

VIDEO MIDI SYNC INTERFACE

SI-80S

OWNER'S MANUAL

We'd like to take a moment to thank you for purchasing the Roland SI-80S (Video MIDI Sync Interface).

The Roland SI-80S is an interface box that allows consumer-grade video cassette recorders to be synchronized with MTC-compatible MIDI devices (such as sequencers and audio recorders). It accomplishes this by converting the video time code used by ordinary video interfaces to MIDI Time Code (MTC).

Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" (p. 2–3) and "IMPORTANT NOTES" (p. 4). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, this manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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This product complies with the requirements of European Directive 89/336/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the users authority to operate this equipment. This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About AWARNING and ACAUTION Notices

riangle WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect
	to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

The \triangle symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.

The ○ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.

The
symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

MWARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.
- Do not open (or modify in any way) the unit or its AC adaptor.



- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.
- Never use or store the unit in places that are:



- Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or
- Damp (e.g., baths, washrooms, on wet floors); or are
- Humid; or are
- Dusty; or are
- Subject to high levels of vibration.
- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces.



Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.



 Avoid damaging the power cord. Do not bend it excessively, step on it, place heavy objects on it, etc. A damaged cord can easily become a shock or fire hazard. Never use a power cord after it has been damaged.



• Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.



- Immediately turn the power off, remove the AC adaptor from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:
 - The AC adaptor or the power-supply cord has been damaged; or
 - Objects have fallen into, or liquid has been spilled onto the unit; or
 - The unit has been exposed to rain (or otherwise has become wet); or
 - The unit does not appear to operate normally or exhibits a marked change in performance.
- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.



Protect the unit from strong impact.
 (Do not drop it!)



• Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.



Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

A CAUTION

- The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation.
- Always grasp only the plug or the body of the AC adaptor when plugging into, or unplugging from, an outlet or this unit.
- Whenever the unit is to remain unused for an extended period of time, disconnect the AC adaptor.
- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.

A CAUTION

 Never climb on top of, nor place heavy objects on the unit.



 Never handle the AC adaptor body, or its plugs, with wet hands when plugging into, or unplugging from, an outlet or this unit.



 Before moving the unit, disconnect the AC adaptor and all cords coming from external devices.



 Before cleaning the unit, turn off the power and unplug the AC adaptor from the outlet.



• Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet.

0

■ IMPORTANT NOTES

In addition to the items listed under "USING THE UNIT SAFELY" on page 2–4, please read and observe the following:

Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

 This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.

Maintenance

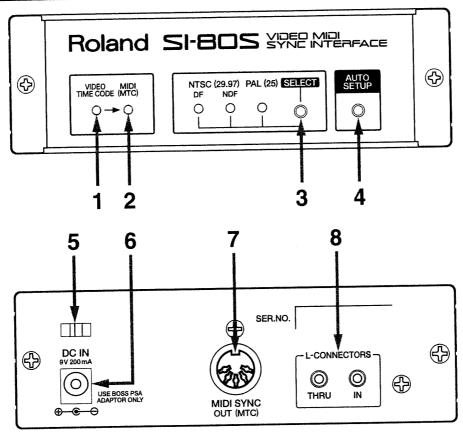
• For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.

Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.

Front and rear panels



1. VIDEO TIME CODE Indicator

Lights when valid video time code is present at the L (IN) jack.

2. MIDI (MTC) Indicator

Lights when video time code has been received, and the recorder has been placed in playback or record mode.

3. SELECT Button

Used to choose the appropriate frame rate for the MIDI Time Code (MTC) that is transmitted, so it suits the video equipment you intend to operate in sync. The current frame rate can be confirmed by viewing the indicator on the left.

NTSC (29.97) DF NTSC (29.97) NDF PAL (25)

4. AUTO SETUP Button

Use only when the SI-80S does not work correctly (p. 7).

5. Cord Hook

Used to fix the AC adaptor cord in place. That way, you can prevent having the cord pulled out inadvertently.

6. DC IN Jack

Accepts connection of the AC adaptor included with the SI-80S.

7. MIDI SYNC OUT (MTC) Connector

This is for connecting audio recorders that support MIDI time code (MTC), such as the VS-880.

8. L (IN, THRU) Connectors

For connecting external video devices.

