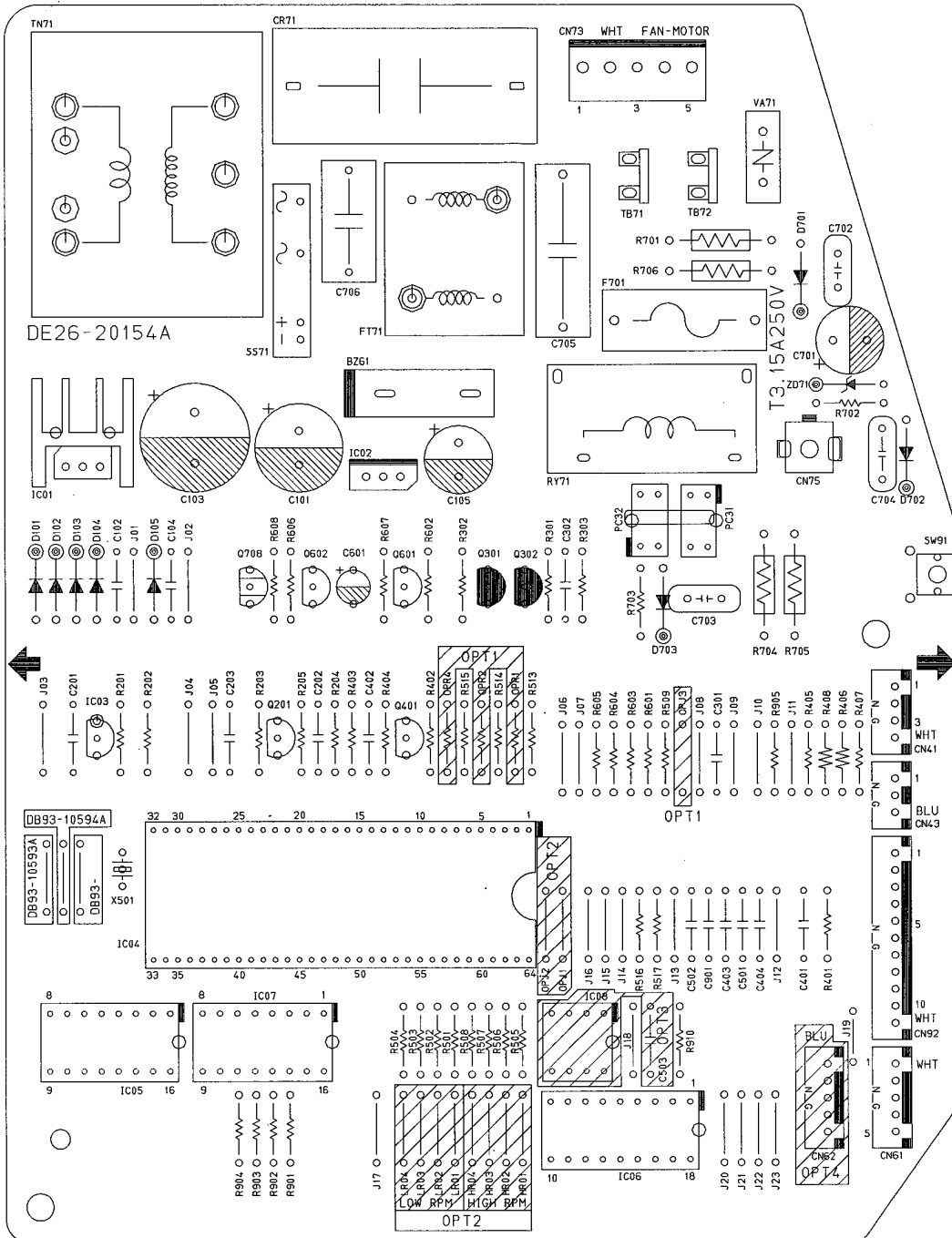


# 7. PCB Diagrams

## 7-1 ASS'Y PCB - IN AQV12F2VE, AQV09F2VE

|             |           |
|-------------|-----------|
| DB93-10593A | AQV12F2VE |
| DB93-10594A | AQV09F2VE |

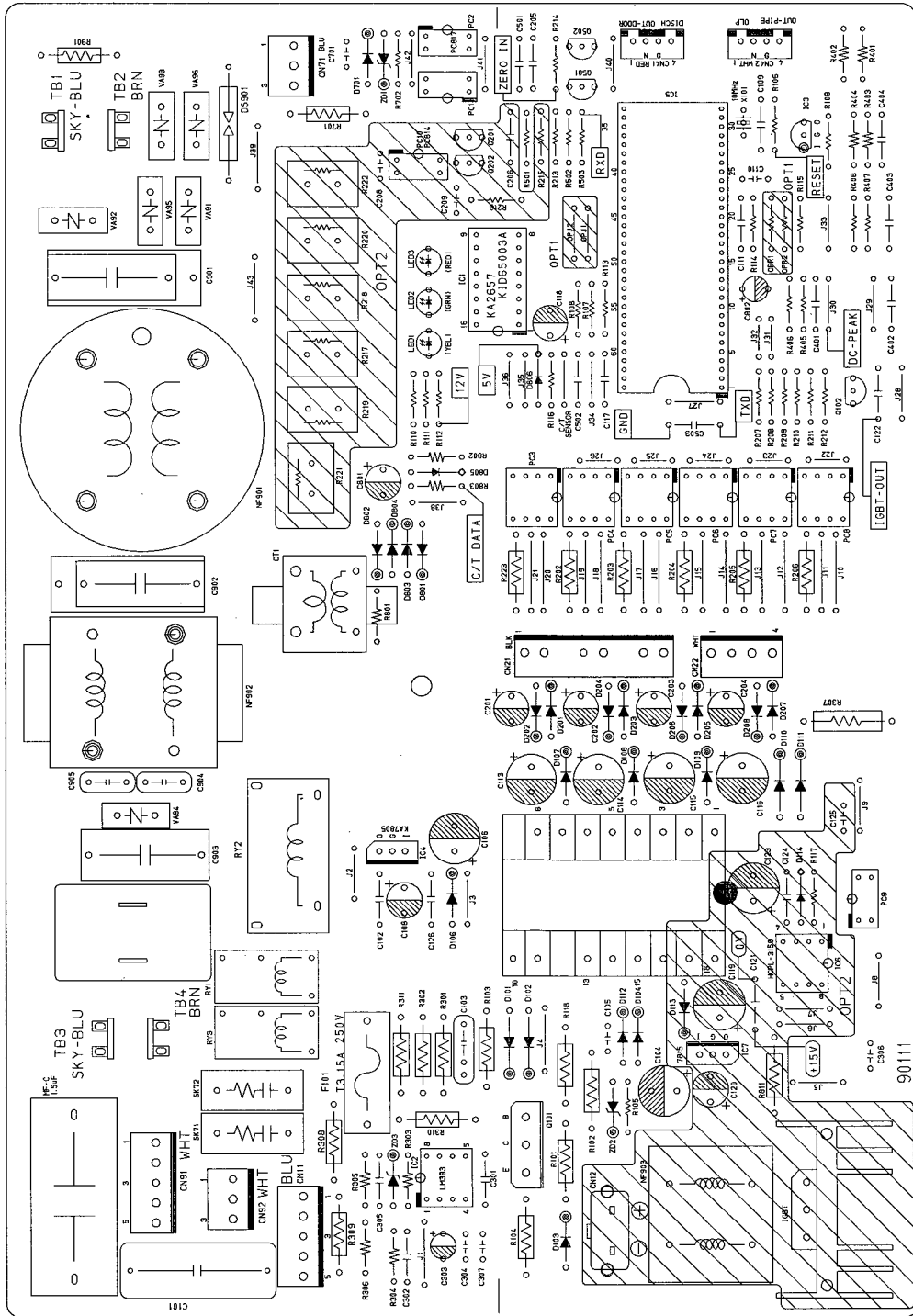


■ PART LIST

| No | DESIGN LOCATION                              | CODE NO     | Description        | Specification     | AQV12F2VE | AQV09F2VE |
|----|--|-------------|--------------------|-------------------|-----------|-----------|
| 1  | F701   | DE32-10037A | FUSE               | FST 250V 3.15A    | 1         | 1         |
| 2  | F701   | DE47-40024A | HOLDER-FUSE        | FH-51H 7.5A       | 1         | 1         |
| 3  | IC01   | DE13-20008A | IC-VOLT REGU       | KA7812A           | 1         | 1         |
| 4  | IC01   | DE62-30032A | HEAT-SINK          | AL H25            | 1         | 1         |
| 5  | IC01   | DE60-10100A | SCREW-PH           | M3*6 FeFzY        | 1         | 1         |
| 6  | IC02   | DE13-10016A | IC-VOLT REGU       | KA7805A           | 1         | 1         |
| 7  | CR71   | 2306-000294 | C-FILM             | COS 450V 1.5      | 1         | 1         |
| 8  | FT71   | DE29-90004A | FILTER NOISE       | MD250V 1.6A 6mH   | 1         | 1         |
| 9  | R901-R904                                    |             | R-CARBON           | RD 1/2 T(S) 470-J | 4         | 4         |
| 10 | R203   | 2001-000588 | R-CARBON           | RD 1/4 TP 332-J   | 1         | 1         |
| 11 | R202,409,501-509,513,518-521,601,604,606,902 | 2001-000065 | R-CARBON           | RD 1/4 TP 103-J   | 21        | 21        |
| 12 | R522   | DE39-60001A | WIRE SO COPER      | P10.6 SN T 52MM   | 1         | 1         |
| 13 | R523   | 2001-000065 | R-CARBON           | RD 1/4 TP 103-J   | 1         | 1         |
| 14 | R405,407                                     | 2001-000036 | R-CARBON           | RD 1/4 TP 331-J   | 2         | 2         |
| 15 | R201,204,405,401,402,404,603,606             | 2001-000042 | R-CARBON           | RD 1/4 TP 102-J   | 8         | 8         |
| 16 | R607   | 2001-000855 | R-CARBON           | RD 1/4 TP 560-J   | 1         | 1         |
| 17 | R602   | 2001-001088 | R-CARBON           | RD 1/2 TP 102-J   | 1         | 1         |
| 18 | R403   | 2001-000890 | R-CARBON           | RD 1/4 TP 682-J   | 1         | 1         |
