

Service Manual

Digital Disk Recorder SY-FD20

(M), (MC), (EN), (EI), (EH), (EB), (EF), (EZ),
(EW), (EP), (EK), (XL), (XR), (XS), (X), (XD)



AREAS

(M): U.S.A.	(EP): Spain
(MC): Canada	(EK): the United Kingdom
(EN): Norway, Sweden, Denmark, Finland	(XL): New Zealand
(EI): Italy	(XR): Australia
(EH): Holland	(XS): Malaysia, Singapore, South Africa
(EB): Belgium	(X): the Middle East, Indonesia, Hong Kong, the Philippines,
(EF): France, Austria	Taiwan, Thailand
(EZ): Germany	(XD): Saudi Arabia
(EW): Switzerland	

Specifications

Storage Medium:	3.5-inch micro floppy disk (2DD)
Controls:	Eject button, Access indicator
Dimensions (W×H×D):	10.6 cm × 2.9 cm × 21.2 cm (4-3/16"×1-5/32"×8-11/32")
Net Weight:	0.95 kg (2.1 lbs)
Operating Conditions	
Temperature:	10°C~40°C (50°F~104°F)
Humidity:	20%~80%
Accessories:	Digital Memory Disk SY-D20×1

Technics

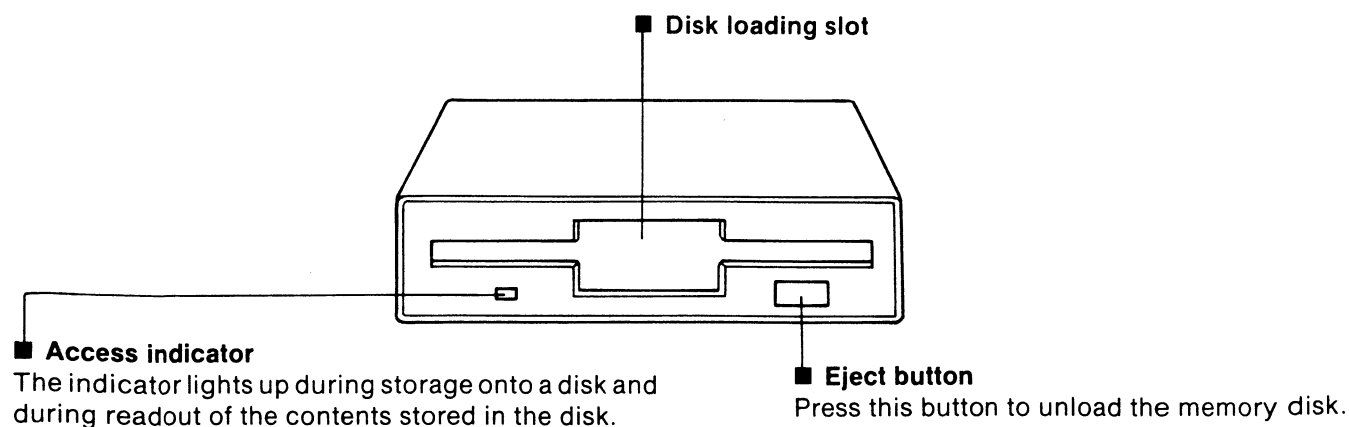
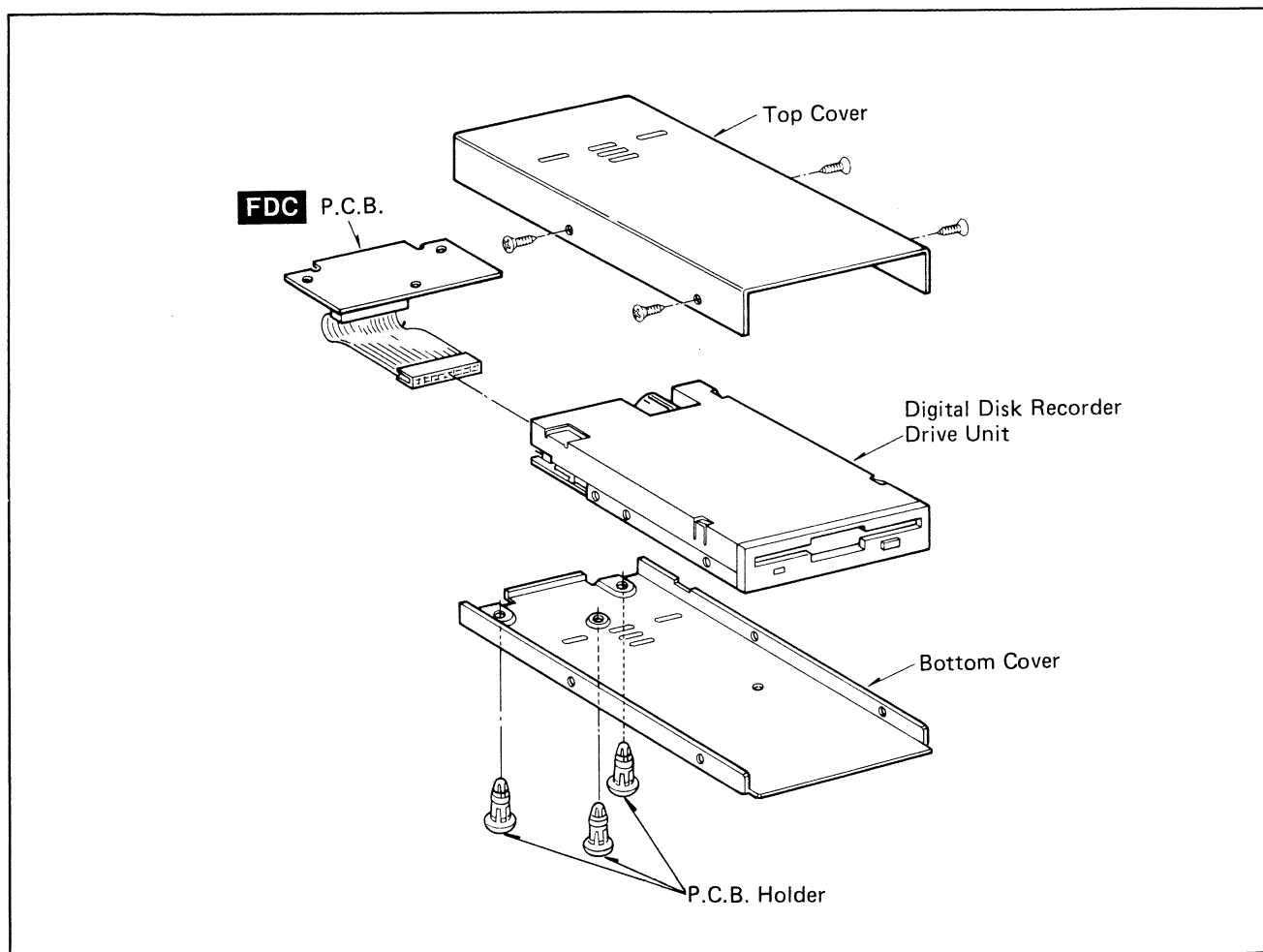
Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

