LEM

PROFESSIONAL SOUND

SERVICE MANUAL | DX26

Index

⚠ Notice

Service must be carried out by qualified personnel only. Any tampering carried out by unqualified personnel during the guarantee period will forfeit the right to guarantee.

For a correct operation of the instrument, after having switched off, be careful to wait at least 3 seconds before switching on again.

To improve the device's specifications, the schematic diagrams may be subject to change without prior notice.

⚠ All components marked by this symbol have special safety characteristics, when replacing any of these components use only manufacturer's specified parts.

The (μ) micro symbol of capacitance value is substituted by U.

The (Ω) omega symbol of resistance value is substituted by E.

The electrolytic capacitors are 25Vdc rated voltage unless otherwise specified.

All resistors are 1/8W unless otherwise specified.

All switches shown in the "OFF" position. All DC voltages measured to ground with a voltmeter 20KOhm/V.

← Soldering point.	↑ Supply voltage.	Logic supply ground.
Male connector.	Test point.	Analog supply ground.
Female connector.	Flag joined with one or more flags	Chassis ground.
M/F faston connector.	with the same signal name inscribed.	Earth ground.

⚠ ATTENTION Observe precautions when handling electrostatic sensitive devices.

GENERALMUSIC

code 270253

DX 26 • TECHNICAL SPECIFICATIONS

INPUT section	
Connectors	2 x COMBO
Nominal input sensitivity	0 dB (0.775 V)
Input Impedance	30kOhm, electronically balanced
Maximum Input Level	+20dBu
Input Gain	-30 / +6 dB variable in 0.5 dB steps
Digital input	AES/EBU, XLR-F
Digital input sample rate	32 kHz ÷ 48 kHz

Output Section	
Connectors	6 x XLR-M
Output Impedance	600 Ohms, electronically balanced
Nominal Output Level	0 dBu
Maximum Output Level	+20 dBu
Output Gain	-30 / +6 dB variable in 0.5 dB steps
Minimum Total Delay Time	0.726mS

DSP Section	
A/D converters	20 bit
D/A converters	20 bit
Internal dynamics	40 bit
Sampling frequency	48 kHz

Features	
Configuration	2-WAY STEREO, 3-WAY STEREO, 2,3,4,5,6-WAY MONO
Crossover Filters Type	Bessel, Butterworth or Linkwitz-Riley
Crossover Filters Slope	6, 12, 18, 24, or 48dB per octave
Delay Step	21 microseconds minimum
Max Delay time	2621 ms (inputs), 291 ms (outputs)
EQ filters	Up to 40 maximum (depending on the crossover slope)
EQ Type	Peak, 6dB Lo-Shelf, 12dB Lo-Shelf, 6dB Hi-Shelf, 12dB Lo-Shelf, Notch
EQ Gain	+/15dB, variable in 0.5dB steps
EQ Bandwidth	0.05 to 3.00 octaves, variable in 0.05 steps
EQ freq	15.6 Hz to 16 kHz
Dynamics	Digital limiter on all the output
Memories	21 FACTORY PRESETS + 128 USER PRESETS + 128 CARD PRESETS
Communications	9-pin RS232, XLR-F RS485 IN, XLR-F RS485 IN

General Performance (with filters out)	
Frequency Response	20Hz - 20kHz, ±0.25dB
Dynamic range	>117dB 20Hz to 20kHz >120dB 20Hz to 20kHz on AES/EBU input
Channel Separation	>100dB 20Hz to 20kHz
Distortion (THD)	0.05%, 20Hz to 20kHz
Input Metering	-24dB, -18dB, -12dB, -6dB, CLIP relative to Clip point (+20dBu)
Output Metering	-24dB, -12dB, -6dB, LIMIT relative to limiter threshold setting, CLIP

