



# VR-7070A/7080A

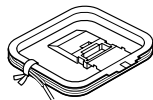
## ACCESSORIES / CAUTIONS

### Accessories

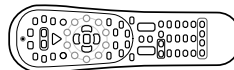
FM indoor antenna (1)  
(T90-0905-05)



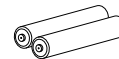
AM loop antenna (1)  
(T90-0893-05)



RF remote antenna (1)  
Refer to the table on this page below.



Batteries (R6/AA) (2)



### REMOTE CONTROL vs MODEL

| MODEL    | ABBRI. | PARTS #     | BATTERY COVER |
|----------|--------|-------------|---------------|
| VR-7070A | K7     | A70-1620-05 | A09-1274-08   |
| VR-7070A | P7     | A70-1620-05 | A09-1274-08   |
| VR-7080A | K8     | A70-1619-05 | A09-1275-08   |
| VR-7080A | P8     | A70-1619-05 | A09-1275-08   |

### DIFFERENT POINT

| Model    | Service Manual | Surround    | Audio       | Display     | Sub  |             |
|----------|----------------|-------------|-------------|-------------|--|-------------|
| VR-7070  | B51-5843-00    | X08-3130-12 | X09-6760-10 | X14-7630-10 | X25-6490-14  |             |
| VR-7070A | -              |             | X09-6830-10 |             | Change point;<br>R97,98,147,148,197,198, VR1-<br>6,Q11-14,31-34,51-54, D23 | X25-6620-10 |
| VR-7080  | B51-5843-00    |             | X09-6760-10 |             |  | X25-6490-14 |
| VR-7080A | -              |             | X09-6830-10 |             |  | X25-6620-10 |

### Note:


A different information will be available from this service manual. Pls refer to original service manual(B51-5843-00), too.

