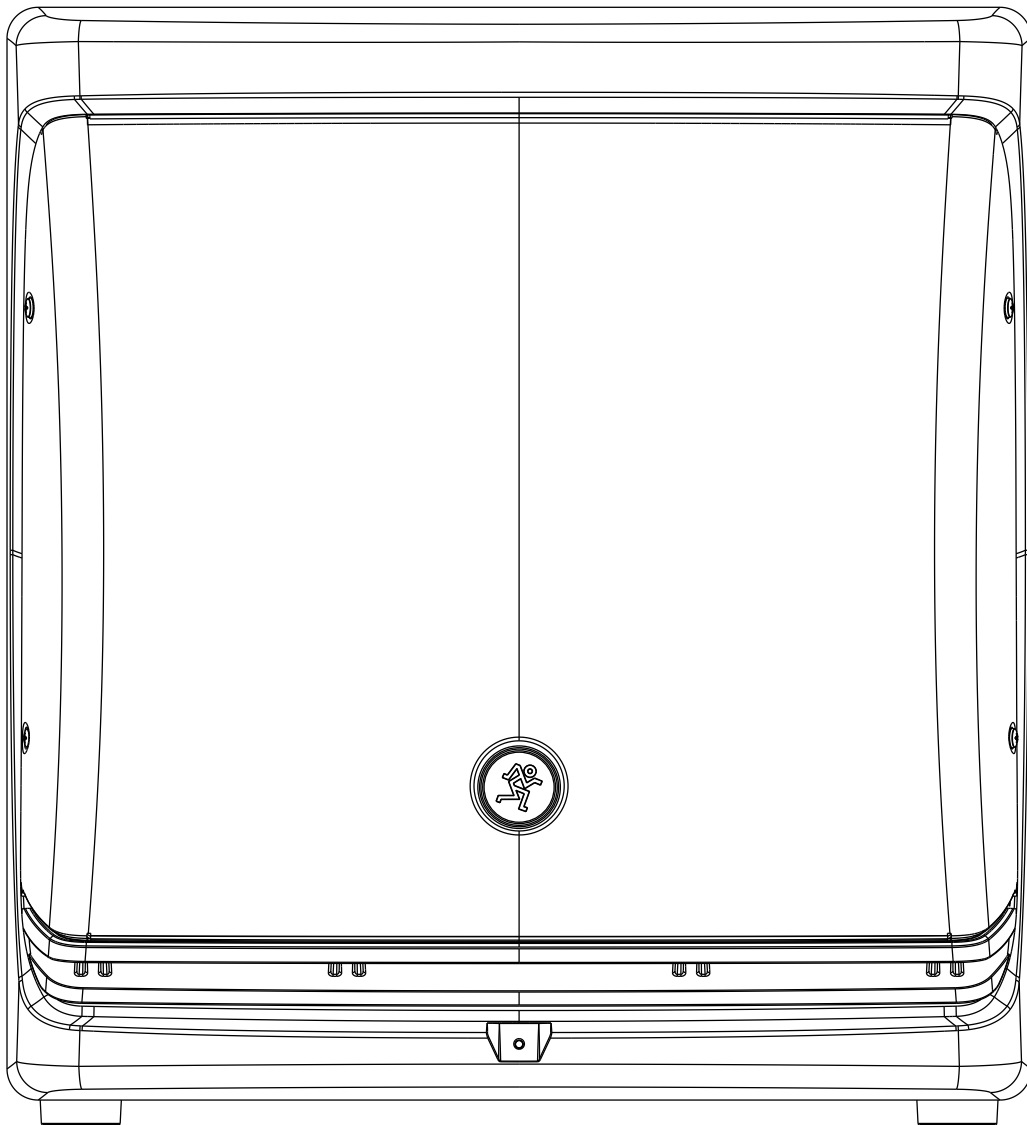


# MACKIE.

## Service Manual



**DLM12S**  
*Codename: Nano Sub*



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                        |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                               | <b>CAUTION AVIS</b><br>RISK OF ELECTRIC SHOCK. DO NOT OPEN<br>RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR |  |
| <p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK)<br/>NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL</p> <p>ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE.<br/>AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER.<br/>CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE.</p> <p>AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE<br/>A LA PLUIE OU A L'HUMIDITE</p> |                                                                                                        |                                                                                     |



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.

*Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'électrocution.*



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

*Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.*

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### Safety Warning:



Caution! These instructions are for use by qualified personnel only!

To avoid electric shock, do not perform any servicing unless you are qualified to do so.

Refer all service to qualified personnel.

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### ESD Warning:



To avoid damage by electrostatic discharge all standard ESD precautions must be taken.

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## SPECIFICATIONS

### Frequency Response

|                                                         |                               |
|---------------------------------------------------------|-------------------------------|
| (-10 dB)                                                | 35 Hz – 135 Hz                |
| Max peak SPL                                            | (@ 1m calculated) 128 dB      |
| Calculated from driver sensitivity and amplifier power. |                               |
| Crossover Point                                         | 60 - 120 Hz (User-selectable) |

### Equalization

|               |                  |
|---------------|------------------|
| Low Shelving  | ±15 dB @ 80 Hz   |
| Mid-Peaking   | ±15 dB @ 2.5 kHz |
| High Shelving | ±15 dB @ 12 kHz  |
| Increments    | ±3 dB            |

### Transducer

|                     |                  |
|---------------------|------------------|
| Woofer Diameter     | 12.0 in / 305 mm |
| Voice Coil Diameter | 3.0 in / 76 mm   |
| Diaphragm Material  | Paper            |
| Magnet Material     | Ferrite          |

### Power Amplifier

|             |                                   |
|-------------|-----------------------------------|
| Rated Power | 1000 watts rms<br>2000 watts peak |
| Rated THD   | < 1%                              |
| Cooling     | Multi-speed fan                   |
| Design      | Class D                           |

### DLP Digital System Processing

|                 |                                                                     |
|-----------------|---------------------------------------------------------------------|
| Volume [Vol]    | Off (-∞ dB) to +10dB                                                |
| Crossover [XVR] | Four preset, one variable XVR modes                                 |
| Delay [DLY]     | 0-300 ms                                                            |
| Memory          | Three locations for instant venue setting, recall and factory reset |

### Input / Output

|                    |                                                         |
|--------------------|---------------------------------------------------------|
| Input Type         | Female XLR balanced<br>differential (stereo left/right) |
| Input Impedance    | 20 kΩ balanced<br>10 kΩ unbalanced                      |
| Full Range Outputs | Male XLR balanced<br>(parallel with input)              |
| High Pass Outputs  | Male XLR balanced                                       |





### **Power**

|                                |                                 |
|--------------------------------|---------------------------------|
| US detachable line cord        | 100 – 120 VAC, 50 – 60 Hz, 250W |
| EU detachable line cord        | 220 – 240 VAC, 50 – 60 Hz, 250W |
| AC Connector                   | 3-pin IEC 250 VAC               |
| Operating Temperature          | 0 - 40 °C                       |
| [extended ambient temperature] | 32 - 104 °F                     |

### **Safety Features**

|                  |                                                                      |
|------------------|----------------------------------------------------------------------|
| Input Protection | Peak and RMS limiting, power supply and amplifier thermal protection |
| Display LEDs     | Defeatable front power ON, Front load power limiter                  |
| Status Info      | Power supply voltage, Core temperature                               |

### **Physical Properties**

|        |                  |
|--------|------------------|
| Height | 17.9 in / 455 mm |
| Depth  | 20.8 in / 529 mm |
| Width  | 16.4 in / 417 mm |
| Weight | 48 lb / 21.7 kg  |



## !!!Service Bulletins / Kits and Modifications (Please Review Before Servicing)!!!

## Service Bulletins

- None as of this document revision.

## Service Kits

- None as of this document revision.

## Modifications

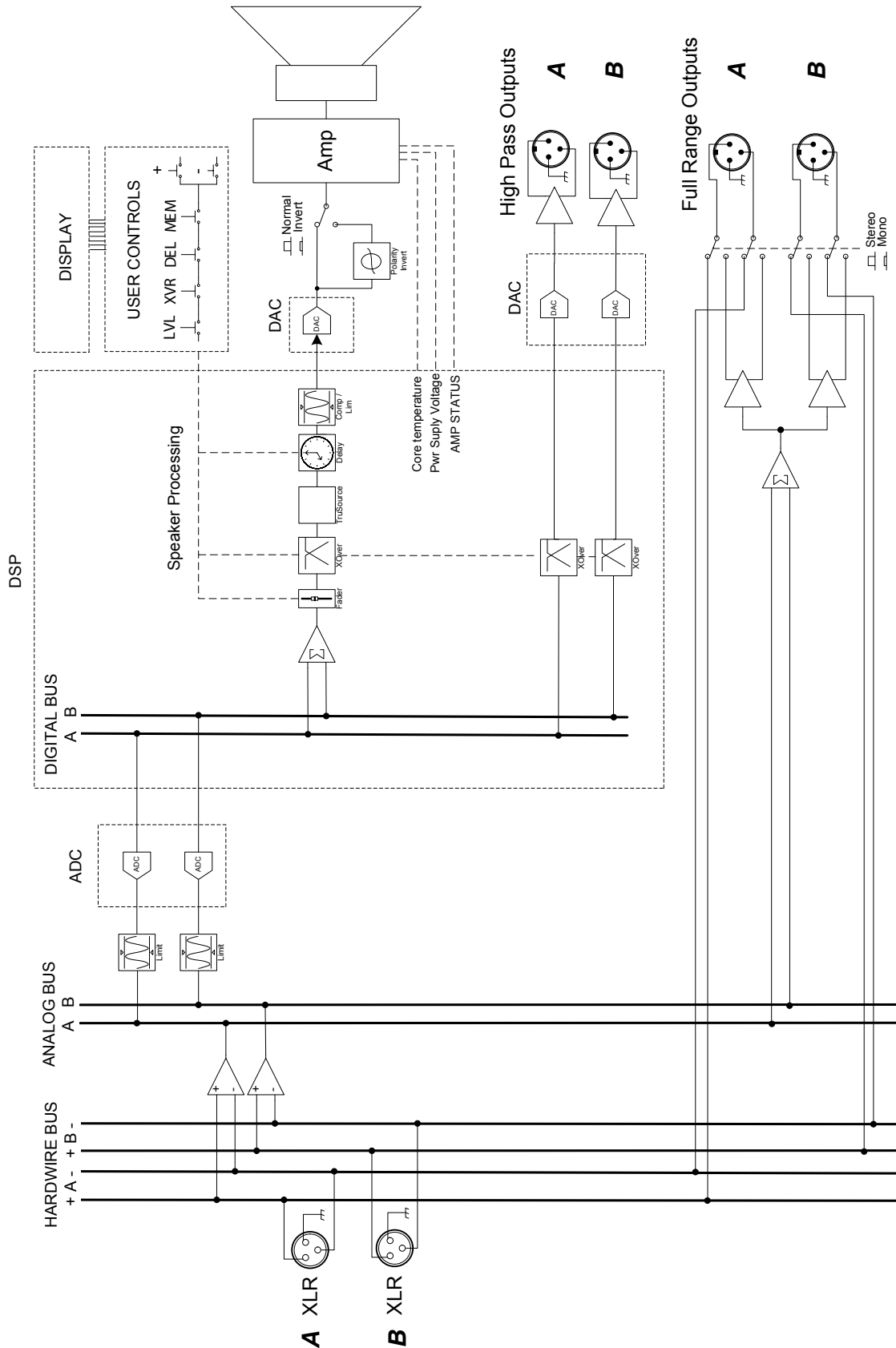
- None as of this document revision.

NOTES:

[illegible]

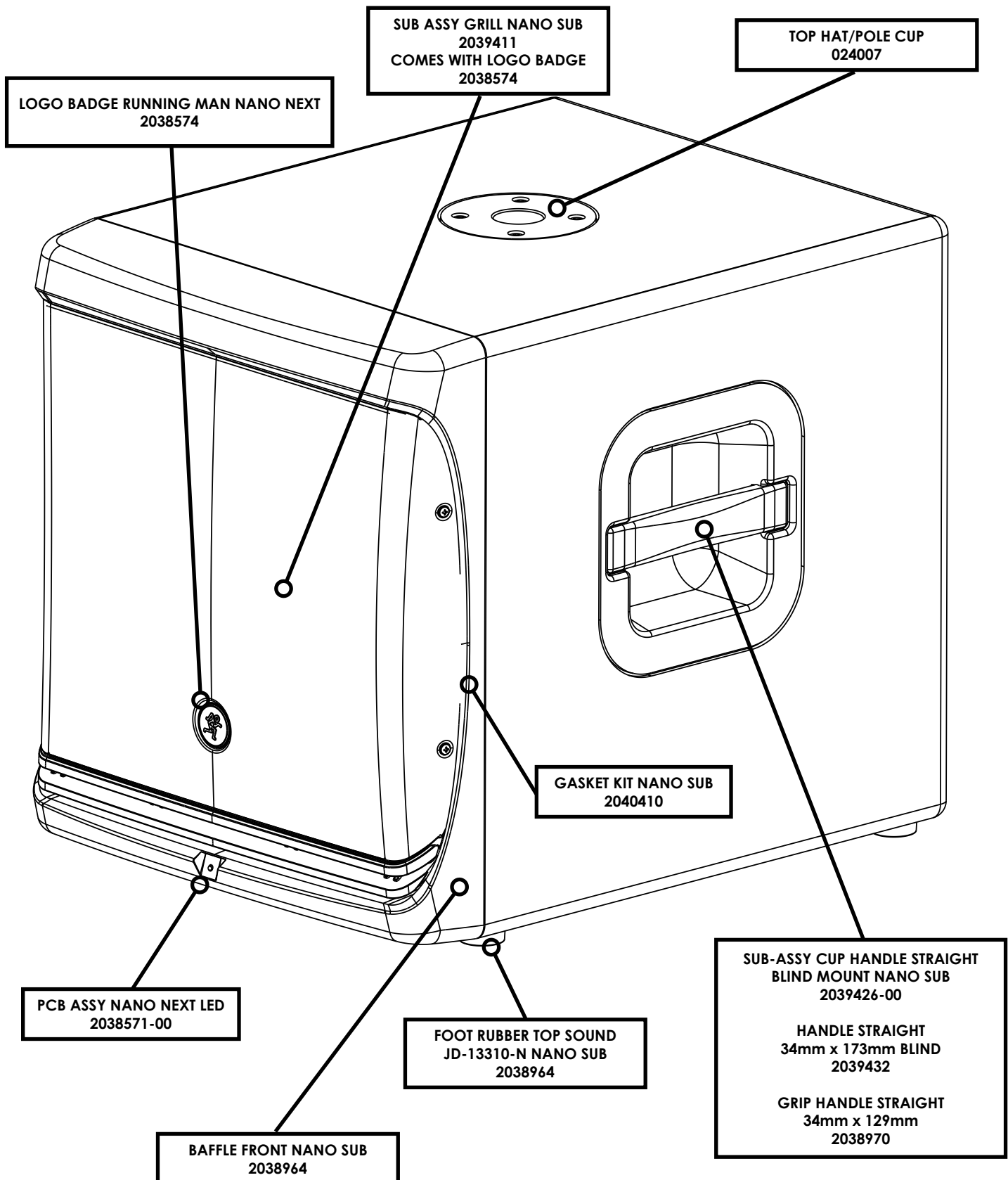


## BLOCK DIAGRAM





## QUICK PARTS (FRONT)





## QUICK PARTS (BACK)

BUTTON MAIN - "VOL" NANO SUB  
2038470-05

BUTTON MAIN - "XVR" NANO SUB  
2038470-06

BUTTON MAIN - "DLY" NANO SUB  
2038470-07

BUTTON MAIN - "MEM" NANO  
2038470-04

BUTTON VOLUME - "UP" NANO  
2038471-01

BUTTON VOLUME - "DOWN" NANO  
2038471-02

RND BUTTON CAP  
0012143-07

BTN ADAPTER  
0016339-00

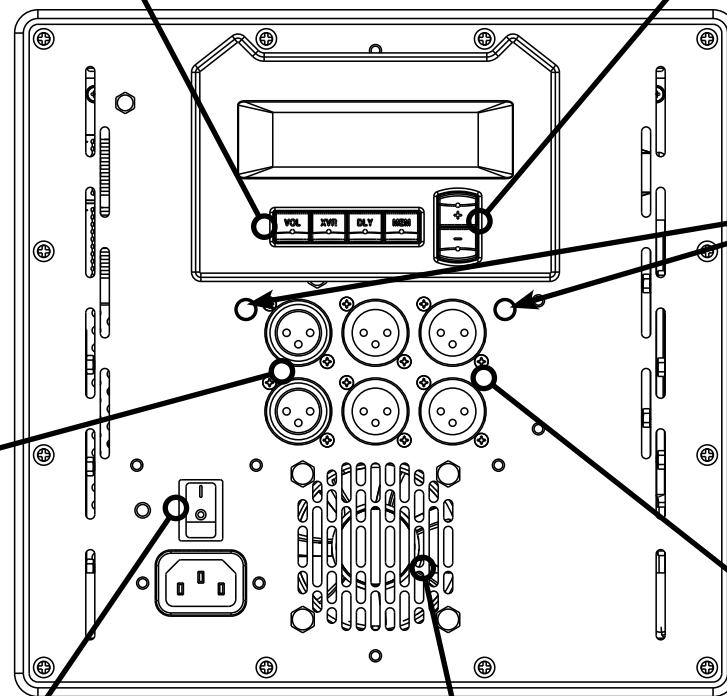
CONN XLR 4P FEMALE AA-SERIES  
NO-LATCH SHELL & PANEL TIED TO  
SEPARATE GROUND (PIN4)  
2033694

CONN XLR 3P MALE  
AA-SERIES SHELL &  
PANEL TIED TO SEPERATE  
GROUND (PIN 4)  
2033697

SUB ASSY SWITCH ROCKER DPST 250VAC  
10A UL CSA/250VAC 8A/80A VDE  
2039282

SWITCH ROCKER DPST 250VAC  
10A UL CSA/250VAC 8A/80A VDE  
0030476

SUB ASSY FAN 12VDC 60X60X15MM 15CFM  
2039097-01



**FINAL ASSEMBLY BOM**

| Qty | Item Number | Rev | Item Description                               | Ref Des | BOM Notes                                              |
|-----|-------------|-----|------------------------------------------------|---------|--------------------------------------------------------|
|     | 2037880-00  | A00 | DLM12S 120V US                                 |         |                                                        |
| 1   | 2037880-00U | A00 | NANOSUB 120V US UNADJUSTED                     |         |                                                        |
| 1   | 2037881-00  | F00 | ASSY FINAL NANO SUB 100-120V                   |         |                                                        |
| 1   | 2038835-00  | C00 | CAB FINISHED NANO SUB                          |         |                                                        |
| 4   | 0031726-52  | A00 | RIVNUT M5 X 14 LG STL                          |         | Top Hat                                                |
| 8   | 2039988     | B00 | RIVNUT M5 X 11 LG X 15 OD STL                  |         | Woofer                                                 |
| 1   | 024007      | C   | TOP HAT/POLE MOUNT/<br>SRS1500[MKE-490-051-00] |         |                                                        |
| 1   | 030012      | A   | GASKET/TOP HAT[MCK]                            |         |                                                        |
| 4   | 0010027     | A   | SCREW/M5X25 PH FHMS [DIN965 A]                 |         | TOP HAT TO<br>CABINET                                  |
| 2   | 2039426-00  | C00 | SUBASSY CUP HANDLE STRAIGHT BLIND<br>MOUNT     |         |                                                        |
| 1   | 2039426     | C01 | CUP HANDLE STRAIGHT BLIND MOUNT                |         |                                                        |
| 2   | 2039781     | A00 | GASKET HANDLE STRAIGHT                         |         |                                                        |
| 12  | 2036880-12  | A00 | SCR TFS M4X12 PAN PH STL NICKEL                |         | HANDLE CUPS<br>TO CABINET                              |
| 12  | 105060      | A00 | WASHER/FLAT/FENDER DIN 9021/<br>M4/18-8 BLACK  |         | HANDLE CUPS<br>TO CABINET                              |
| 12  | 0018220     | A00 | WASHER/LOCK/M4/BLK[DIN127 B]                   |         | HANDLE CUPS<br>TO CABINET                              |
| 2   | 2039432     | E00 | HANDLE STRAIGHT 34mm x 173mm<br>BLIND          |         |                                                        |
| 2   | 2039555     | A01 | STUD MOLDED-IN M5 X 15                         |         | MOLDED IN<br>PLACE                                     |
| 2   | 2038970     | D00 | GRIP HANDLE STRAIGHT 34MM X<br>129MM           |         |                                                        |
| 6   | 0000330-08  | B00 | SCR M3 X 8MM TF PLASTIC PAN PH<br>CLRZC STEEL  |         | GRIPS TO<br>HANDLES                                    |
| 4   | 103031      | A   | NUT/HEX M5                                     |         | HANDLES TO<br>CABINET                                  |
| 4   | 2039478     | A00 | PLATE RETAINER HANDLE STRAIGHT                 |         | HANDLES TO<br>CABINET                                  |
| 4   | 2034356     | A00 | FOOT RUBBER TOP SOUND JD-3310-N                |         |                                                        |
| 4   | 0009940     | A   | SCREW/M4.8 X 19 PH PHSMS<br>BLK[DIN7981C]      |         | FEET TO CABINET                                        |
| 1   | 2038636     | B01 | XDCR DRIVER CONE LC12-3014-8                   |         |                                                        |
| 1   | AW2044      | A00 | LBL DRIVER 2038636                             |         |                                                        |
| 12  | 0010016     | A00 | WASHER/LOCK/M5/DIN127A/ZINC                    |         | (8) @ AT WOOF-<br>ER; (4) @ HAN-<br>DLES               |
| 8   | 0010073     | A   | SCREW/M5X25 SHCS BLK[DIN7984]                  |         | AT WOOFER                                              |
| 1   | 2039497     | A00 | POLYESTER FILL NANO SUB                        |         | DO NOT BLOCK<br>PORTS                                  |
| 12  | 2039415     | A00 | PAD EVA DISC 15MM OD X 5MM ID X<br>4MM THK     |         | ATTACH TO<br>BAFFLE POSTS<br>BEFORE ASSY TO<br>CABINET |
| 1   | 2038964     | C00 | BAFFLE FRONT NANO SUB                          |         |                                                        |



