


ONKYO SERVICE MANUAL

Infrared Wireless Remote Controlled Stereo Amplifier MODEL A-8048V

| | |
|----|---------------|
| UD | 120V AC, 60Hz |
|----|---------------|

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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SPECIFICATIONS

| | |
|----------------------------|---|
| Power Output: | 105 watts per channel, min. RMS, at 8 ohms, both channels driven, from 20Hz to 20kHz, with no more than 0.09% THD |
| Total Harmonic Distortion: | 0.09% at 105 watts |
| IM Distortion: | 0.09% at 105 watts |
| Damping Factor: | 40 at 8 ohms |
| Frequency Response: | 15 – 30,000 Hz \pm 1 dB |
| Sensitivity and Impedance: | Phono: 2.5 mV/50 kohms Tape Play: 150 mV/50 kohms Tape Rec: 150 mV/3.5 kohms (phono) |
| Phono Overload: | 150 mV RMS at 1 kHz, 0.09% THD |
| Bass Control: | \pm 8 dB at 100 Hz |
| Treble Control: | \pm 8 dB at 10,000 Hz |

Remote Control Transmitter RC-48A

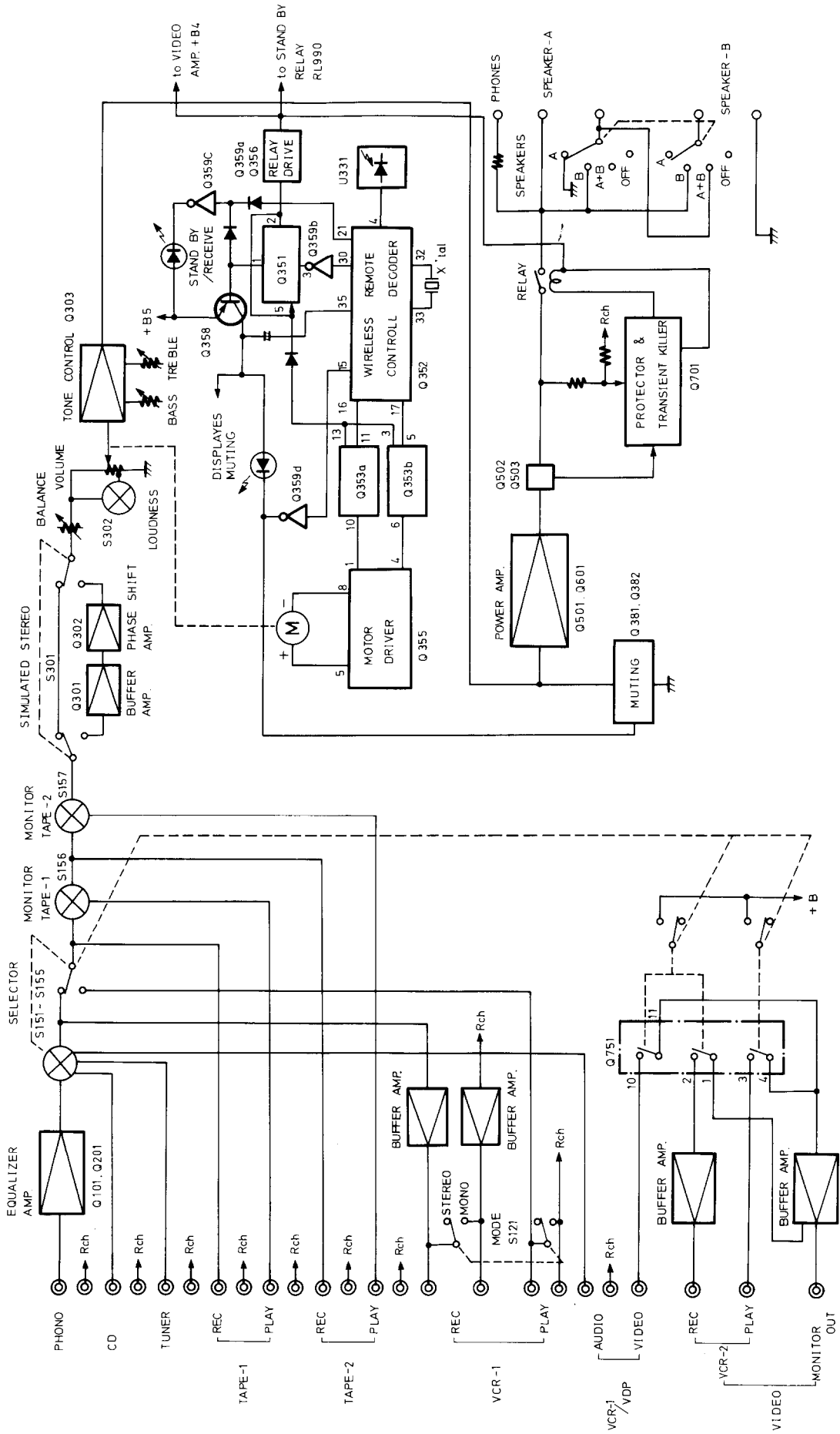
| | |
|---------------------------------------|---|
| Transmitter: | Infrared |
| Signal range: | Approx. 5 meters, 16 ft. 4" |
| Power supply: | Two "AA" batteries (1.5V \times 2) |
| Dimensions (W \times H \times D): | 40 \times 18 \times 145 mm 1-1/2" \times 1/4" \times 5-5/8" |
| Weight: | 90 grams, 3.2 oz. (including batteries) |
| Signal to Noise Ratio: | Phono: 75 dB (IHFA-202, 5 mV input, 1 watt output) Tape Play: 80 dB (IHF A-202, 0.5V input, 1 watt output) |
| Loudness Control: | +6 dB at 70 Hz, +5 dB at 10 kHz |
| Audio Muting: | -20 dB |

General

| | |
|---------------------------------------|---|
| Power Supply: | AC 120V, 60Hz |
| Dimensions (W \times H \times D): | 435 \times 112 \times 279 mm 17-1/8" \times 4-7/16" \times 10-15/16" |
| Weight: | 7.8 kg. (17.2 lbs.) |

Specifications and features are subject to change without notice.