### Cautions

#### Resetting the Microcomputer

The microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

- Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

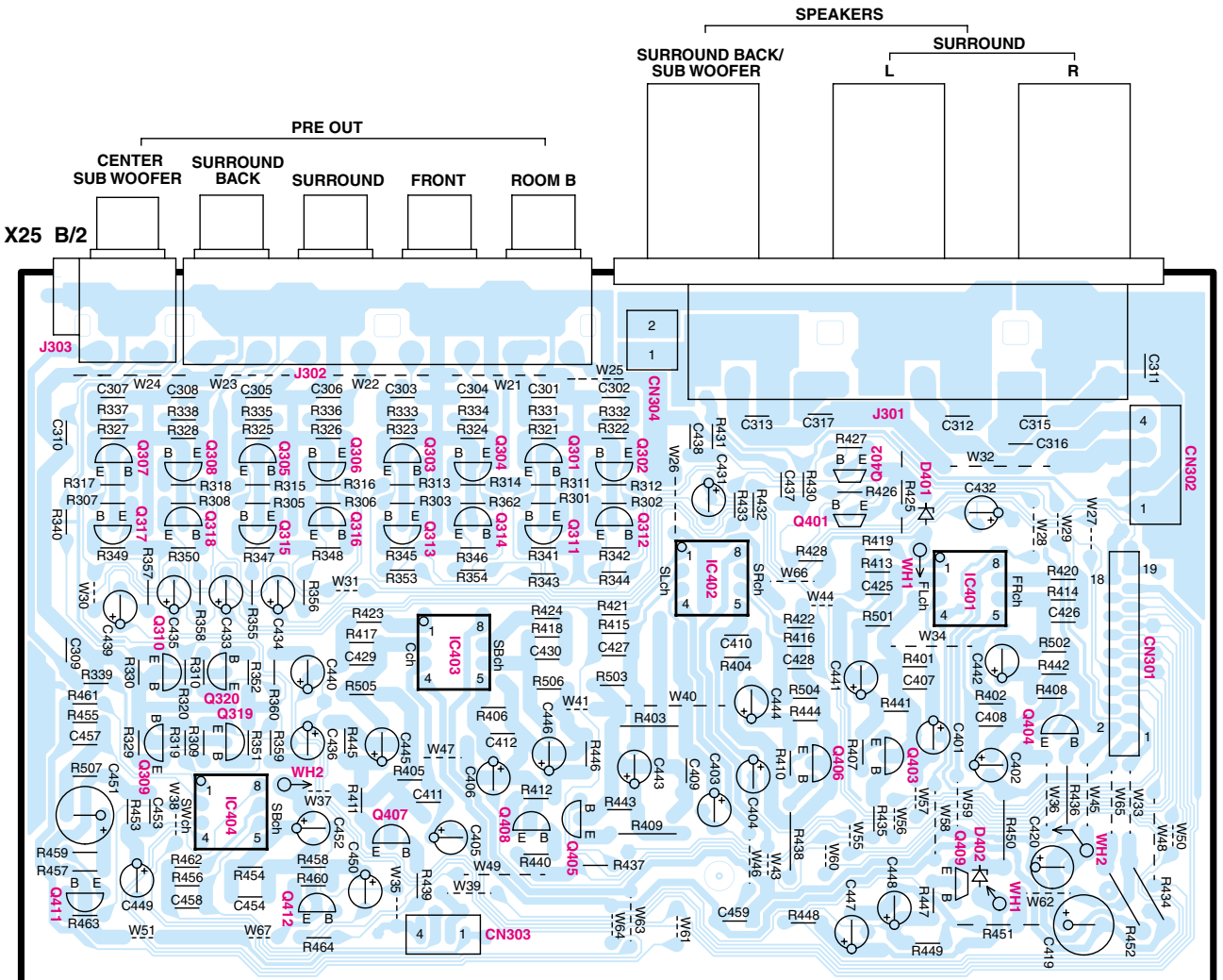
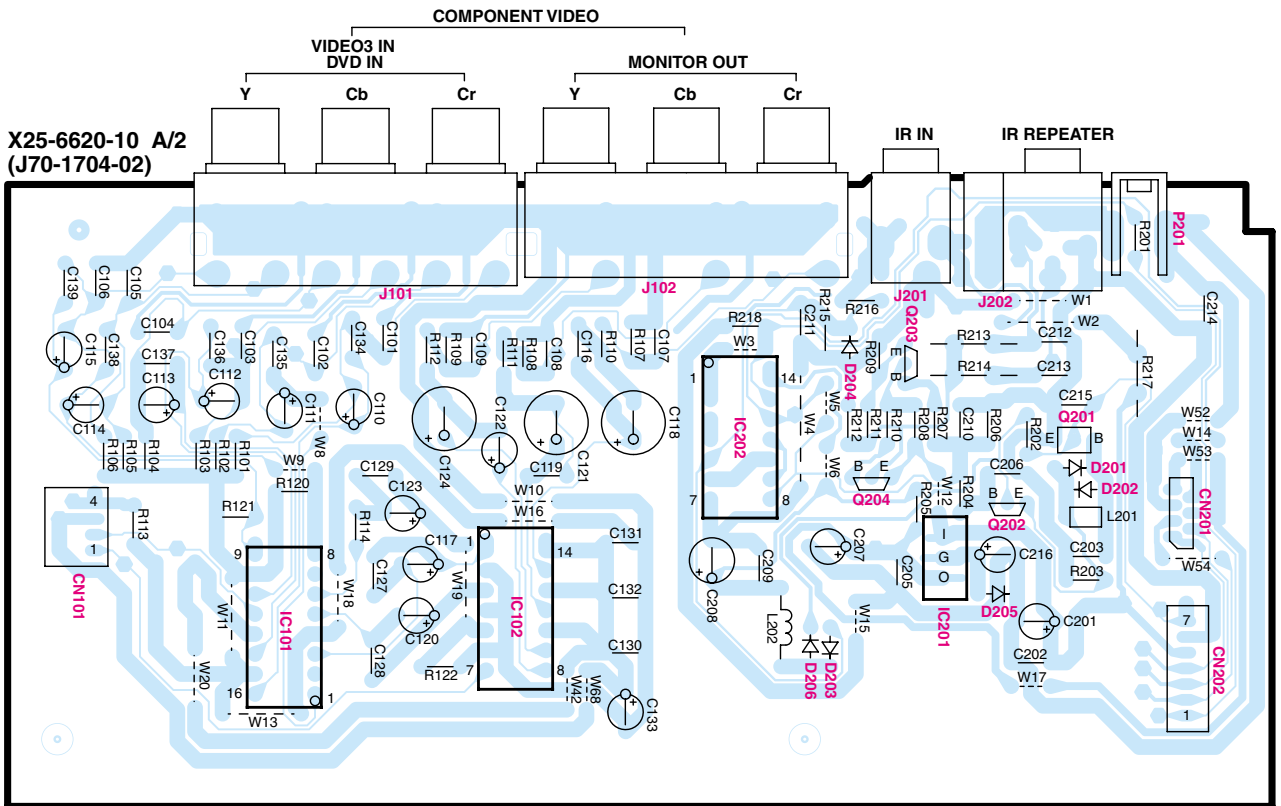
Unplug the power cord from the wall outlet, then plug it back in while holding down the POWER ON/STANDBY  key.

#### Memory back up function

Please note that the following items will be deleted from the unit's memory if the power cord is disconnected from the AC outlet for approximately 1 day.

