SONY®

STEREO TAPECORDER TC-355

OWNER'S INSTRUCTION MANUAL / BEDIENUNGSANLEITUNG / MODE D'EMPLOI

Owner's Instruction Manual

The SONY Model TC-355 is a 3-head Solid State 4-track stereophonic and monophonic record and playback tape recorder.
Neatly mounted in walnut finish base, the model TC-355 offers you the most in sound quality with your high fidelity sound system.
This instruction manual has been prepared to enable you to obtain accurate knowledge on the operation of the model. Read this instruction book carefully before operating and save it for future reference.

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Before reading this instruction book, make sure to check whether these accessories are supplied with the recorder.

Reel R-7A (1)
Connecting Cord RK-56 (2)
Head Cleaning Ribbon (1)
Reel Cap (2)
Motor Pulley (1)
Dust Protector DP-355L (1)

Bedienungsanleitung

Das SONY Modell TC-355 ist ein vierspuriges Stereotonbandgerät in Transistortechnik mit drei Tonköpfen. Es erlaubt Aufnahme und Wiedergabe im Stereo- und Einkanalverfahren: In Verbindung mit einer Stereo-HiFi-Anlage liefert es ausgezeichnete Klangqualität. Es ist in einem ansprechenden, nußbaumfurnierten Gehäuse untergebracht.
Bitte lesen Sie die folgenden Bedienungsanleitungen sorgfältig durch und machen Sie sich mit Ihrem Gerät gründlichst vertraut, bevor Sie es in Betrieb nehmen. Diese kleine Mühe wird sich in jahrelanger, einwandfreier Leistung Ihres Gerätes mehr als bezahlt machen.

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Bevor Sie diese Bedienungsanleitung lesen, prüfen Sie erst, ob folgendes Zubehör mit dem Tonbandgerät mitgeliefert worden ist.

Spule R-7A (1)
Verbindungskabel RK-56 (2)
Kopfreinigungsband (1)
Spulenstöpsel (2)
Motorantriebsscheibe (1)
Schutzabdeckung DP-355L (1)

Mode d'emploi

Le SONY modèle TC-355 est un magnétophone à 3 têtes entièrement transistorisé permettant l'enregistrement et l'écoute en stéréophonie et en monophonie sur 4 pistes.
Monté de façon sobre sur un socle finition noyer, le modèle TC-355 vous offre ce que vous pouvez avoir de mieux comme qualité de son avec votre système de haute fidélité.
Ce mode d'emploi a pour but de vous faire connaître dans ses détails le fonctionnement de ce modèle. Lisez attentivement cette brochure avant d'utiliser votre magnétophone et conservez-la pour vous y référer éventuellement.

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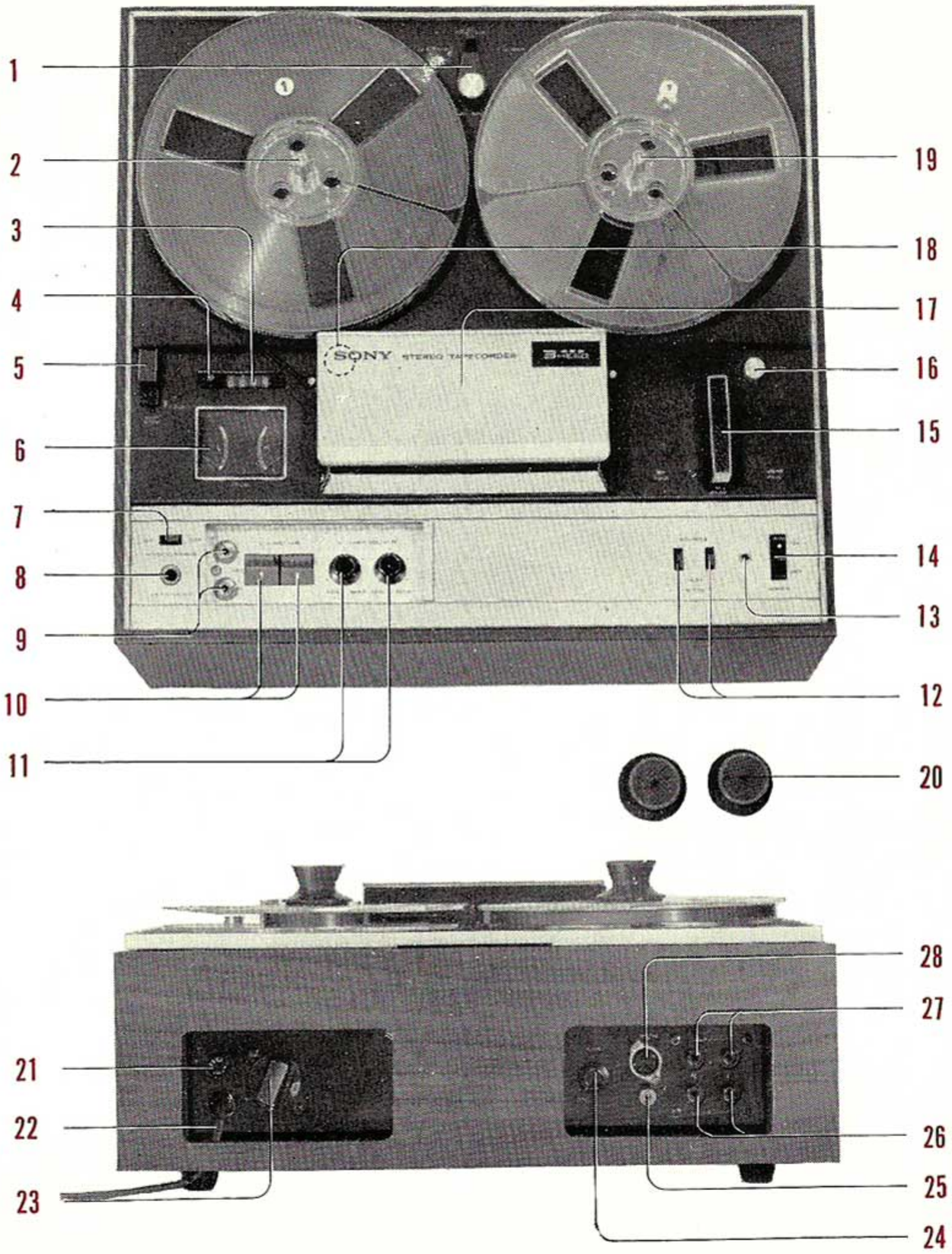
Avant de lire ce mode d'emploi, s'assurer si le magnétophone est fourni des accessoires suivants:.

Bobine R-7A (1)
Fil de raccord RK-56 (2)
Ruban de nettoyage de tête (1)
Capuchons de bobine (2)
Poulie de moteur (1)
Cache-poussière DP-355L (1)

Location of Controls/Lage der Bedienungselemente/Emplacement des réglages



For operating instructions, refer to 'Operation of Controls' and for connections, refer to 'Connections'.
Für Bedienungserläuterung, siehe 'Handhabung der Bedienungselemente' und für Anschluß, siehe 'Anschlüsse'.
Pour les instructions d'opération, se référer à 'Opérations des réglages' et 'Connexions'.

Features

Wide Frequency Range
Use of low noise, low distortion, solid state circuitry composed of all silicon transistors.

3-Heads
Separate Record, Playback and Erase Heads are provided.
Mode Switches allow instantaneous monitoring of tape or source.

Other Convenient Functions
AC Voltage Selector, Sound-on-Sound Switch, Hiss Filter, Instant Stop Lever with automatic release, Headphone Jack, digital Tape Counter, professional VU Meters, retractable Pinch Roller for easy tape threading, Scrape Filter to eliminate FM (Frequency Modulation) noise, automatic Tape Lifter to protect heads from wear during fast forward and rewind mode, and many more.

Attentions

1. Before operating, check whether or not the recorder is set for the operating AC voltage identical to your local power line voltage.
2. Keep the recorder in a well ventilated area and away from excessive heat.
3. Do not place the recorder on a soft surface, since obstruction of the ventilation grill located on the bottom of the recorder will restrict ventilation and may cause excessive heat.
4. Place the supplied Reel Caps on the reel spindles when the recorder is used in vertical position.
5. Be sure to disconnect the microphones from the Microphone Input Jacks when the recording is made through the Auxiliary Input Jacks.
6. Be sure the Sound-on-Sound Switch/Volume Control is turned off when sound-on-sound recording is not being made.
7. Keep the heads clean. Dust and deposits on the heads will prevent optimum performance.
8. Cover the recorder with the supplied Dust Protector DP-355L whenever the recorder is not in use.
9. To arrange the connecting cords when the set is used in vertical position, pass the cords through the cut located on the bottom of the recorder.

