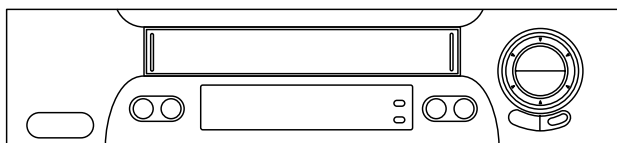
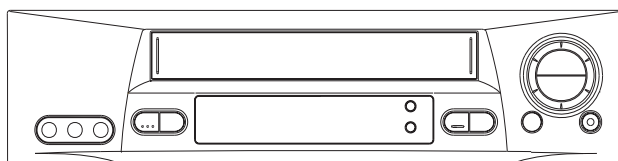


SHARP SERVICE MANUAL

S7826VCM301HM



VC-M321HM(GY)



VC-M301HM, VC-M301LM, VC-M311AHM
VC-M311HM, VC-M311LM

VHS VIDEO CASSETTE RECORDER (SUPPLEMENT)

MODELS

VC-M301HM
VC-M301LM
VC-M311HM
VC-M311LM
VC-M311AHM
VC-M321HM(GY)

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

This service manual covers only those items that differ from the VC-M321HM. For further information on items not covered by this supplement refer to the Service Manual for VC-M321HM.

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| SPECIFICATIONS | 3 |
| ROM MAP | 4 |
| CIRCUIT DIAGRAMS | 5 |
| REPLACEMENT PARTS LIST | 8 |
| PACKING OF THE SET | 9 |

PRECAUTIONS IN PART REPLACEMENT

When servicing the unit with power on, be careful of the section marked with white around it.

This is the primary power circuit which is live.

When checking the soldering side in the tape travel mode, make sure first that the tape has been loaded and then turn over the PWB with due care to the primary power circuit.

Make readjustment, if needed after replacement of part, with the mechanism and its PWB in position in the main frame.

(1) Start and end sensors: Q701 and Q702

Insert the sensor's projection deep into the upper hole of the holder. Referring to the PWB, fix the sensors tight enough.

(2) Photocoupler: IC901

Refer to the symbol on the PWB and the anode marking of the part.

(3) Cam switches A and B: D708 and D705.

Adjust the notch of the part to the white marker of the symbol on the PWB. Do not allow any looseness.

(4) Take-up and supply sensors: D711 and D712.

Be careful not to confuse the setting direction of the parts in reference to the symbols on the PWB. Do not allow any looseness.

SPECIFICATIONS

Format: VHS PAL standard
Video recording system: Two rotary heads, helical scan system
Video signal: PAL colour and I signals, 625 lines
Recording/playing time: 240 min max. with an E-240 tape (SP)
480 min max. with an E-240 tape (LP)
Tape width: 12.7mm
Tape speed: 23.39 mm/s (PAL/SP)
11.70 mm/s (PAL/LP)
Antenna: 75 ohm unbalanced
Receiving channel: UHF Channel E21-E69 (VHF A-J channels LM models only)
RF converter output signal: UHF Channel E21-E69 (Preset to CH E36)
Power requirement: AC230V-240V, 50Hz
Power consumption: Approx. 14W (Low Power \leq 1W)
Operating temperature: 5°C to 40°C
Storage temperature: -20°C to 55°C
Weight: Approx. 3.2 kg
Dimensions: 360 mm (W) x 289 mm (D) x 93 mm (H)

VIDEO

Input: 1.0 Vp-p, 75 ohm
Output: 1.0 Vp-p, 75 ohm
S/N ratio: 45 dB min. (SP mode)
Horizontal resolution: Approx. 260 lines (SP mode with Super Picture)

AUDIO 0 dBs = 0.775 Vrms

Input: Line1: -3.8 dBs, 10k ohm
Line2: -3.8 dBs, 10k ohm (VC-M321HM only)
Output: Line1: -3.8 dBs, 1k ohm
Line2: -3.8 dBs, 1k ohm (VC-M321HM only)
S/N ratio: 46 dB min. (SP mode)
Frequency response: 80 Hz ~ 10 kHz (SP mode)
80 Hz ~ 5 kHz (LP mode)
Accessories included: 75 ohm coaxial cable
Operation manual
Infrared remote control
Batteries

As part of our policy of continuous improvement, we reserve the right to alter design and specifications without notice.

Note: The antenna must correspond to the new standard DIN 45325 (IEC 169 - 2) for combined UHF/VHF antenna with 75 ohm connector.