- Power mode.
- Input selector settings.
- Picture output.
- Speaker ON/OFF.
- Volume level.
- BASS, TREBLE, INPUT level.
- TONE ON/OFF.
- LOUDNESS ON/OFF.
- Dimmer level.
- MD/TAPE settings.
- Listen mode setting.
- Speaker settings.
- SW RE-MIX ON/OFF.
- Distance setting.
- Bass peak level.
- Input mode setting.
- Midnight mode setting.
- PRO LOGIC II mode setting.
- CS II mode setting.
- Broadcast band.
- Frequency setting.
- Preset stations.
- Tuning mode.
- THX mode.
- DSP mode.
- ACTIVE EQ mode.
- SPEAKER EQ mode.

# PC BOARD



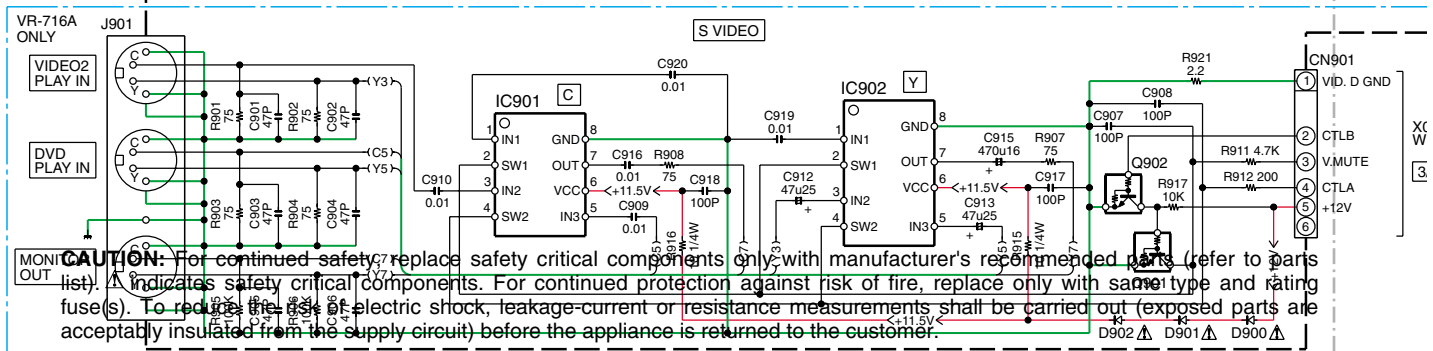
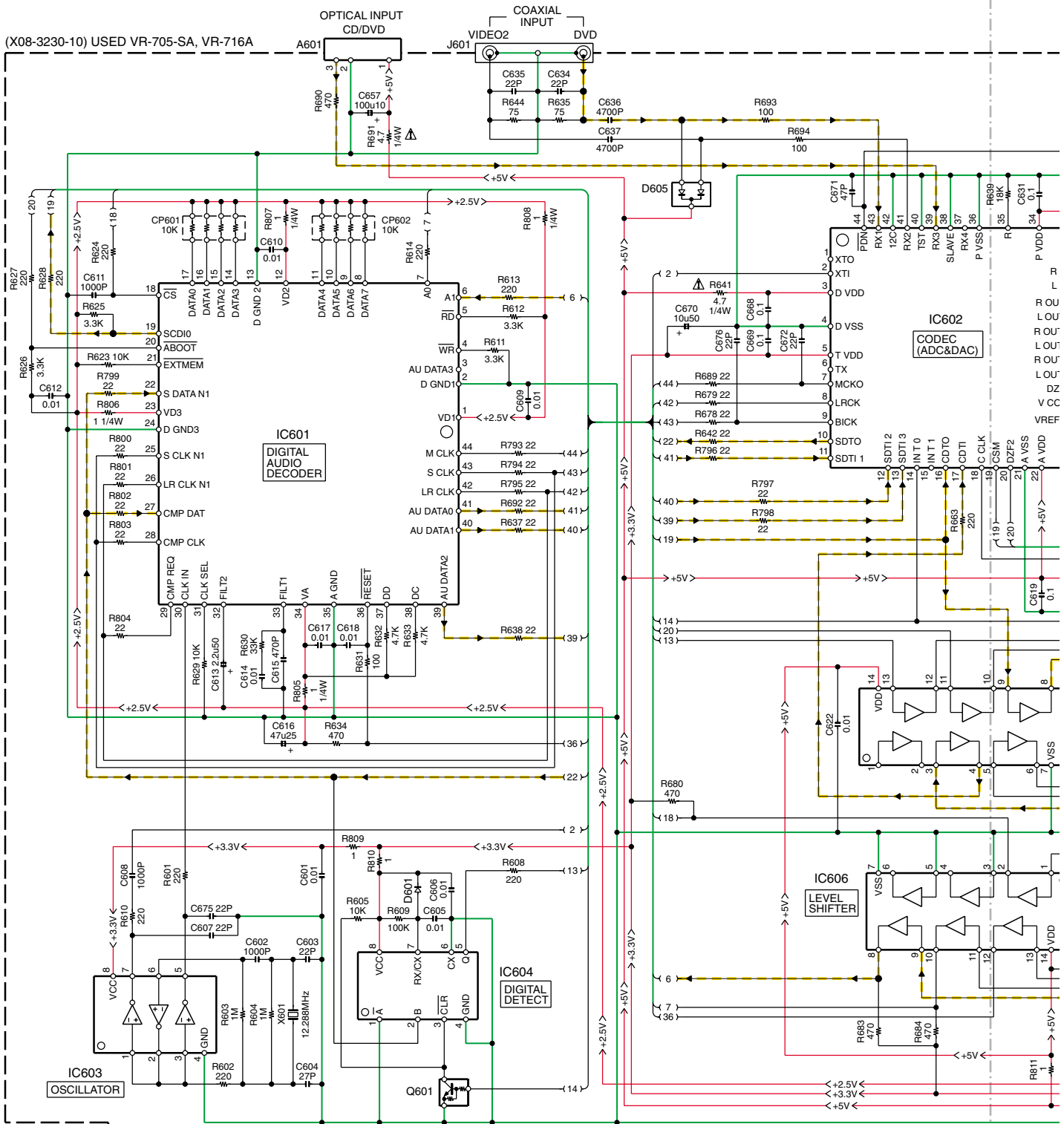
Refer to the schematic diagram for the value of resistors and capacitors.