IN: For video time code input. Connect to the LANC connector of external video equipment.

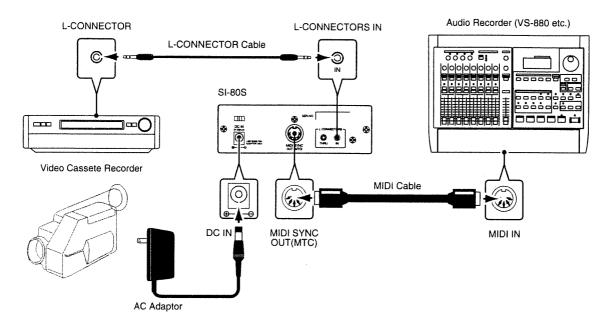
THRU: Sends out an exact copy of all video time code arriving at IN. Connect when needed to the LANC connector of external video equipment.

Synchronized operation

In this arrangement, the audio recorder is driven by the video equipment to which it is connected. Refer to the user's manuals for both the video and audio equipment you are using.

■ Making connections

Connect the equipment as shown below.



To prevent the inadvertent disruption of power to your unit (should the plug be pulled out accidentally), and to avoid applying undue stress to the AC adaptor jack, anchor the power cord using the cord hook, as shown in the illustration.



- * Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.
- 1. Turn on the power to your video equipment.
- 2. Turn on the power to your audio recorder (e.g., VS-880).
- 3. Connect the AC adaptor to the SI-80S.

■ Changing the frame rate

The SI-80S can transmit the following MTC types. Check the specifications of your audio recorder and other equipment to determine which MTC type should be output from the SI-80S.

NTSC (29.97) DF:

Drop Frame at a rate of 29.97 frames per second. Used in the NTSC color video standard.

NTSC (29.97) NDF:

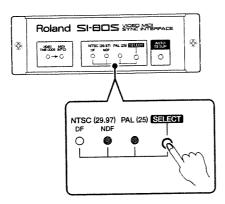
Non-Drop Frame at a rate of 29.97 frames per second. Used in the NTSC color video standard.

PAL (25):

This is a frame rate of 25 frames per second. Used for SECAM/PAL standard video and audio equipment and in motion pictures.

1. Press the [SELECT] button.

The frame rate is switched each time you press the button. You can use the [SELECT] button indicator to check the current frame rate.



The [SELECT] button's indicator will be blinking after the frame rate has been changed. If the power is turned off while in this state, the frame rate setting will be discarded. Perform the following steps to save the setting.

- Hold down the [SELECT] button for at least three seconds.
 - The indicator that shows the current frame rate flashes somewhat rapidly.
- 3. When all indicators are lit, release the button. The settings are saved to internal memory, and will be retained even while power is turned off.

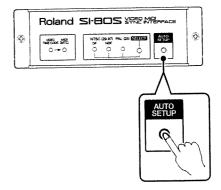
- * Saving can take as long as 30 seconds. **Never switch the power off** while all indicators are lit. Doing so may result in damage to the SI-80S's system.
- 4. When the save is finished, only the changed frame rate indicator remains lit.
- 5. Run your video equipment with the audio recorder set up to operate as the MTC slave.

If the setup does not work (Auto Setup)

SI-80S detects the movement of the video time code from the video equipment, converts it to MMC (MIDI Machine Control) and then control the transport of audio recorder.

If VIDEO TIME CODE indicator does not turn on even you operate the video equipment as usual, please operate as follows (Auto Setup).

- * Also be sure to refer to the user's manual for your video equipment.
- Operate your video unit as usual, with video tape rolling.
- 2. Press the [AUTO SETUP] button.
 The MIDI (MTC) indicator lights up.
 Thereafter, this is considered to be the normal status.



The Auto Setup setting will be discarded as soon as the power is turned off. Perform the following steps to save the setting.

- 3. Hold down the [AUTO SETUP] button for at least three seconds.
- 4. When all indicators are lit, release the button. The settings are saved to internal memory, and will be retained even while power is turned off.
- * Saving can take as long as 30 seconds. **Never** switch the power off while all indicators are flashing. Doing so may result in damage to the SI-805's system.
- 5. When the save is finished, only the current frame rate indicator remains lit.

