# **SB-V60S**

# **SERVICE MANUAL**

Ver. 1.0 2005, 01

US Model Canadian Model



#### **SPECIFICATIONS**

Input S-VIDEO 4-pin mini DIN × 4

VIDEO PHONO jack × 4 AUDIO L/R PHONO jack × 4 (INPUT3 is switchable between the front and rear panel)

Output S-VIDEO 4-pin mini DIN × 2

VIDEO PHONO jack × 2 AUDIO L/R PHONO jack × 2 430 × 42 × 231 mm

Dimensions (approx.)  $430 \times 42 \times 231 \text{ mm}$   $(17 \times 1 \ 11/16 \times 9 \ 1/8 \text{ in.}) \text{ (w/h/d)}$ 

including projecting parts

Mass (approx.) 2 kg (4 lb. 7 oz.)

Operating temperature Supplied accessories 0 °C to 40 °C (32 °F to 104 °F)
Operating Instructions (1),
Label (1), Warranty (1)

Design and specifications are subject to change without notice

### • UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead. (Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

# LEAD FREE MARK

Unleaded solder has the following characteristics.

 Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350  $^{\circ}\mathrm{C}.$ 

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

Strong viscosity

Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

· Usable with ordinary solder

It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

**AV SELECTOR** 

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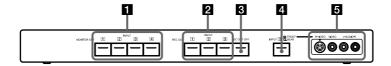


# SECTION 1 GENERAL

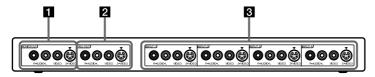
This section is extracted from instruction manual.

# Α

# Front panel / Panneau avant / Panel frontal



### Rear panel / Panneau arriere / Panel posterior



# Locating the Parts and Controls (see fig. A)

### Front panel

- 1 INPUT SELECT buttons for MONITOR OUT Press one of the INPUT 1 4 buttons to select the input to be output to MONITOR OUT for displaying on a TV or monitor, etc.
- 2 INPUT SELECT buttons for REC OUT
  Press one of the INPUT 1 3 buttons to select
  the input to be output to MONITOR OUT for
  recording to a DVD/HDD recorder or VCR, etc.
- REC OUT OFF button
  Turn off all INPUT SELECT buttons for REC
  OUT.
- [4] INPUT [3] FRONT/REAR button Switches the effective INPUT3 jack between the rear and front panels.
- [5] INPUT3 jack
  S-VIDEO / VIDEO / AUDIO-L / AUDIO-R
  Connect to the output jacks of a video game or camcorder.

#### Rear panel

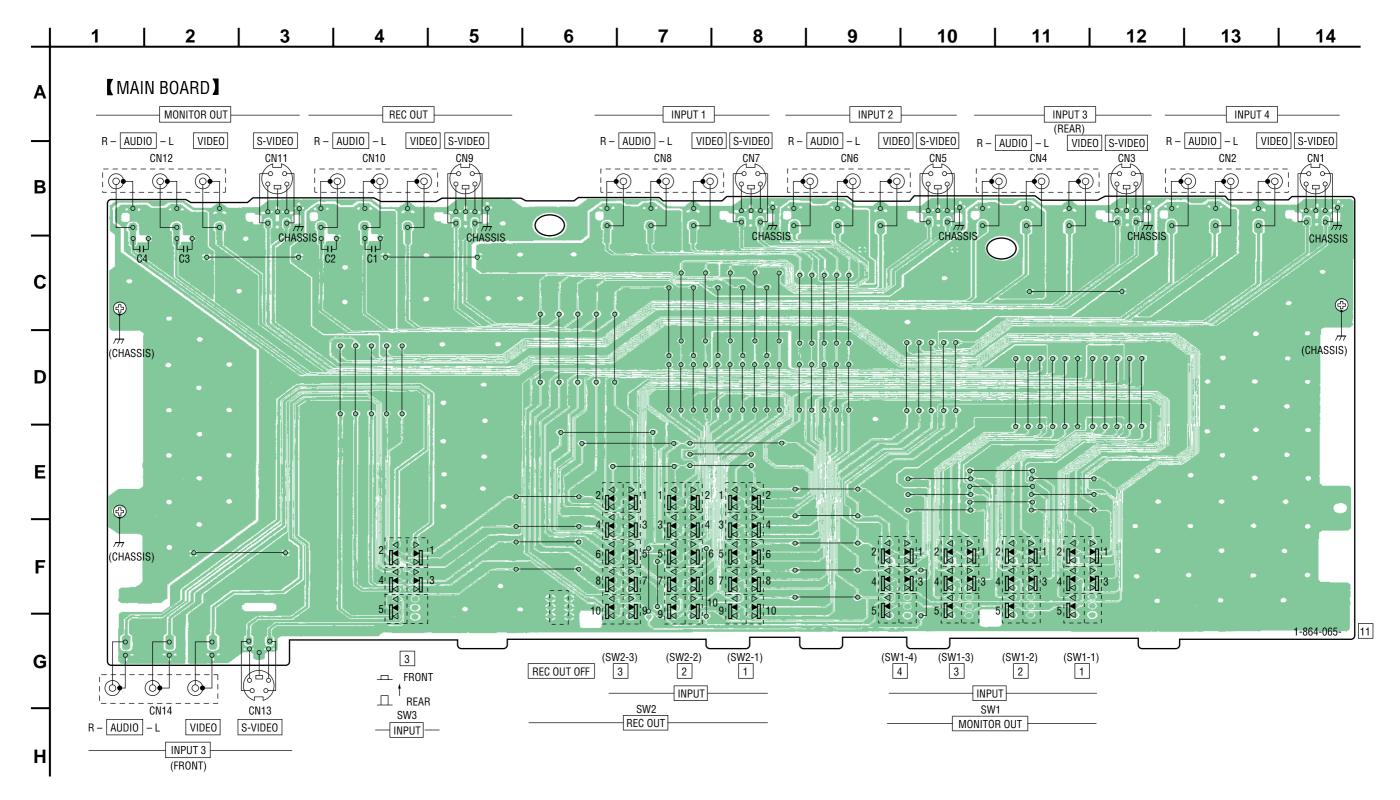
- MONITOR OUT jack
  S-VIDEO / VIDEO / AUDIO-L / AUDIO-R
- 2 REC OUT jack S-VIDEO / VIDEO / AUDIO-L / AUDIO-R
- 3 INPUT 1 4 jacks S-VIDEO / VIDEO / AUDIO-L / AUDIO-R

