLASS B** **NOTICE**

This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

**CLASSE B** **AVIS**

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Réglement des signaux parasites par le ministère canadien des Communications.

**Copyright © 1991 BOSS Corporation**

All rights reserved. No part of this publication may be reproduced in any form without the written permission of BOSS Corporation.

Thank you for purchasing the BOSS FC-50 MIDI Foot Controller.
The FC-50 is a foot controller that can control other MIDI instruments and devices - the BOSS SE-50 for example. To make the best use of the FC-50, please read this Owner's Manual carefully.

## ■FEATURES

- ●6 sturdy pedals mounted on a solid baseboard.
- ●All Program Change information can be transmitted using only the pedals and buttons.
- ●The FC-50 can accept connection of two external expression pedals and two foot switches. This allows you to control the connected MIDI instrument in real time with Control Change messages.
- ●The FC-50 employs a two-way Battery/AC power supply.
- ●During battery operation the Economy Mode can be used to effectively extend battery life by about twice as long as usual. When the battery voltage is low, a warning indicator will appear.
- ●Large LEDs enable easy confirmation of operational status - even on a dimly lit stage.
- ●A Cable Hook is provided to prevent the unit from being disconnected accidentally during AC operation.

# ■IMPORTANT NOTES

When using an AC adaptor, use only the specified device: PSA-120, 220 or 240 (depending on the line voltage in your installation). Use of any other power adaptor could result in damage, malfunction or electric shock.

### [Power Supply]

- Before connecting this unit to other devices, turn off the power to all units; this will help prevent damage or malfunction.
- Do not use this unit on the same power circuit with any device that will generate line noise; an electric motor or variable lighting system for example.
- The power supply required for this unit is shown on its nameplate (rear panel). Ensure that the line voltage in your installation meets this requirement.
- Avoid damaging the power cord; do not step on it, place heavy objects on it, etc.
- When disconnecting the AC adaptor from the outlet, grasp the plug itself; never pull on the cord.
- If the unit is to remain unused for a long period of time, unplug the power cord.
- When installing or replacing batteries, refer to "BATTERY REPLACEMENT" (page 12).

### [Placement]

- Do not subject the unit to temperature extremes (e.g., direct sunlight in an enclosed vehicle). Avoid using or storing the unit in dusty or humid areas.
- This unit may interfere with radio and television reception. Do not use this unit in the vicinity of such receivers.

### [Maintenance]

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a mild, neutral, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the risk of discoloration and/or deformation.

### [Additional Precautions]

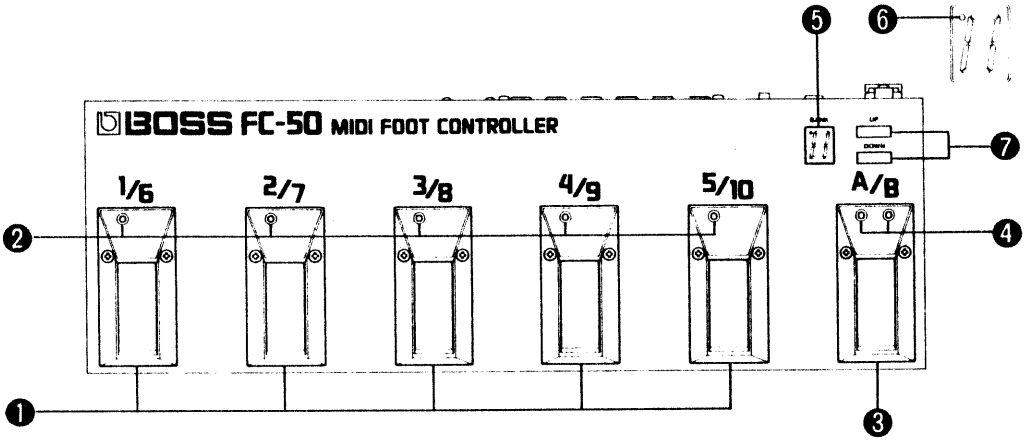
- Protect the unit from strong impact.
- Do not allow objects or liquids of any kind to penetrate the unit. In the event of such an occurrence, discontinue use immediately. Contact qualified service personnel as soon as possible.
- Never strike or apply strong pressure to the display.
- Should a malfunction occur, or if you suspect there is a problem, discontinue use immediately. Contact qualified service personnel as soon as possible.
- To prevent the risk of electric shock, do not open the unit. The unit does not contain any user serviceable parts.