# VR-7070A/7080A

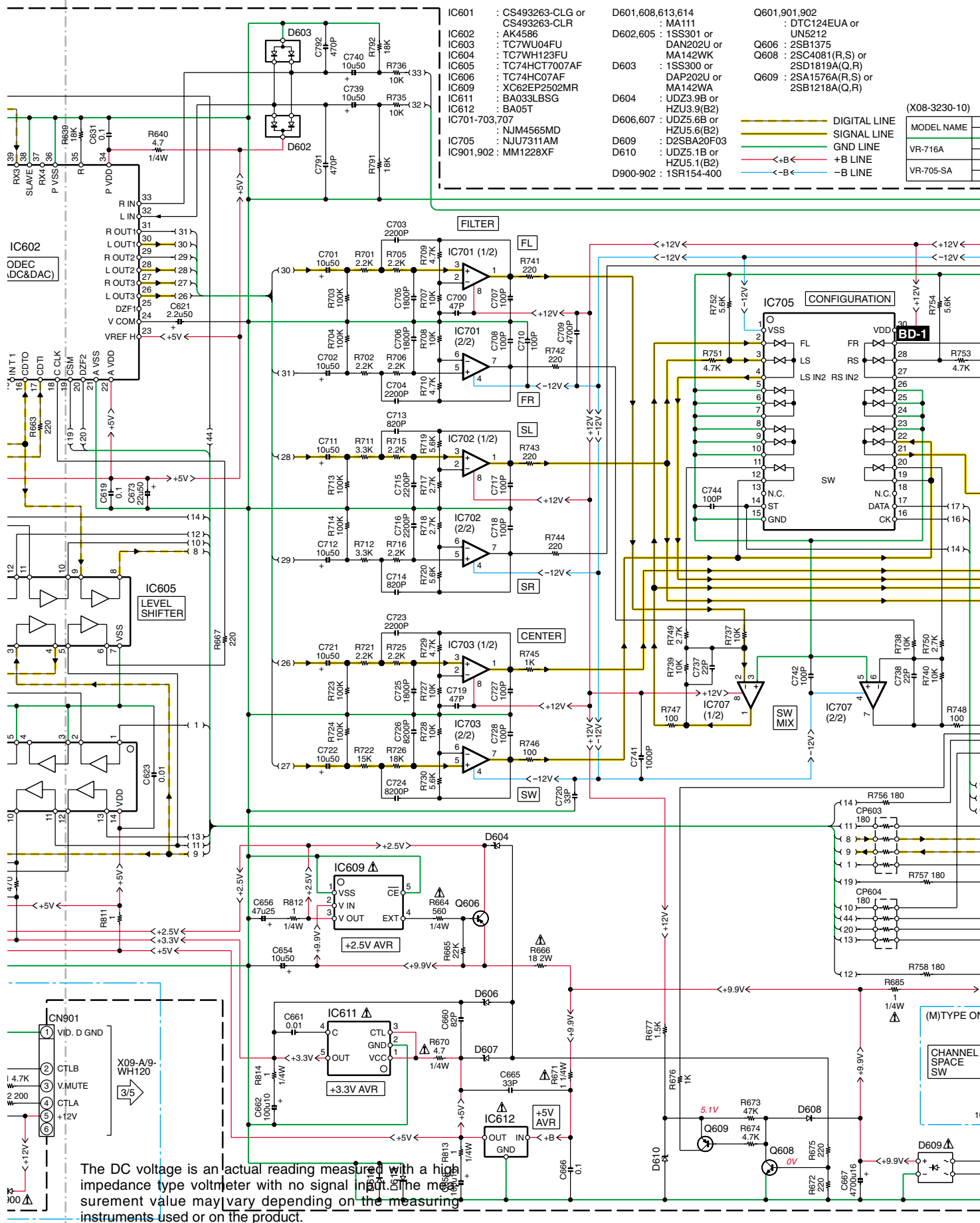
AK-2

AK-2

(X08-3230-10) USED VR-705-SA, VR-716A



# VR-7070A/7080A



The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

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①

| Ref. No                                | Add-ress | New Parts | Parts No.    | Description                  | Desti-nation | Re-marks |
|--|----------|-----------|--------------|------------------------------|--------------|----------|
| <b>VR-7070A(K7,P7)/VR-7080A(K8,P8)</b> |          |           |              |                              |              |          |
| 601                                    | 1C       |           | A01-3894-01  | METALLIC CABINET             |              |          |
| 602                                    | 1C       |           | A09-1274-08  | BATTERY COVER                | K7P7         |          |
| 602                                    | 1C       |           | A09-1275-08  | BATTERY COVER                | K8P8         |          |
| 604                                    | 2C       |           | A21-3983-12  | DRESSING PANEL               |              |          |
| 605                                    | 2D       |           | A22-1874-01  | SUB PANEL ASSY               |              |          |
| 606                                    | 2C       |           | A60-2336-02  | PANEL                        |              |          |
| 607                                    | 1C       |           | A70-1619-05  | REMOTE CONTROLLER ASSY       | K8P8         |          |
| 607                                    | 1C       |           | A70-1620-05  | REMOTE CONTROLLER ASSY       | K7P7         |          |
| -                                      |          |           | B12-0443-04  | INDICATOR                    |              |          |
| -                                      |          |           | B60-5341-00  | INSTRUCTION MANUAL           | K8P8         |          |
| -                                      |          |           | B60-5342-00  | INSTRUCTION MANUAL           | P8           |          |
| -                                      |          |           | B60-5343-00  | INSTRUCTION MANUAL           | K7P7         |          |
| -                                      |          |           | B60-5344-00  | INSTRUCTION MANUAL           | P7           |          |
| -                                      |          | *         | B60-5421-00  | INSTRUCTION MANUAL           |              |          |
| 611                                    | 3A       | *         | B07-2617-11  | ESCUTCHEON+KNOB(#633)        |              |          |
| 612                                    | 2D       | *         | B07-2607-03  | ESCUTCHEON                   |              |          |
| 613                                    | 2C       |           | B07-2609-03  | ESCUTCHEON                   |              |          |
| 614                                    | 2D       |           | B07-2620-13  | ESCUTCHEON                   |              |          |
| 615                                    | 2C       |           | B10-3925-12  | FRONT GLASS                  | K7P7         |          |
| 615                                    | 2C       |           | B10-3933-12  | FRONT GLASS                  | K8P8         |          |
| 616                                    | 2C       |           | B11-1571-13  | COLOR FILTER                 |              |          |
| 617                                    | 2D       |           | B12-0440-04  | INDICATOR                    |              |          |