| Qty | Item Number | Rev | Item Description                                                                 | Ref Des                                                                                                                                                                                                                                                                                            | BOM Notes                                                |
|-----|-------------|-----|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 1   | 2038968     | D00 | LOUVER FRONT NANO SUB                                                            |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2039411     | C00 | GRILLE SUB-ASSY NANO SUB                                                         |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2038966     | B00 | GRILLE NANO SUB                                                                  |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2038574     | B00 | LOGO BADGE RUNNING MAN NANO NEXT                                                 |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2040825-03  | A00 | TAPE EPDM FOAM 1.6MM THK X 10MM WIDE X 350MM LG CLOSED CELL SINGLE SIDED PSA BLK |                                                                                                                                                                                                                                                                                                    | Installs to bottom flange of grille                      |
| 1   | 2038571-00  | B00 | PCB ASSY NANO NEXT LED                                                           |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2038953     | 100 | LED GREEN 525NM SUPERBRIGHT T-1                                                  | D1                                                                                                                                                                                                                                                                                                 |                                                          |
| 1   | 0027080     | A00 | PILLAR D3X10.8MM PLASTIC                                                         | SPC1                                                                                                                                                                                                                                                                                               |                                                          |
| 1   | 0005168-02  | B00 | CONN HDR 2P .098X1 SHRD TJC3                                                     | J1                                                                                                                                                                                                                                                                                                 |                                                          |
| 1   | 51240211    | A   | SCR SELFTAP 2.9X9.5 FILH PHH STL BLK                                             |                                                                                                                                                                                                                                                                                                    | @ LED PCB ASSY                                           |
| 1   | 2039679-00  | D00 | ASSY AMPLIFIER NANO SUB 100-120V                                                 |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2038350     | E00 | ENCLOSURE AMPLIFIER NANO                                                         |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2038355     | A00 | INSULATOR AMPLIFIER NANO BASE                                                    |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 750-001-00  | A   | BUMPON ROUND BLK .63X.31                                                         |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2039680-01  | A00 | SUBASSY NANO AMP+PS BRIDGED                                                      |                                                                                                                                                                                                                                                                                                    |                                                          |
| 1   | 2039275-01  | D01 | PCB ASSY NANO SHADOW BRIDGED                                                     |                                                                                                                                                                                                                                                                                                    |                                                          |
| 0   | 2039275-XX  | D01 | SCHEMATIC PCB ASSY NANO SHADOW                                                   | SCH1                                                                                                                                                                                                                                                                                               | FOR FUNCTIONAL TEST USE D01279. FOR ICT TEST USE D01284. |
| 8   | 0020294     | A00 | CAP CER .047uF 200V X7R SMT 1206                                                 | C1,C2,C3,C5,C6,C7,C205,C206                                                                                                                                                                                                                                                                        |                                                          |
| 8   | 0008480     | A   | CAP CER 47P 200V 5% 1206 NPO                                                     | C4,C8,C10,C11,C189,C190,C198,C200                                                                                                                                                                                                                                                                  |                                                          |
| 3   | 0032725     | A00 | CAP 10UF 25V 10% X7R 1206                                                        | C9,C69,C72                                                                                                                                                                                                                                                                                         |                                                          |
| 60  | 212-025-00  | D11 | CAP CER .1UF 50V 10% X7R                                                         | C12,C13,C14,C15,C38,C39,C42,C43,C80,C105,C116,C117,C124,C125,C126,C128,C129,C134,C135,C143,C144,C146,C147,C148,C149,C151,C152,C153,C155,C156,C157,C158,C159,C161,C164,C165,C170,C172,C174,C181,C191,C192,C195,C210,C211,C212,C213,C216,C217,C220,C221,C222,C223,C224,C225,C227,C228,C231,C232,C238 |                                                          |
| 2   | 2039232     | A00 | CAP 47uF 20% 35V 105C AL RADIAL                                                  | C16,C17                                                                                                                                                                                                                                                                                            |                                                          |
| 3   | 0031389     | A00 | CAP LYT 100UF 20% 25V 105C RAD                                                   | C19,C24,C86                                                                                                                                                                                                                                                                                        |                                                          |
| 2   | 0015142     | A00 | CAP 0.33UF 5% 250V 3.5A @ 100KHz PPM RADIAL                                      | C20,C30                                                                                                                                                                                                                                                                                            |                                                          |
| 7   | 220-070-00  | A1  | CAP LYT 470U 20% 25V 105C BUK                                                    | C21,C31,C33,C36,C40,C46,C63                                                                                                                                                                                                                                                                        |                                                          |
| 2   | 2037911     | A00 | CAP 0.82UF 5% 250V 4.2A @ 100KHz PPM RADIAL                                      | C22,C23                                                                                                                                                                                                                                                                                            |                                                          |
| 2   | 0008518     | A00 | CAP LYTC 47UF 20% 100V 105C T/A                                                  | C25,C26                                                                                                                                                                                                                                                                                            |                                                          |
| 2   | 210-027-00  | A11 | CAP 470PF 20% 250VAC Y2/X1 CER RADIAL                                            | C32,C35                                                                                                                                                                                                                                                                                            |                                                          |
| 1   | 200-050-00  | A01 | CAP PLYBOX .47UF 20% 275V X2                                                     | C71                                                                                                                                                                                                                                                                                                |                                                          |
| 10  | 2037758     | A00 | CAP 390UF 20% 100V 1.6A 105C AL RADIAL 18X25                                     | C49,C50,C51,C52,C55,C56,C59,C60,C61,C62                                                                                                                                                                                                                                                            |                                                          |
| 1   | 0031388     | A00 | CAP CER 0.01UF 1KV 10% DISC                                                      | C58                                                                                                                                                                                                                                                                                                |                                                          |



| Qty | Item Number | Rev | Item Description                                        | Ref Des                                                                                                                               | BOM Notes |
|-----|-------------|-----|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1   | 0026121     | A00 | CAP 0.1UF 400V 10% METALLIZED POLYPROPYLENE FILM RADIAL | C64                                                                                                                                   |           |
| 3   | 220-070-02  | A11 | CAP LYT 470U 20% 25V 105C T/A                           | C27,C37,C65                                                                                                                           |           |
| 1   | 0017302     | A00 | CAP 0.1uF 400V POLYE FILM                               | C66                                                                                                                                   |           |
| 1   | 0028474     | A00 | CAP 2.2UF 25V 20% Y5V 1206                              | C68                                                                                                                                   |           |
| 1   | 0026957     | A00 | CAP 2200PF 100V 10% X7R 1206                            | C70                                                                                                                                   |           |
| 2   | 0021297     | A00 | CAP Lytic 2200uF 200V 30mm dia                          | C73,C77                                                                                                                               |           |
| 1   | 0031234     | A00 | CAP 0.47UF 400V 5% METALLIZED POLYPROPYLENE FILM RADIAL | C74                                                                                                                                   |           |
| 3   | 0026146     | A00 | CAP 1000PF 100V 10% X7R 1206                            | C76,C78,C79                                                                                                                           |           |
| 4   | 212-037-00  | A11 | CAP CER 1000PF 2% 50V NPO SMT                           | C82,C83,C121,C122                                                                                                                     |           |
| 1   | 0029768     | A00 | CAP 2200PF 20% 250VAC Y1 CER DISC                       | C84                                                                                                                                   |           |
| 1   | 0026974     | A00 | CAP 22UF 50V 20% 105C AL RADIAL 2X5DX5MM (TAPING)       | C85                                                                                                                                   |           |
| 2   | 2039267     | A00 | CAP 0.022uF 10% 500V X7R 1206                           | C100,C101                                                                                                                             |           |
| 2   | 0018984     | A00 | CAP CER X7R 1UF 16V 10% 0805                            | C104,C131                                                                                                                             |           |
| 4   | 0029767     | A00 | CAP COG/NPO 100pF 5% 200V 1206 SMT                      | C106,C107,C109,C110                                                                                                                   |           |
| 2   | 212-046-00  | A11 | CAP 510PF 5% 50V NPO 0805                               | C108,C130                                                                                                                             |           |
| 18  | 0020295     | A00 | CAP CER 4.7uF 25V X7R SMT1206                           | C120,C127,C154,C160,C162,C163, C171,C173,C183,C184,C186,C187, C188,C196,C199,C201,C204,C207                                           |           |
| 4   | 2037909     | A00 | CAP 6800pF 10% 100V X7R CER 0805                        | C166,C168,C180,C193                                                                                                                   |           |
| 4   | 2034271     | A00 | CAP 680PF 100V 5% COG 0805                              | C167,C169,C185,C194                                                                                                                   |           |
| 2   | 224-046-00  | A11 | CAP .01UF 5% 50V FM 1206                                | C175,C214                                                                                                                             |           |
| 2   | 212-004-00  | C11 | CAP CER 220PF 5% 50V NPO SM                             | C176,C202                                                                                                                             |           |
| 2   | 212-039-00  | A11 | CAP CER .33UF 16V 10% X7R SM                            | C178,C179                                                                                                                             |           |
| 4   | 2036451     | A00 | DIODE SUPERFAST ES3D 3 AMP 200 VOLT SMC                 | D1,D3,D9,D12                                                                                                                          |           |
| 2   | 0026291     | A00 | DIODE SUPERFAST ER1D 200V 1A 35NS SMB/DO-214AA          | D13,D134                                                                                                                              |           |
| 4   | 0026295     | A00 | DIODE ULTRAFAST MUR1520 200V 15A 35NS TO-220AC          | D15,D19,D20,D21                                                                                                                       |           |
| 9   | 0026287     | A00 | DIODE SCHOTTKY SS0540 40V 0.5A SOD-123                  | D18,D102,D103,D122,D123,D124, D125,D142,D168                                                                                          |           |
| 2   | 0028386     | A00 | DIODE SUPERFAST ER306 600V 3A 35NS DO-201AD             | D22,D23                                                                                                                               |           |
| 1   | 0026272     | A00 | DIODE BRIDGE 600V 25A KBJ                               | D25                                                                                                                                   |           |
| 6   | 0004137     | A00 | DIODE 1.0A SMT PASSIVATED RECTIFIER S1G                 | D111,D126,D129,D132,D164,D165                                                                                                         |           |
| 26  | 0004125     | A01 | DIODE SMT 1N4148W 75V FAST SWITCHING SOD123             | D112,D113,D114,D115,D116,D135, D137,D138,D140,D141,D143,D144, D145,D146,D147,D148,D149,D150, D151,D152,D159,D162,D169,D170, D171,D172 |           |
| 3   | 0004128     | A00 | DIODE 500MW SURFACE MOUNT ZENER MMSZ5232B 5.6V          | D130,D131,D153                                                                                                                        |           |
| 6   | 0016970     | A00 | DIODE RECT ES1G 1A FAST GLASS SMT                       | D155,D157,D158,D160,D166,D167                                                                                                         |           |
| 1   | 0026958     | A00 | DIODE SUPERFAST ER1J 600V 1A 35NS DO-214AA (SMA)        | D136                                                                                                                                  |           |





| Qty | Item Number | Rev | Item Description                                      | Ref Des                              | BOM Notes |
|-----|-------------|-----|-------------------------------------------------------|--------------------------------------|-----------|
| 3   | 0004131     | A00 | DIODE 500MW SURFACE MOUNT ZENER MMSZ5250B 20V         | D139,D161,D163                       |           |
| 2   | 0000021     | A00 | DIODE SCHOTKY BAT54S                                  | D154,D156                            |           |
| 2   | 400-060-00  | A01 | CONN FUSE CLIP PCMT 5MM DIA                           | FC1,FC2                              |           |
| 1   | 2038141     | A00 | SHIELD NANO AMP OUTPUT EMC PCB-MOUNT                  | HDW2                                 |           |
| 1   | 0005168-08  | B00 | CONN HDR 8P .098X1 SHRD TJC3                          | J1                                   |           |
| 1   | 0005168-10  | B00 | CONN HDR 10P .098X1 SHRD TJC3                         | J2                                   |           |
| 6   | 400-171-00  | A01 | CONN HDR 2P .100X1 STR                                | J3,J4,J8,J9,J10,J11                  |           |
| 1   | 0005168-02  | B00 | CONN HDR 2P .098X1 SHRD TJC3                          | J5                                   |           |
| 2   | 400-143-00  | A01 | CONN HDR 3P .100X1 STR                                | J6,J7                                |           |
| 1   | 2033617-02  | A00 | CONN HDR 7A 2P 7.92MM 1ROW POLAR VRT                  | J12                                  |           |
| 2   | 0026686     | A00 | TERM 14X8X0.8MM BRS                                   | J13,J14                              |           |
| 1   | 712-057-03  | A   | LRG TEST POINT SMT                                    | J100                                 |           |
| 1   | 0013040-06  | A00 | CONN HDR 7A 6P 4.2MM 2ROW SHRD                        | J102                                 |           |
| 1   | 0022696     | A02 | RELAY DPDT 10A/250VAC 12VDC                           | K1                                   |           |
| 1   | 0027292     | A00 | IND SW COMMON MODE 70uH 25% 3.5A (X6) PCB             | L1                                   |           |
| 2   | 2040433     | A00 | IND SW 500KHz 25UH 10% 17A-DC EP20 500W RECON         | L2,L3                                |           |
| 4   | 2038111     | A00 | IND COM 340uH +/-25% 8A RADIAL                        | L4,L5,L6,L7                          |           |
| 5   | 0027472     | A00 | IND 20UH 20% 2.5A 0.045 OHM RADIAL                    | L8,L9,L10,L11,L17                    |           |
| 2   | 0026387     | A00 | MAG FERRITE BEAD 9.8X11.5X1.0MM D5A                   | L14,L16                              |           |
| 4   | 0033266     | A01 | XSTR FET N-CH IRFB4227PBF 200V 65A 0.0197RDS TO-220AB | Q1,Q2,Q3,Q4                          |           |
| 1   | 310-020-00  | B11 | XSTR PWR PNP TIP32A 60V 3A TO220                      | Q5                                   |           |
| 3   | 311-001-00  | B01 | XSTR NPN IMBT4401 SMT                                 | Q6,Q104,Q107                         |           |
| 1   | 2034044     | A01 | XSTR FET N-CH FQPF7N65C 650V 7A 1.4 OHM TO220F        | Q7                                   |           |
| 2   | 2039233     | A00 | XSTR FET N-CH FDP22N50N 500V 22A 0.22 OHM TO-220      | Q8,Q9                                |           |
| 4   | 311-002-00  | A01 | XSTR PNP MMST4403 SMT                                 | Q100,Q101,Q102,Q106                  |           |
| 4   | 0000086     | A00 | XSTR FZT651TA NPN 3A 60V SOT-223                      | Q108,Q110,Q112,Q114                  |           |
| 4   | 0000085     | A00 | XSTR FZT751TA PNP 3A 60V SOT-223                      | Q109,Q111,Q113,Q115                  |           |
| 4   | 145-000-00  | B   | RES TF SM .1W 0 OHM                                   | R1,R2,R280,R302                      |           |
| 8   | 0007784     | A00 | RES SMT 5% 2K0 OHM 2010                               | R3,R4,R5,R6,R13,R14,R17,R18          |           |
| 4   | 0008487     | B01 | RES TF SM 1W 5% 22 OHM 2512                           | R7,R8,R9,R10                         |           |
| 8   | 123-063-00  | B   | RES MET-OX 39 OHM 5% 3W                               | R11,R16,R20,R22,R25,R26,R27,R28      |           |
| 8   | 146-418-00  | A00 | RES MF SM .25W 1% 20K0 OHM                            | R12,R15,R21,R24,R250,R251,R271, R273 |           |
| 2   | 130-090-00  | A00 | POT TRIM 1KOHM HORIZ                                  | R19,R23                              |           |
| 1   | 121-132-00  | A00 | RES MO 300K OHM 5% 1W                                 | R29                                  |           |
| 2   | 2039234     | A00 | THERM NTC INRUSH CURRENT LIMITER 2 OHM 25% 18A RADIAL | R30,R31                              |           |
| 2   | 0026418     | A00 | RES 100 1% 1/4W 1206                                  | R32,R36                              |           |
| 4   | 140-129-00  | A01 | RES TF SM .1W 5% 180K OHM                             | R34,R134,R140,R148                   |           |



| Qty | Item Number | Rev | Item Description                     | Ref Des                                                                                                                                                            | BOM Notes |
|-----|-------------|-----|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 30  | 140-097-00  | A   | RES TF SM .1W 5% 10K OHM             | R35,R54,R61,R116,R117,R164,R165,<br>R202,R204,R213,R214,R216,R222,<br>R223,R224,R230,R241,R243,R252,<br>R253,R256,R321,R322,R323,R324,<br>R326,R328,R330,R332,R334 |           |
| 1   | 0021342     | A01 | RES MET-OX 47K 5% 2W                 | R37                                                                                                                                                                |           |
| 2   | 0026967     | A00 | RES MET-OX 68K 5% 1W                 | R38,R41                                                                                                                                                            |           |
| 3   | 0026440     | A00 | RES 150K 5% 1/4W 1206                | R39,R40,R42                                                                                                                                                        |           |
| 1   | 0026388     | A00 | MOV 470VAC DISC 14MM                 | R43                                                                                                                                                                |           |
| 4   | 0026965     | A00 | RES MET 10 5% 1/2W                   | R45,R46,R47,R48                                                                                                                                                    |           |
| 1   | 145-205-00  | A00 | RES MF SM .1W 1% 133 OHM             | R49                                                                                                                                                                |           |
| 1   | 145-298-00  | B   | RES MF SM .1W 1% 1K24 OHM            | R50                                                                                                                                                                |           |
| 1   | 2035397     | A00 | THERM NTC 100K 1% @ 25C TAB<br>MOUNT | R51                                                                                                                                                                |           |
| 2   | 140-080-00  | A   | RES TF SM .1W 5% 2K0 OHM             | R52,R53                                                                                                                                                            |           |
| 1   | 145-441-00  | B   | RES MF SM .1W 1% 34K8 OHM            | R55                                                                                                                                                                |           |
| 1   | 0026966     | A00 | RES MET-OX 0.47 5% 1W                | R57                                                                                                                                                                |           |
| 2   | 140-065-00  | A   | RES TF SM .1W 5% 470 OHM             | R58,R59                                                                                                                                                            |           |
| 2   | 145-406-00  | B   | RES MF SM .1W 1% 15K0 OHM            | R60,R206                                                                                                                                                           |           |
| 3   | 0021368     | A01 | RES 10 5% 1/4W 1206                  | R62,R106,R109                                                                                                                                                      |           |
| 5   | 0026470     | A00 | RES 22 5% 1/4W 1206                  | R63,R107,R108,R110,R111                                                                                                                                            |           |
| 6   | 145-289-00  | B   | RES MF SM .1W 1% 1K00 OHM            | R64,R219,R248,R249,R293,R303                                                                                                                                       |           |
| 9   | 140-130-00  | A   | RES TF SM .1W 5% 200K OHM            | R118,R198,R203,R211,R212,R239,<br>R240,R304,R305                                                                                                                   |           |
| 6   | 145-193-00  | B   | RES MF SM .1W 1% 100 OHM             | R125,R170,R255,R258,R282,R292                                                                                                                                      |           |
| 2   | 0026450     | A00 | RES 1K 5% 1/4W 1206                  | R126,R129                                                                                                                                                          |           |
| 1   | 145-485-00  | B   | RES MF SM .1W 1% 100K OHM            | R131                                                                                                                                                               |           |
| 5   | 145-181-00  | D01 | RES MF SM 75 OHM 1% 0.1 W 0805       | R132,R180,R226,R285,R286                                                                                                                                           |           |
| 1   | 145-473-00  | B   | RES MF SM .1W 1% 75K0 OHM            | R133                                                                                                                                                               |           |
| 5   | 140-135-00  | A00 | RES TF SM 330K 5% 0.1W 0805          | R135,R137,R141,R149,R244                                                                                                                                           |           |
| 1   | 140-110-00  | A   | RES TF SM .1W 5% 33K OHM             | R136                                                                                                                                                               |           |
| 1   | 140-089-00  | A   | RES TF SM .1W 5% 4K7 OHM             | R138                                                                                                                                                               |           |
| 3   | 140-104-00  | A01 | RES TF SM .1W 5% 20K OHM             | R215,R242,R314                                                                                                                                                     |           |
| 6   | 140-017-00  | A   | RES TF SM .1W 5% 4.7 OHM             | R154,R157,R262,R263,R268,R278                                                                                                                                      |           |
| 3   | 145-454-00  | B   | RES MF SM .1W 1% 47K5 OHM            | R171,R172,R173                                                                                                                                                     |           |
| 2   | 140-086-00  | A   | RES TF SM .1W 5% 3K6 OHM             | R174,R175                                                                                                                                                          |           |
| 1   | 145-398-00  | B01 | RES MF SM 12K4 OHM 1% 0.1W 0805      | R179                                                                                                                                                               |           |
| 1   | 145-210-00  | B01 | RES MF SM 150 OHM 1% 0.1W 0805       | R228                                                                                                                                                               |           |
| 2   | 2037837     | A00 | RES SMT 300 OHM 5% 0.75W 2010        | R196,R197                                                                                                                                                          |           |
| 1   | 145-373-00  | B   | RES MF SM 6K81 OHM 1% 0.1W 0805      | R199                                                                                                                                                               |           |
| 1   | 145-268-00  | B   | RES MF SM 604 OHM 1% 0.1W 0805       | R200                                                                                                                                                               |           |
| 1   | 145-526-00  | B   | RES MF SM 267K OHM 1% .125W 0805     | R205                                                                                                                                                               |           |
| 11  | 145-339-00  | B   | RES MF SM 3K01 OHM 1% 0.1W 0805      | R56,R208,R247,R254,R257,R269,<br>R270,R283,R284,R295,R299                                                                                                          |           |
| 1   | 140-124-00  | A01 | RES TF SM 120K OHM 5% 0.1W 0805      | R209                                                                                                                                                               |           |
| 1   | 140-134-00  | A00 | RES 300K 5% 1/8W 0805                | R210                                                                                                                                                               |           |
| 1   | 145-325-00  | B   | RES MF SM 2K15 OHM 1% 0.1W 0805      | R217                                                                                                                                                               |           |
| 1   | 145-283-00  | A00 | RES 866 1% 1/10W 0805                | R221                                                                                                                                                               |           |