### [Changing Batteries]

- Avoid using new batteries together with old ones. Also avoid mixing different types of batteries (e.g., regular carbon and alkaline batteries).
- When replacing batteries, be sure to insert them correctly (ensure correct polarity).
- Remove the batteries whenever the unit is to remain unused for an extended period of time.

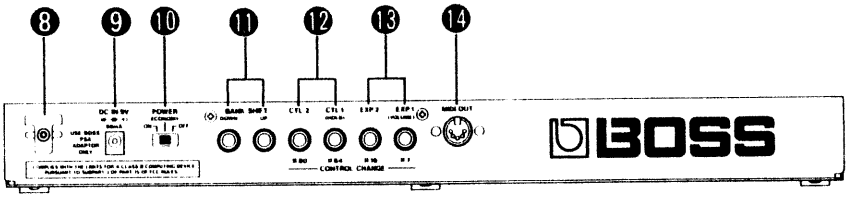
# ■PANEL DESCRIPTIONS

## 〈 Front Panel 〉




❶ Number Pedals ( 1 to 5 )
❷ Number Indicators ( 1 to 5 )
❸ Number Shift Pedal
❹ Number Shift Indicators ( A/B )
❺ Bank Display
❻ Dot
❼ Bank Shift Buttons ( UP/DOWN )

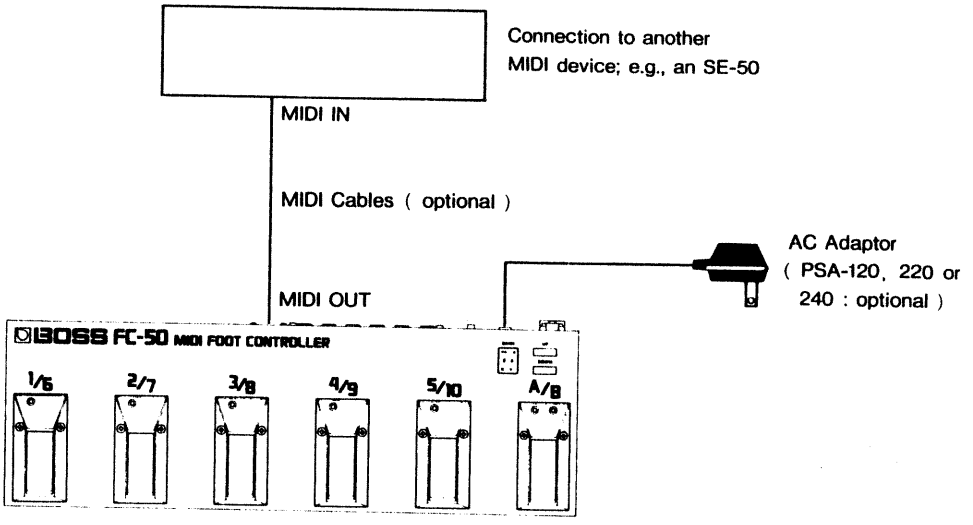
## 〈 Rear Panel 〉




❽ Cable Hook
❾ AC Adaptor Jack
❿ Power Switch
⓫ Bank Shift Jacks ( UP/DOWN )
⓬ Control Pedal Jack 1/2
⓭ Expression Pedal Jack 1/2
⓮ MIDI OUT Connector

