# Car radio cassette player 02AC918A

Service
Service
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# Service Manual

12 V

FOUR TRACK AUTO REVERSE STEREO CASSETTE PLAYER
WITH AM/FM STEREO AND DOLBY N.R.

## SPECIFICATIONS

| | |
|---|---|
| TUNING RANGE: | AM - 520 to 1605 kHz<br>FM - 88 to 108 MHz |
| INTERMEDIATE FREQUENCY: | AM - 455 kHz<br>FM - 10.7 MHz |
| PINCHROLLER PRESSURE: | 300 - 400 g. |
| TAKE-UP TORQUE: | 45 to 55 g./cm. |
| POWER OUTPUT: | 9 Watts x 2 |
| SPEAKER IMPEDANCE: | 4 Ohms per channel |
| CURRENT: | Approximately 1.2 Amps (at 1 Watt output)<br>Maximum 4.5 Amps |
| POWER SUPPLY: | 12 Volts, negative to earth |

Subject to modification
4802 725 17072

PHILIPS

# EXPLODED VIEW

(CR-1130EX1)

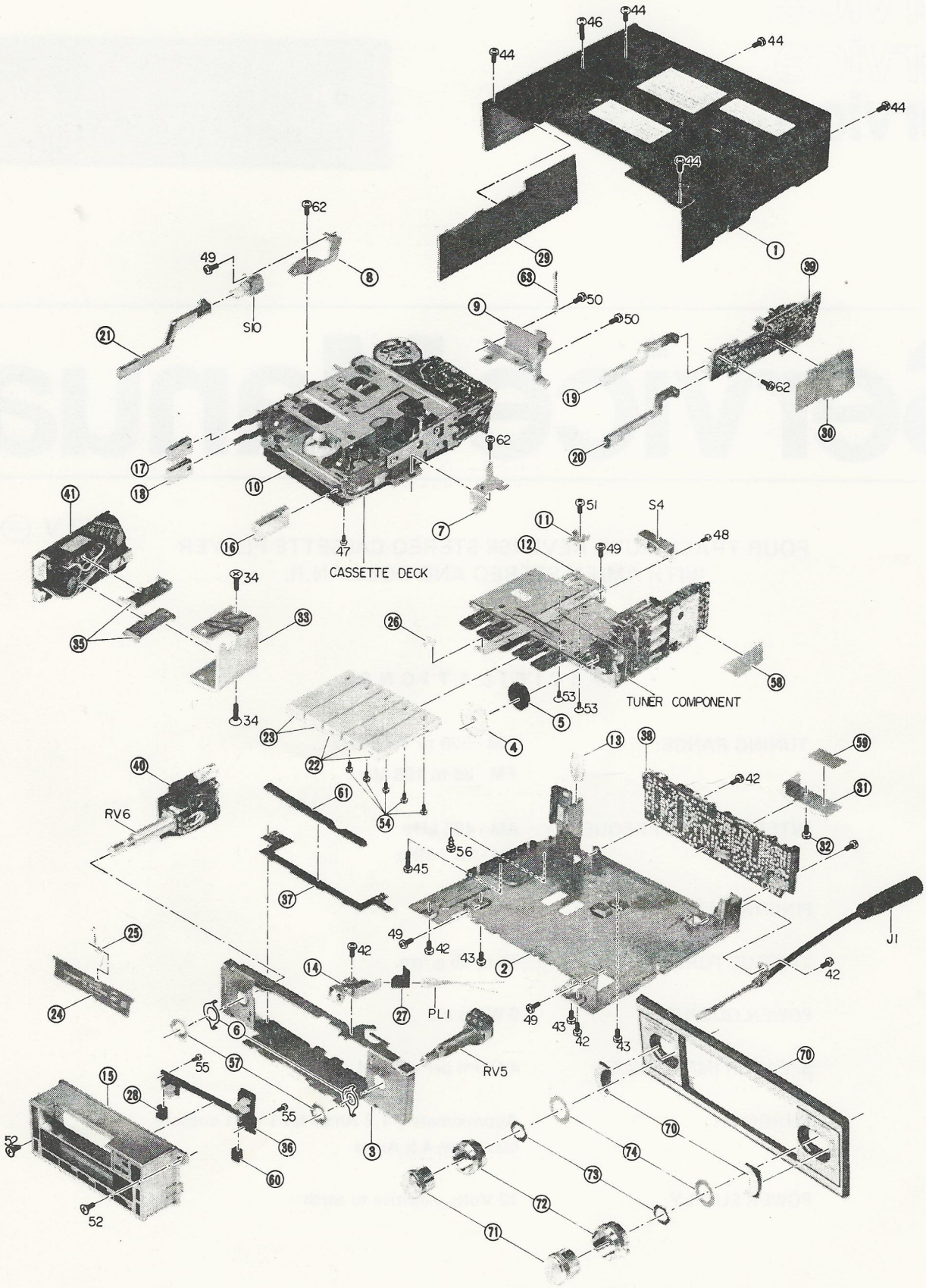



Fig. 16

# EXPLODED VIEW (CASSETTE DECK)

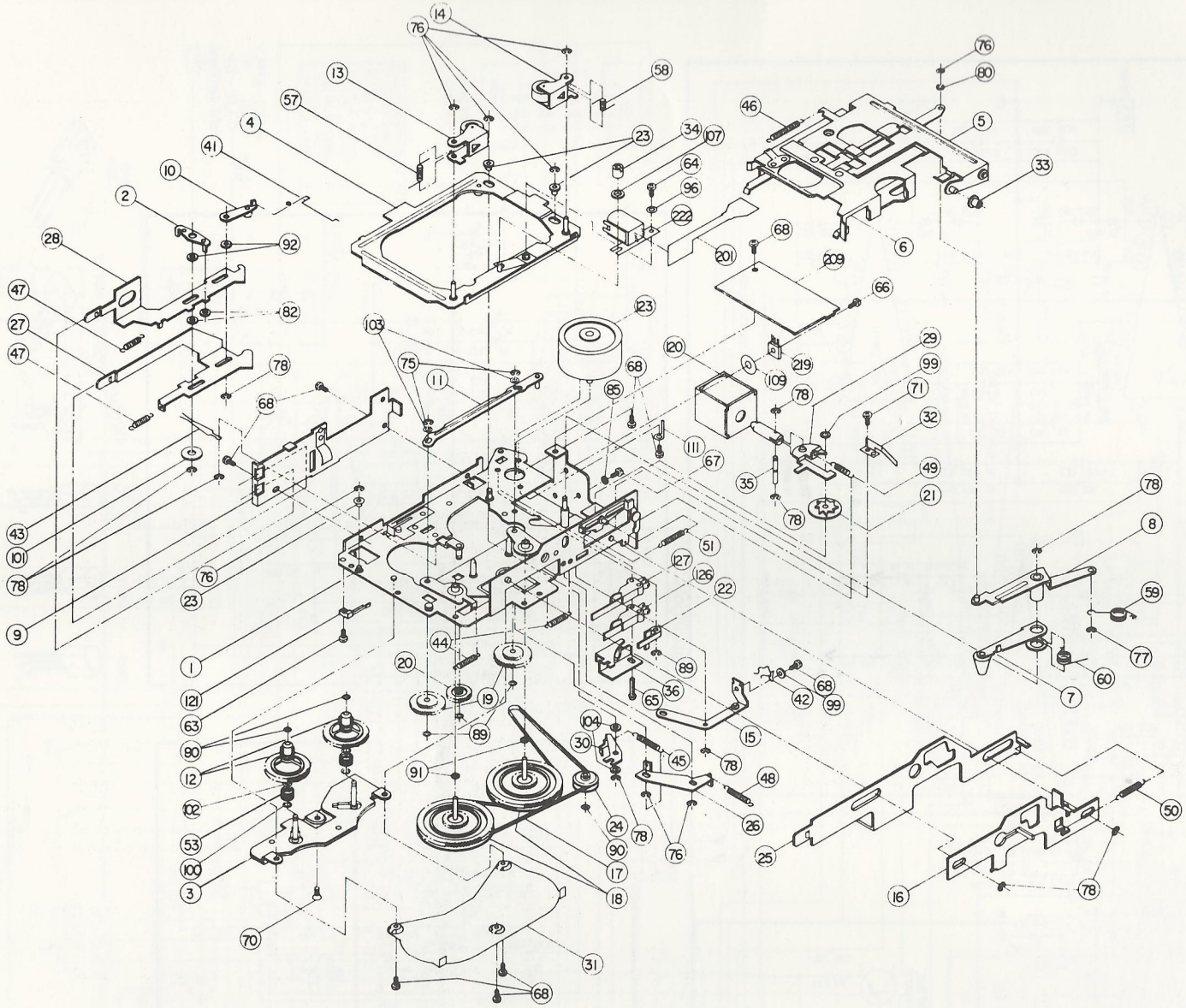



Fig. 17 (C28171130)