General	
Dimensions	483x44x300 mm
Weight	4.0 Kg
Power supply	see label on the unit
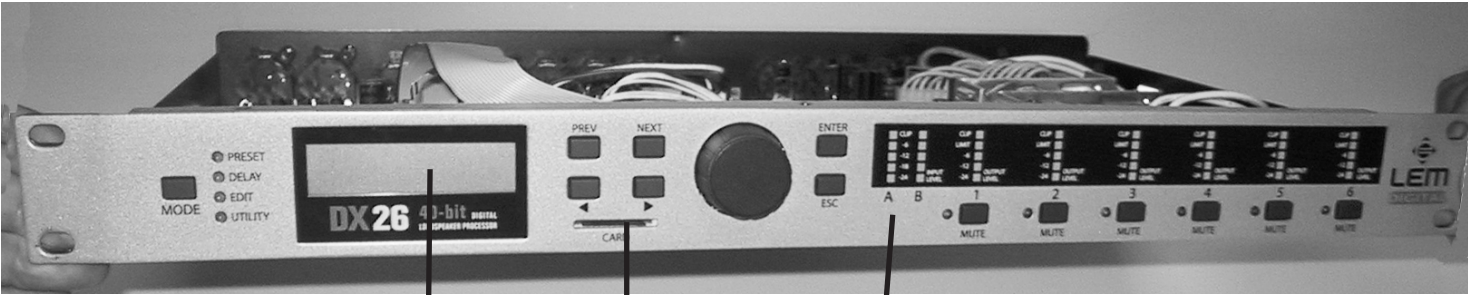
768245   768247   727630
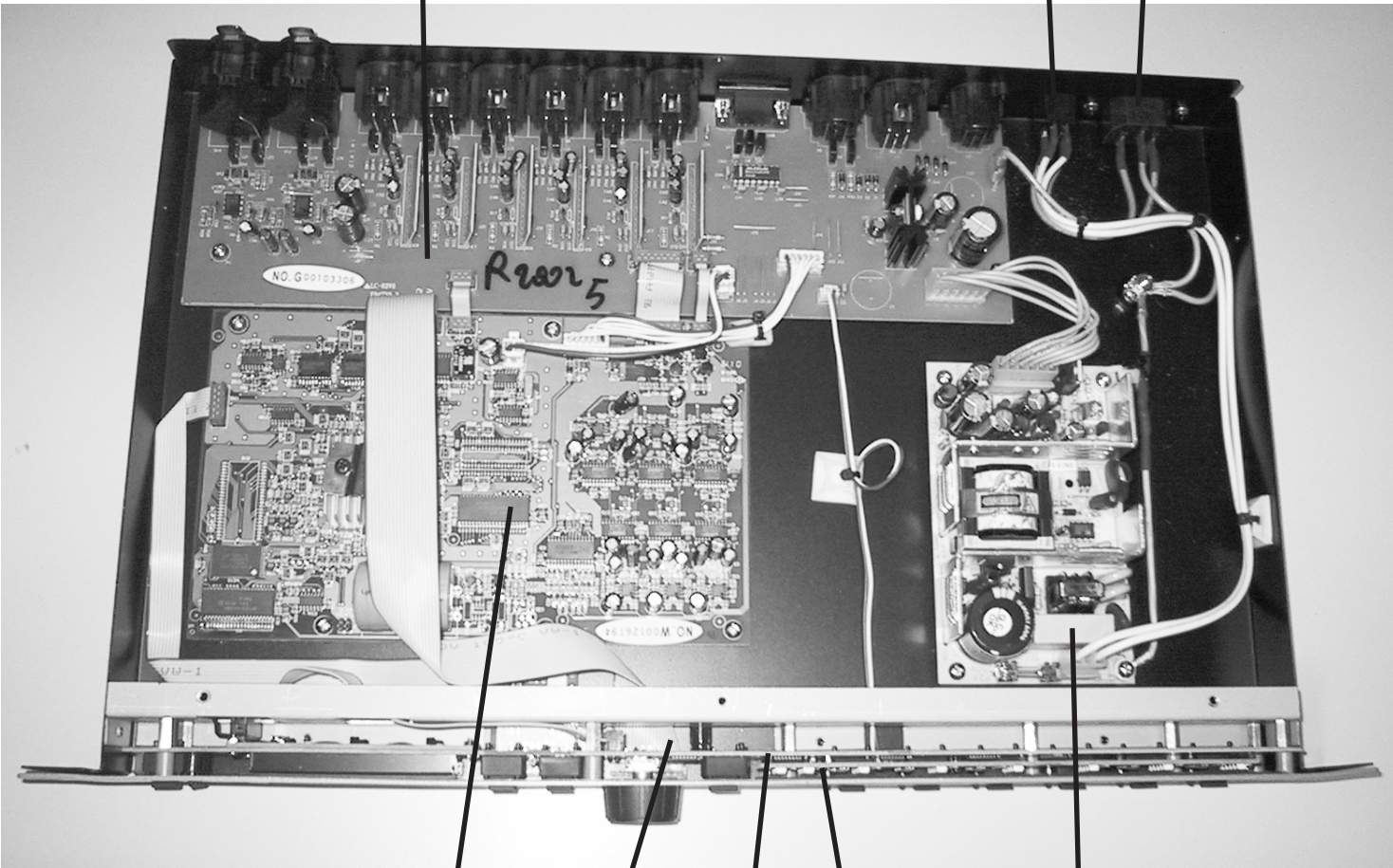
768245   110285   110614

768227   768247   768252 768253   731011

Testing procedure

Instruments required
1) Sinusoidal signal generator
2) AES/EBU sound player (DAT, CD or similar).
2) Dual trace scope
3) Digital multimeter

Visual check
Check the internal cables and sockets for possible interruptions or shorts, also check the DC output voltages of the Switching Supply Unit disconnecting its output connector, if appears a damage don't try to repair it but replace the unit with a new one.

Setup
Switch off the unit.
Connect the signal generator to the IN A XLR socket, and set it at 1KHz, $0.775V_{RMS}$ (0dBu)
Connect the digital multimeter to the OUT 1 XLR socket, and set in dBu scale.
Connect the scope CH1 probe tip to the pin 2 - OUT 1 socket and the CH2 probe tip to the pin 2 - OUT 3 socket, a single gnd clip must be connected to a socket ground (pin1).
Note: If you use a balanced signal generator you have to check a balanced output signal level, or if you use an unbalanced signal generator you have to check an unbalanced output signal level, in this last case you have to check always the negative signal circuitry in either pin 3 of XLR input and output sockets, refer to schematics.

