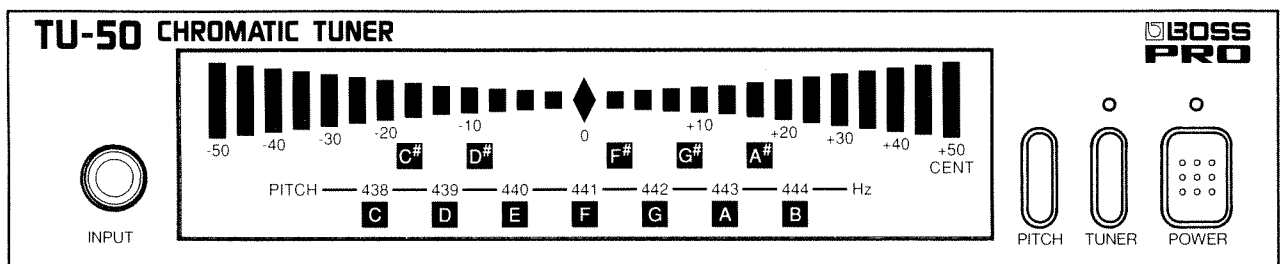




TU-50 CHROMATIC TUNER

Owner's Manual

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For Germany

Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das

CHROMATIC TUNER TU-50

(Gerat. 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 interference in a residential 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 fixes dans le Règlement des signaux parasites par le ministère canadien des Communications.

Thank you, and congratulations on your choice of the BOSS TU-50 Chromatic Tuner.

To make sure you enjoy the complete range of functions the TU-50 provides, and to ensure satisfaction for years to come, please take the time to completely read this Owner's Manual before starting out.

■ IMPORTANT NOTES

When using an AC adaptor, be sure that it is one supplied by the manufacturer. Use of any other power adaptor could result in damage, malfunction, or electric shock.

Power Supply

- When making any connections with other devices, always turn off the power to all equipment first; 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, such as a motor or variable lighting system.
- The power supply required for this unit is shown on its nameplate. Ensure that the line voltage of 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.

Placement

- Do not subject the unit to temperature extremes (eg, direct sunlight in an enclosed vehicle). Avoid using or storing the unit in dusty or humid areas or areas that are subject to high vibration levels.
- Using the unit near power amplifiers (or other equipment containing large transformers) may induce hum.
- This unit may interfere with radio and television reception. Do not set this unit in the vicinity of such receivers.

■ Features

- The large display facilitates tuning away from the tuner.
- Input jacks are located on both the front and rear panels.
- Muting can be turned on or off during tuning.
- When the tuner is turned off the tuning indicator displays the input signal level.
- The tuner can be turned on and off. A pedal switch can also be used for this.
- When used with the RAD-50 rack-mount adaptor (optional), the tuner can be mounted on the EIA standard 19-inch rack.

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 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

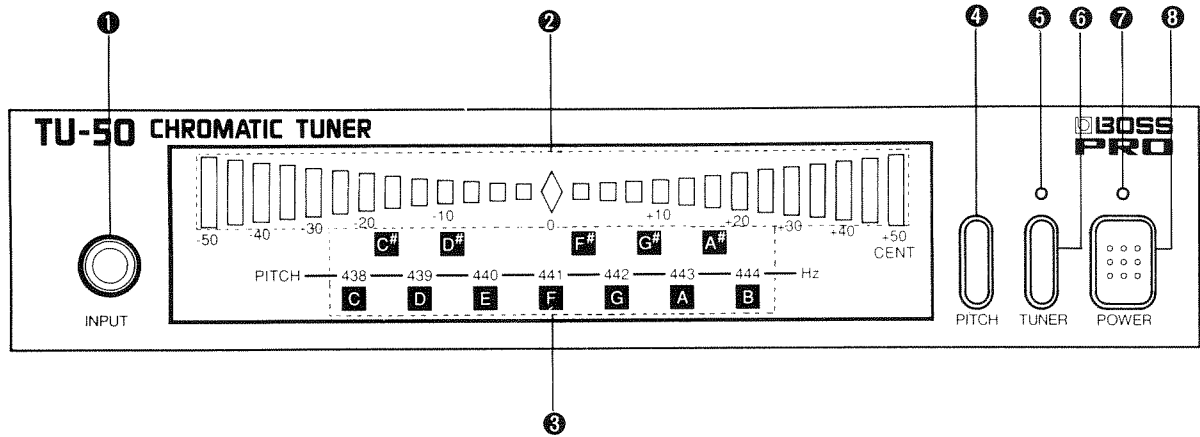
- Protect the unit from strong impact.
- Do not allow objects or liquids of any kind to penetrate the unit. In the event of such an occurrence, discontinue use immediately. Contact qualified service personnel as soon as possible.
- Should a malfunction occur (or if you suspect there is a problem) discontinue use immediately. Contact qualified service personnel as soon as possible.
- To prevent the risk of electric shock, do not open the unit or its AC adaptor.