BLOCK DIAGRAM



PRECAUTIONS

1. Replacing the fuses

For continued protection against risk fire, replace only with same type and same rating fuse.

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|----------|------------------------|
| F901 | 252052 | 7A(ST-6), Primary fuse |

2. Insulation resistance measurement

Connect the insulating-resistance tester between the plug of power supply cable and the terminal GND on the back panel. Specifications; More than 10 MΩ at 500V.

3. Remote controller batteries

The remote controller is powered by two batteries. Before using this unit for the first time, insert the two batteries (included) as shown in the diagram.

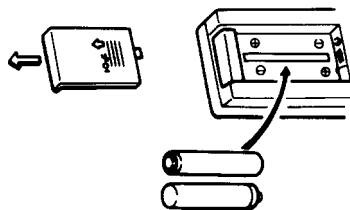
The remote controller has no on/off switch. Average battery life is one year. This period may be shorter depending on the frequency of use and environment (temperature and humidity) in which the remote controller is used.

If the remote controller does not operate even though front panel controls function normally, the batteries should be replaced. Use only batteries listed in the following chart.

| Type | Voltage | Size |
|-----------|---------|------------------|
| Manganese | 1.5V | AA R6 UM-3 |

NOTE:

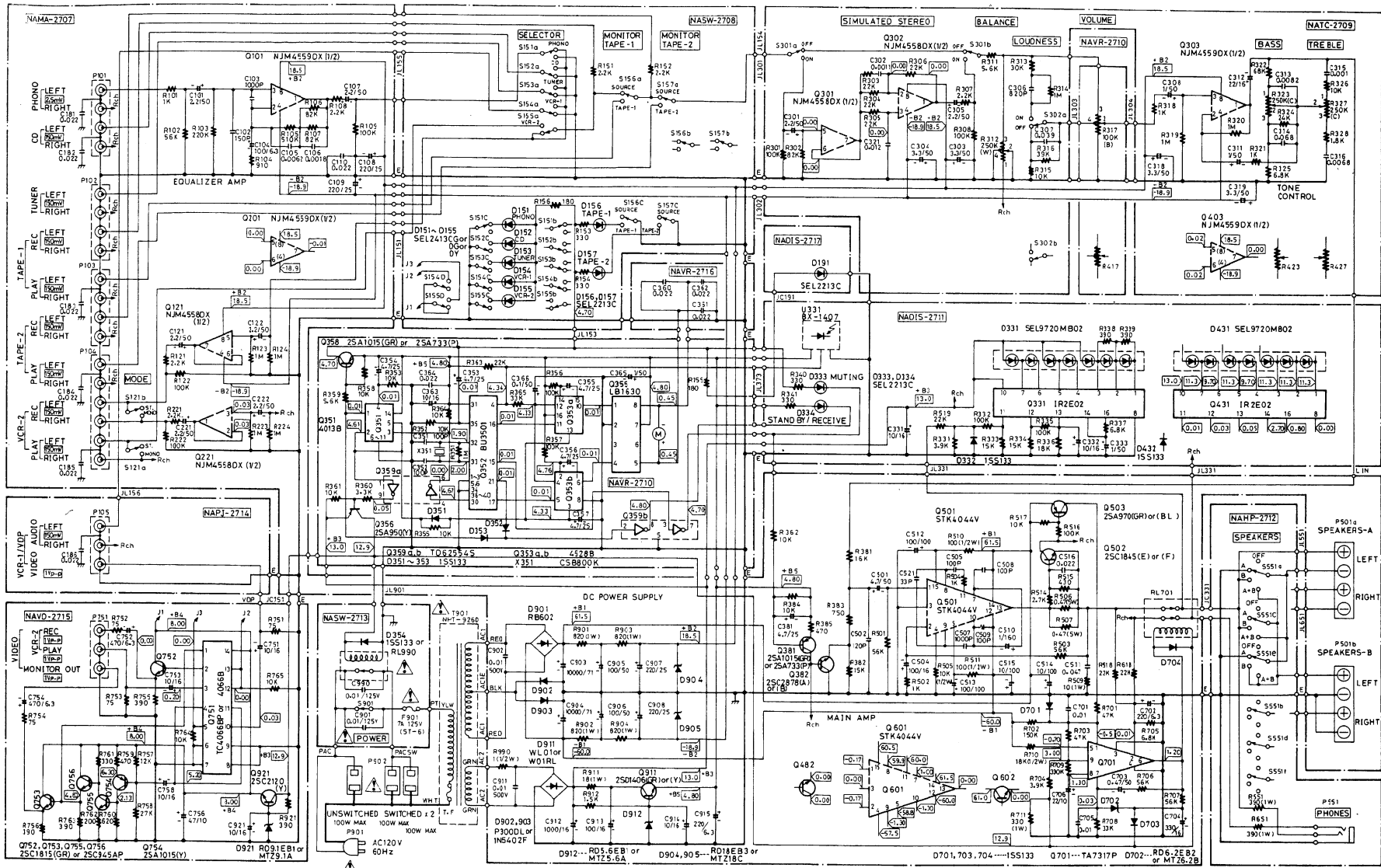
1. The battery life is influenced by the way they are used, temperature, humidity and many other factors. On the average, they should last for about one year.
2. Do not leave an expired battery in the case as it may leak or damage the battery case.
3. When inserting the batteries, be sure the (+) and (-) ends are properly aligned.
4. Do not use nickel-cadmium (rechargeable) batteries.
5. Do not use one specified (manganese) battery and one alkaline battery at the same time.
6. Replace both batteries at once; do not use one old and one new battery together.



