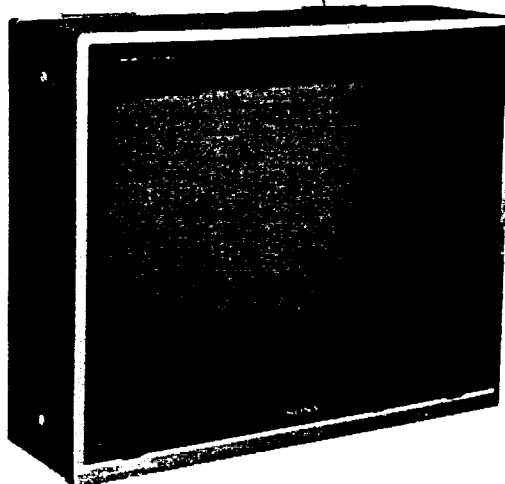


KX-2501A

SERVICE MANUAL

US Model

Chassis No. SCC-383B



May, 1983

HF CHASSIS

The adjustment procedures are not contained in this manual.

When performing the adjustments, refer to the separate-volume "ADJUSTMENT MANUAL".

SPECIFICATIONS

Color system	NTSC	Output	SPEAKER
Picture tube	Trinitron tube		Accepts speakers of 8-16 ohms
	25-inch picture measured diagonally, 114-degree deflection	Power requirements	120V ac, 60 Hz
		Power consumption	180 W (max.) 132 W (average)
Inputs	VIDEO INPUT (phono jack)		1.8 (in standby condition)
	1 V p-p, NTSC, 75 ohms, unbalanced, sync negative	AC outlet	Switched, max. 200 W
	AUDIO INPUT (2 phono jacks)	Dimensions	Approx. 660 × 560 × 487 mm (w/h/d)
	726mVrms (100% modulation), 47 kilohms		(26 × 22 ¹ / ₈ × 19 ¹ / ₄ inches)
	CONTROL INPUT (minijack)	Weight	Approx. 55 kg (121 lb 4 oz)
	5V p-p	Accessories supplied	Video Cable VMC-1S
	MULTI INPUT (8-pin DIN)		(phono plug to phono plug, 1.2 m)
	Same as the above VIDEO/AUDIO/CONTROL INPUTS		Connecting Cord RK-105A
			(miniplug to 2 phono plugs, 1.5 m)
			34-pin socket 1 set

Design and specifications subject to change without notice.

— Continued on next page —



MON

TRINITRON®
COMPONENT TV
SONY®

SECTION 1 GENERAL

1-1. FEATURES

A color video monitor designed for a variety of uses with a Sony Component TV tuner, Sony Betamax videocassette recorder, video camera, character generator, microcomputer, etc.

DYNAMIC PICTURE™ system adjusts picture contrast automatically to produce more detail in both bright and dark areas of every scene.

DYNAMIC COLOR™ system for superior color reproduction with natural facial color tones and dazzling whites.

Colorpure Filter that produces fine picture detail without color spill or color noise.

Two built-in audio amplifiers provide dynamic sound from an externally connected speaker system (optional).

When the Component TV is used with a Component TV tuner, the volume, picture and power can be controlled from the tuner or the Remote Commander (supplied with the tuner).