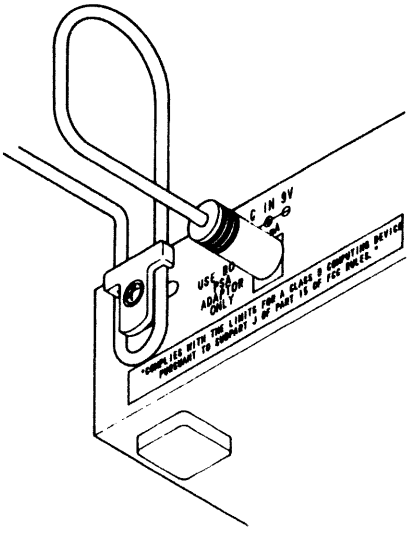
* When using an expression pedal with the FC-50, be sure to use a Roland EV-5 or BOSS EV-10. Use of any other pedal may cause operational errors.

# ■CONNECTIONS




* Before making any connections, turn all devices off.

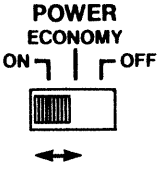
* When using the AC adaptor, loop the power cable around the Cable Hook as shown below.



## ■POWER-ON

The FC-50 is shipped without the batteries installed.
Refer to "BATTERY REPLACEMENT" (page 12) when you wish to install the batteries.

Ensure that all connections are correct and secure. Turn the FC-50's Power switch to the ON or ECONOMY position. Turn on the other devices.




### [About the Economy Mode]

When the FC-50 is being operated with batteries, the Economy mode can be used to effectively extend battery life by about twice as long as usual.
The Bank Display may become somewhat dimmer and it may flicker a little, but this is not an indication of a problem.

* The default MIDI channel of the FC-50 is channel 1. Refer to "Changing MIDI Channels" ( page 11) if you want to change the default setting.

* When using the FC-50 with the BOSS SE-50, set the MIDI channel of the SE-50 to channel 1 (as shown in the owner's manual of the SE-50).

## ■PROGRAM CHANGE NUMBERS

A Program Change number is selected using the "Bank" button and "Number" pedals. The Program Change message is transmitted the moment the Bank Shift button or Number pedal is pressed.

### ⟨Changing Banks⟩

Pressing a Bank Shift button ( UP or DOWN ) changes Bank numbers in sequence (0 to 12). The Bank Display shows the Bank Number currently selected.

| Display | 0 | 1 | 2 | ... | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|
| Banks | 0 | 1 | 2 | ... | 10 | 11 | 12 |

*** When Bank 10, 11 or 12 is selected, the Dot in the upper left hand corner of the display will light.**

Bank numbers 0 to 12 correspond to Program Change numbers as indicated in the following:

| Banks | 0 | 1 | 2 | ... | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|
| PROGRAM CHANGE NUMBER | 0 | 10 | 20 | ... | 100 | 110 | 120 |

You can change Bank numbers using a pedal by connecting a foot pedal ( FS-5U : optional ) to the Bank Shift Jack on the rear of the FC-50.

### ⟨Changing Numbers⟩

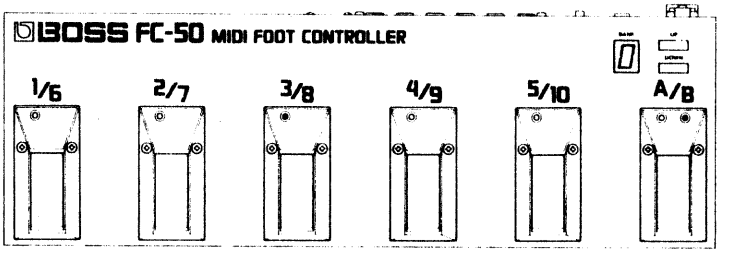
Using the Number Shift (A/B) Pedal and the Number Pedals, you can select numbers 1 to 10. Numbers 1 to 10 correspond to Program Change numbers 1 to 10 respectively. By selecting A or B with the Number Shift Pedal, you can select numbers 1 to 5 or 6 to 10 as shown below.

