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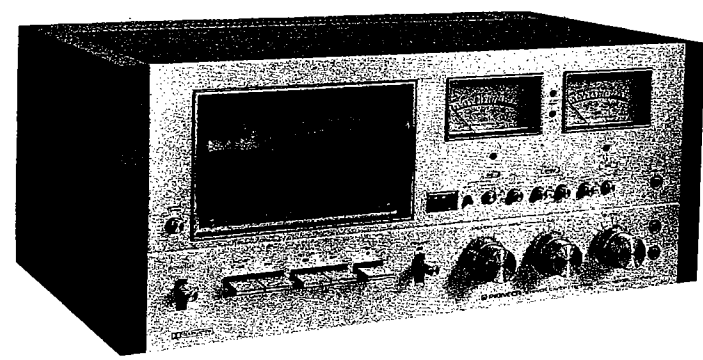
CP

CASSETTE TAPE DECK

CT-F9191

FV, KCU

ART138-0 9
<ART-13



 **PIONEER®**

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1. SPECIFICATIONS

System	Compact cassette, 2-channel stereo
Motor	Electronically-controlled DC motor (built-in generator) x 1; (4.8cm/s speed drive) DC torque motor x 1; (Fast forward and rewind drive)
Heads	"Ferrite Solid" recording / playback head x 1 Ferrite erasing head x 1
Operation	Solenoid drive, direct switchable and timer play presettable
Fast Winding Time	Approximately 65 seconds (C-60 tape)
Wow and Flutter	No more than 0.07% (WRMS)
Frequency Response	Standard, LH tapes: 25 to 16,000Hz (35 to 13,000Hz \pm 3dB) Chromium dioxide tape: 20 to 17,000Hz (30 to 14,000Hz \pm 3dB)
Signal-to-Noise Ratio	Dolby OFF: More than 52dB Dolby ON: More than 62dB (over 5kHz, standard, LH tapes) (When chromium dioxide tape is used, signal-to-noise ratio is further improved by 4.5dB over 5kHz)
Harmonic Distortion	No more than 1.7% (0dB)
Inputs (Sensitivity/Maximum allowable input/Impedance)	MIC x 2; 0.22mV/100mV/30k Ω , 6mm ϕ jack (Reference MIC impedance; 600 Ω to 30k Ω) LINE x 4 (2-channel stereo, Parallel connection system); 65mV/25V/100k Ω REC/PB x 1; Input & output, 5p jack (DIN standard)
Outputs (Reference level/Maximum level/Load impedance)	LINE x 4; 315mV/530mV/50k Ω (2-channel stereo, Parallel connection system) HEADPHONE x 1; 40mV/65mV/8 Ω With output level controls.
Semiconductors	
Amplifier Section	Transistors x 74 (including FETs x 6), Diodes x 80 (including Zener Diodes x 5, LEDs x 2)
Motor control Section	Transistors x 3, Diodes x 2
Subfunctions	<ul style="list-style-type: none"> • Dolby system (ON-OFF) with indicator lamp • MPX Filter (ON-OFF) • Tape Selector (STD/CrO₂) with indicator lamps Automatic tape selector for CrO₂ tape, and Manual tape selector of independently BIAS/EQ (Ferri-chrome tape available) • Cassette compartment illumination • Mixing control used for MIC and LINE input • Tape counter with rewind Memory switch (ON-OFF) for starting point [REW – STOP/PLAY (REC)] • Recording limiter (ON-OFF) • Wide scale level meter (-40 to +5dB) • Recording Peak level indicator (Lightable level; +5dB) • Level Memory Marker for inputs and output
Power Requirements	AC. 120V, 50 ~ 60Hz (KCU model) AC 110, 120, 130, 220, 240V (Switchable) 50/60Hz (FV model)
Power Consumption	53 watts, Max.
Dimensions	457 (W) x 197 (H) x 315 (D)mm. Max. 17-7/8 x 7-7/8 x 12-3/8 in.
Weight	13.2kg/29 lb (Without package), 15.4kg/34 lb (With package)
Furnished parts	Stereo connecting cord with pin plugs x 2 Head cleaning kit x 1 (Pioneer PP-203) Operating instructions x 1