# REPLACEMENT PARTS LIST

| Ref. No. | Description | Service Code |
|---|---|---|
| **CAPACITORS** | | |
| NOTE: All capacitors are standard ceramic, mylar, polycarbonate, or electrolytic types unless specified otherwise. | | |
| CV1 | CAP. Var. AM Trimmer 70pF | 4802 125 67038 |
| **RESISTORS** | | |
| NOTE: All resistors are standard values and tolerances unless specified otherwise. | | |
| RV1 | Res. Var. 10k ohm | 4802 125 17099 |
| RV2, 3, 4 | Res. Var. 5k ohm | 4802 100 17101 |
| RV5 | Res. Var. 50k ohm treble | 4802 101 27165 |
| RV6 | Res. Var. 50k + 20k + 10k | 4802 102 27112 |
| RV7 | Res. Var. 5k ohm | 4802 125 17101 |
| **SEMICONDUCTORS** | | |
| IC1 | I.C. LA1130 | 4802 209 87534 |
| IC2 | I.C. M51173P | 4802 209 87519 |
| IC3 | I.C. NC8042 | 4802 209 87142 |
| IC4 | I.C. M51530L | 4802 209 87535 |
| IC5, 6 | I.C. LM1111 | 4802 209 87522 |
| IC7 | I.C. M51521L | 4822 209 80573 |
| IC8, 9 | I.C. MH-1278 | 4802 209 87461 |
| IC10, 11 | I.C. M51517L | 4802 209 87493 |
| IC12 | I.C. AN6248 | 4802 209 87466 |
| IC13, 14 | I.C. DN6838 | 4802 209 87184 |
| | P.C. Board Assy. AM.FM.RF. | 4802 214 57126 |
| Q1 | TRSTR 3SK73 | 4802 130 47453 |
| Q2 | TRSTR 2SC668 | 4802 130 47454 |
| Q3 | TRSTR 2SC930 | 4822 130 44195 |
| Q4,5,7 | TRSTR 2SC710C (use BF494) | 4822 130 44195 |
| Q6 | TRSTR 2SK19TM-Y FET | 4802 130 47429 |
| Q8 | TRSTR 2SB631 | 4822 130 41136 |
| Q9, 10 | TRSTR 2SD638-QR | 4822 130 41324 |
| Q11, 13, 14 | TRSTR 2SC1684-QR | 4822 130 41532 |
| Q12 | TRSTR 2SA733A (use BC327) | 4822 130 40854 |
| Q15, 16 | TRSTR 2SD655 (use BC337) | 4822 130 40855 |
| Q17, 18 | TRSTR 2SC2634-RS | 4802 130 47354 |
| Q19 | TRSTR 2SC2594 | 4802 130 47433 |
| D2, 3 | Diode 1S446 | 4822 130 30191 |
| D4, 5 | Diode 1S1555 | 4802 130 37033 |
| 7-17, 23 | | |
| D6 | Diode RD4R7EB3 (use BZX79C4V7) | 4822 130 30773 |
| D18 | Diode LN310GP | 4802 130 37035 |
| D19-22 | Diode LN410YP | 4802 130 37448 |
| D24 | Diode 1S1885 | 4802 130 37036 |
| **MISCELLANEOUS ELECTRICAL** | | |
| L1.3 | Choke 68μH | 4802 158 17098 |
| L2 | Choke 22μH | 4802 158 17313 |
| L4 | Choke Filter 85μH | 4802 157 47036 |
| CF1, 2 | Ceramic Filter FM. 10.7 MHz | 4802 242 77098 |
| — | Tuner Component | 4802 210 17125 |
| A1 | Head. Playback | 4802 249 37017 |
| E1 | Solenoid | 4802 281 57011 |
| M1 | Motor MMT3RF2DX | 4802 361 27107 |
| J1 | Receptacle Antenna | 4802 321 27235 |
| J2 | Lead Assy, 5 pin | 4802 266 37013 |
| J3 | Lead Assy, 4 pin | 4802 266 37014 |
