



Notes:

- 1) Cut wires (items 4-7) to 0.5m to allow for twisting.
- 2) Cut a section of the dc extension lead (item 3) 130mm from the tip of the plug (125mm + 5mm for splicing). Strip 10mm of outer insulation from the cut end. Twist the screen together and strip 3mm of insulation from the inner white wire. Tin the ends.
- 3) Remove a section of 5mm of insulation from the red and black wires (items 6 & 7) at a position 320mm from an end and tin. With the long section of insulation facing the same direction as the DC plug, splice the DC cable to the red and black wires with reference to the connector wiring table. Insulate the joints with 1.5/0.5mm heatshrink (item 13).
- 4) Lay the four wires (items 4-7) together and neatly twist to form a cable. Temporarily tape the ends with Kapton tape to prevent it from unravelling. Insulate the twisted wires with 3.2/1.6mm heatshrink (item 8); 205mm to the left of the splice (DC plug direction) and 105mm to the right.
- 5) Position the M5x20mm Spacer (item 9) over the centre of the splice and insulate with 45mm of 9/3mm adhesive lined heatshrink (item 10). Ensure that the heatshrink is well bonded to the cables on each side.
- 6) Feed a 30mm section of clear heatshrink (item 12) over the longer free end of cable. Feed the Lemo boots (item 2), and the collet clamps and collets from the Lemo connectors (item 1), and a 6mm section of 6.4/3.2mm adhesive lined heatshrink (item 14) over the free ends of the cables.
- 7) Trim and strip the wires for termination into the Lemo connectors (item 1) in the appropriate positions with reference to the manufacturer's documentation. The connector solder joints are to be insulated with 1.5/0.5mm heatshrink (item 13). Terminate the wires with reference to the connector wiring table.
- 8) Shrink the 6.4/3.2mm adhesive lined heatshrink (item 14) that was placed over the cable ends in an appropriate position to pack out under the collets. Once cooled, assemble the connector housings and fit the boots (item 2).
- 9) Affix the printed cable marker (item 11) in the position shown and cover with the 30mm section of clear heatshrink (item 12) that was added earlier.

BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	MANUFACTURER P/N	DESCRIPTION	RACELOGIC P/N
1	2	LEMO	FGG.0B.305.CLAD52Z	LEMO 5 WAY PLUG	LEMO 5WAY P
2	2	LEMO	GMA.03.030.DN	LEMO BLACK STRAIN BOOT, 3mm-3.4mm	GMA.0B.030.D
3	1	PRO-ELEC	PSG02085	EXTENSION LEAD, 2.1mm DC CONNECTORS, 3m	PW00969
4	A/R	ALPHA WIRE	3250 YL005	YELLOW PVC WIRE, 24AWG, 7/0.2mm	117-7596
5	A/R	ALPHA WIRE	3250 GR005	GREEN PVC WIRE, 24AWG, 7/0.2mm	435-132
6	A/R	ALPHA WIRE	3250 RD005	RED PVC WIRE, 24AWG, 7/0.2mm	435-168
7	A/R	ALPHA WIRE	3250 BK005	BLACK PVC WIRE, 24AWG, 7/0.2mm	435-107
8	A/R	MULTICOMP PRO	13635	HEATSHRINK 3.2/1.6mm 2:1 BLACK	100-8430
9	1	G&B PROJECTS	NS 20-53	M5 X 20 NYLON CLEARANCE SPACER	M5X20SPACER
10	45mm	TE	CGAT-9/3-0	HEATSHRINK 9/3 3:1 ADHESIVE LINED	157-3802
11	1	AVERY	J8658-25	25.4 X 10mm LABEL + CABLE IDENT	J8658-25
12	30mm	FARNELL	3046539	CLEAR HEATSHRINK 6/2 3:1	304-6539
13	A/R	FARNELL	1191021	HEATSHRINK 1.5/0.5 3:1 BLACK	119-1021
14	A/R	RS PRO	481-1797	HEATSHRINK BLK 6.4/2.13mm 3:1 ADHESIVE LINED	157-3795

CONNECTOR WIRING

CON A		ITEM 4	CON B		CON C		
PIN	FUNCTION	COLOUR	PIN	FUNCTION	PIN	COLOUR	FUNCTION
1	MIM_TX	YELLOW	1	RAD_RX	-	-	-
2	MIM_RX	GREEN	2	RAD_TX	-	-	-
3 (N/C)	-	-	3 (N/C)	-	-	-	-
4 (N/C)	-	-	4 (N/C)	-	-	-	-
5	V+	RED	5	V+	CENTRE	WHITE	BATT+
SHELL	GND	BLACK	SHELL	GND	OUTER	SCREEN	BATT-

DRAWING NUMBER	RLCAB245	DRAWN	S.TAYLOR	SHEET	1/1
DESCRIPTION	LEMO 5W TO LEMO 5W + 2.1mm DC PLUG				
REVISION					
ISS	DESCRIPTION		DATE	APPROVED	REDMINE
1	FIRST RELEASE		19/05/25	SH	25226