NOTES:

1. Reference tape: standard, LH tapes are DIN no. 45513.
: chrome tape is DIN no. 4513 (CrO₂).
2. Reference recording level: meter 0dB level (equivalent to 160 pwb/mm)
3. Reference signal: 333Hz.
4. Wow & Flutter: at 3kHz weighted rms.
5. Frequency response: measured at -20dB level, DOLBY OFF, MPX Filter OFF. Level deviation is \pm 6dB without indication.
6. Signal-to-Noise ratio: measured at +4dB level (equivalent to 250 pwb/mm with weighted IEC A curve, MPX Filter OFF.
7. Sensitivity: Input level (mV) for reference recording measured with input (recording) level control set at maximum position.
8. Maximum allowable input level: measured at the point where the output signal wave is clipped while gradually turning the input level control.
9. Reference output level: meter 0dB level.
10. Maximum output (playback) level: Output level to reference recording level, measured with output (playback) level control set at maximum position.

NOTE:

Specifications and the design subject to possible modification without notice due to improvements.

2. FRONT PANEL FACILITIES

POWER SWITCH

Power is supplied when set to ON, at which time the level meter lamps and internal illuminating lamp light.

DOOR OPEN BUTTON

Press to open the cassette door. Close the cassette door by gently sliding it downward by hand.

CASSETTE DOOR

Keep door closed to protect the transport and head assembly from dust.

REC INDICATOR

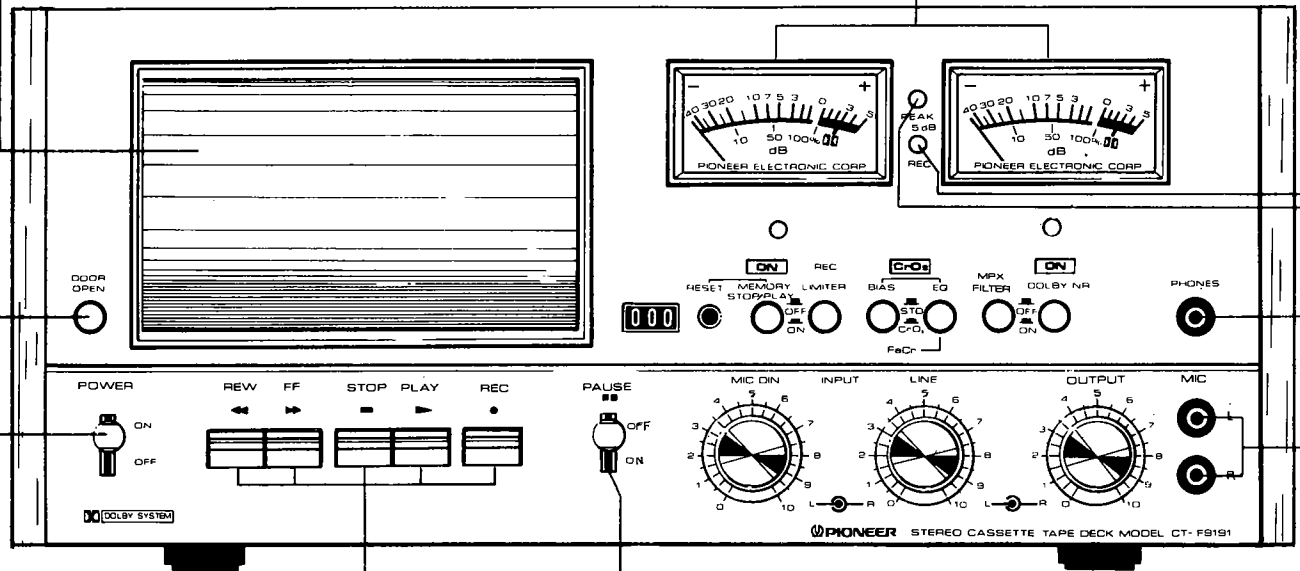
Lights red during recording.

NOTE:

Be sure to confirm REC indicator lighting before proceeding to record.

LEVEL METERS

Display input level during recording and output level during playback.