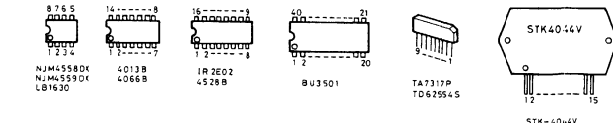
SERVICE NOTE

When the volume knob is installed, the LED lead wire is wrapped one turn around the center shaft of the knob. The remainder is arranged so that excessive force will not be applied when the knob is turned, and the knob is inserted.

SCHEMATIC DIAGRAM



| NO. | FUNCTION | POSITION |
|------|------------------|----------------|
| S301 | POWER | OFF ON |
| S151 | SELECTOR | PHONO CD TUNER |
| S155 | SELECTOR | VCR-VDP VCR-2 |
| S156 | SELECTOR | SOURCE TAPE-1 |
| S157 | SELECTOR | SOURCE TAPE-2 |
| S302 | SIMULATED STEREO | OFF ON |
| S303 | LOUDNESS | OFF ON |
| S121 | VCR-2 MODE | STEREO MONO |



- NOTES —
- ALL RESISTORS ARE IN OHMS 1/4WATTS or 1/8WATTS UNLESS OTHERWISE NOTED.
 - ALL CAPACITORS ARE IN μF /50V UNLESS OTHERWISE NOTED.
 - ELECTROLYTIC CAPACITORS (E) ARE IN μF /V.
 - ALL DIODES ARE 1SS133 UNLESS OTHERWISE NOTED.
 - VOLTAGE MEASURED WITH V.T.V.M. IS DC VOLTAGE (NO INPUT SIGNAL).
 - THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
 - CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

ONKYO CORPORATION

CIRCUIT DESCRIPTION

Remote Control Circuit

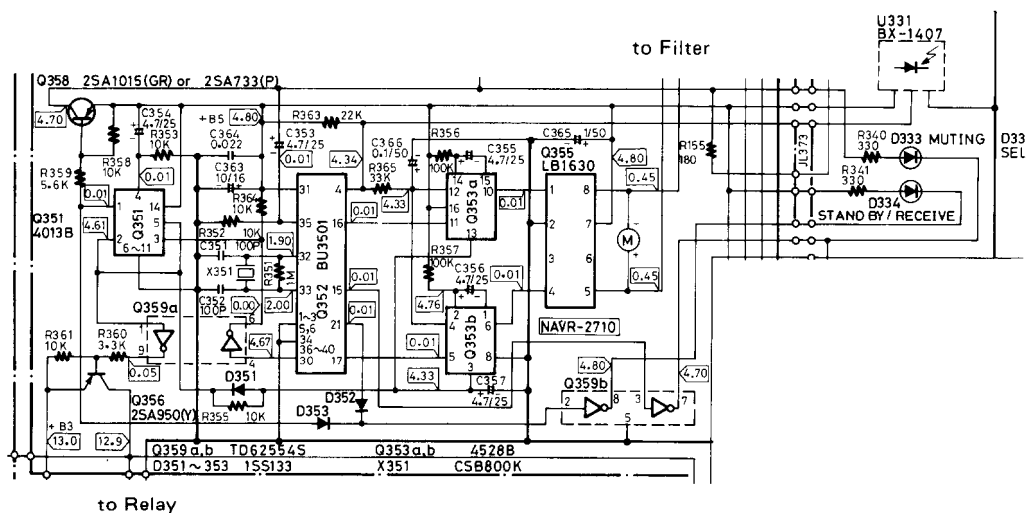
The A-8048V remote control circuit controls standby, receive, muting and volume. When the amp power supply is turned on, the flip-flop IC Q351 is initialized by a reset pulse which is sent to pin 4 of Q351. Pin 4 of Q351 then becomes "L" level, transistor Q358 is turned on, decoder Q352 is reset and the display LEDs light (normal operation).

When pin 2 of Q351 is "H" level, transistor Q356 is turned on, standby relay RL990 is turned on and power is supplied to the switched AC outlets.

