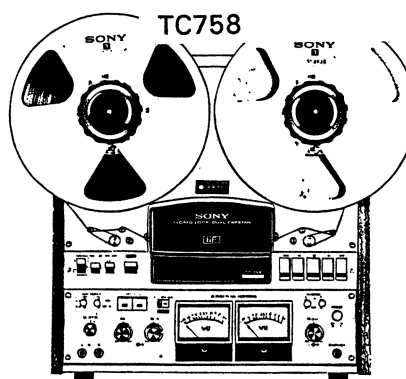


SONY®

STEREO TAPECORDER TC-758

OWNER'S INSTRUCTION MANUAL



Precision, uncompromising quality, and superb stereophonic sound.....they are now yours with the exciting Sony TC-758.

Principal Features

- An AC servo-controlled capstan drive motor
- Automatic reverse system with a sensing foil and the AUTO REV selector.
- Timer-activated recording and playback
- Closed-loop/dual capstan tape drive
- Three-motor, six-head function
- Tape equalization and bias selectors
- FET amplifier directly coupled to the playback head
- High performance F & F (Ferrite and Ferrite) heads
- Logic-controlled transport function
- Mic attenuator for excessive sound levels.

To fully realize the capability and obtain the utmost performance of the TC-758, read this instruction manual thoroughly and keep it handy for future reference.

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WARNING

- To avoid electrical shock, do not open the cabinet.
Refer servicing to qualified personnel only.
- To prevent fire or shock hazard, do not expose the set to rain or moisture.

PRECAUTIONS

Safety

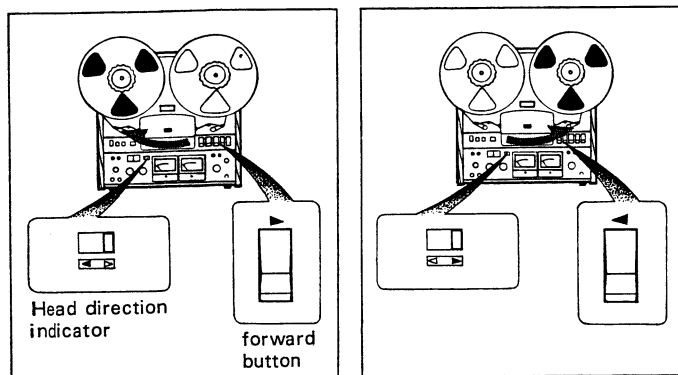
- The TC-758 is set for 120 V AC.
To operate on other voltage, consult your Sony Service Station or Sony dealer in the country where the TC-758 will be used.
- Should any liquid or solid object fall into the mechanism, unplug the set and have it checked by qualified personnel before operating it any further.
- Unplug the set from the wall outlet when it is not to be used for an extended period of time.
- To disconnect the cord, pull it out by the plug. Never pull it by the cord.

Installation

- Good air circulation is essential to prevent internal heat build-up in the set. Place the set in a location with adequate air circulation. Do not place the set in an enclosed cabinet or place anything on top of the set that would block the ventilation grilles at the back and top of the set.
- Do not install the set in a location near heat sources such as radiators or airducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

Operation

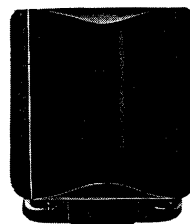
- In the timer-activated recording, head direction has priority to the function buttons, and tape will move in the head direction regardless of the function button.



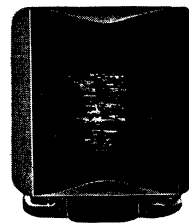
- Make sure the built-in reel locks are secured before operating the set.
- Make sure there is no slack in the threaded tape. If the tape is threaded improperly, the set will not operate.
- The microphone inputs and line inputs of the TC-758 can be used simultaneously for mixing.
To record only through the microphone inputs, disconnect any input source from the line inputs and vice versa.
- For normal operation, set both right and left PB LEVEL controls at center click position.

Maintenance

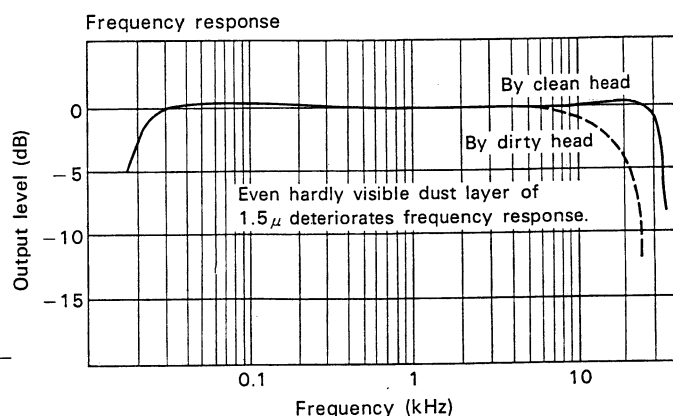
- Keep the heads and all surfaces over which the tape travels clean in order to assure optimum performance. For cleaning information, refer to "MAINTENANCE" on page 13.



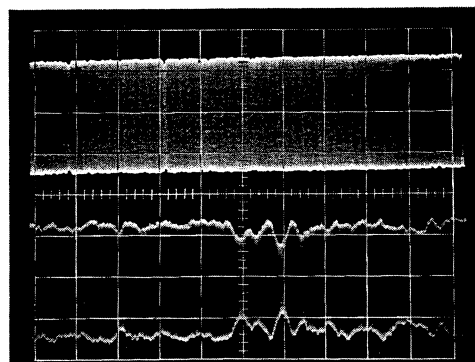
Clean head



Dirty head



Playback waveform at 10 kHz



By clean head

By dirty head

The output level fluctuates

If you have any question or problem about your set, consult your nearest Sony dealer

CONNECTIONS

When making connections, observe the following notes.

- Turn off the amplifier while making connections.
- Insert the cable connectors completely into the jacks. Loose connections may cause hum and noise.
- For high quality recording, use the supplied connecting cord; use the red plug for right-channel connection and the remaining plug for left-channel connection.

Amplifier Connection

For playback, connect the recorder LINE OUTputs to the amplifier tape inputs (or auxiliary inputs). For recording, connect the recorder LINE INputs to the amplifier recording outputs. If your amplifier has the same DIN 5-pin connector as that on the TC-758 (indicated REC/PB), the record and playback connections can be made with a single cable, such as Sony RC-2 (optional). Do not simultaneously make the DIN cable connection and phono cord connections.

Tape Duplication Connection

To duplicate a tape from another recorder, connect the LINE INputs of this recorder to the line outputs of another recorder. To duplicate from this recorder, connect the LINE OUTputs of the recorder to the line inputs of another recorder.

Microphones

Any high-quality low-impedance microphone equipped with a phone plug may be used.

Headphones

Headphones must be of 8-ohm impedance.