OPERATING LEVERS

- REW** ◀◀ (Rewind): Press downward to rewind tape. (Tape travels from right to left.)
- FF** ▶▶ (Fast Forward): Press downward for tape fast forward. (Tape travels from left to right.)
- STOP** ■: Press downward to stop tape motion; this will also release other operating levers.
- PLAY** ▶: Press downward to play tape. To record, press simultaneously with the REC lever. (Tape travels from left to right.)
- REC** ● (Record): Press downward simultaneously with the PLAY lever to perform recording.

NOTES:

1. Avoid simultaneously depressing two or more levers (except for the PLAY and REC levers when recording).
2. With the CT-F9191, it is not necessary to depress the STOP lever when switching between modes.

PAUSE SWITCH

Set to ON to temporarily stop the tape motion during record or playback. Return it to OFF to resume tape motion. This switch does not function during fast forward or rewind.

MIC JACKS

Microphone recording input jacks. Independent left (L) and right (R) channel jacks are provided.

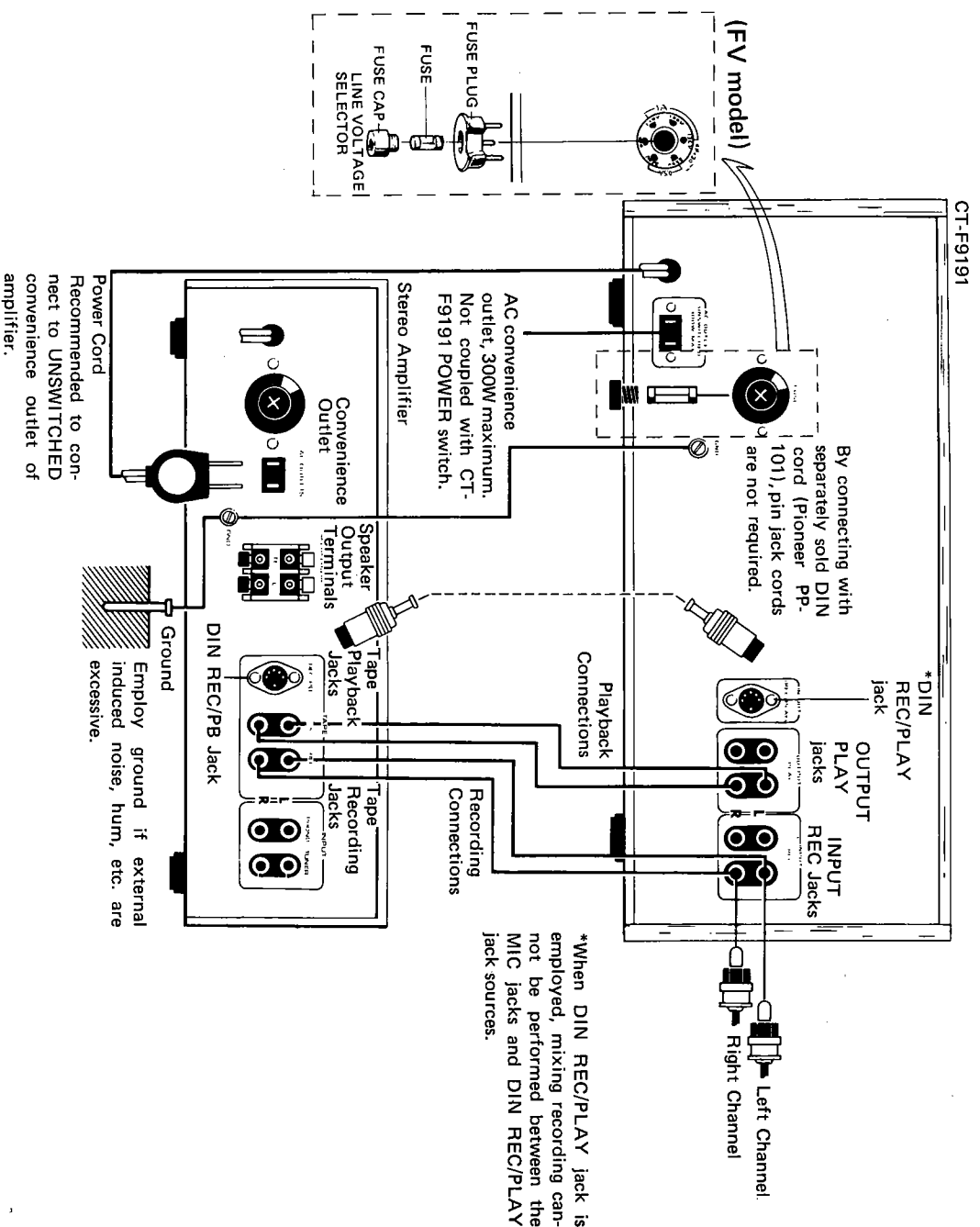
PHONES JACK

Stereo headphones can be plugged into this jack for private listening or monitoring a recording.

PEAK +5dB INDICATOR

Lights when +5dB over level is reached during recording. When recording, adjust MIC/DIN or LINE controls so that it does not light continuously.

3. CONNECTION DIAGRAM



MEMORY INDICATOR LAMP

Lights when MEMORY button is depressed.

COUNTER RESET BUTTON

Depressing button resets counter indication to 000.

TAPE COUNTER

Indicates tape running position.

MPX FILTER BUTTON

FM stereo broadcast pilot signal (19KHz) is blocked when button is set to ON (depressed). Use only for FM Dolby recording and set to OFF (undeprressed) at other times.

DOLBY INDICATOR LAMP

Lights when DOLBY NR button is depressed.

DOLBY NR BUTTON

Depress for Dolby recording and for playback of Dolby recorded tape.

MEMORY BUTTON

When set to ON (depressed), the tape running position during record or playback corresponding to the 000 counter indication is registered. Memory play and memory stop functions can then be performed.