| Qty | Item Number | Rev | Item Description                                                 | Ref Des                                                                                           | BOM Notes |
|-----|-------------|-----|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------|
| 18  | 145-222-00  | A00 | RES MF SM 200 OHM 1% 0.1W 0805                                   | R201,R227,R231,R232,R233,R234,<br>R235,R236,R237,R238,R264,R265,<br>R266,R267,R274,R275,R276,R277 |           |
| 1   | 145-313-00  | A00 | RES 1K78 1% 1/10W 0805                                           | R245                                                                                              |           |
| 4   | 145-260-00  | B   | RES MF SM .1W 1% 499 OHM                                         | R246,R259,R272,R279                                                                               |           |
| 4   | 145-374-00  | A00 | RES MF SM .1W 1% 6K98 OHM                                        | R260,R261,R288,R290                                                                               |           |
| 4   | 146-457-00  | A00 | RES MF SM .25W 1% 51K1 OHM                                       | R281,R287,R289,R291                                                                               |           |
| 8   | 140-025-00  | A   | RES TF SM .1W 5% 10 OHM                                          | R294,R298,R308,R311,R315,R316,<br>R318,R319                                                       |           |
| 6   | 146-081-00  | A00 | RES MF SM .25W 1% 6R81 OHM 1206                                  | R297,R301,R307,R310,R312,R313                                                                     |           |
| 4   | 0009477     | A00 | RES SMT 10 OHM 5% 0.75W 2010                                     | R325,R327,R329,R331                                                                               |           |
| 1   | 145-383-00  | B00 | RES MF SM .1W 1% 8K66 OHM                                        | R333                                                                                              |           |
| 1   | 0025946     | A00 | XFMR SW 115/230V +/-15V 1A +5V<br>0.8A +12V 0.85A +48V 0.08A 50W | T1                                                                                                |           |
| 1   | 0025948     | B00 | XFMR DRIVER 15V 15V/15V 0.1A 3W                                  | T2                                                                                                |           |
| 1   | 0025947     | B01 | XFMR CURRENT SENSE 10A 1:100                                     | T4                                                                                                |           |
| 2   | 2039268     | A00 | IC SINGLE SCHMITT BUFFER<br>SN74LVC1G17 SOT23-5                  | U1,U107                                                                                           |           |
| 2   | 0026389     | A01 | OPTO 1 CHANNEL 70V 200-400 4-DIP                                 | U3,U7                                                                                             |           |
| 1   | 329-014-00  | A01 | IC LM35DZ PREC TEMP SENSOR                                       | U4                                                                                                |           |
| 1   | 321-008-00  | C01 | IC REG LM317T ADJ                                                | U6                                                                                                |           |
| 1   | 0026962     | A00 | IC PWM OB2269CCP ON-BRIGHT<br>SOIC-8                             | U8                                                                                                |           |
| 1   | 0026961     | A00 | IC VREG AZ431BN-A 2.5-36V 0.1A<br>SOT23-3                        | U9                                                                                                |           |
| 1   | 0026352     | A00 | IC TIMER NE555D SO8                                              | U100                                                                                              |           |
| 4   | 323-002-00  | D00 | IC LM339D QUAD COMP SM                                           | U101,U104,U105,U106                                                                               |           |
| 1   | 2038088     | A00 | IC PWM SG3525A VOLTAGE-MODE<br>CONTROLLER SOIC-16DW              | U102                                                                                              |           |
| 2   | 0024048     | A02 | IC OP AMP TLC081CDR SINGLE SO8                                   | U108,U111                                                                                         |           |
| 2   | 2033565     | A00 | IC DIGITAL PWM DRIVER<br>IRS20957STRPbF                          | U109,U110                                                                                         |           |
| 1   | 2039246     | A00 | ASSY CBL 18AWG UL1015 1C AMP-IN<br>TO RING BLK 4CM               | W1                                                                                                |           |
| 1   | 0014367     | A00 | CONN RING LUG #8 (4MM) 16-22<br>AWG                              |                                                                                                   |           |
| 1   | 400-172-00  | B00 | CONN TERM SOLDER-IN 18-14 AWG                                    |                                                                                                   |           |
| 2   | 2036980-057 | A00 | HEATSHRINK TUBE 2:1 VW-1 (35.0mm ID<br>x 57mm Length)            | Z10                                                                                               |           |
| 3   | 0029761     | A00 | CAP 0.68UF 100V 20% X7R 1812                                     | C18,C28,C29                                                                                       |           |
| 2   | 0026174     | A00 | CAP 1UF 275V 10% POLYP BOX X2<br>RADIAL                          | C34,C57                                                                                           |           |
| 2   | 0029982     | A00 | CAP 4700PF 20% 250VAC Y2/X1 CER<br>RADIAL                        | C48,C53                                                                                           |           |
| 4   | 2037007     | A00 | CAP CER 0.1UF 200V X7R 1206                                      | C138,C142,C229,C230                                                                               |           |
| 2   | 0006335     | A00 | CAP 470PF 2% 50V NPO 0603                                        | C182,C209                                                                                         |           |
| 1   | 0026988     | B00 | FUSE SB 10A/250V 5X20MM UL CSA                                   | F1                                                                                                |           |
| 1   | 0000623-06  | B00 | SCR M3 X 6MM PAN MCH PH STL BLK<br>ZINC                          | HDW3                                                                                              |           |
| 1   | 0000659     | A01 | NUT HEX KEP M3                                                   | HDW4                                                                                              |           |



| Qty  | Item Number | Rev | Item Description                           | Ref Des             | BOM Notes                             |
|------|-------------|-----|--------------------------------------------|---------------------|---------------------------------------|
| 1    | 2039040     | A01 | TAPE THERMAL TRANSFER 0.5MM X 7MM X 7MM    | HDW5                |                                       |
| 1    | 2033563     | A03 | IND COM 6MH 5A TOROID                      | L12                 |                                       |
| 1    | 0033419     | A03 | IND COM 16MH 10A TOROID                    | L15                 |                                       |
| 1    | 140-103-00  | A   | RES TF SM .1W 5% 18K OHM                   | R147                |                                       |
| 1    | 140-108-00  | A   | RES TF SM .1W 5% 27K OHM                   | R150                |                                       |
| 1    | 0025949     | A00 | XFMR SW 115/230V +/-75V 2A 300W            | T3                  |                                       |
| 2    | 2036450     | A00 | CAP 4700PF NPO/C0G 5% 25V 0805             | C197,C208           |                                       |
| 2    | 2039831     | A00 | CAP 22pF 5% 200V COG CER 1206              | C203,C219           |                                       |
| 4    | 145-402-00  | B01 | RES MF SM .1W 1% 13K7 OHM                  | R207,R218,R220,R229 |                                       |
| 1    | 145-270-00  | A00 | RES MF SM 634 OHM 1% .125W 0805            | R225                |                                       |
| 2    | 0026646     | A00 | RES MET-OX 5.1K 5% 2W                      | R65,R66             |                                       |
| 2    | 0029172     | A00 | CAP 1000UF 25V 20% 105C AL LESR RADIAL     | C41,C44             |                                       |
| 2    | 212-038-00  | A11 | CAP CER .01UF 50V 2% NPO 1210              | C75,C87             |                                       |
| 1    | 2038359     | A00 | SILPAD NANO A                              |                     |                                       |
| 1    | 2038348     | B00 | HEATSINK NANO A                            |                     |                                       |
| 1    | 2038354     | A00 | INSULATOR AMPLIFIER NANO DEVICES           |                     |                                       |
| 1    | 0030535     | A02 | FILM VALOX FR-1 .017"                      |                     |                                       |
| 1    | 2038340     | A00 | BRACKET HEATSINK NANO A                    |                     |                                       |
| 1    | 2038358     | A00 | SILPAD NANO B                              |                     |                                       |
| 1    | 2038347     | A00 | HEATSINK NANO B                            |                     |                                       |
| 1    | 2038339     | A00 | BRACKET HEATSINK NANO B                    |                     |                                       |
| 1    | 2038357     | B00 | SILPAD NANO C                              |                     |                                       |
| 1    | 2038346     | A00 | HEATSINK NANO C                            |                     |                                       |
| 1    | 2038338     | C00 | BRACKET HEATSINK NANO C                    |                     |                                       |
| 10   | 2038361     | A00 | SCR MACH M3X12 FHH PHH STL ZN              |                     |                                       |
| 10   | 0000659     | A01 | NUT HEX KEP M3                             |                     |                                       |
| 1    | 2038349     | A00 | GASKET OUTPUT NANO                         |                     |                                       |
| 1    | 2039045-10  | A00 | TAPE KAPTON 6.35mm GOLD 10 CM              |                     |                                       |
| .003 | 2039045     | A00 | TAPE KAPTON 6.35mm GOLD                    |                     |                                       |
| 1    | 2039769     | C00 | SHIELD NANO AMP RECON FILTER EMC NOTCHED   |                     | TWIST (3) TABS ON BOTTOM TO RETAIN    |
| 13   | 2038361     | A00 | SCR MACH M3X12 FHH PHH STL ZN              |                     | (10) @ HEAT-SINKS; (3) @ RECON SHIELD |
| 1    | 2038755-00  | F01 | PANEL AMPLIFIER NANO SUB 100-120V          |                     |                                       |
| 1    | 2038755     | F01 | PANEL AMPLIFIER NANO SUB                   |                     |                                       |
| 1    | 2038353     | D00 | LENS OLED DISPLAY 256x64                   |                     |                                       |
| 0    | 2039995     | A00 | ADHESIVE 3M 9495MP                         |                     |                                       |
| 1    | 2038341-03  | E02 | NANO BEZEL SUB                             |                     |                                       |
| 1    | 2038341     | E02 | NANO BEZEL                                 |                     |                                       |
| 6    | 105053      | A00 | WASHER/FLAT M3 OVERSIZED O.D./ZINC         |                     | BEZEL TO PANEL                        |
| 6    | 0000330-06  | B00 | SCR M3 X 6MM TF PLASTIC PAN PH CLRZC STEEL |                     | @ ITEM #36                            |
| 1    | 2038192     | A00 | SUBASSY USER INTERFACE OLED NANO           |                     |                                       |



| Qty | Item Number | Rev | Item Description                                | Ref Des                                                                                                                                       | BOM Notes |
|-----|-------------|-----|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1   | 2037916-00  | A00 | PCB ASSY NANO USER INTERFACE                    |                                                                                                                                               |           |
| 1   | 212-027-00  | A11 | CAP CER .1UF 16V 10% X7R 0603                   | C1                                                                                                                                            |           |
| 2   | 212-030-00  | A11 | CAP CER 1UF 16V 10% X7R 1206                    | C2,C4                                                                                                                                         |           |
| 5   | 212-025-00  | D11 | CAP CER .1UF 50V 10% X7R                        | C3,C7,C8,C10,C12                                                                                                                              |           |
| 4   | 222-005-00  | A11 | CAP TANT 10UF 20% 16V SM                        | C5,C6,C9,C11                                                                                                                                  |           |
| 1   | 300-011-03  | A01 | DIODE SIGNAL DUAL BAV99                         | D1                                                                                                                                            |           |
| 1   | 2037944-30  | A00 | CONN HDR SKT FPC 0.5MM 30P BOT-TOM CONTACTS SMT | J1                                                                                                                                            |           |
| 1   | 0005169-12  | B00 | CONN HDR 12P .098X1 SHRD RTA TJC3               | J4                                                                                                                                            |           |
| 1   | 0013322     | A00 | XSTR FET FDC658P P-CH                           | Q1                                                                                                                                            |           |
| 1   | 0004147     | A00 | XSTR FET 2N7002 N-CH TRANSISTOR SOT-23          | Q3                                                                                                                                            |           |
| 2   | 143-165-00  | A01 | RES TF 51.1 1% 0.1W SMT                         | R1,R14                                                                                                                                        |           |
| 11  | 143-389-00  | A1  | RES TF 10.0K 1% 0.1W SMT                        | R2,R3,R4,R5,R6,R7,R8,R9,R10,R11, R157                                                                                                         |           |
| 1   | 145-565-00  | B   | RES MF SM .1W 1% 681K OHM                       | R12                                                                                                                                           |           |
| 6   | 0019926     | A00 | SW TACT vert sqr shaft 6mmW x 7.3mmH 2.55N      | S1,S2,S3,S4,S5,S6                                                                                                                             |           |
| 1   | 0030177     | A00 | IC 74HC597 SHIFT REG TSSOP                      | U1                                                                                                                                            |           |
| 1   | 0005169-04  | B00 | CONN HDR 4P .098X1 SHRD RTA TJC3                | J3                                                                                                                                            |           |
| 1   | 2038193     | A02 | SUBASSY OLED W/ BRACKETS NANO                   |                                                                                                                                               |           |
| 1   | 2037598     | A00 | OLED DISPLAY 256x64 WHITE ON BLACK 2.8IN        |                                                                                                                                               |           |
| 2   | 2038191     | A00 | BRACKET OLED DISPLAY 256x64                     |                                                                                                                                               |           |
| 2   | 2040975     | B00 | TAPE DOUBLE SIDED 6MM X 20MM                    |                                                                                                                                               |           |
| 4   | 0024357     | A00 | SCR SEMS M3X8 PNH PHILLIP STL NICKEL            |                                                                                                                                               |           |
| 4   | 0025352     | A00 | NUT HEX M3X5.5X2.5MM STL CLR ZN                 |                                                                                                                                               |           |
| 6   | 2038943     | B00 | BUTTON ADAPTER - NANO                           |                                                                                                                                               |           |
| 1   | 2040601     | 124 | PROG PCBA DLM12S DSP                            |                                                                                                                                               |           |
| 5   | 0032725     | A00 | CAP 10UF 25V 10% X7R 1206                       | C1,C8,C15,C17,C20                                                                                                                             |           |
| 5   | 0026171     | A00 | CAP 1UF 16V +80-20% Y5V 0603                    | C2,C6,C167,C233,C236                                                                                                                          |           |
| 31  | 0009130     | A00 | CAP .01UF X7R 10% 50V 0603 SMT                  | C3,C32,C33,C42,C43,C49,C50,C77, C78,C81,C82,C83,C84,C88,C93, C99,C100,C101,C102,C103,C104, C105,C106,C114,C115,C117,C121, C164,C174,C204,C206 |           |
| 3   | 220-011-02  | A11 | CAP LYT 100UF 20% 25V RAD                       | C5,C22,C25                                                                                                                                    |           |
| 8   | 0000013     | A00 | CAP 100PF NPO 2% 50V 0603                       | C7,C37,C41,C54,C109,C165,C215, C216                                                                                                           |           |
| 2   | 0009185     | A00 | CAP 10PF NPO 5% 50V 0603                        | C9,C24                                                                                                                                        |           |
| 28  | 0009289     | A00 | CAP 0.1UF X7R 10% 25V 0603                      | C10,C12,C13,C19,C23,C75,C76, C80,C142,C162,C166,C168,C169, C170,C172,C173,C175,C192,C193, C194,C202,C203,C209,C210,C231, C232,C234,C237       |           |
| 1   | 0000003     | B00 | CAP 4700PF NPO 2% 25V 0805                      | C11                                                                                                                                           |           |
| 2   | 212-034-00  | A11 | CAP CER .022UF 10% 100V X7R                     | C14,C18                                                                                                                                       |           |
| 1   | 0021459     | A01 | CAP 0.015UF 50V 20% X7R 0603                    | C21                                                                                                                                           |           |



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|-----|-------------|-----|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------|
| 12  | 0006335     | A00 | CAP 470PF 2% 50V NPO 0603                                                                    | C34,C35,C36,C44,C45,C71,C72,<br>C211,C212,C224,C225,C227                                                  |           |
| 8   | 223-004-00  | B11 | CAP LYT 10UF 20% 16V SM                                                                      | C38,C39,C57,C58,C67,C68,C89,C90                                                                           |           |
| 11  | 0000014     | A00 | CAP X7R 1000PF 10% 50V 0603                                                                  | C40,C85,C86,C87,C91,C92,C196,<br>C198,C200,C201,C235                                                      |           |
| 3   | 0026104     | A00 | CAP 0.01UF 50V 2% NPO 1206                                                                   | C46,C47,C53                                                                                               |           |
| 9   | 220-002-02  | A1  | CAP LYT 47UF 20% 25V RAD TR                                                                  | C48,C55,C64,C73,C98,C132,C195,<br>C230,C238                                                               |           |
| 2   | 220-027-02  | B1  | CAP LYT 10UF 20% 50V RAD TR                                                                  | C51,C52                                                                                                   |           |
| 8   | 212-009-00  | A01 | CAP CER 47PF 5% 50V NPO 0805 SM                                                              | C56,C61,C65,C66,C94,C95,C110,<br>C127                                                                     |           |
| 8   | 0007877     | A00 | CAP LYT 47UF 63V 20% 8x11.5MM<br>LOWLEAKAGE RAD                                              | C62,C63,C69,C70,C96,C97,C116,<br>C129                                                                     |           |
| 4   | 0017943     | A00 | CAP NPO 18PF 50V 5% 0603                                                                     | C74,C79,C156,C157                                                                                         |           |
| 2   | 0009294     | A00 | CAP .22UF 10% 25V X7R 0805                                                                   | C143,C144                                                                                                 |           |
| 2   | 0013123     | A00 | CAP 3300PF 5% 50V NPO 0805                                                                   | C197,C199                                                                                                 |           |
| 1   | 0006864     | A00 | DIODE SCHOTTKY 0.5A 30V                                                                      | D1                                                                                                        |           |
| 2   | 0004125     | A01 | DIODE SMT 1N4148W 75V FAST<br>SWITCHING SOD123                                               | D2,D7                                                                                                     |           |
| 2   | 0019180     | A00 | DIODE SCHOTTKY 45V 1.5A SMA                                                                  | D3,D4                                                                                                     |           |
| 3   | 304-065-03  | A   | LED GREEN SM 0805                                                                            | D5,D6,D26                                                                                                 |           |
| 24  | 0004136     | A00 | DIODE RECTIFIER 1A GLASS PASSIVATED<br>S1B                                                   | D8,D9,D10,D11,D12,D13,D14,D15,<br>D16,D17,D18,D19,D20,D21,D22,<br>D23,D24,D25,D30,D31,D32,D33,<br>D34,D35 |           |
| 2   | 300-011-03  | A01 | DIODE SIGNAL DUAL BAV99                                                                      | D27,D28                                                                                                   |           |
| 1   | 304-064-03  | A   | LED RED SM 0805                                                                              | D29                                                                                                       |           |
| 1   | 0005169-12  | B00 | CONN HDR 12P .098X1 SHRD RTA TJC3                                                            | J2                                                                                                        |           |
| 1   | 0005169-04  | B00 | CONN HDR 4P .098X1 SHRD RTA TJC3                                                             | J3                                                                                                        |           |
| 1   | 0005168-04  | B00 | CONN HDR 4P .098X1 SHRD TJC3                                                                 | J4                                                                                                        |           |
| 2   | 2033580-06  | A00 | CONN HDR 6P 0.1" DUAL STR 10U"<br>GOLD GENERIC                                               | J5,J6                                                                                                     |           |
| 1   | 0005169-08  | B00 | CONN HDR 8P .098X1 SHRD RTA TJC3                                                             | J7                                                                                                        |           |
| 1   | 0005169-10  | B00 | CONN HDR 10P .098X1 SHRD RTA TJC3                                                            | J8                                                                                                        |           |
| 4   | 2033697     | A00 | CONN XLR 3P MALE AA-SERIES SHELL<br>& PANEL TIED TO SEPARATE GROUND<br>(PIN 4)               | J9,J10,J11,J12                                                                                            |           |
| 1   | 400-032-00  | G01 | CONN HDR 14P .100X2 STR                                                                      | J13                                                                                                       |           |
| 2   | 2033694     | A00 | CONN XLR 4P FEMALE AA-SERIES NO-<br>LATCH SHELL & PANEL TIED TO SEPA-<br>RATE GROUND (PIN 4) | J14,J15                                                                                                   |           |
| 1   | 0018995     | A00 | IND CHOKE 150UH 20% 0.7A 0.32DCR<br>9.5DIA 8.9H                                              | L1                                                                                                        |           |
| 1   | 0008403     | A00 | IND SW 0.56UH 20% 6A SMT                                                                     | L2                                                                                                        |           |
| 2   | 0024590     | A00 | IND SHIELDED 22UH 20% 2.2A SMD                                                               | L3,L7                                                                                                     |           |
| 4   | 0000922     | A00 | IND CHOKE 10UH 10% 1812 SMT                                                                  | L5,L6,L8,L13                                                                                              |           |
| 1   | 0017955     | A00 | IND FERRITE 600 OHM 200MA 0.5DCR<br>0603 SMT                                                 | L9                                                                                                        |           |
| 4   | 0028137     | A00 | IND FERRITE BEAD 1100 OHMS HF SMT                                                            | L10,L11,L15,L20                                                                                           |           |
| 1   | 0013321     | A00 | XSTR FET FDC653N N-CH                                                                        | Q1                                                                                                        |           |