Power Connections

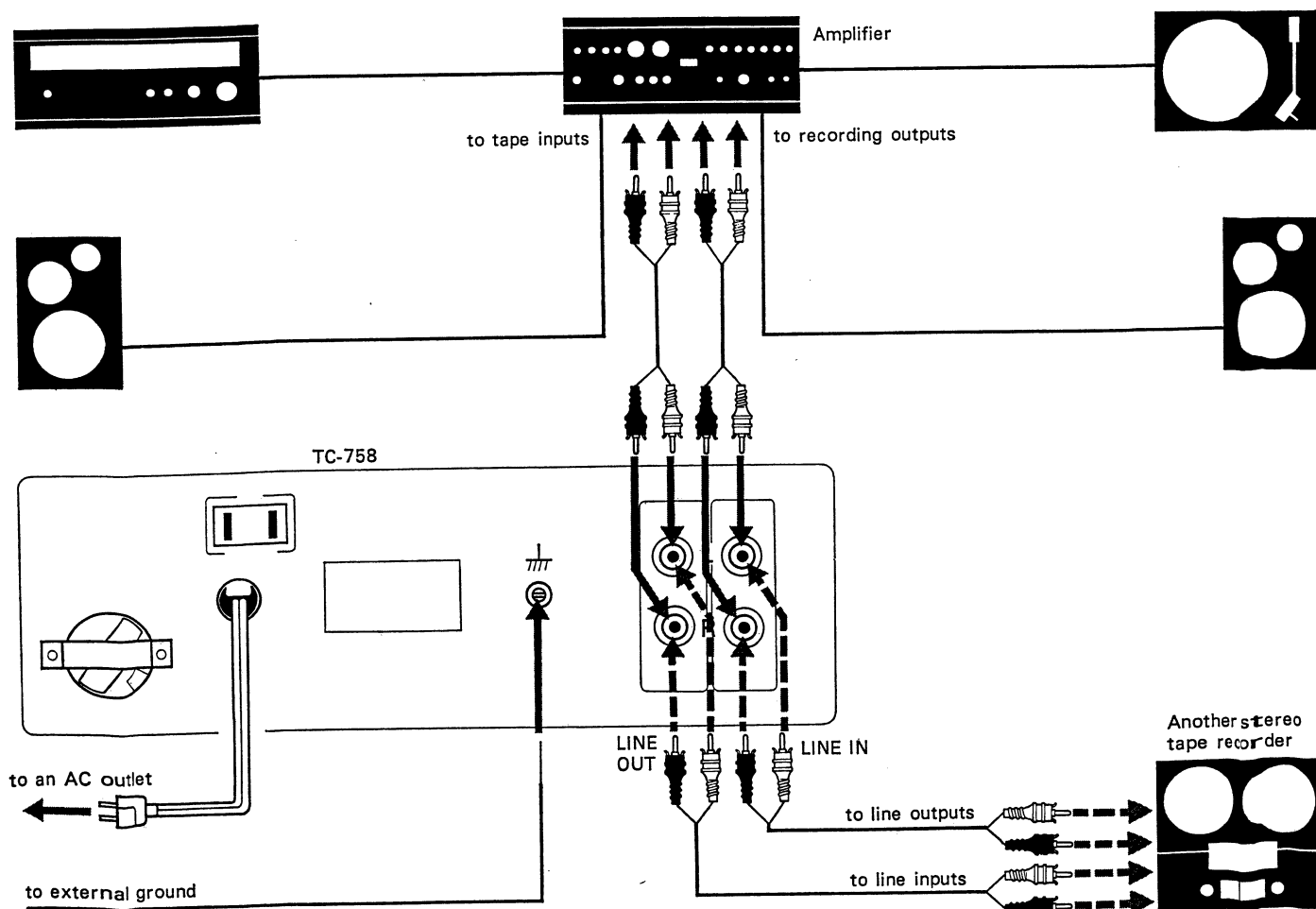
Connect the power cord plug to a wall outlet. The convenient AC outlet featured on the rear panel supplies AC power (maximum 300 watts) to other audio components such as a turntable, tuner etc. This outlet is not controlled by the front panel POWER switch.

Ground Connection

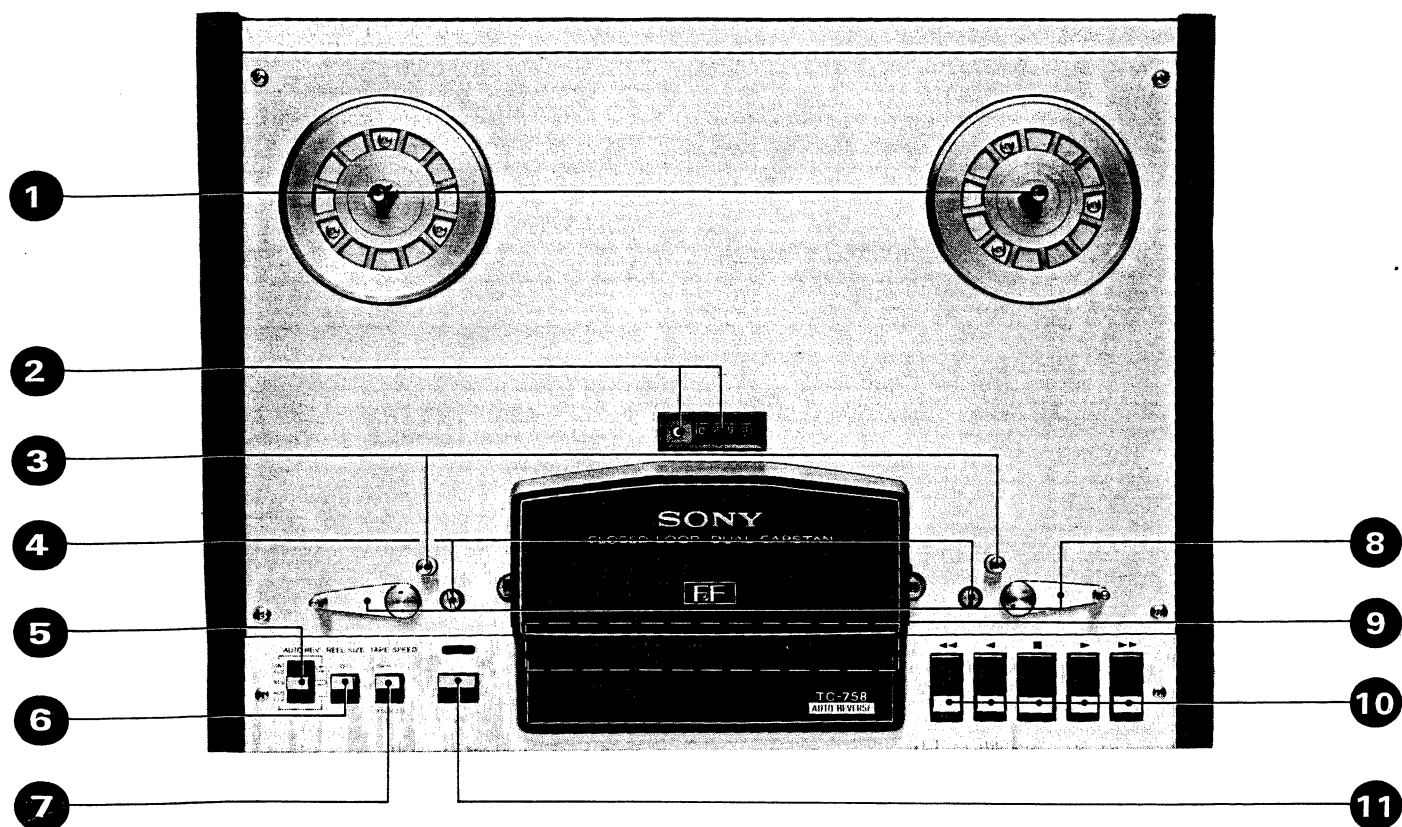
If hum occurs, it may be helpful to connect the Ground terminal to an appropriate external ground.

Note on Amplifier Input Selector Setting

If you connect the recorder outputs to the amplifier inputs which are not controlled with the amplifier tape-monitor selector, do not set the amplifier input selector to the same auxiliary input position, while recording. Otherwise oscillation may occur since the recorder output signal returns to its inputs through the amplifier. If this happens, reduce the PB LEVEL control until you have changed the amplifier input-selector setting to another input position.



OPERATION OF CONTROLS



1 Reel spindles with reel locks

Insert the tape reel hole in the spindle. Line up and turn the spline of the spindle to lock the reel firmly in place.

2 Tape counter and reset button

Use the counter for indexing tape contents. Once a reel is threaded, set the counter to [0000] by pushing the reset button. The figures on the counter change as the tape passes. Make a note of the figures and the program being recorded for later reference.



3 Sensing poles

When these poles sense the attached foil on the tape, automatic reverse system works. These poles and foil should always be clean to ensure reversing operation.

4 Tape-height adjusters (both supply and take-up sides)

If the tape rubs the reel edge, tape height can be adjusted with these screws; clockwise rotation will raise the tape and counter-clockwise rotation will lower it. Before adjusting, check both supply and take-up reels. If they are warped, replace them.