| 618                                    | 2D       |           | B12-0442-04  | INDICATOR                    |              |          |
| 620                                    | 2C       |           | B43-0314-04  | KENWOOD BADGE                |              |          |
| △ 625                                  | 1E       |           | E30-2941-05  | AC POWER CORD                |              |          |
| 626                                    | 1E,2E    |           | E35-2841-05  | FLAT CABLE                   |              |          |
| 628                                    | 1D,2E    |           | E35-3216-05  | FLAT CABLE                   |              |          |
| 637                                    | 2E       |           | G11-2885-04  | CUSHION                      |              |          |
| 638                                    | 1D,2E    |           | G11-2886-04  | CUSHION                      |              |          |
| 639                                    | 2C       |           | G11-2887-04  | CUSHION                      |              |          |
| -                                      |          |           | J61-0307-05  | WIRE BAND                    |              |          |
| 643                                    | 2E       |           | J02-1532-03  | FOOT                         |              |          |
| △ 644                                  | 2E       |           | J19-3751-04  | UNIT HOLDER                  |              |          |
| 654                                    | 1E       |           | J42-0349-05  | POWER CORD BUSHING           |              |          |
| 659                                    | 2D       |           | K29-8268-04  | KNOB                         |              |          |
| 660                                    | 2C       |           | K29-8272-04  | KNOB                         |              |          |
| 661                                    | 2D       |           | K29-8137-03  | KNOB ASSY                    |              |          |
| △ 665                                  | 2D       | *         | L07-3275-05  | POWER TRANSFORMER            |              |          |
| 670                                    | 1C       |           | T90-0893-05  | LOOP ANTENNA                 |              |          |
| 671                                    | 1C       | *         | T90-0905-05  | LEAD WIRE ANTENNA            |              |          |
| 675                                    | 1E       |           | W02-2974-15  | TUNER ASSY                   |              |          |
| <b>AUDIO (X09-6830-10)</b>             |          |           |              |                              |              |          |
| R97 ,98                                |          |           | RD14NB2E151J | RD 150 J 1/4W                |              |          |
| R147,148                               |          |           | RD14NB2E151J | RD 150 J 1/4W                |              |          |
| R197,198                               |          |           | RD14NB2E151J | RD 150 J 1/4W                |              |          |
| VR1 -6                                 |          |           | R32-0030-05  | SEMI FIXED VARIABLE RESISTOR |              |          |
| D23                                    |          |           | HZS11N(B2)   | ZENER DIODE                  |              |          |
| D23                                    |          |           | MTZJ11(B)    | ZENER DIODE                  |              |          |
| D23                                    |          |           | RD11ES(B)    | ZENER DIODE                  |              |          |