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| 1   | 0004147     | A00 | XSTR FET 2N7002 N-CH TRANSISTOR SOT-23 | Q2                                                                                                                                                                                                                                                                                                                         |           |
| 19  | 143-000-00  | A01 | RES TF 0.00 1% 0.1W SMT                | R1,R4,R5,R6,R7,R8,R28,R31,R34,R48,R58,R61,R62,R68,R84,R130,R131,R171,R350                                                                                                                                                                                                                                                  |           |
| 1   | 143-437-00  | A1  | RES TF 31.6K 1% 0.1W SMT               | R2                                                                                                                                                                                                                                                                                                                         |           |
| 4   | 143-289-00  | A1  | RES TF 1.00K 1% 0.1W SMT               | R9,R116,R119,R225                                                                                                                                                                                                                                                                                                          |           |
| 1   | 145-039-00  | A00 | RES MF SM .1W 1% 2R49 OHM              | R11                                                                                                                                                                                                                                                                                                                        |           |
| 7   | 143-149-00  | A01 | RES TF 34.8 1% 0.1W SMT                | R3,R12,R13,R33,R35,R41,R44                                                                                                                                                                                                                                                                                                 |           |
| 1   | 143-424-00  | A1  | RES TF 23.2K 1% 0.1W SMT               | R14                                                                                                                                                                                                                                                                                                                        |           |
| 1   | 143-404-00  | A1  | RES TF 14.3K 1% 0.1W SMT               | R15                                                                                                                                                                                                                                                                                                                        |           |
| 67  | 143-389-00  | A1  | RES TF 10.0K 1% 0.1W SMT               | R16,R21,R45,R46,R65,R73,R74,R75,R76,R77,R78,R79,R85,R86,R88,R91,R94,R97,R98,R99,R102,R103,R104,R109,R111,R112,R113,R114,R115,R122,R123,R124,R128,R133,R134,R135,R136,R139,R140,R141,R145,R146,R147,R150,R151,R152,R155,R158,R159,R160,R162,R164,R165,R173,R174,R212,R213,R215,R217,R218,R230,R258,R266,R269,R294,R295,R297 |           |
| 3   | 143-339-00  | A1  | RES TF 3.01K 1% 0.1W SMT               | R18,R19,R228                                                                                                                                                                                                                                                                                                               |           |
| 1   | 143-261-00  | A1  | RES TF 511 1% 0.1W SMT                 | R22                                                                                                                                                                                                                                                                                                                        |           |
| 3   | 143-318-00  | A1  | RES TF 2.00K 1% 0.1W SMT               | R23,R126,R127                                                                                                                                                                                                                                                                                                              |           |
| 38  | 143-165-00  | A01 | RES TF 51.1 1% 0.1W SMT                | R24,R25,R26,R27,R29,R30,R32,R36,R39,R40,R49,R60,R83,R101,R172,R184,R190,R231,R241,R242,R243,R246,R247,R257,R296,R300,R301,R302,R303,R304,R305,R306,R307,R308,R309,R310,R311,R312                                                                                                                                           |           |
| 10  | 143-358-00  | A1  | RES TF 4.75K 1% 0.1W SMT               | R37,R89,R93,R132,R157,R177,R178,R219,R220,R227                                                                                                                                                                                                                                                                             |           |
| 16  | 143-331-00  | A1  | RES TF 2.49K 1% 0.1W SMT               | R42,R43,R51,R69,R70,R166,R232,R233,R234,R235,R248,R251,R259,R260,R263,R275                                                                                                                                                                                                                                                 |           |
| 4   | 143-377-00  | A1  | RES TF 7.50K 1% 0.1W SMT               | R47,R50,R264,R276                                                                                                                                                                                                                                                                                                          |           |
| 2   | 143-581-00  | A1  | RES 1M00 1% 1/10W 0603                 | R52,R299                                                                                                                                                                                                                                                                                                                   |           |
| 4   | 143-381-00  | A1  | RES TF 8.25K 1% 0.1W SMT               | R53,R56,R63,R64                                                                                                                                                                                                                                                                                                            |           |
| 2   | 143-435-00  | A1  | RES TF 30.1K 1% 0.1W SMT               | R54,R59                                                                                                                                                                                                                                                                                                                    |           |
| 2   | 143-443-00  | A1  | RES TF 36.5K 1% 0.1W SMT               | R55,R57                                                                                                                                                                                                                                                                                                                    |           |
| 8   | 146-165-00  | A01 | RES MF SM .25W 1% 51.1 OHM 1206        | R80,R100,R105,R143,R144,R148,R161,R163                                                                                                                                                                                                                                                                                     |           |
| 14  | 143-457-00  | A1  | RES TF 51.1K 1% 0.1W SMT               | R81,R82,R90,R106,R107,R108,R149,R153,R154,R175,R176,R179,R180,R181                                                                                                                                                                                                                                                         |           |
| 11  | 143-360-00  | A1  | RES TF 4.99K 1% 0.1W SMT               | R92,R110,R142,R156,R182,R183,R185,R186,R187,R188,R229                                                                                                                                                                                                                                                                      |           |
| 2   | 143-406-00  | A1  | RES TF 15.0K 1% 0.1W SMT               | R95,R125                                                                                                                                                                                                                                                                                                                   |           |
| 1   | 143-306-00  | A1  | RES 1K50 1% 1/10W 0603                 | R96                                                                                                                                                                                                                                                                                                                        |           |
| 2   | 143-349-00  | A1  | RES TF 3.83K 1% 0.1W SMT               | R117,R120                                                                                                                                                                                                                                                                                                                  |           |
| 1   | 143-383-00  | A1  | RES TF 8.66K 1% 0.1W SMT               | R118                                                                                                                                                                                                                                                                                                                       |           |





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| 1   | 143-418-00  | A1  | RES TF 20.0K 1% 0.1W SMT                                               | R129                                          |             |
| 1   | 145-260-00  | B   | RES MF SM .1W 1% 499 OHM                                               | R193                                          |             |
| 1   | 145-261-00  | B01 | RES MF SM .1W 1% 511 OHM                                               | R194                                          |             |
| 1   | 143-337-00  | A1  | RES 2K87 1% 1/10W 0603                                                 | R216                                          |             |
| 4   | 143-193-00  | A01 | RES TF 100 1% 0.1W SMT                                                 | R221,R222,R223,R224                           |             |
| 2   | 143-287-00  | A1  | RES TF 953 1% 0.1W SMT                                                 | R249,R252                                     |             |
| 2   | 143-416-00  | A1  | RES TF 19.1K 1% 0.1W SMT                                               | R250,R253                                     |             |
| 4   | 0008320-11  | L00 | STDF SWAGE M3 X 5.7MM 4.7 DIA                                          | SO4,SO5,SO6,SO7                               |             |
| 1   | 0000162     | B00 | SWITCH 2PDT PUSH V SNAPIN                                              | SW3                                           |             |
| 1   | 0000160     | A01 | SWITCH 4PDT PUSH V SNAPIN                                              | SW4                                           |             |
| 1   | 2037865     | A00 | IC DC-DC CONVERTER SWITCHING<br>BOOST SEPIC 60V LM5022 MSOP-10         | U1                                            |             |
| 1   | 0022666     | A00 | IC DUAL OPAMP RAIL-TO-RAIL<br>NJU#7032M DMP8                           | U2                                            |             |
| 1   | 2037867     | A00 | IC DC-DC CONVERTER SWITCHING<br>DUAL BUCK 20V 2A SC2440 TSSOP-16       | U3                                            |             |
| 1   | 0019049     | A00 | IC MPU SUPERVISORY 2.93V SOT23                                         | U4                                            |             |
| 1   | 2037298     | A00 | IC CPU FREESCALE MCF51JM128VLH<br>50MHZ LQFP-64                        | U5                                            |             |
| 11  | 0006956     | B00 | IC OP AMP NJM4580 DUAL SO-8                                            | U6,U7,U11,U12,U13,U14,U16,U17,<br>U19,U20,U21 |             |
| 1   | 0023233     | A00 | IC DATA CONVERTER AUDIO DAC<br>2-CHAN AK4388                           | U8                                            |             |
| 2   | 0026338     | A00 | IC LDO 1117 ADJ 800mA SOT-223                                          | U10,U18                                       |             |
| 1   | 0022758     | A00 | IC DIGITAL, DSP, SHARC, ADSP-<br>21261SKBCZ150, 150MHZ, CSPBGA136      | U15                                           |             |
| 1   | 0021301     | A00 | IC CODEC CS4272                                                        | U30                                           |             |
| 1   | 2037480     | A00 | OSC CRYSTAL 12MHZ 18PF 50PPM SMT                                       | X1                                            |             |
| 1   | 0023342     | A00 | OSC XTAL 12.288MHZ 30PPM TOL<br>HC49SM                                 | Y1                                            |             |
| 1   | 2039514     | A00 | CONN USB MICRO AB RECEPTACLE<br>SMT                                    | J1                                            |             |
| 2   | 212-036-00  | B11 | CAP CER 470PF 2% 50V NPO SMT                                           | C16,C111                                      |             |
| 4   | 224-018-00  | A11 | CAP PLY 100PF 2% 50V SM                                                | C26,C27,C30,C31                               |             |
| 4   | 0026091     | A00 | CAP 1800PF 2% 50V NPO 0603                                             | C28,C29,C59,C60                               |             |
| 2   | 0006478     | A00 | CAP 680PF 2% 50V NPO 0603                                              | C107,C108                                     |             |
| 2   | 0028291     | A00 | CAP 1000PF 50V 2% NPO 0603                                             | C112,C113                                     |             |
| 8   | 143-348-00  | A1  | RES TF 3.74K 1% 0.1W SMT                                               | R66,R72,R167,R168,R169,R170,<br>R197,R200     |             |
| 4   | 0010453     | A00 | RES TF 7.15K 1% 0.1W SMT 0603                                          | R67,R191,R198,R202                            |             |
| 4   | 143-427-00  | A1  | RES 24K9 1% 1/10W 0603                                                 | R71,R189,R199,R201                            |             |
| 1   | 2038360     | A00 | SHIELD DSP NANO                                                        |                                               |             |
| 1   | 2038493     | A00 | ASSY CBL IEC INT W 50MM 16AWG<br>GND WIRE                              |                                               |             |
| 1   | 2038494     | A00 | CONN IEC 320C14 MALE 4.7MM<br>QDISC 10A/250V UL CSA VDE FLANGE-<br>MNT |                                               |             |
| 1   | 0014367     | A00 | CONN RING LUG #8 (4MM) 16-22<br>AWG                                    |                                               |             |
| 1   | 0014654     | B00 | NUT/HEX/M4 ZNC[DIN934]                                                 |                                               | AT GND STUD |





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| 1   | 2039282     | B01 | ASSY CBL SWITCH POWER NANO                                 |         |                                                                                                 |
| 1   | 0030476     | A00 | SWITCH ROCKER DPST 250VAC 10A UL<br>CSA/250VAC 8A/80A VDE  |         |                                                                                                 |
| 1   | 0018860-03  | A00 | CONN RECP 7A 3P 3.96MM 1ROW                                |         |                                                                                                 |
| 2   | 0018859-01  | A00 | CONN TERM FEM 10A 3.96MM 16-18<br>AWG TR                   |         |                                                                                                 |
| 2   | 2034798     | A00 | CONN TERM 90 DEG CLIP FULLY INSUL<br>16-14 AWG .187 X .020 |         |                                                                                                 |
| 4   | 0027357     | A00 | SHRINK TUBE D5X20MM BLK                                    |         | AT ALL WIRE<br>CONNECTIONS                                                                      |
| 1   | 2039097-01  | A00 | SUBASSY FAN 12VDC 60X60X15MM<br>15CFM 150MM CBL            |         |                                                                                                 |
| 1   | 2039097     | B00 | FAN 12VDC 60X60X15MM 15CFM                                 |         |                                                                                                 |
| 1   | 0005167-02  | B00 | CONN RECP 2P .098X1 TJC3                                   |         |                                                                                                 |
| 2   | 0005166     | B00 | CONN TERM TJC3 22-28AWG TR                                 |         |                                                                                                 |
| 1   | 2038438     | A00 | GASKET FAN NANO                                            |         |                                                                                                 |
| 2   | 0016339-00  | B00 | BTN ADAPTER - ONYX 1200F                                   |         |                                                                                                 |
| 2   | 0012143-07  | D00 | RND BUTTON CAP (7MM) CONTROL<br>GRAY TOP WHITE BOTTOM      |         |                                                                                                 |
| 1   | 2038470-05  | G01 | BUTTON MAIN - "VOL" NANO                                   |         |                                                                                                 |
| 1   | 2038470     | G00 | BUTTON MAIN NANO                                           |         |                                                                                                 |
| 1   | 2038470-06  | G01 | BUTTON MAIN - "XVR" NANO                                   |         |                                                                                                 |
| 1   | 2038470     | G00 | BUTTON MAIN NANO                                           |         |                                                                                                 |
| 1   | 2038470-07  | G01 | BUTTON MAIN - "DLY" NANO                                   |         |                                                                                                 |
| 1   | 2038470     | G00 | BUTTON MAIN NANO                                           |         |                                                                                                 |
| 1   | 2038470-04  | G01 | BUTTON MAIN - "MEM" NANO                                   |         |                                                                                                 |
| 1   | 2038470     | G00 | BUTTON MAIN NANO                                           |         |                                                                                                 |
| 1   | 2038471-01  | F00 | BUTTON VOLUME NANO UP                                      |         |                                                                                                 |
| 1   | 2038471     | F00 | BUTTON VOLUME NANO                                         |         |                                                                                                 |
| 1   | 2038471-02  | F00 | BUTTON VOLUME NANO DOWN                                    |         |                                                                                                 |
| 1   | 2038471     | F00 | BUTTON VOLUME NANO                                         |         |                                                                                                 |
| 7   | 0028320     | A00 | SCR SEMS M3X6 PNH PHILLIP STL<br>NICKEL                    |         | (4) @ DSP SHIELD;<br>(3) @ RECON/<br>EMI SHIELD                                                 |
| 18  | 0024357     | A00 | SCR SEMS M3X8 PNH PHILLIP STL<br>NICKEL                    |         | (11) @ PS PCBA;<br>(4) @ OLED<br>SASSY ; (3) @ DSP                                              |
| 4   | 2039107     | A00 | SCR SEMS M4X22 PNH PHILLIP STL BLK<br>ZN                   |         | @ FAN                                                                                           |
| 12  | 700-055-00  | A   | SCR MCH 4-24X3/8 PHP BLK HILO                              |         | DSP I/O CONNS<br>TO PANEL                                                                       |
| 23  | 0000659     | A01 | NUT HEX KEP M3                                             |         | (6) @ DSP SHIELD;<br>(2) @ IEC; (10) @<br>HEATSINKS; (2) @<br>PANEL ASSY; (3)<br>@ RECON SHIELD |
| 1   | 0013710-008 | A00 | ASSY CBL 10 PIN 2.5MM TJC3 SINGLE<br>ROW 8 CM LEN          |         | PS TO DSP                                                                                       |
| 20  | 0005166     | B00 | CONN TERM TJC3 22-28AWG TR                                 |         |                                                                                                 |
| 2   | 0005167-10  | B00 | CONN RECP 10P .098X1 TJC3                                  |         |                                                                                                 |



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| 1   | 0013708-008 | A   | ASSY CBL 8 PIN 2.5MM TJC3 SINGLE ROW 8 CM                                      |         | PS TO DSP                                            |
| 1   | 0010338     | A00 | ASSY CBL 12 PIN 2.5MM TJC3 SINGLE ROW 1.00 INCHES                              |         | DSP TO UI                                            |
| 24  | 0005166     | B00 | CONN TERM TJC3 22-28AWG TR                                                     |         |                                                      |
| 2   | 0005167-12  | B00 | CONN RECP 12P .098X1 TJC3                                                      |         |                                                      |
| 12  | 0010054     | A00 | WIRE RIBBON 26AWG UL2468                                                       |         |                                                      |
| 1   | 0013704-003 | A00 | ASSY CBL 4 PIN 2.5MM TJC3 SINGLE ROW 3 CM LEN                                  |         | DSP TO UI                                            |
| 8   | 0005166     | B00 | CONN TERM TJC3 22-28AWG TR                                                     |         |                                                      |
| 2   | 0005167-04  | B00 | CONN RECP 4P .098X1 TJC3                                                       |         |                                                      |
| 2   | 2038437     | A00 | GASKET AMP REAR NANO SIDES                                                     |         |                                                      |
| 2   | 2038600     | A00 | GASKET AMP REAR NANO TOP/BOT-TOM                                               |         |                                                      |
| 1   | 2039499     | A00 | PLUG HOLE LIQUID TIGHT 12.7MM HEYCO                                            |         |                                                      |
| 1   | 2039681     | A00 | ASSY CBL YEL 16AWG UL1015 QDISC .25 TO .25 8 CM LEN                            |         | JUMPER - J13 TO J14                                  |
| 2   | 400-145-00  | A02 | CONN TERM QDISC .250 F 16/14GA                                                 |         |                                                      |
| 1   | 2039773     | C00 | SHIELD NANO AMP EMI                                                            |         |                                                      |
| 1   | 2040979-01  | A00 | TAPE EPDM FOAM 3MM THK X 20MM WIDE X 100MM LG CLOSED CELL SINGLE SIDED PSA BLK |         | Installs to EMI Shield                               |
| 2   | 2040979-00  | A00 | TAPE EPDM FOAM 3MM THK X 20MM WIDE X 12MM LG CLOSED CELL SINGLE SIDED PSA BLK  |         | Installs to EMI Shield                               |
| 2   | 2040096-70  | A00 | GSKT TAPE WITH ADHESIVE 1MM X 3MM X 70MM                                       |         | Installs to long edges of OLED Lens                  |
| 2   | 2041193     | A00 | COLLAR FOAM M7 X 12MM OD X 1.6MM THK                                           |         | Installs on back of panel at item 22 locations.      |
| 16  | 0010481     | A00 | SCREW/M3.5 X 19 PH PHSMS BLK[DIN7981C]                                         |         | (12) @ AMP; (4) @ LOUVER                             |
| 4   | 51992003    | A   | SCR SELFTAP PLASTIC DBL THD 4.2X20 PNH PHH STL BLK                             |         | @ GRILLE                                             |
| 1   | 2039414     | B00 | ASSY CBL SPEAKER AND FRONT LED NANO SUB                                        |         | CLAMP LED WIRES TO CABINET BAFFLE WITH DRIVER GASKET |
| 1   | 0013039-06  | A00 | CONN RECP 7A 6P 4.2MM 2ROW                                                     |         |                                                      |
| 4   | 0013038     | A00 | CONN TERM FEM 7A 4.2MM 16-22 AWG TR                                            |         |                                                      |
| 1   | 0005167-02  | B00 | CONN RECP 2P .098X1 TJC3                                                       |         |                                                      |
| 2   | 0005166     | B00 | CONN TERM TJC3 22-28AWG TR                                                     |         |                                                      |
| 1   | 0013948     | A01 | LOCKING CABLE TIE TYRAP                                                        |         |                                                      |
| 2   | 2040095-523 | B00 | GSKT CABINET CORD 2.0mm SQ X 523MM EVA FOAM                                    |         | INSERT IN GRILLE GOOVE IN BAFFLE (SIDES & TOP)       |