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Specifications

Power Requirements:	30 watts AC 100 V, 110 V, 117 V, 125 V, 220 V, 240 V 50/60 Hz
Tape Speed:	7½ ips. 3¾ ips. or 1⅞ ips. with automatic switching for equalization changes
Reel:	7 inches or smaller
Recording System:	4-track stereophonic or monophonic
Frequency Response:	20~25,000 Hz at 7½ ips. 30~17,000 Hz at 3¾ ips. 30~ 9,000 Hz at 1⅞ ips.
Signal-to-Noise Ratio:	Better than 52 dB at 7½ ips.
Flutter and Wow:	Less than 0.15% at 7½ ips. Less than 0.25% at 3¾ ips.
Harmonic Distortion:	Less than 1.6% at 7½ ips.
Level Indication:	Two VU Meters Record: Calibrated to NAB standard reference level Playback: Calibrated to 0 dB line output level
Fast Forward and Rewind Time:	Within 2 min. 30 sec. (1,200′ tape)
Recording Time:	With 1,800′ tape (4-track stereo) (4-track mono) 7½ ips. 1 hr. 30 min. 3 hr. 3¾ ips. 3 hr. 6 hr.
Inputs:	Microphone Input Jacks Sensitivity -72 dB (0.19 mV) Impedance 600Ω Auxiliary Input Jacks Sensitivity -22 dB (0.06 V) Impedance 560 kΩ
Outputs:	Line Output Jacks Output level 0 dB (0.775 V) Suitable load impedance more than 100 kΩ Headphone Jack Output level -28 dB (0.031 V) Impedance 8 Ω
Integrated Record/Playback Connector:	Output Output level 0 dB (0.775 V) Impedance 10 kΩ Input Input sensitivity -40 dB (7.75 mV) Impedance 10 kΩ
Transistors:	2SC632×8, 2SC634×16, 2SD28×3
Diodes:	IT22×2, FR1P×2, IT263×1
Heads:	PP30-2902A, RP30-2902, EF18-2902H2
Dimensions:	15⁵⁄₁₆ W×7¹⁄₁₆ H×14 D inch
Weight:	22 lb

Operation of Controls

The numbers of the following paragraphs correspond to the numbers on the illustration on page 1.

1. Tape Speed Selector [TAPE SPEED]

This selector selects tape speed of 7½ ips., 3¾ ips. or 1⅞ ips. To set the tape speed, place the selector at the desired speed indication. When recordings of better sound quality are desired, 7½ ips. or 3¾ ips. are ideal. When longer recording time is desired, 1⅞ ips. is ideal. In playback mode, set tape speed to correspond with the prerecorded tape speed.

2. Feed Reel Spindle

Place a full reel of tape on this spindle.

3. Tape Counter

Indicates the approximate amount of tape used in either recording or playback.
To reset the counter, push the Rest Button. Four zeros [0000] will appear in the counter.

4. Reset Button (Tape Counter)

Located at the left side of the Tape Counter and resets the figures of the counter to [0000].

5. Instant Stop Lever

To stop tape motion instantly while the set is in either record or playback mode, pull the lever toward you till it is locked in position. To release, push the lever down slightly. The tape will immediately pick up normal forward speed.

Note: When the Function Selector is turned to Stop [■] position, the Instant Stop Lever will also be released.

In playback mode, the lever operates only when the Function Selector is placed in Forward [▶] position.
When the Recording Lever is locked in record mode, the Instant Stop Lever can also be locked in position. Therefore, when you want to start the recording, turn the Function Selector to Forward

〔▶〕 position while pulling the Recording Lever toward you. Then, if you push the lever slightly, the recording will be begun.

6. VU Meters 〔LEVEL〕

The VU Meters indicate the volume of recording and playback according to the position of the Mode Switches.

- When the Mode Switches are set in 〔SOURCE〕 position.
  These meters are calibrated to NAB standard refernce level allowing the maximum recording level without distortion.
  For best recording results, the Record Level Control Knobs should be adjusted so that the needles of the VU Meters do not go beyond the boundary of the red and white zones; however, it is normal for transient peaks to swing the needles into the red zone.
- When the Mode Switches are set in 〔TAPE〕 position.
  The recorded results can be monitored while the recorder is in record mode. For playback, these meters are calibrated so that the needles point to the boundary of red and black zones when the line output level is approximate 0 dB (0.775 V)

7. Hiss Filter 〔NOISE SUPPRESS〕

To remove the objectionable noise such as record scratch or tape hiss, turn the switch to 〔ON〕 position.
The switch does not operate when the Recording Levers are set in record mode.

10. Recording Levers 〔REC〕

These levers activate the set in record mode. To record a stereo program, pull these levers toward you and turn the Function Selector to Forward 〔▶〕 position. When a monophonic program is desired, pull either 〔L〕 or 〔R〕 lever toward you and turn the Function Selector to Forward 〔▶〕 position.

11. Record Level Control Knobs 〔REC VOL〕

Before recording, adjust the recording level using these knobs. The needles of the VU Meters indicate the recording level when the Recording Levers are placed in recording 〔REC〕 position. When a recording is monophonic program, the needle of either 〔L〕 or 〔R〕 VU Meter indicates the recording level.
To increase the recording level, turn the knobs clockwise; and to decrease the level, turn the knobs counterclockwise.

12. Mode Switches 〔MODE〕

These switches have two modes, 〔SOURCE〕 and 〔TAPE〕. The left 〔L〕 switch is connected with CH-1 and the right 〔R〕 switch is connected with CH-2.
〔SOURCE〕 position
The input program source is connected with the Line Output Jacks and Headphone Jack, and the deflection of the VU Meter needles show the level of the input program source.
〔TAPE〕 position
For playback, set the switches to this position. The deflection of the VU Meter needles show the playback level.

13. Pilot Lamp

To indicate the set is on or off. When the set is on, the green lamp will light.

14. Power On/Off Switch 〔POWER〕

To turn the set on or off.

15. Function Selector 〔FWD, STOP, REW〕

To set the tape in motion, turn the selector.
〔FWD〕 position
To move the tape at normal tape speed for recording or playback mode.
〔STOP〕 position
To stop tape motion.
When the recorder is not in use, always place the selector in this position.
〔REW〕 position
To rewind tape.

16. Fast Forward Button 〔F.F〕

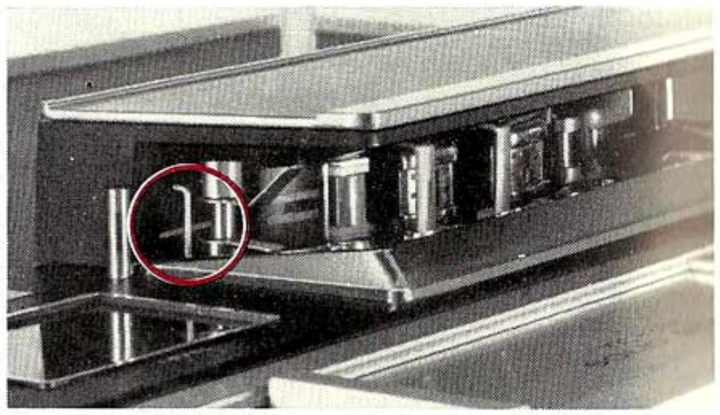
For fast forward tape motion.
While pressing this button, turn the Function Selector to 〔FWD〕 position. The button will be locked in and facilitate fast forward tape motion.
To stop fast forward tape motion, return the Function Selector to 〔STOP〕 position.

17. Head Cover

To protect the heads.

18. Automatic Shut-Off Switch

This switch is controlled by a wire lever located under the Head Cover. This wire lever is held in position by the tape. When the tape breaks or runs out, the wire lever swings outward and the mechanism will automatically shut off.



19. Take-up Reel Spindle

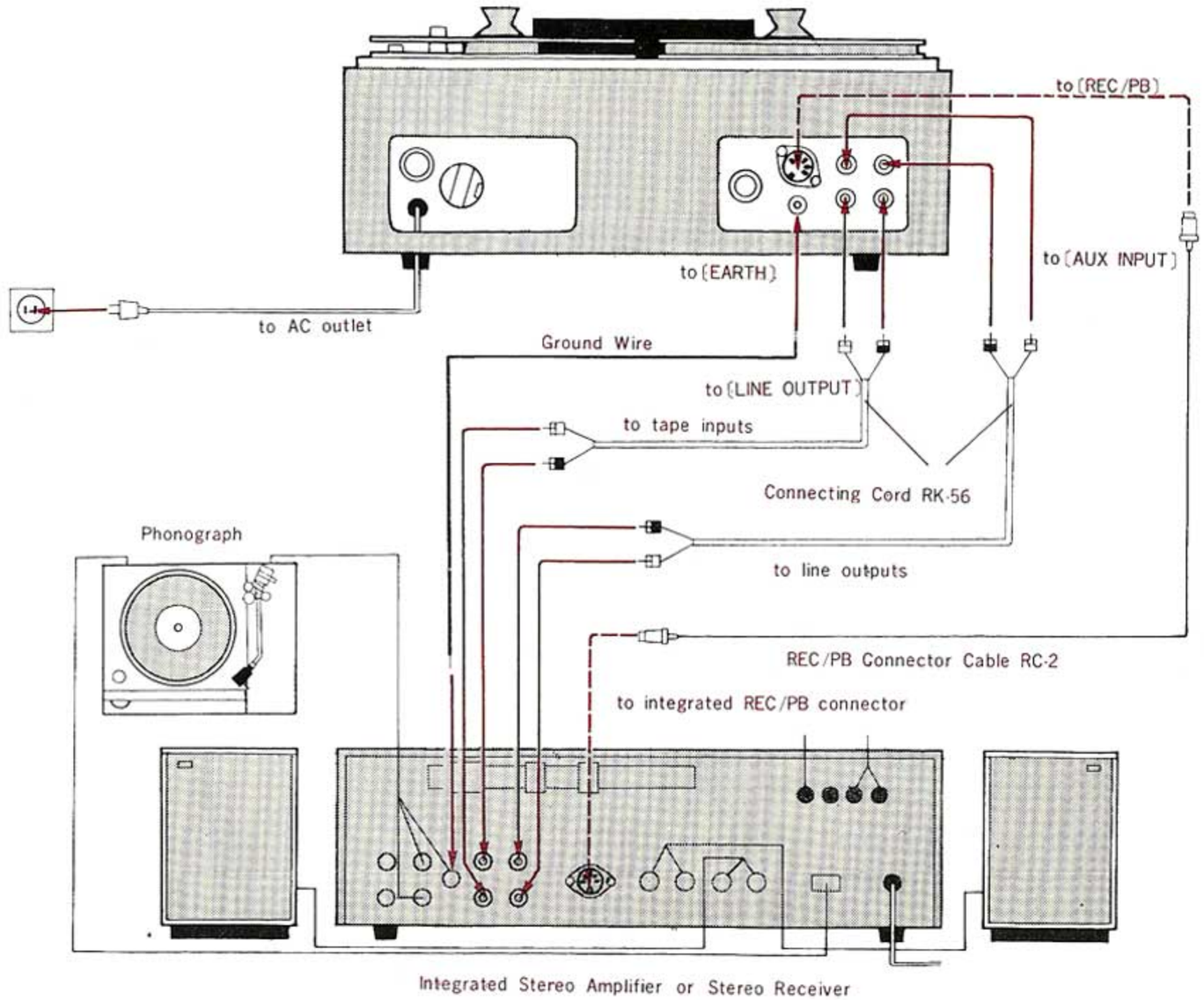
Place an empty reel on this spindle.