Matsushita Services Company
Division of Matsushita Electric
Corporation of America
50 Meadowland Parkway,
Secaucus, New Jersey 07094

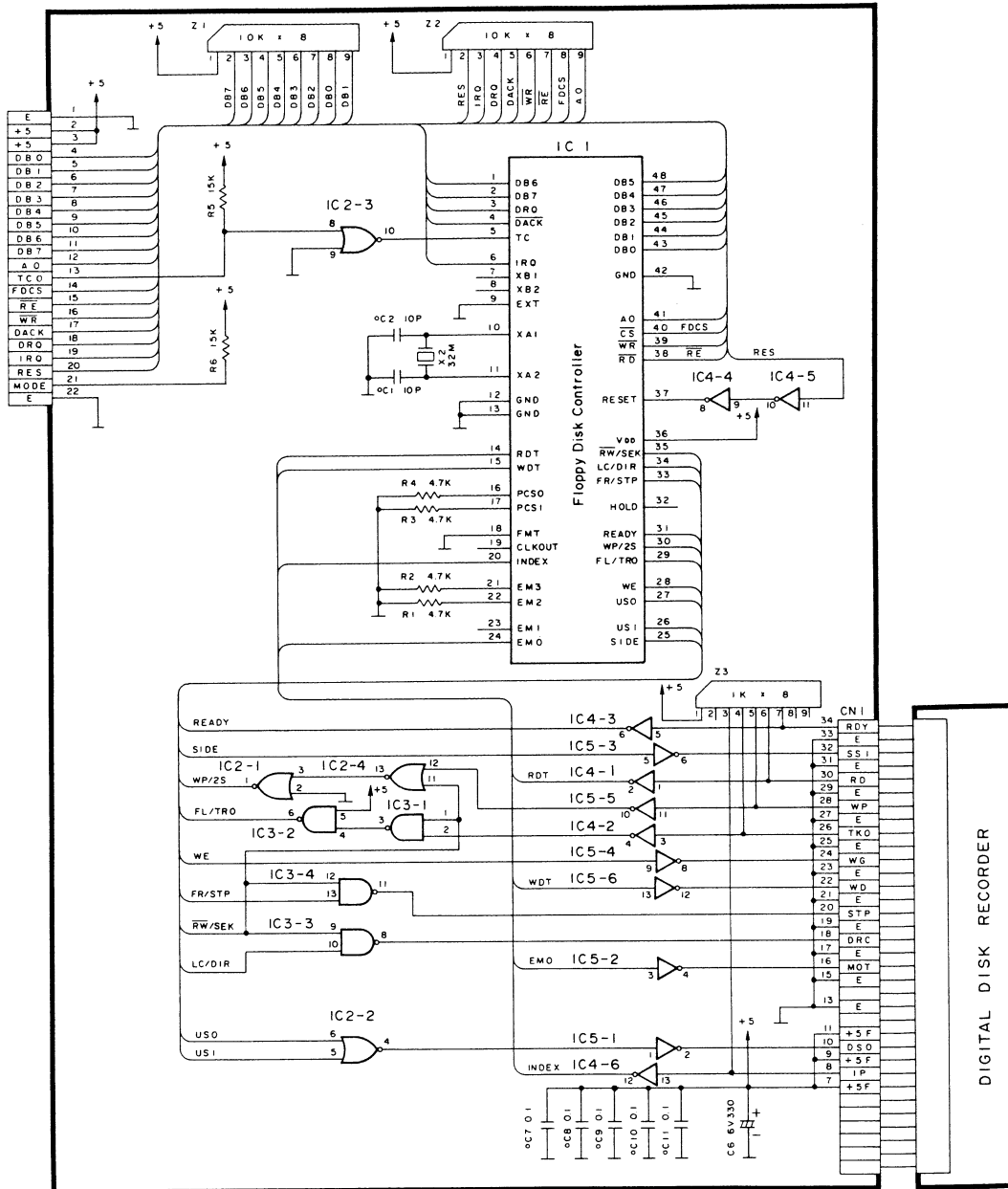
Panasonic Sales Company,
Division of Matsushita Electric
of Puerto Rico, Inc.
San Gabriel Industrial Park
65th Infantry Ave. Km. 9.5
Carolina, P.R. 00630

- The SY-FD20 Digital Disk Recorder is an optional unit for Technics organs and pianos which allows you to record several tunes or one long tune on a digital memory disk (SY-FD20) for later playback.
- The power supply is automatically connected when the SY-FD20 is installed in the Technics organ or piano.
- For details regarding installation and operation, refer to the Digital Disk Recorder instructions which accompanied your instrument.

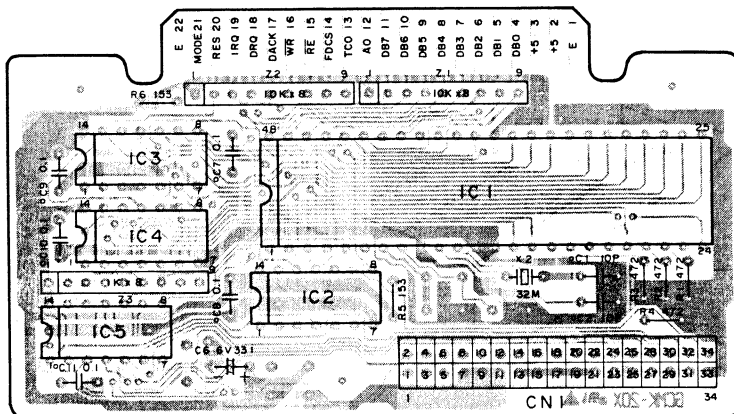
PARTS IDENTIFICATION AND FUNCTIONS



A
B
C
D
E
F



Circuit view on top of P.C.B.

