

Technics

FG SERVO

Automatic Turntable System

SL-BD22

OPERATING INSTRUCTIONS



The model number and serial number of this product can be found either on the back or bottom of the unit.

Please note them in the space provided below and retain this booklet as a permanent record of your purchase to aid identification in the event of theft.

MODEL NUMBER SL-BD22

SERIAL NUMBER _____

Before operating this unit, please read these instructions completely.

Dear Stereo Fan

Technics, The Science of Sound, welcomes the challenge of new audio technologies and brings you a multitude of world-renowned, high quality audio components.

Like our stereo high speed editing cassette decks with dbx*, Computer Drive New Class A receivers, quartz drive linear tracking turntables, and revolutionary honeycomb disc speakers. All are backed by our time-honored commitment to imagination, value, and quality.

Technics captures the power of new ideas and turns them into realities -- with digital Compact Disc players that bring the search for perfect sound to

fruition. And A/V receivers that can integrate both audio and video technologies to forever alter the home entertainment system.

The Technics list of advanced audio components continues. From digital PCM processors, quartz tuners, and preamps to the world's first touch-sensitive graphic equalizer, Technics is a shining example of audio technology at its best -- ready to take you to new dimensions in sound.

*dbx is a registered trademark of dbx, Inc.

Suggestions for Safety

Before using this unit, be sure to read the applicable items of operating instructions and these safety suggestions carefully. Afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

1. Avoid places where there is water or humidity.

Do not use this unit near a bathtub, washbasin, swimming pool, or the like. Damp basements should also be avoided.

2. Don't allow water or any foreign object to get inside this unit.

Don't place small metal objects or anything containing liquid on or near the unit.

3. Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.

Don't place this unit in a bookcase or between cabinets, or where curtains or furniture may obstruct the ventilation holes.

4. Place this unit away from heat-emitting appliances.

Never place this unit near a radiator, heat register, stove, or any other heat-emitting equipment (including amplifiers).

5. Placement

Place the unit on a stable, vibration-free, level shelf or stand.

6. Use of a cart or stand

When deciding on a cart or stand, be sure to follow the recommendations for this unit in the operating instructions.

7. Wall or ceiling installation

If the unit is to be mounted on a wall or ceiling, be sure to do so only as recommended in the operating instructions.

8. Check the voltage rating of this unit before connecting the unit to a power supply.

Be sure to connect the unit only to the type of power supply indicated in the operating instructions, or as indicated on the unit itself.

9. Care of the power cord and plug

Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.

10. If the unit will not be used for a long period of time:

Be sure to disconnect the power cord.

11. Never attempt repairs yourself

(a) If the power cord or plug is damaged.

(b) If a foreign object or liquid falls into the unit.

(c) If the unit is exposed to rain.

(d) If the unit does not function normally, or if operation shows an unusual change.

(e) If the unit has been dropped and the cabinet or chassis are damaged . . . etc.

Unplug the power cord and consult with a qualified technician (or the dealer from whom the unit was purchased or the nearest service center).

12. Repairs

Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest service center).