20. Reel Caps (supplied accessories)
To hold the reels.
When the set is used in vertical position, put these caps on the spindles.

23. AC Voltage Selector
The AC Voltage Selector is used for selecting the operating AC power line voltage of either 100, 110, 117, 125, 220 or 240 volts. Before operating, check whether the selector is correctly set for operating on the local power supply voltage in your area.
If the resetting of the selector is necessary, pull out the round selector cap and firmly reinsert it to the AC Voltage Selector with the proper voltage figure appearing in the cutout the selector cap.

8. Headphone Jack (HEADPHONE)
Any low impedance stereo headset equipped with a standard binaural phone plug can be connected to this jack for monitoring the program being recorded or played back. The jack enables stereo headset monitoring of either (SOURCE) or (TAPE) when used in conjunction with the Mode Switches. SONY Stereo Headset DR-3A (8 Ω) is available as an optional accessory.

9. Microphone Input Jacks (MIC)
These jacks will accept any high quality low impedance microphone. SONY Microphone F-98 and F-96 are available as optional accessories. A SONY radio or TV equipped with recording jacks, Telephone Pick-up TP-4S or Stereo Microphone Mixer MX-6S can also be connected to these jacks.
For connections, see the figure below.



21. Fuse [FUSE]

Contains a 0.8A fuse.
To replace the fuse, turn the holder in the direction of the arrow.
Replace with a 0.8A fuse only.

Note: Before changing fuse, disconnect the AC Power Cord from AC outlet of the household power line.

22. AC Power Cord

Plug the end of this cord into any outlet or any household power line.

24. Sound-on-Sound Switch/Volume Control [S.O.S]

Note: Be sure the Sound-on-Sound Switch/Volume Control is turned off when sound-on-sound recording is not being made.

The switch activates sound-on-sound record mode and also controls left channel (CH-1) playback level for composite recordings. For sound-on-sound recording, turn the knob clockwise from [OFF] position and adjust the volume level.

25. Ground Terminal [EARTH]

To decrease hum noise, connect this terminal to the ground terminal on the component being connected.

26. Line Output Jacks [LINE OUTPUT]

Having a 100 k ohm impedance and an output sensitivity of 0.775 V, these jacks can be connected to the tape inputs of an integrated stereo amplifier (contains pre-amp/amplifier). Another tape recorder can also be connected to these jacks for duplication of tapes.
Use the supplied SONY Connecting Cord RK-56.
For connections, see the figure, on page 5.

27. Auxiliary Input Jacks [AUX INPUT]

Note: When recording through these jacks, be sure to disconnect the microphone input source. If not done, no recording can be made through these jacks.

Having a 560 k ohm impedance and a sensitivity of 0.06 V., these jacks will accept recording outputs from an integrated stereo amplifier (contains pre-amp/amplifier) and can also be connected to FM/AM tuner, tape recorder, phonograph equipped with a crystal cartridge, or a radio or TV equipped with an earphone jack using supplied SONY Connecting Cord RK-56.
For connections, see the figure, on page 5.

28. Integrated Record/Playback Connector [REC/PB]

The 5-pin receptacle is used for interconnection of inputs and outputs of the recorder to an amplifier which incorporates a matching connector. Use the single cable SONY REC/PB Connector Cable RC-2 (optional accessory) for connection. No additional connection is required.

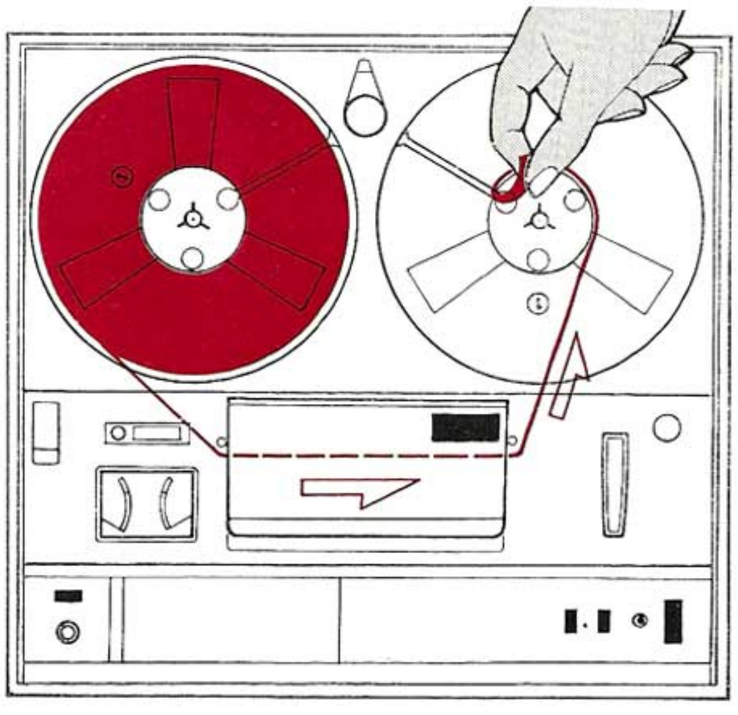
How to Connect the Recorder to an Integrated Stereo Amplifier

- Connect the Line Output Jacks of the recorder to respective tape input jacks of an integrated stereo amplifier and the Auxiliary Input Jacks of the recorder to respective line output jacks of the integrated stereo amplifier.
- Connect the Integrated Record/Playback Connector to the matching connector of an integrated stereo amplifier using a SONY REC/PB Connector Cable RC-2.

Tape Threading

Reel sizes from 3 to 7 inches in diameter can be accommodated. Threading procedure is the same for all reel sizes.
Thread the tape as follows:

1. Place an empty reel on the Take-up Reel Spindle and a full tape of reel on the Feed Reel Spindle.
2. Rewind the tape about 18 inches from a full tape of reel and bring the leader to the empty reel through the tape path of the Head Cover. Wrap the leader of the tape around the hub of the empty reel, or insert the end into the slot of the reel.



Playing Tape

4-track stereo tape playback

Note: When the recorder is used in vertical position, be sure to place the supplied Reel Caps on the spindles.

1. Place a 4-track prerecorded tape with side ① of the tape (track-1 and track-3) up on the Feed Reel Spindle and thread the tape.
2. Select tape speed.
3. Set the Mode Switches to [TAPE] position.
4. Turn the Function Selector to [FWD] position. Now the track-1 and track-3 are playing back. Set the source selector, and adjust the volume level and sound quality on the external integrated stereo amplifier to obtain your listening preference.
5. When the end of the tape is reached, do not rewind the tape.
6. Invert and reverse the tape reels to playback track-4 and track-2.
7. Repeat the same operation of step 4.
   Note: To eliminate hiss noise on tape, if any, set the Hiss Filter to [ON] position.

4-track monophonic tape playback

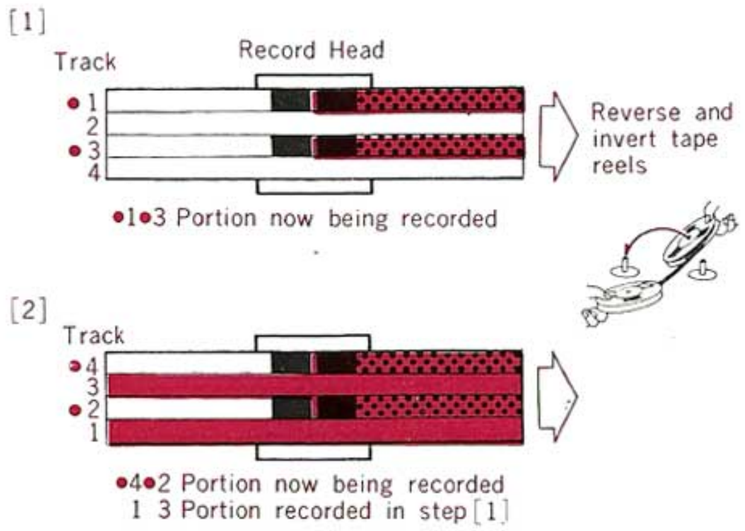
The following playback procedure is recommended for a monophonic tape whose sequence of recording is: track-1—track-4—track-3—track-2.

1. Place a 4-track monophonic prerecorded tape on the Feed Reel Spindle and thread the tape.
2. Select tape speed.
3. Set the left Mode Switch to [TAPE] position to play back track-1 or track-4.
4. Set the source selector and/or other controls of the external amplifier to reproduce the left channel (CH-1) sound.
5. Turn the Function Selector to Forward [FWD] position.
   Now track-1 is playing back.
6. Track-4 will also be played back by simply reversing and inverting the reels.
7. To play back track-3 or track-2, set the right Mode Switch to [TAPE] position. Also set the source selector and/or other controls of the external amplifier to reproduce right channel (CH-2) sound. Then turn the Function Selector to Forward [FWD] position.
   Note: To eliminate hiss noise on tape, if any, set the Hiss Filter to [ON] position.