■ Canceling Auto Setup settings

You may encounter situations whereby the SI-80S fails to operate satisfactorily, after Auto Setup has been used when there was no video time code being input or the tape was not running. In such instances, use the following steps to restore all the settings for Auto Setup that were in effect when your SI-80S was purchased.

- 1. Turn the SI-80S off. Unplug the AC adaptor from the SI-80S.
- 2. While holding down the [AUTO SETUP] button, turn the SI-80S back on.
- 3. After confirming that all the indicators have lighted, release the [AUTO SETUP] button. With this, the Auto Setup settings have been restored to what they were when you first took your unit out of the box.
- * Never switch the power off while all indicators are lit. Doing so may result in damage to the SI-80S's system.
- After the restoration is complete, only the indicator showing the current frame rate will be lit.
- Run your video equipment with the audio recorder set up to operate as the MTC slave.

Troubleshooting

- Audio recorder doesn't start as expected when start button on video deck is pressed.
- Is the L Connector cable or MIDI cable properly connected? (p. 6)
- Does the MTC frame rate match that of your MIDI equipment? (p. 7)
- Is your audio recorder set up to act as the MTC slave?
- Have the Auto Setup settings been made? (p. 7)

All of the indicators remain lighted after the power is turned on.

• Immediately turn the power off, then contact your nearest Roland Service Center or dealer.

Glossary

L Connector

This jack allows for the control of playback and other functions when video equipment or audio recorders are connected.

MTC

Acronym for "MIDI Time Code." It is a signal that allows for the synchronization of multiple MIDI devices. Unlike the MIDI clock, it displays absolute time. Also, just as with SMPTE Time Code, there are different frame rates. When you want to use MIDI Time Code for synchronization, the frame rate of both devices must match.

NTSC Format

Color television format used in Japan, the United States, and other countries. Tapes recorded in the NTSC format cannot be played back on video decks utilizing the SECAM or PAL formats.

SECAM/PAL Formats

Color television formats used in Europe and other areas. Tapes recorded in the SECAM or PAL formats cannot be played back on video decks designed for the NTSC format.

SMPTE Time Code

Devised by America's SMPTE (Society of Motion Picture and Television Engineers), SMPTE Time Code is a signal that is used for the synchronization of multiple video or audio devices. Displayed in the "Hours: Minutes: Seconds: Frames" format, each frame number of a video image is shown.

Drop Frame

A SMPTE Time Code format. The 30 frames per second NTSC format, adopted in the U.S. and Japan, actually runs at precisely 29.97 frames per second. Drop format rectifies timing discrepancies brought about by this difference by "dropping" or omitting frames along the way. In each minute except the 10th, 20th, 30th, 40th, and 50th, the first two frames are omitted (starting from frame 02 instead of frame 00). This is used in places such as television stations where it is mandatory that time code conform with true televised time.

Non-Drop Frame

A SMPTE Time Code format. The 30 frames per second NTSC format used in the U.S. and Japan actually has precisely 29.97 frames per second. Despite timing discrepancies brought about by the difference in the two frame rates, this format places importance on time code continuity, and does not omit any frames. This format is used in general video and music production.

Frame

Similar to the individual frames in a roll of movie film, the numerous still pictures that are displayed in rapid succession to create a moving video image are also known as "frames." About thirty of these frames are shown each second. When hard disk recorders, sequencers, and other such equipment are synchronized with video, it is generally assumed that there should be one frame every 1/30th of a second.

Specifications

SI-80S: Video MIDI Sync Interface

Connectors/Jacks

L-Connectors (IN, THRU) (2.5 mm Stereo miniature phone type)
MIDI Sync Out Connector
AC Adaptor Jack

• Frame Rate

NTSC (29.97) DF NTSC (29.97) NDF PAL (25)

Power Supply

DC9V: AC Adaptor

Power Consumption

200 mA

Dimensions

138 (W) x 78 (D) x 47 (H) mm 5-7/16 (W) x 3-1/8 (D) x 1-7/8 (H) inches

Weight

260 g 10 oz (excluding AC adaptor)

Accessories

AC Adaptor MIDI cable (1 m) Owner's Manual

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

MIDI Implementation

Model: Video MIDI Sync Interface SI-80S

Date: Jul. 23, 1997

Version: 1.00

1. TRANSMITTED DATA

■ System Common Messages

MIDI Time Code Quarter Frame Messages

When receiving the video time code from a video cassette recorder, quarter frame message is sent out according to the time code type selected with the [SELECT] button. Clock count to be sent out is in sync with the video time code which is received.