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

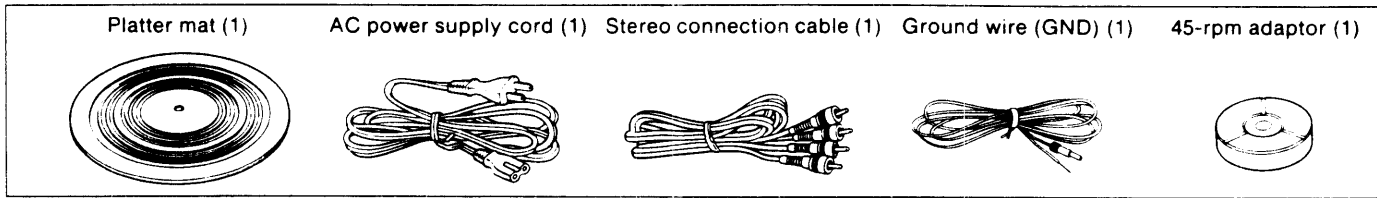


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



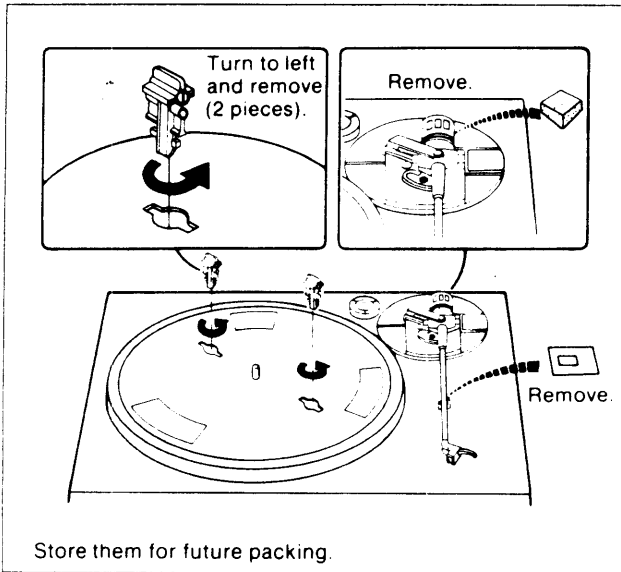
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Accessories

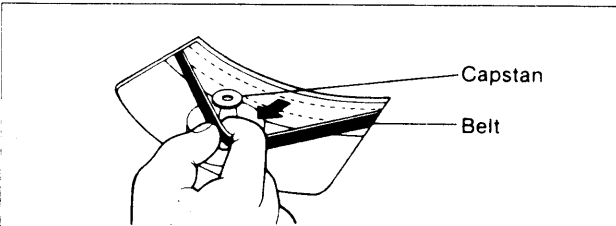


Turntable Assembly

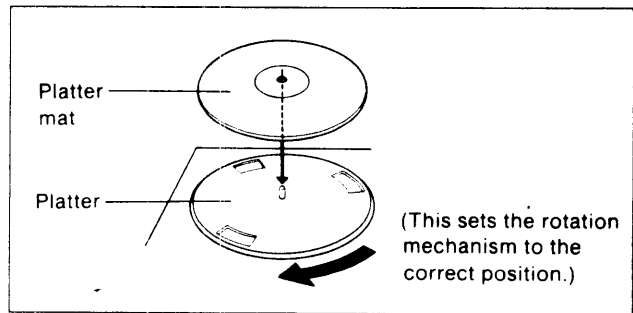
1. Remove the packing spacers.



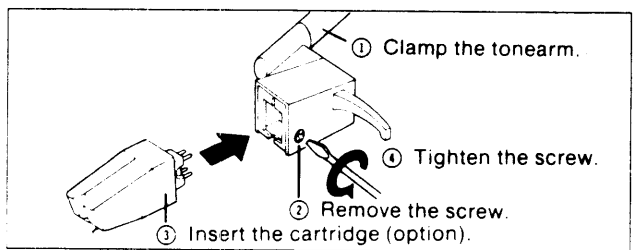
2. Attach the drive belt properly.



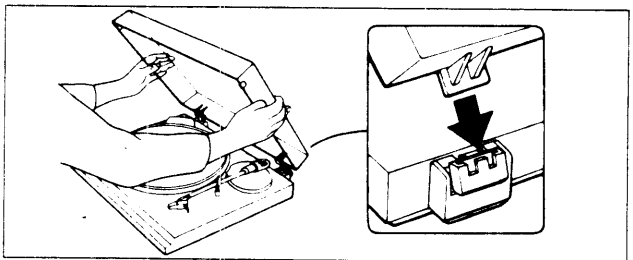
3. Place the platter mat on the platter, and turn the platter about ten times clockwise.