| 19 | R910,912,913                                 | A1000-Q244  | R-CARBON           | RD 1/8 TP 332-J   | 3         | 3         |
| 20 | R406,408                                     | 2004-001137 | R-METAL FILM       | RD 1/4 TP 682-F   | 2         | 2         |
| 21 | D101-105                                     | 0402-000137 | DIODE-RECT         | 1N4007            | 5         | 5         |
| 22 | SS71   | B4190-0016  | THYRISTOR          | G3MB-202PL        | 1         | 1         |
| 23 | BZ61   | DE30-20016A | BUZZER             | CBE 2220BA STICK  | 1         | 1         |
| 24 | TN71   | DE26-20154A | TRANS L.V          | 230V DC17V 300mA  | 1         | 1         |
| 25 | TN71   | DE60-60012A | PIN EYELET         | OD2.5 L3.0        | 5         | 5         |
| 26 | C202,402                                     | 2202-000783 | C-CERAMIC          | CA OA 50V 103Z    | 2         | 2         |
| 27 | C301,401                                     | 2202-000796 | C-CERAMIC          | CA OA 50V 102Z    | 2         | 2         |
| 28 | C102,104,201,203,302,403,404,501,502,901     | 2202-000780 | C-CERAMIC          | CA OA 50V 104Z    | 9         | 9         |
| 29 | C103   | 2401-000710 | C-ELEC             | CE04 25V 222-M    | 1         | 1         |
| 30 | C105   | 2401-001397 | C-ELEC             | CE 04 25V 471-M   | 1         | 1         |
| 31 | C101   | 2401-000180 | C-ELEC             | CE 04 35V 102-M   | 1         | 1         |
| 32 | C601   | 2401-001573 | C-ELEC             | 47/50V            | 1         | 1         |
| 33 | IC04   | DE09-10149A | IC-MCU             | MB89635R-466      | 1         | 1         |
| 34 | IC03   | DE13-20009A | IC                 | KA7533Z           | 1         | 1         |
| 35 | X501   | 2802-000103 | RSONATOR-CERAMIC   | 10MHz             | 1         | 1         |
| 36 | IC05,IC06                                    | DE13-20024A | IC-DRIVE           | KID65003AP        | 3         | 3         |
| 37 | Q201,401,601,602                             | A4050-0168  | TR-GENERAL         | KSC945Y           | 4         | 4         |
| 38 | Q603   | 0501-000292 | TRANSISTOR         | A708Y             | 1         | 1         |
| 39 | Q301, Q302                                   |             | TRANSISTOR         | R1002             | 2         | 2         |