Note: Be sure to check whether the Sound-on-Sound Switch/Volume Control is in [OFF] position.

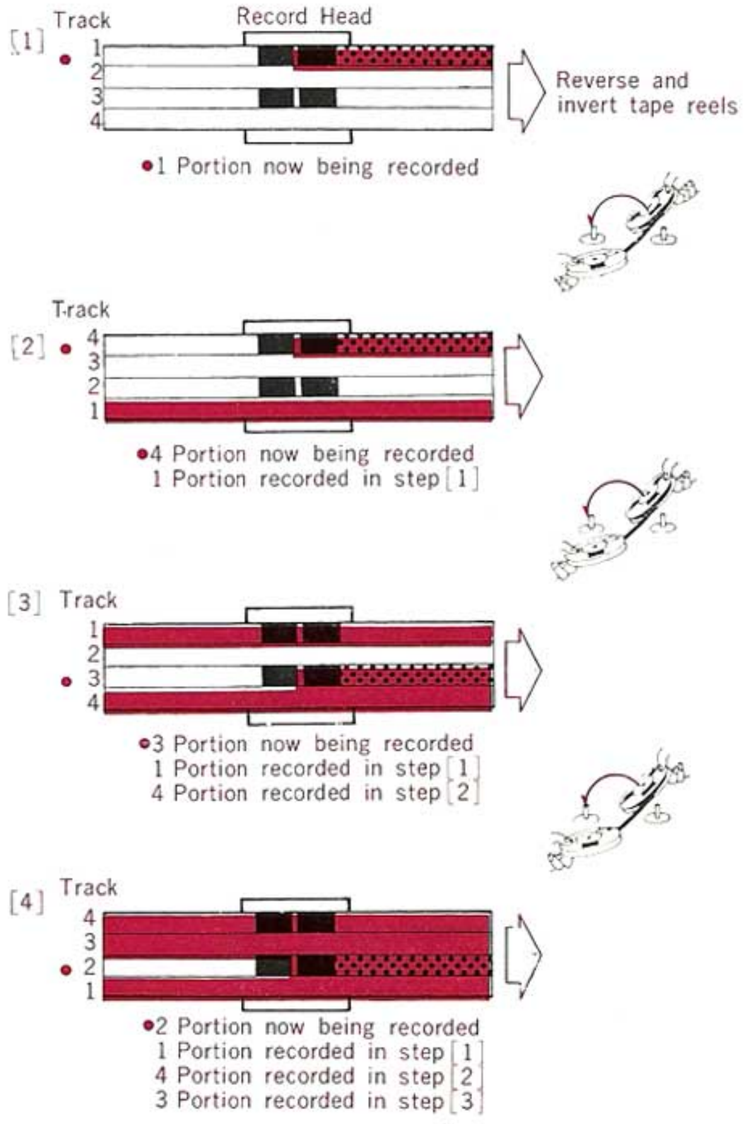
4-track stereo recording:

1. Thread the tape on the recorder.
2. Select the desired tape speed and reset the Tape Counter by pushing the Reset Button.
3. Switch the source selector of the connected external integrated stereo amplifier according to the desired input program source for recording.
4. Set the Mode Switches to [SOURCE] position and adjust recording level by turning the Record Level Control Knobs. See the VU Meters.
5. Turn the Function Selector to [FWD] position while pulling the Recording Levers. Now the Recording Levers are locked and the recording on track-1 and track-3 has started.
6. When the end of the tape is reached, do not rewind.
7. To record track-4 and track-2, reverse and invert reels.
   Place the full reel on the Feed Reel Spindle and the empty reel on the Take-up Reel Spindle.
8. Thread the tape again and repeat operation of steps 4 and 5.



4-track monophonic recording

1. Thread the tape on the recorder.
2. Select the desired tape speed and reset the Tape Counter by pushing the Reset Button.
3. Switch the source selector of the connected external integrated amplifier according to the desired input program source for recording.
4. Set both Mode Switches to [SOURCE] position and adjust recording level by turing the left Record Level Control Knob. See the left VU Meter.
5. Turn the Function Selector to [FWD] position while pulling the left Recording Lever. Now the Recording Lever is locked and the recording on track-1 has started.
6. When the end of the tape is reached, do not rewind.
7. Reverse and invert reels to record track-4. Place the full reel of tape on the Feed Reel Spindle and the empty reel on the Take-up Reel Spindle.
8. To record track-3 and track-2, turn the left Record Level Control Knob fully counterclockwise to the [MIN] position. Be sure to check whether the right Mode Switch is set in the [SOURCE] position. Adjust recording level by turning the right Record Level Control Knob. See the right VU Meter.
9. Repeat operation of steps 5, 6 and 7.



Playback sequence of each track should conform to the sequence of recording; track-1 (left channel)—track-4 (left channel)—track-3 (right channel)—track-2 (right channel)

Monitoring while recording

The professional feature of separate Record and Playback Heads permits the monitoring of the same track (or tracks) by setting the Mode Switches to [TAPE] position.

Monitoring through the external amplifier

When the external integrated stereo amplifier is equipped with a tape monitor switch, an instantaneous comparison of the recordings and the recorded results is possible by turning on and off the tape monitor switch on the amplifier. In this case, the Mode Switches of the recorder should be in [TAPE] position.

Monitoring through the Headphone Jack

An instantaneous comparison of the recordings and the recorded results is possible by setting the Mode Switches alternately to [TAPE] and [SOURCE] positions.

Erasing Tape

1. The Erase Head operates only in record mode, therefore, every time you make a recording, any previous recording on the tape is auto matically erased.
2. To erase the tape without adding a new record·ing, place the recorder in record mode by turning the Record Level Control Knobs fully counterclockwise. Then the tape will be erased. For better erasure of tape, place the recorder in record mode without connecting any input source.

Note: To erase tape quickly, set the tape speed to 7½ ips.
It is convenient to use a bulk eraser to erase tape more quickly.

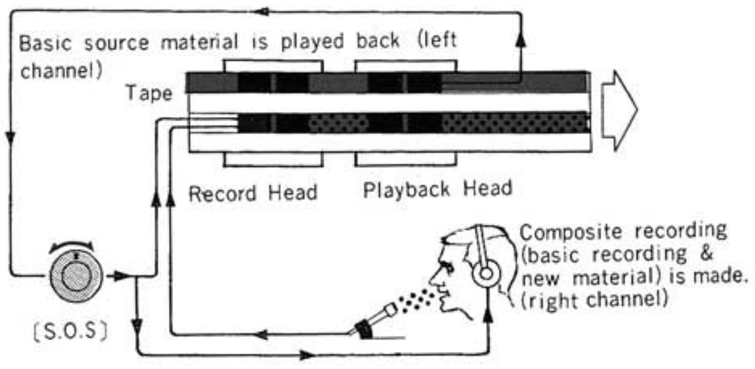
Sound-on-Sound Recording

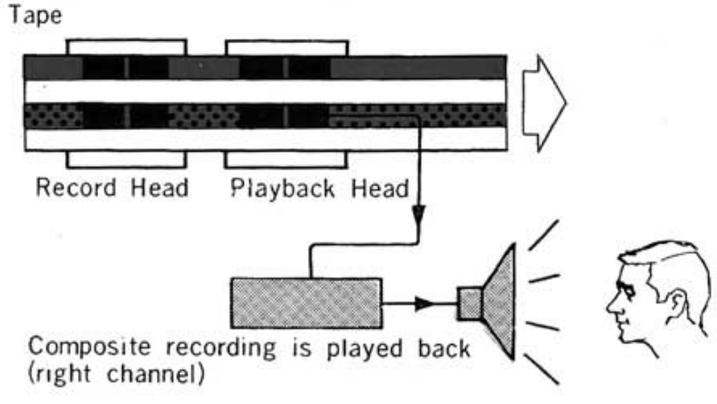
This recorder is equipped to produce high quality professional sound-on-sound recording.

Note: Sound-on-sound recording is possible only from left channel (CH-1) to right channel (CH-2). As the Sound-on-Sound Switch/ Volume Control [S.O.S] works only for the left channel (CH-1) volume.

1. Record basic source material on track-1 of the left channel (CH-1) according to '4-track monophonic recording' on page 8, and rewind the tape back to the beginning.
2. Turn off the left Record Level Control Knob and set the left Mode Switch to [TAPE] posi-tion.
3. Turn on the Sound-on-Sound Switch/Volume Control.
4. Plug any high quality low impedance micro-phone into the right Microphone Input Jack.
5. Plug a low impedance stereo headset into the Headphone Jack.
6. Listening through the headset, adjust and balance the recording level by rotating the Sound-on-Sound Switch/Volume Control and right Record Level Control Knob.

   Note: *From the left (CH-1) headset, the playback of left channel is heard and from the right (CH-2) headset, the composite recording being made is heard when the Mode Switches are set in [TAPE] position.
   *Left (CH-1) VU Meter shows the play-back level of the basic source material and right (CH-2) VU Meter shows the level of the composite recording being made.
   *A few test settings will insure both signals of track-3 being recorded in desired ratio.
7. When the end of the tape is reached, the composite recording will have been made on track-3 of right channel (CH-2).
8. Be sure to turn off the Sound-on-Sound Switch/ Volume Control when the composite recording is completed.
9. Rewind the tape to the beginning and play back composite recording on track-3 according to '4-track monophonic tape playback' on page 7.