REC LIMITER BUTTON

When recording sources with large level variations which cause over levels and render control adjustment difficult, depress this button for easier recording.

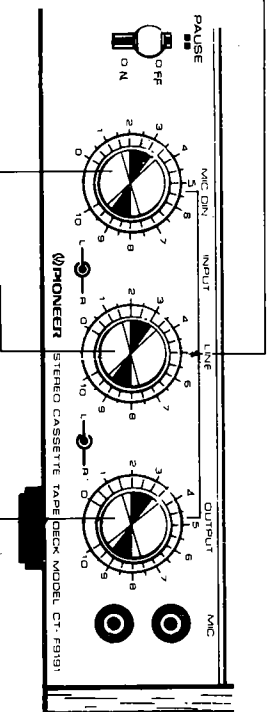
CrO₂ INDICATOR LAMP

Lights to indicate chromium dioxide tape.

Also lights when cassette has not been installed.

MEMORY MARKER DIALS

Set these outer rings to mark preferred control positions.



MIC/DIN RECORDING LEVEL CONTROLS

Adjust the input signal from the front panel MIC jacks or rear panel DIN REC/PLAY jack. The outer knob controls the right (R) channel, while the inner knob controls the left (L) channel.

LINE RECORDING LEVEL CONTROLS

Adjust input signal from the INPUT (REC) jacks. The outer knob controls the right (R) channel while the inner knob controls the left (L) channel.

EQ (EQUALIZATION) SELECTOR BUTTON

Employ according to tape. Depress for chrome or ferrichrome tape. Set to OFF (undeprressed) to play chrome tape recorded to earlier specifications (120µs).

BIAS SELECTOR BUTTON

Employ according to tape. Depress when using chrome tape.

NOTE:

If a chrome tape is provided with index holes, EQ and BIAS selection becomes automatic. It is not necessary in this case to depress the EQ and BIAS buttons.

OUTPUT LEVEL CONTROLS

Adjust the output signal level during playback. The outer knob controls the right (R) channel while the inner knob controls the left (L) channel.

NOTE:

LEVEL controls can be employed for adjusting R and L channels independently. If there is a difference in input or output levels, turn one of the controls so that the levels become equal.

INPUT & OUTPUT JACKS

2 sets each of INPUT and OUTPUT jacks, which are connected in parallel, plus a DIN REC/PLAY jack are provided on the CT-F9191.

INPUT Jack Connections

Connect one set of INPUT jacks to the tape recording output jacks of a stereo amplifier. Since the INPUT jacks are connected in parallel, the recording input jacks of an additional tape deck (open reel or cassette) can be connected to one set to allow simultaneous recording of the same program source together with the CT-F9191.