#### How to use the supplied labels

To determine which device is connected where without checking the rear panel, put labels on the front panel of the unit. You can use plain labels marked with an oil-based ink pen.

# **SECTION 2 DIAGRAMS**

2-1. PRINTED WIRING BOARD — MAIN SECTION — **F** : Uses unleaded solder.



### **Common Note on Printed Wiring Boards:**

- : parts extracted from the component side.
- : Pattern from the side which enables seeing.

## **Common Note on Schematic Diagrams:**

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.

  • \_\_\_\_\_\_ : panel designation.
- Signal path.
  - : Audio
  - : Chroma : Luminance
- : Video (Composite)

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SB-V60S

#### 2-2. SCHEMATIC DIAGRAM — MAIN SECTION — 2 4 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 [MAIN BOARD] 2/1 R AUDIO **⊕** | **⇒ ⊕** ₩ SW1 MONITOR OUT VIDEO (OFF → ON) <u>↓</u> ↓ √ INPUT 1 <u>≠</u> ↓ -2 ±±√ -3 В <u>≠</u> ↓ CN7 S-VIDEO <u>↓</u> ↓ ↓ INPUT C · \*\* \* <u>⊅</u> ▼ ∇ <u>⇒</u> ₹ <u>▼</u> ▼ <u>▼</u> ▼ ∇ SW1-3 3— CN2 R AUD10 L L **⊕** | **⇒** <u>↓</u> ↓ √ <u>\*</u> <u>▼</u> ▼ ▼ VIDEO D REC-L INPUT 4 REC-V REC-C CN1 S-VIDEO REC OUT <u>≥</u> ▼ ▽ <u>▼</u> ▼ ▼ REC DUT (OFF → ON) S-VIDEO <u>⊅</u> ₹ √ <u>≠</u> ↓ -5 SW2-1 REC-Y AUDIO L $\odot$ VIDEO <u>≠</u> ↓ MON-R INPUT 2 R — AUDIO SW2-2 2—INPUT MON-L MON-V -10 VIDEO CN5 S-VIDEO G MON-C <u>≠</u> ↓ -7 <u>≠</u> ↓ -9 MONITOR OUT SW2-3 CN11 S-VIDEO AUD 10 Н MON-Y **() □ () ()** VIDEO INPUT 3 (REAR) S-VIDEO <u>▼</u> ▼ ▼ **⊕** <del>∞</del>>>> SW3 [INPUT] 3 REAR FRONT CN13 S-VIDEO ≺VIDEO-GND>