5 AUTO REV selector (Automatic reverse selector)

CONT REV continuous reverse
REV one reverse cycle from right to left
NON REV —one direction (non-reverse)
Refer to "AUTOMATIC REVERSE SYSTEM" on page 8.

6 REEL SIZE selector

Select the optimal rewind tension and reel torque for the reel used; the "10 1/2" position for 10 1/2-inch reels, and "7" is for 7-inch or 5-inch reels. Use the same size reel for both supply and take-up.

7 TAPE SPEED selector

For high quality recording, "7 1/2 ips" (19 cm/s) is recommended. Recording at "3 3/4 ips" (9.5 cm/s) extends recording time. In playback mode, set the tape speed which corresponds to the speed of the prerecorded tape.






8 Tension arms (both supply and take-up sides)

These arms maintain uniform tape tension. When all the tape are wound and the tension arms are released to horizontal position, tape transport mechanism will stop.

9 Head section

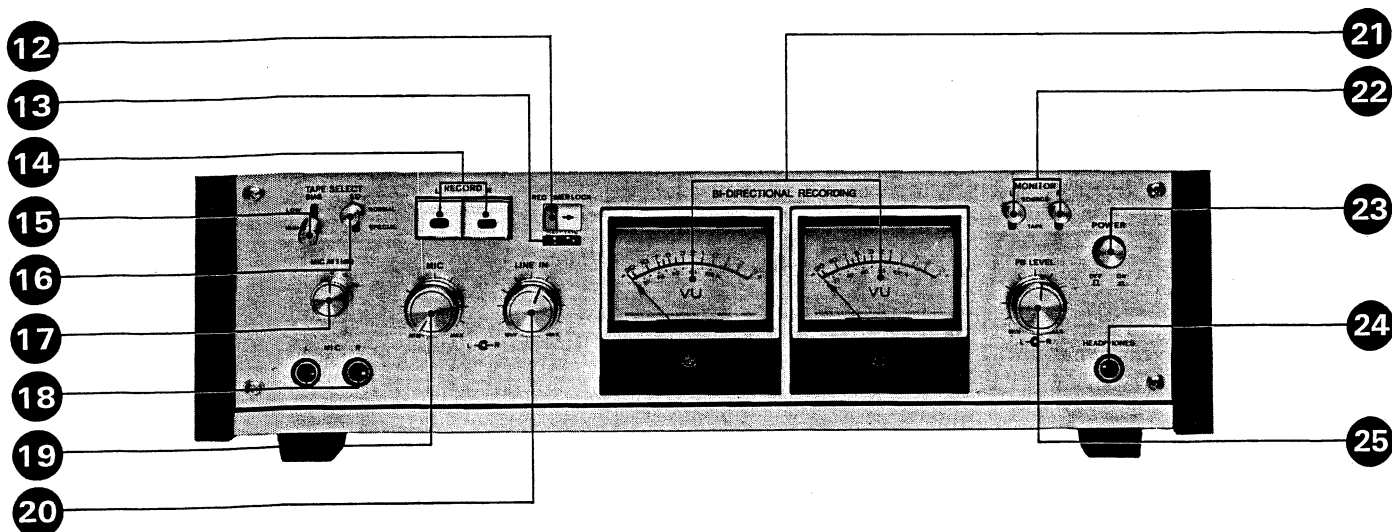
Always keep this section clean for optimum performance. Refer to page 13.

10 Function buttons

 rewind,  forward to the left,  stop,  forward to the right,  fast forward tape motion.
These buttons can be depressed at random to change tape motion from normal to fast wind, and vice versa (Logic-controlled transport function).

11 PAUSE lever

To pause momentarily in playback or recording (to eliminate undesired portions), depress down the PAUSE lever. The lamp will light. Tape will stop (tape-and-head contact remains). To restart, move it upward. This lever is also used for proper timing of the recording. For instantaneous recording, depress the PAUSE lever first and then set the recorder in record mode. At the moment when you wish to record, move the PAUSE lever upward. Recording will begin immediately.



- 12 REC TIMER LOCK lever (for only timer-activated recording)**
To make timer-activated recording, move this lever to the right while depressing the RECORD buttons and the recorder will be locked in record mode.
To return this lever to the left, depress either of the function buttons when the power is supplied.

- 15 Head direction indicator**
In the timer-activated recording (REC TIMER LOCK lever is set in the right position), this indicator shows the direction of the heads which has priority to the function buttons.

14 RECORD buttons

- 13 BIAS selector**
Select the correct bias current for the tape used in record mode. The following list shows recommended settings.

- 16 EQ selector**
Select the optimal equalization characteristics for the tape used in record and playback modes. The recommended settings are listed below.

BIAS selector	EQ selector	Tapes
LOW	NORMAL	SONY SUPER 150 SUPER A TDK 150 SCOTCH 150 Other 150 type tapes
LOW	SPECIAL	SONY SLH MAXELL LNE 35 AGFA PE 35 BASF LP 35, 35LH
HIGH	NORMAL	SCOTCH 203, 206 TDK SD 150
HIGH	SPECIAL	With some tapes, frequency response may be good but distortion may be high.

- For record, select proper setting of BIAS and EQ selectors.
- For playback, select proper setting of only EQ selector.

- 17 MIC ATTenuator**
In normal use, this control should be in the "0" position. When recording an excessively high level sound source with a microphone, use this control for easier adjustment of mic level, to prevent overloading the MIC amp of the recorder; "15" attenuates 15 dB, "30" will attenuate 30 dB.

- 18 MIC input jacks**
Connect any low impedance microphone equipped with a phone plug.

- 19 MIC input level controls**
Adjust the record level of the MIC and REC/PB input jacks with these controls; inner knob for MIC-R input and outer knob for MIC-L input.

- 20 LINE input level controls**
Adjust the record level of the LINE IN jacks; inner knob for R LINE IN jack and outer knob for L LINE IN jack.

- 21 VU meters**
With the MONITOR selectors set at SOURCE, the meters show the recording level. With the selectors set at TAPE, the meters show the output level of the LINE OUT and HEADPHONE jacks: 0 VU reading corresponds to 0.43 volts.

- 22 MONITOR selectors**
For playback of tapes, set the selectors to TAPE. While recording, the TAPE position monitors the recorded sounds and SOURCE position monitors the sounds to be recorded (source material). Record level adjustment can be made with these selectors at SOURCE.

- 23 POWER switch**
Turn on and off the power with this switch.

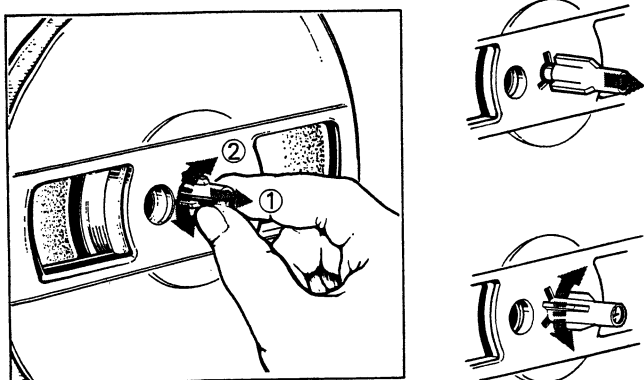
- 24 HEADPHONE jack**
Connect 8-ohm headphones to monitor the recording level. Headphones level can be adjusted by the PB LEVEL controls in recording and playback.

- 25 PB LEVEL controls**
These adjust the playback signal level of LINE OUT and HEADPHONES jacks. This adjustment reflects on the VU meters with a 0 VU reading corresponding to 0.43 volt output. During normal use, set the inner knob (R channel) to the center detent position and align the outer knob (L channel) with the inner knob. If the reproduced tape sound is too high or low when reproducing rated level signal (0 VU) with the amplifier volume control set around 9 to 12 o'clock position, adjust these knobs to match the amplifier sensitivity; fully clockwise rotation will provide 5 dB boost, and fully counterclockwise rotation will mute the sound. These controls will also be effective if the tape was recorded with imbalanced levels.