How to Mount Model TC-355

1. Cut hole of 13½×13 inches in desired mounting location.
2. Remove the recorder from the wooden base by unscrewing four rubber feet and a screw located near the ventilation grill on the bottom of the wooden base.
3. Remove the Head Cover and the Function Selector by removing the screws located at the rear of each respectively, then remove the five screws from the top panel of the recorder.
4. Lift up the panel.
5. Mount the deck in new location and fasten with six wood screws.
6. Place the top panel on top of the recorder and replace the part removed in step 3.

The mounting dimension is shown on page 38.

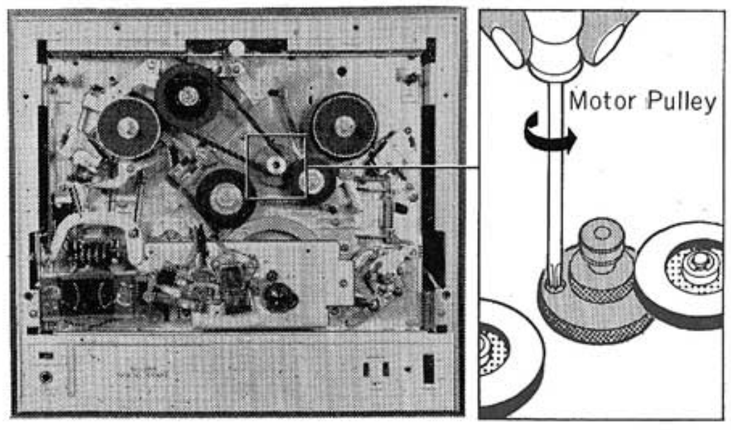
Adaptation to the Local Power Line

The recorder can be set for operating on an AC power line voltage by resetting the AC Voltage Selector. Refer to 'Operation of Controls' on page 5. And if the line frequency differs from what the recorder is adjusted for, the Motor Pulley and tapping of the Motor Capacitor Terminals must be altered.

To change Motor Pulley

Remove the top cover panel as described in 'How to Mount Model TC-355'. The Motor Pulley is located at the center of the drive mechanism.

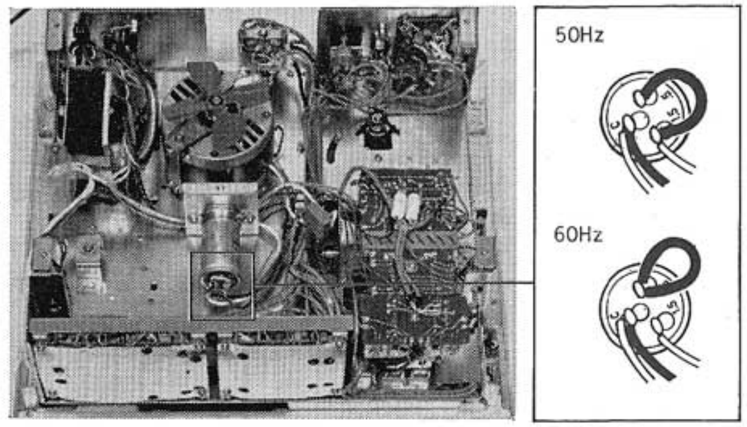
1. Remove the rubber belt from the idler wheel and the Motor Pulley.
2. Loosen the screw on the Motor Pulley and remove it by holding the idler wheel on one side.
3. Replace the supplied Motor Pulley and tighten the screw.
4. Thread the rubber belt on the Motor Pulley and the idler wheel.
5. Replace the top panel to the recorder.



To change tapping of the Motor Capacitor Terminals

The Motor Capacitor is located at the rear side of the drive mechanism.

1. Loosen four rubber legs and the screw located near the ventilation grill and remove the cabinet.
2. Change the tapping of the terminals by soldering as illustrated.



Cleaning heads

Intimate contact between heads and tape is important for optimum performance; dirty and contaminated heads will impair head contact. Therefore, clean heads after every ten hours of use or When necessary. Remove the Head Cover by loosening the screws located at the back of the cover. Use the supplied Head Cleaning Ribbon or a piece of soft cloth and carefully wipe the portion of the heads over which the tape travels. In the case the deposits on the heads cannot be removed, dampen the ribbon or the cloth with denatured alcohol.

Note : Do not place magnet or piece of steel neer the heads to avoid head magnetizing.

Demagnetizing heads

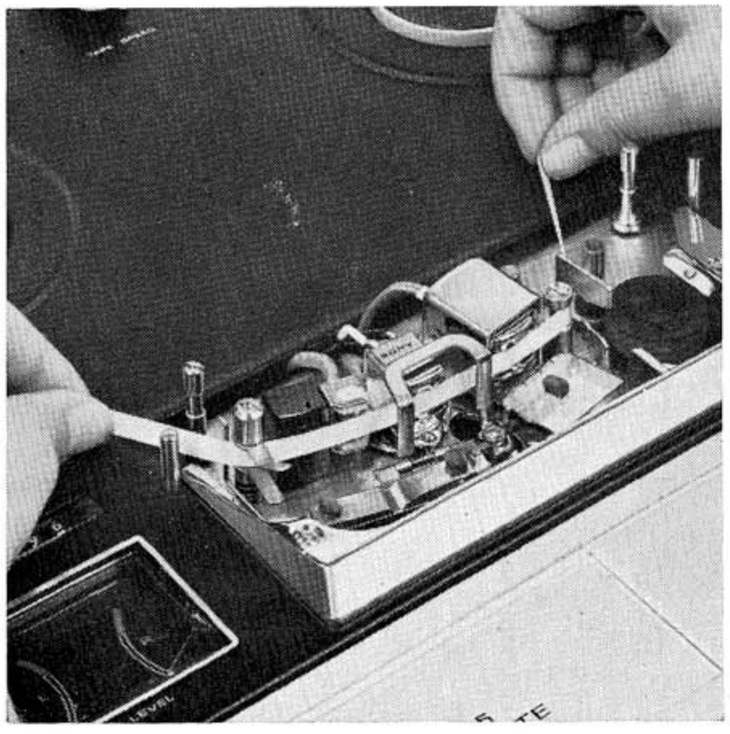
Through continuous use, the varying mangetic fields of the tape will gradually build up residual magnetism on the gap of the heads. Excessive residual magnetism on the heads will produce noise while the tape is being played; therefore, it is advisable to demagnetize the heads from time to time. The periodic use of SONY Head Demagnetizer HE-2 (optional accessory) is recommended for the best possible performance.

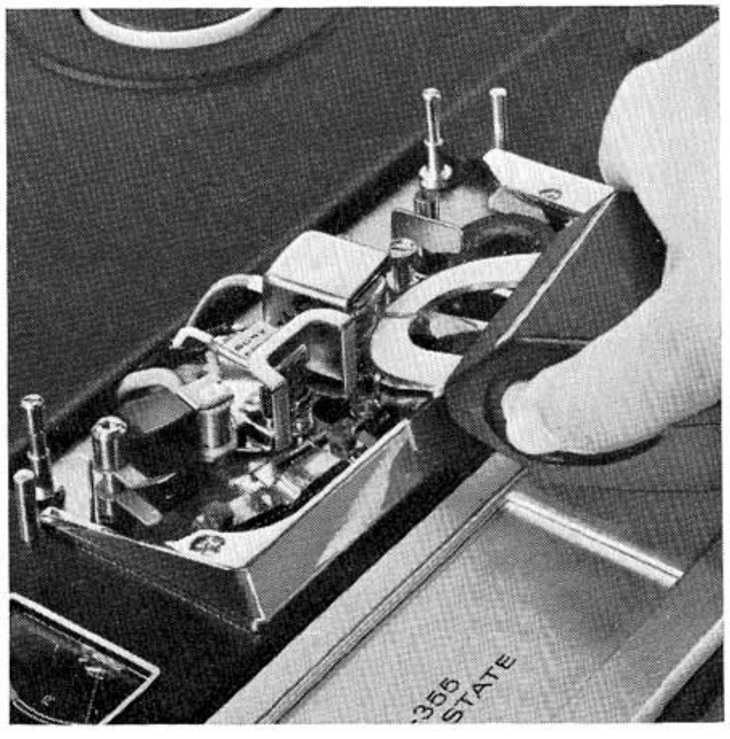
Lubrication

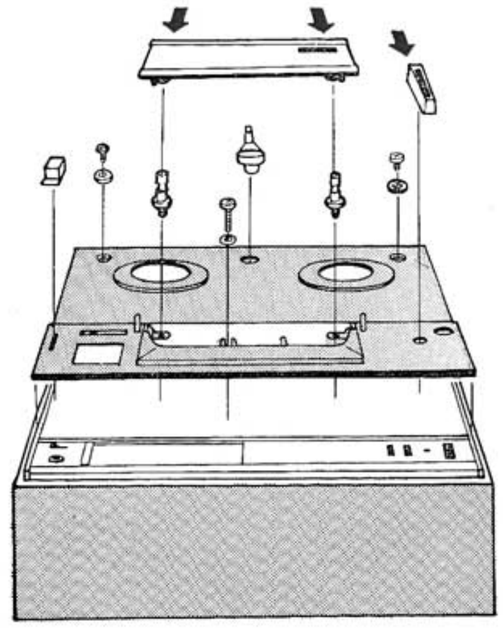
Use light machine oil and lubricate the Capstan, Pinch Roller and Idler Shafts every 6 months. Avoid excessive lubrication. It will cause slippage of the mechanism and contamination of your tape. Remove the Head Cover according to 'How to Mount Model TC-355' on page 11. Remove the Function Selector, Tape Speed Selector, Instant Stop Lever and five screws from the top panel of the recorder and lift up the panel.