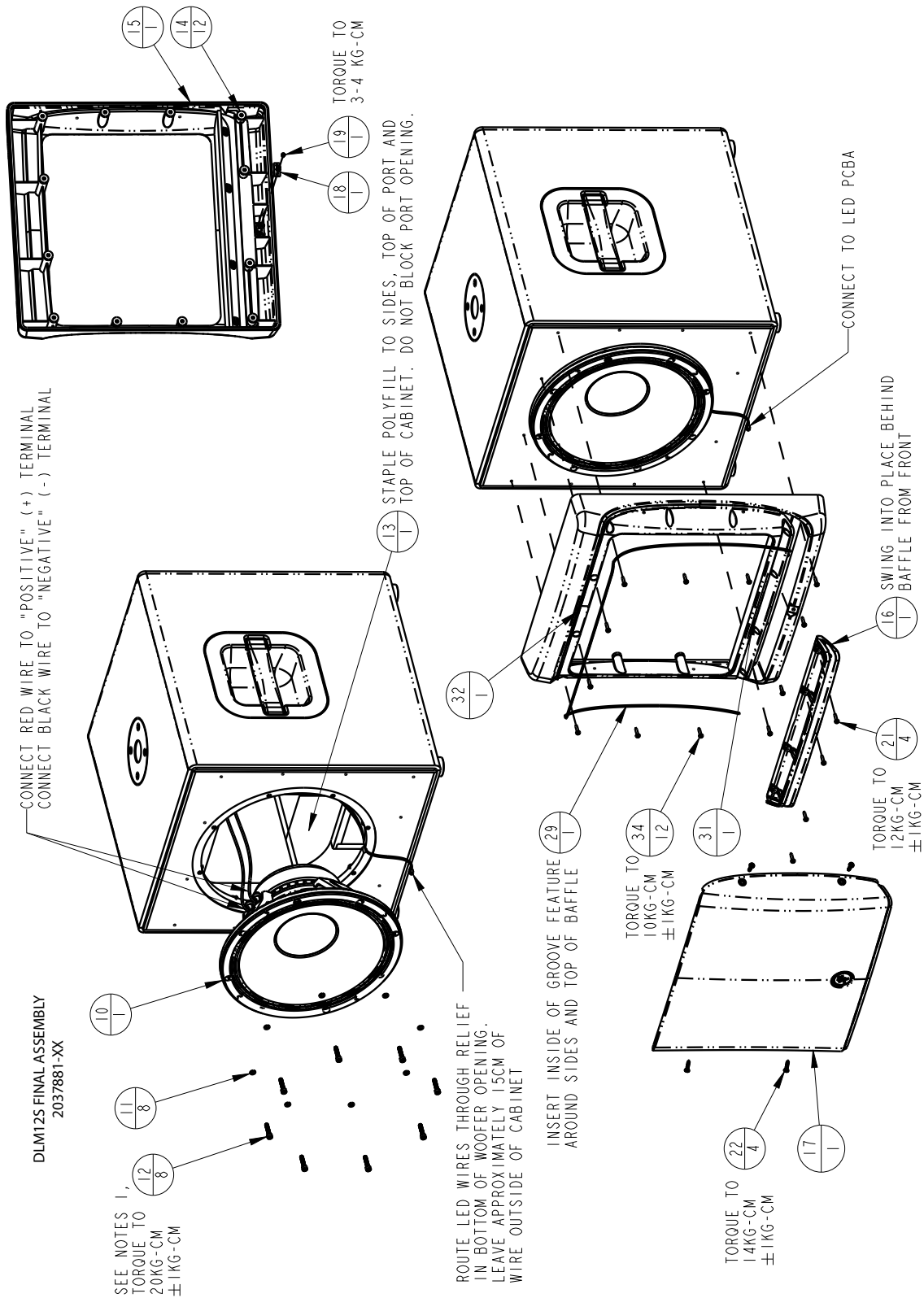
| Qty | Item Number | Rev | Item Description                                        | Ref Des | BOM Notes                                      |
|-----|-------------|-----|---------------------------------------------------------|---------|------------------------------------------------|
| 1   | 0021637-01  | A01 | TAPE FOAM GRL R-421-N 6mm x 3mm x 230mm                 |         | INSTALL ON LOWER FRAME OF BAFFLE ABOVE LOUVER  |
| 1   | 2040096-190 | B00 | GSKT TAPE WITH ADHESIVE 1MM X 3MM X 190MM               |         | INSTALL NEAR TOP OF BAFFLE BEHIND GRILLE       |
| 2   | 2039474-01  | B00 | GASKET CUP HANDLE                                       |         | INSTALL ON HANDLE CUP                          |
| 12  | 51310523    | A01 | SCR SELFTAP PLASTIC 4X20 FILH PHH STL BLK               |         | ATTACH BAFFLE TO CABINET                       |
| 1   | 0027783     | A00 | CORD PWR AC 125V 15A UL 2M                              |         |                                                |
| 4   | 2038028     | A01 | FEET RUBBER MTG NANO12 & NEXT                           |         | Installs to Cabinet                            |
| 4   | 2039319     | B01 | TAPE FEET RUBBER MTG NANO12 & NEXT                      |         | Adheres to foot                                |
| 1   | 2038553     | F00 | POLE CUP NANO NEXT                                      |         | Installs to Cabinet                            |
| 1   | 2038571-00  | B00 | PCB ASSY NANO NEXT LED                                  |         | Installs to Front Baffle                       |
| 1   | 2038953     | 100 | LED GREEN 525NM SUPERBRIGHT T-1                         | D1      |                                                |
| 1   | 0027080     | A00 | PILLAR D3X10.8MM PLASTIC                                | SPC1    |                                                |
| 1   | 0005168-02  | B00 | CONN HDR 2P .098X1 SHRD TJC3                            | J1      |                                                |
| 1   | 2038373     | D00 | XDCR DRIVER CONE CX12/2502-4                            |         | Installs to Front Baffle                       |
| 10  | 0013719-14  | E00 | SCR M4 X 14 PPH SEMS ITLW STL BLK ZNC                   |         | Installs Front Baffle to Back Cabinet Brackets |
| 4   | 51190336    | A   | SCR MACH M6X35 SKT HEX STL BLK                          |         | Mounting screws for woofer                     |
| 4   | 51992003    | A   | SCR SELFTAP PLASTIC DBL THD 4.2X20 PNH PHH STL BLK      |         | Installs Grille to Front Cabinet               |
| 2   | 0019650     | A00 | SCREW/M4.8 X 1.59 x 20MM PH RWASHER/DUAL THREAD/TFS/BLK |         | Installs top mtg Front Baffle to Back Cabinet  |
| 4   | 0007247     | A01 | SCR MACH M5X14 FLH PHH STL BLK                          |         | Installs Pole Mount                            |
| 4   | 0022094     | A00 | WASHER/SPLIT-LOCK/HIGH COLLAR M6 BLK                    |         | Lockwashers for Woofer                         |
| 2   | 2040891-01  | A00 | ADHESIVE TAPE BLACK 6MM WIDE X 755MM LONG               |         | Installs around rim of Front Baffle            |
| 12  | 2038576-16  | A00 | SCR M3.5 X 16MM PLASTITE PAN HD PHIL STEEL BLK ZC       |         | Installs Amp to Back Cabinet                   |
| 1   | 2038594     | C00 | KICKSTAND DLM (NANO)                                    |         | Installs to Amp Assembly                       |
| 1   | 2038593     | D02 | ROD KICKSTAND NANO                                      |         | Rod will be added to LPT2038594 for overmolded |
| 4   | 0010481     | A00 | SCREW/M3.5 X 19 PH PHSMS BLK[DIN7981C]                  |         | Installs Front Louver to Front Baffle          |



| Qty | Item Number | Rev | Item Description                                                                | Ref Des | BOM Notes                                                 |
|-----|-------------|-----|---------------------------------------------------------------------------------|---------|-----------------------------------------------------------|
| 1   | 2039496     | A01 | SOUND ABSORBER INTERNAL- NANO12                                                 |         | Installs inside Cabinet                                   |
| 2   | 2040337     | B00 | WASHER FIBER M4 X 8MM OD X 2.0MM THK                                            |         | Install between cab and baffle top mtg bosses             |
| 2   | 0021637-02  | A01 | TAPE FOAM GRL R-421-N 6mm x 3mm x 45mm                                          |         | Installs on left & right lower rim above louver mtg slots |
| 2   | 2037439-040 | A00 | TAPE EPDM FOAM 1/16" THK X 1/4" WIDE X 40MM LG CLOSED CELL SINGLE SIDED PSA BLK |         | Adhere to Kick-stand mounting slots                       |
| 1   | 640-001-00  | D   | CORD PWR IEC US 10A 125V 2.0M                                                   |         |                                                           |



## 2037881-XX G00 ASSEMBLY AND QUICK PARTS

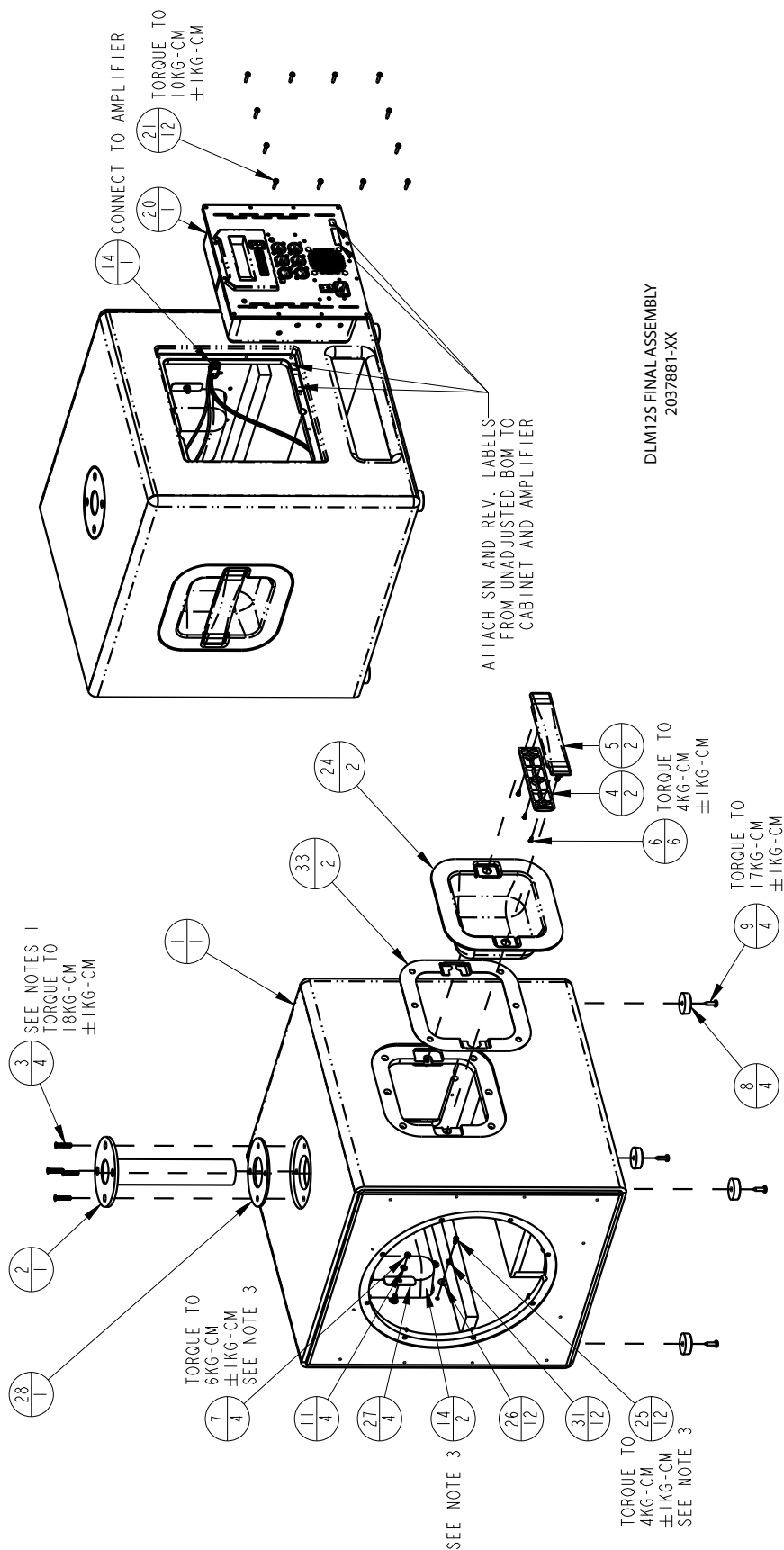


| Item | Part Number |
|------|-------------|
| 29   | 2040095-523 |
| 31   | 0021637-01  |
| 32   | 2040096-190 |
| 34   | 51310523    |

| Item | Part Number |
|------|-------------|
| 16   | 2038968     |
| 17   | 2039411     |
| 18   | 2038571-00  |
| 19   | 51240211    |
| 21   | 0010481     |
| 22   | 51992003    |

| Item | Part Number |
|------|-------------|
| 10   | 2038636     |
| 11   | 0010016     |
| 12   | 0010073     |
| 13   | 2039497     |
| 14   | 2039415     |
| 15   | 2038964     |

## 2037881-XX G00 ASSEMBLY AND QUICK PARTS

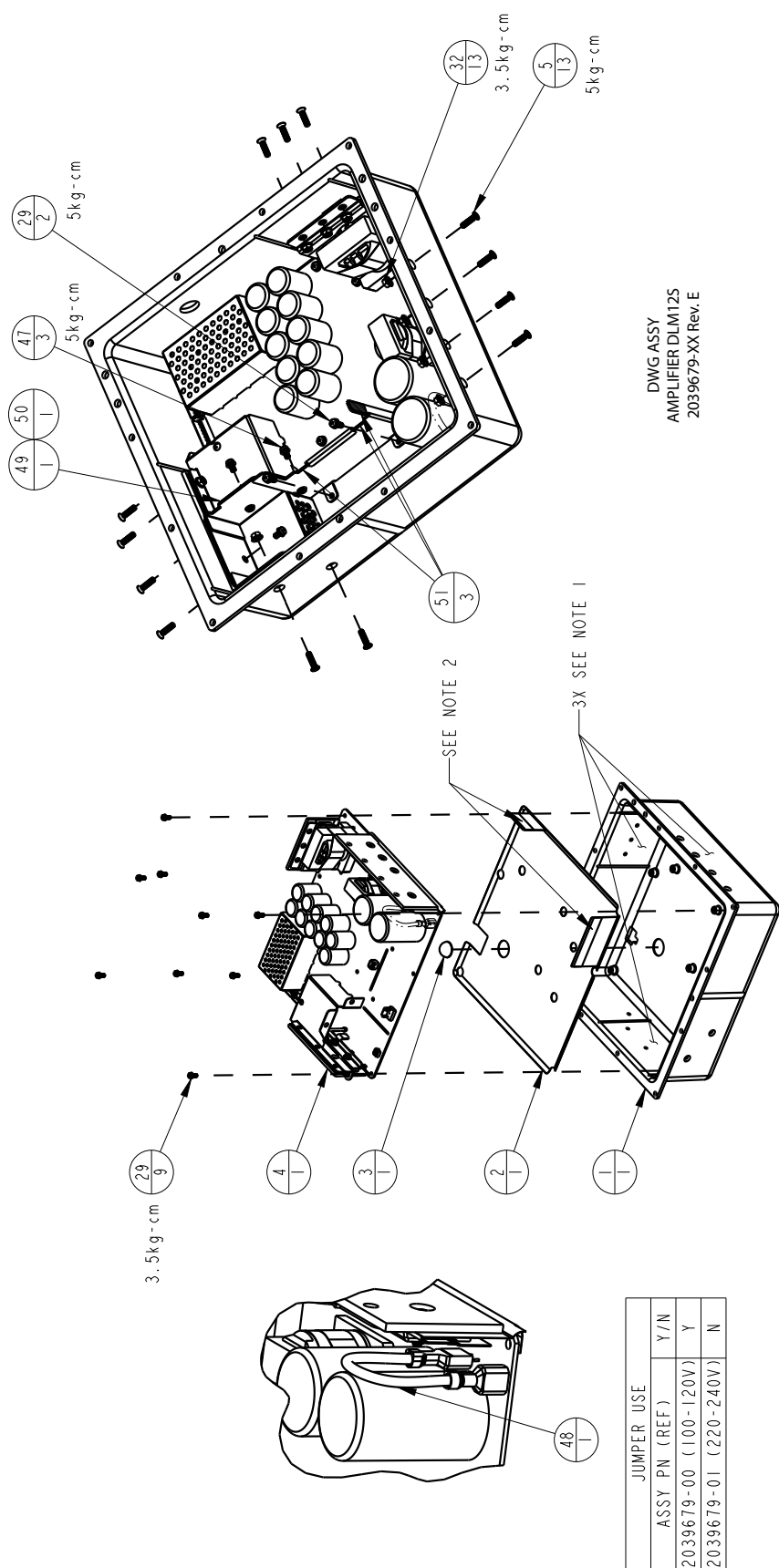


| Item | Part Number |
|------|-------------|
| 24   | 2039426-00  |
| 25   | 2036880     |
| 26   | 105060      |
| 27   | 2039478     |

| Item | Part Number |
|------|-------------|
| 8    | 2034356     |
| 9    | 0009940     |
| 11   | 0010016     |
| 14   | 2039415     |
| 20   | 2039679-00  |
| 21   | 0010481     |
| 23   | 2039414     |

| Item | Part Number |
|------|-------------|
| 1    | 2038853-00  |
| 2    | 024007      |
| 3    | 0010027     |
| 4    | 2039432     |
| 5    | 2038970     |
| 6    | 0000330-08  |
| 7    | 103031      |

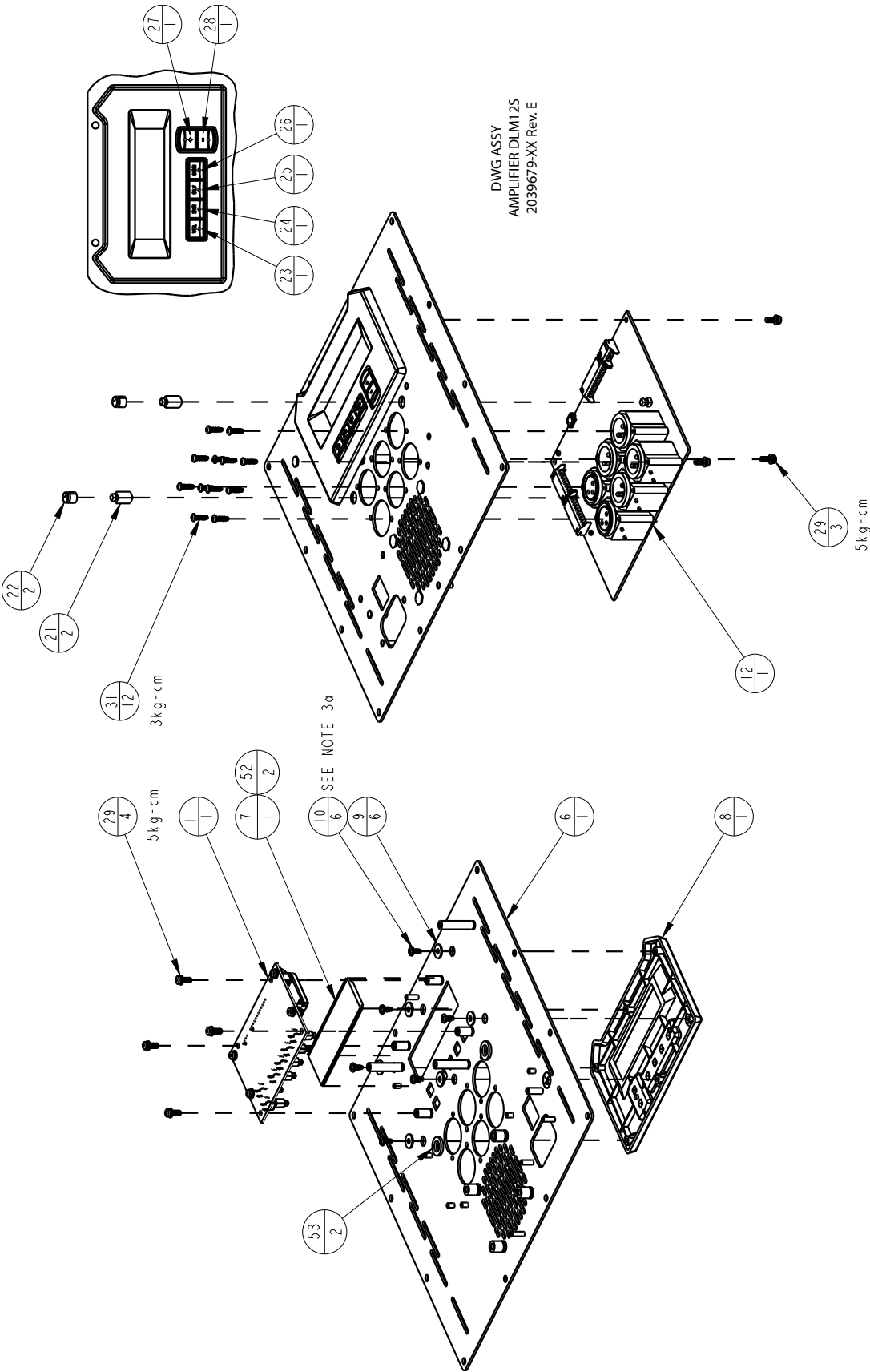
2039679-XX E00 ASSEMBLY AND QUICK PARTS



| Item | Part Number |
|------|-------------|
| 47   | 0028320     |
| 48   | 2039681     |
| 49   | 2039773     |
| 50   | 2040979-01  |
| 51   | 2040979-00  |

| Item | Part Number |
|------|-------------|
| 1    | 2038350     |
| 2    | 2038355     |
| 3    | 750-001-00  |
| 4    | 2039680-01  |
| 5    | 2038361     |
| 29   | 0024357     |
| 32   | 0000659     |