Status Second

F1H mmH (= 0nnndddd)

nnn = Message type:

0 = Frame count LS nibble 1 = Frame count MS nibble 2 = Seconds count LS nibble 3 = Seconds count MS nibble 4 = Minutes count LS nibble 5 = Minutes count LS nibble

6 = Hours count LS nibble 7 = Hours count MS nibble

dddd = 4 bit nibble data: 0h - FH (0 - 15)

Bit Field is assigned as follows.

Frame Count xxxyyyyy

xxx Reserved (000) yyyyy Frame No.(0-29)

Seconds Count xxyyyyyy

xx Reserved (000) yyyyyy Seconds (0-59)

Minutes Count xxyyyyyy

xx Reserved (00) yyyyyy Minutes (0-59)

Hours Count xyyzzzzz

x Reserved (00)
yy Time Code type
1 = 25 Frames / Sec
2 = 30 Frames / Sec
(Drop Frame)

3 = 30 Frames / Sec (Non Drop Frame

zzzzz Hours (0-23)

2. MIDI Machine Control

■ System Exclusive Messages

MIDI Machine Control Command Reference

O STOP (MCS)

Status F0H	<u>Data Bytes</u> <u>Status</u> 7FH, 7FH, 06H, F7H 01H
Byte F0H 7FH 7FH 06H 01H F7H	Description Status of Exclusive Message Universal System Exclusive Message Realtime Header Device ID MMC Command Message STOP (MCS) EOX (End of Exclusive Message)
	•

Sent when the video cassette recorder stops running.

O DEFERRED PLAY (MCS)

<u>Status</u> F0H	<u>Data Bytes</u> 7FH, 7FH, 06H, 03H	<u>Status</u> F7H
<u>Byte</u>	Description	
F0H	Status of Exclusiv	
7FH	Universal Syst	tem Exclusive
	Message Realtime	
7FH	Device ID	
06H	MMC Command	
03H	DEFERRED PLAY	
F7H	EOX (End of Excl	usive Message)

Sent when the video cassette recorder starts running.

O LOCATE (MCP)

F7H

Format 2 -	LOCATE	[TARGET]
------------	--------	----------

Status	<u>Data Bytes</u> <u>Status</u>
FOH	7FH, 7FH, 06H, F7H
	44H, 06H, 01H,
	hrH, mnH, scH,
	frH, ffH
Byt <u>e</u>	Description
FOH	Status of Exclusive Message
7FH	Universal System Exclusive
	Message Realtime Header
7FH	Device ID
06H	MMC Command Message
44H	LOCATE (MCP)
06H	Number of Bytes
01H	"TARGET" sub command
hrH, mnH, s	cH, frH, ffH
	Standard Time with Sub Frame

Sent when the video cassette recorder stops or starts running.

EOX (End of Exclusive Message)

Model SI-80S

MIDI Implementation Chart

Date : Jul. 18, 1997 Version : 1.00

	Function	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	X X	X X	
Mode	Default Messages Altered	X X *******	X X	
Note Number :	True Voice	X *******	X	
Velocity	Note ON Note OFF	X X	X X	
After Touch	Key's Ch's	X X	X X	
Pitch Bend		х	x	
	0 – 95 1	X X	X X	Modulation
Control	6, 38 7 10 64	X X X	X X X	Data entry Volume Pan Hold 1
Change	100, 101	×	x 	RPN LSB, MSB
Program Change	: True #	X ************************************	X	
System Exc	lusive	0 *1	х	
System Common	: Quarter Frame : Song Pos : Song Sel : Tune	X X X	X X X	
System Real Time	: Clock : Commands	X X	X X	
Aux Message	: Local ON/OFF : All Notes OFF : Active Sense : System Reset	X X X X	X X X	
Notes		* 1 Transmit MIDI Machin	e Control (MMC).	

Mode 1 : OMNI ON, POLY Mode 3 : OMNI OFF, POLY Mode 2 : OMNI ON, MONO Mode 4 : OMNI OFF, MONO O : Yes X : No

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Use with the VS-880

Here we will explain the procedures for using the VS-880 with the SI-80S.