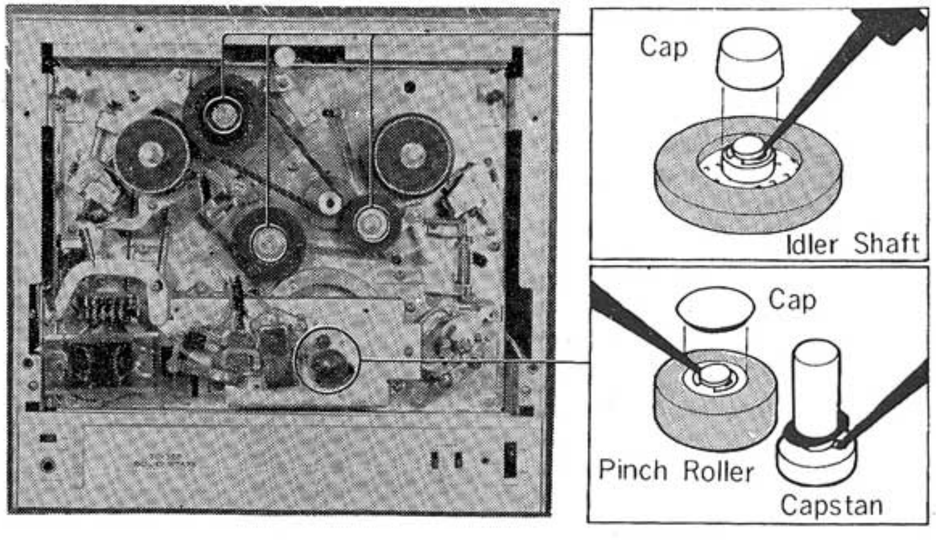
Take out the caps from the Capstan and the three Idler Shafts.

Lubricate the Capstan with 3 drops, and the Idler Shafts and the Pinch Roller with 1 drop each of light machine oil.

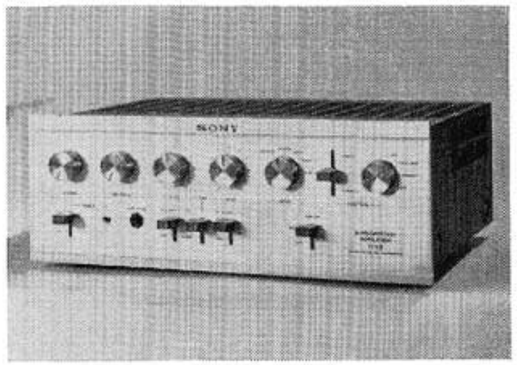







Cap
Idler Shaft
Cap
Pinch Roller
Capstan

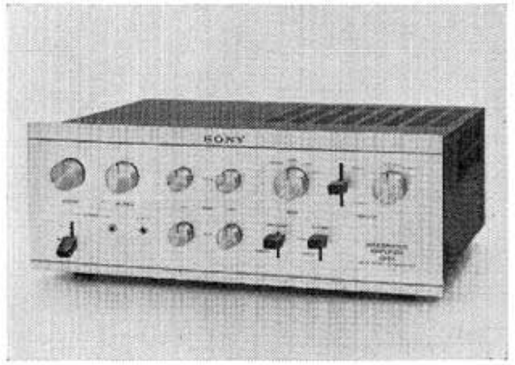
Recommended SONY Audio Components/Empfohlene SONY Hi-Fi Bauteile/Composants audio SONY recommandés



Integrated Stereo Amplifier TA-1120
High-power and high-fidelity all silicon transistor integrated stereo amplifier.
Power Output (IHF): 120 watts both channel.

Stereo-Kontrollverstärker TA-1120
Ganz mit Siliziumtransistoren bestückter Stereo-Kontrollverstärker hoher Ausgangsleistung und Wiedergabetreue.
Ausgangsleistung (IHF): Insgesamt 120 watt.

Amplificateur intégré stéréophonique TA-1120
Amplificateur intégré stéréophonique entièrement transistorisé (transistors de silicium) à haute-puissance et à hute-fidélite.
Puissance de sortie (IHF): 120 watts pour les deux canaux.



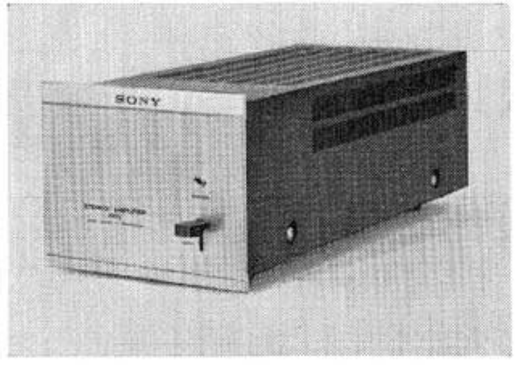
Integrated Stereo Amplifier TA-1080
All silicon transistor integrated stereo amplifier with excellent high frequency response.
Power Output (IHF): 100 watts both channel.

Stereo-Kontrollverstärker TA-1080
Ganz mit Siliziumtransistoren bestückter Stereo-Kontrollverstärker mit breitem Frequenzumfang.

Ausgangsleistung (IHF): Insgesamt 100 watt.

Amplificateur intégré stéréophonique TA-1080
Amplificateur intégré stéréophonique entièrement transistorisé avec excellente réponse de haute-fréquence.

Puissance de sortie (IHF): 100 watts pour les deux canaux.



Stereo Power Amplifier TA-3120
Stereo power amplifier with all silicon transistor.

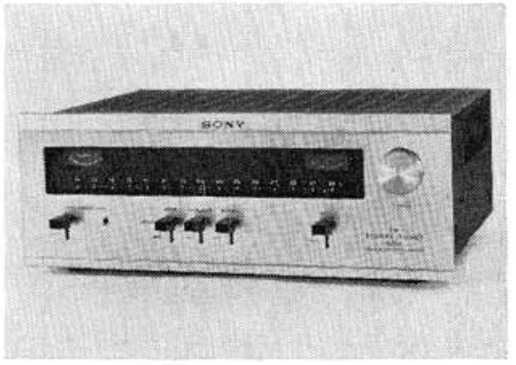
Power Output (IHF): 120 watts both channel.

Stereo-Ausgangsverstärker TA-3120
Stereo-Ausgangsverstärker, ganz mit Siliziumtransistoren bestückt.

Ausgangsleistung (IHF): Insgesamt 120 watt.

Amplificateur de puissance stéréophonique TA-3120
Amplificateur de puissance stéréophonique entièrement transistorisé (transistors de silicium).

Puissance de sortie (IHF): 120 watts pour les deux canaux.

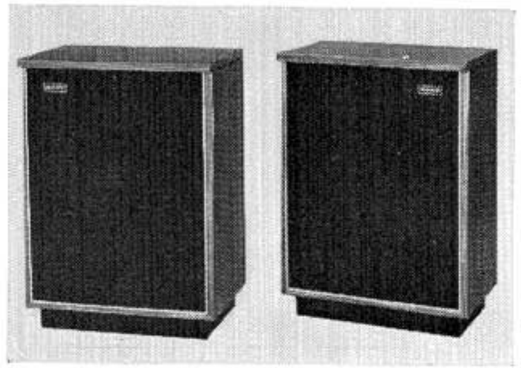


FM Stereo Tuner ST-5000W
Professional-quality solid state stereophonic tuner.

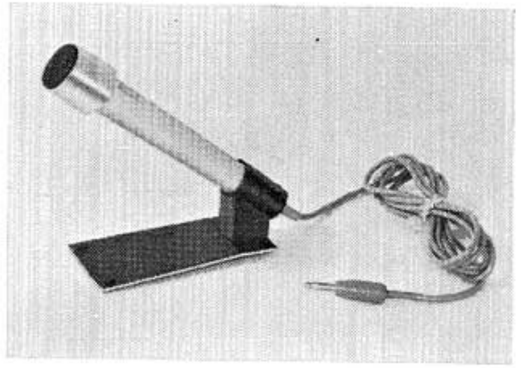
UKW-Stereo-Tuner ST-5000W
Stereo-Tuner in Studioqualität.

Tuner de modulation de fréquene stéréophonique ST-5000W
Tuner stéréophonique de qualité professionelle à état solide.

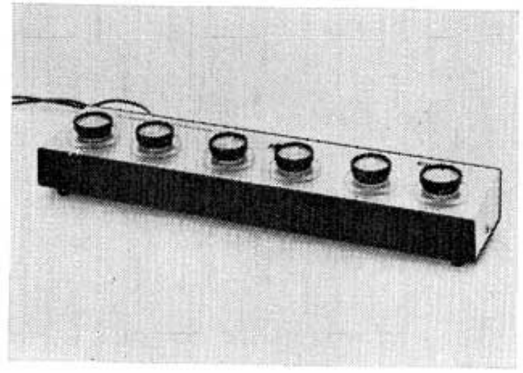
Optional Accessories/Gesondert lieferbares zubehör/Accessoires facultatifs



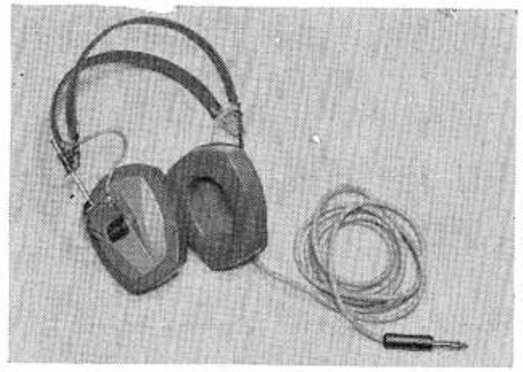
Speaker System SS-3300
3-way speaker system designed to emphasize the advantage of the high damping factor of transistor amplifier.