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|-------------------------|----------|-----------|---------------|---------------------|--------------|----------|
| Q11 ,12                 |          |           | TRAIT8N*5     | TRANSISTOR          |              |          |
| Q13 ,14                 |          |           | TRAIT8P*5     | TRANSISTOR          |              |          |
| Q31 ,32                 |          |           | TRAIT8N*5     | TRANSISTOR          |              |          |
| Q33 ,34                 |          |           | TRAIT8P*5     | TRANSISTOR          |              |          |
| Q51 ,52                 |          |           | TRAIT8N*5     | TRANSISTOR          |              |          |
| Q53 ,54                 |          |           | TRAIT8P*5     | TRANSISTOR          |              |          |
| <b>SUB(X25-6620-10)</b> |          |           |               |                     |              |          |
| C101-109                |          |           | CC45FCH1H100D | CERAMIC 10PF D      |              |          |
| C110-115                |          |           | CE04LW1H100M  | ELECTRO 10UF 50WV   |              |          |
| C116                    |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C117                    |          |           | CE04LW1H100M  | ELECTRO 10UF 50WV   |              |          |
| C118                    |          |           | CE04LW1A471M  | ELECTRO 470UF 10WV  |              |          |
| C119                    |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C120                    |          |           | CE04LW1H100M  | ELECTRO 10UF 50WV   |              |          |
| C121                    |          |           | CE04LW1A471M  | ELECTRO 470UF 10WV  |              |          |
| C122                    |          |           | CE04KW1E330M  | ELECTRO 33UF 25WV   |              |          |
| C123                    |          |           | CE04LW1H100M  | ELECTRO 10UF 50WV   |              |          |
| C124                    |          |           | CE04LW1A471M  | ELECTRO 470UF 10WV  |              |          |
| C127-129                |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C130-132                |          |           | CQ93FMG1H104J | MYLAR 0.10UF J      |              |          |
| C133                    |          |           | CE04LW1E470M  | ELECTRO 47UF 25WV   |              |          |
| C134-139                |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C201                    |          |           | CE04LW1H100M  | ELECTRO 10UF 50WV   |              |          |
| C202                    |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C203                    |          |           | CQ93FMG1H683J | MYLAR 0.068UF J     |              |          |
| C205,206                |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C207                    |          |           | CE04LW1A101M  | ELECTRO 100UF 10WV  |              |          |
| C208                    |          |           | CE04LW1A221M  | ELECTRO 220UF 10WV  |              |          |
| C209                    |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C210                    |          |           | CC45FSL1H221J | CERAMIC 220PF J     |              |          |
| C211-213                |          |           | CC45FSL1H101J | CERAMIC 100PF J     |              |          |
| C214,215                |          |           | CK45FF1H103Z  | CERAMIC 0.010UF Z   |              |          |
| C216                    |          |           | CE04LW1H010M  | ELECTRO 1.0UF 50WV  |              |          |
| C301-310                |          |           | CC45FSL1H221J | CERAMIC 220PF J     |              |          |
| C311-313                |          |           | CK45FB1H332K  | CERAMIC 3300PF K    |              |          |
| C315-317                |          |           | CC45FSL1H101J | CERAMIC 100PF J     |              |          |
| C401-406                |          |           | CE04KW1H220M  | ELECTRO 22UF 50WV   |              |          |
| C407-412                |          |           | CC45FSL1H221J | CERAMIC 220PF J     |              |          |
| C419                    |          |           | CE04KW1E221M  | ELECTRO 220UF 25WV  |              |          |
| C420                    |          |           | CE04KW1E101M  | ELECTRO 100UF 25WV  |              |          |
| C425,426                |          |           | CC45FCH1H101J | CERAMIC 100PF J     |              |          |
| C427-430                |          |           | CC45FCH1H100D | CERAMIC 10PF D      |              |          |
| C431-436                |          |           | CE04KW1E470M  | ELECTRO 47UF 25WV   |              |          |
| C437,438                |          |           | CE04HW1E220M  | NP-ELEC 22UF 25WV   |              |          |
| C439,440                |          |           | CE04KW1E470M  | ELECTRO 47UF 25WV   |              |          |
| C441,442                |          |           | CE04KW1A101M  | ELECTRO 100UF 10WV  |              |          |
| C443-446                |          |           | CE04KW1H220M  | ELECTRO 22UF 50WV   |              |          |
| C447                    |          |           | CE04LW1H100M  | ELECTRO 10UF 50WV   |              |          |
| C448                    |          |           | CE04KW2A3R3M  | ELECTRO 3.3UF 100WV |              |          |
| C449,450                |          |           | CE04KW1H220M  | ELECTRO 22UF 50WV   |              |          |
| C451                    |          |           | CE04KW1E221M  | ELECTRO 220UF 25WV  |              |          |
| C452                    |          |           | CE04KW1H220M  | ELECTRO 22UF 50WV   |              |          |
| C453,454                |          |           | CC45FSL1H221J | CERAMIC 220PF J     |              |          |
| C457                    |          |           | CQ93FMG1H392J | MYLAR 3900PF J      |              |          |