Control Panel Test
Press and hold the MUTE 3 and MUTE 4 buttons while switch on the unit, a semi-automatic test starts and goes on with the following steps:
1- Leds must switch on sequentially.
2- Press the MODE button, the display shows KEY 1.
3- Press the PREV button, the display shows KEY 2.
4- Press the LEFT button, the display shows KEY 3.
5- Press the NEXT button, the display shows KEY 4.
6- Press the RIGHT button, the display shows KEY 5.
7- Press the ENTER button, the display shows KEY 6.
8- Press the ESC button, the display shows KEY 7.
9- Press the MUTE 1 button, the display shows KEY 8.
10- Press the MUTE 2 button, the display shows KEY 9.
11- Press the MUTE 3 button, the display shows KEY 10.
12- Press the MUTE 4 button, the display shows KEY 11.
13- Press the MUTE 5 button, the display shows KEY 12.
14- Press the MUTE 6 button, the display shows KEY 13.
15- Turning the DIAL encoder clockwise the numbers at the right of DIAL text on the display increase, turning counterclockwise decrease.

RS232 test
Establish a loop connecting a RS232 loopback connector (pin 2 and 3 shorted) on rear RS232 socket, the display shows "RS232 85" instead the initial "RS232 NO" text. After some seconds the display shows "RS485i NO" see further.

RS485 test
Establish a loop between RS232 and the two RS485 rear ports proceeding as follows: connect a RSC SERIAL CONVERTER unit (951361) with a special self-made Y cable terminated with one XLR 5pin female plug at common side, one XLR 3pin female and one XLR 3 pin male at the other sides see schematic:
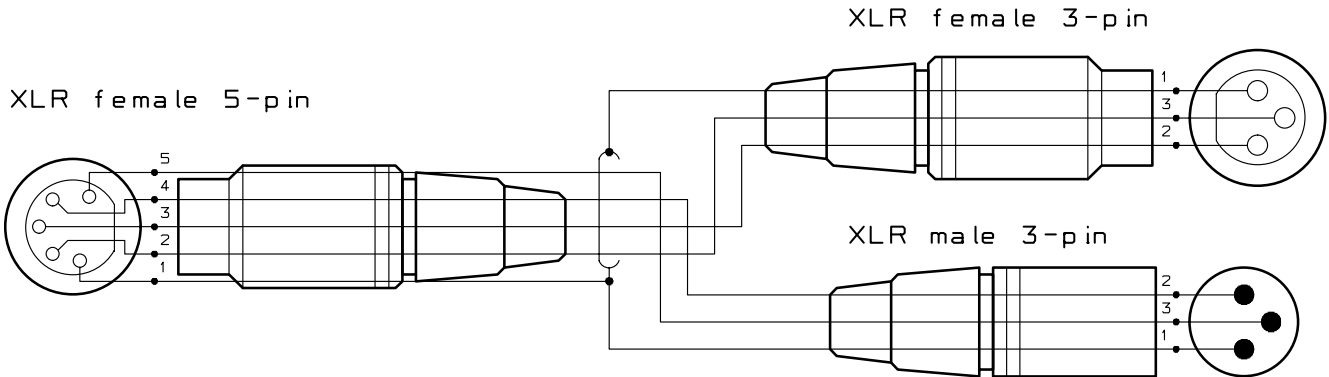
Then connect the plugs in this order:
First RS232 cable between DX26 and RSC, then RS485 common Y cable into RSC, then RS485 DX26 input with one Y terminal and finally the other Y terminal to RS485 DX26 output, the display will show "RS485o 85" text confirming that the test is passed.

MMC CARD test
In the proper CARD slot insert a MMC and verify that CARD OK appears on the display.

IN A test
Check if the OUT 1 level is within 0 ± 0.5dBu ($775\pm50mV_{RMS}$).
Check if the OUT 3 level is within 0 ± 0.5dBu ($775\pm50mV_{RMS}$).
Check if the OUT 5 level is within 0 ± 0.5dBu ($775\pm50mV_{RMS}$).
Sweeping the generator frequency from 20 to 20KHz no level changes must be detectable.

IN B test
Move the instruments connections to IN B and OUT 2 and 4 respectively.
Check if the OUT 2 level is within 0 ± 0.5dBu ($775\pm50mV_{RMS}$).
Check if the OUT 4 level is within 0 ± 0.5dBu ($775\pm50mV_{RMS}$).
Check if the OUT 6 level is within 0 ± 0.5dBu ($775\pm50mV_{RMS}$).
Sweeping the generator frequency from 20 to 20KHz no level changes must be detectable.

