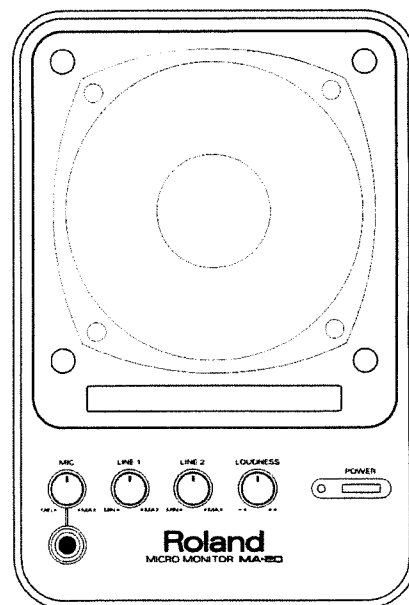




Roland

MICRO MONITOR

MA-20

Owner's Manual



	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR		
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). 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 product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should avoid using in where it may be effected by dust.
8. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
9. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
10. Do not tread on the power-supply cord.
11. Do not pull the cord but hold the plug when unplugging.
12. When setting up with any other instruments, the procedure should be followed in accordance with instruction manual.
13. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
14. The product should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the product; or
 - C. The product has been exposed to rain; or
 - D. The product does not appear to operate normally or exhibits a marked change in performance; or
 - E. The product has been dropped, or the enclosure damaged.
15. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

For the USA

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product — if it will not fit the outlet, have a proper outlet installed by a qualified electrician.


SAVE THESE INSTRUCTIONS

For the U.K.

WARNING: THE APPARATUS MUST BE EARTHED

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or coloured GREEN or GREEN-AND YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

The product which is equipped with a THREE WIRE GROUNDING TYPE AC PLUG must be grounded.

Thank you for purchasing the Roland MA-20 Micro Monitor. To make the best use of this unit, please read the owner's manual carefully.

FEATURES

- The MA-20 is a self-powered monitor speaker (15W output) that includes a magnetically shielded, 12cm, 2-way coaxial driver.
- The speaker is equipped with a MIC Input Jack and two Line Input Jacks.
- The system contains independent Volume Controls for three inputs; Line In 1, 2 and Mic.
- The audio signals from LINE IN 1 and 2 and the MIC input are mixed and sent to the LINE OUT jack. If the LINE OUT jack is then connected to a cassette tape deck (for example) these signals can be recorded onto tape.
- The system contains a Loudness Control that allows you to compensate for EQ at low listening levels.

IMPORTANT NOTES

In addition to the items listed under Safety Precautions on page 2, please read and adhere to the following:

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.

Placement

- 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 use this unit in the vicinity of such receivers.
- Do not expose this unit to temperature extremes (eg. direct sunlight in an enclosed vehicle can deform or discolor the unit) or install it near devices that radiate heat.
- The MA-20 adopts magnetically shielded system, however, keep floppy disks or recorded tapes away from it for safety.

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 benzene, thinners, alcohol or solvents of any kind, to avoid the risk of discoloration and/or deformation.

Additional Precautions

- Protect the unit from strong impact.
- A small amount of heat will radiate from the unit, and thus should be considered normal.
- Do not strike or apply strong pressure to the speaker's grille.
- Before using the unit in a foreign country, consult with qualified service personnel.
- This unit is equipped with a circuit protection device. A brief interval after power up is required before the unit will operate.