2039679-XX E00 ASSEMBLY AND QUICK PARTS



| Item | Part Number |
|------|-------------|
| 28   | 2038471-02  |
| 29   | 0024357     |
| 31   | 700-055-00  |
| 52   | 2040096-70  |
| 53   | 2041193     |

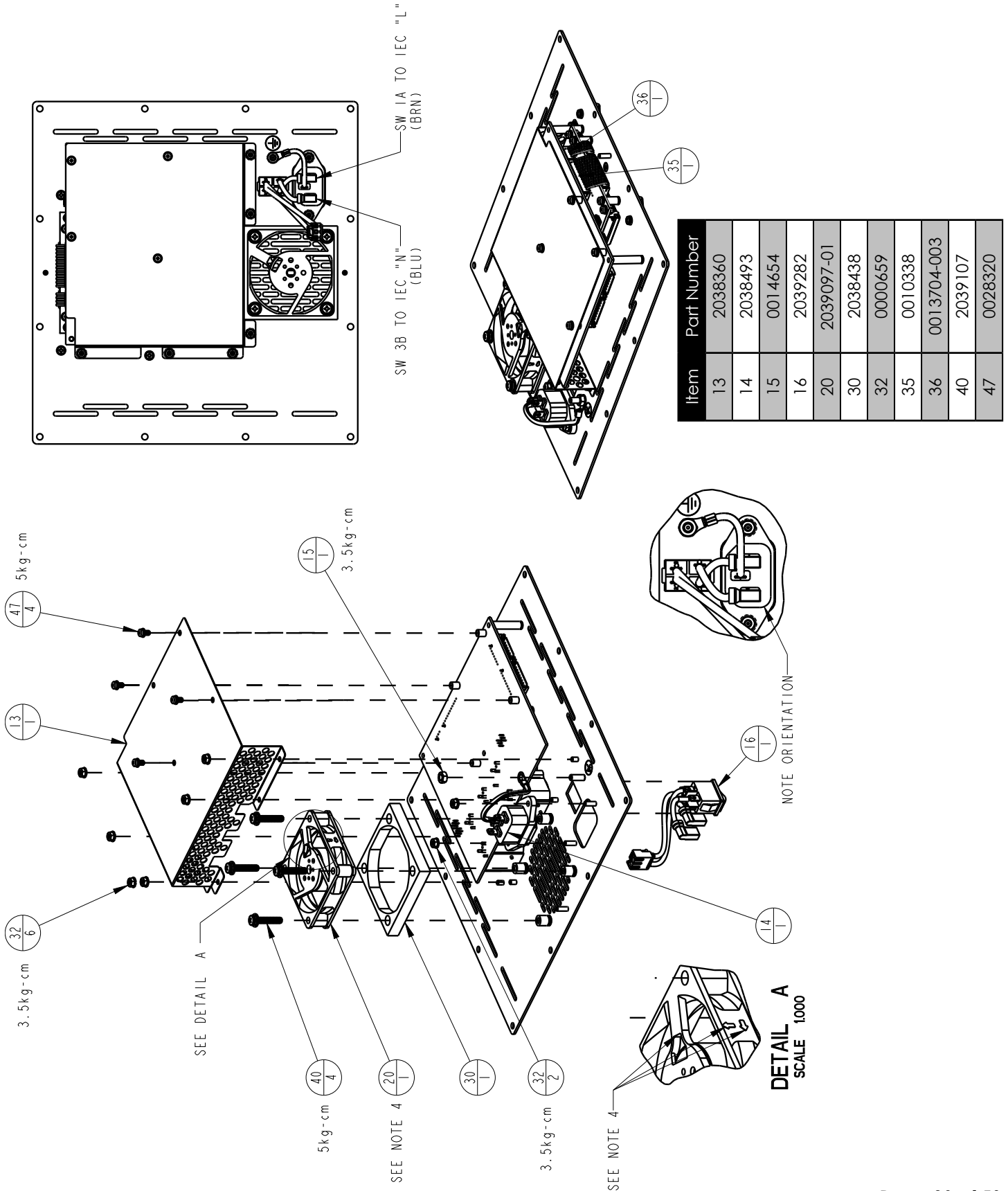
| Item | Part Number |
|------|-------------|
| 21   | 0016339-00  |
| 22   | 0012143-07  |
| 23   | 2038470-05  |
| 24   | 2038470-06  |
| 25   | 2038470-07  |
| 26   | 2038470-04  |
| 27   | 2038471-01  |

| Item | Part Number |
|------|-------------|
| 6    | 2038755-00  |
| 7    | 2038353     |
| 8    | 2038341-03  |
| 9    | 105053      |
| 10   | 0000330-06  |
| 11   | 2038192     |
| 12   | 2040601     |



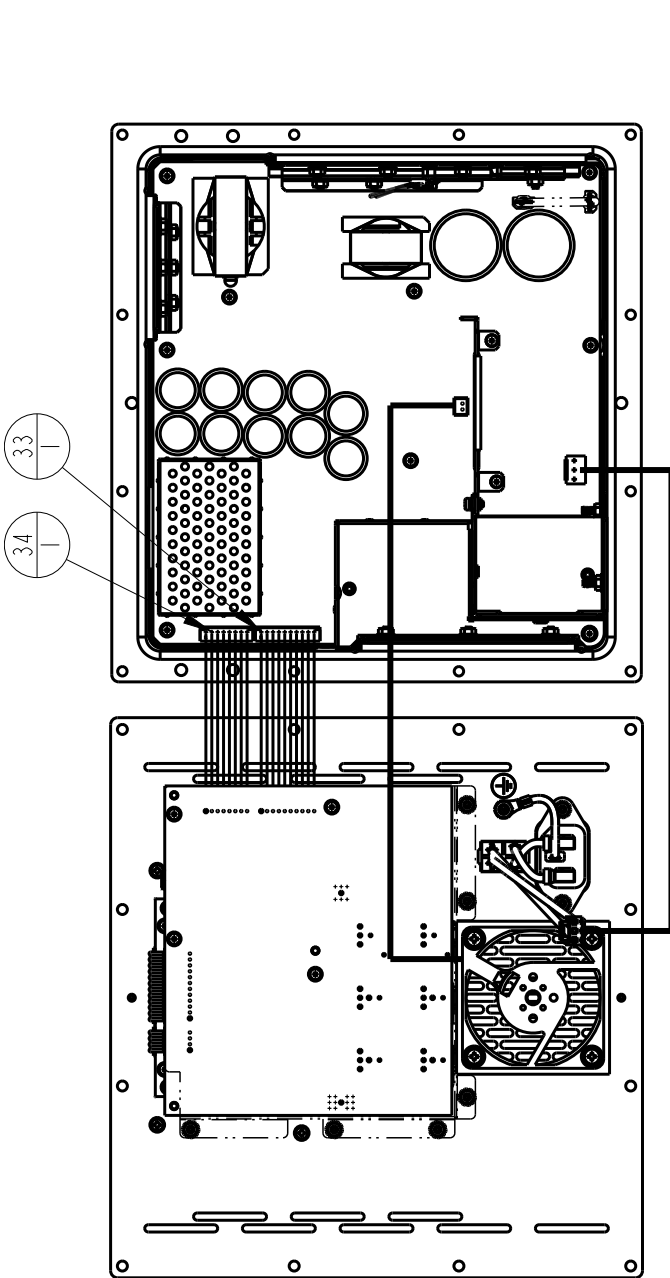


## 2039679-XX E00 ASSEMBLY AND QUICK PARTS

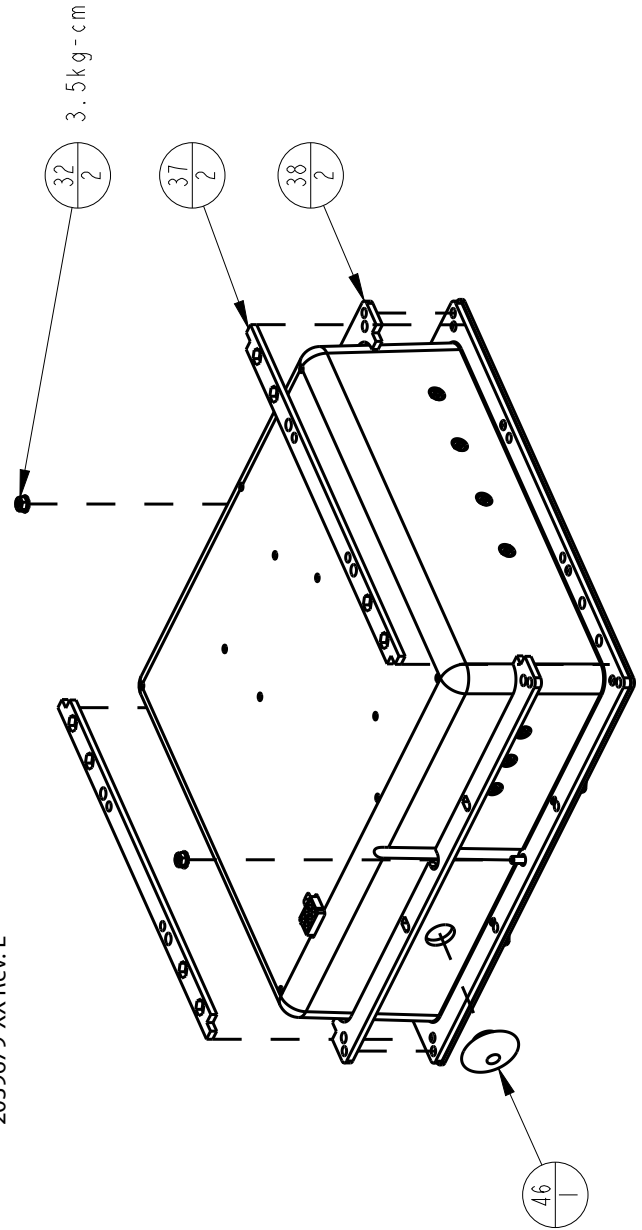




## 2039679-XX E00 ASSEMBLY AND QUICK PARTS

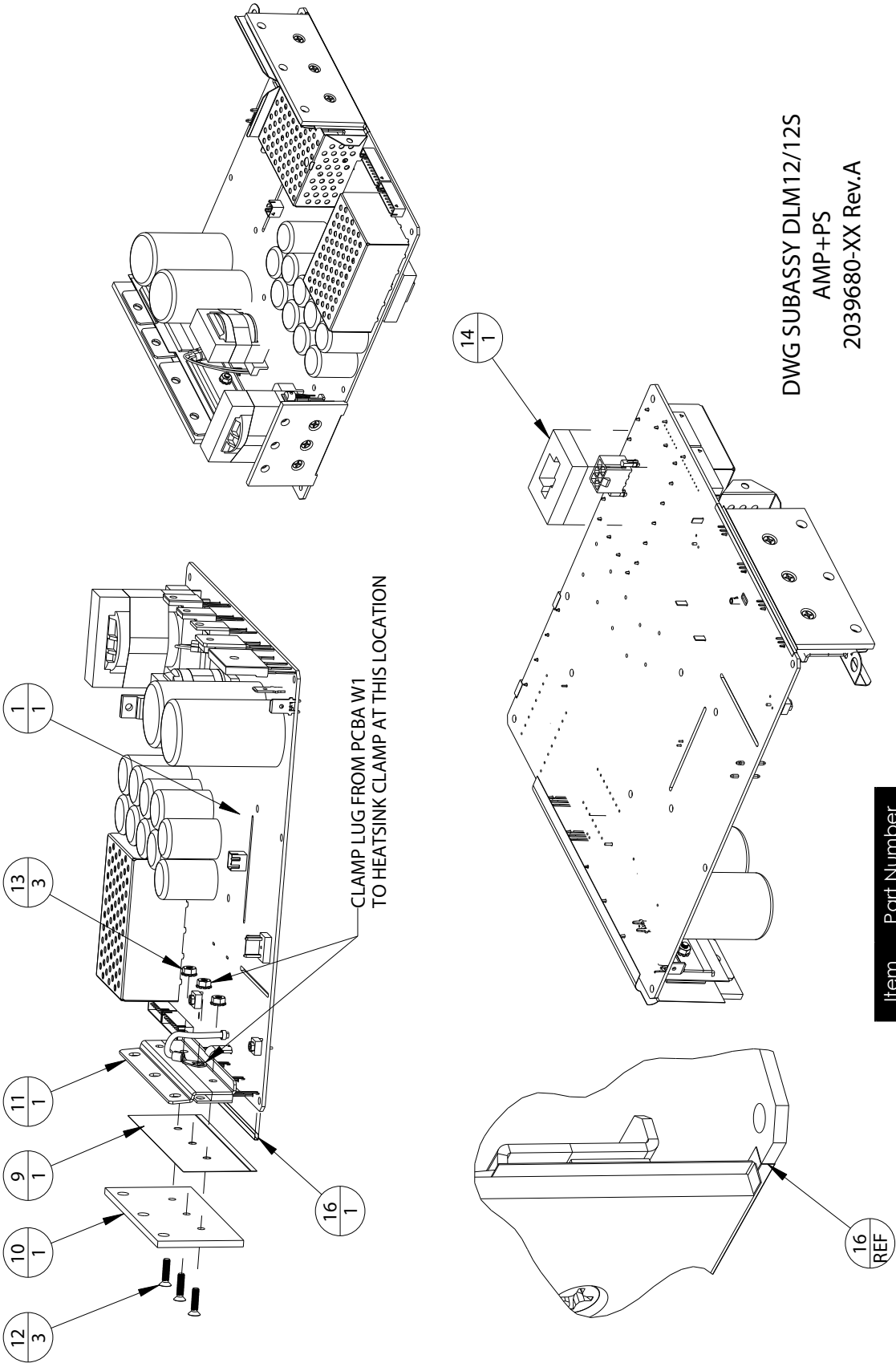


DWG ASSY  
AMPLIFIER DLM12S  
2039679-XX Rev. E



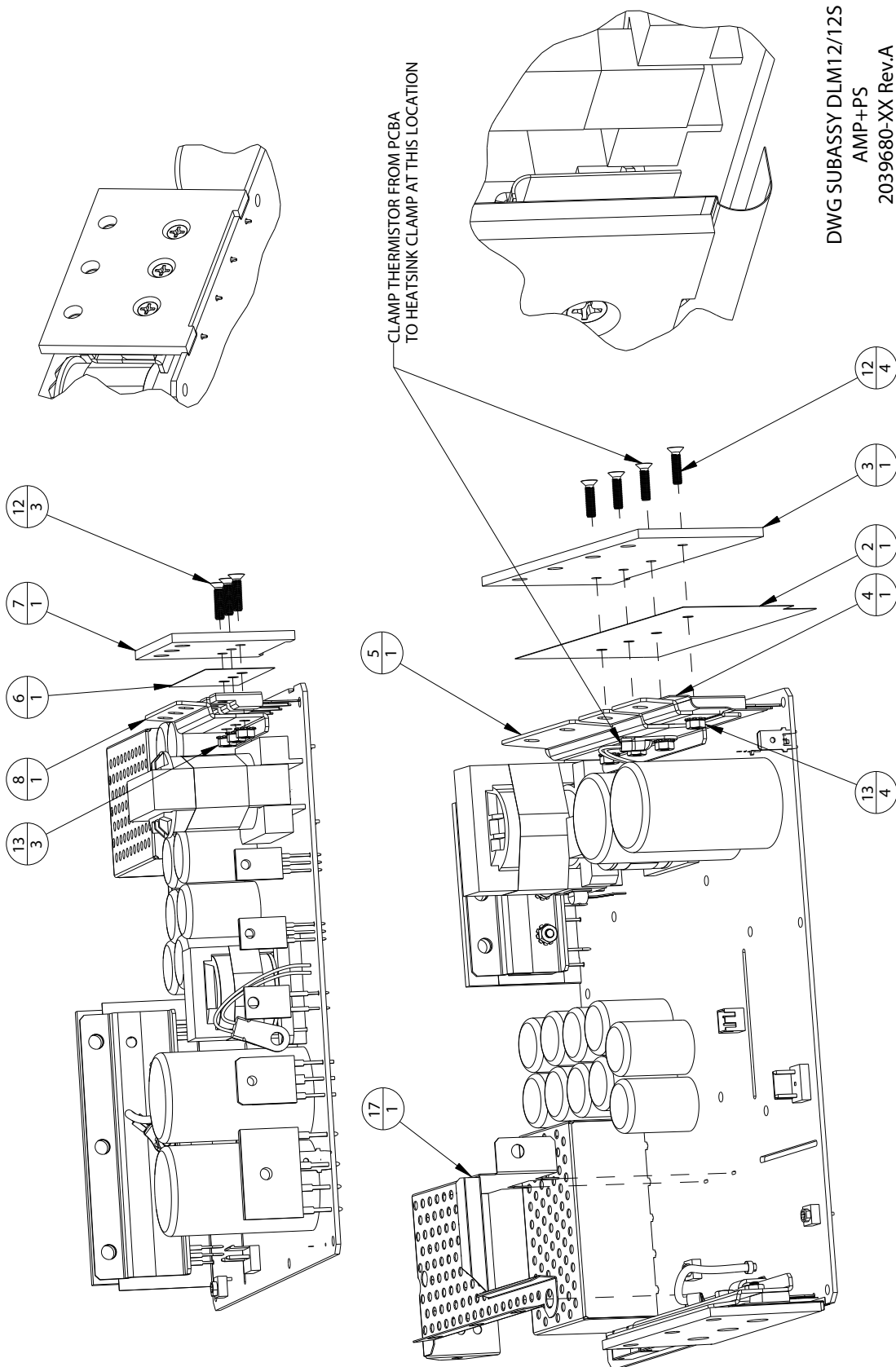
| Item | Part Number |
|------|-------------|
| 32   | 0000659     |
| 33   | 0013710-008 |
| 34   | 0013708-008 |
| 37   | 2038437     |
| 38   | 2038600     |
| 46   | 2039499     |

2039680-XX A00 ASSEMBLY AND QUICK PARTS





## 2039680-XX A00 ASSEMBLY AND QUICK PARTS



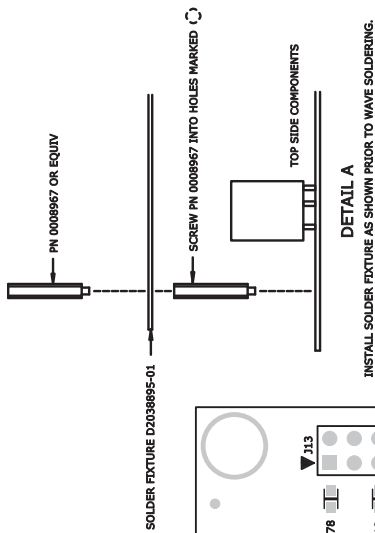
DWG SUBASSY DLM12/12S  
AMP+PS  
2039680-XX Rev.A

| Item | Part Number |
|------|-------------|
| 12   | 2038361     |
| 13   | 0000659     |
| 17   | 2039769     |