ROM MAP

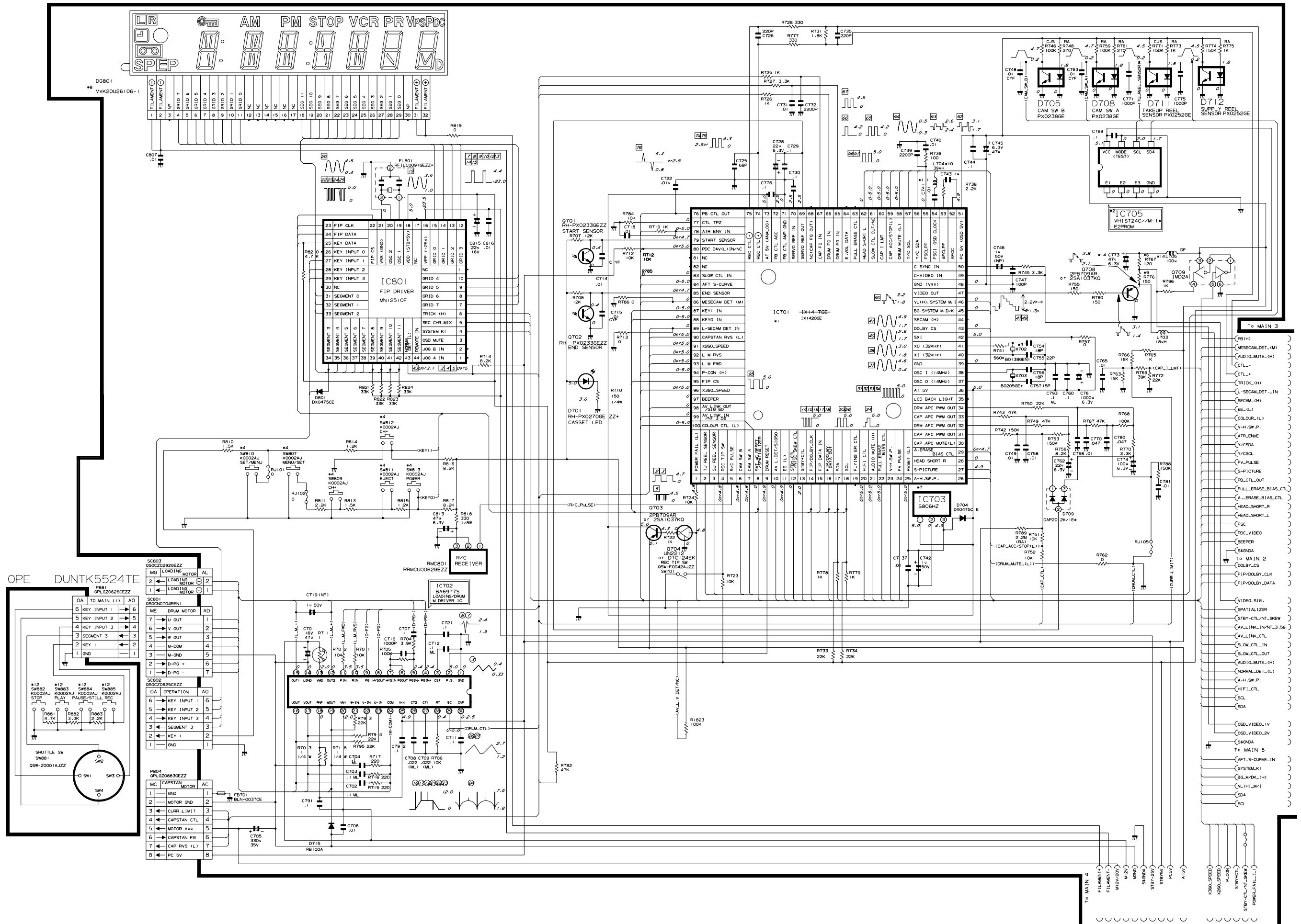
| | MODEL | 301HM | 301LM | 311HM | 311LM | 321HM | 311AHM |
|--------|---------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| blank | blank | --- | --- | --- | --- | --- | --- |
| EP n** | NTSC Luminance Level | 0 | 0 | 0 | 0 | 0 | 0 |
| EP n** | NTSC Chrominance Level | 7 | 7 | 7 | 7 | 7 | 7 |
| SP n** | NTSC Luminance Level | 0 | 0 | 0 | 0 | 0 | 0 |
| SP n** | NTSC Chrominance Level | 7 | 7 | 7 | 7 | 7 | 7 |
| LP P** | PAL Luminance Level | 3 | 3 | 3 | 3 | 3 | 3 |
| LP P** | PAL Chrominance Level | 5 | 5 | 5 | 5 | 5 | 5 |
| blank | blank | --- | --- | --- | --- | --- | --- |
| SP P** | PAL Luminance Level | 3 | 3 | 3 | 3 | 3 | 3 |
| SP P** | PAL Chrominance Level | 5 | 5 | 5 | 5 | 5 | 5 |
| "0" | FIXED | --- | --- | --- | --- | --- | --- |
| JP39 | A.DUB | 0 | 0 | 0 | 0 | 0 | 0 |
| JP38 | SLOW ATR | 0 | 0 | 0 | 0 | 0 | 0 |
| JP37 | INSTANT REPLAY | 0 | 0 | 0 | 0 | 0 | 0 |
| JP36 | NTSC PB | 0 | 0 | 0 | 0 | 1 | 0 |
| JP35 | NTSC SKEW | 0 | 0 | 0 | 0 | 0 | 0 |
| JP34 | HEAD2 | 0 | 0 | 0 | 0 | 0 | 0 |
| JP33 | HEAD1 | 0 | 0 | 0 | 0 | 0 | 0 |
| JP32 | HEAD0 | 1 | 1 | 1 | 1 | 1 | 1 |
| JP31 | PDC 8 bit | 0 | 0 | 0 | 0 | 1 | 0 |
| JP30 | L/P-5min | 0 | 0 | 0 | 0 | 0 | 0 |
| JP29 | 84 CHANNEL | 0 | 0 | 0 | 0 | 1 | 1 |
| JP28 | R/C CODE 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| JP27 | DNR | 0 | 0 | 0 | 0 | 0 | 0 |
| JP26 | POST CODE | 0 | 0 | 0 | 0 | 1 | 0 |