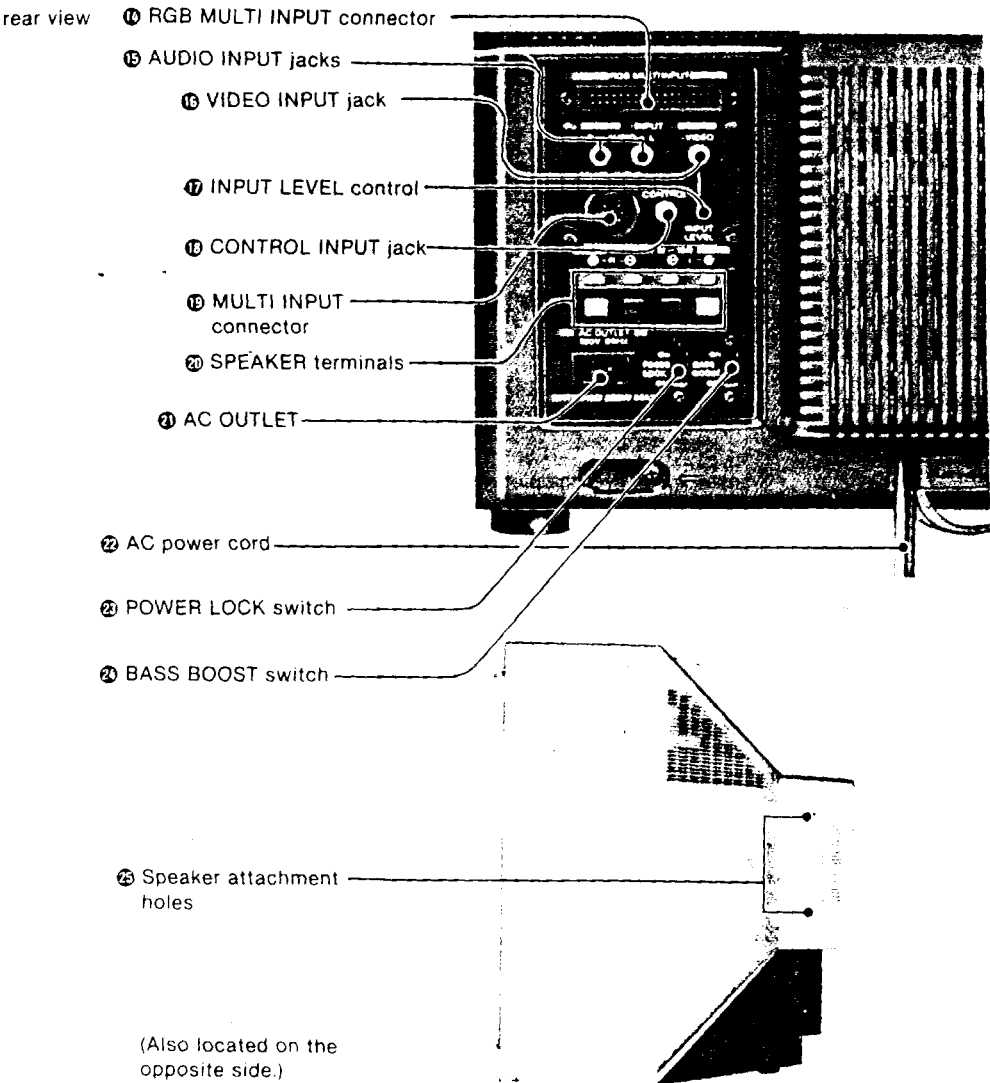
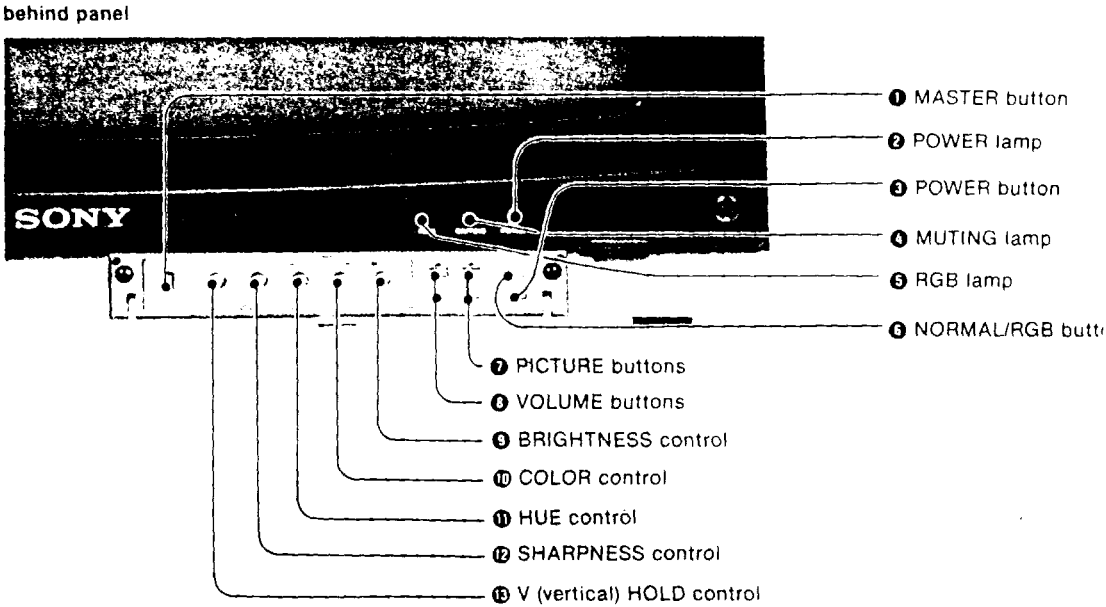
Smoked glass over the picture tube for a glare-free picture with optimum contrast.