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■ PANEL DESCRIPTIONS

〈Front Panel〉



1 Input Jack

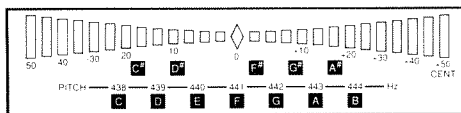
This jack is for input.

- * When instruments are connected to the input jacks on both the front and rear panels, the instruments connected to the front panel have priority.

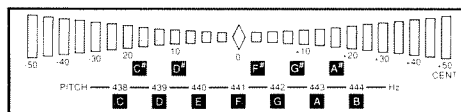
2 Tuning Indicator

This displays pitch status. Tune your instrument so that the indicator in the center of the tuning indicator lights up.

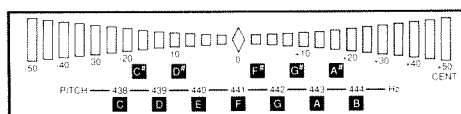
- * When the tuner is turned off, the level of the input signal is displayed.



Tuned



Too Low



Too High

3 Note Indicator

While tuning, the note indicator corresponding to the pitch of the input signal lights up. Also, pressing the Pitch button makes the indicator showing the standard pitch flash.

4 Pitch Button

Press this to display or change the standard pitch. Pressing the Pitch button makes the indicator flash to allow confirmation of the current standard pitch.

- * The standard pitch when the power is turned on is always 440 Hz.
- * If you want to change the standard pitch, see page 6, "Changing the Standard Pitch".

5 Tuner Indicator

This lights up when the tuner is turned on, and goes out when the tuner is turned off.

6 Tuner Switch

This is used to turn the tuner on and off. When turned on, tuning can be accomplished. When off, the tuning indicator displays the input signal level.

7 Power Indicator

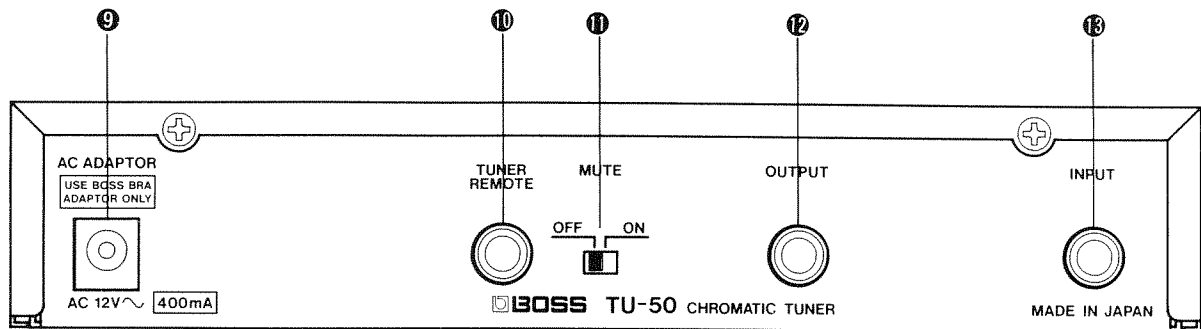
This lights up when the power switch is turned on.

8 Power Switch

This is used to turn the power on and off.

- * When operating the power switch, turn the volume control of the amplifier to zero.

〈Rear Panel〉



⑨ AC Adaptor Jack

This is for connecting the separate AC adaptor (BOSS BRA-120, 220 or 240).

⑩ Tuner Remote Jack

A foot switch (FS-5L:optional) can be connected to the tuner to turn it on and off. The tuner indicator shows whether the tuner is on or off.

* **When the foot switch is connected, the tuner switch ⑥ cannot be used for turning the tuner on and off.**

⑪ Mute Switch

When the tuner is on, this is used to switch input signal output from the output jack on and off. When on, the input signal is not output (muted) if the tuner is on.

⑫ Output Jack

This jack is for output.