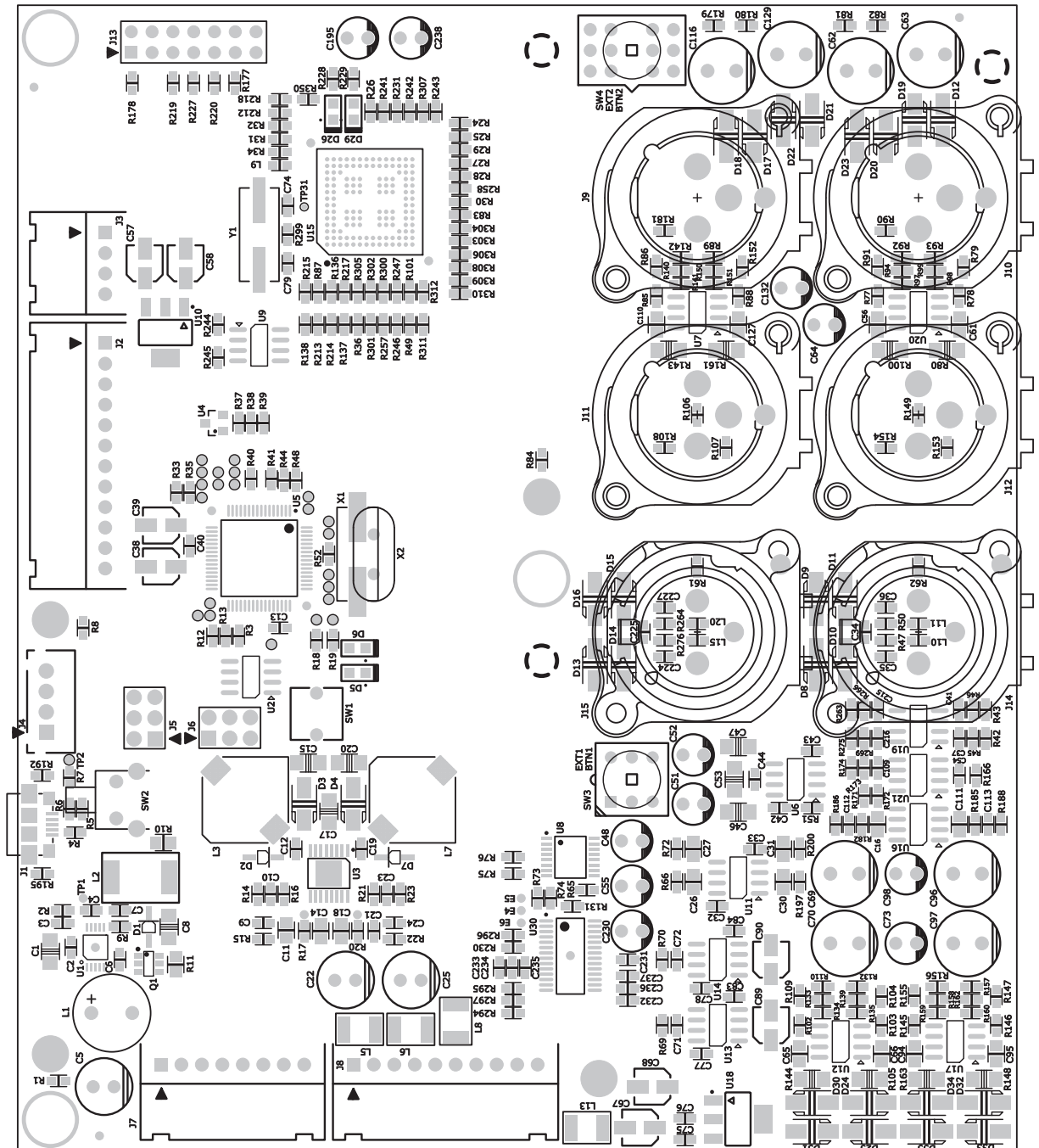
| Item | Part Number |
|------|-------------|
| 2    | 2038359     |
| 3    | 2038348     |
| 4    | 2038354     |
| 5    | 2038340     |
| 6    | 2038358     |
| 7    | 2038347     |
| 8    | 2038339     |

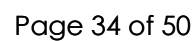


**2038895-XX REV.A PCB ASSEMBLY SUB DSP (TOP)**



PCB ASSY DLM SUB DSP  
2038895-XX Rev. A  
TOP SIDE SHOWN







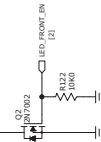
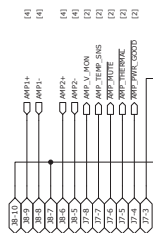
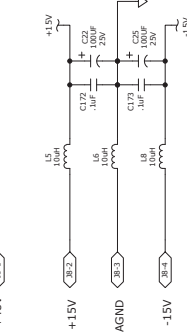
## 2038895-XX REV.A SCHEMATICS (DSP POWER/CONN)

### POWER SUPPLY/AMP CONNECTOR



DGND

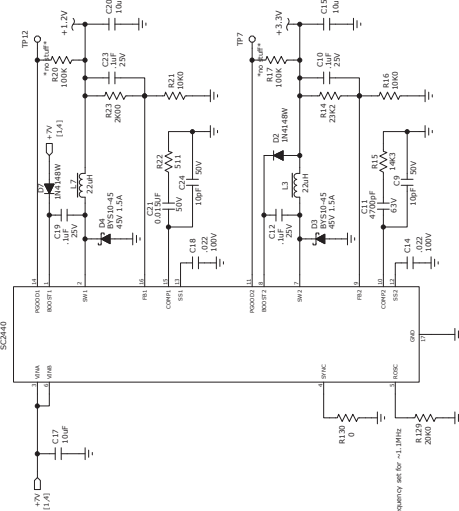
+48V



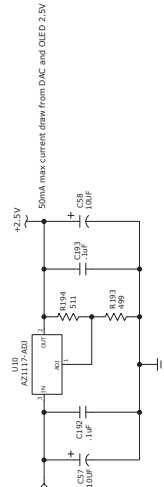
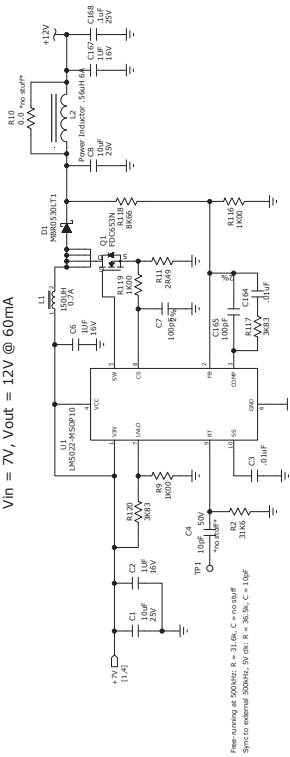
\* To Do: DCR of power supply filter inductors

AGND and DGND connected with copper part at codec

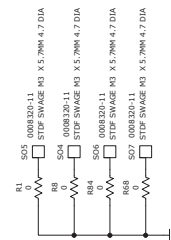
Vin = 7V, Vout = 1.2V @ 1.5A, 3.3V @ 500mA



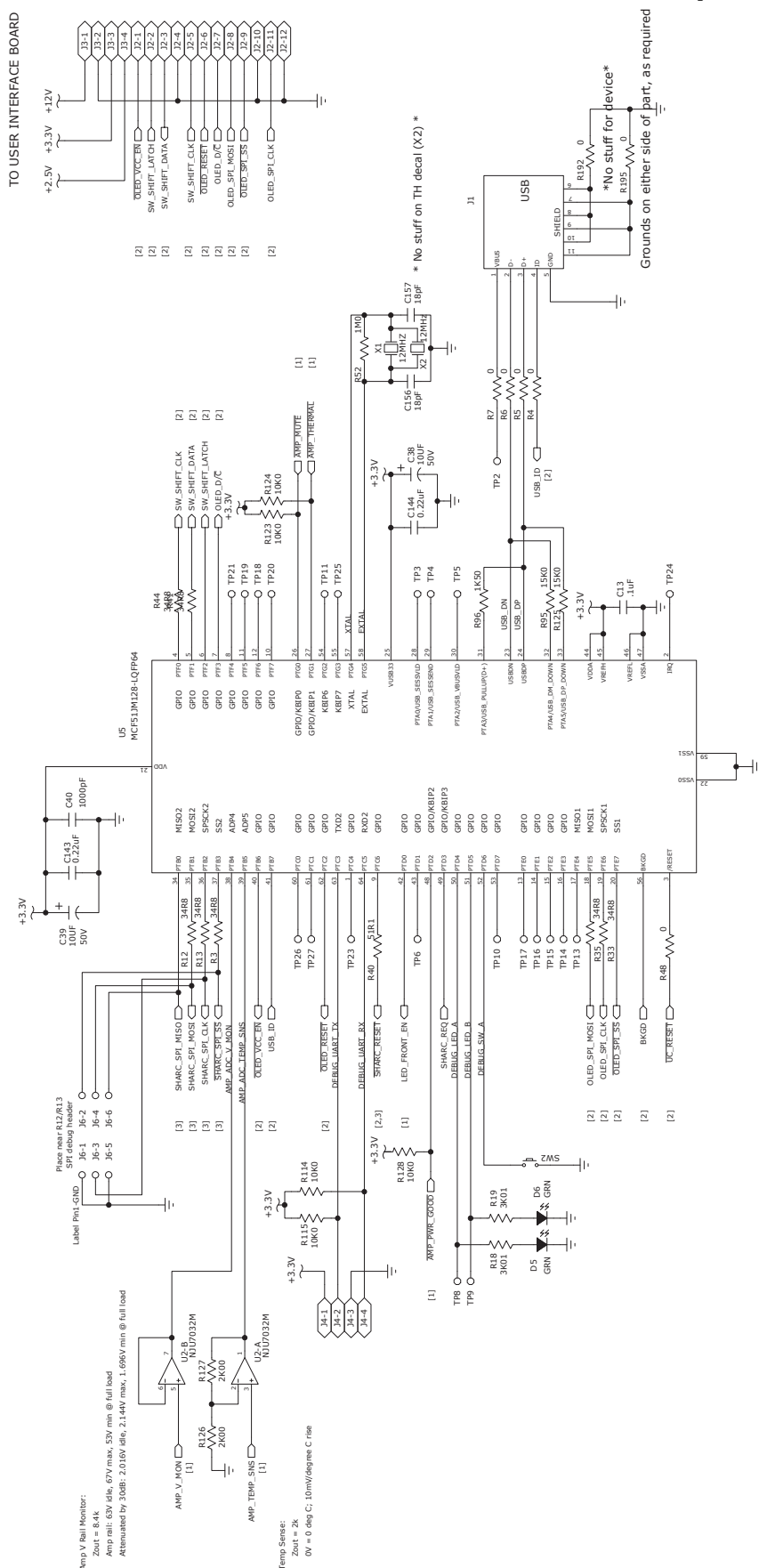
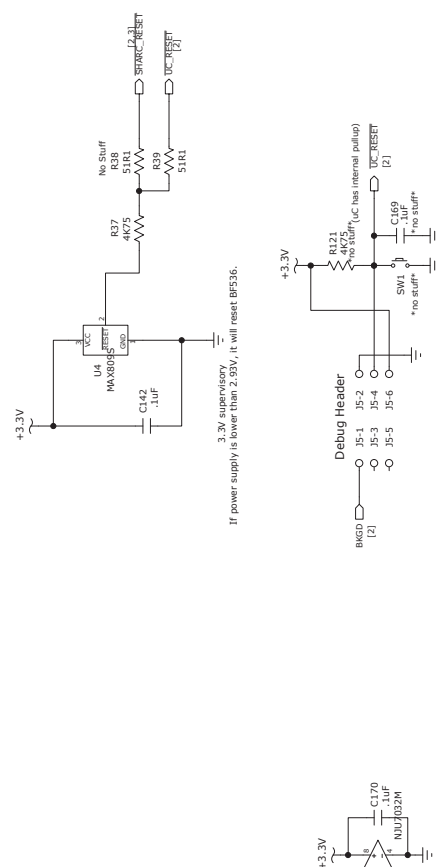
Vin = 7V, Vout = 12V @ 60mA



DLM SUB DSP POWER/CONN  
2038895-XX Rev.A04



## 2038895-XX REV.A SCHEMATICS (DSP MICROCONTROLLER)

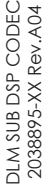
DLM SUB DSP MICROCONTROLLER  
2038895-XX Rev.A04





## 2038895-XX REV.A SCHEMATICS (DSP SHARC)

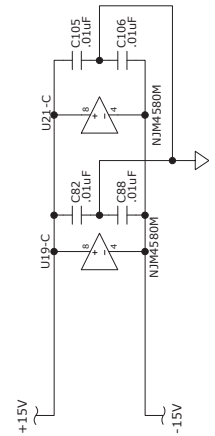
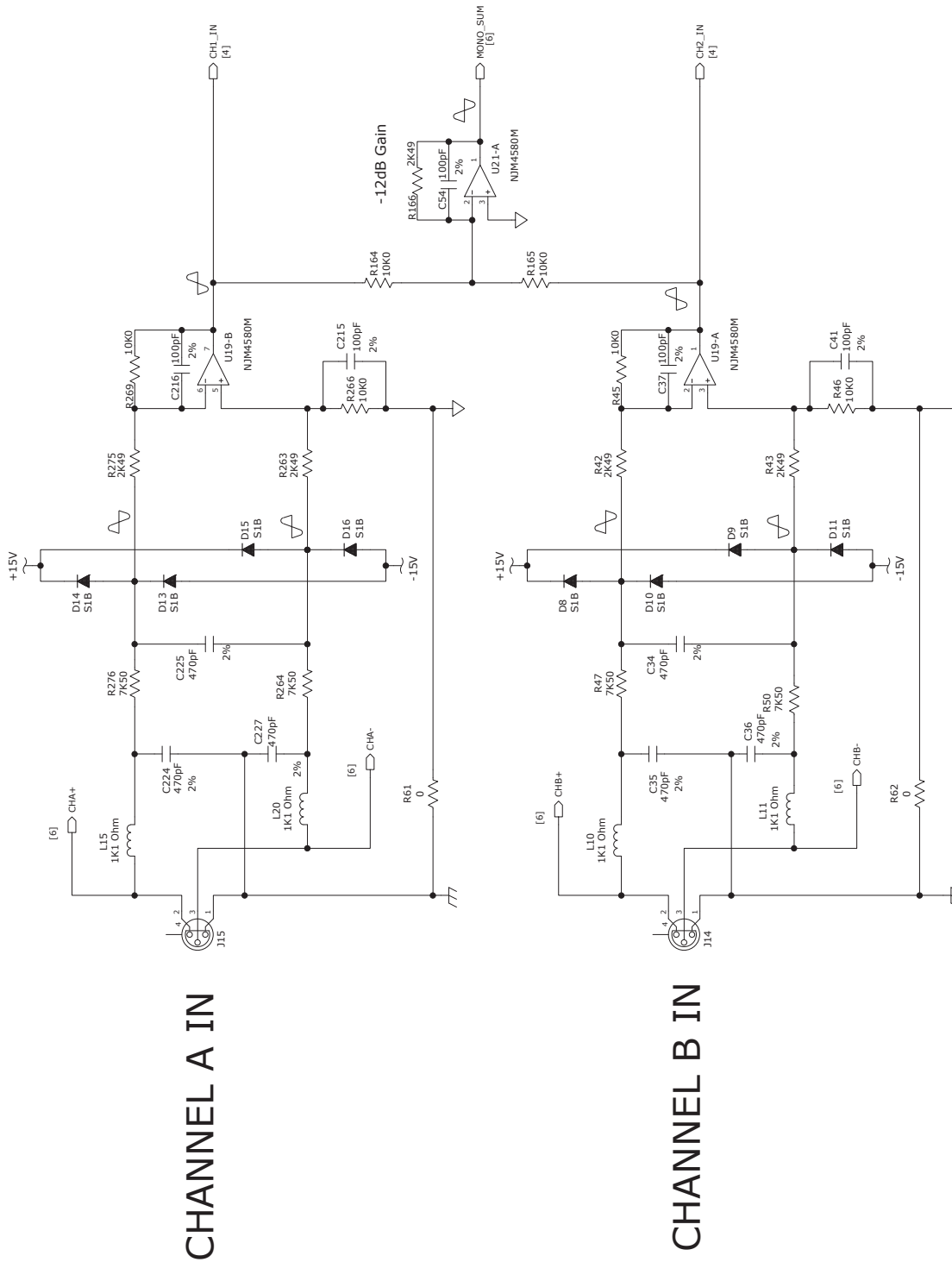






## 2038895-XX REV.A SCHEMATICS (DSP ANALOG INPUTS)

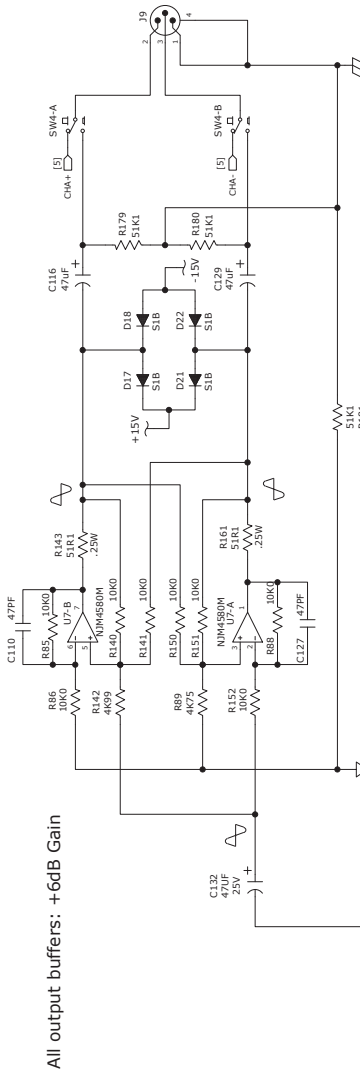
DLM SUB DSP ANALOG INPUTS  
2038895-XX Rev.A04





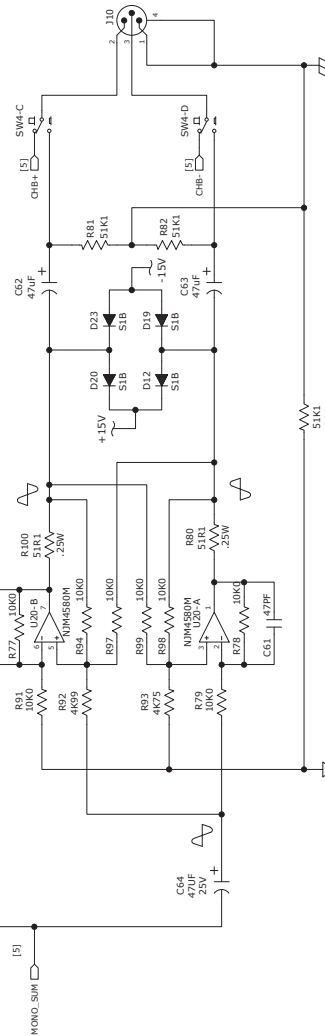
## 2038895-XX REV.A SCHEMATICS (DSP ANALOG OUTPUTS)

## FULL RANGE OUT A

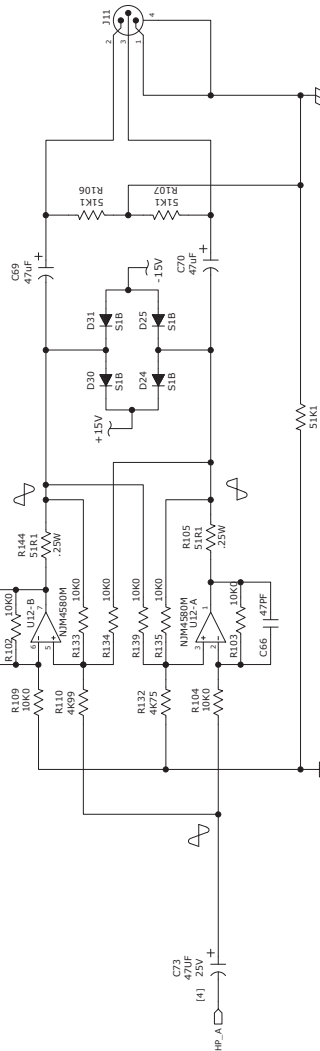


All output buffers: +6dB Gain

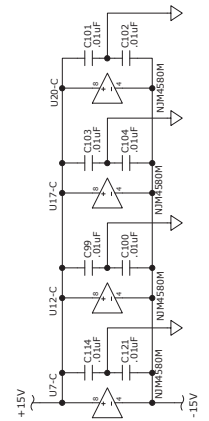
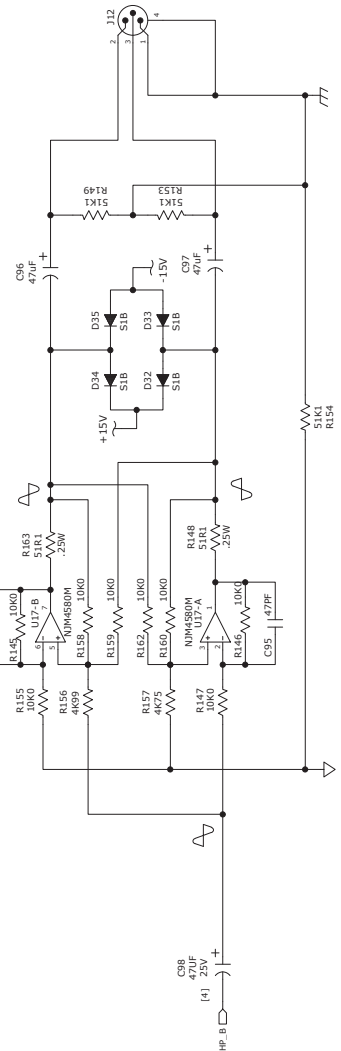
FULL RANGE OUT B