ECONOQUICK™, energy-saving quick-start system.

The KX-2501A also features:

- A Velocity Modulation scanning system for increased sharpness and resolution.
- Pulse techniques in the power supply section that provide an efficient and stable power supply.

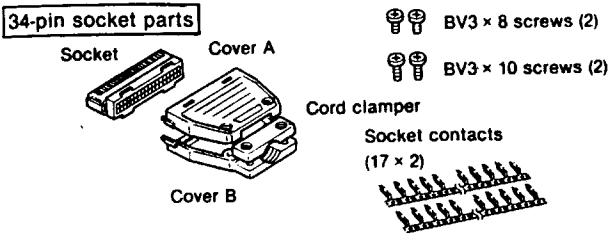
1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS



14 RGB MULTI INPUT connector (34-pin plug)

This connector allows a character generator, microcomputer, or a special adaptor for future videotex/teletext having digital/analog RGB outputs to be connected. The connector cover has been attached to this connector at the factory. When this connector is not in use, keep the cover attached.

When such equipment having digital/analog RGB outputs is connected to this connector, disconnect the connector cover and proceed as follows by using the supplied 34-pin socket.



Position number	Signal to be connected
1, 2	+5V power supply
3	Audio (R) input ground
4	Ground
5	Remote control ground
6	Composite video output ground
7	Audio (L) input ground
8*, 9*, 10*	Ground
11	Ground
12*, 13*	Ground
14	Not in use
15*	Ground
16	Ground
17	Not in use
18	EXT/INT mode sync switch
19	Not in use
20	Audio (R) input
21	Analog/digital mode select
22	Remote control output
23	Composite video output
24	Audio (L) input
25*	Red input
26*	Green input
27*	Blue input
28	Not in use
29*	Blanking input
30*	H. sync or composite sync
31*	V. sync
32	Half blanking input
33	RGB/NORMAL mode select
34	Audio select

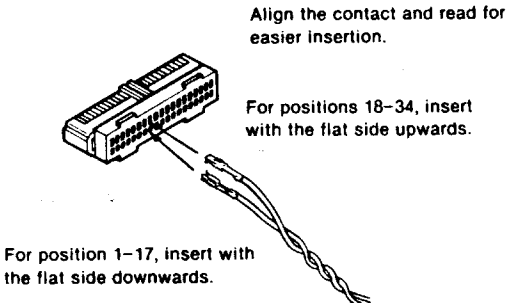
* For No. 8 and 25, 9 and 26, 10 and 27, 12 and 29, 13 and 30, or 15 and 31 connections, use a twisted-pair lead when the signal level is TTL, or a 75-ohm coaxial cable when the signal level is 1 V p-p.

(1) Solder each lead to a socket contact.

- Place the lead on the contact as illustrated.

3.5 mm, max. 1.7 mm, Remove the covering, Use AWG 22-30 leads.
- Fix the lead.
- Tighten the tabs slightly.
- Solder the conductor. Take care not to solder past the point indicated by the dotted line.
- After soldering, separate the contact by moving it upwards and downwards.

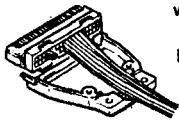
(2) Connect the socket contacts to the correct positions. Refer to the chart.



(3) Assemble the socket.

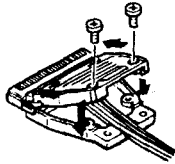
1. Attach the socket to the cover B.

with the positions 1-17 upwards



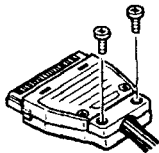
Engage the projections with the holes.

2. Attach the cover A to the socket with the 2 shorter screws.

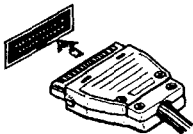


Engage the projections with the holes.