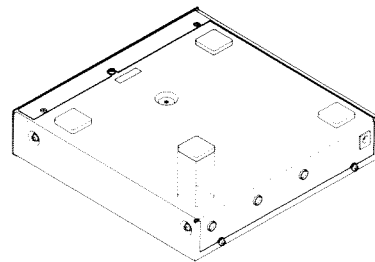
* **When the power is off, the input signal is not output.**

⑬ Input Jack

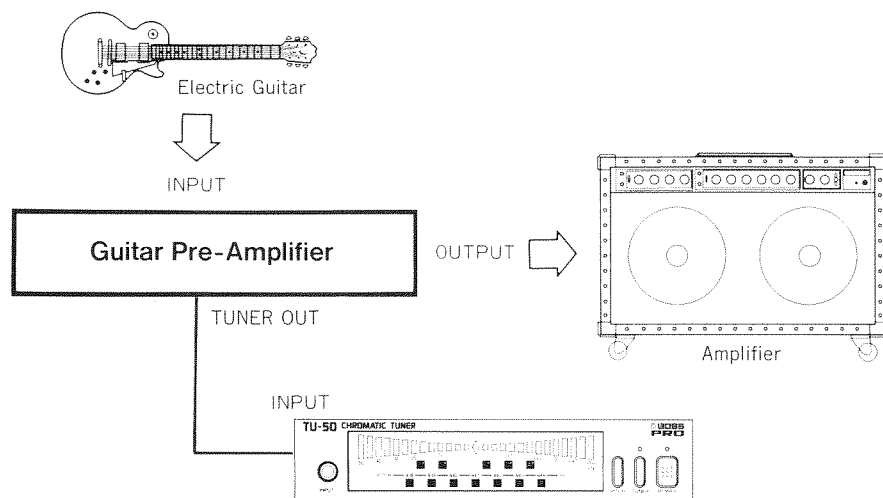
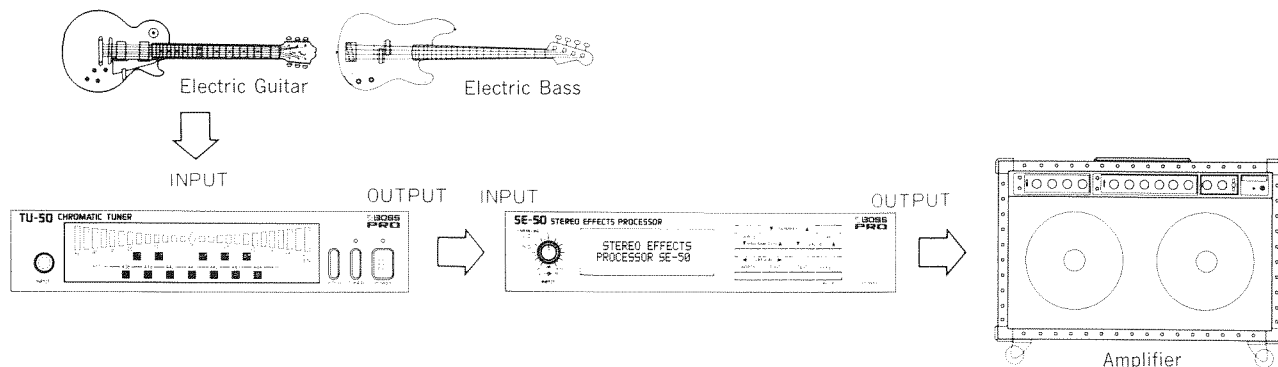
This jack is for input.

* **When instruments are connected to both the front and rear panels, the instruments connected to the front panel have priority.**

When using the unit without the optional Rack Mount Adaptor RAD-50, please attach the rubber feet as shown below.



MAKING CONNECTIONS



TUNING

- ① Connect the instrument to input jack ① or ②.
- ② Press the power switch to turn on the power.
- ③ Turn on the tuner switch.
- ④ When a single note is played on the instrument, the note indicator for note close in pitch lights up, as does the tuning indicator.

Tune the instrument so that the note indicator for the desired note name and the tuning indicator are centered.

[NOTE NAME/STRING TABLE]

<GUITAR>

NOTE NAME	STRING	FREQUENCY
1E	1st String Open	329.6Hz
2B	2nd String Open	246.9Hz
3G	3rd String Open	196.0Hz
4D	4th String Open	146.8Hz
5A	5th String Open	110.0Hz
6E	6th String Open	82.4Hz

<BASS>

NOTE NAME	STRING	FREQUENCY
C		130.8Hz
1G	1st String Open	98.0Hz
2D	2nd String Open	73.4Hz
3A	3rd String Open	55.0Hz
4E	4th String Open	41.2Hz
B		30.9Hz

CHANGING THE STANDARD PITCH

The following procedure describes how to change the standard pitch.