| 40 | SW91   | 3404-001013 | SWITCH-TACT        | KPT-1115V         | 1         | 1         |
| 41 | CN73   | 3711-000262 | CONNECTOR WAFER    | YW396-05AV WHT    | 1         | 1         |
| 42 | CN43   | 3711-000879 | CONNECTOR WAFER    | SMW250-03 BLU     | 1         | 1         |
| 43 | CN41   |             | CONNECTOR WAFER    | SMW250-04WHT      | 1         | 1         |
| 44 | CN61   | 3711-000999 | CONNECTOR WAFER    | SMW250-05 WHT     | 1         | 1         |
| 45 | CN62   | 3711-000997 | CONNECTOR WAFER    | SMW250-05BLU      | 1         | 1         |
| 46 | CN92   | 3711-001154 | CONNECTOR WAFER    | SMW250-09 WHT     | 1         | 1         |
| 47 | TB71,72                                      | DE59-30001A | CONNECTOR-TERMINAL | 250TAP,1PIN       | 2         | 2         |
| 48 | RY71   | 3501-001058 | RELAY              | DI1U DC12V        | 1         | 1         |
| 49 | J1-J35                                       | DE39-60001A | WIRE SO COPER      | PIO.6 SN T 52MM   | 35        | 35        |
| 50 | HR01-HR04                                    | DE39-60001A | WIRE SO COPER      | PIO.6 SN T 52MM   | *         | *         |
| 51 | LR01-LR04                                    | DE39-60001A | WIRE SO COPER      | PIO.6 SN T 52MM   | *         | *         |
| 52 | SW02   | DE39-60001A | WIRE SO COPER      | PIO.6 SN T 52MM   | 1         | 0         |
| 53 | SW01   | DE39-60001A | WIRE SO COPER      | PIO.6 SN T 52MM   | 0         | 1         |
| 54 | OP01-OP04                                    | DE39-60001A | WIRE SO COPER      | PIO.6 SN T 52MM   | *         | *         |
| 55 | IC07   | DB47-90064A | IC-DRIVE           | UDN6118A          | 1         | 1         |
| 56 | C701   |             | C-ELEC             | 220µF/50V         | 1         | 1         |
| 57 | C702   |             | C-MYLAR            | 472-2A            | 1         | 1         |
| 58 | C704   |             |                    | 103-2J            | 1         | 1         |
| 59 | R701,706                                     | -           | R-METAL OXIDE      | 100K-J/2W         | 2         | 2         |
| 60 | R702   | -           | R-CABON            | 100K-J1/4W        | 1         | 1         |
| 61 | R704,705                                     | -           | R-CABON            | 10K-J/2W          | 2         | 2         |