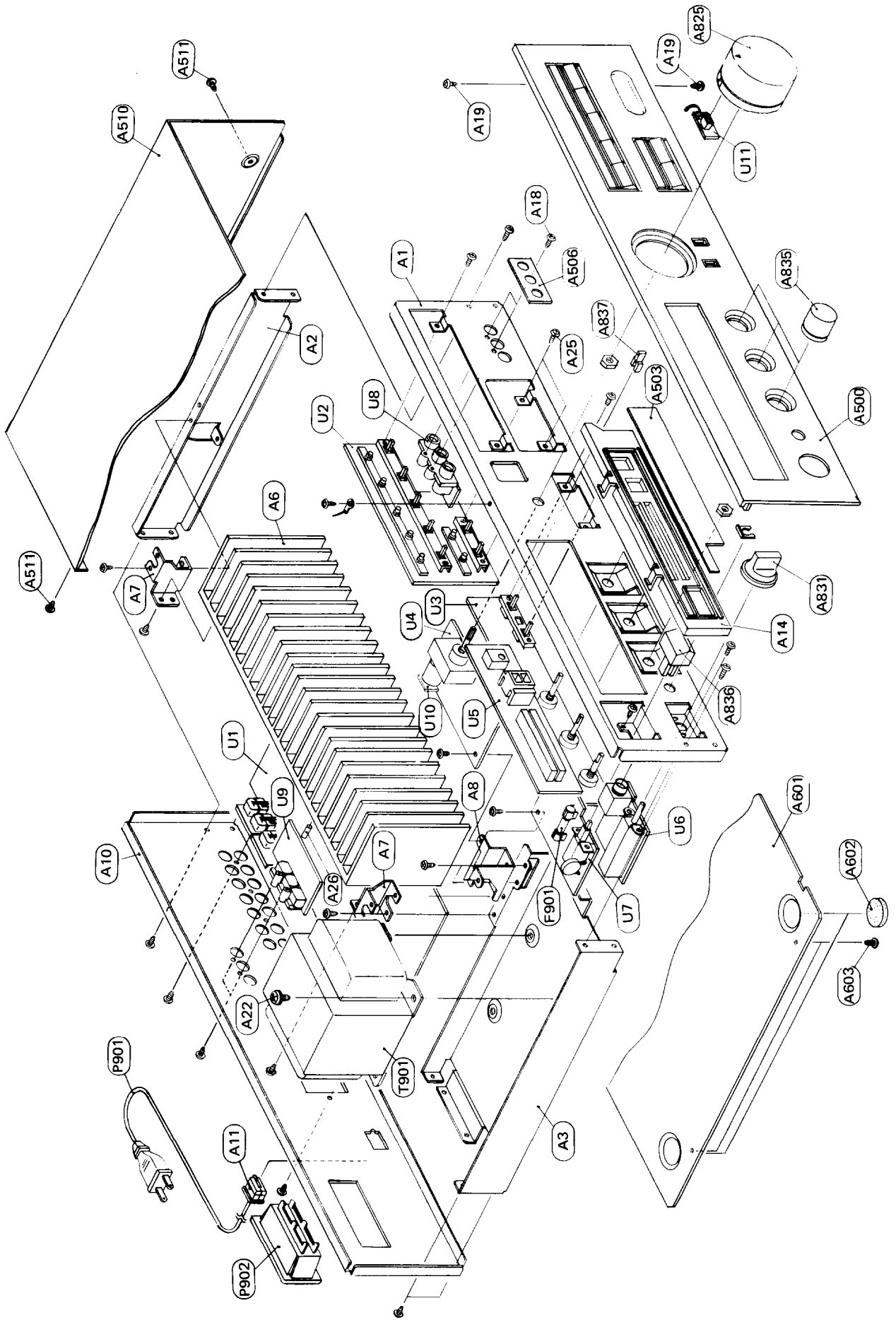
When the remote control power is turned off, the signal received by photoreceptor element U331 is input to pin 4 of decoder Q352. This signal changes pin 30 of Q352 to "L" and level pin 3 of Q351 to "H" level. As a result, pin 1 becomes "H" and pin 2 becomes "L". Consequently, Q358 is turned off so all of the display LEDs are turned off. At the same time, pin 2 of Q351 becomes "L" level so both Q359 and Q356 are turned off, standby relay RL990 is turned off, and power is no longer supplied to the SWITCHED AC OUTLETS terminals, turning off any equipment which is connected (standby status). Also, pins 3 and 13 of Q353a and Q353b become "L" level when pin 2 of Q351 becomes "L", locking the motor-drive circuit so it does not operate. When the remote control power supply is turned on, the signal input to photoreceptor element U331 is input to pin 35 of decoder Q352 to reset this IC. Consequently, the status is the same as if the amp power supply were turned on, so operation begins.

When remote control muting is used, the signal received causes a toggle signal to be generated at pin 15 of Q352 each time the operating button is pressed. When the pin 15 signal is at "H" level, Q381 and Q382 are turned on when Q359b is turned on, and the power amp input is attenuated -20dB. When the pin 15 signal is "L", Q359b, Q381 and Q382 are all turned off, the power amp input operates normally. When the remote control Volume Down is operated, the received signal is input to pin 4 of decoder Q352 and "H" is output from pin 16 while Remote Control is pressed. This signal outputs a 150ms pulse to pin 10 when the trigger pulse from pin 12 of multivibrator Q353 rises. This signal causes motor driver Q355 to turn the volume motor. To increase the volume with the remote control, the signal received is input to the same pin 4 of decoder Q352. This causes "H" to be output from pin 17 while remote control is pressed. This causes a 150ms pulse to be output to pin 6 when the trigger pulse at pin 4 of multivibrator Q353 rises. This signal causes motor driver Q355 to turn the volume motor.

When any of the above are input to the remote control, a pulse signal is generated at pin 21 of Q352, goes through Q359b and instantaneously lights standby LED D333. When operation is in standby status, pin 1 of Q351 is "H", so Q359h is turned on and standby D333 lights steady.



CHASSIS-EXPLODED VIEW

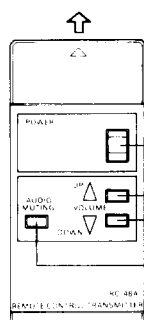
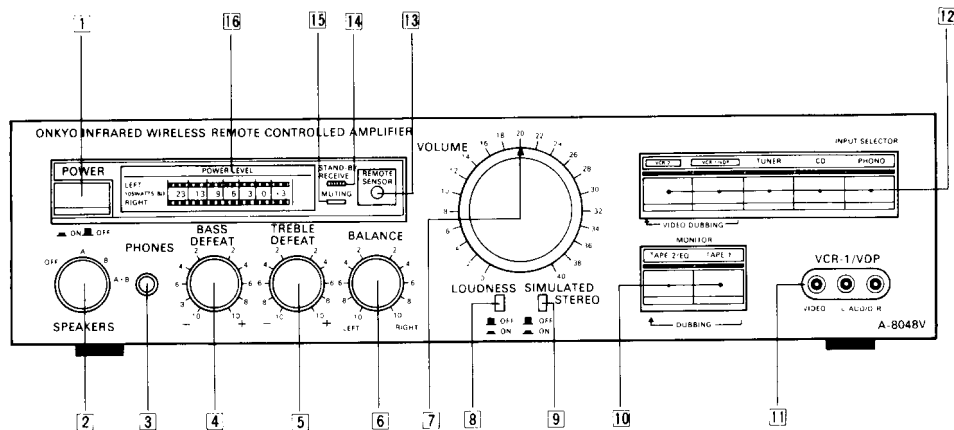