OUTPUT Jack Connections

Connect one set of OUTPUT jacks to the TAPE PB jacks of a stereo amplifier. If a second tape

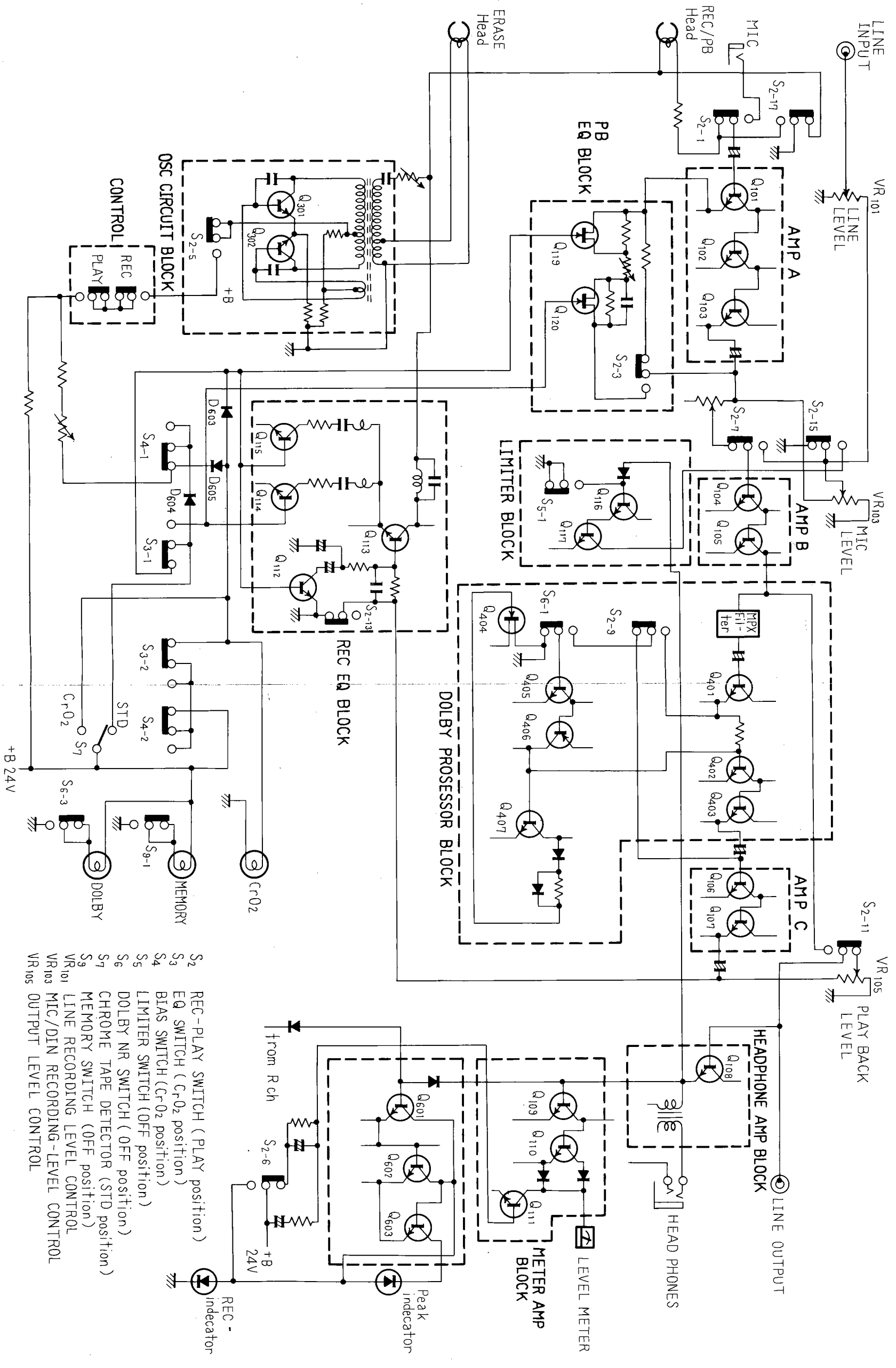
deck is available, its recording input jacks can be connected with the other set of OUTPUT jacks. This will allow a tape played on the CT-F9191 to be duplicated onto another tape by the second deck.