| | 1/6 | 2/7 | 3/8 | 4/9 | 5/10 |
|---|---|---|---|---|---|
| A | 1 | 2 | 3 | 4 | 5 |
| B | 6 | 7 | 8 | 9 | 10 |

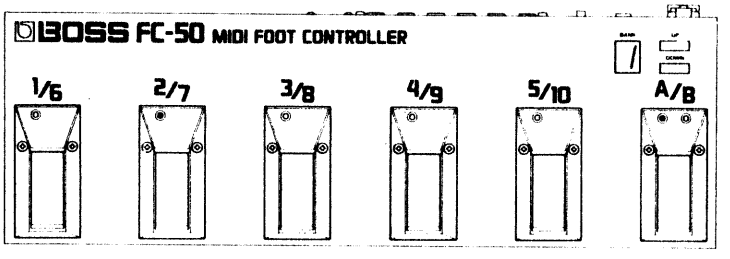
With the Number Indicators and Number Shift Indicators, you can determine what number is currently set.

## ‹Setting a Program Change Number›

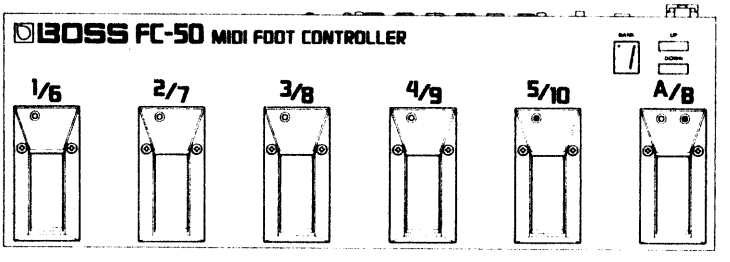
Example 1 : Setting Program Change number 8.
0( Bank : 0 )+8( Number ) = 8




Example 2 : Setting Program Change number 12.
10( Bank : 1 )+2( Number ) = 12




Example 3 : Setting Program Change number 120.
110 ( Bank : 11 )+ 10 ( Number ) = 120




* The highest Program Change number is 128. Setting a number higher than 128 will cause the Pedal Indicators to flash, indicating that no Program Change message is being transmitted.

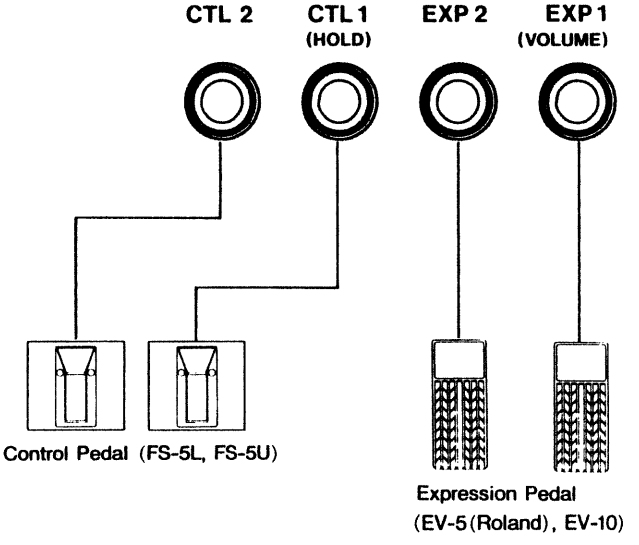
## ■CONTROL CHANGE MESSAGES

The FC-50 can accept connection of a maximum of two external expression pedals and two foot switches. This allows you to control a connected MIDI instrument in real time with Control Change messages.
The Control Change jacks on the rear of the FC-50 correspond to the following Control Change numbers:

**Expression Pedal** EXP1 : Main Volume ( #7 )
EXP2 : General Purpose Controller ( #16 )

**Control Pedal** CTL1 : Hold ( #64 )
CTL2 : General Purpose Controller ( #80 )

*** "#" represents a Control Change number.**




*** Either a latch-type ( FS-5L ), or unlatch-type ( FS-5U ) footswitch can be connected to each Control Pedal Jack.**

Latch Type : Pressing the pedal turns a connected unit (or function) ON or OFF.