| JP25 | SAT CTL | 0 | 0 | 0 | 0 | 0 | 0 |
| JP24 | AV LINK | 0 | 0 | 0 | 0 | 0 | 0 |
| JP23 | Hi-Fi | 0 | 0 | 0 | 0 | 0 | 0 |
| JP22 | SORT / CLOCK | 0 | 0 | 0 | 0 | 1 | 1 |
| JP21 | DECODER | 0 | 0 | 0 | 0 | 1 | 0 |
| JP20 | DOLBY SURROUND | 0 | 0 | 0 | 0 | 0 | 0 |
| JP19 | IGR | 0 | 0 | 0 | 0 | 0 | 0 |
| JP18 | NICAM | 0 | 0 | 0 | 0 | 0 | 0 |
| JP17 | G-CODE 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| JP16 | G-CODE 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| JP15 | OEM | 0 | 0 | 0 | 0 | 0 | 0 |
| JP14 | LP MODE | 1 | 1 | 1 | 1 | 1 | 1 |
| JP13 | F-AV | 0 | 0 | 0 | 0 | 0 | 0 |
| JP12 | X2 SCART | 0 | 0 | 0 | 0 | 1 | 0 |
| JP11 | VPS 8 bit | 0 | 0 | 0 | 0 | 1 | 0 |
| JP10 | TUNER 2 | 0 | 1 | 0 | 1 | 0 | 0 |
| JP9 | TUNER 1 | 1 | 0 | 1 | 0 | 1 | 1 |
| JP8 | TUNER 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| JP7 | SYSTEM 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| JP6 | SYSTEM 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JP5 | SAT SCAN | 0 | 0 | 0 | 0 | 0 | 0 |
| JP4 | LOW POWER | 1 | 1 | 1 | 1 | 1 | 1 |
| JP3 | SPATIALIZER | 0 | 0 | 0 | 0 | 0 | 0 |
| JP2 | VPS/PDC | 0 | 0 | 0 | 0 | 1 | 0 |
| JP1 | COLOUR 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| JP0 | COLOUR 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| | DISPLAY IN HEXADECIMAL NOTATION | 010 0004310 | 010 0004410 | 010 0034310 | 010 0034410 | 11A 4635B14 | 012 0434310 |