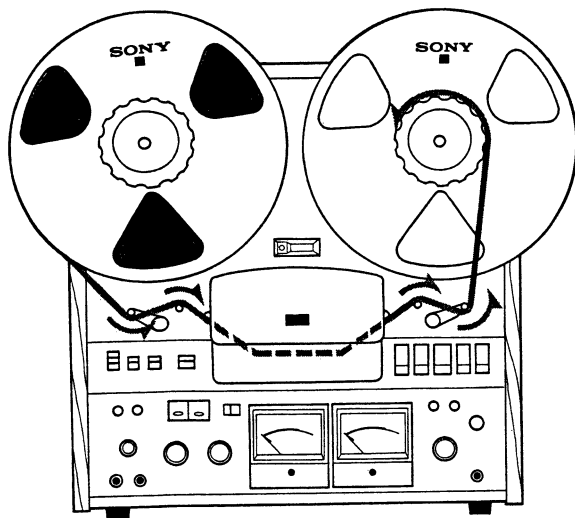
TAPE THREADING

Use the same size reels for both supply and take-up.

1. For right direction playing, place an empty reel on the take-up (right) side and a full reel on the supply (left) side.
2. Lock the reels as illustrated.

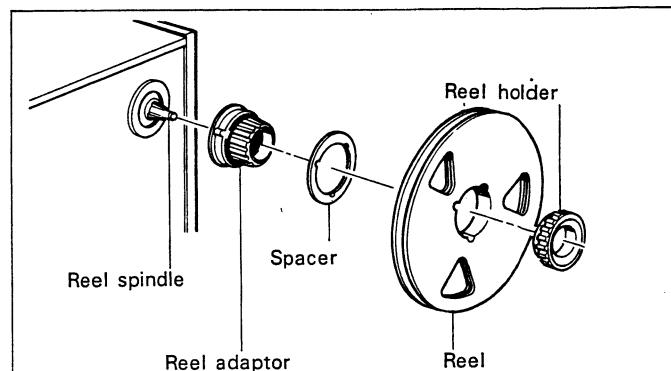


3. Thread the tape. Be sure to pass the tape under the tension-arm guides, and above the sensing poles.
4. Wrap the tape around the hub of the right reel or insert the end of the tape into the reel slot.
5. Rotate the reels a few times by hand to take up tape slack. The tension arms will be set in vertical (operating) position.

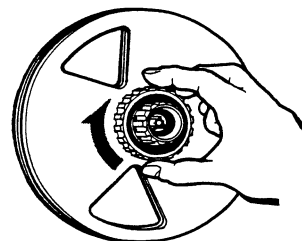


- For optional 10 1/2-inch metal reel, use the supplied (2) reel adaptors (RAD-10) as illustrated.

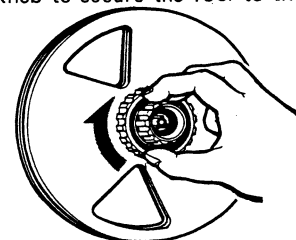
Note: Do not use the spacer when using optional 10 1/2-inch plastic reels.



Turn the outer knob to secure the reel to the adaptor.



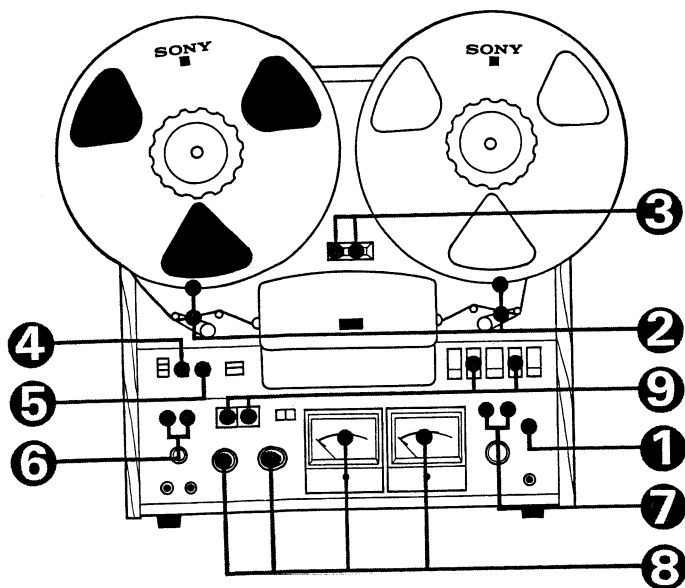
Turn the inner knob to secure the reel to the spindle.



- For the supplied 10 1/2-inch reel, neither reel adaptor nor spacer is required.

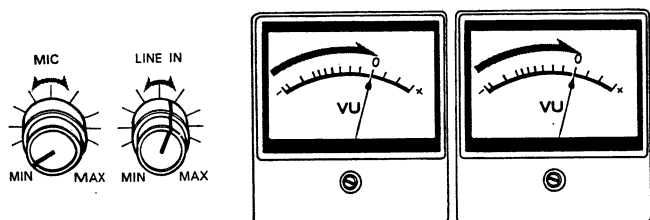
Note: When threading a tape, be sure that the function buttons of ►, ►►, ◀◀ and ◀ are released. If any button is depressed and the power is on, the tape will start when either side tension arm is set in the operating position.

STEREO RECORDING



Connect the desired source program to the proper input jacks of the recorder.

- 1 Turn on the recorder and the source equipment.
 - 2 Thread a tape.
 - 3 At the beginning of the tape, set the tape counter to [0000] by pressing the reset button for later reference.
 - 4 Set the REEL SIZE selector.
 - 5 Set the TAPE SPEED selector as desired.
 - 6 Set the BIAS and EQ selectors according to the tape used. Refer to the setting table on page 5.
 - 7 Set the MONITOR selectors to SOURCE.
 - 8 While watching the VU meters, adjust the respective level controls so that the needle of each meter deflects to the 0 VU position. Use the LINE IN controls for a line-program (off-the-air and disc) recording, and use the MIC controls for a mic recording. Be sure to turn the unused level controls fully counterclockwise to MIN.
- For mic recording, use the MIC ATTenuator if necessary.



Be sure to turn the unused level control fully counterclockwise.

- 9 With the RECORD buttons fully depressed, depress the ► (or ◀) button. RECORD button lamps will light. Now, recording starts.
- Depress the ■ button when recording completes
- Note the tape counter figure for recording content indexing.

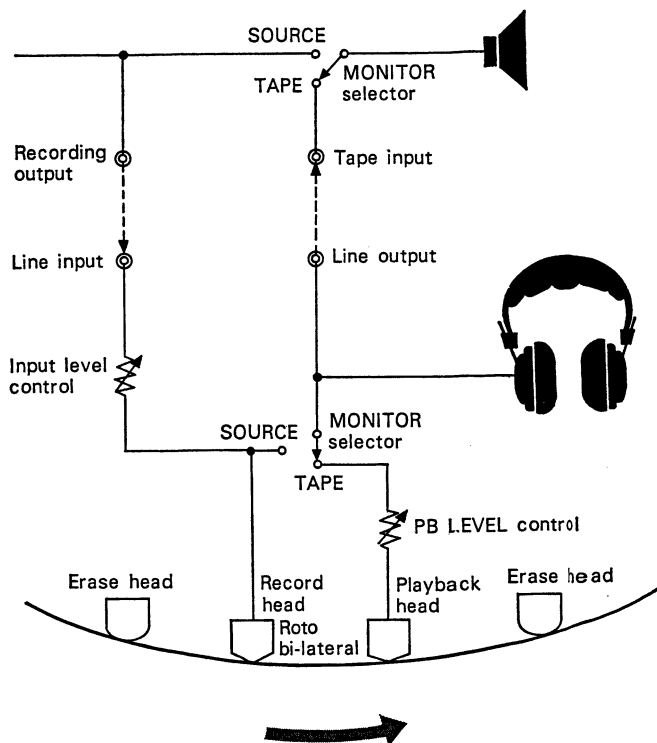
To continually record on opposite side, depress the ◀ (or ►) button with the RECORD buttons fully depressed. The tape transport direction will be reversed and opposite side recording will begin. If the sensing foil is on the tape, tape transport direction will reverse with the AUTO REV selector set to ↺. See page 8

Recording monitoring

With headphones, instantaneous tape/source comparison is possible by setting the recorder MONITOR selectors alternately to SOURCE (sound from source is heard) and to TAPE (sound from tape an instant after it has been recorded is heard). With an amplifier having a tape-monitor selector, this comparison is possible at the amplifier by setting the recorder MONITOR selectors to TAPE.