HI-PASS OUT A



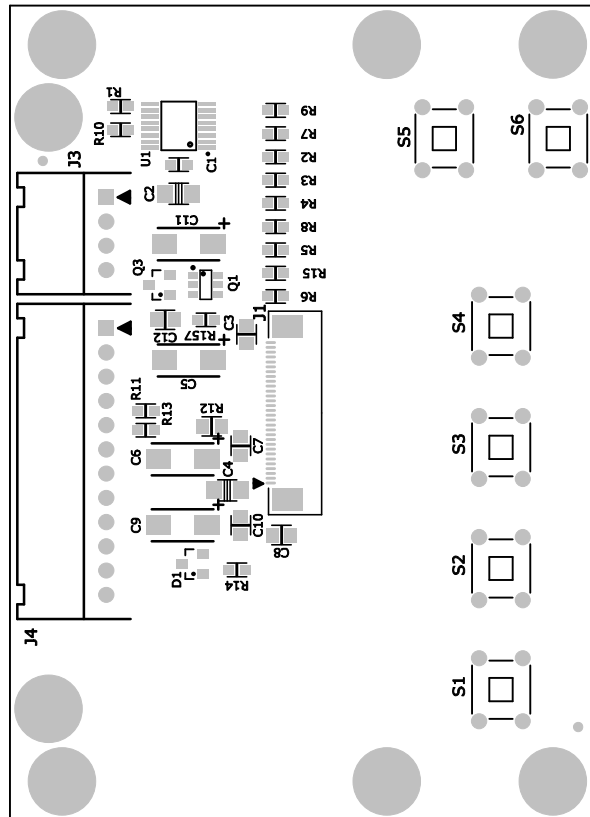
HI-PASS OUT B





**2037916-XX A00 PCB ASSEMBLY USER INTERFACE (TOP)**

DLM PCB ASSY  
USER INTERFACE  
2037916-XX Rev.A00



TOP SIDE SHOWN

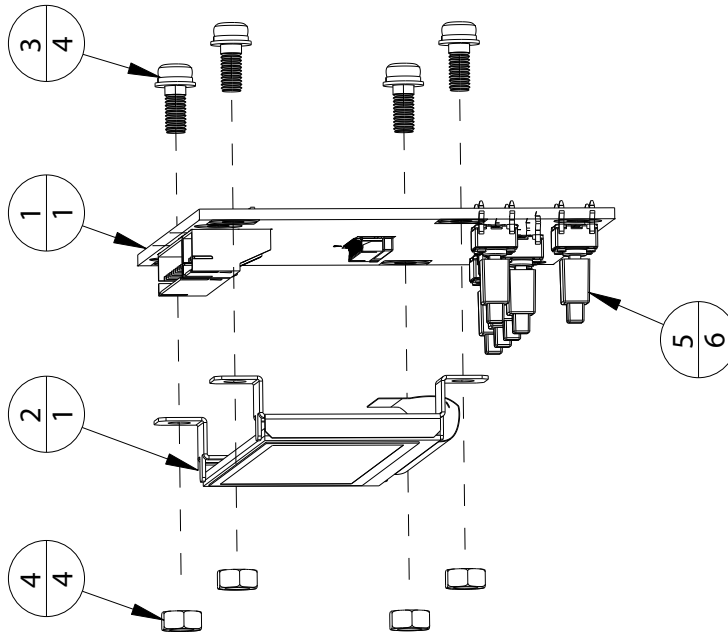
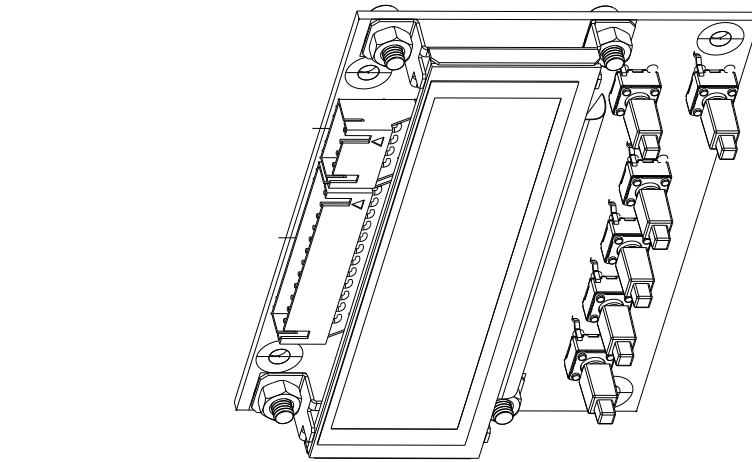


## 2037916-XX A00 SCHEMATICS (USER INTERFACE)

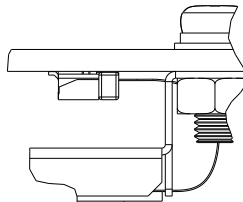


**2038192-XX A00 ASSEMBLY AND QUICK PARTS**

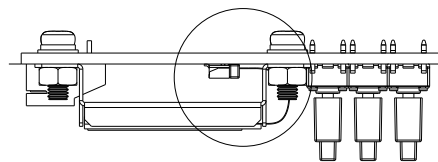
DWG SUBASSY  
USER INTERFACE OLED  
2038192-XX Rev.A



| Item | Part Number |
|------|-------------|
| 1    | 2037916-00  |
| 2    | 2038193     |
| 3    | 0024357     |
| 4    | 0025352     |
| 5    | 2041582     |

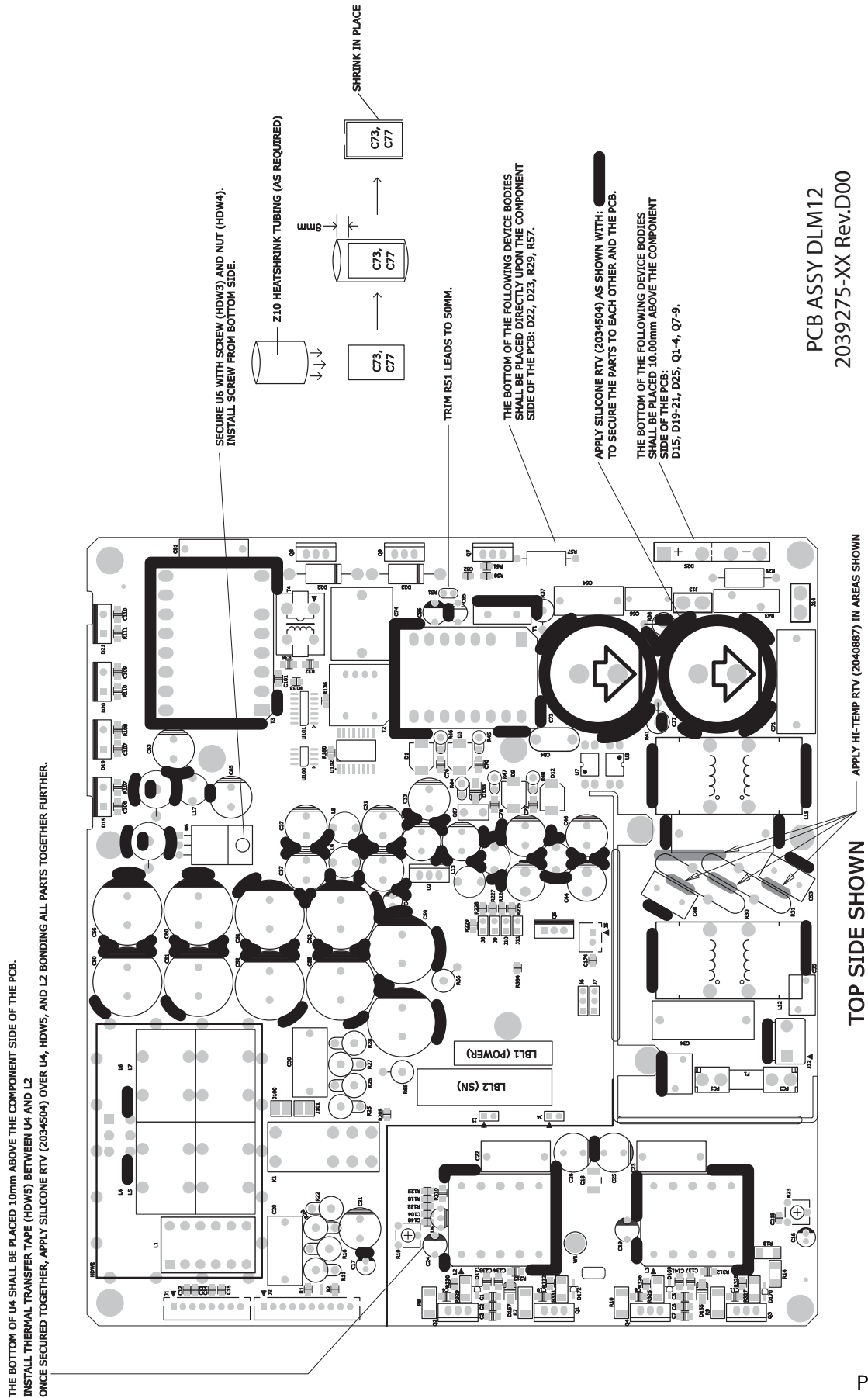


**DETAIL A**  
SCALE 2.000





## 2039275-XX D00 PCB ASSEMBLY (TOP)

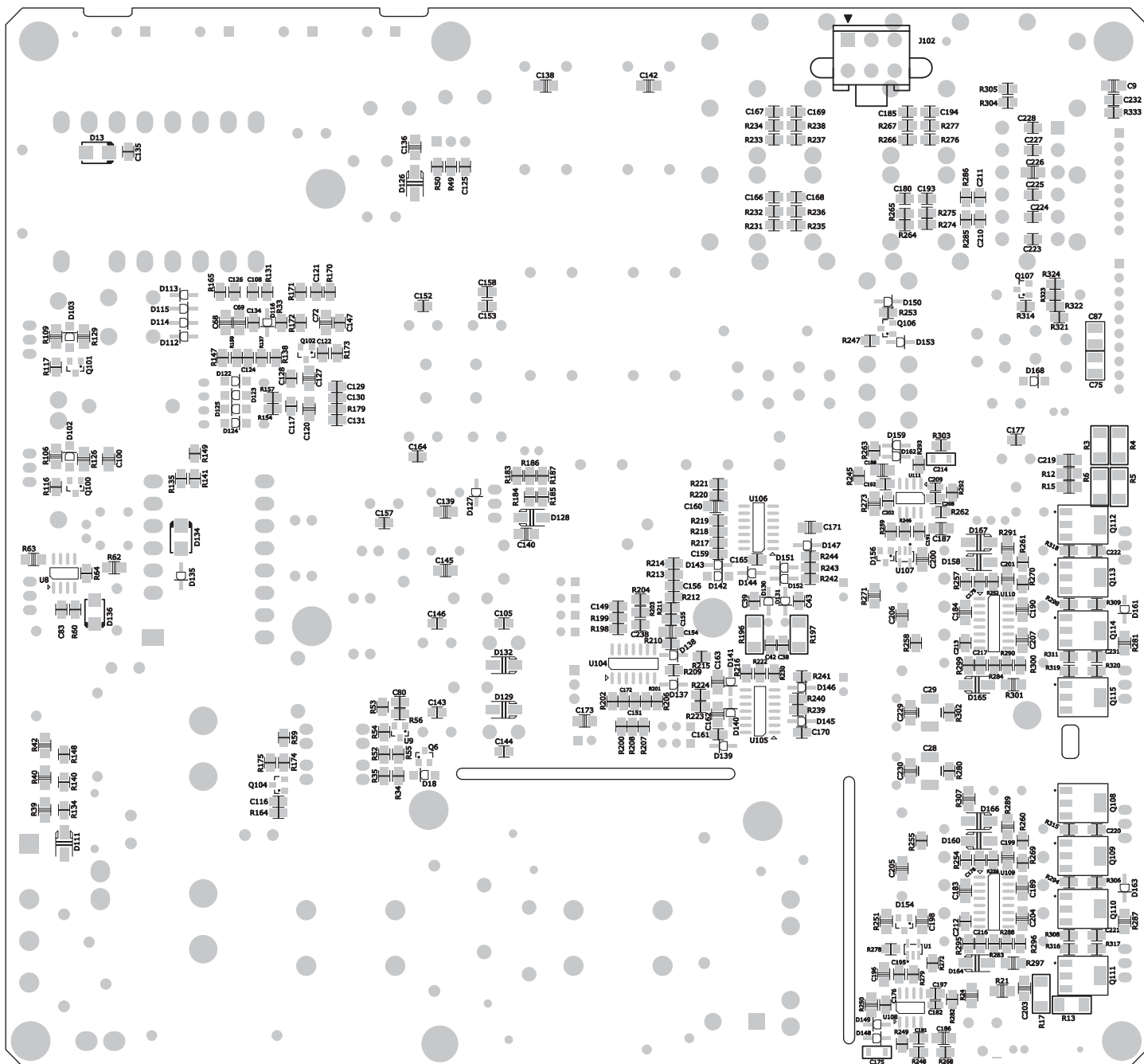






## 2039275-XX D00 PCB ASSEMBLY (BOTTOM)

PCB ASSY DLM12  
2039275-XX Rev.D00



**BOTTOM SIDE SHOWN**

TRIM ALL COMPONENT LEADS TO 2.5mm MAX.

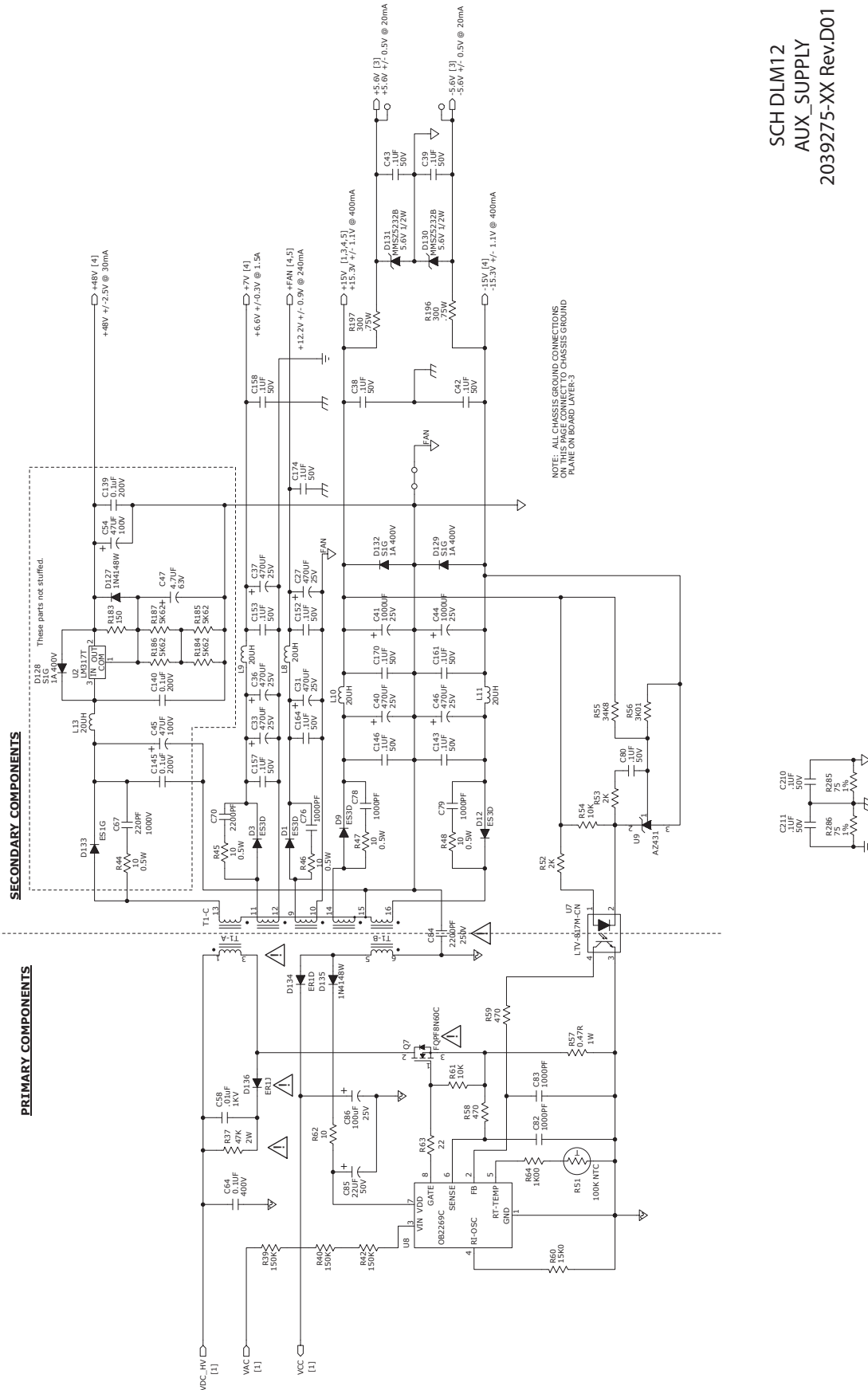


## 2039275-XX D01 SCHEMATICS (INPUT Q-RES SUPPLY)



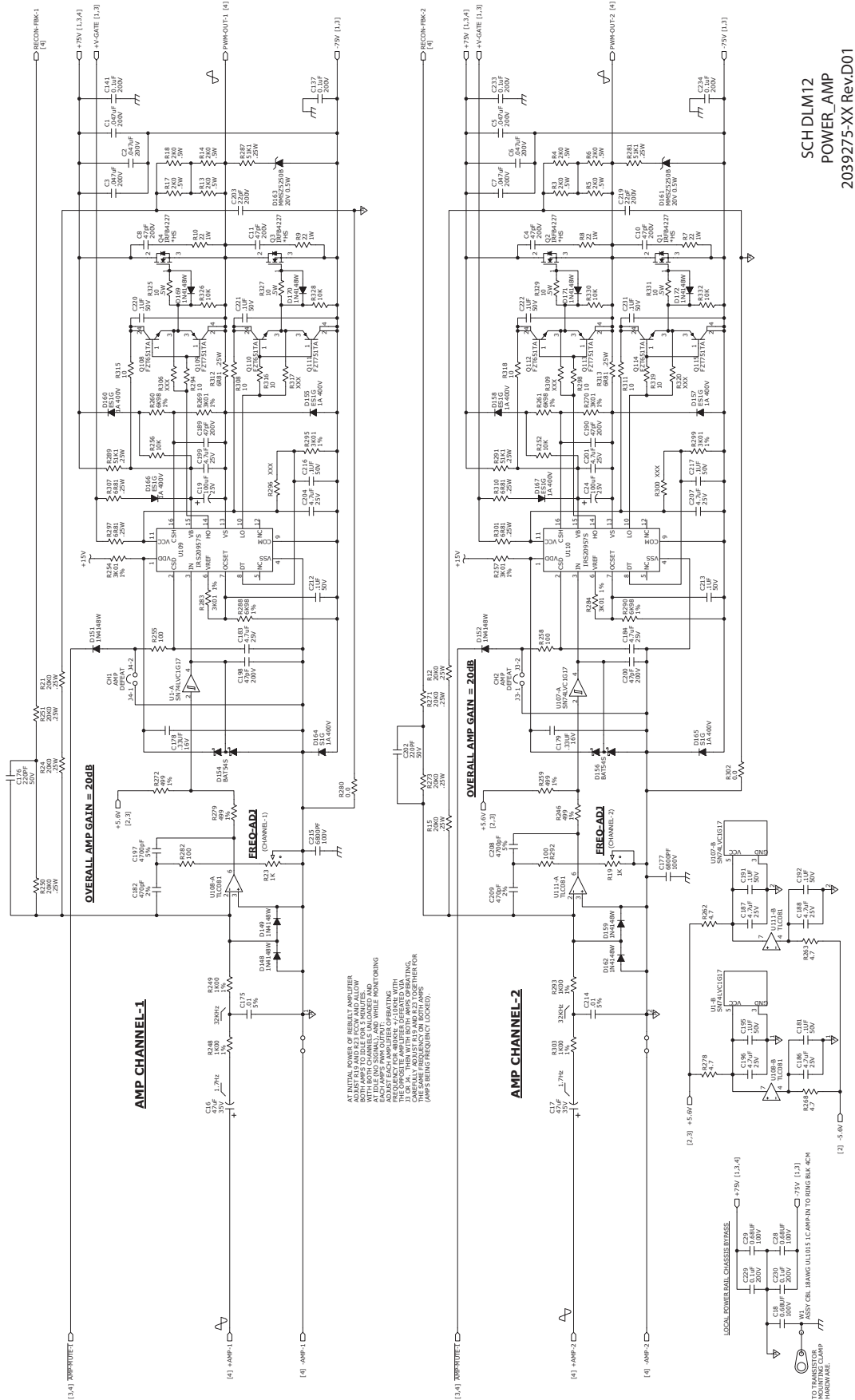


## 2039275-XX D01 SCHEMATICS (AUX SUPPLY)





## 2039275-XX D01 SCHEMATICS (POWER AMP)







## VARIABLE SPEED FAN DRIVER

FAN @ 4V WHEN T-SENSE 63 DEG C. OR BELOW.  
FAN VOLTAGE RAMPS FROM 4V TO 12V FROM 63