CIRCUIT DIAGRAMS

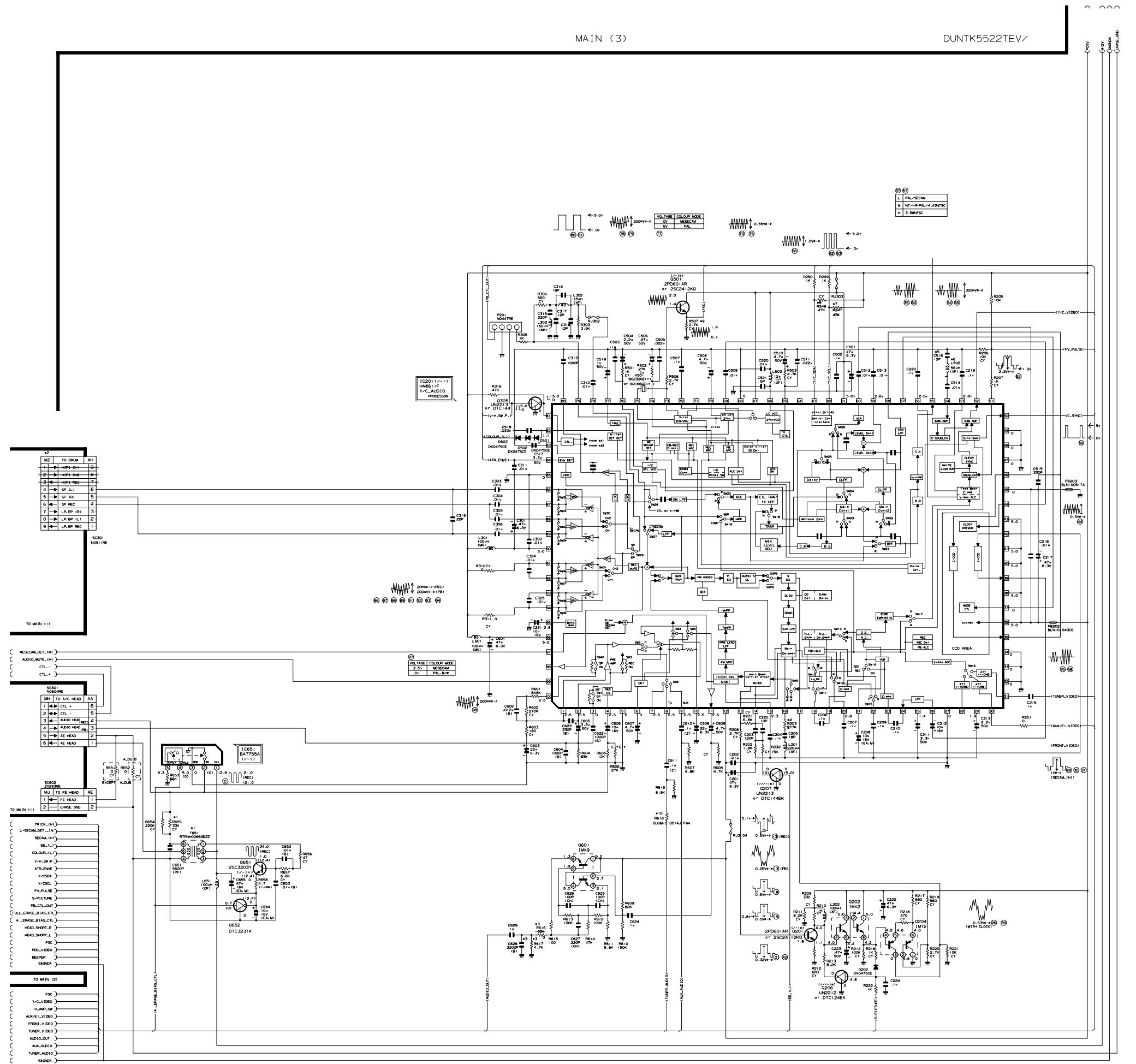
VCM311/301HM, LM

MAIN (1)

DUNTK552TEV



CIRCUIT DIAGRAMS CONT...



PARTS LIST

PARTS REPLACEMENT

Parts marked with "△" are important for maintaining the safety of the set. Replace these parts with only those specified

"HOW TO ORDER REPLACEMENT PARTS"

Contact your nearest SHARP Parts Distributor.

For location of SHARP Parts Distributor.

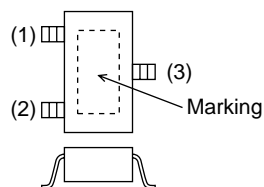
Call SHARP Manchester on (0161) 205 7531

To have your order filled promptly and correctly, please supply the following informations.

- | | |
|------------------------|-----------------------|
| 1. MODEL NUMBER | 2. REF. NO |
| 3. PART CODE | 4. DESCRIPTION |
| 5. PRICE CODE | |

MARK ★: SPARE PARTS-DELIVERY SECTION

HOW TO IDENTIFY CHIP TRANSISTORS AND DIODES BY ITS MARKING



- (1) Base/Input
(2) Emitter/Ground
(3) Collector/Output

Fig. 1

| PACKAGE | MARKING | PARTS CODE | TYPE | MARKING | PARTS CODE | TYPE |
|---------|---------|----------------|------|---------|----------------|------|
| FIG 1. | 6A | VSUN2111///-1* | PNP | 14 | VSDTA114EK/-1* | PNP |
| FIG 1. | 6B | VSUN2112///-1* | PNP | 15 | VSDTA124EK/-1* | PNP |
| FIG 1. | 6C | VSUN2113///-1* | PNP | 16 | VSDTA144EK/-1* | PNP |
| FIG 1. | 8A | VSUN2211///-1* | NPN | 24 | VSDTC114EK/-1* | NPN |
| FIG 1. | 8B | VSUN2212///-1* | NPN | 25 | VSDTC124EK/-1* | NPN |
| FIG 1. | 8C | VSUN2213///-1* | NPN | 26 | VSDTC144EK/-1* | NPN |
| FIG 1. | FQ | VS2A1037KQ-1 | | BQ | VS2SC2412KQ-1 | |

PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE |
|-------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|
| MAIN UNIT | DUNTK5522TEVC | - | 1 | N/A | N/A | N/A | N/A | N/A | - |
| MAIN UNIT | DUNTK5522TEV6 | - | N/A | 1 | N/A | N/A | N/A | N/A | - |
| MAIN UNIT | DUNTK5522TEV2 | - | N/A | N/A | 1 | N/A | N/A | N/A | - |
| MAIN UNIT | DUNTK5522TEW2 | - | N/A | N/A | N/A | 1 | N/A | N/A | - |
| MAIN UNIT | DUNTK5522TEW3 | - | N/A | N/A | N/A | N/A | 1 | N/A | - |
| MAIN UNIT | DUNTK5522TEWJ | - | N/A | N/A | N/A | N/A | N/A | 1 | - |