# 7-2 ASS'Y PCB - OUT

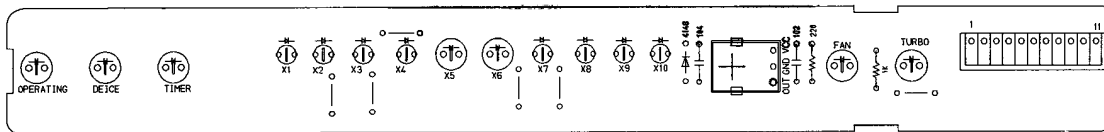
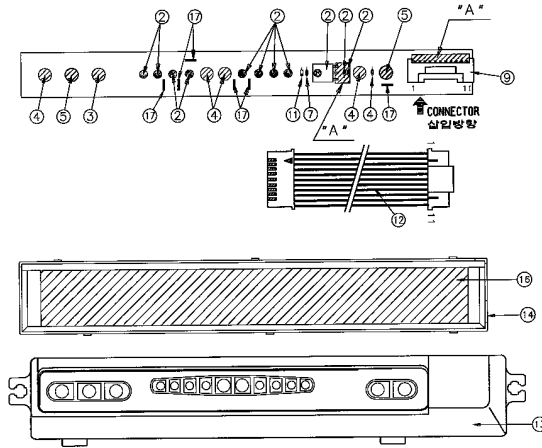
|             |           |
|-------------|-----------|
| DB93-10604A | UQV12A0TE |
| -           | UQV09A0TE |