Microphone F-96, F-98 (600 Ω)
Uni-directional wide range dynamic microphone of low impedance.



Stereo Microphone Mixer MX-6S
Provides professional mixing facilities for 3 microphones (600 ohm input impedance) or high level (approx. 100 k ohm input impedance) sources such as tape recorders. It may be connected stereophonically or monophonically.



Stereo Headset DR-3A (8 Ω)
High quality dynamic headset with a standard phone plug for private stereo listening or monitoring while recording.

Lautsprecheranlage SS-3300
Dreiwegs-Anlage; zur besten Ausnützung der hohen Dämpfungsfaktoren von Transistor-Verstärkern.

Mikrophon F-96, F-98 (600 Ω)
Dymamisches Mikrophon mit breitem Frequenzgang und Richtungscharakter; niederohmig.

Stereo-Mikrofon-Mischpult MX-6S
Eröffnet neue Studiomöglichkeiten: Mischen von 3 Mikrofonen (600 Ohm Impedanz) oder anderen Signalquellen hoher Impedanz (ca. 100 k Ohm). Kann bei Stereo- wie auch bei Mono-Aufnahmen benutzt werden.

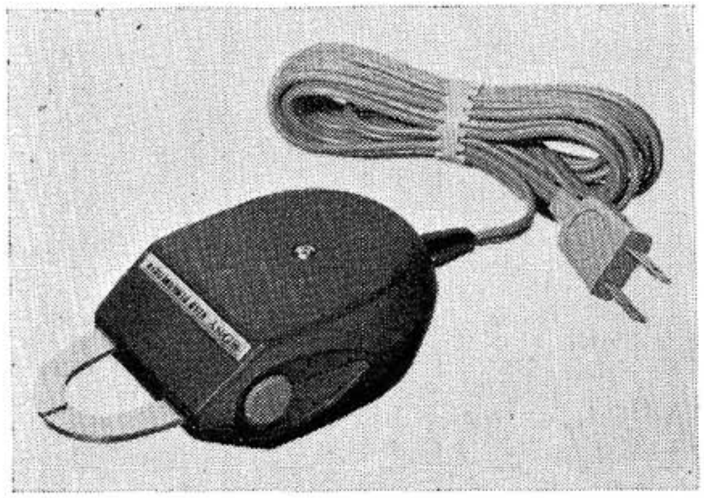
Stereokopfhörer DR-3A (8 Ω)
Hochwertige, dynamische Stereoköpfhorer mit normalem Kopfhörerstecker. Zum privaten Hören und Mithören bei der Aufnahme.

Système de haut-parleur SS-3300
Système de haut-parleur à 3-voies conçu à accentuer l'avantage de coéficient d'amortissement de l'amplificateur de transistors.

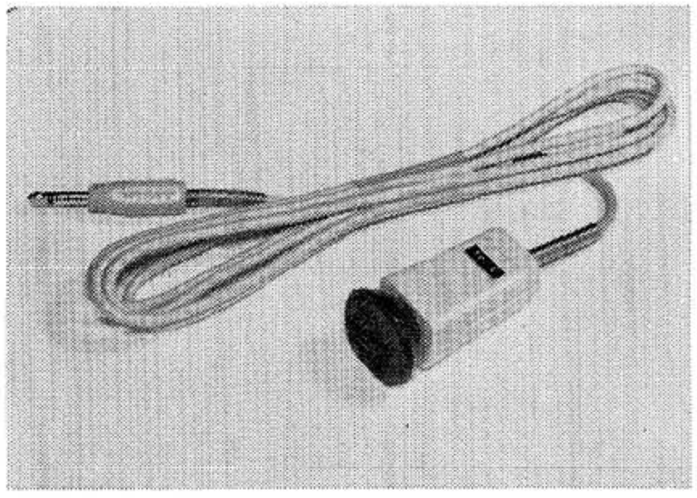
Microphone F-96, F-98 (600 Ω)
Microphone dynamique uni-directionnel de longue portée à basse impédance.

Mélangeur de microphone stéréo MX-6S
Offre une fonction professionnelle de mixage pour 3 microphones (impédance d'entrée de 600 ohm) ou sources à niveau élevé (impédance d'entrée d'environ 100 k ohm) telles qu'un magnétophone. Peut être branché en stéréo ou mono.

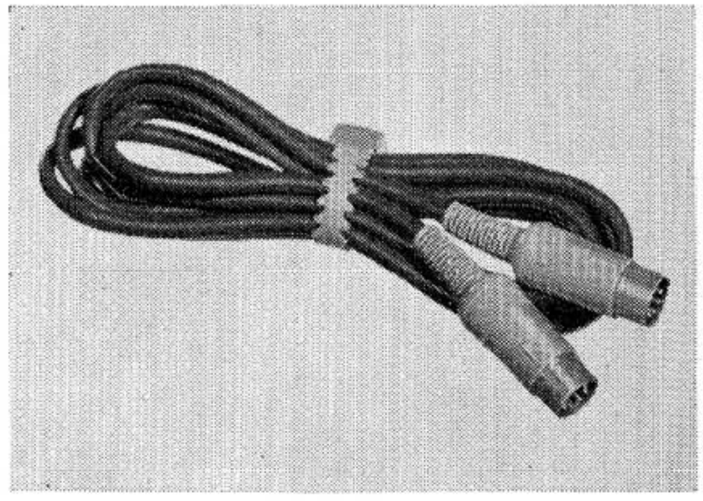
Casque d'écoute stéréo DR-3A (8 Ω)
Casque d'écoute dynamique de haute qualité avec fiche de téléphone standard pour l'écoute stéréo individuelle ou l'écoute en relais pendant l'enregistrement.



Head Demagnetizer HE-2
For quick and easy demagnetizing of the magnetic heads to keep the recorder in the best reproducing condition.



Telephone Pick-up TP-4S
For recording of telephone conversation on tape.



REC/PB Connector Cable RC-2
Connector cable with 5-pin connector for interconnection of inputs and outputs.

Tonkopf-Entmagnetisierer HE-2
Zum mühelosen, schnellen Entmagnetisieren der Tonköpfe. Wesentlich, um das Tonbandgerät in bestem Zustand zu halten.

Telefontonabnehmer TP-4S
Zum Aufnehmen von Telefongesprächen auf Band.

DIN-Kabel RC-2
Mit fünfpoligen Steckern. Erlaubt Aufnahme und Wiedergabe in Verbindung mit einem Stereoverstärker mit nur einer Kabel-Verbindung.

Démagnétiseur de tête HE-2
Pour désaimtation rapide et facile des têtes magnétiques, de manière à maintenir le magnétophone dans les meilleures conditions d'enregistrement.

Pick-up téléphonique TP-4S
Pour l'enregistrement sur bande des conversations téléphoniques.

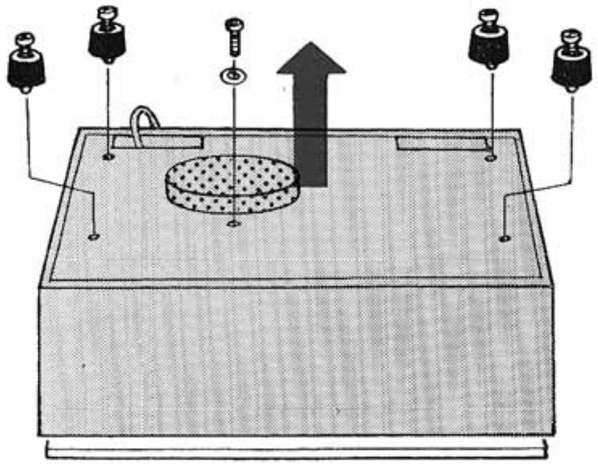
Câble de connecteur REC/PB (enregistrement/écoute) **RC-2**
Câble connecteur avec connecteur à 5 fiches pour l'interconnexion des entrées et des sorties.

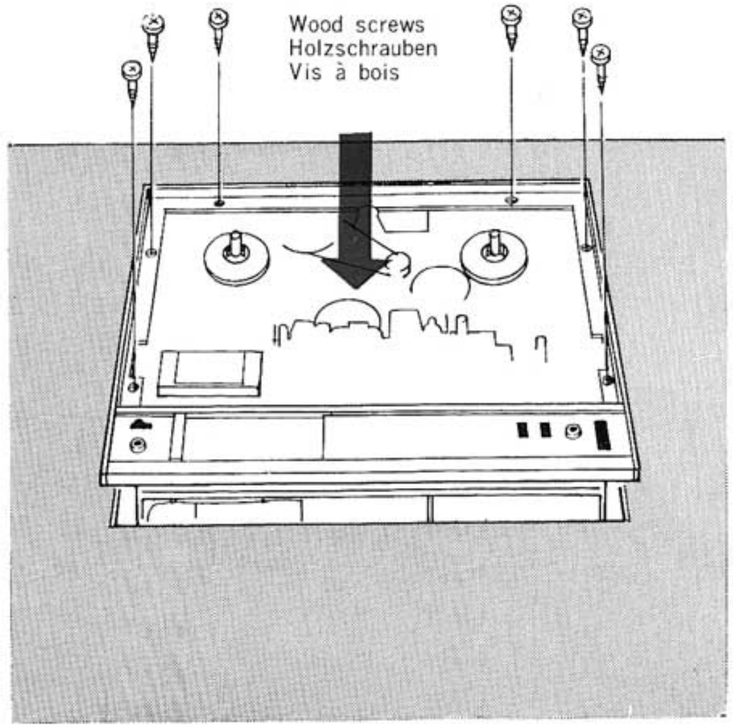
3-790-255-11 (1)