SPECIFICATIONS

• Rated Power

15 W

• Speaker (Magnetically-shielded)

12 cm 2-way coaxial

• Nominal Input level

-Line In 1,2 : -10 dBm
-Mic In : -50 dBm

• Input Impedance

-Line In 1, 2 : 30 k Ω
-Mic In : 5 k Ω

• Input Sensitivity

-Line In 1, 2 : -26 dBm
-Mic In : -50 dBm

• Nominal Output level

-Line Out : -10 dBm

• Output Impedance

-Line Out : 1 k Ω

• Controls

Line 1 Level Knob
Line 2 Level Knob
Mic Level Knob
Loudness Control Knob
Power Switch

• Indicators

Power Indicator

• Connectors

-Front : Mic Input Jack (1/4 inch phone type)
-Rear : Line 1 Input Jack (1/4 inch phone type)
Line 2 Input Jack (RCA phono type)
Line Output Jack (RCA phono type)

• Enclosure

Bass-reflex type

• Material and Finish

-Body : ABS resin (Gray-White)
-Speaker grille : Mesh type (Gray)

• Power Supply

AC 117V, AC 230V or AC 240V

• Power Consumption

24W / 23VA (AC 117V), 28W (AC 230V), 29W (AC 240V)

• Dimensions

160(W) X 185(D) X 235(H) mm
6-5/16 X 7-5/16 X 9-1/4 inches

• Weight

3.2 kg / 7 lbs 1 oz

• Accessories

Owner's Manual
Foot Rubber X 4

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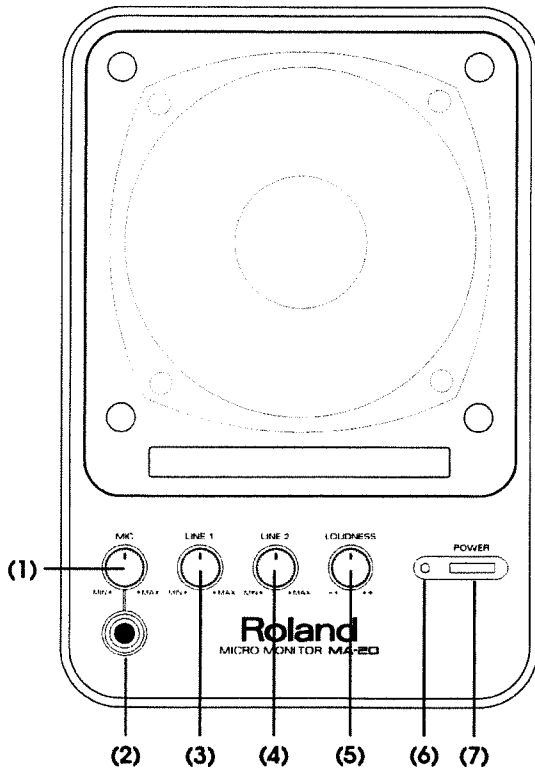
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* 0dBm = 0.775Vrms

* Specifications for this product are subject to change without prior notice.

PANEL DESCRIPTIONS

<<Front Panel>>



(1) MIC Level Control Knob

This knob adjusts the input volume of a microphone connected to the MIC Input Jack (2). Clockwise rotation increases the volume.

* When the knob is rotated completely counterclockwise, no sound will be heard.

(2) MIC Input Jack

Connect a microphone to this jack.

(3) LINE 1 Level Control Knob

This knob adjusts the input volume of the device connected to the LINE IN 1 Jack (8). Clockwise rotation increases the volume.

* When the knob is rotated completely counterclockwise, no sound will be heard.

(4) LINE 2 Level Control Knob

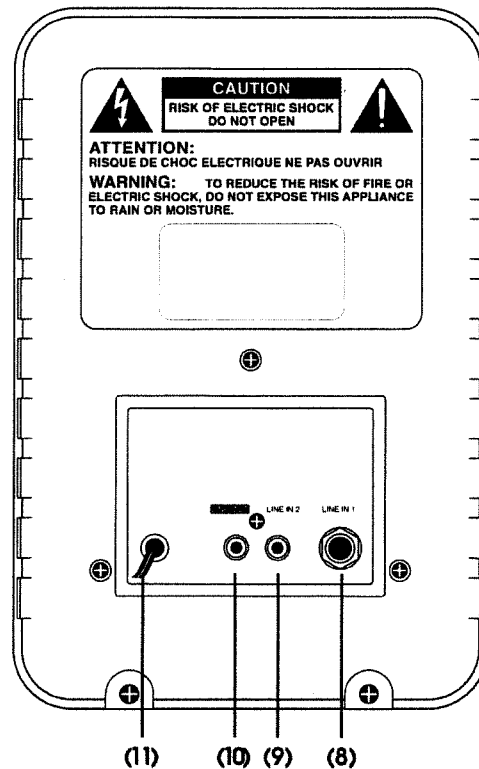
This knob adjusts the input volume of the device connected to the LINE IN 2 Jack (9). Clockwise rotation increases the volume.