## PART LIST

| No | DESIGN LOCATION                            | CODE NO     | Description          | Specification        | UQV12A20TE |
|----|--|-------------|----------------------|----------------------|------------|
| 1  | PTC1                                       | 1404-001034 | THERMISTOR-PTC       | 400hm, 25%           | 1          |
| 2  | VA91,VA92,VA93,VA94,VA95,VA96              | 1405-000147 | VARISTOR             | INR14D471K           | 6          |
| 3  | C103                                       | 2201-000318 | C-CERAMIC, DISC      | CKB3A222K10BS        | 1          |
| 4  | C101                                       | 2305-000397 | C-FILM, MPEF         | 470NF, 10%, 630V     | 1          |
| 5  | C901,902                                   |             | C-FILM, MPEF         | 275V, 684K           | 1          |
| 6  | MF-C                                       | 2306-000294 | C-FILM, MPPF         | 1.5µF, 450VAC        | 1          |
| 7  | RY1  | 3501-000399 | RELY-MINIATURE       | JO1A-12V             | 1          |
| 8  | RY2  | 3501-001002 | RELAY-POWER          | G4A-1A-P-DC12        | 1          |
| 9  | Q101                                       | DB47-90083A | TR-SWITCHING         | 25C3657              | 1          |
| 10 | DS901                                      | DB47-00004A | DISCHARGER           | MP302MA              | 1          |
| 11 | IC5  | DB09-10154A | IC-MCU               | MB89855R             | 1          |
| 12 | IC4  | DE13-20016A | IC-VOLT REGU         | KA7805A              | 1          |
| 13 | IC3  | DE13-20009A | IC                   | KA7533Z              | 1          |
| 14 | TN1  | DE26-90017A | TRANS-SWITCHING      | DN-613               | 1          |
| 15 | CT1  | DE26-90041A | TRANS-CURRENT        | 1.5KV 60HZ           | 1          |
| 16 | NF901                                      |             | COIL-FILTER          | CF-15-500HJ          | 1          |
| 17 | F101                                       | DE32-10037A | FUSE                 | 250V 3.15A           | 1          |
| 18 | F101                                       | DE47-40024A | FUSE-HOLDER          | FH-51H 7.5A          | 1          |
| 19 | TB1, TB2, TB3, TB4                         | DE59-30001A | TERMINAL             | 250TAB 1PIN          | 4          |
| 20 | D805, D806, D114                           | 0401-000005 | DIODE-SWITCHING      | 1N4148               | 3          |
| 21 | D201-D208, D701, D801-D804                 | 0402-000137 | DIODE-RECTIFIER      | 1N4007               | 13         |
| 22 | ZD1  | 0403-000389 | DIODE-ZENER          | UZP308, 30V          | 1          |
| 23 | ZD2, ZD3                                   | 0403-000637 | DIODE-ZENER          | UZ6.2B, 6.2V         | 2          |
| 24 | Q502, Q501, Q102, Q201, Q202               | 0504-000201 | TR-DIGITAL           | KSR1002, NPN         | 5          |
| 25 | LED2                                       | 0601-000166 | LED                  | ROUND, GRN 5mm       | 1          |
| 26 | LED3                                       | 0601-000261 | LED                  | ROUND, RED 5mm       | 1          |
| 27 | R105, R405-R407                            | 2001-000036 | R-CARBON             | RD 1/4T 331-J        | 4          |
| 28 | R106                                       | 2001-000042 | R-CARBON             | RD 1/4T 102-J        | 1          |
| 29 | R110-R112                                  | 2001-000047 | R-CARBON             | RD 1/4T 222-J        | 3          |
| 30 | R702                                       | 2001-000055 | R-CARBON             | RD 1/4T 472-J        | 1          |
| 31 | R107-R108, R113, R502                      | 2001-000065 | R-CARBON             | RD 1/4T 103-J        | 4          |
| 32 | R207-R212, R501, R503, R117                | 2001-000855 | R-CARBON             | RD 1/4T 561-J        | 9          |
| 33 | R102                                       | 2003-000003 | R-METAL OXIDE(S)     | RS 2TP 750-J         | 1          |
| 34 | R308                                       | 2003-000260 | R-METAL OXIDE        | RS 1TP 304-J         | 1          |
| 35 | R307                                       | 2003-000236 | "                    | RS 2TP 271-J         | 1          |
| 36 | R103                                       | 2003-000448 | R-METAL OXIDE(S)     | RS 2TP 104-J         | 1          |
| 37 | R101                                       | 2003-000497 | "                    | RS 2TP 154-J         | 1          |
| 38 | R104                                       | 2003-000542 | "                    | RS 1TP 010-J         | 1          |
| 39 | R701                                       | 2003-000719 | "                    | RS 2TP 562-J         | 1          |
| 40 | R301, R302                                 | 2003-002036 | "                    | RS 2TP 513-J         | 2          |
| 41 | R901                                       | 2003-002038 | "                    | RS 2TP 105-J         | 1          |
| 42 | R802                                       | 2004-000150 | R-METAL FILM         | RM 1/4T 152-F        | 1          |
| 43 | R306                                       |             | "                    | RM 1/4T 1012-F       | 1          |
| 44 | R803                                       | 2004-000344 | "                    | RM 1/4T 153-F        | 1          |
| 45 | R401                                       | 2004-000412 | "                    | RM 1/4T 183-F        | 1          |
| 46 | R402, R403                                 | 2004-000616 | "                    | RM 1/4T 243-F        | 2          |