DIN REC/PLAY Jack

By connecting this jack to a program source, mixing recording can be performed with a program source connected to the INPUT (REC) jacks. Adjust the recording level of a source connected to the DIN REC/PLAY jack with the MIC/DIN controls.

If microphones are connected to MIC jacks, recording cannot be performed from source connected to this jack.

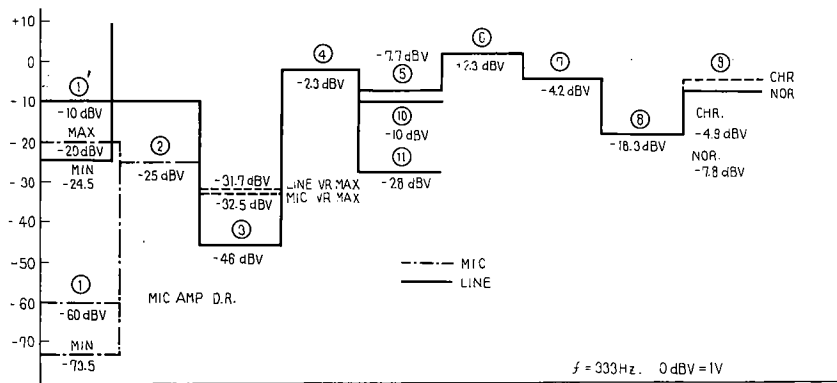
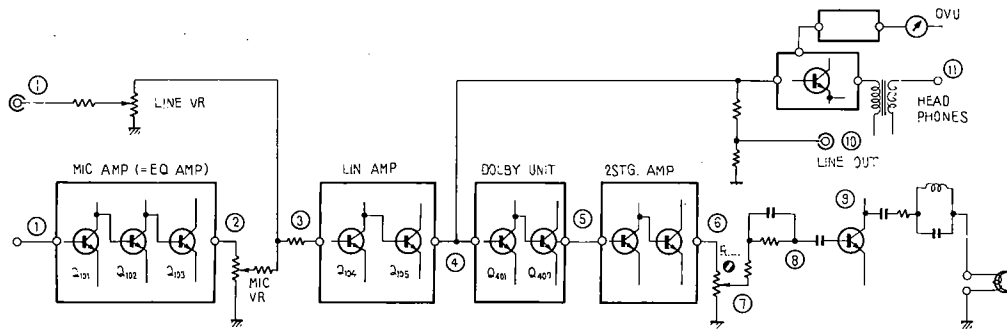
BLOCK DIAGRAM