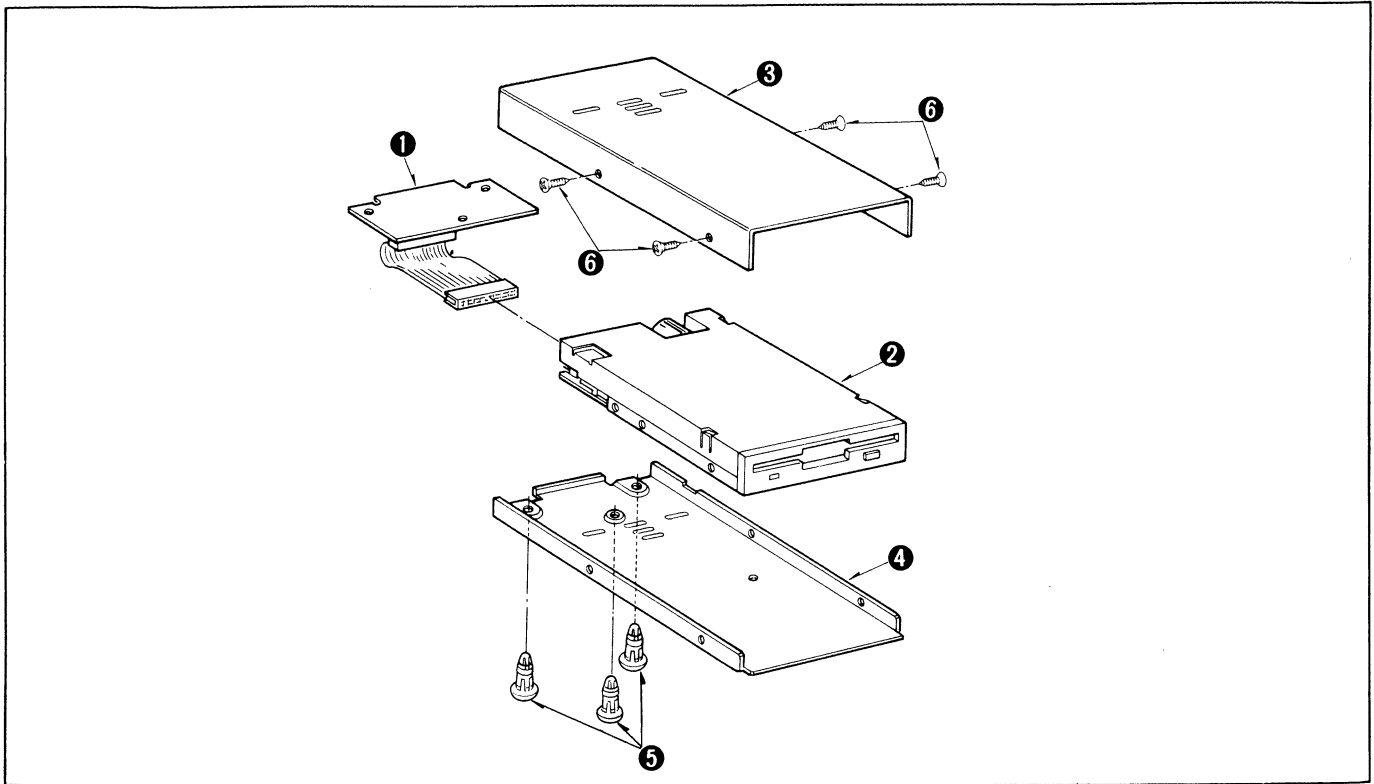


SXPG146111

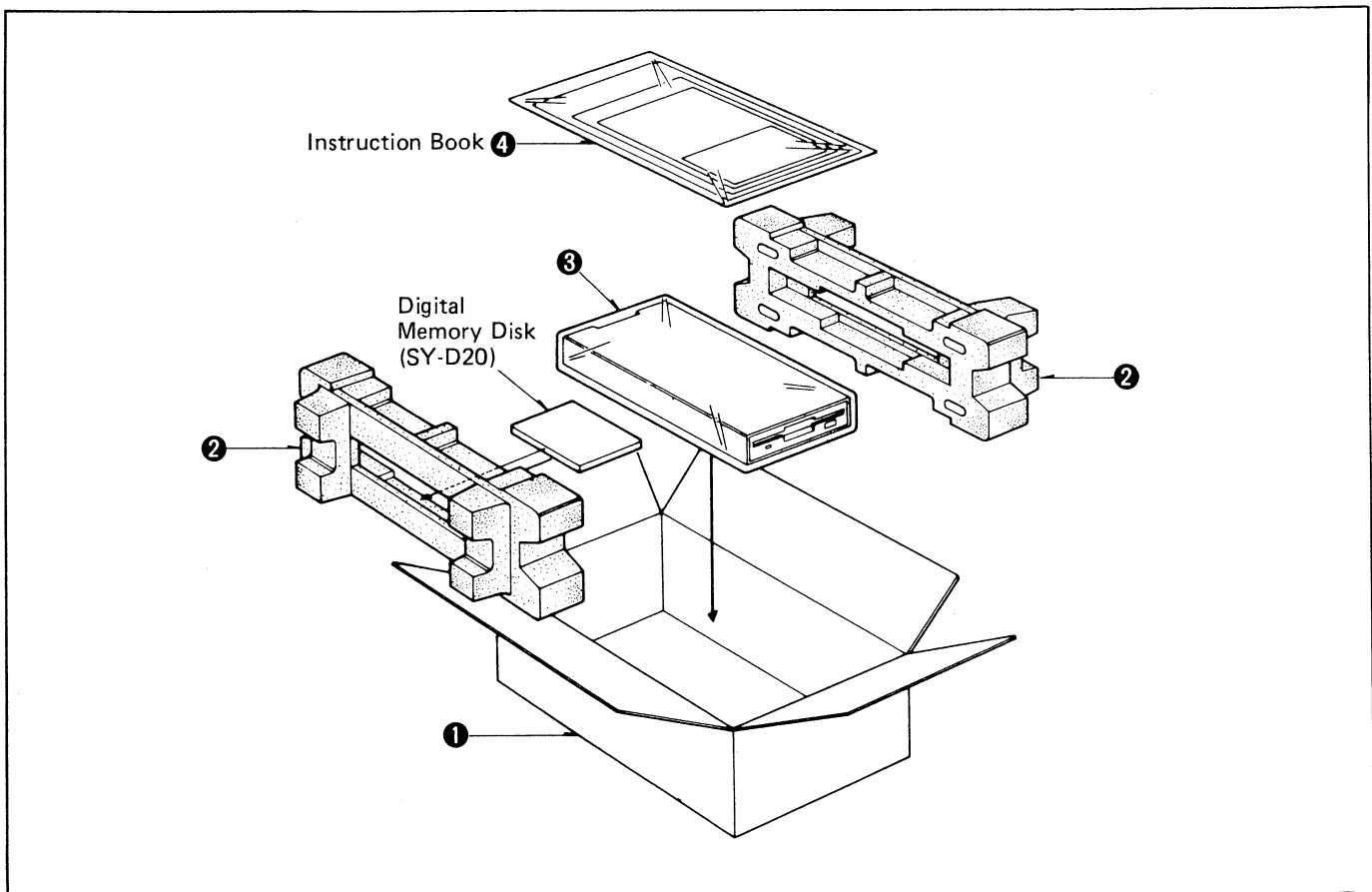
NOTES:

- IC'S
- IC 1 : SVIGD72067C
- IC 2 : SVIGM74HC02
- IC 3 : SVIGM74HC00
- IC 4 : SVIGM74HC14
- IC 5 : SVIGM74HC04

EXPLODED VIEW OF DIGITAL DISK RECORDER



PACKING



REPLACEMENT PARTS LIST

Notes:

1. Printed circuit boards assembly with mark (NLA) is no longer available after production discontinuation of the complete set.
2. The "S" mark is service standard parts and may differ from production parts.
3. ○ mark are new parts.
4. For part No. with area mark, check the area when placing an order.

FD CONTROL CIRCUIT

Ref. No.	Part No.	Description	Per/Set
INTEGRATED CIRCUITS			
○ IC1	SVIGD72067C	Floppy Disk Controller	1
○ IC2	SVIGM74HC02	Quad 2-Input NOR Gate	1
IC3	SVIGM74HC00	Quad 2-Input NAND Gate	1