The pitch can be varied from 438 Hz to 444 Hz in 1 Hz increments.

- ① Turn on the Tuner Switch.
- ② Press the Pitch Button once to make the note indicator for the current standard pitch flash.
- ③ Pressing the Pitch Button while the note indicator is flashing changes the standard pitch by 1 Hz. Repeat pressing the Pitch Button while flashing until the desired pitch is displayed. After a short time, the tuner will again be ready to use for tuning.

* When the power is turned off, the standard pitch returns to 440 Hz. If a pitch other than 440 Hz is desired, it must be set each time the power is turned on.

■ SPECIFICATIONS

Standard Pitch:

438Hz to 444Hz 1Hz step

Tuning Range:

B0(30.9Hz) to B7(3951Hz)

Tuning Accuracy:

±1 cent

Input Impedance:

1M Ω

Maximum Input:

+14dBm

Recommended Load Impedance:

10k Ω or greater

Controls:

Pitch Button
Tuner Switch
Power Switch
Mute Switch

Indicators:

Tuning Indicator(27 point)
Note Indicator(12 point)
Tuner Indicator
Power Indicator

Connectors:

Input Jack [Front/Rear] (1/4 inch phone type)
Output Jack (1/4 inch phone type)
Tuner Remote Jack
AC Adaptor Jack (AC 12V)

Power Supply:

AC12V:AC Adaptor BRA-120, 220, 240

Current Draw:

400mA

Dimensions:

218(W) × 226(D) × 44(H) mm

8-5/8" (W) × 8-15/16" (D) × 1-3/4" (H) inches

Weight:

1.4kg / 3 lbs 2 oz

Accessories:

AC Adaptor BRA-120, 220, 240
Foot Rubber × 4
Owner's Manual

Options:

Rack Mount Adaptor RAD-50
Foot Switch FS-5L

* 0dBm=0.775Vrms

* In the interest of product improvement, the specifications of this unit are subject to change without prior notice.

Information

When you need repair service, call your local Roland Service Station or the authorized Roland distributor in your country as shown below.

U. S. A.

Roland Corporation US
7200 Dominion Circle
Los Angeles, CA.
90040-3647, U. S. A.
☎ (213)685 - 5141

CANADA

Roland Canada Music Ltd.
(Head Office)
5480 Parkwood
Richmond B. C., V6V 2M4
CANADA
☎ (604)270 - 6626

Roland Canada Music Ltd.
9425 Transcanadienne
Service Rd. N., St Laurent,
Quebec H4S 1V3.
CANADA
☎ (514)335 - 2009

Roland Canada Music Ltd.
346 Watline Avenue,
Mississauga, Ontario L4Z
1X2, CANADA
☎ (416)890 - 6488

AUSTRALIA

Roland Corporation
(Australia) Pty. Ltd.
(Head Office)
38 Campbell Avenue
Dee Why West, NSW 2099
AUSTRALIA
☎ (02)982 - 8266

Roland Corporation
(Australia) Pty. Ltd.
(Melbourne Office)
50 Garden Street
South Yarra, Victoria 3141
AUSTRALIA
☎ (03)241 - 1254

UNITED KINGDOM

Roland(U.K.) Ltd.
Rye Close
Ancells Business Park
Fleet, Hampshire GU13
8UY, UNITED KINGDOM
☎ 0252 - 816181

Roland(U.K.) Ltd.,
Swansea Office
Atlantic Close, Swansea
Enterprise Park, Swansea,
West Glamorgan SA79FJ,
UNITED KINGDOM
☎ (0792)700 - 139

ITALY

Roland Italy S. p. A.
Viale delle Industrie 8
20020 ARESE MILANO
ITALY
☎ 02 - 93581311

SPAIN

Roland Electronics
de España, S. A.
Calle Bolivia 239
08020 Barcelona, SPAIN
☎ 93 - 308 - 1000

GERMANY

Roland Elektronische
Musikinstrumente
Handelsgesellschaft mbH.
Oststrasse 96, 2000
Norderstedt, GERMANY
☎ 040/52 60 090