| 47 | R801                                       | 2004-001187 | "                    | RM 1/4T 681-F        | 1          |
| 48 | R305                                       | 2004-001254 | "                    | RM 1/4T 822-F        | 1          |
| 49 | R201-R206                                  | 2005-001016 | R-WIRE               | RW 2TP 140-F         | 6          |
| 50 | C105                                       | 2201-000176 | C-CERAMIC, DISC      | CKB 103-K            | 1          |
| 51 | C102,C401-403,C502-504,C111,C121,C124,C117 | 2202-000780 | C-CERAMIC, MLC-AXIAL | CK 50V 104-Z         | 11         |
| 52 | C109,C301,C302,C305,C306                   | 2202-000127 | C-CERAMIC, MLC-AXIAL | CK 50V 103-Z         | 5          |
| 53 | C501                                       | 2202-000796 | C-CERAMIC, MLC-AXIAL | CK 50V 102-Z         | 1          |
| 54 | C701                                       | 2301-000256 | C-FILM, PEF          | 2A 472-J             | 1          |
| 55 | C801,C120                                  | 2401-000305 | C-AL                 | 100µF/25V            | 3          |
| 56 | C303                                       | 2401-000598 | C-AL                 | 1µF/50V              | 2          |
| 57 | C104, C112-C115, C118                      | 2401-000798 | C-AL                 | 220µF/16V            | 6          |
| 58 | C108                                       | 2401-000941 | C-AL                 | 22µF/25V             | 1          |
| 59 | C802                                       | 2401-001268 | C-AL                 | 4.7µF/50V            | 1          |
| 60 | C201-C204                                  | 2401-001452 | C-AL                 | 47µF/50V             | 4          |
| 61 | X101                                       | 2802-000103 | RESONATOR-CERAMIC    | CST10MTW-TF01        | 1          |
| 62 | CN42                                       |             | CONNECTOR WAFER      | SMW250-04(WHT)       | 1          |
| 63 | CN41                                       | 3711-000939 | "                    | SMW250-04 RED        | 1          |
| 64 | CN22                                       | 3711-000240 | "                    | YW396-04AV WHT       | 1          |
| 65 | CN71                                       | 3711-003404 | "                    | YW396-03AV BLU       | 1          |
| 66 | CN91                                       | 3711-000262 | "                    | YW396-05AV WHT       | 1          |
| 67 | CN11                                       | 3711-000260 | "                    | YW396-05AV BLU       | 1          |
| 68 | CN21                                       | 3711-003249 | "                    | YW396-836AV BLK      | 1          |
| 69 | R303, R304                                 | 2004-004066 | R-MATAL FILM         | RM 1/4 TP 44.9K-F    | 2          |
| 70 | C106, C107                                 |             | C-ELEC               | CE 04 D25V T 101-M   | 2          |
| 71 | D101,D102,D110,D111                        | DB47-90067A | DIODE-FR             | 1R5NH45              | 4          |
| 72 | D103-D109,D112,113                         | DB47-90068A | DIODE-RECT           | ERB44-02             | 9          |
| 73 | LED1                                       | DB07-10020A | LED-LAMP             | LTL-4253 YEL T P15.0 | 1          |
| 74 | PC3-PC8                                    | DB47-90070A | PHOTO-COUPLER        | PC922                | 6          |
| 75 | PC1, PC2, PC9                              | DB47-90071A | PHOTO-COUPLER        | PC817ST              | 3          |
| 76 | IC1  | DE13-20017A | IC-DRIVE, INVERT     | KID65003             | 1          |
| 77 | IC2  | DE13-20025A | IC-LINEAR            | LM1393/A DIP         | 1          |
| 78 | J01-J43                                    | DE39-60001A | WIRE-SO COPPER       | PI0.6 SN T           | 43         |
| 79 | R109                                       | 2001-000591 | R-CARBON             | RD 1/4 332-J         | 1          |
| 80 | C304,110,116,307,125,209                   | 2201-000318 | C-CERAMIC, DISC      | CKB222               | 6          |
| 81 | C903                                       | -           | C-FILM, MPEF         | 275V, 224K           | 1          |
| 82 | C904,C905                                  | -           | C-CERAMIC, DISC      | 102K                 | 2          |
| 83 | IGBT                                       | -           | -                    | SGH80N60UFD          | 1          |
| 84 | NF902                                      | DB29-90021A | COIL-FILTER          | 220VAC 13A           | 1          |
| 85 | NF903                                      | -           | COIL-FILTER          | LSA10024             | 1          |
| 86 | CN12                                       | -           | CONNECTOR WAFER      | MG640598             | 1          |
| 87 | IC7  | -           | IC-VOLT REGU         | KA7815A              | 1          |
| 88 | IC6  | 0604-001117 | IC-DRIVE IC          | HCPL-3150            | 1          |
| 89 | R217-R222                                  | -           | R-CEMENT             | 2.6K -J.5W           | 6          |
| 90 | C123                                       | -           | C-AL                 | 220µF/25V            | 1          |
| 91 | C119                                       | -           | C-AL                 | 220µF/50V            | 1          |
| 92 | R118                                       | -           | R-METAL OXIDE        | RS 5.1 -2W           | 1          |