DIGITAL AES/EBU test
Select UTILITY by means of MODE button, scroll with the next button till MISC.SETUP appears on display, press ENTER then using the DIAL select DIGITAL as INPUT SELECTOR. Insert a DIGITAL AES/EBU source signal inthe respective rear input and check if it is accurately reproduced on all the outputs.
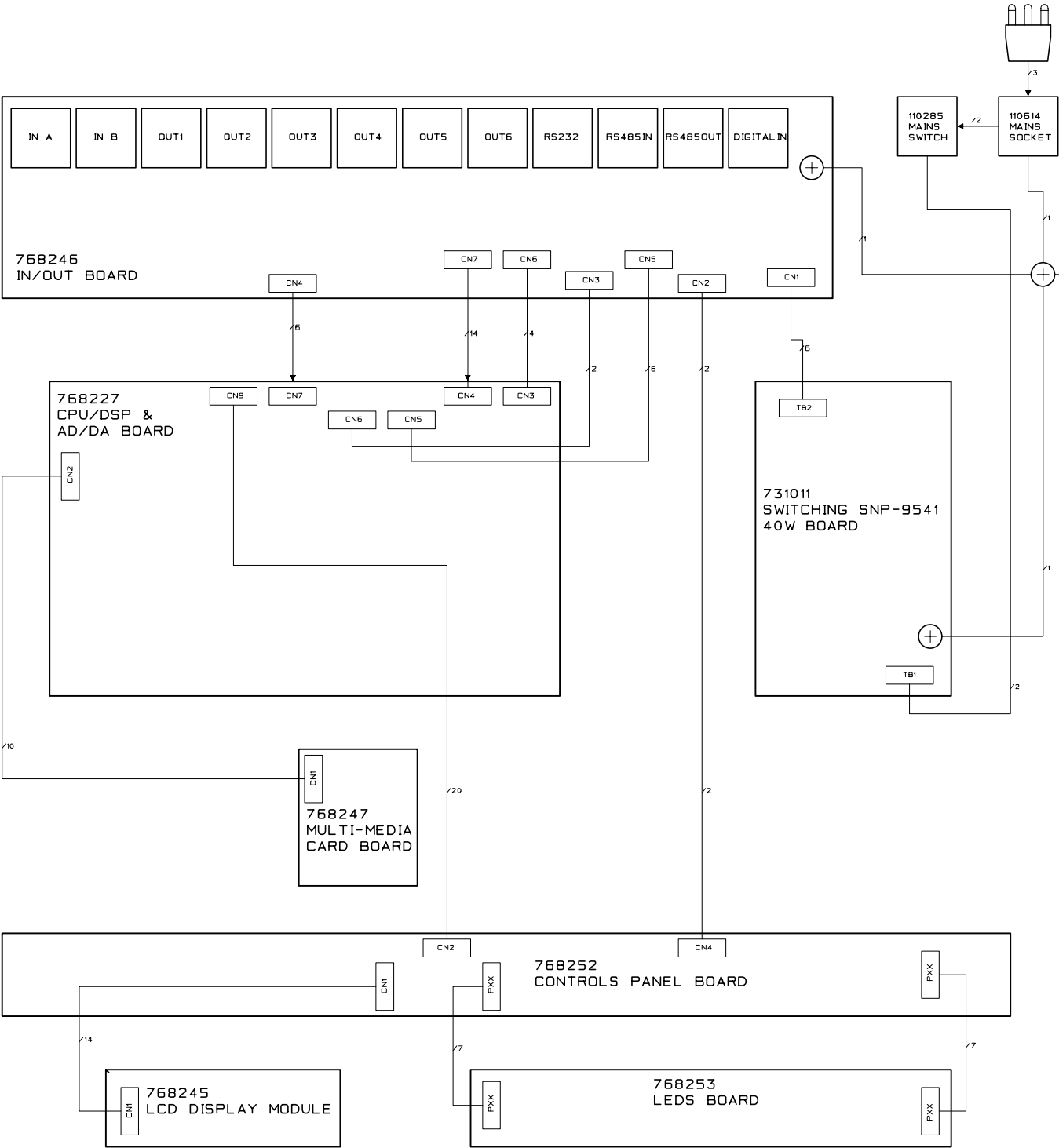
RESET MEMORY
Switch off the unit.
Press and hold the PREV and LEFT buttons while switch on the unit, the display shows INITIALIZING ALL MEMORY.

O.S. Release & DX-editor
The DX-editor program permits to edit the DX26 loudspeaker processor parameters remotely using a notebook PC-Windows based computer, using a RS232 cable your connection is guaranteed until 5mt, for longest distance you have to use the RSC SERIAL CONVERTER KIT (GM code 951361 EU or 951362 US).
DX-editor can be downloaded free from LEM website (http://www.lemaudio.com).
To use the DX-editor, your DX26 unit must have an Operating System (O.S.) release at least 2.0 or upper.
The O.S. Release appears on display while you turn on the unit.
If you want to upgrade your unit you have to download the newest DX26 O.S. FLASHBLASTER utility for from the LEM website.
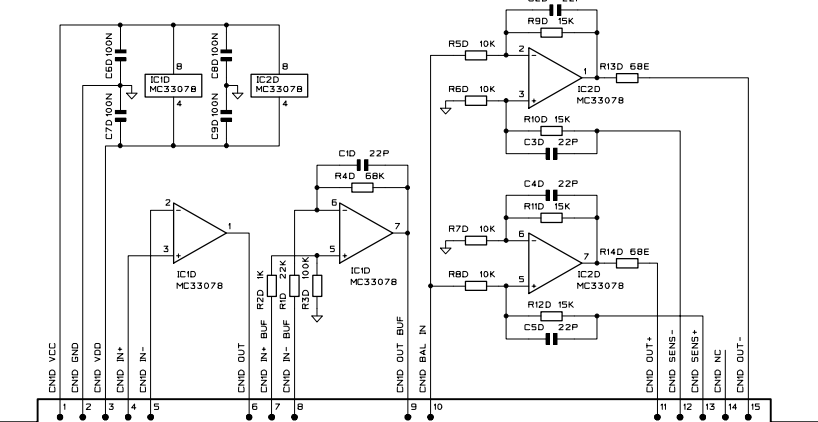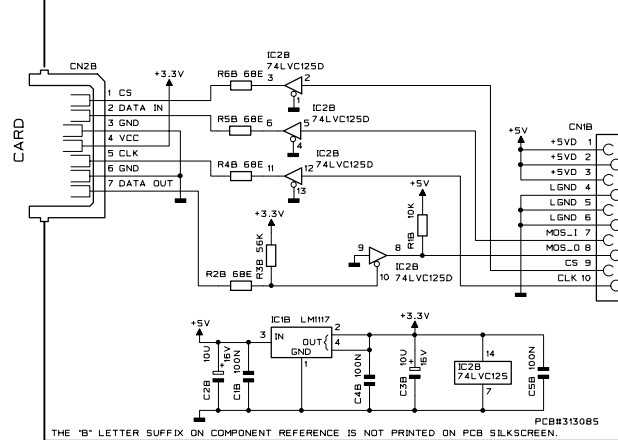