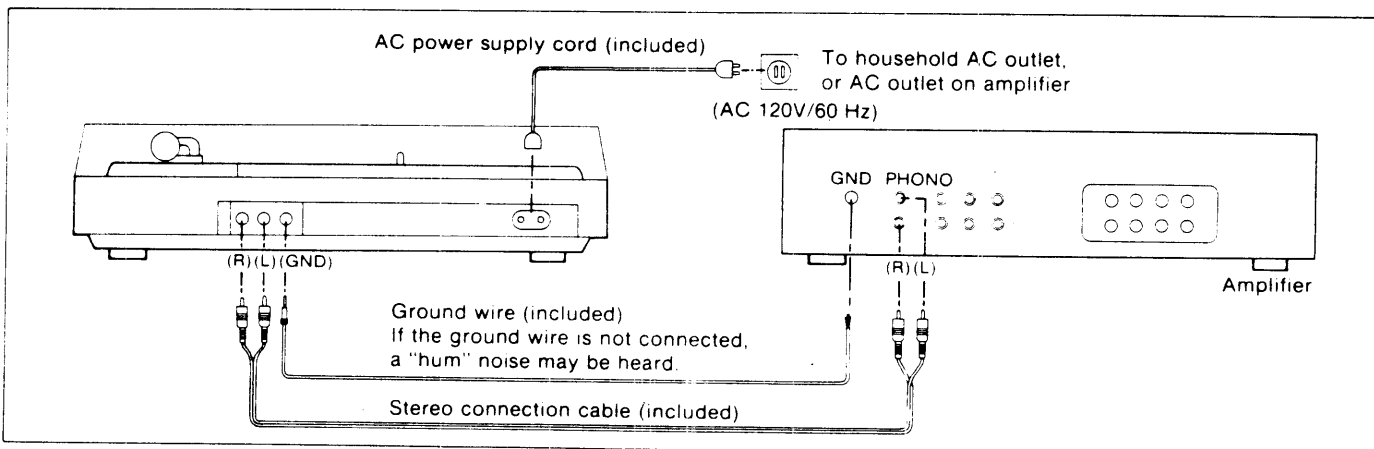
4. Attach a **TD** cartridge (option).