DUNTK5522TEW3(VC-M311LM), DUNTK5522TEV6(VC-M311HM)
DUNTK5522TEW2(VC-M301LM), DUNTK5522TEV2(VC-M321HM(GY))
DUNTK5522TEVC(VC-M301HM), DUNTK5522TEWJ(VC-M311AHM)
MAIN UNIT

TUNER

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| TUNER | VTUATMCB1-101 | TU1551 | 1 | 1 | 1 | N/A | N/A | 1 | BC | J |
| TUNER | VTUATMCG1-201 | TU1551 | N/A | N/A | N/A | 1 | 1 | N/A | BF | J |

INTERGRATED CIRCUITS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-------------------------|----------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| G1 BASIC UCON 80K V1 | RH-IX1420GEZZ | IC701 | 1 | 1 | N/A | 1 | 1 | N/A | AZ | J |
| SLA2408S-1 | VHISLA2402S-1* | IC705 | N/A | 1 | N/A | N/A | 1 | N/A | AF | J |
| SLA2401S | VHISLA2401S-1* | IC705 | 1 | N/A | N/A | 1 | N/A | N/A | AF | J |
| VPS/PDC IC | VHISDA5650X1E* | IC1801 | N/A | N/A | 1 | N/A | N/A | 1 | AV | J |
| AV SWITCHER IC FOR MONO | VHILA7158M/-1* | IC2501 | N/A | N/A | 1 | N/A | N/A | 1 | AM | J |

TRANSISTORS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-----------------------|----------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| CHIP TRANS 2PD601AR | VS2PD601AR/-1* | Q201 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| TRANSISTOR 2SC1740S N | VS2C1740SQR1E+ | Q1605 | N/A | N/A | 1 | N/A | N/A | N/A | AC | J |
| CHIP TRANS 2PD601AR | VS2PD601AR/-1* | Q1803 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CHIP TRANS 2PD601AR | VS2PD601AR/-1* | Q1804 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CHIP TRANS 2PD601AR | VS2PD601AR/-1* | Q2081 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| CHIP DG-TR DTA124+DTC | VSIMD2A///-1* | Q2901 | 1 | 1 | N/A | 1 | 1 | 1 | AB | J |
| CHIP TRANS 2PB709AR | VS2PB709AR/-1* | Q2903 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |

DIODES

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|--------------|----------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| DIODE ISSZ54 | RH-DX0475CEZZ* | D1802 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| DIODE ISSZ54 | RH-DX0475CEZZ* | D1803 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| ZENER DIODE | RH-EX0809GEZZ* | D2502 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| ZENER DIODE | RH-EX0809GEZZ* | D2901 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| ZENER DIODE | RH-EX0809GEZZ* | D2903 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |

PARTS LIST CONT...

COILS AND TRANSFORMERS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(G) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|--------------------|---------------|---------|-------|-------|----------------------|-------|-------|--------|------------|---|
| PEAKING COIL 8.2μH | VP-ZK8R2K0000 | L1801 | N/A | N/A | 1 | N/A | N/A | 1 | AB | J |
| PEAKING COIL 8.2μH | VP-ZK8R2K0000 | L1802 | N/A | N/A | 1 | N/A | N/A | 1 | AB | J |
| PEAKING COIL 3.3μH | VP-XF3R3K0000 | L2504 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |

CAPACITORS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(G) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|------------------------|---------------|---------|-------|-------|----------------------|-------|-------|--------|------------|---|
| CERAMIC 0.1μF 25V | VCKYCY1EF104Z | C611 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| CERAMIC 8PF 50V | VCCCY1HH8R0D | C1613 | N/A | N/A | N/A | 1 | 1 | N/A | AA | J |
| CERAMIC 0.027μF 16V | VCKYCY1CB273K | C1622 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| CERAMIC 18PF 50V | VCCCY1HH180J | C1633 | N/A | N/A | N/A | 1 | 1 | N/A | AA | J |
| CERAMIC 0.033μF 50V | VCKYCY1HF333Z | C1803 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| MYLAR 2200P 50V | VCQYTA1HM222J | C1804 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| CERAMIC 0.033μF 50V | VCKYCY1HF333Z | C1805 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| CERAMIC 150PF 50V | VCCSPA1HL151J | C1806 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| CERAMIC 0.1μF 25V | VCKYCY1EF104Z | C1807 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| ELECTROLYTIC 47μF 6.3V | VCEAEM0JW476M | C1808 | N/A | N/A | 1 | N/A | N/A | 1 | AB | J |
| CERAMIC 4700PF 16V | VCKYD41CX472N | C1809 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CERAMIC 0.1μF 25V | VCKYCY1EF104Z | C1810 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CERAMIC 1μF 16V | VCKYD41CF105Z | C2508 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| CERAMIC 1μF 16V | VCKYD41CF105Z | C2503 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| CERAMIC 1μF 10V | VCKYCY1AF105Z | C2505 | N/A | N/A | 1 | N/A | N/A | N/A | AC | J |
| CERAMIC 1μF 10V | VCKYCY1AF105Z | C2507 | N/A | N/A | 1 | N/A | N/A | N/A | AC | J |
| CERAMIC 1μF 16V | VCKYD41CF105Z | C2508 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| CERAMIC 1μF 10V | VCKYCY1AF105Z | C2509 | N/A | N/A | 1 | N/A | N/A | N/A | AC | J |
| ELECTROLYTIC 1μF 50V | VCEAEM1HW105M | C2518 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| ELECTROLYTIC 47 16V | VCEAEM1CW476M | C2520 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| CERAMIC 0.01 50V | VCKYCY1HF103Z | C2521 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| ELECTROLYTIC 100μF 10v | VCEAEM1AW107M | C2523 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| ELECTROLYTIC 10μF 16v | VCEAEM1CW106M | C2803 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| ELECTROLYTIC 10μF 16v | VCEAEM1CW106M | C2805 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |

RESISTORS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(G) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|------------------------|---------------|---------|-------|-------|----------------------|-------|-------|--------|------------|---|
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | RJ10 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 2.7K 1/16W | VRS-CY1JF272J | R244 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 2.7K 1/16W | VRS-CY1JF272J | R245 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 2.2K 1/16W | VRS-CY1JF222J | R246 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | R251 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | R616 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| CARBON 10K 1/8W | VRD-RA2BE103J | R712 | 1 | 1 | N/A | 1 | 1 | N/A | AA | J |
| CARBON 6.8K 1/8W | VRD-RA2BE682J | R1404 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 5.6K 1/16W | VRS-CY1JF562J | R1631 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 3.9K 1/16W | VRS-CY1JF392J | R1632 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 330 1/16W | VRS-CY1JF331J | R1644 | N/A | N/A | N/A | 1 | 1 | N/A | AA | J |
| METAL OXIDE 3.9K 1/16W | VRS-CY1JF392J | R1645 | N/A | N/A | N/A | 1 | 1 | N/A | AA | J |
| CARBON 1K 1/8W | VRD-RA2BE102J | R1670 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CARBON 560 1/8W | VRD-RA2BE561J | R1672 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 1.2M 1/16W | VRS-CY1JF125J | R1807 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 6.8K 1/16W | VRS-CY1JF682J | R1808 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 1.2M 1/16W | VRS-CY1JF125J | R1809 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 6.8K 1/16W | VRS-CY1JF682J | R1810 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 1M 1/16W | VRS-CY1JF105J | R1813 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 100K 1/16W | VRS-CY1JF104J | R1814 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 2.2K 1/16W | VRS-CY1JF222J | R1815 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| CARBON 10K 1/8W | VRD-RA2BE103J | R1816 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 1.2M 1/16W | VRS-CY1JF125J | R1817 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 100K 1/16W | VRS-CY1JF104J | R1819 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 330K 1/16W | VRS-CY1JF334J | R1818 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 100 1/16W | VRS-CY1JF101J | R1820 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 680K 1/16W | VRS-CY1JF684J | R1821 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 1.2M 1/16W | VRS-CY1JF125J | R1822 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 8.2K 1/16W | VRS-CY1JF822J | R2503 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 8.2K 1/16W | VRS-CY1JF822J | R2504 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | R2511 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 75 1/16W | VRS-CY1JF750J | R2515 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 100 1/16W | VRS-CY1JF101J | R2516 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | R2522 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 22K 1/16W | VRS-CY1JF223J | R2530 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 33K 1/16W | VRS-CY1JF333J | R2531 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 33 1/16W | VRS-CY1JF334J | R2801 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 470 1/8W | VRD-RA2BE471J | R2802 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 75 1/16W | VRS-CY1JF750J | R2804 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 820 1/16W | VRS-CY1JF821J | R2808 | N/A | N/A | 1 | N/A | N/A | 1 | AA | J |
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | R2810 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 0 1/16W | VRS-CY1JF000J | R2815 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| CARBON 560 1/8W | VRD-RA2BE561J | R2821 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |

PARTS LIST CONT...

RESISTORS CONT...

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|------------------------|----------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| CARBON 560 1/8W | VRD-RA2BE561J | R2822 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CARBON 2.2K 1/8 | VRD-RA2BE222J | R2825 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 47K 1/16W | VRS-CY1JF473J | R2901 | 1 | 1 | N/A | 1 | 1 | 1 | AA | J |
| METAL OXIDE 4.7K 1/16W | VRS-CY1JF472J | R2902 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| CARBON 820 1/8W | VRD-RA2BE821J | R2903 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 18K 1/16W | VRS-CY1JF183JS | R2905 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |
| METAL OXIDE 15K 1/16W | VRS-CY1JF153J | R2906 | N/A | N/A | 1 | N/A | N/A | N/A | AA | J |

MISCELLANEOUS PARTS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| SOCKET | QSOCZ2195UMZZ | SC2501 | 1 | 1 | N/A | 1 | 1 | 1 | AE | U |
| SOCKET | QSOCZ4297UMZZ | SC2501 | N/A | N/A | 1 | N/A | N/A | N/A | AH | U |
| BALUN | RBLN-0077TAZZ | FB2802 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |
| BALUN | RBLN-0077TAZZ | FB2806 | N/A | N/A | 1 | N/A | N/A | N/A | AB | J |