| J4 | Lead Assy, 5 pin | 4802 266 37015 |
| J5 | Lead Assy. 7 pin | 4802 266 47007 |
| J6 | Lead Assy. 3 pin | 4802 266 37016 |
| J7 | Lead Assy. 6 pin | 4802 266 37017 |
| J8 | Lead Assy, 5 pin | 4802 266 37018 |
| J9 | Lead Assy, 7 pin | 4802 266 47008 |
| P10 | Lead Assy, 8 pin Speaker | 4802 265 47011 |
| P11 | Lead Assy, 1 pin, inc. F1 & L1 | 4802 157 17077 |
| PL1 | Lamp | 4802 134 47166 |
| PL2, 3 | Lamp | 4802 134 40417 |
| S1, 2 | Switch, Push | 4802 276 17124 |
| S3 | Switch. Leaf | 4802 278 97081 |
| S4 | Switch. Slide | 4802 277 27127 |
| S5 | Switch. Leaf | 4802 278 97082 |
| S6 | Switch, Push | 4802 276 17125 |
| S8 | Switch. Slide | 4802 277 27128 |
| S9 | Switch. Leaf | 4802 278 97083 |
| **MISCELLANEOUS MECHANICAL** | | |
| 4 | Roller. Universal Joint | 4802 528 97057 |
| 5 | Roller. Universal Joint | 4802 528 97058 |
| 15 | Escutcheon | 4802 331 37041 |
| 16 | Button. Eject | 4802 410 27469 |
| 17 | Button. F.F. | 4802 410 27471 |
| 18 | Button. Rew. | 4802 410 27472 |
| 19 | Button. Dolby | 4802 410 27473 |
| 20 | Button. Tape Select | 4802 410 27474 |
| 21 | Button. Programme | 4802 410 27475 |
| 22 | Button. FM | 4802 410 27476 |
| 23 | Button. AM | 4802 410 27477 |
| 24 | Flap. Cassette | 4802 459 47321 |
| 25 | Spring. Flap | 4802 492 37474 |
| 27 | Filter. PL1 | 4802 480 37026 |
| 28 | Filter. PL3 | 4802 480 37027 |
| 40 | PC Board. Vol. | 4802 466 17167 |
| 60 | Filter. PL2 | 4802 480 37028 |
| 70 | Escutcheon. Flat | 4802 331 37042 |
| **CASSETTE DECK** | | |
| 2 | Lever | 4802 404 27088 |
| 5 | Holder | 4802 403 57398 |
| 12 | Slip Mechanism | 4802 528 87269 |
| 13 | Pinchroller Assy. | 4802 403 47087 |
| 14 | Pinchroller Assy. | 4802 403 47088 |
| 17 | Belt | 4802 358 37111 |
| 18 | Flywheel | 4802 528 67101 |
| 19 | Gear | 4802 528 17268 |
| 20 | Gear | 4802 528 17269 |
| 21 | Cam | 4802 528 37044 |
| 24 | Roller | 4802 520 37028 |
| 32 | Spring | 4802 492 37475 |
| 33 | Roller | 4802 528 87273 |
| 42 | Spring | 4802 492 37476 |
| 43 | Spring | 4802 492 37477 |
| 44 | Spring | 4802 492 37478 |
| 45 | Spring | 4802 492 37479 |
| 46 | Spring | 4802 492 37481 |
| 47 | Spring | 4802 492 37482 |
| 48 | Spring | 4802 492 37483 |
| 49 | Spring | 4802 492 37484 |
| 50 | Spring | 4802 492 37485 |
| 51 | Spring | 4802 492 37486 |
| 53 | Spring | 4802 492 37487 |
| 57 | Spring | 4802 492 37488 |
| 58 | Spring | 4802 492 37489 |
| 59 | Spring | 4802 492 37491 |
| 60 | Spring | 4802 492 37492 |