Unlatch Type : Only while the pedal is being pressed, the ON/OFF status can be changed.

*** When you connect the FC-50 to the SE-50, set the function (s) you wish to control to match the Control Change number (s) ( #7, #16, #64, #80 ) of the jack(s) you use.**

## ■CHANGING MIDI CHANNEL

The FC-50's default MIDI channel is channel 1. If you wish to change the default channel, follow this procedure:

*** The MIDI channel you set will not be stored in memory. It will be necessary to set the MIDI channel each time the unit is turned on.**

① Switch on the unit while holding the Number Shift (A/B) Pedal down.

② Select the desired MIDI channel using the Bank Shift Buttons. ( The Bank Display shows the MIDI channel currently selected. )

| Display | 1 | 2 | 3 | ---- | 10 | 11 | 12 | ---- | 16 |
|---|---|---|---|---|---|---|---|---|---|
| MIDI CHANNEL | 1 | 2 | 3 | ---- | 10 | 11 | 12 | ---- | 16 |

*** When any of MIDI channels 10 to 16 is selected, the Dot in the upper left hand corner of the display will light.**

③ Press the Number Shift (A/B) Pedal. The MIDI channel has now been set.

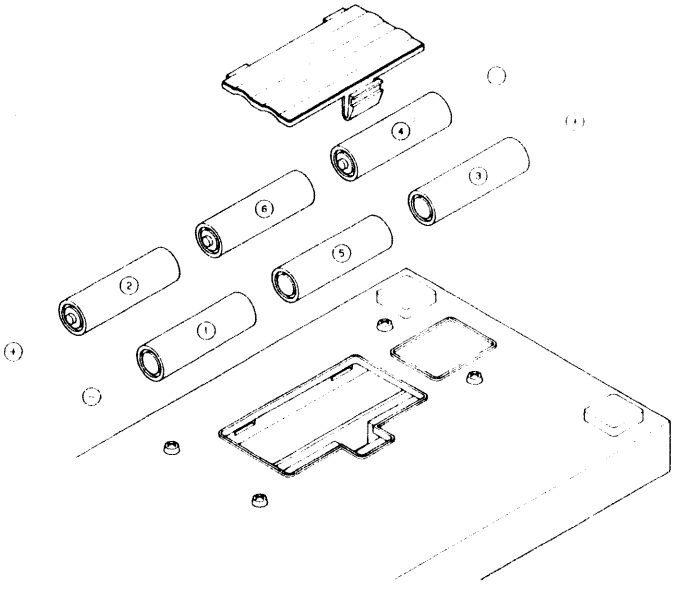
# ■BATTERY REPLACEMENT

## [When to replace the batteries]

When you are using the FC-50 on batteries alone, the indicators will flash when the voltage becomes low. Replace the batteries with a new set ( 1.5V R6(AA) type X 6 ).

* Even if the unit is set to ON, it will automatically switch to the ECONOMY mode when the indicators begin to flash. The indicators will continue to flash until the batteries are replaced.

## [How to replace batteries]



* Do not mix new batteries with used ones. Do not mix batteries of different types (e.g., carbon and alkaline).
* Be sure to insert the batteries correctly (ensure correct polarity).

MIDI FOOT CONTROLLER

Model FC-50

# MIDI Implementation

Date : Feb. 16 1991

Version : 1.00

## 1. TRANSMITTED DATA

**● Control change**

| Status | Second | Third |
|---|---|---|
| BnH | ccH | vvH |

| | |
|---|---|
| n = MIDI channel number | 0H - FH (1 - 16) |
| cc = Control numbe | 07H,10H,40H,50H (7,16,64,80) |
| vv = Control Value | 00H - 7FH (0 - 127) |

This message can be transmitted when the external pedal is connected.