DX26 BLOCK DIAGRAM

XLR female 5-pin
XLR female 3-pin
XLR male 3-pin

102004 - HYBRID BALANCED OUTPUT CIRCUIT

ALL HYBRID CIRCUIT ARE REPLACED ENTIRELY
IC1 AND IC2 TYPE ARE MC33078 OR NE5532
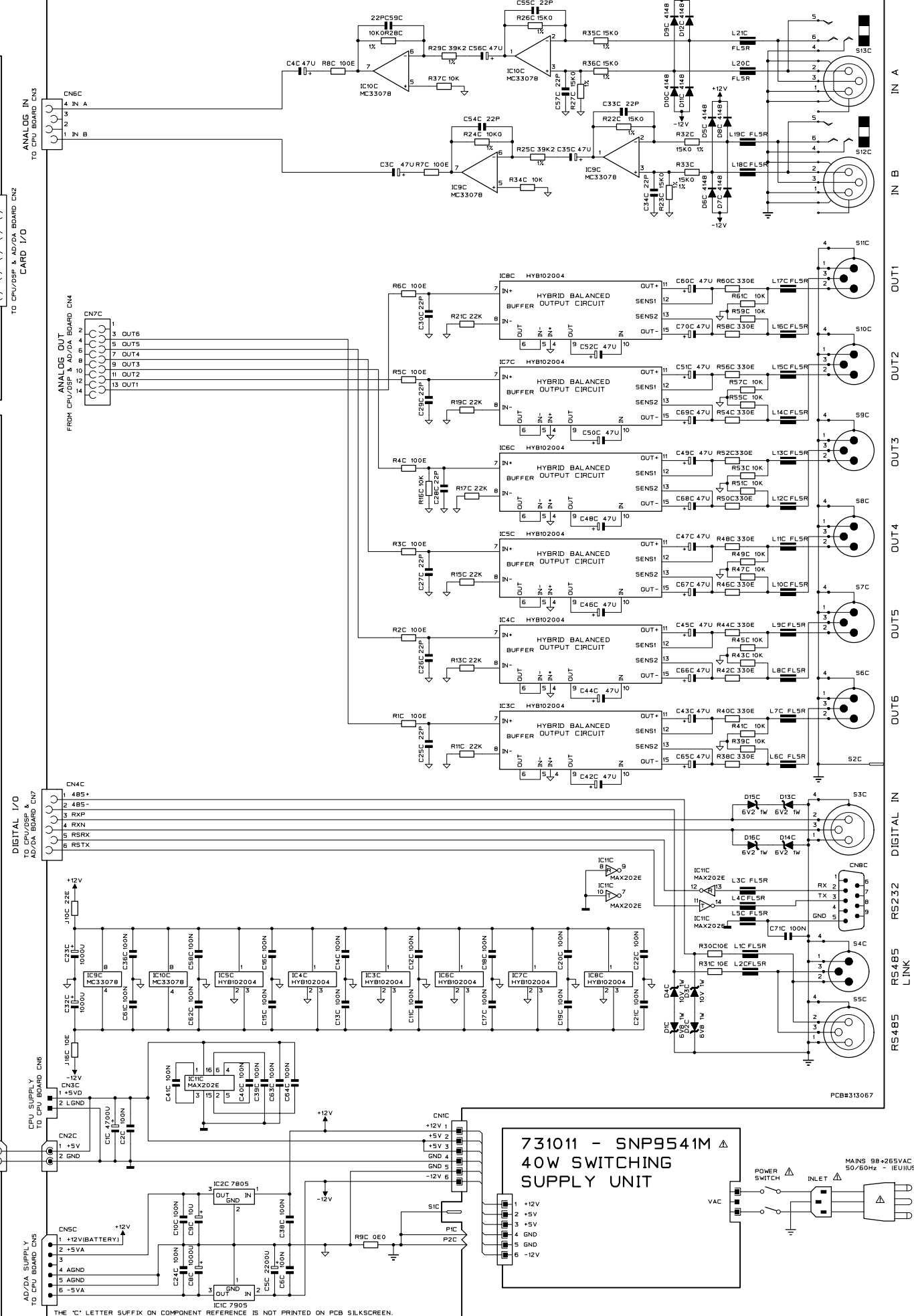ALL RESISTORS ARE LASER TRIMMED
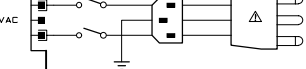
768247 MULTIMEDIA BOARD

THE "B" LETTER SUFFIX ON COMPONENT REFERENCE IS NOT PRINTED ON PCB SILKSCREEN.

768245 16x2 CHARACTERS LCD MODULE

768253 LED & METERS BOARD

THE 'A' LETTER SUFFIX ON COMPONENT REFERENCE IS NOT PRINTED ON PCB SILKSCREEN.