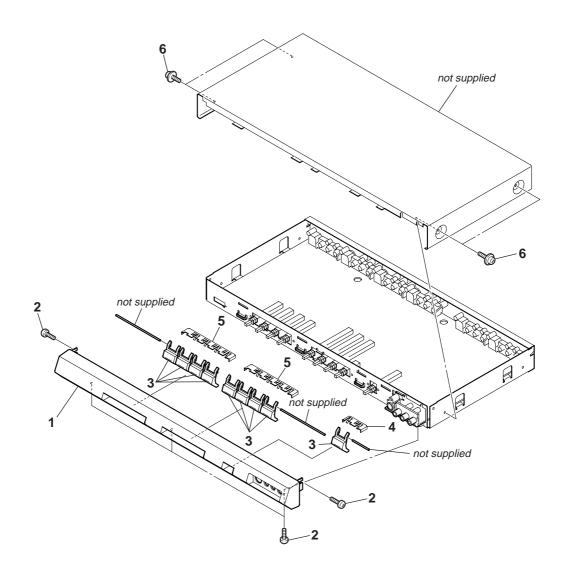
4

# SECTION 3 EXPLODED VIEWS

#### NOTE:

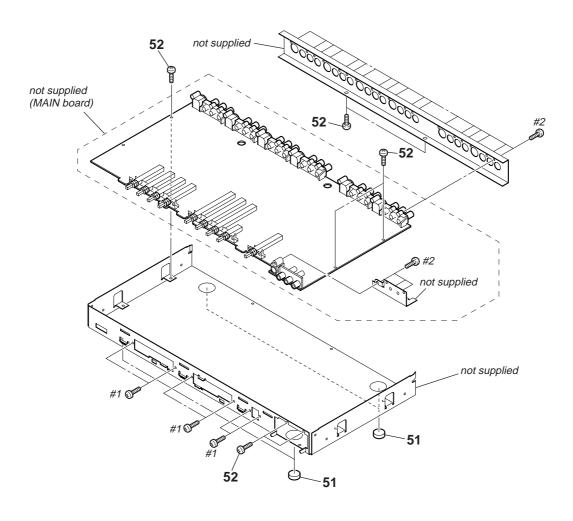
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

### **3-1. FRONT SECTION**



Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	Description	<u>Remark</u>
1	A-1108-676-A	FRONT PANEL ASSY		4	2-177-666-01	SPRING (B), LEAF	
2	4-674-320-01	SCREW (3X4)		5	2-177-665-01	SPRING (A), LEAF	
3	2-177-663-01	BUTTON		6	4-886-821-11	SCREW. M3 CASE	

# 3-2. REAR SECTION



Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
51	2-177-661-01	FOOT, RUBBER		#1	7-682-147-01	SCREW +P 3X6	
52	2-409-839-01	SCREW (+P TP) 3X6		#2	7-685-145-14	SCREW +P 3X6 TYPE2 NON-SLIT	

# SECTION 4 ELECTRICAL PARTS LIST

MAIN

#### NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS

All resistors are in ohms. METAL:Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

\*

F:nonflammable

• Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS
In each case, u : μ, for example:
uA.. : μA.. uPA..: μPA..
uPB..: μPB.. uPC..: μPC.. uPD..: μPD..

uF : μF
• COILS
uH : μH

• CAPACITORS

When indicating parts by reference number, please include the board.

• Accessories are given in the last of this parts list.

Ref. No.	Part No.	Description MAIN BOARD ************************************			<u>Remark</u>	Ref. No.	Part No.	Description ACCESSORY **********	<u>Remark</u>
	7-685-145-14	SCREW +P 3X6 T	YPE2 NON-	SLIT			2-177-408-11	MANUAL, INSTRUCTION (ENGLIS	
		< CAPACITOR >							SPANISH)
C1 C2 C3 C4	1-162-294-31 1-162-294-31 1-162-294-31 1-162-294-31	CERAMIC	0.001uF 0.001uF 0.001uF 0.001uF	10% 10% 10% 10%	50V 50V 50V 50V				
CN1	1-818-865-11	CONNECTOR, S T	ERMINAL (		(S-VIDEO))				
CN2 CN3	1-818-780-11 1-818-865-11	JACK, PIN 3P (IN CONNECTOR, S T		EO,AUDIÓ INPUT 3	Ď))				
CN4	1-818-780-11	JACK, PIN 3P (IN	PUT 3 (REA	ıR)	, ,,				
CN5	1-818-865-11	CONNECTOR, S T	ERMINAL (	INPUT 2	(S-VIDEO))				
CN6 CN7		JACK, PIN 3P (IN CONNECTOR, S T		INPUT 1	,,				
CN8 CN9	1-818-780-11 1-818-865-11	JACK, PIN 3P (IN CONNECTOR, S T	,	EO,AUDIÓ REC OUT	- ′′				
CN10	1-818-780-11	JACK, PIN 3P (RE	C OUT (VID	,	(S-VIDEO)) IO))				
CN11	1-818-865-11	CONNECTOR, S T	ERMINAL (		R OUT (S-VIDEO))				
CN12		JACK, PIN 3P (M		T (VIDEC	,AUDIO))				
CN13	1-818-781-11	CONNECTOR, S T	ERMINAL (		(FRONT) (S-VIDEO))				
CN14	1-818-779-11	JACK, PIN 3P (IN	PUT 3 (FRO	NT)	(0,AUDI0))				
		< SWITCH >							
SW1	1-786-778-11	SWITCH, PUSH (	4 KEY) (MO						
SW2	1-786-779-11	SWITCH, PUSH (	4 KEY) (REC	OUT,INI	NPUT 1-4) PUT 1-3, C CUT OFF)				
SW3		SWITCH, PUSH (	, ,	UT 3)	,				

# **REVISION HISTORY**

Clicking the version allows you to jump to the revised page. Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005. 01	New