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|----------|---------|-----------|---------------|--------------------------------|-------------|---------|
| C458     |         |           | CC45FCH1H100D | CERAMIC 10PF D                 |             |         |
| C459     |         |           | CC45FSL1H470J | CERAMIC 47PF J                 |             |         |
| CN101    |         |           | E40-3262-05   | PIN ASSY                       |             |         |
| CN202    |         |           | E40-3251-05   | PIN ASSY                       |             |         |
| CN301    |         |           | E40-8483-05   | FLAT CABLE CONNECTOR           |             |         |
| CN302    |         |           | E40-4101-05   | PIN ASSY                       |             |         |
| CN303    |         |           | E40-3248-05   | PIN ASSY                       |             |         |
| CN304    |         |           | E40-4248-05   | PIN ASSY                       |             |         |
| J101     |         |           | E63-1315-05   | PIN JACK                       |             |         |
| J102     |         |           | E63-1316-05   | PIN JACK                       |             |         |
| J201     |         |           | E11-0389-05   | MINIATURE PHONE JACK(3.5 STERE |             |         |
| J202     |         |           | E11-0291-05   | MINIATURE PHONE JACK(2P)       |             |         |
| J301     |         |           | E70-0150-05   | SCREW TERMINAL BOARD           |             |         |
| J302     |         |           | E63-1246-05   | PIN JACK                       |             |         |
| J303     |         |           | E63-1248-05   | PIN JACK                       |             |         |
| L201     |         |           | L40-1011-58   | SMALL FIXED INDUCTOR(100UH,K)  |             |         |
| L202     |         |           | L92-0017-05   | FERRITE CORE                   |             |         |
| R213,214 |         |           | RD14NB2E471J  | RD 470 J 1/4W                  |             |         |
| R217     |         |           | RD14NB2E471J  | RD 470 J 1/4W                  |             |         |
| R425     |         |           | RD14NB2E561J  | RD 560 J 1/4W                  |             |         |
| R434     |         |           | RD14GB2E150J  | FL-PROOF RD 15 J 1/4W          |             |         |
| R450     |         |           | RD14GB2E561J  | FL-PROOF RD 560 J 1/4W         |             |         |
| R451     |         |           | RD14NB2E102J  | RD 1.0K J 1/4W                 |             |         |
| R452     |         |           | RD14GB2E150J  | FL-PROOF RD 15 J 1/4W          |             |         |
| D201-206 |         |           | HSS104A       | DIODE                          |             |         |
| D201-206 |         |           | 1SS133        | DIODE                          |             |         |
| D401     |         |           | MTZJ3.9(B)    | ZENER DIODE                    |             |         |
| D401     |         |           | RD3.9ES(B)    | ZENER DIODE                    |             |         |
| D402     |         |           | MTZJ5.1(B)    | ZENER DIODE                    |             |         |
| D402     |         |           | RD5.1ES(B)    | ZENER DIODE                    |             |         |
| IC101    |         |           | NJM2584D      | ANALOGUE IC                    |             |         |
| IC102    |         |           | NJM2580D      | ANALOGUE IC                    |             |         |
| IC201    |         |           | BA05T         | ANALOGUE IC                    |             |         |
| IC202    |         |           | TC74HC00AP    | IC(2INPUT NAND GATE)           |             |         |
| IC401    |         |           | NJM4580D-D    | IC(OP AMP X2)                  |             |         |
| IC402    |         |           | NJM4565D-D    | IC(OP AMP X2)                  |             |         |
| IC403    |         |           | NJM4580D-D    | IC(OP AMP X2)                  |             |         |
| IC404    |         |           | NJM4565D-D    | IC(OP AMP X2)                  |             |         |
| Q201     |         |           | DTA124ESA     | DIGITAL TRANSISTOR             |             |         |
| Q201     |         |           | KRC103M       | DIGITAL TRANSISTOR             |             |         |
| Q201     |         |           | UN4212        | DIGITAL TRANSISTOR             |             |         |
| Q202,203 |         |           | KTC3199(Y,GR) | TRANSISTOR                     |             |         |
| Q202,203 |         |           | 2SC1740S(Q,R) | TRANSISTOR                     |             |         |
| Q202,203 |         |           | 2SC2785(F,E)  | TRANSISTOR                     |             |         |
| Q204     |         |           | KTA1267(Y,GR) | TRANSISTOR                     |             |         |
| Q204     |         |           | 2SA1175(F,E)  | TRANSISTOR                     |             |         |
| Q204     |         |           | 2SA933AS(Q,R) | TRANSISTOR                     |             |         |
| Q301-320 |         |           | 2SC2878(B)    | TRANSISTOR                     |             |         |
| Q401,402 |         |           | DTA124ESA     | DIGITAL TRANSISTOR             |             |         |
| Q401,402 |         |           | KRA103M       | DIGITAL TRANSISTOR             |             |         |
| Q401,402 |         |           | UN4112        | DIGITAL TRANSISTOR             |             |         |
| Q403-408 |         |           | 2SC2878(B)    | TRANSISTOR                     |             |         |
| Q409     |         |           | DTA124ESA     | DIGITAL TRANSISTOR             |             |         |