CHASSIS-EXPLODED VIEW PARTS LIST

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|-----------|------------|-----------------------------|----------|------------|-------------------------------------|
| A1 | 27110289A | Front bracket | △P901 | 253123 or | AS-UC-6 #18, Power supply cable or |
| A2 | 27115193-1 | Side bracket | | 253136 or | AS-UC-6 #18, Power supply cable or |
| A3 | 27130404-1 | Bracket (PT) | | 253140 | AS-UC-6 #18, Power supply cable |
| A6 | 27160191A | Radiator | △P902 | 25050293 | NSCT-6P120, AC outlet |
| A7 | 27141020B | Bracket (HE) | U1 | 17808507-1 | NAMA-2707-1, Equalizer & power |
| A8 | 27141077 | Bracket (S) | | | amplifier pc board ass'y |
| A10 | 27120890 | Back panel | U2 | 17808508-1 | NASW-2708-1, Selector/Monitor |
| A11 | 27300750 | Bushing (cable) | | | switch pc board ass'y |
| A14 | 27190472A | Holder (POW) | U3 | 17808509-1 | NATC-2709-1, Tone controle circuit |
| A18 | 838430080 | 3TTB+8P(BC), Tapping screw | U4 | 17808510-1 | pc board ass'y |
| A19 | 834430068 | 3TTS+6B(BC), Tapping screw | U5 | 17808511-1 | NAVR-2710-1, Volume controle pc |
| A25 | 82143006 | 3P+6FN(BC), Screw | | | board ass'y |
| A26 | 800509 | Pin | U6 | 17808512-1 | NADIS-2711-1, Display LED pc board |
| A500 | 17808121 | Front panel ass'y | | | ass'y |
| A503 | 27262414 | Plate (POW) | U7 | 17808513-1 | NAHP-2712-1, Speaker switch pc |
| A506 | 27262415 | Plate (T) | | | board ass'y |
| A510 | 28184295 | Top cover | U8 | 17808514-1 | NASW-2713-1, Stand-by relay pc |
| A511 | 834430068 | 3TTS+6B(BC), Tapping screw | | | board ass'y |
| A601 | 27170208-1 | Bottom board | U9 | 17808515-1 | NAPJ-2714-1, VCR-1 input terminal |
| A602 | 27175028 | Bottom leg | | | pc board ass'y |
| A603 | 834430088 | 3TTS+6B(BC), Tapping screw | U10 | 17808516-1 | NAVD-2715-1, Video switch circuit |
| A825 | 28322620A | Knob ass'y, VOL | | | pc board ass'y |
| A831 | 28322621A | Knob ass'y, SP | U11 | 17808517-1 | NAVR-2716-1, Nois filter circuit pc |
| A835 | 28322622A | Knob, TONE | | | board ass'y |
| A836 | 28321905B | Knob, POW | | | NADIS-2717-1, LED pc board ass'y |
| A837 | 28322623A | Knob, PUSH | | | |
| Q501,Q601 | 222051 | STK-4044V, IC | | | |
| △T901 | 2300124 | NPT-926D, Power transformer | | | |
| △F901 | 252052 | 7A(ST-6), Primary fuse | | | |

NOTE: THE COMPONENTS IDENTIFIED BY MARK △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PARTS NUMBER SPECIFIED.

FRONT PANEL FACILITIES



1. Power Switch (POWER) ON/OFF
2. Speaker Selector (SPEAKERS) OFF, A, B, A+B
3. Headphone Jack (PHONES)
4. Bass Control (BASS)
5. Treble Control (TREBLE)
6. Balance Control (BALANCE)
7. Volume Control and Indicator (VOLUME)
8. Loudness Control (LOUDNESS) ON/OFF
9. Simulated Stereo (SIMULATED STEREO) ON/OFF
10. Tape Monitor Switch and Indicator (MONITOR) TAPE-1, TAPE-2/EQ
11. VCR or Video Disc Player Input Jack (VCR-1/VDP)
12. Input Selector Switches and Indicators (INPUT SELECTOR) Audio Selector PHONO, CD, TUNER Video Selectors (Control audio and video signals) VCR-1/VDP, VCR-2
13. Remote Control Sensor
14. Stand-By Receive Indicator
15. Muting Indicator
16. Power Level
17. Power Key
18. Volume UP-DOWN Key UP, DOWN
19. Audio Muting Key

PRINTED CIRCUIT BOARD—PARTS LIST

EQUALIZER & POWER AMPLIFIER PC BOARD (NAMA-2707-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-----------------------|--------------------------------|
| | ICs | |
| Q101,Q201 | 222534 | NJM4559DX |
| Q121,Q221 | 222502 | NJM4558DX |
| Q701 | 222584 | TA7317P |
| | Transistors | |
| Q381 | 2210803 or 2211455 | 2SA733(P) or 2SA1015(GR) |
| Q382,Q482 | 2212285 or 2212286 | 2SC2878(A) or 2SC2878(B) |
| Q502,Q602 | 2211732 or 2211733 | 2SC1845(F) or 2SC1845(E) |
| Q503 | 2211395 or 2211396 | 2SA970(GR) or 2SA970(BL) |
| Q911 | 2201404 or 2201405 | 2SD1406(Y) or 2SD1406(GR) |
| | Diodes | |
| D701 | 223163 | 1SS133 |
| D702 | 2243162 or 2239492 | MTZ6.2B or RD6.2EB2 |
| D703,D704 | 223163 | 1SS133 |
| D901 | 223898 | RB602 |
| D902,D903 | 22380003 or 223897 | 1N5402F or P-300DL |
| D904,D905 | 2243273 or 2239713 | MTZ18C or RD18EB3 |
| D911 | 223890 or 223862 | W01RL or WL01 |
| D912 | 2243151 or 2239471 | MTZ5.6A or RD5.6EB1 |
| | Capacitors | |
| C101,C201 | 354780229 | 2.2 μ F, 50V, Elect. |
| C104,C204 | 354721019 | 100 μ F, 6.3V, Elect. |
| C105,C205 | 371126224 | 6200 pF, 50V, Mylar |
| C106,C206 | 371121824 | 1800 pF, 50V, Mylar |
| C107,C207 | 354780229 | 2.2 μ F, 50V, Elect. |
| C108,C109 | 354752219 | 220 μ F, 25V, Elect. |
| C121,C221 | 354780229 | 2.2 μ F, 50V, Elect. |
| C122,C222 | 354780229 | 2.2 μ F, 50V, Elect. |
| C181 | 379122235 | 0.022 μ F, 50V, Film (DEW) |
| C381 | 354750479 | 4.7 μ F, 25V, Elect. |
| C501,C601 | 3500093 | 4.7 μ F, 50V, Elect. |
| C504,C604 | 354741019 | 100 μ F, 16V, Elect. |
| C510,C610 | 3500094 | 1 μ F, 160V, Elect. |
| C511,C611 | 371124734 | 0.047 μ F, 50V, Mylar |
| C512,C513 | 354791019 | 100 μ F, 100V, Elect. |
| C612,C613 | 354791019 | 100 μ F, 100V, Elect. |
| C514,C515 | 354791009 | 10 μ F, 100V, Elect. |
| C614,C615 | 354791009 | 10 μ F, 100V, Elect. |
| C702 | 354722219 | 220 μ F, 6.3V, Elect. |
| C703 | 354784799 | 0.47 μ F, 50V, Elect. |
| C704 | 354743319 | 330 μ F, 16V, Elect. |
| C706 | 354742209 | 220 μ F, 16V, Elect. |
| Q501,Q601 | 222051 | STK4044V |