FRANCE

Musikengro
102 Avenue Jean-Jaures
69007 Lyon Cedex 07
FRANCE
☎ (7)858 - 54 60

Musikengro (Paris Office)
Centre Region Parisienne
41 rue Charles-Fourier,
94400 Vitry s/Seine
FRANCE
☎ (1)4680 86 62

BELGIUM/ HOLLAND/ LUXEMBOURG

Roland Benelux N. V.
Houtstraat 1
B-2260 Oevel-Westerlo
BELGIUM
☎ (0032)14 - 575811

DENMARK

Roland Scandinavia A/S
Langebrogade 6
Box 1937
DK-1023 Copenhagen K.
DENMARK
☎ 31 - 95 31 11

SWEDEN

Roland Scandinavia A/S
DanvikCenter 28 A, 2 tr.
S-131 30 Nacka
SWEDEN
☎ 08 - 702 00 20

NORWAY

Roland Scandinavia
Avd. Norge
Lilleakerveien 2
Postboks 95 Lilleaker
N-0216 Oslo 2
NORWAY
☎ 02 - 73 00 74

FINLAND

Fazer Musik Inc.
Länsituulentie
POB 169
SF-02101 Espoo
FINLAND
☎ 0 - 43 50 11

NEW ZEALAND

Roland Corporation
(NZ) Ltd.
97 Mt. Eden Road, Mt.
Eden, Auckland 3,
NEW ZEALAND
☎ (09)3098 - 715

SWITZERLAND

Musitronic AG
Gerberstrasse 5, CH-4410
Liestal, SWITZERLAND
☎ 061/921 16 15

Roland CK (Switzerland)
AG
Postfach/Hauptstrasse 21
CH-4456 Tenniken
SWITZERLAND
☎ 061/98 60 55
Repair Service by
Musitronic AG

AUSTRIA

E. Dematte & Co.
Neu-Rum Siemens-
Strasse 4
A-6021 Innsbruck Box 591
AUSTRIA
☎ (0512)63 451

GREECE

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Athens, GREECE
☎ 1 - 3620130

PORTUGAL

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Musicais Lda.
Rua de Santa Catarina 131
Porto, PORTUGAL
☎ 02 - 38 44 56

HUNGARY

Intermusica Ltd.
Warehouse Area 'DEPO'
Torokbalint, Budapest
HUNGARY
☎ (1)1868905

ISRAEL

D.J.A. International Ltd.
25 Pinsker St., Tel Aviv
ISRAEL
☎ 972 - 3 - 5283015

CYPRUS

Radex Sound Equipment
Ltd.
17 Panteli Katelari Str.
P.O.Box 2046, Nicosia
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☎ 453426, 466423

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Siraselviiler Cad. 86/6
Taksim Istanbul, TURKEY
☎ 149 93 24

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Heliopolis, Cairo, EGYPT
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CEP-05509 Sao Paulo
BRAZIL
☎ (011)813 - 7967
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Barueri SP CEP 06400
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MEXICO

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Col. Centro
C.P. 06080 Mexico, D.F.
MEXICO
☎ (5)709 - 3716

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Av. Corona No. 202 S.J.
C.P.44100
Guadalajara, Jalisco
MEXICO
☎ (36)13 - 1414

ARGENTINA

Netto S.A.
Venezuela 1433
1095 Buenos Aires
ARGENTINA
☎ 37 - 1632

HONG KONG

Tom Lee Music Co., Ltd.
Service Division
22-32 Pun Shan Street,
Tsuen Wan, New
Territories, HONG KONG
☎ 415 - 0911

KOREA

Cosmos Corporation
Service Station
261 2nd Floor Nak-Won
arcade
Jong-Ro ku, Seoul, KOREA
☎ (02) 742 8844

SINGAPORE

Swee Lee Company
Bras Basah Complex
#03-23 Singapore 0178
SINGAPORE
☎ 3367886

THAILAND

Theera Music Co., Ltd.
330 Verng Nakorn Kasem,
Soi 2, Bangkok 10100,
THAILAND
☎ 2248821

MALAYSIA

Syarikat Bentley
No.142, Jalan Bukit
Bintang 55100 Kuala
Lumpur, MALAYSIA
☎ 2421288

INDONESIA

PT Galestra Inti
Kompleks Perkantoran
Duta Merlin Blok C/59
Jl. Gajah mada No.3-5
Jakarta 10130
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☎ (021) 354604, 354606

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Taipei, TAIWAN, R.O.C.
☎ (02)5364546

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