# CONNECTIONS (REAR VIEW)

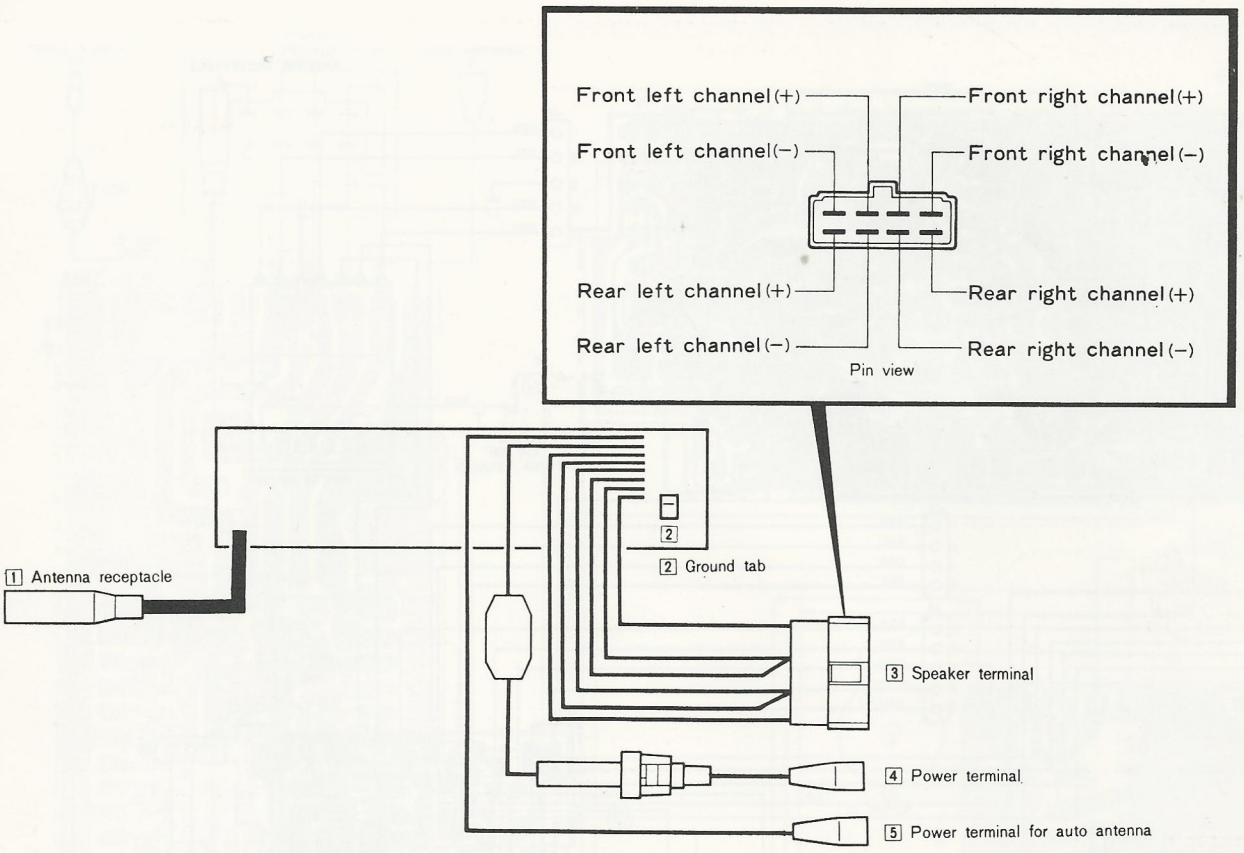
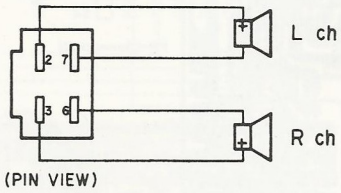
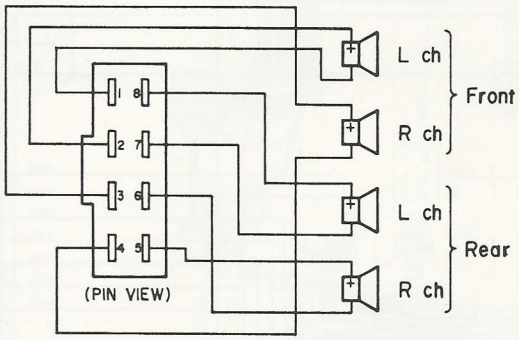