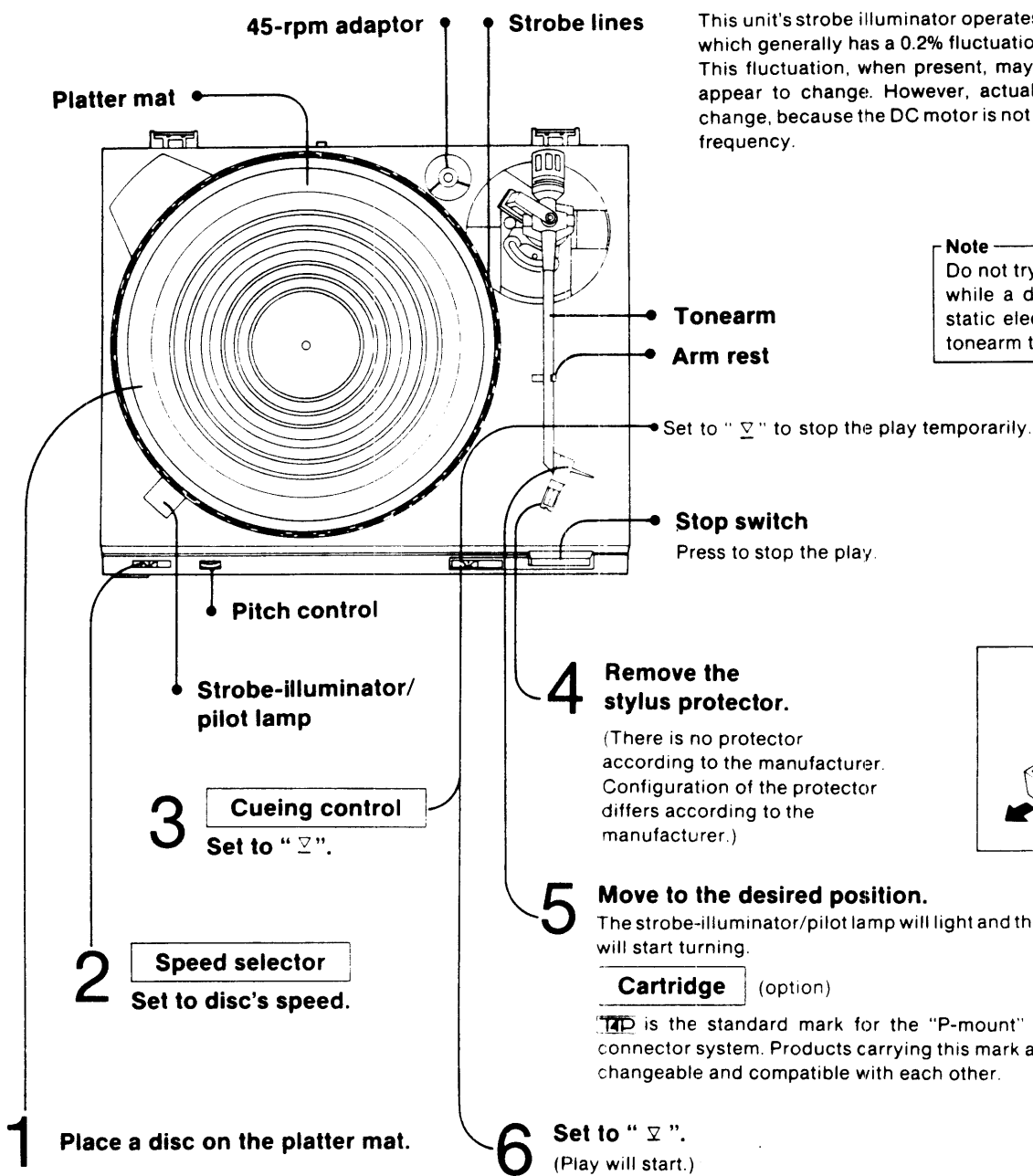
5. Install the dust cover.



Connections



Operation



This unit's strobe illuminator operates at the AC line frequency which generally has a 0.2% fluctuation. This fluctuation, when present, may make the strobe pattern appear to change. However, actual platter speed does not change, because the DC motor is not affected by AC power line frequency.

Note
Do not try to clean the dust cover while a disc is playing, because static electricity might cause the tonearm to rise.

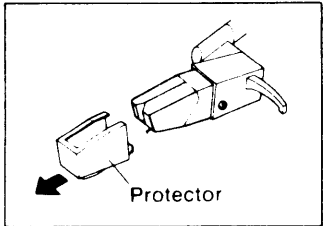
Set to "∇" to stop the play temporarily.

Stop switch
Press to stop the play.

2 **Speed selector**
Set to disc's speed.

3 **Cueing control**
Set to "∇".

4 **Remove the stylus protector.**
(There is no protector according to the manufacturer. Configuration of the protector differs according to the manufacturer.)



5 **Move to the desired position.**
The strobe-illuminator/pilot lamp will light and the platter will start turning.

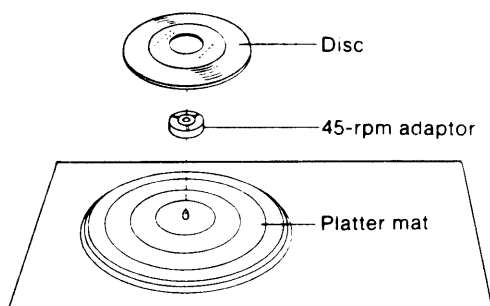
Cartridge (option)

Ⓜ is the standard mark for the "P-mount" plug-in connector system. Products carrying this mark are interchangeable and compatible with each other.