MECHANISM CHASSIS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-------------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| TENSION ARM ASS'Y | MLEVF0523GEZZ | 15 | 1 | 1 | 1 | 1 | 1 | 1 | AK | J |
| AUTO HEAD CLEANER | CLEVP0287AJZZ | 26 | N/A | N/A | 1 | N/A | N/A | N/A | AG | V |

CASSETTE HOUSING CONTROL

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|--------------------------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| CASSETTE HOUSING CONTROL ASS'Y | CHLDX3081GE02 | 300 | 1 | 1 | 1 | 1 | 1 | 1 | AX | J |

MECHANICAL PARTS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| TOP CABINET | GCABA3116UMSF | 600 | N/A | N/A | 1 | N/A | N/A | N/A | AR | U |
| TOP CABINET | GCABA3116UMSF | 600 | 1 | 1 | N/A | 1 | 1 | 1 | AR | U |
| MAIN FRAME | GCABB1190UMZZ | - | N/A | N/A | 1 | N/A | N/A | N/A | AM | U |
| MAIN FRAME | GCABB1189UMZZ | - | 1 | 1 | N/A | 1 | 1 | 1 | AM | U |
| RUBBER FOOT | PGUMS0026UMZZ | 613 | 2 | 2 | 2 | 2 | 2 | 2 | AA | U |