| | | |
|-------------|--------------|--|
| C903,C904 | 3504191 | 10000 μ F, 71V, Elect. |
| C905,C906 | 354781019 | 100 μ F, 50V, Elect. |
| C907,C908 | 391252219 | 220 μ F, 25V, Elect.(MUSE) |
| C912,C913 | 354741029 | 1000 μ F, 16V, Elect. |
| C914 | 354741009 | 10 μ F, 16V, Elect. |
| C915 | 354722219 | 220 μ F, 6.3V, Elect. |
| | Resistors | |
| R505,R605 | 442521034 | 10 k Ω , 1/2W, Metal oxide film |
| R506,R507 | 4000080 | 0.47 Ω , 5W, Metal plate |
| R509,R609 | 441621004 | 10 Ω , 1W, Metal oxide film |
| R510,R511 | 442521014 | 100 Ω , 1/2W, Metal oxide film |
| R606,R607 | 4000080 | 0.47 Ω , 5W, Metal plate |
| R610,R611 | 442521014 | 100 Ω , 1/2W, Metal oxide film |
| R710 | 442521834 | 18 k Ω , 1/2W, Metal oxide film |
| R711 | 441623314 | 330 Ω , 1W, Metal oxide film |
| R901 ~ R904 | 441628214 | 820 Ω , 1W, Metal oxide film |
| R911 | 441621804 | 18 Ω , 1W, Metal oxide film |
| R990 | 442520104 | 1 Ω , 1/2W, Metal oxide film |
| | Relay | |
| RL701 | 25065275 | NRL-2P5A-DC12-38 |
| | Terminals | |
| P101 ~ P103 | 25045171 | NPJ-4PDBL65 |
| P104 | 25045191 | NPJ-6PDBL75 |
| P501 | 25060093 | NTM-8PDML34 |
| | Slide switch | |
| S121 | 25065286 | NSS-22112 |

SELECTOR/MONITOR SWITCH PC BOARD (NASW-2708-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|---------------|--|--|
| | Diodes | |
| D151 ~ D155 | 225137CG or 225137DG or 225137DY | SEL2413CG, LED or SEL2413DG, LED or SEL2413DY, LED |
| D156,D157 | 225141 | SEL2213C, LED |
| | Switches | |
| S151 ~ (S155) | 25035532 | NPS-542-L494 |
| S156,(S157) | 25035533 | NPS-242-L495 |
| | Holders | |
| | 27190476A | (LED-5) |
| | 27190477A | (LED-2) |

TONE CONTROLE CIRCUIT PC BOARD (NATC-2709-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|------------|--------------------------|
| | ICs | |
| Q301,(Q302) | 222502 | NJM4558DX |
| Q303,Q403 | 222534 | NJM4559DX |
| | Capacitors | |
| C301 | 354780229 | 2.2 μ F, 50V, Elect. |
| C302 | 371121124 | 1100 pF, 50V, Mylar |

| | | |
|-----------|-----------|---------------------------|
| C303,C304 | 354780339 | 3.3 μ F, 50V, Elect. |
| C305 | 354780229 | 2.2 μ F, 50V, Elect. |
| C307 | 371123934 | 0.039 μ F, 50V, Mylar |
| C308,C311 | 354780109 | 1 μ F, 50V, Elect. |
| C312,C412 | 354742209 | 22 μ F, 16V, Elect. |
| C313,C413 | 371128224 | 82 pF, 50V, Mylar |
| C314,C414 | 371126834 | 0.068 μ F, 50V, Mylar |
| C315,C415 | 371121024 | 0.001 μ F, 50V, Mylar |
| C316,C416 | 371126824 | 6800 pF, 50V, Mylar |
| C318,C319 | 354780339 | 3.3 μ F, 50V, Elect. |
| C321 | 371121234 | 0.012 μ F, 50V, Mylar |
| C407 | 371123934 | 0.039 μ F, 50V, Mylar |
| C408,C411 | 354780109 | 1 μ F, 50V, Elect. |

| | | |
|-------------|---------|---------------------------------------|
| R312,(R412) | 5104192 | N16RHC250KW25Z, Variable resistor |
| R323,(R423) | 5104191 | N16RGHC250KC25Z, Variable resistor |
| R327,(R427) | 5104191 | N16RGHC250KC25Z, Variable resistor |

| | | |
|-------------|----------|------------------------|
| S301,(S302) | 25035534 | Switch NPS-222-L496 |
|-------------|----------|------------------------|