1 **Place a disc on the platter mat.**

6 **Set to "∇".**
(Play will start.)

■ For a 17-cm (7") (large center hole) disc

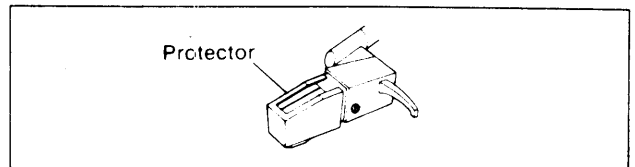


■ When play ends

1. The tonearm will automatically return to the arm rest (the automatic return feature).
2. Rotation will stop.

After use

Attach the stylus protector if fitted.

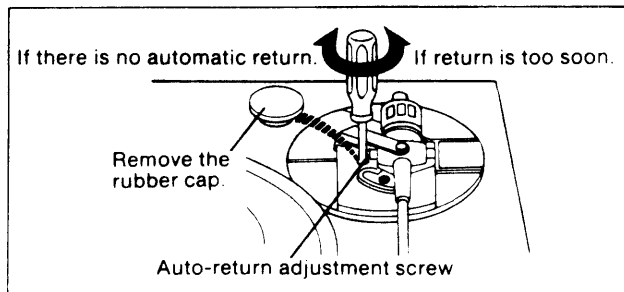


Adjustment

Adjustment of the automatic-return position

Make this adjustment if the tonearm doesn't return automatically to the arm rest, or if it returns before the tune ends.

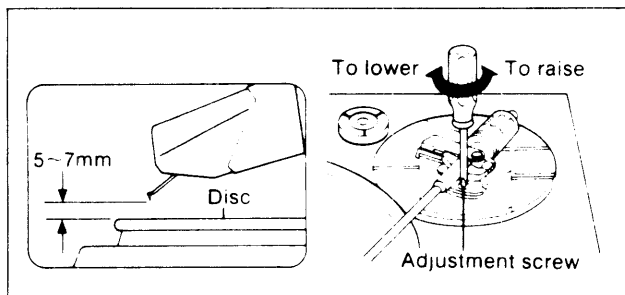
1. Adjust to the desired automatic-return position.
2. Check to be sure the automatic-return position is correct.



Adjustment of the stylus-to-disc clearance

This adjustment is preset at the factory. This adjustment should not be necessary unless the cartridge or stylus is changed.

1. Set the cueing control to "∇".
2. Move the tonearm to a position above the disc.
3. Adjust the stylus tip position.



Replacement

Replacement of the stylus

If noise is heard from new discs, the stylus is probably worn. Replace it with a new one.
(Refer to the operating instructions of the cartridge.)

Replacement of the cartridge

The plug-in type of cartridge is already designed to match this unit in every respect: weight, correct stylus pressure, stylus tip position, center of gravity, etc. This means that there's no longer any need for troublesome connection of lead wires or adjustment of the stylus pressure.
(Refer to page 3.)

Adjustment of the platter speed

When the platter rotates, the strobe marks form a stripe pattern according to the rotation speed and the frequency of the power supply.

The platter speed is correct when the stripe pattern of the stroboscope appears to be stationary while the platter is moving; adjust the speed if the stripes appear to be moving.

Speed	Power supply frequency
45 rpm	for 50 Hz use
33-1/3 rpm	(For European countries)
45 rpm	for 60 Hz use
33-1/3 rpm	(For U.S.A. and CANADA)

If stripe pattern seems to move to the left (platter speed is too fast)

Platter speed will decrease.

pitch adj.

If stripe pattern seems to move to the right (platter speed is too slow)

Platter speed will increase.

pitch adj.

Maintenance

To clean dust from the stylus

Use a soft brush or similar material to gently remove the dust. Thoroughly clean your discs occasionally with a high-quality disc cleaner.

Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.
If the surfaces are extremely dirty, use a soft cloth, dipped into a soap-and-water solution or a weak detergent solution. Wring the cloth well before wiping the unit.
Wipe once again with a soft, dry cloth.
Never use alcohol, paint thinner, benzene, nor a chemically treated cloth to clean this unit.
Such chemicals may damage the finish of your unit.

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized service centers (enclosed with this unit) to locate a convenient service center, or consult your Technics dealer for instructions. (In U.S.A., consult MSC Authorized service center for detailed instructions.)

Problem	Probable cause(s)	Suggested remedy
During disc play		
The platter doesn't turn when the tonearm is moved.	The platter's belt has slipped off.	• Re-attach the belt.
A loud and unusual sound ("howling") is heard when the volume level is increased.	The location of the turntable and speaker systems is unstable.	<ul style="list-style-type: none"> • If the equipment is unstable because it is located upon a soft surface, such as a carpet, place a solid material (such as concrete blocks, bricks, a hard board, etc.) beneath the speaker systems. • Try moving the turntable farther away from the speaker systems. • Try placing a cushioning material (such as felt or commercially available audio insulators) beneath the turntable.
Unusual scratching noises are heard.	Disc is old or scratched.	• Turn the treble tone control of the amplifier to reduce the treble sound.
	Dust in disc grooves.	• Use a disc cleaner to remove the dust from the disc grooves.
	Stylus needle is worn.	• If the noise is heard even when a new disc is played, probably the stylus is worn. Replace it with a new stylus.
	Dust is attached to stylus tip.	• Remove the dust by using a soft brush.

Technical Specifications

■ TURNTABLE SECTION

Type	Automatic turntable
Features	Auto-return Auto-stop
Drive method	Belt drive
Motor	DC motor
Drive control method	FG servo control
Turntable platter	Aluminum die-cast Diameter 31.2 cm (12-9/32")
Turntable speeds	33-1/3 rpm and 45 rpm
Wow and flutter	0.045% WRMS (JIS C5521) ±0.06% Weight zero to peak (IEC 98A weighted)
Rumble	-70 dB DIN-B (IEC 98A weighted)

■ TONEARM SECTION

Type	Static-balanced straight tonearm Plug-in-connector cartridge system
Overhang	15 mm (19/32")
Effective length	230 mm (9-1/16")
Tracking error angle	Within 2°32' at outer groove of 30 cm (12") record Within 0°32' at inner groove of 30 cm (12") record
Stylus pressure	1.25 g (Fixed)
Applicable cartridge weight	6 g
Phono cable capacitance	90 pF

■ GENERAL

Power supply	AC 120V, 60 Hz
Power consumption	3 W
Dimensions (W×H×D)	430×93×375 mm (16-15/16"×3-21/32"×14-3/4") When dust cover is open: 430×360×410 mm (16-15/16"×14-5/32"×16-1/8")
Weight	3.6 kg (7.9 lb.)

Product Service

The unit should be serviced by qualified technicians only. No service information is provided for customers. Your product is designed and manufactured to ensure a minimum of maintenance. However, should your unit ever require service, a

nationwide system of factory servicenters and AUTHORIZED INDEPENDENT SERVICENTERS is maintained to support your product's warranty.

Panasonic Company Division of
Matsushita Electric Corporation of America
One Panasonic Way Secaucus,
New Jersey 07094

Matsushita Electric of Canada Limited
5770 Ambler Drive, Mississauga,
Ontario L4W 2T3

Panasonic Hawaii, Inc.
91-238 Kauhū St., Ewa Beach
P.O. Box 774
Honolulu Hawaii 96808-0774

Panasonic Sales Company,
Division of Matsushita Electric
of Puerto Rico, Inc.
Ave. 65 De Infanteria, KM 9.7
Victoria Industrial Park
Carolina, Puerto Rico 00630



© Matsushita Electric Industrial Co. Ltd.
All rights reserved. Unauthorized
copying and distribution is a violation of law

SQX53772
E0386N0