* When the knob is rotated completely counterclockwise, no sound will be heard.

(5) LOUDNESS Control Knob

This knob simultaneously controls bass and treble EQ. Rotating it clockwise boosts the bass and treble, while rotating it counterclockwise cuts the bass and treble. When the knob is set to the center position, a flat characteristic is created.

<<Rear Panel>>



* The LOUDNESS control actually compensates for the ear's reduced ability to hear low and high frequencies at low volumes.

(6) POWER Indicator

This indicator lights when the unit is switched on.

(7) Power Switch

This switch turns the system on and off.

(8) LINE IN 1 Jack

Connect an electronic musical instrument (such as a keyboard, rhythm machine or sound module) to this jack. This is a 1/4" phone jack.

(9) LINE IN 2 Jack

Connect any audio equipment (such as a tape deck, CD player etc.) to this jack. (An electronic musical instrument can also be connected.)

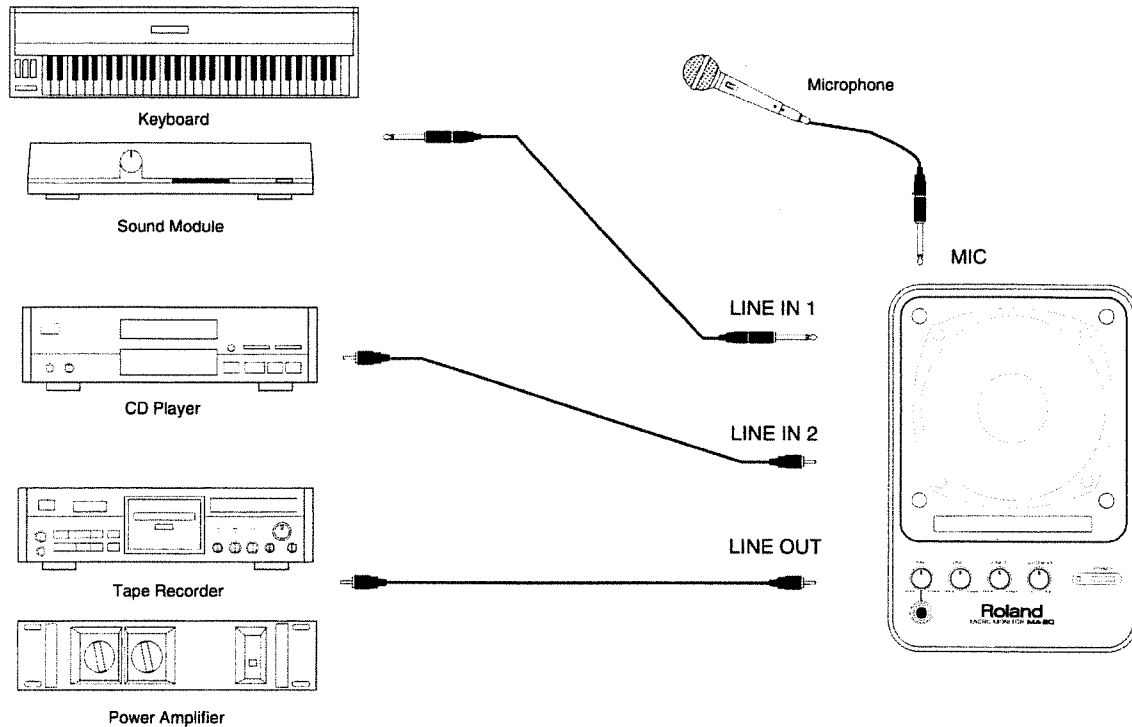
This jack is of the RCA phono type.