**● Program change**

| Status | Second |
|---|---|
| CnH | ppH |

| | |
|---|---|
| n = MIDI channel number | 0H - FH (1 - 16) |
| pp = Program number | 00H - 7FH (0 - 127) |

This message is transmitted when the patch of FC - 50 is changed.

MIDI FOOT CONTROLLER

Model FC-50

# MIDI Implementation Chart

Date : Feb. 16 1991

Version : 1.00

| Function ... | | Transmitted | Recognized | Remarks |
|---|---|---|---|---|
| Basic Channel | Default | 1 | × | |
| | Changed | 1 - 16 | × | |
| Mode | Default | × | × | |
| | Messages | × | × | |
| | Altered | ********* | | |
| Note Number | True Voice | × | × | |
| | | ********* | | |
| Velocity | Note ON | × | × | |
| | Note OFF | × | × | |
| After Touch | Key's | × | × | |
| | Ch's | × | × | |
| Pitch Bender | | × | × | |
| Control Change | 7 | ○ EXP1 | × | Volume * 1 |
| | 16 | ○ EXP2 | × | General purpose controller * 1 |
| | 64 | ○ CTL1 | × | Hold * 1 |
| | 80 | ○ CTL2 | × | General purpose controller * 1 |
| Prog Change | | ○ | × | |
| | True # | 0 - 127 | | |
| System Exclusive | | × | × | |
| System Common | Song Pos | × | × | |
| | Song Sel | × | × | |
| | Tune | × | × | |
| System Real Time | Clock | × | × | |
| | Commands | × | × | |
| Aux Messages | Local ON/OFF | × | × | |
| | All Notes OFF | × | × | |
| | Active Sense | × | × | |
| | Reset | × | × | |
| Notes | | * 1 Can be transmitted when the external pedal is connected. | | |

Mode 1 : OMNI ON, POLY  Mode 2 : OMNI ON, MONO  ○ : Yes

Mode 3 : OMNI OFF, POLY  Mode 4 : OMNI OFF, MONO  × : No

# ■SPECIFICATIONS

**●Controls**
Pedal x 6
Bank Shift Buttons ( UP/DOWN )
Power Switch

**●Display**
Bank Display ( 7 segment )

**●Indicators**
Number Indicators x 5
Number Shift Indicators ( A/B )

**●CONNECTORS**
MIDI OUT
Bank Shift Jacks ( UP/DOWN )
Control Pedal Jacks ( 1/2 )
Expression Pedal Jacks ( 1/2 )
AC Adaptor Jack

**●Power**
DC9V : 1.5V R6(AA) type x 6 / AC Adaptor (PSA-120, 220 or 240)

**●Power Consumption** ( under normal conditions )
40 mA ( in the "ON" mode )
28 mA ( in the "ECONOMY" mode )

**●Expected battery life** ( with supplied batteries )
15 hours or greater( in the "ON" mode )
30 hours or greater( in the "ECONOMY" mode )

**●Dimensions**
423(W) x 135(D) x 40(H) mm / 16-11/16" x 5-5/16" x 1-9/16"

**●Weight**
1.6kg / 3.5 lbs ( including batteries )

**●Accessories**
Owner's Manual
Batteries ( 1.5V R6(AA) type x 6 )

**●Options**
MIDI Cables : MSC-15 ( 1.5m )、MSC-25 ( 2.5m )、
MSC-50 ( 5.0m )、MSC-100 ( 10m )

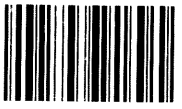
* Specifications and/or appearance of this product are subject to change without prior notice.

BOSS
Products of Roland

Roland®

# 2604061700

UPC 2604061700



10981

As of FEB 14. 1991

2604061700 '91-3-E3-11SE(AX)