3. Attach the cord clamber with the 2 longer screws.



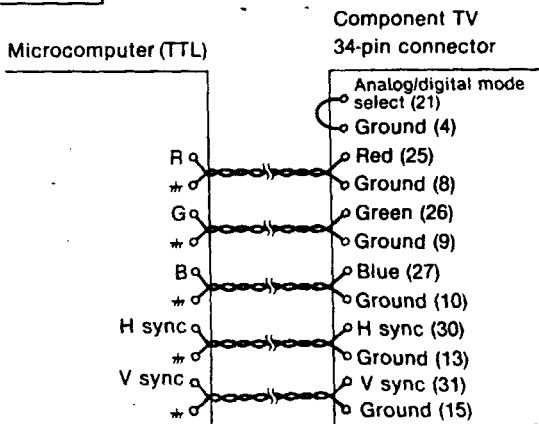
(4) Connect the socket to the RGB MULTI INPUT connector.



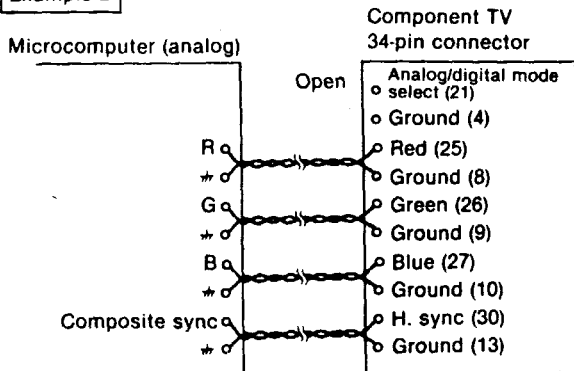
Engage the projection with this slot.

For the signal specifications, see page 2.

Example 1



Example 2



15 AUDIO INPUT jacks (phono jacks, L-white, R-red)

Connect to the audio outputs of a Sony Betamax or U-matic video cassette recorder, Sony Component TV tuner, etc. Connect the L and R channels properly. If the recorder is monaural, connect the audio output of the recorder to these two jacks with the RK-105A Connecting Cord (supplied) and the PC-5A Plug Adaptor (phono plug to minijack, optional), if required.

16 VIDEO INPUT jack (phono jack, yellow)

17 INPUT LEVEL control

Connect to the video output of a Sony Betamax or U-matic video cassette recorder, Sony Component TV tuner, video camera, etc. with the VMC-1S Video Cable (supplied).

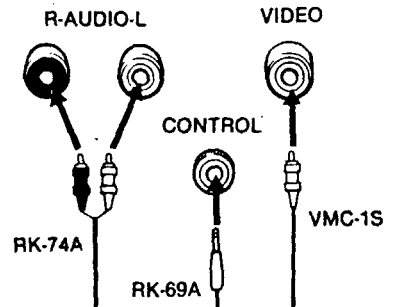
The input level of the video signal from this jack can be adjusted with the INPUT LEVEL control.

Normally set the control to the center detent position.

If the picture contrast is too weak or too strong, adjust the level (min. 0.5V p-p, max. 2V p-p) by turning the control clockwise or counterclockwise with a screwdriver.

18 CONTROL INPUT jack (minijack)

When the set is used with a Sony Component TV tuner equipped with a control output connector, connect as illustrated with the RK-69A Connecting Cord (optional).



The volume and picture can be adjusted and the power can be turned on or off using the controls on the TV tuner or the Remote Commander (supplied with the tuner).

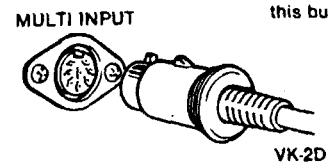
19 MULTI INPUT connector (8-pin DIN)

Connect to the MULTI OUTPUT (8-pin DIN) connector on a Sony Component TV tuner with the VK-2D Video Cable (supplied with the tuner, 2 m). The audio, video and control signals can be connected simultaneously with this cable.

The volume and picture can be adjusted and the power can be turned on or off using the controls on the TV tuner or the Remote Commander (supplied with the tuner).

Engage this projection with this slot.

To disconnect, push this button.



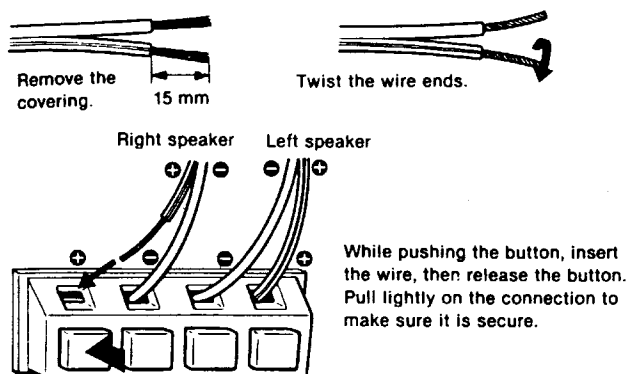
The VK-5DX Video Cable is available optionally for extending the VK-2D.