Headphones volume can be adjusted by the PB LEVEL controls without affecting the recording.

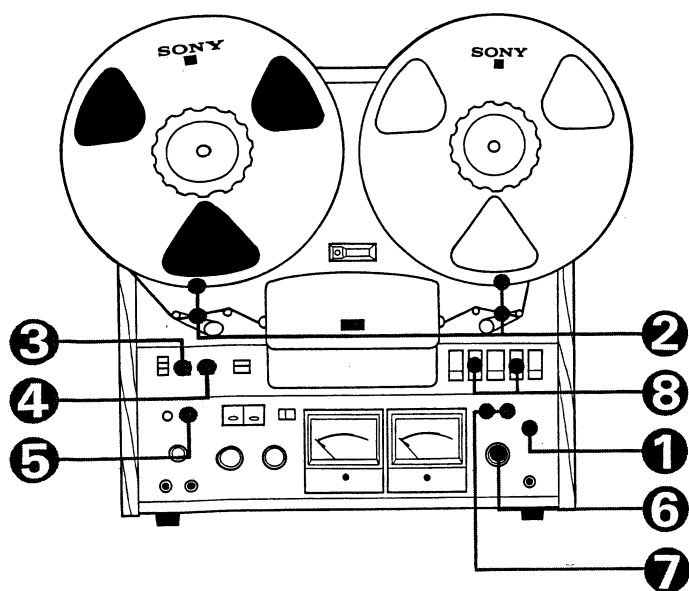
- While recording with a microphone, headphone monitoring is advisable since speaker monitoring may cause a howling effect.



Mic-and-line Mixing

Connect microphone and line source to their respective inputs. While listening through headphones, adjust the mixing level by turning the respective controls of MIC-L, -R, LINE IN-L, R. The VU meters show the composite recording level of line and mic inputs. For recording procedure, refer to "STEREO RECORDING"

STEREO PLAYBACK



- ① Set up the stereo playback system and turn the operating power of each component on.
 - ② Thread a recorded tape.
 - ③ Set the REEL SIZE selector.
 - ④ Set the TAPE SPEED selector to match the prerecorded tape.
 - ⑤ Set the EQ selector according to the tape used.*
 - ⑥ Set the PB LEVEL controls at center position.
 - ⑦ Set the MONITOR selectors to TAPE.
 - ⑧ Depress the ► (or ◄) button.
- Adjust sound level and tone quality with amplifier controls. Sound level can also be adjusted with PB LEVEL controls.

*When playing back a Sony SLH or equivalent low noise tapes, set the EQ selector to SPECIAL to prevent overswing of the meter needle. Since these tapes provide higher output than standard tapes, the recorder output level is automatically reduced approximately 2.5 dB by setting the EQ selector to SPECIAL during playback.

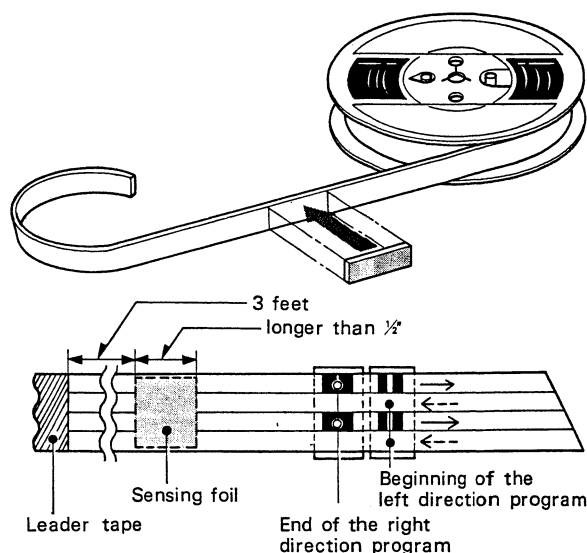
At tape end, depress the ■ button. To continually play back the other side, depress the other forward button (◄ or ►). It is unnecessary to reverse the reel positions.

When the AUTO REV selector is set at either ↺ or ↻ position, the tape will automatically be reversed at the sensing foil.

AUTOMATIC REVERSE SYSTEM

The TC-758 features an automatic tape reversing system. The automatic reverse system activates only when using sensing foil (supplied) and setting the AUTO REV selector to either CONT REV ↻ or REV ↺ position.

Place a 1/2 inch piece of sensing foil on the outer side of the tape, leaving approximately 3 feet of blank portion (leader tape can be used instead of a blank portion). If the foil is attached too close to the tape end, the tape will detach from the reel before reversing. Be sure to center the foil on the tape and trim off any excess. If the sensing foil or the sensing pole is dirty, reversing operation will be impaired.



Position of sensing foil	AUTO REV selector
<p>Automatic reverse in record mode</p> <p>Head</p> <p>Foil</p>	<p>REV ↺</p>
<p>Automatic reverse in playback mode</p>	<p>REV ↺</p>
<p>Automatic repeat in playback mode</p>	<p>CONT REV ↻</p>

To Reverse the Tape While Recording

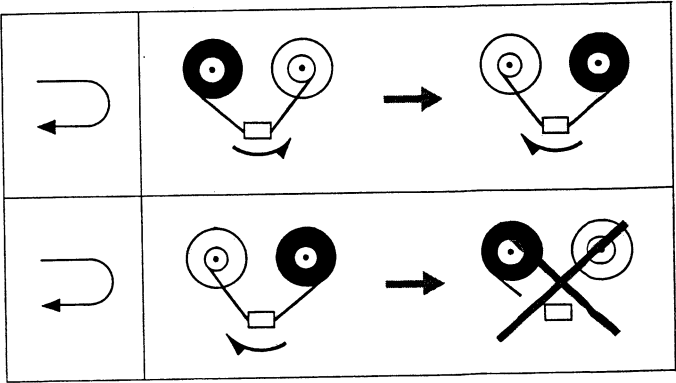
Attach the sensing foil at the tape end and set the AUTO REV selector to REV ↷. The tape will automatically reverse from right to left and recording in the left direction will begin. Be careful not to set the selector to CONT REV ⇄ with the foils attached to both tail ends, or the tape will reverse again after recording in both directions and erase the previous recordings.

To Reverse the Tape While Playing Back

Attach the sensing foil at the end of the recorded portion and set the AUTO REV selector to REV ↷. The tape will automatically reverse from right to left and playback in the left direction will begin. To play the tape repeatedly, attach the foils at both ends of the recorded portion and set the selector to CONT REV ⇄.

NOTE

- When using a tape with foils attached to both ends, pass the first foil over the sensing pole in fast forward, then put the recorder into the playback mode. If you play the tape in normal speed, the tape will reverse at the first foil.
- With the AUTO REV selector set to REV ↷, the reversing system operates only at the end of right direction.



MONO RECORDING AND PLAYBACK

If your amplifier or receiver feeds a monaural signal to the recording outputs, you can make a mono recording with the TC-758. Mono recording and playback procedures are the same as those for stereo recording or playback.

When using the sensing foil and setting the AUTO REV selector properly, reverse recording and playback can be done automatically. Refer to "AUTOMATIC REVERSE SYSTEM".