Fig. 4 (C23171130)

# SPEAKER CONNECTION




2 SPEAKER SYSTEM (20W×2)



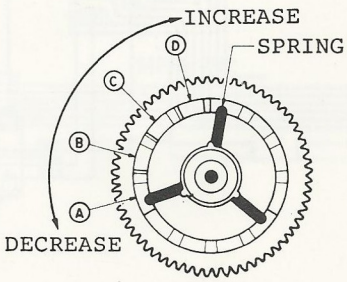

4 SPEAKER SYSTEM (5W×4)

# ADJUSTMENT FOR TAKE-UP TORQUE

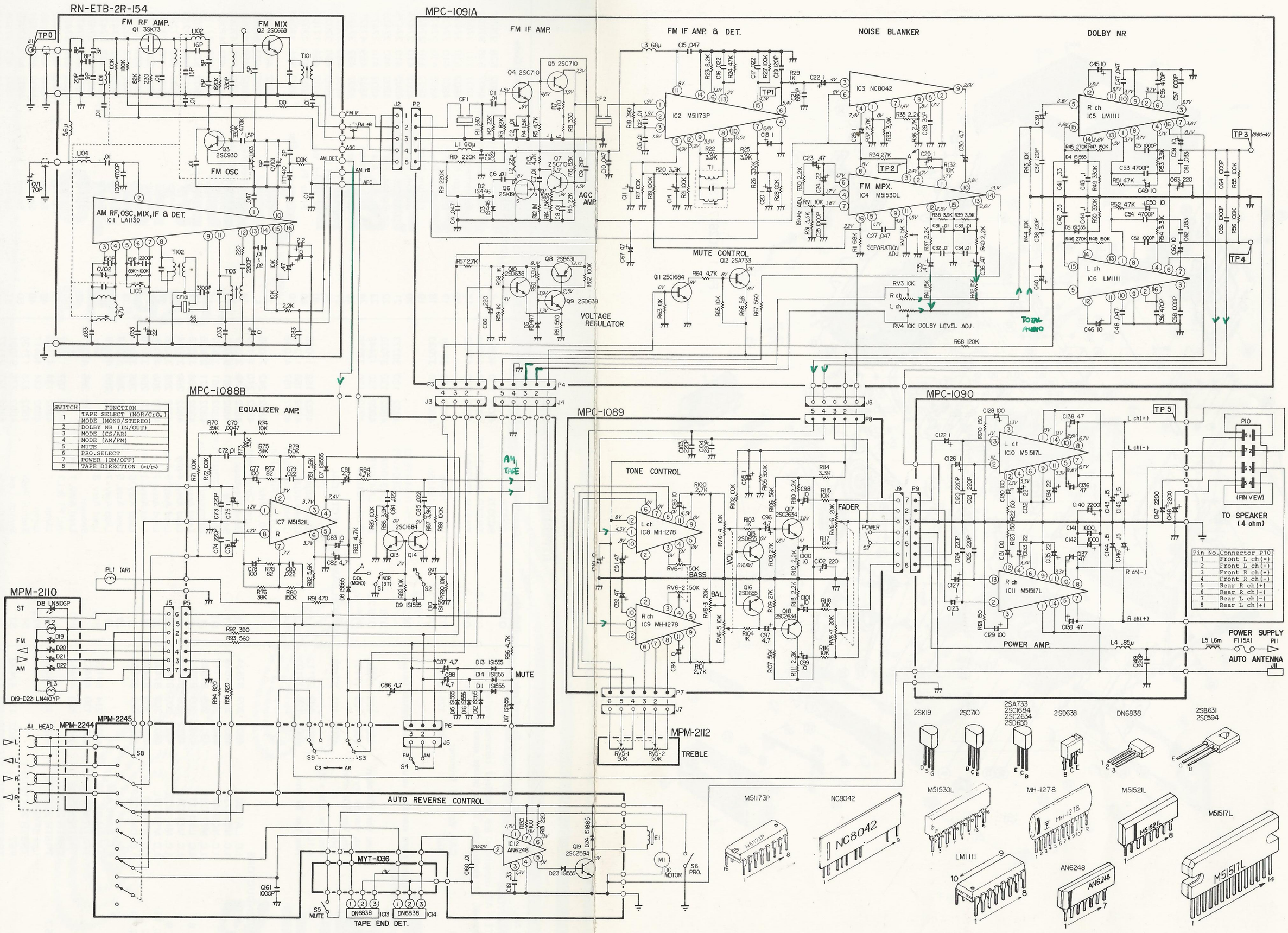
〔CR-1130EX1〕

Measure the take-up torque by inserting the torque gauge cartridge into the slip mechanism with the motor rotating. The torque should be always between 40 and 55g-cm. The roller has six positions for the spring to be set.

Set the spring in one of Ⓐ–Ⓓ positions for the sufficient value. The take-up torque may vary 7g-cm per one step of the roller.



# SCHEMATIC




| SWITCH | FUNCTION |
|---|---|
| 1 | TAPE SELECT (NOR/CrO₂) |
| | MODE (MONO/STEREO) |
| 2 | DOLBY NR (IN/OUT) |
| 3 | MODE (CS/AR) |
| 4 | MODE (AM/FM) |
| 5 | MUTE |
| 6 | PRO.SELECT |
| 7 | POWER (ON/OFF) |
| 8 | TAPE DIRECTION (⇐/⇒) |

| Pin No. | Connector P10 |
|---|---|
| 1 | Front L ch(-) |
| 2 | Front L ch(+) |
| 3 | Front R ch(+) |
| 4 | Front R ch(-) |
| 5 | Rear R ch(+) |
| 6 | Rear R ch(-) |
| 7 | Rear L ch(-) |
| 8 | Rear L ch(+) |