○ IC4	SVIGM74HC14	Hex Schmitt-Trigger Inverter	1
IC5	SVIGM74HC04	Hex Inverter	1
OSCILLATOR			
○ X2	SVQG49S3200T	32MHz, Quartz Oscillator	1
COMPONENT COMBINATIONS			
Z1, 2	EXBPI8103JM	10KΩ × 8	2
Z3	EXBPI8102JM	1KΩ × 8	1
RESISTORS			
R1~4	ERDS2TJ472	4.7KΩ	4
R6, 7	ERDS2TJ153	15KΩ	2
CAPACITORS			
C1, 2	ECBA1H100J	10pF	2
C6	ECEA0JKA331	330μF, 6.3V	1
C7~11	ECRR1H104ZF	0.1μF	5

DIGITAL DISK RECORDER

Ref. No.	Part No.	Description	Per/Set	
○ 1	NLA	SXPG146111	FDC Circuit Board	1
○ 2		SFDG30A	Digital Disk Recorder Ass'y	1
○ 3		SUVG1291A	Cover	1
○ 4		SUVG1281A	Cover	1
5		SHRG9850A	P.C.B.Holder	3
6		XSS3+6FZ	Screw	4

PACKING PARTS

Ref. No.	Part No.	Description	Per/Set
○ 1	SPNG1997B	Carton Box	1
2	SPNG5736A	Pad	2
3	SPHG1980A	Polyethylene Bag	1

INSTRUCTION BOOK

○ 4	M	SQFGA1530	Instruction Book [M] area	1
○ 4		SQFGA1510	Instruction Book, Other areas	1