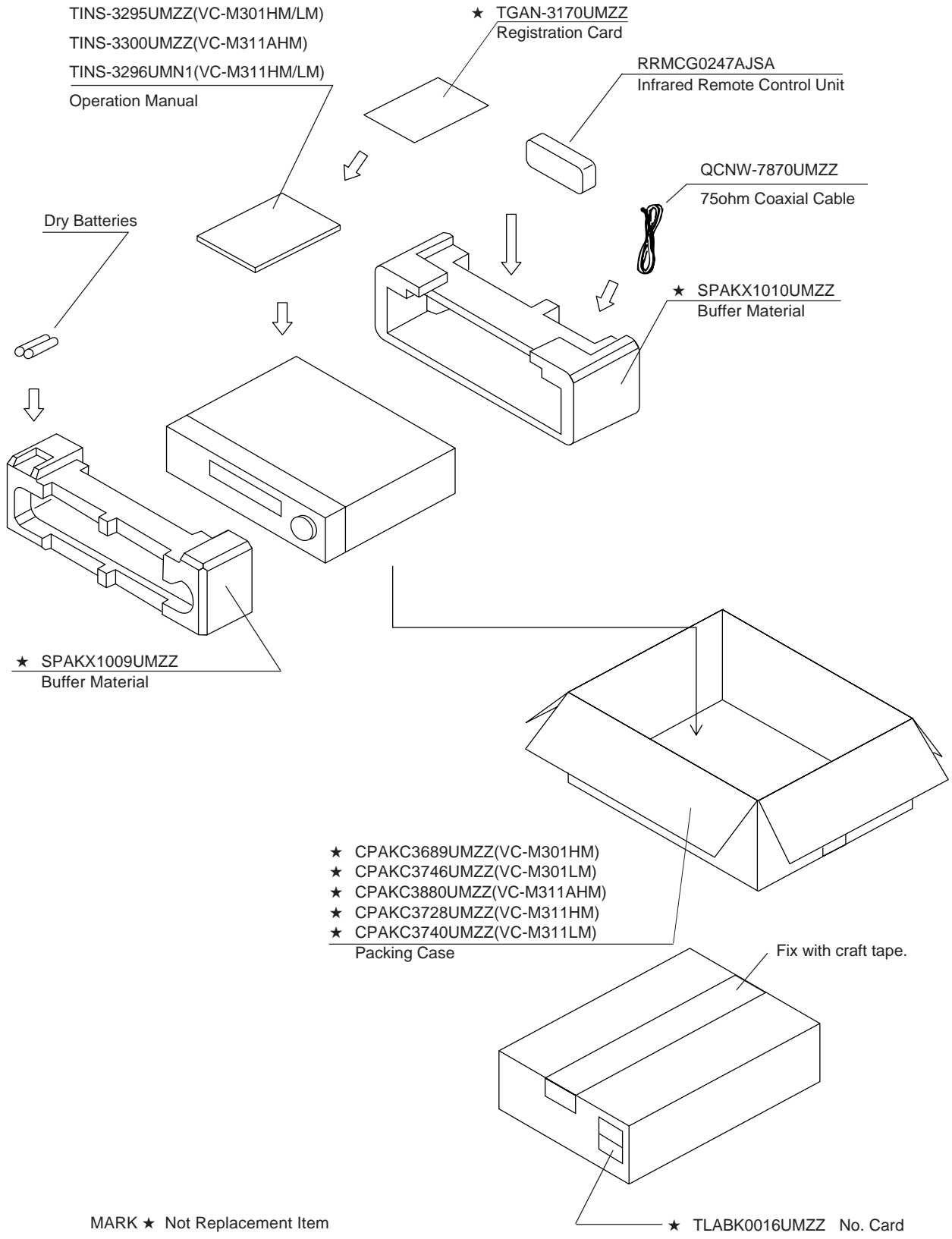
FRONT PANEL PARTS

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|-----------------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| FRONT PANEL ASSY | CPNLC2374TEV3 | 501 | N/A | N/A | 1 | N/A | N/A | N/A | AW | U |
| FRONT PANEL ASSY | CPNLC2399TEV1 | 501 | N/A | 1 | N/A | N/A | 1 | N/A | AW | U |
| FRONT PANEL ASSY | CPNLC2373TEV1 | 501 | 1 | N/A | N/A | 1 | N/A | N/A | AW | U |
| FRONT PANEL ASSY | CPNLC2473TEV1 | 501 | N/A | N/A | N/A | N/A | N/A | 1 | AW | U |
| FRONT PANEL | HPNLC2374UMSB | 501-1 | N/A | N/A | 1 | N/A | N/A | N/A | AV | U |
| FRONT PANEL | HPNLC2399UMSA | 501-1 | N/A | 1 | N/A | N/A | 1 | N/A | AM | U |
| FRONT PANEL | HPNLC2373UMSA | 501-1 | 1 | N/A | N/A | 1 | N/A | N/A | AM | U |
| FRONT PANEL | HPNLC2473UMSA | 501-1 | N/A | N/A | N/A | N/A | N/A | 1 | AS | U |
| CASSETTE FLAP | HDECQ1815UMSB | 501-3 | N/A | N/A | 1 | N/A | N/A | N/A | AH | U |
| CASSETTE FLAP | HDECQ1814UMSA | 501-3 | 1 | 1 | N/A | 1 | 1 | 1 | AE | U |
| WINDOW, DEC. | HDECQ1806UMSA | 501-4 | N/A | N/A | 1 | N/A | N/A | N/A | AM | U |
| WINDOW, DEC. | HDECQ1811UMSA | 501-4 | 1 | 1 | N/A | 1 | 1 | 1 | AH | U |
| BUTTON, CH/REC | JBTN-2867UMSB | 501-5 | N/A | N/A | 1 | N/A | N/A | N/A | AD | U |
| BUTTON, CH/REC | JBTN-2874UMSB | 501-5 | 1 | 1 | N/A | 1 | 1 | 1 | AE | U |
| BUTTON, MENU/SET | JBTN-2866UMSA | 501-6 | N/A | N/A | 1 | N/A | N/A | N/A | AG | U |
| BUTTON, MENU/SET | JBTN-2873UMSA | 501-6 | 1 | 1 | N/A | 1 | 1 | 1 | AC | U |
| BUTTON, STAND-BY | JBTN-2865UMSB | 501-8 | N/A | N/A | 1 | N/A | N/A | N/A | AD | U |
| BUTTON, STAND-BY | JBTN-2872UMSB | 501-8 | 1 | 1 | N/A | 1 | 1 | 1 | AE | U |
| BUTTON HOLDER | LHLDZ2015UMZZ | 502 | N/A | N/A | 1 | N/A | N/A | N/A | AG | U |
| BUTTON HOLDER | LHLDZ2021UMZZ | 502 | 1 | 1 | N/A | 1 | 1 | 1 | AD | U |
| BUTTON, PLAY | JBTN-2869UMSC | 503 | N/A | N/A | 1 | N/A | N/A | N/A | AH | U |
| BUTTON, PLAY | JBTN-2869UMSD | 503 | 1 | 1 | N/A | 1 | 1 | 1 | AH | U |
| DIAL | JKNBK1108UMSC | 504 | N/A | N/A | 1 | N/A | N/A | N/A | AE | U |
| DIAL | JKNBK1106UMSD | 504 | 1 | 1 | N/A | 1 | 1 | 1 | AE | U |
| TOP CAB SCREW (BLACK) | LX-HZ3097GEFF | - | 4 | 4 | 4 | 4 | 4 | 4 | AA | U |

SUPPLIED ACCESSORIES

| DESCRIPTION | PART CODE | REF. NO | 301HM | 311HM | 321HM ^(GY) | 301LM | 311LM | 311AHM | PRICE CODE | ★ |
|------------------------|---------------|---------|-------|-------|-----------------------|-------|-------|--------|------------|---|
| INST MANUAL (311HM/LM) | TINS-3296UMZZ | - | N/A | 1 | N/A | N/A | 1 | N/A | AM | U |
| INST MANUAL (301HM/LM) | TINS-3295UMN1 | - | 1 | N/A | N/A | 1 | N/A | N/A | AF | U |
| INST MANUAL (311AHM) | TINS-3300UMZZ | - | N/A | N/A | N/A | N/A | N/A | 1 | AM | U |

PACKING OF THE SET



MARK ★ Not Replacement Item

SHARP®