# WIRING ON PC BOARDS

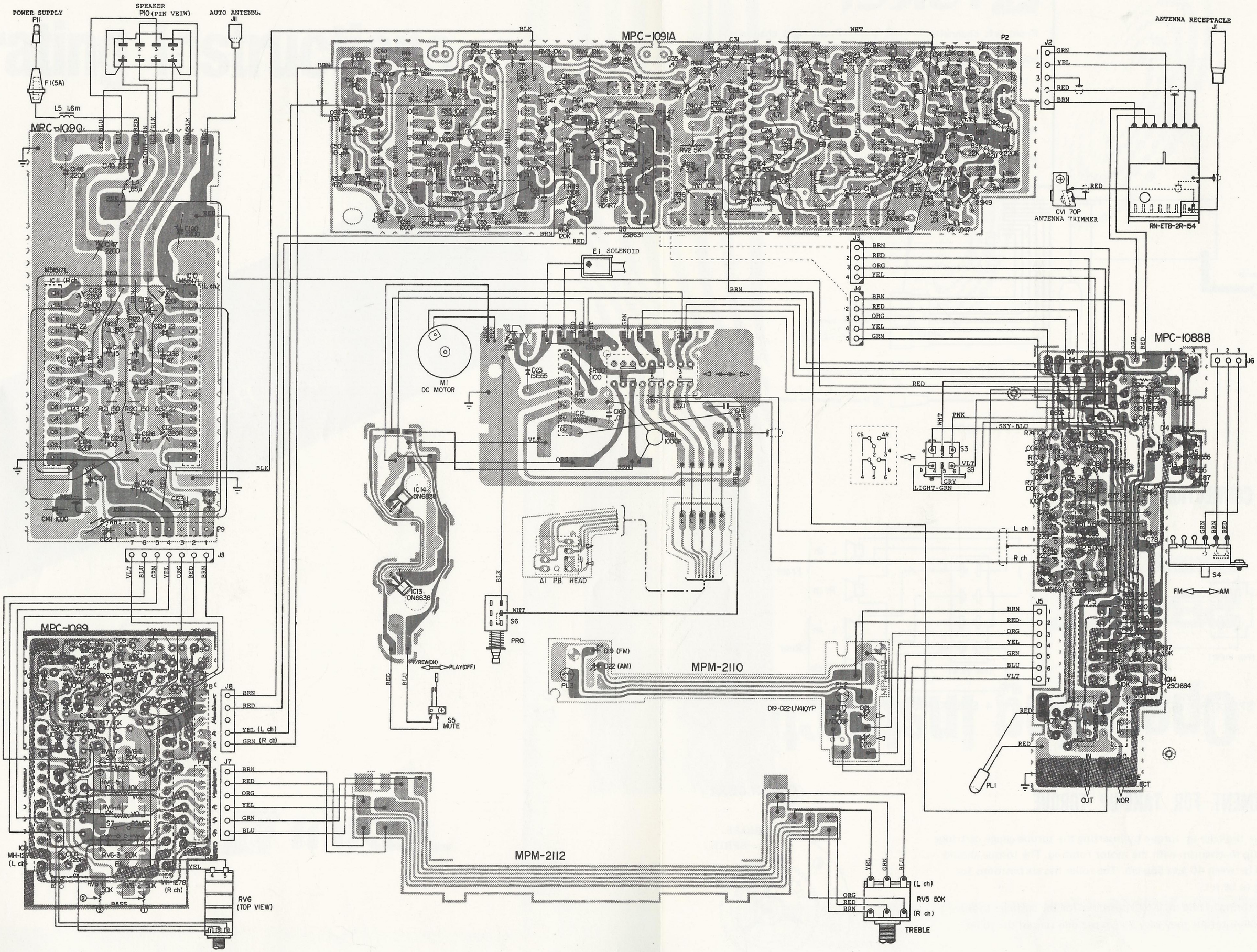



Fig. 7 (C27171130)