Sequence	Recording track	MIC/LINE IN jack	MIC/LINE IN level control	RECORD	Forward button	Tape direction	Amplifier mode Switch
1		L			▶	➡	L
2		L			◀	⬅	
3		R			▶	➡	R
4		R			◀	⬅	

TIMER-ACTIVATED RECORDING AND PLAYBACK

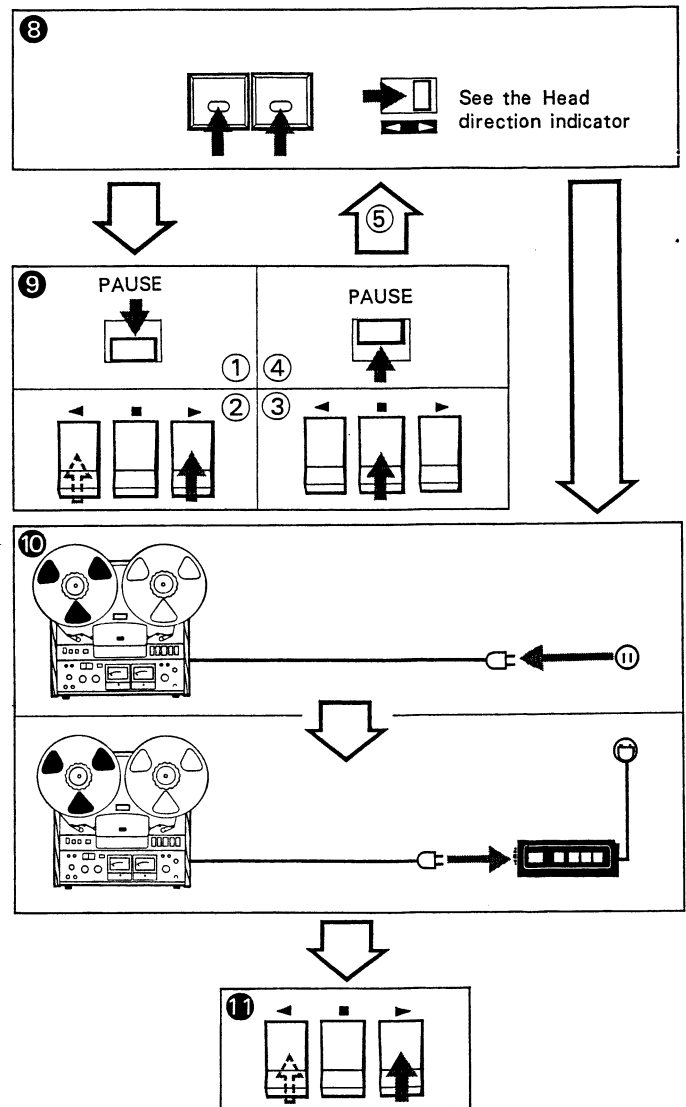
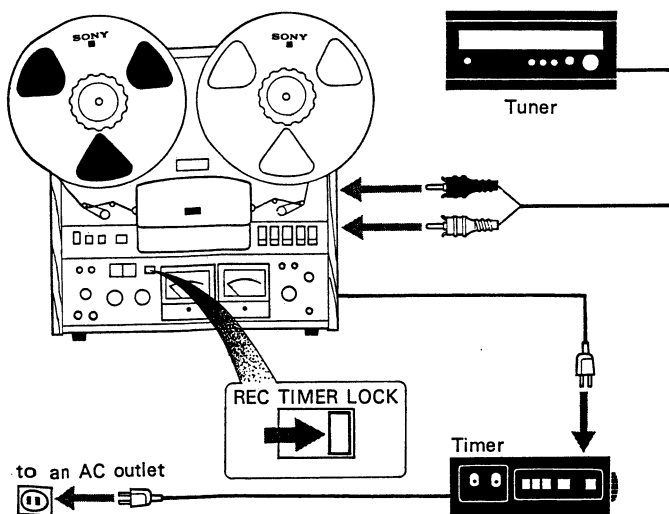
Automatic recording and playback may be made with a commercially available timer.

Recording

- ① Preset the timer at the desired time.
- ② Select a desired station with a connected tuner.
- ③ Connect the power cord plug of the TC-758 to an outlet.
- ④ Push the POWER switch ON.
- ⑤ Thread a tape on the TC-758.
- ⑥ Set the necessary controls—AUTO REV selector (including sensing foil setting), TAPE SPEED selector, BIAS and EQ selectors, REEL SIZE selector.
- ⑦ Adjust the recording level.
- ⑧ While depressing the RECORD buttons, slide and lock the REC TIMER LOCK lever to the right. Make sure the head direction with the Head direction indicator. When the direction is correct, skip the next step ⑨.
- ⑨ If the direction is not correct, proceed as follows:
 - ① Press the PAUSE lever down (Pause lamp will light).
 - ② Depress your desired forward button (▶ or ◀). —The heads will rotate.
 - ③ Depress the ■ button.
 - ④ Return the PAUSE lever to upper (off) position.
 - ⑤ Proceed again with the above mentioned step ⑧.
- ⑩ Remove the power cord plug of this recorder from the outlet and connect it to the timer outlet.
- ⑪ Surely depress the desired forward button (▶ or ◀). Make sure the PAUSE lever is set at the upper (off) position. Now the recorder is ready for automatic start of radio program recording.

NOTE

In timer-activated recording, head direction has priority to the function buttons. Thus tape will move in the same direction as that of head.



Playback

1. Preset the timer at the desired time.
2. Push the POWER switch ON.
3. Thread a tape on the TC-758.
4. Set the necessary controls.
5. Connect the power cord plug to the timer outlet.
6. Depress the desired forward button (▶ or ◀). Now the recorder is ready for automatic start of playback.

NOTE

In timer-activated playback, function buttons have priority to the head direction.

SPECIAL RECORDINGS

Sound-on-Sound Recording

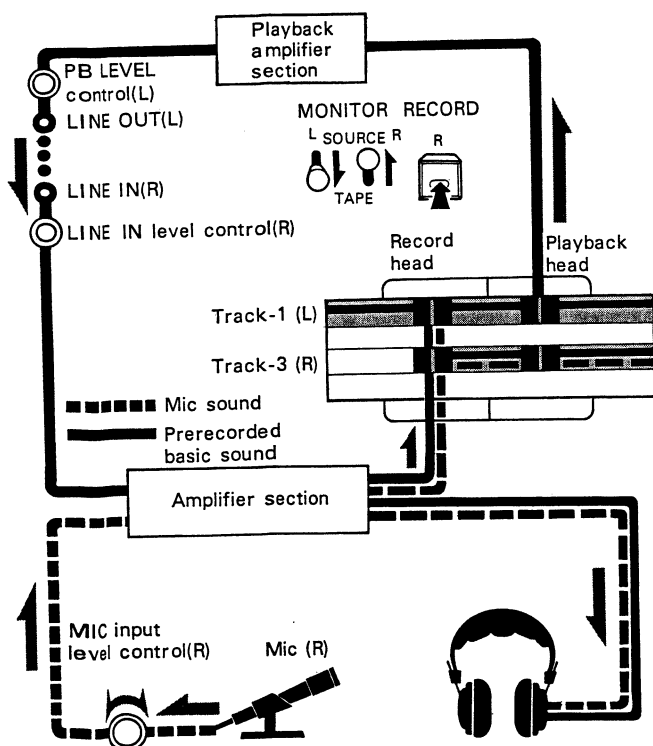
The TC-758 can make a composite recording from the left channel to the right channel and vice versa. This enables you to record a duet with your favorite singer or create other special effects.

Sound-on-Sound recording on the right channel [L→R]

1. Record the basic program on the track 1 of the left channel according to "MONO RECORDING AND PLAYBACK" on page 9, and rewind the tape to the beginning.
2. Connect the L LINE OUT jack and R LINE IN jack by using the supplied Connecting cord RK-74H.
 - Be sure to use the plugs of the same color at both ends of the connecting cord.
3. Insert a microphone into the R MIC jack.
4. Insert stereo headphones into the HEADPHONE jack for monitoring.
5. Set the L MONITOR selector to TAPE and the R MONITOR selector to SOURCE. Set the PB LEVEL controls to the center position.
6. Adjust the recording level: Temporarily play back the tape and adjust the R LINE INPUT and R MIC input level by using respective level control and right VU meter.
7. Rewind the tape to the beginning.
8. While depressing the R RECORD button, depress the ► button. Recording will begin.