Caution: Use either the VIDEO/AUDIO/CONTROL 15 16 18 jacks or the MULTI INPUT connector, but not both simultaneously.

20 SPEAKER terminals

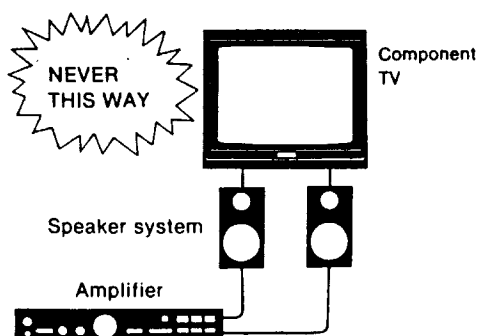
Connect to an 8–16 ohms speaker system.

Speaker cord connections



Caution

- Make sure that none of the strands are separated from the wire and shorts across the speaker terminals.
- Correct \oplus \ominus connection of both speakers insures proper in-phase operation. If the speaker system is out-of-phase, the bass tones seem to be missing and the position of the instruments becomes obscure.
- The set should be placed some distance away from the speakers so that it will not be affected by the speaker magnets. If a temporary proximity to magnets should cause portions of the picture to have poor color, turn the POWER button off, and after about 10 minutes, turn it on. The Sony SS-X1A and SS-X10A Speaker System (optional) may be placed near the set because these are a low magnetic flux leakage type.
- Never connect a speaker system to an amplifier and this Component TV simultaneously, as this may damage the TV.

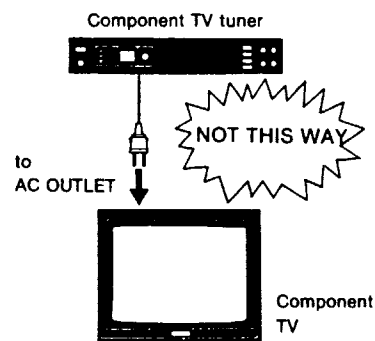


21 AC OUTLET (SWITCHED)

Provides ac power of 200 W max. (KX-2501A) or 250 W max. (KX-1901A) to other connected equipment. Power can be switched on or off with the POWER button on the Component TV.

Caution

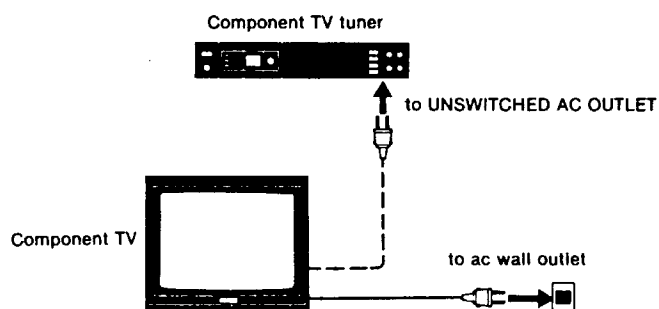
- When the set is used with a Sony Component TV tuner, do not connect the ac power cord of the tuner to this outlet. Otherwise, the power cannot be turned on or off using the control on the tuner or the Remote Commander (supplied with the tuner).



- Do not connect electrical home appliances such as an electric iron, fans, or other high-wattage equipment to this outlet.

22 AC power cord

Connect to a convenient 120 V ac wall outlet. When the set is used with a Sony Component TV tuner, the ac power cord may be connected to the UNSWITCHED AC OUTLET.



23 POWER LOCK switch

Normally set to OFF. The MASTER and POWER buttons functions as described above. If the set is to be switched on or off by a timer, set this switch to ON and keep the MASTER button pushed in. When power is supplied to the set with the POWER LOCK switch and MASTER button set to ON, the set will turn on automatically.

24 BASS BOOST switch

When a bookshelf-type speaker system (e.g. Sony SS-X1A, SS-X10A) is used, set this switch to ON to enhance the bass sound. When a larger speaker system is used, set the switch to OFF to prevent excessive bass boost.

25 Speaker attachment holes

The Sony SS-X1A Speaker System (optional) may be attached to the set. For details on attachment, see the instructions furnished with the SS-X1A.