VOLUME CONTROLE PC BOARD (NAVR-2710-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-----------------------|--------------------------------------|
| | ICs | |
| Q351 | 222840131 | 4013B |
| Q352 | 222938 | BU3501 |
| Q353 | 222850281 | 4528B |
| Q355 | 222963 | LB1630 |
| Q359 | 222919 | TD62554S |
| | Transistors | |
| Q356 | 2211504 | 2SA950(Y) |
| Q358 | 2210803 or 2211455 | 2SA733(P) or 2SA1015(GR) |
| | Diodes | |
| D351~ D353 | 223163 | 1SS133 |
| | Ceramic resonator | |
| X351 | 3010092 | CSB800K |
| | Capacitors | |
| C353~ C357 | 354750479 | 4.7 μ F, 25V, Elect. |
| C363 | 354741009 | 10 μ F, 16V, Elect. |
| C365 | 354780109 | 1 μ F, 50V, Elect. |
| C366 | 354781099 | 0.1 μ F, 50V, Elect. |
| C368 | 354780339 | 3.3 μ F, 50V, Elect. |
| | Resistors | |
| R317,(R417) | 5104190A | N16RGL100KBT20, Variable resistor |
| | Sockets | |
| | 25050267 | NSCT-3P95 |
| | 25050270 | NSCT-6P98 |
| | 25050268 | NSCT-4P96 |

DISPLAY LED PC BOARD (NADIS-2711-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|----------|------------------|
| | ICs | |
| Q331,Q431 | 222623 | IR2E02 |
| | Diodes | |
| D331,D431 | 225221 | SEL9720MB02, LED |
| D332,D432 | 223163 | 1SS133 |
| D333,D334 | 225141 | SEL2213C, LED |

| | | |
|----------------|-----------|-------------------------|
| C331,C332,C432 | 353741009 | 10 μ F, 16V, Elect. |
| C333,C433 | 353780109 | 1 μ F,50V, Elect. |

| | | |
|--|-----------|--------------|
| | Holder | |
| | 27190475A | Holder (LED) |

SPEAKER SWITCH PC BOARD (NAHP-2712-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-----------|-------------------------------------|
| | Resistors | |
| R551,R651 | 441623914 | 390 Ω , 1W, Metal oxide film |
| | Switch | |
| S551 | 25030284 | NRSF-164-15SS |
| | Jack | |
| P551 | 25045183 | HLJ4318-01-3020 |
| | Socket | |
| | 25050267 | NSCT-3P95 |

STAND BY RELAY PC BOARD (NASW-2713-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------|--------------------------------|
| | Diode | |
| D354 | 223163 | 1SS133 |
| | Capacitors | |
| C901,C990 | 3500065A | 0.01 μ F, AC 400V/125V, IS |
| | Switch | |
| S901 | 25035398 | NPS-111-L362P |
| | Relay | |
| RL990 | 25065269 | NRL-1P5A-DC12-36 |
| | Fuse holder | |
| F901a | 250113 | SN5051 |

VCR-1 INPUT TERMINAL PC BOARD (NAPJ-2714-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|----------|--------------|
| | Terminal | |
| P105 | 25045206 | NPJ-3PDYE086 |

**VIDEO SWITCH CIRCUIT PC BOARD
(NAVD-2715-1) PARTS LIST**

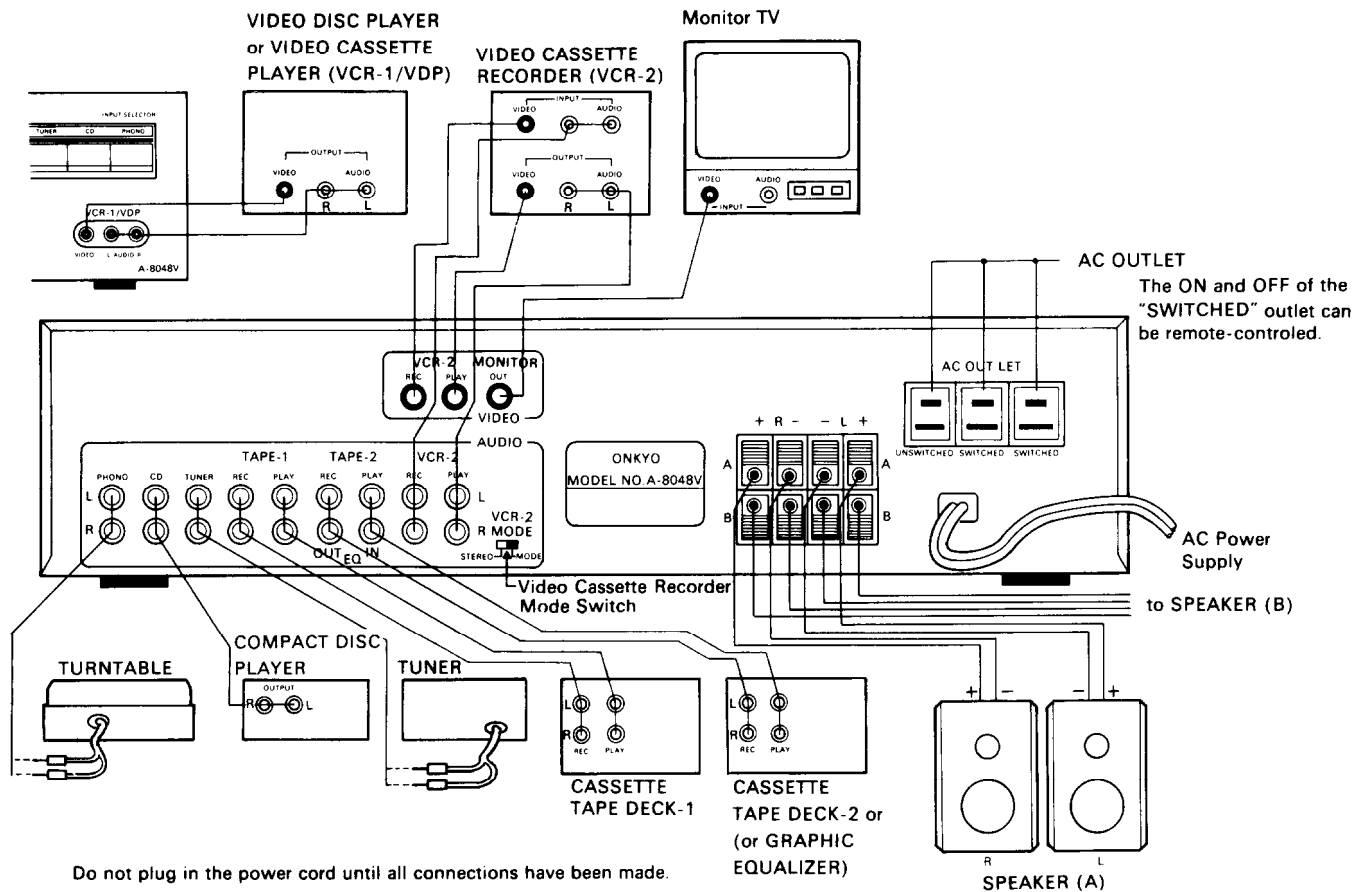
| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|--------------------------------------|---------------------------|
| Q751 | ICs 222575 or 222840661 | TC4066BP or 4066B |
| Q752, Q753 | Transistors 2211255 or 2210746 | 2SC1815GR or 2SC945A-P |
| Q754 | 2211454 | 2SA1015Y |
| Q755, Q756 | 2211255 or 2210746 | 2SC1815GR or 2SC945A-P |
| Q921 | 2211164 | 2SC2120Y |
| D921 | Diode 2243201 or 2239571 | MTZ9.1A or RD9.1EB1 |
| C751, C753 | Capacitors 354741009 | 10 μ F, 16V, Elect. |
| C758, C921 | | |
| C752, C754 | 354724719 | 470 μ F, 6.3V, Elect. |
| C756 | 354734709 | 47 μ F, 10V, Elect. |