7-3 ASS'Y DISPLAY DB93-00021A : AQV12F2VE, AQV09F2VE



■ PART LIST

| No | CODE-NO      | Description         | Specification      | Q'TY |
|----|--------------|---------------------|--------------------|------|
| 1  | DB41-00002A  | PCB-DISPLAY         | FR-Q T1.6 W2D L182 | 1    |
| 2  | 0601-000102  | LED-LAMP            | ROUND, 3mm, GRN    | 8    |
| 3  | 0601-001059  | LED-LAMP            | SY5511 (YEL)       | 1    |
| 4  | 0601-001060  | LED-LAMP            | SM5511 (GRN)       | 4    |
| 5  | 0601-001196  | LED-LAMP            | SO5511 (ORG)       | 2    |
| 6  | DB62-500278A | MODULE REMOCON      | PNA4612MOO X D     | 1    |
| 7  | 2202-000780  | C-CERAMIC           | CA OA 50V 104Z     | 1    |
| 8  | 2001-000515  | R-CARBON            | RD 1/8TP 221-J     | 2    |
| 9  | -            | CONNECTOR WAFER     | YWLA200-11P        | 1    |
| 10 | 2201-000283  | C-CERAMIC           | CA OA 50V 102Z     | 1    |
| 11 | 0401-000005  | DIODE SWITCHING     | 1N4148             | 1    |
| 12 | DB39-20587A  | C/W DIS & MODULE    | UL1007 AWG#26/11   | 1    |
| 13 | DB61-10205A  | CASE-CENTER PCB UP  | PC, BLUE           | 1    |
| 14 | DB63-10494A  | CASE-CENTER PCB LOW | ABS, BLK           | 1    |
| 15 |              |                     |                    | 1    |
| 16 | DB72-10220F  | SEAL CASE DISPLAY   | 30FOAM-PE          | 1    |
| 17 |              | JUMP-WIRE           | 6mm                | 6    |