768252 CONTROLS PANEL BOARD

768246 - IN/OUT BOARD

731011 - SNP9541M 40W SWITCHING SUPPLY UNIT

THE 'C' LETTER SUFFIX ON COMPONENT REFERENCE IS NOT PRINTED ON PCB SILKSCREEN.

DRW	G.BOCCATO	DWG# 550725	PCB# 313067-313073-313074	GENERALMUSIC S.p.A. ITALY
CKD	RICCI/TOSI			
APP.	F. GAZZILLI	DATE 10/01/03	SCHEMATIC DIAGRAM DX 26 CONTROL PANEL ASSEMBLY & IN/OUT BOARD	ALL RIGHTS ARE RESERVED, NO COPIES OR REPRODUCE THIS DOCUMENT WITHOUT WRITTEN CONSENT BY GENERALMUSIC.
		REV : A		

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768227 - CPU/DSP & AD/DA BOARD

SCHEMATIC DIAGRAM DX26
CPU/DSP & AD/DA BOARD

DRW G. BOCCATO
CKD G. RICCI
APP. F. GAZZILLI
DWG# 550724
DATE 15-01-03
REV: A
PCB# 313072

GENERALMUSIC S.p.A. ITALY

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RED QFP208
Package pin-out

208 157
1 156
52 105
53 104

DRW: BOCCATO	DWG: 313072	SCHEMATIC DIAGRAM: DX26
CKD: RICCI	DATE: 15-09-03	CPU/DSP & AD/DA Board Pcb Layouts
APP: GAZZILLI	REV: B	

GENERALMUSIC

FLASH PROG.

RUN DEBUG

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GENERALMUSIC

SOLDER SIDE 313067

313073

313085   COMP. SIDE

313074   COMP. SIDE

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Spare Part List

Legend

EU = Europe Version 230Vac
US = United States Version 115Vac

Code		Description

Accessories

277350		Owner's Manual (Italian-English)
130297		Mains Cable (EU)
130283		Mains Cable (US)

Optional Accessories

951361		RSC Serial Converter 230Vac (EU)
951362		RSC Serial Converter 115Vac (US)

Assembly

667737		Chassis
667731		Cover
667730		Front Panel
657280		Display Screen
657278		Meters Screen
347060		Nylon Cable Tie with 3mm Eye
340961		Encoder Knob
340186		Adhesive Cable Fixing
340078		TO220 Insulated Bush
210215		Adhesive Rubber Foam 10x1.9mm (Specify mt)
190234		100X130X0.4mm Lateroid Insulator
150298		100x2.5mm Nylon Cable Tie
120827		10mm Threaded Spacer
120582		M3 Black Nut
120481		3mm Black Shakeproof Washer
120467		4.2x10x0.5 Nylon Washer
120276		B2.9x6.5mm Screw
120029		M3x6tc Black Screw
120025		M3x10tsp Black Screw
120005		M3x10tc Screw

Mains Supply

110614		Mains Socket
110285		4A 250Vac Bipolar Power Switch
731011		**SNP9541M 40W Switching Supply Unit**

Controls Panel Assembly

768253 Led & Meters Board (Pcb#313074)

140874	*	Single In Line Vert Male Strip (specify contacts)
103028	*	74HC4094M1R SOIC 8bit Shift/Latch Register
081702	*	Led Smd Yellow
081701	*	Led Smd Green
081700	*	Led Smd Red
054037	*	1K2 1/10w 5% Smd Resistor 0805
011060	*	100n 50V 10% Cer. Cap. Smd CL2 Y5V 0805

768252 Controls Panel Board (Pcb#313073)

841268	*	14 Wires 15cm Latch/Transition Flat Cable
340856	*	6,4mm Led Spacer
141018	*	20 Contacts Vert Female Connector
140918	*	2 Contacts Hor Male Connector
140529	*	Microswitch 12V 50mA 0.25mm
110261	*	Dial Encoder with 30 Snap H=15mm Alps
103032	*	74HC165D SOIC 8bit P To S Shift Register
103028	*	74HC4094M1R SOIC 8bit Shift/Latch Register
103010	*	74HC04D SOIC Hex Inverter
103000	*	74HC14D Soic Hex Inverter Schmitt Trigger
081000	*	PMLL4148 Smd 100mA 75V Signal Diode
080705	*	3mm 60deg Diffused Red Led
055101	*	4K7 X4 1/16w 5% Smd Resistor Array
054060	*	100K 1/10w 5% Smd Resistor 0805
054048	*	10K 1/10w 5% Smd Resistor 0805
054045	*	5K6 1/10w 5% Smd Resistor 0805
054043	*	3K9 1/10w 5% Smd Resistor 0805
054037	*	1K2 1/10w 5% Smd Resistor 0805
054036	*	1K 1/10w 5% Smd Resistor 0805
054012	*	10E 1/10w 5% Smd Resistor 0805
040091	*	4E7 1/2W 5% Resistor
030565	*	220u 25V 20% Vert Electrolytic Capacitor
030246	*	10u 25V Low Prof Vert Electrolytic Capacitor
011060	*	100n 50V 10% Cer. Cap. Smd CL2 Y5V 0805
011048	*	10n 50V 10% Cer. Cap. Smd CL2 X7R 0805
011020	*	47p 50V 10% Cer. Cap. Smd CL2 X7R 0805