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| Q409     |         |           | KRA103M    | DIGITAL TRANSISTOR |             |         |
| Q409     |         |           | UN4112     | DIGITAL TRANSISTOR |             |         |
| Q411,412 |         |           | 2SC2878(B) | TRANSISTOR         |             |         |

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PARTS LIST VR-7070A/7080A

# VR-7070A/7080A

# KENWOOD

AUDIO VIDEO SURROUND RECEIVER

## VR-7080A

## VR-7070A

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## INSTRUCTION MANUAL

KENWOOD CORPORATION

B60-5421-00 00 MA (K, P) KW 0305

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Thank you for purchasing this product. This Receiver you just purchased has been upgraded with new features.

### ***120 Watts per channel (stereo) of K-STAT™ Power***

Kenwood's exclusive K-STAT discrete amplifier features self-adjusting transistors that provide optimum low-distortion performance at all volume levels.

### ***HD (High Definition) Component Video Switching***

The Component Video inputs will pass a High-definition video signal to an HD-capable TV or monitor, producing significantly improved video images over conventional NTSC video.

### ***Upgraded Specifications***

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#### ***AUDIO section***

Rated power output during STEREO operation

|  |
|--|
| 120 watts per channel minimum RMS, both channels driven, at 8 $\Omega$ from 20 Hz to 20 kHz with no more than 0.09% total harmonic distortion. (FTC) |
|--|

Effective power output during SURROUND operation

|   |               |
|---|---------------|
| FRONT (20 ~ 20 kHz, 0.09 % T.H.D. at 8 $\Omega$ one channel driven)                   | 120 W + 120 W |
| CENTER (20 ~ 20 kHz, 0.09 % T.H.D. at 8 $\Omega$ one channel driven)                  | 120 W         |
| SURROUND (20 ~ 20 kHz, 0.7 % T.H.D. at 8 $\Omega$ one channel driven)                 | 120 W + 120 W |
| SURROUND BACK/SUBWOOFER (20 ~ 20 kHz, 0.09 % T.H.D. at 8 $\Omega$ one channel driven) | 120 W         |

Total harmonic distortion ..... 0.009 % (1 kHz, 60 W, 8  $\Omega$ )

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| The VR-7070A and VR-7080A receivers are identical to the VR-7070 and VR-7080 except for the features and specifications described in this addendum. For all other information and specifications, please refer to the VR-7070 and VR-7080 Instruction Manuals. |
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