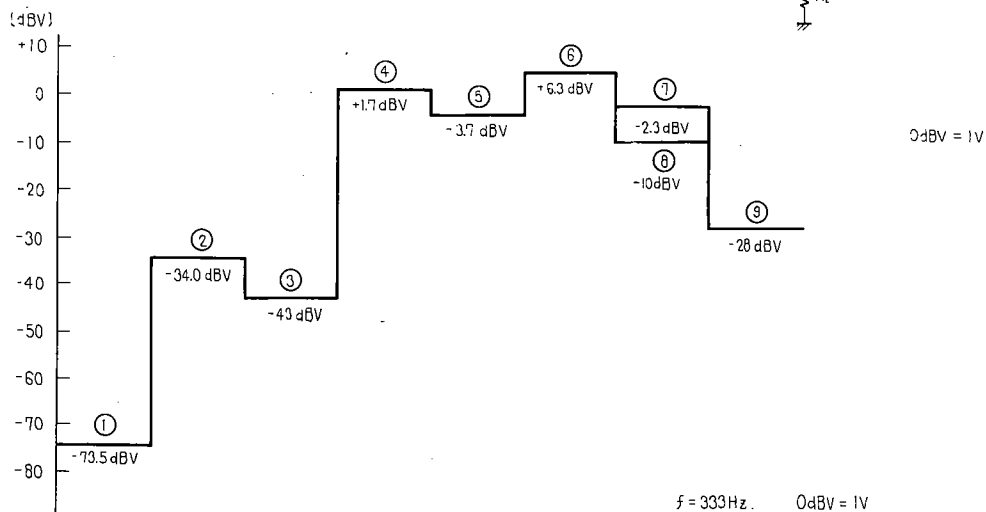
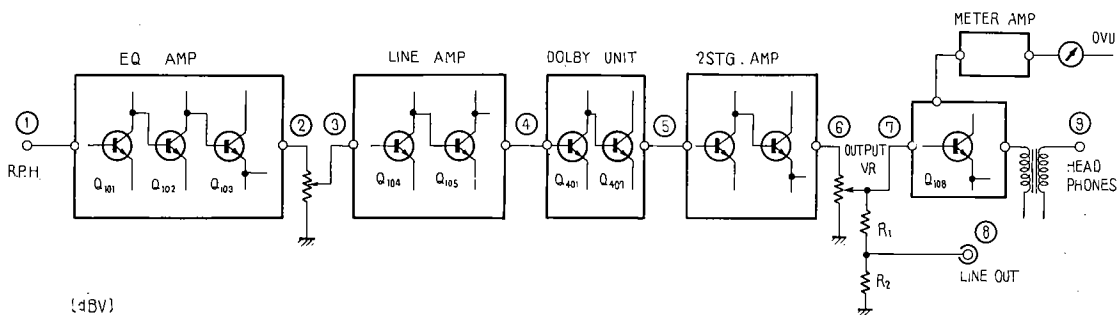
- S2 REC-PLAY SWITCH (PLAY position)
- S3 EQ SWITCH (C-r-02 position)
- S4 BIAS SWITCH (C-r-02 position)
- S5 LIMITER SWITCH (OFF position)
- S6 DOLBY NR SWITCH (OFF position)
- S7 CHROME TAPE DETECTOR (STD position)
- S8 MEMORY SWITCH (OFF position)
- S9 LINE RECORDING LEVEL CONTROL
- VR101 MIC/DIN RECORDING-LEVEL CONTROL
- VR103 OUTPUT LEVEL CONTROL
- VR105

5. LEVEL DIAGRAMS

REC



P.B.



6. CIRCUIT DESCRIPTIONS

This circuit description consists of Sections 6.1 — 6.13.

Use care in regard to the following symbols and expressions which appear in the text.

+B₁, +B₂, +B₃: Indicate fixed voltage lines as illustrated in Fig. 1.

S_{12-3,4}: Appears as a single switch in the schematic, but actually two identical switches are employed in parallel.

Route: Refers to current path of +B, etc.

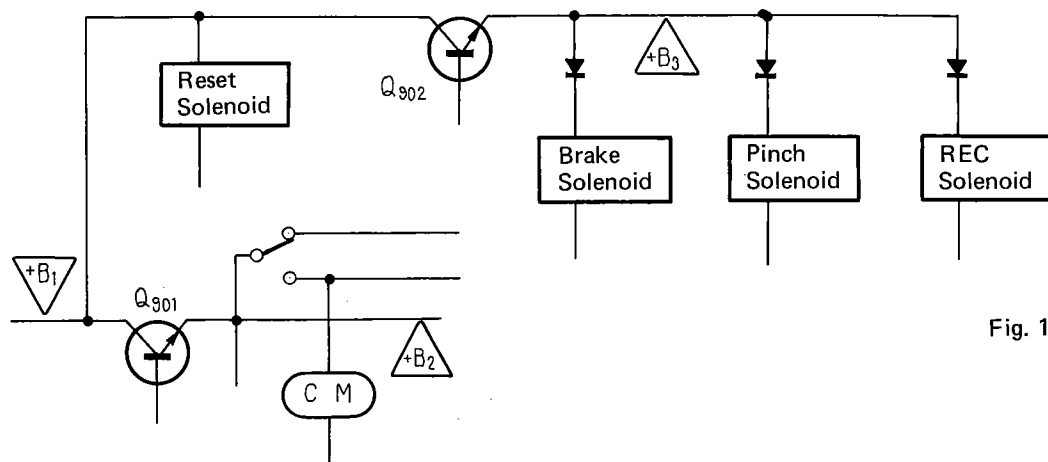


Fig. 1