- 1. Press [SYSTEM] several times until "SYS MIDI PRM?" appears.
- 2. Press [YES].
- **3.** Press PARAMETER [►►] several times until "SYS MID:SysEx.Rx=" appears.
- **4.** Use the TIME/VALUE dial to set this "On."
- **5.** Press PARAMETER [▶▶] several times until "SYS MID:MMC=" appears.
- 6. Use the TIME/VALUE dial to set this "SLAVE."
- **7.** Press [SYSTEM] several times until "SYS Sync/Tempo?" appears.
- 8. Press [YES].
- **9.** Press PARAMETER [▶▶] several times until "SYS Syn:Source=" appears.
- 10. Use the TIME/VALUE dial to set this "EXT."
- **11.** Press PARAMETER [▶▶] several times until "SYS Syn:MTC Type=" appears.
- **12.** Use the TIME/VALUE dial to select the appropriate type of time code on video equipment that you are using.

29D: NTSC (29.97) DF

29N: NTSC (29.97) NDF

25: PAL (25)

13. Press [PLAY (DISPLAY)] to return to Play condition.

The VS-880 setting has now been finished. Run your video equipment according to SI-80S Owner's manual.

VS-880の操作方法について

SI-80SをVS-880と組み合わせて使うときの、VS-880での操作方法について説明します。

- 1. "SYS MIDI PRM?"と表示されるまで、[SYSTEM] を何回か押します。
- **2.** [YES] を押します。
- **3.** "SYS MID: SysEx.Rx="と表示されるまで、PARAMETER [▶▶] を何回か押します。
- **4.** TIME/VALUダイヤルで "On" を選びます。
- **5.** "SYS MID: MMC="と表示されるまで、PARAMETER [►►] を何回か押します。
- 6. TIME/VALUダイヤルで "SLAVE" を選びます。
- 7. "SYS Sync/Tempo?" と表示されるまで、[SYSTEM] を何回か押します。
- **8.** [YES] を押します。
- **9.** "SYS Syn: Source="と表示されるまで、PARAMETER [►►] を何回か押します。
- **10.** TIME/VALUダイヤルで "EXT" を選びます。
- **11.** "SYS Syn: MTC Type="と表示されるまで、PARAMETER [▶▶] を何回か押します。
- **12.** TIME/VALUE ダイヤルで、お使いのビデオ機器で使用するタイム・コードを選びます。

29D: NTSC (29.97) DF 29N: NTSC (29.97) NDF

25: PAL (25)

13. [PLAY (DISPLAY)] を押します。 プレイ・コンディションに戻ります。

以上でVS-880側の設定ができました。SI-80Sの取扱説明書にしたがってビデオ機器を操作してください。

Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

ARGENTINA

Instrumentos Musicales S.A. Florida 638 (1005) Buenos Aires ARGENTINA TEL: (01) 394 4029

Roland Brasil Ltda. R. Coronel Octaviano da Silveira 203 05522-010 Sao Paulo BRAZIL TEL: (011) 843 9377

CANADA

Roland Canada Music Ltd. (Head Office) 5480 Parkwood Way Richmond B. C., V6V 2M4 CANADA TEL: (0604) 270 6626

Roland Canada Music Ltd. (Toronto Office) Unit 2, 109 Woodbine Downs Blvd. Etobicoke, ON M9W 6Y1 CANADA TEL: (0416) 213 9707

MEXICO

Casa Veerkamp, s.a. de c.v. Av. Toluca No. 323 Col. Olivar de los Padres 01780 Mexico D.F. MEXICO TEL: (525) 668 04 80

La Casa Wagner de Guadalajara s.a. de c.v. Av. Corona No. 202 S.J. Guadalajara, Jalisco Mexico C.P.44100 MEXICO TEL: (03) 613 1414

PANAMA

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

U. S. A.

Roland Corporation U.S. 7200 Dominion Circle Los Angeles, CA. 90040-3696, U. S. A. TEL: (0213) 685 5141

VENEZUELA

Musicland Digital C.A.
Av. Francisco de Miranda,
Centro Parque de Cristal, Nivel
C2 Local 20 Caracas VENEZUELA TEL: (02) 285 9218

AUSTRALIA

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

NEW ZEALAND

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

CHINA

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