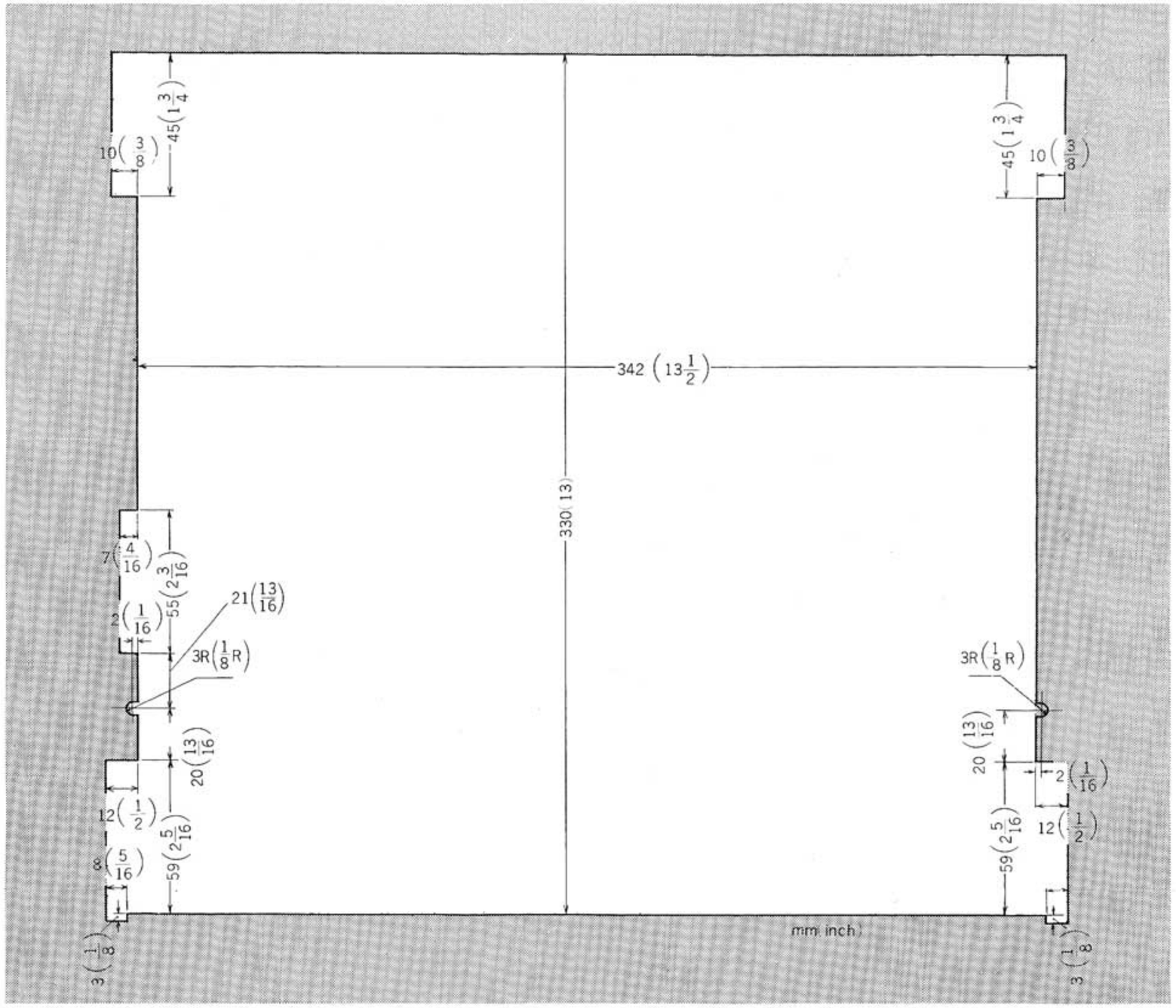
SONY CORPORATION

Printed in Japan

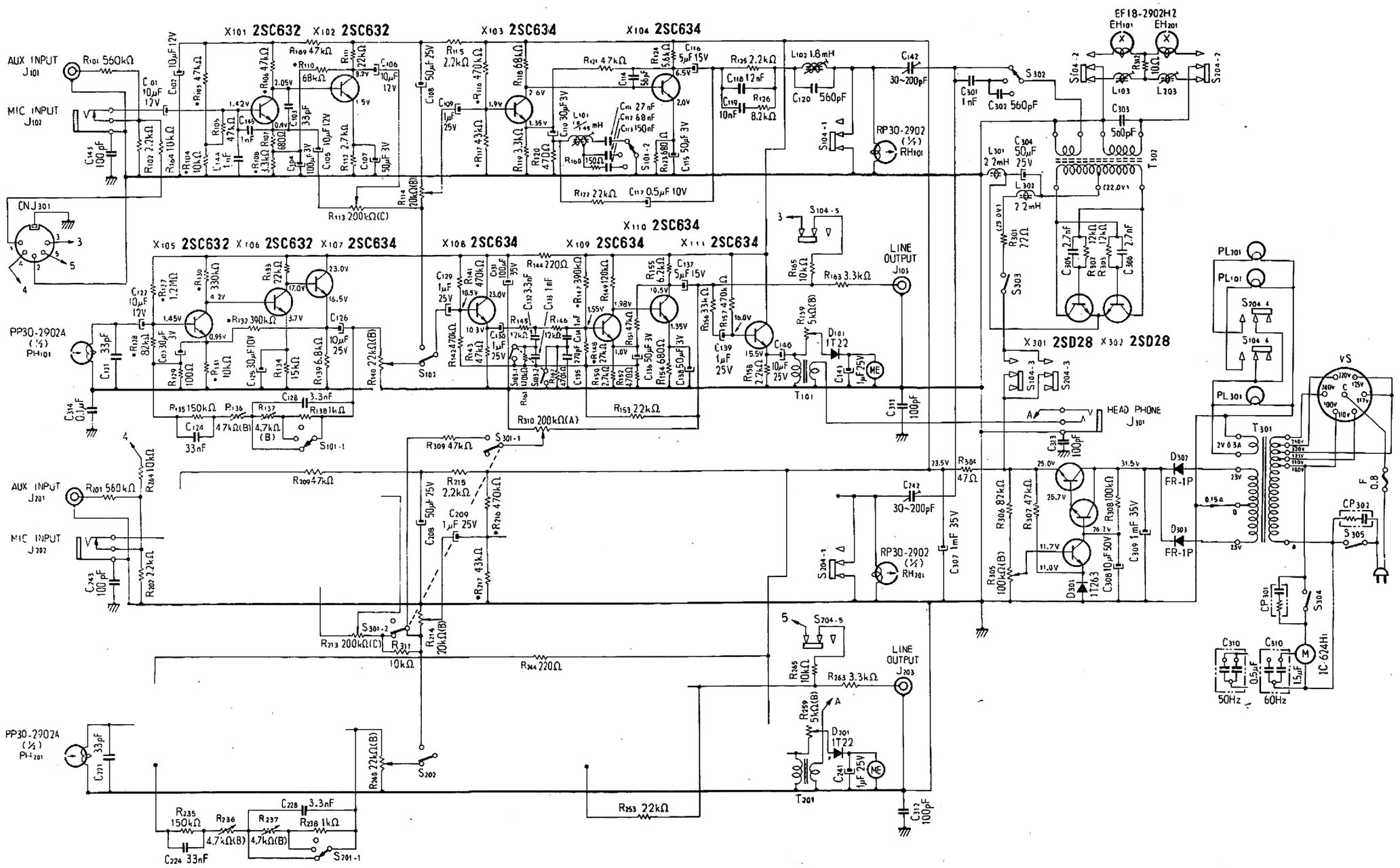
Mounting Dimensions/Abmessungen/Dimension de montage







Schematic Diagram/Schaltplan/Schéma



$S_{101, 201, 301}$: EQUALIZER SWITCH (19 cm/sec POSITION)
$S_{102, 202}$: MODE SWITCH (TAPE POSITION)
$S_{103, 203}$: HISS FILTER (OFF POSITION)
$S_{104, 204}$: RECORD SWITCH (OFF POSITION)
S_{301} : S.O.S. SWITCH (OFF POSITION)
S_{303} : BIAS SWITCH
S_{304} : AUTOMATIC SHUT-OFF SWITCH
S_{305} : POWER ON/OFF SWITCH

$S_{101, 201, 302}$: AUSGLEICHSCHALTER (bei 19 cm/Sek)
$S_{102, 202}$: MITHÖRSCHALTER (Stellung TAPE)
$S_{103, 203}$: SCHALTER DER RAUSCHUNTERDRÜCKUNG (Stellung Aus)
$S_{104, 204}$: AUFNAHME-SCHALTER (STELLUNG Aus)
S_{301} : MULTI-PLAY-SCHALTER (Stellung Aus)
S_{303} : VORSPANNUNGSSCHALTER
S_{304} : AUTOMATISCHE BANDABSCHALTUNG
S_{305} : STROMSCHALTER

$S_{101, 201, 301}$: COMMUTATEUR D'EGALISZATION (19 cm/s POSITION)
$S_{102, 202}$: COMMUTATEUR DE MODE
$S_{103, 203}$: APPAREIL CORRECTEUR (OFF POSITION)
$S_{104, 204}$: COMMUTATEUR D'ENREGISTREMENT (OFF POSITION)
S_{301} : COMMUTATEUR SON-SUR-SON
S_{303} : COMMUTATEUR DE CONTOLE DE POLARISATION
S_{304} : COMMUTATEUR DE COUPURE AUTOMATIQUE
S_{305} : COMMUTATEUR MARCHE/ARRET