Through the left headphone, the playback of the basic recording on the track 1 is heard; through the right headphone, the composite recording on the track 3 is heard.
9. When recording is finished, rewind the tape to the beginning. To play back track 3, set the R MONITOR selector to TAPE and L MONITOR selector to SOURCE.

For recording on the left channel [R→L], use the R LINE OUT jack and L LINE IN jack. Other recording procedures are the same as described above except for the channel used.



Echo Recording

The TC-758 can make more resonant recordings either stereo-phonically or monophonically.

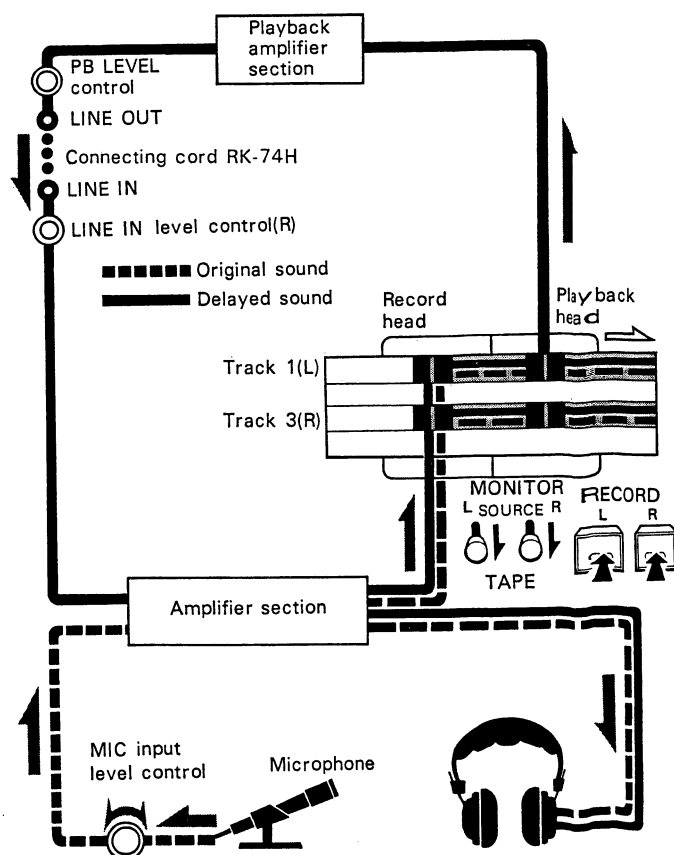
Stereo echo recordings

1. Insert two microphones into the MIC input jacks.
2. Turn the R LINE IN and L LINE IN controls, and MIC level controls fully counterclockwise.
3. Connect the LINE IN jacks and LINE OUT jacks by using the supplied Connecting cord RK-74.
4. Insert stereo headphones into the HEADPHONE jack.
5. Set the MONITOR selectors to TAPE.
6. While depressing the RECORD buttons, depress the ► button and start recording.
7. While listening through the headphones, adjust the microphone input levels by turning the MIC-R and MIC-L controls. Then slowly turn the R LINE IN and L LINE IN controls clockwise for desired echo through the microphone input source.
 - Be careful not to excessively increase the record volume. Otherwise oscillation may occur as a rumbling sound.
8. Rewind the tape to the beginning.

Now, the echo recording preparation is complete. Start a formal recording. In this case, disconnect the stereo headphones. Use of the stereo headphones may disturb your tempo because of the time-lag of the program source through the headphones.

Monophonic echo recording

Recording procedure is almost the same as described above except for the use of one microphone.



EDITING

There are two ways of editing, editing by tape duplication and splicing. They have some differences as follows:

Editing Through Duplication

- Two recorders are required.
- Two direction recorded tapes can be edited.
- Cassette programs can be edited.
- More creative results can be obtained by using the mic-and-line mixing facility.
- If the original programs are recorded in various levels, they can be copied at the same level by controlling the record level of the slave recorder (or the output level of the master recorder).
- Noise and distortion will be increased while duplicating.

Editing by Splicing

- You can only splice tape recorded in one direction.
- Splicing is the most common technique used by professionals, but it requires much more skill for noise-free splicing.
- You can hardly correct mistakes.
- Program switching can be done more accurately.

According to your situation or preferred editing results, either way can be used or the two can be mixed. In either case experience will provide the required skill for noise-free and accurate editing results.

Before editing, play the original tape thoroughly, and note the Tape counter number where the unwanted sounds (narration or commercials, pop noise, etc.) are located. Then go back and proceed with editing in either way.

Duplication Procedure

1. Connect two recorders.
2. Start the master recorder in playback mode, and the slave recorder in record mode. At the unwanted portion, stop the slave recorder with the PAUSE lever until the unwanted passages have passed.

Note: To stop the tape, the PAUSE lever should be used to prevent possible click noise.

Splicing

1. Advance the tape to the counter number to be spliced, and carefully mark it on the outer side of tape with a soft colored pencil (yellow will give the most distinct mark).

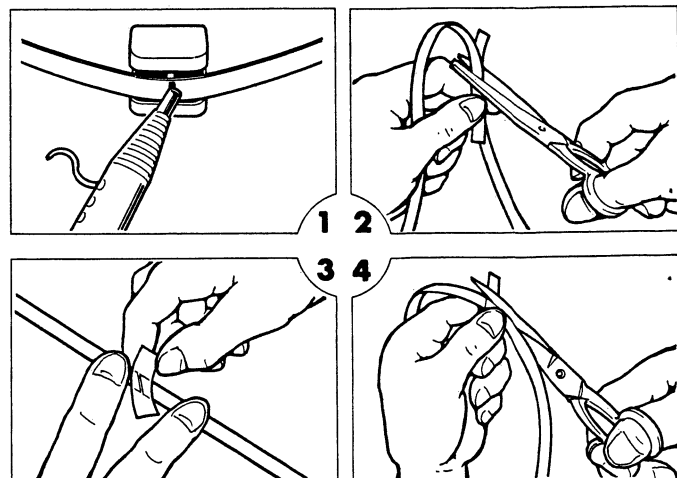
Note: Take care not to get excess marking material on the heads as any stain on the head will cause contamination and impair good tape-to-head contact.

2. Neatly overlap the tapes to be spliced and cut diagonally.

Note: Do not use ordinary cellophane tape as it tends to spoil recording tapes. Also avoid using magnetized scissors or razor blades. Magnetized instruments will cause a "click" or "pop" at the spliced portion.

Take care not to unnecessarily touch the spliced portion of the tape. Grease and sweat of finger or other contamination will hinder the good sticking.

3. Place the two diagonal tape ends together, outer side up, on a flat surface. Be careful to make ends meet but not overlap. Apply a piece of splicing tape diagonally over the aligned ends, and press it firmly.
4. Trim off the excessive splicing tape, slightly cutting into the tape.



ERASING

In record mode, the erase heads operate and previous recordings are automatically erased.

To erase a tape without adding a new recording:

1. Thread the recorded tape to be erased.
2. Turn the MIC and LINE IN level controls fully counterclockwise to MIN or disconnect all inputs.
3. Set the tape speed at 7 1/2 ips.
4. While pushing the RECORD buttons, depress the ► button. Now erasing begins.
5. When erasing completes, depress the ■ button.
6. To erase the reversed side, while pushing the RECORD buttons, depress the ◄ button.

● For continuous and automatic erasure, use a sensing foil and the AUTO REV selector.

● For quick erasure, a bulk eraser (optional) is recommended.