| | | |
|------|----------------------|--------------|
| P751 | Terminal 25045205 | NPJ-3PDYE085 |
| | Socket 25050267 | NSCT-3P95 |

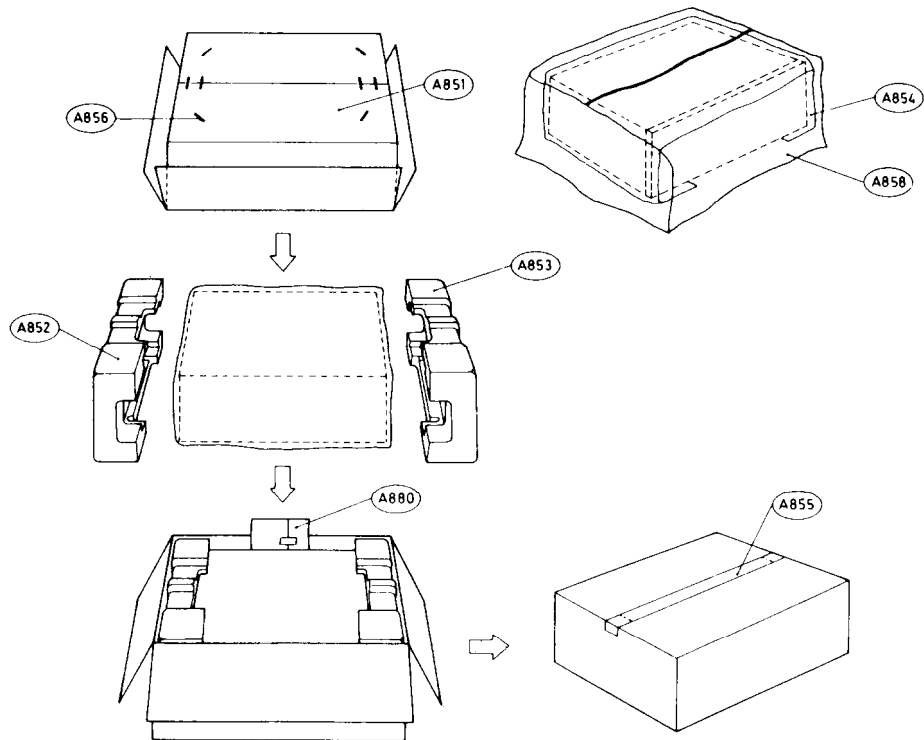
LED PC BOARD (NADIS-2717-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|---------------------|---------------|
| D191 | Diode 225141 | SEL2213C, LED |
| | Socket 2000566 | NSAS-4P522 |
| | Holder 27190478A | Holder (PC) |

SYSTEM CONNECTIONS



PACKING PROCEDURES



| REF. NO. | PART NO. | DESCRIPTION |
|----------|---------------------|------------------------------|
| A851 | 29051344 | Master carton box |
| A852 | 29091019A | Pad, left |
| A853 | 29091020A | Pad, right |
| A854 | 29095012-1 | Protection sheet |
| A855 | 260012 | Damplon tape |
| A856 | 282301 | Sealing hook |
| A858 | 29100063 | 750 x 580, Poly bag |
| A880 | Accessory bag ass'y | |
| | 29341027 | Instruction manual |
| | 29365006-7 | Warranty card [U] |
| | 29358002D | Service station list [U] |
| | 29360778 | Label (Frash) [U] |
| | 29100006A | 350 x 250, Poly bag |
| | 241069A | RC-48A, Remote controle unit |
| | 3010054 | UM-3, Battery |

NOTE
 [U]: Only U.S.A. model