(10) LINE OUT Jack

Connect a power amplifier, another speaker system (power amplifier + speaker) or tape deck for recording to this jack. This jack is of the RCA phono type.

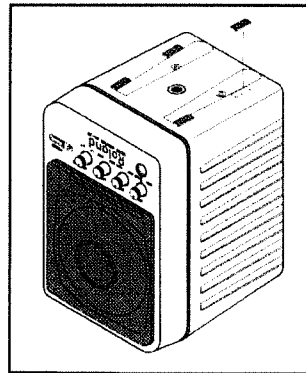
(11) AC Power Cord

CONNECTIONS



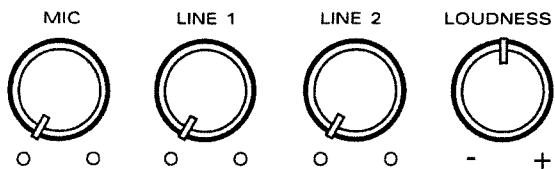
* Be sure to turn off all the units before making connections.

* When using the MA-20 on the table, please attach the rubber feet as shown below



OPERATION

1. Set the Control knobs as shown below.



2. Make sure that the system is switched off and then connect the AC plug to a wall socket.

3. Switch on the unit.

4. Rotate the LINE 1, 2 and MIC Control knobs slowly to set to an appropriate volume.

* When audio signals are fed into a microphone, feedback may occur. If this happens, rotate the MIC Control knob slightly counterclockwise, or move the microphone further from the MA-20.

5. Rotate the LOUDNESS Control knob to obtain the best sound. Normally, it should be set to the center position.

* When you use the MA-20 for monitoring vocals, set the LOUDNESS Control knob slightly to the minus (-) position to increase the clarity.

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. 90040-3696, U. S. A.
TEL: (213) 685-5141

CANADA

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

Roland Canada Music Ltd.

(Montreal Office)
9425 Transcanadienne
Service Rd. N., St
Laurent, Quebec H4S 1V3, CANADA
TEL: (514) 335-2009

Roland Canada Music Ltd.

(Toronto Office)
346 Watline Avenue,
Mississauga, Ontario L4Z 1X2, CANADA
TEL: (416) 890-6488

AUSTRALIA

Roland Corporation Australia Pty. Ltd.
38 Campbell Avenue
Dee Why West. NSW
2099 AUSTRALIA
TEL: (02) 982-8266

NEW ZEALAND

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

UNITED KINGDOM

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

Roland (U.K.) Ltd., Swansea Office

Atlantic Close, Swansea
Enterprise Park, Swansea,
West Glamorgan SA79FJ,
UNITED KINGDOM
TEL: (0792) 700-139

ITALY

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

SPAIN

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

GERMANY

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

FRANCE

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

Musikengro (Paris Office)

Centre Region Parisienne
41 rue Charles-Fourier,
94400 Vitry SUR/SEINE
FRANCE
TEL: (1) 4680 86 62

BELGIUM/HOLLAND/ LUXEMBOURG

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

DENMARK

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

SWEDEN

Roland Scandinavia A/S
Danvik Center 28 A, 2-tr.
S-131 30 Nacka
SWEDEN
TEL: 08-702 00 20

NORWAY

Roland Scandinavia Avd. Kontor Norge
Lilleakerveien 2 Postboks
95 Lilleaker N-0216
Oslo 2 NORWAY
TEL: 22-73 00 74

FINLAND

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

SWITZERLAND

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

Roland CK (Switzerland) AG

Postfach/Hauptstrasse 21
CH-4456 Tenniken
SWITZERLAND
TEL: 061/98 60 55
Repair Service by
Musitronic AG