768245 2x16 Characters Lcd Module

140860	*	14 Contacts Vert Male Dual In Line Strip
080757	*	WM-C1602N-2GLYC Wintek 2x16 Characters Lcd Display
347394		Rubber Switch Actuator
120579		M2 Nut
120021		M2x6tc Screw

Multimedia Card

768247 Multimedia Card Board (Pcb#313085)

141013	*	10 Contacts Vert Female Connector
140949	*	MMC Card 7 Contacts Connector
106008	*	LM1117 Voltage Reg. 3,3V 0,8A TO252
103046	*	74LVC125AD SOIC Quad Buffer/line Driver
054057	*	56K 1/10w 5% Smd Resistor 0805
054048	*	10K 1/10w 5% Smd Resistor 0805
054022	*	68E 1/10w 5% Smd Resistor 0805
031007	*	10u 16V 20% Smd Electrolytic Tantalium Capacitor
011060	*	100n 50V 10% Cer. Cap. Smd CL2 Y5V 0805

Cpu/Dsp & AD/DA Board

768227 Cpu/Dsp & AD/DA Board (Pcb#313072)

758227	*	Cpu & AD/DA Board (Pcb#313072)
250524	**	25x25mm Thermoconductor Adhesive
231000	**	BLM21A102STP Smd EMI Coil For Signal
230591	**	0.1-55MHZ Digital Line Transformer
177690	**	Heatsink
171039	**	Ground Leaf
141100	**	2 Contacts Vert Male Connector
141018	**	20 Contacts Vert Female Connector
141015	**	14 Contacts Vert Female Connector
141013	**	10 Contacts Vert Female Connector
141011	**	6 Contacts Vert Female Connector
141010	**	4 Contacts Vert Female Connector
140908	**	6 Contacts Vert Male Small Connector
140889	**	Dual In Line Vert Male Strip (specify contacts)
120276	**	B2.9x6.5mm Screw
106003	**	MAX709 Power Monitor With Reset
106001	**	MC33078P SOIC Dual Low Noise Op. Amp.
105008	**	RED208 Risc Cpu and Dsp
104030	**	AM29F400B-90EC TSOP 4Mbit Flash Memory Ta=90nS
104009	**	HM5118160ALJ 16Mbit Dram Ta=70nS
104003	**	HM514260JP SOJ 4Mbit Dynamic Ram Ta=70ns
103045	**	MAX485E RS485/422 Transceiver
103035	**	AD1892JR Audio Digital Interface Receiver
103030	**	74HC32D SOIC Quad 2-In Or Gate
103024	**	PCM1702U SOP 20bit DA Converter
103023	**	PCM1760U SOIC Dual 20bit Delta-Sigma Modulator
103010	**	74HC04D SOIC Hex Inverter
103007	**	74HC74D SOIC Dual Flip-Flop
103003	**	74HC374DW SOIC Octal D-Type Flip-Flop
103001	**	74HC08D SOIC Quad 2-Input And Gate
103000	**	74HC14D Soic Hex Inverter Schmitt Trigger
100920	**	LM336Z 2.5V 10mA Voltage Reference
090856	**	J176 TO92 P-Channel J-Fet Transistor
090153	**	BC327 TO92 Pnp Transistor
090152	**	BC337 TO92 Npn Transistor
081000	**	PMLL4148 Smd 100mA 75V Signal Diode
055102	**	33E X4 1/16w 5% Smd Resistor Array
055101	**	4K7 X4 1/16w 5% Smd Resistor Array
055100	**	100E X4 1/16w 5% Smd Resistor Array
054064	**	220K 1/10w 5% Smd Resistor 0805
054056	**	47K 1/10w 5% Smd Resistor 0805
054054	**	33K 1/10w 5% Smd Resistor 0805
054052	**	22K 1/10w 5% Smd Resistor 0805
054048	**	10K 1/10w 5% Smd Resistor 0805
054046	**	6K8 1/10w 5% Smd Resistor 0805
054044	**	4K7 1/10w 5% Smd Resistor 0805
054041	**	2K7 1/10w 5% Smd Resistor 0805
054040	**	2K2 1/10w 5% Smd Resistor 0805
054039	**	1K8 1/10w 5% Smd Resistor 0805
054038	**	1K5 1/10w 5% Smd Resistor 0805
054037	**	1K2 1/10w 5% Smd Resistor 0805
054036	**	1K 1/10w 5% Smd Resistor 0805
054035	**	820E 1/10w 5% Smd Resistor 0805
054033	**	560E 1/10w 5% Smd Resistor 0805
054032	**	470E 1/10w 5% Smd Resistor 0805
054028	**	220E 1/10w 5% Smd Resistor 0805
054024	**	100E 1/10w 5% Smd Resistor 0805
050341	**	560E 1/4W 5% Resistor
050311	**	330E 1/4W 5% Resistor
042361	**	110E 1/4W 1% Metalized Film Resistor
031007	**	10u 16V 20% Smd Electrolytic Tantalium Capacitor
030931	**	10u 35V 20% Electrolytic Tantalium Capacitor
030565	**	220u 25V 20% Vert Electrolytic Capacitor
030485	**	100u 25V 20% Vert Electrolytic Capacitor
030403	**	47u 25V 20% Vert Electrolytic Capacitor
030324	**	22u 50V 20% Vert Electrolytic Capacitor
011103	**	1u 16V 10% Cer. Cap. Smd CL2 XTR 1206
011060	**	100n 50V 10% Cer. Cap. Smd CL2 Y5V 0805
011048	**	10n 50V 10% Cer. Cap. Smd CL2 X7R 0805
011040	**	2n2 50V 10% Cer. Cap. Smd CL2 X7R 0805
011039	**	1n8 50V 10% Cer. Cap. Smd CL2 X7R 0805
011036	**	1n 50V 10% Cer. Cap. Smd CL2 X7R 0805
011032	**	470p 50V 10% Cer. Cap. Smd CL2 X7R 0805
011028	**	220p 50V 10% Cer. Cap. Smd CL2 X7R 0805
011014	**	15p 50V 10% Cer. Cap. Smd CL2 X7R 0805
010722	**	24.576MHz Quartz Resonator
110300	*	4.8V 280mAh Nicd Battery