MAINTENANCE

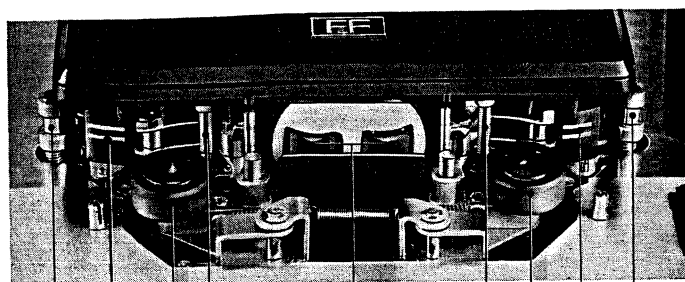
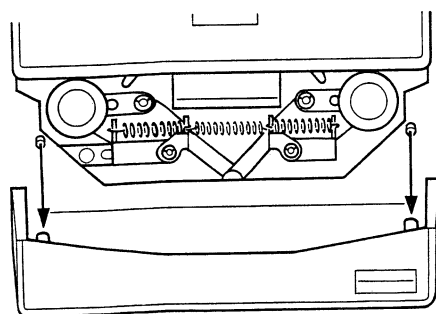
Cleaning Heads and Tape Path

Generally head cleaning after every 10 hours operation will be sufficient. However, all surfaces over which the tape travels should be cleaned before making critical recordings. Dirty heads, tape path and sensing poles will cause;

- Loss of high frequency response which results in poor sound quality
- Loss of sound volume in recording and playback, or no sound when severe
- Sound dropout
- Unsatisfactory results in tape erasing
- Tape direction does not reverse

Remove the head cover by merely pulling it out. With a head cleaning tip (supplied) or a soft cloth, wipe gently the heads, capstan, and pinch roller etc. If the deposits are difficult to remove, moisten the tip or a cloth with alcohol or head cleaning solution.

- Be careful not to scratch the head surface.



Record head
Playback head
(Roto-bilateral head)

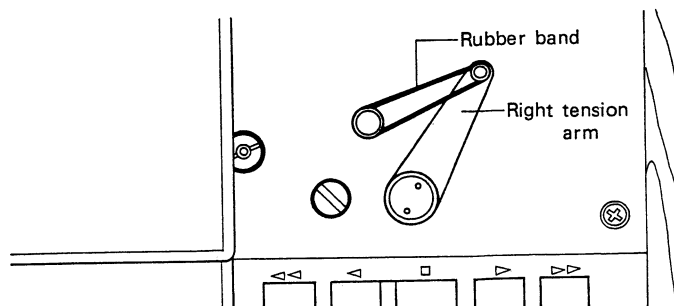
Capstan

Pinch roller

Erase head

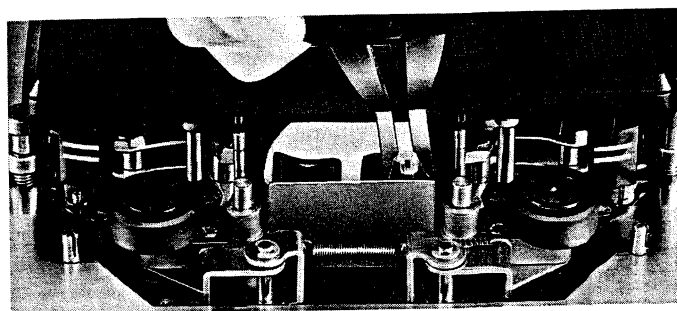
Tape guide

- For easier cleaning of the pinch roller and capstan, rotate them by holding a tension arm in the operating position and pressing the respective ► or ◄ button. Be careful not to jam the tip between the pinch roller and capstan.



Demagnetizing Heads... Be sure to disconnect the power cord plug from the wall outlet.

Residual magnetism will gradually build up on the heads through continuous use, or by the accidental touch of a piece of magnetized steel (screwdriver, scissors, etc.), and will produce noise. Periodically use the Sony Head Demagnetizer.



Lubrication

To maintain optimum performance of the recorder, consult your nearest Sony Service Station or Sony dealer once a year for lubrication and inside check.

Cleaning Cabinet

Finger prints, food and beverage stains, dust and dirt, etc., can mar the beauty of your recorder. The cabinet, panel and knobs can be cleaned with soft cloth moistened with a mild soap solution. Do not use any type of scouring powder, abrasive pad, or solvent.

TROUBLE SHOOTING GUIDE

The following chart will help in isolating any trouble which you may have with the TC-758. If the trouble persists after you have made these checks, consult your nearest Sony Service Station or Sony dealer.

TROUBLE	WHAT TO DO
Tape does not move when the function button is depressed.	<ul style="list-style-type: none"> ● Check the tape threading. ● Check PAUSE lever setting.
No sound during playback	<ul style="list-style-type: none"> ● Check connections between the TC-758 and external amplifier. ● Check amplifier input setting. ● Check amplifier volume control. ● Check PB LEVEL control setting.
Unclear or distorted recording or excessive wow and flutter	<ul style="list-style-type: none"> ● Clean heads and tape path. ● Check for warped reels.
Severe hum or noise	<ul style="list-style-type: none"> ● Use shielded connecting cables. ● Ensure that cables are not near transformers, generators or AC power cord. ● Try reversing the AC plug in the wall outlet.
Mic sound is too low.	<ul style="list-style-type: none"> ● Check mic impedance. ● Make sure the mic attenuator is set to "0".
Unsatisfactory erasing	<ul style="list-style-type: none"> ● Clean the erase head.
Tape direction does not reverse.	<ul style="list-style-type: none"> ● Clean the sensing poles or replace the dirty sensing foil with new one.

SPECIFICATIONS

Power requirements	AC 120V 50/60 Hz (100, 110, 127, 220, 240V adjustable by the Sony personnel)
Power consumption	60W
Semiconductors	81 transistors, 75 diodes, 1 IC, 2 FETs
Track system	4-track 2-channel stereo, 4-track monaural
Tape speed	7 1/2 ips, 3 3/4 ips
Recording time (with 1100 m tape)	Stereo recording 360 min. at 3 3/4 ips Mono recording 720 min. at 3 3/4 ips
Fast winding time	2 min. 30 sec. with 740 m tape (10 1/2-inch reel)
Reels	10 1/2 inches or smaller
Heads	1 Record head } Roto bi-lateral head 1 Playback head } 2 Erase heads
Recording bias frequency	160 kHz
Motors	AC servo-controlled capstan motor 1 8-pole induction reel motors 2
Signal-to-noise ratio	56 dB (SLH tape) 53 dB (standard tape)
Harmonic distortion	1.2%
Frequency response	SLH tape 20-30,000 Hz at 7 1/2 ips 30-25,000 Hz \pm 3 dB at 7 1/2 ips 20-20,000 Hz at 3 3/4 ips standard tape 20-25,000 Hz at 7 1/2 ips 30-20,000 Hz \pm 3 dB at 7 1/2 ips 20-17,000 Hz at 3 3/4 ips
Wow and flutter	0.05% at 7 1/2 ips (WRMS) 0.08% at 3 3/4 ips (WRMS)
Inputs	MIC inputs.....2 (phone jacks) Sensitivity 0.2 mV (-72 dB) For low impedance microphone LINE INputs.....2 Sensitivity 0.06V (-22 dB) Impedance 100 kohms
Outputs	LINE OUTputs.....2 Output level 0.435V (-5 dB) at load impedance of 100 kohms LEVEL control set to center detent position Set to MAX 0.775V (0 dB) Suitable load impedance higher than 10 kohms HEADPHONE jack For 8-ohm stereo headphones
Record/playback connector	Input impedance lower than 10 kohms Output impedance lower than 10 kohms
AC outlet	Unswitched 1 (300 watts maximum)
Dimensions	17 1/8(w) \times 17 3/4(h) \times 8 3/4(d)" 435 \times 451 \times 221 mm
Weight	54 lb 24.5 kg
Supplied accessories	Empty reel R-11B (1) Reel adaptor RAD-10 (2) Connecting cord RK-74H (2) Head cleaning tip (1 set) Sensing foil (1 set)

Design and specifications are subject to change without notice.

Sony tape for best recording