AUSTRIA

E. Dematte & Co.
Neu-Rum Siemens-
Strasse 4 A-6021
Innsbruck Postfach 591
AUSTRIA
TEL: (0512) 26 44 260

GREECE

V. Dimitriadis & Co. Ltd.
20, Alexandras Avn., GR
10682 Athens, GREECE
TEL: 01-8232415

PORTUGAL

Casa Caius Instrumentos Musicais Lda.
Rua de Santa Catarina
131 4000 Porto,
PORTUGAL
TEL: 02-38 44 56

HUNGARY

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

ISRAEL

D.J.A. International Ltd.
11 Bar Gyiora St., Tel
Aviv ISRAEL
TEL: 972-3-5283329

CYPRUS

Radex Sound Equipment Ltd.
17 Diagorou St., P.O.Box
2046, Nicosia CYPRUS
TEL: 453426, 466423

U.A.E

Zak Electronics & Musical Instruments Co.
P.O. Box 8050
DUBAI, U.A.E
TEL: 695774

SAUDI ARABIA

Omar Badoghaish Trading Corp.
P.O. Box 5980
Jeddah, SAUDI ARABIA
TEL: 966-02-6607038

KUWAIT

Easa Husain Al-Yousifi
P.O. Box 126 Safat
13002
KUWAIT
TEL: 965-5719499

LEBANON

A. Chahine & Fils
P.O. Box 16-5857
Beirut, LEBANON
TEL: 335799

TURKEY

Barkat Sanayi ve Ticaret
Siraselviler Cad. 86/6
Taksim Istanbul, TURKEY
TEL: 149 93 24

EGYPT

Al Fanny Trading Office
9, Ebn Hagar Askalany
Street, Ard El Golf,
Heliopolis, Cairo, EGYPT
TEL: 2917803-665918

BRAZIL

Roland Brasil Ltda.
R. Alvarenga 591 CEP-
05509 Sao Paulo BRAZIL
TEL: (011) 813-7967
Repair Service for Roland
and Rhodes products

Oliver do Brasil S.A.

Instrumentos Musicais
Rua Boturoca. 198/206
CEP 05586-010 Vila
Indiana Butanta Sao
Paulo-SP BRAZIL
TEL: (011) 814- 1344
Repair Service for BOSS
products

MEXICO

Casa Veerkamp, s.a. de c.v.
Mesones No. 21 Col.
Centro MEXICO D.F.
06080
TEL: (5) 709-3716

La Casa Wagner de

Guadalajara s.a. de c.v.
Av. Corona No. 202 S.J.
C.P.44100 Guadalajara,
Jalisco MEXICO
TEL: (36) 13-1414

VENEZUELA

Musicland Digital C.A.
Av. Francisco De
Miranda,
Centro Parque Cristal,
Nivel C2 Local 20
Caracas
VENEZUELA
TEL: (2)2844497

PANAMA

Productos Superiores, S.A.
Apartado 655
- Panama 1
REP. DE PANAMA
TEL: 26-3322

ARGENTINA

Instrumentos Musicales S.A.
Florida 638
(1005) Buenos Aires
ARGENTINA
TEL: (1)394-4029

HONG KONG

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

KOREA

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

SINGAPORE

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

PHILIPPINES

G.A. Yupangco & Co. Inc.
339 Gil J. Puyat Avenue
Makati, Metro Manila
1200, PHILIPPINES
TEL: (632)819-7551

THAILAND

Theera Music Co., Ltd.
330 Verg Nakorn
Kasem, Soi 2, Bangkok
10100, THAILAND
TEL: 2248821

MALAYSIA

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

INDONESIA

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

TAIWAN

Siruba Enterprise (Taiwan) Co., LTD.
Room. 5, 9fl. No. 112
Chung Shan N.Road
Sec.2 Taipei, TAIWAN,
R.O.C.
TEL: (02) 5364546

SOUTH AFRICA

That Other Music Shop (PTY) Ltd.
256 Bree Street,
Johannesburg 2001
Republic of South Africa
TEL: 337-6573

Paul Bothner (PTY) Ltd.

17 Werdmuller Centre
Claremont 7700
Republic of South Africa
TEL: 021-64-4030

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