In/Out Board

768246 In/Out Board (Pcb#313067)

340079	*	TO220 Mica Washer
340078	*	TO220 Insulated Bush
230569	*	FL5R200PNT EMI Coil For Signal
170960	*	TO220 h=25mm Heatsink
141189	*	Hor Female XLR-Jack Socket (NCJ6FK-H Neutrik)
141187	*	Hor Female XLR Socket (NC3FAH Neutrik)
141186	*	Hor Male XLR Socket (NC3MAH Neutrik)
141102	*	6 Contacts Vert Male Connector
141100	*	2 Contacts Vert Male Connector
141015	*	14 Contacts Vert Female Connector
141011	*	6 Contacts Vert Female Connector
141010	*	4 Contacts Vert Female Connector
140917	*	2 Contacts Vert Male Connector
140911	*	9 Contacts Hor Male Connector Din41652
140908	*	6 Contacts Vert Male Small Connector
120857	*	6.3mm Vertical Male Faston for Pcb
120582	*	M3 Black Nut
120481	*	3mm Black Shakeproof Washer
120005	*	M3x10tc Screw
102004	*	Hybrid Master & Balanced Output
100919	*	MC33078 Dual LN Operational Amplifier
100734	*	MAX202E RS232 Drivers/Receiver
100059	*	7805 +5V 1A Voltage Regulator
100058	*	7905 -5V 1A Voltage Regulator
080261	*	10V 1W 5% Zener Diode
080243	*	6V8 1W 5% Zener Diode
080242	*	6V2 1W 5% Zener Diode
080103	*	1N4148 100mA 75V Signal Diode
052052	*	22K 1/8w 5% Resistor
052048	*	10K 1/8w 5% Resistor
052030	*	330E 1/8w 5% Resistor
052024	*	100E 1/8w 5% Resistor
050251	*	100E 1/4W 5% Resistor
050171	*	22E 1/4W 5% Resistor
050131	*	10E 1/4W 5% Resistor
042672	*	39K2 1/4W 1% Metalized Film Resistor
042625	*	15K0 1/4W 1% Metalized Film Resistor
042605	*	10K0 1/4W 1% Metalized Film Resistor
030858	*	4700uF 25V 20% Vert Electrolytic Capacitor
030805	*	2200u 25V 20% Vert Electrolytic Capacitor
030721	*	1000u 25V 20% Vert Electrolytic Capacitor
030403	*	47u 25V 20% Vert Electrolytic Capacitor
030245	*	10u 50V 20% Vert Electrolytic Capacitor
010595	*	100n 50V -20+80% Ceramic Cap. Multilayer
010271	*	22p 50V 10% CL2 Ceramic Capacitor

Wiring Connections

841275		2 AWG18 Wires 12.5cm Crimp Terminal Cable
841274		10 Wires 25cm Flat Cable
841271		27.5cm Yel/Grn Eye/Faston/Faston Wire with 10E Res
841270		Single 12.5cm AWG18 White Faston/Faston Wire
841269		2 Wires 40cm Faston/Crimp Terminal Cable
841264		6 AWG18 Wires 10cm Crimp Terminal Cable
841252		6 Wires 12.5cm Crimp Terminal Cable
841071		20 Wires 30cm Flat Cable
841005		7.5cm Yel/Grn Faston/Faston AWG18 Wire
840800		14 Wires 3cm Flat Cable
840776		2 Wires 25cm Crimp Terminal Cable
840757		4 Wires 3cm Flat Cable
840755		6 Wires 3cm Flat Cable

Note:

- All dimensions are in mm unless otherwise specified.
- The screw description is defined as follows:

  type of screw + diameter + X + length + type of head

  where type of screw is one of these:

  M = Metric thread
  B = Self-tapping screw for metal
  WL = Self-tapping screw for wood

  and type of head is one of these:

  tc = cylinder Phillips head
  ts = flared Phillips head
  tt = rounded Phillips head
  te = hexagonal nut head
  tsp = flat flared Phillips head
  tce = cylinder Allen hexagonal head
  tspe = flat flared Allen hexagonal head

- The washer description is defined as follow:

  hole diameter + X + external diameter + X + thick

- Each spare part is single quantity unless otherwise specified.
- Asterisk prefix explanation:

  Omitted = First level spare part.
  One asterisk = Second level, part of previous listed first level part.
  Two asterisk = Third level, part of previous listed second level part.
  Three asterisk = ...

- Any request for not above mentioned part must encompass specific description including:

  1) Model name,
  2) Section name,
  3) Module code,
  4) Reference name,
  5) Quantity number.