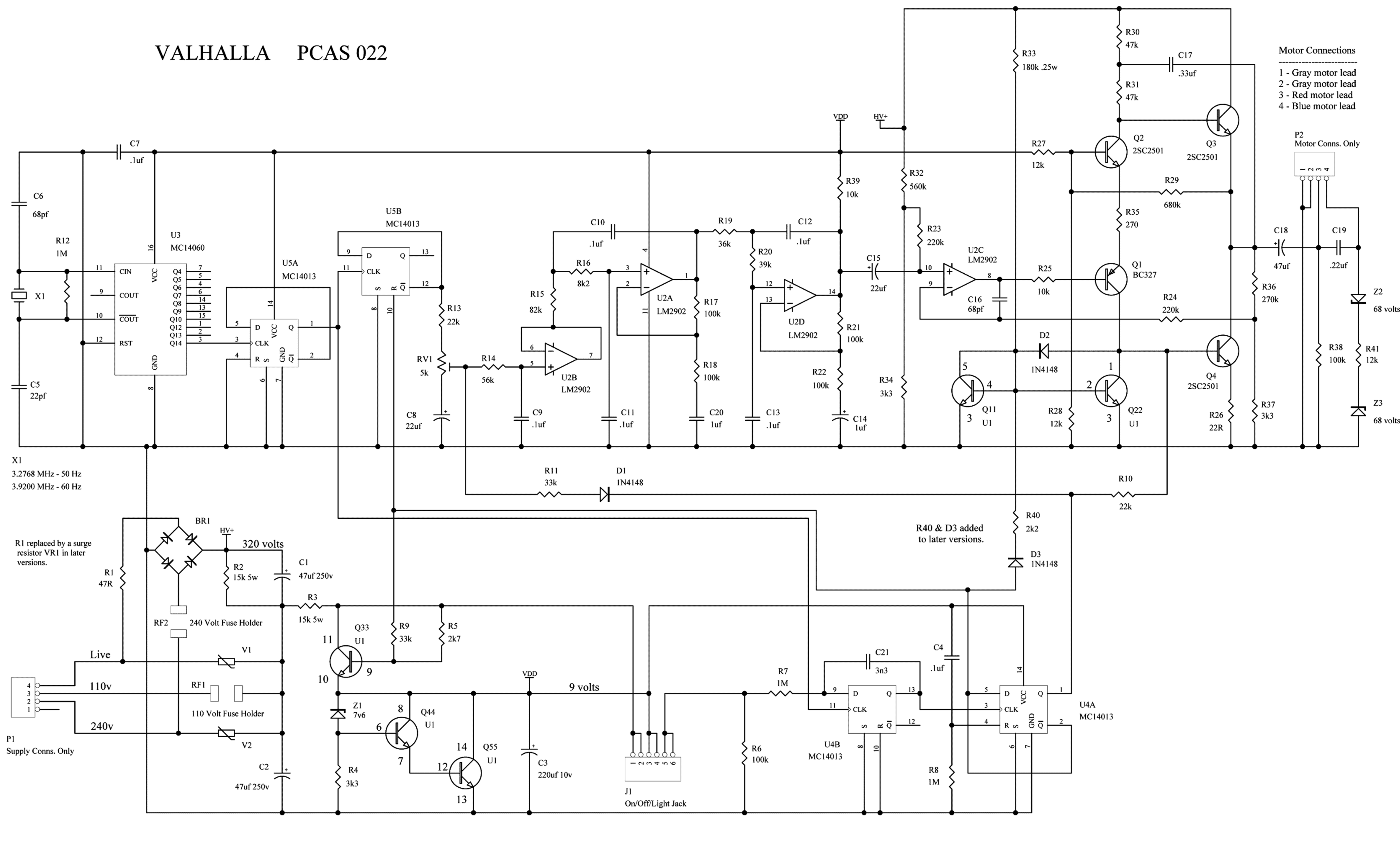


# VALHALLA PCAS 022



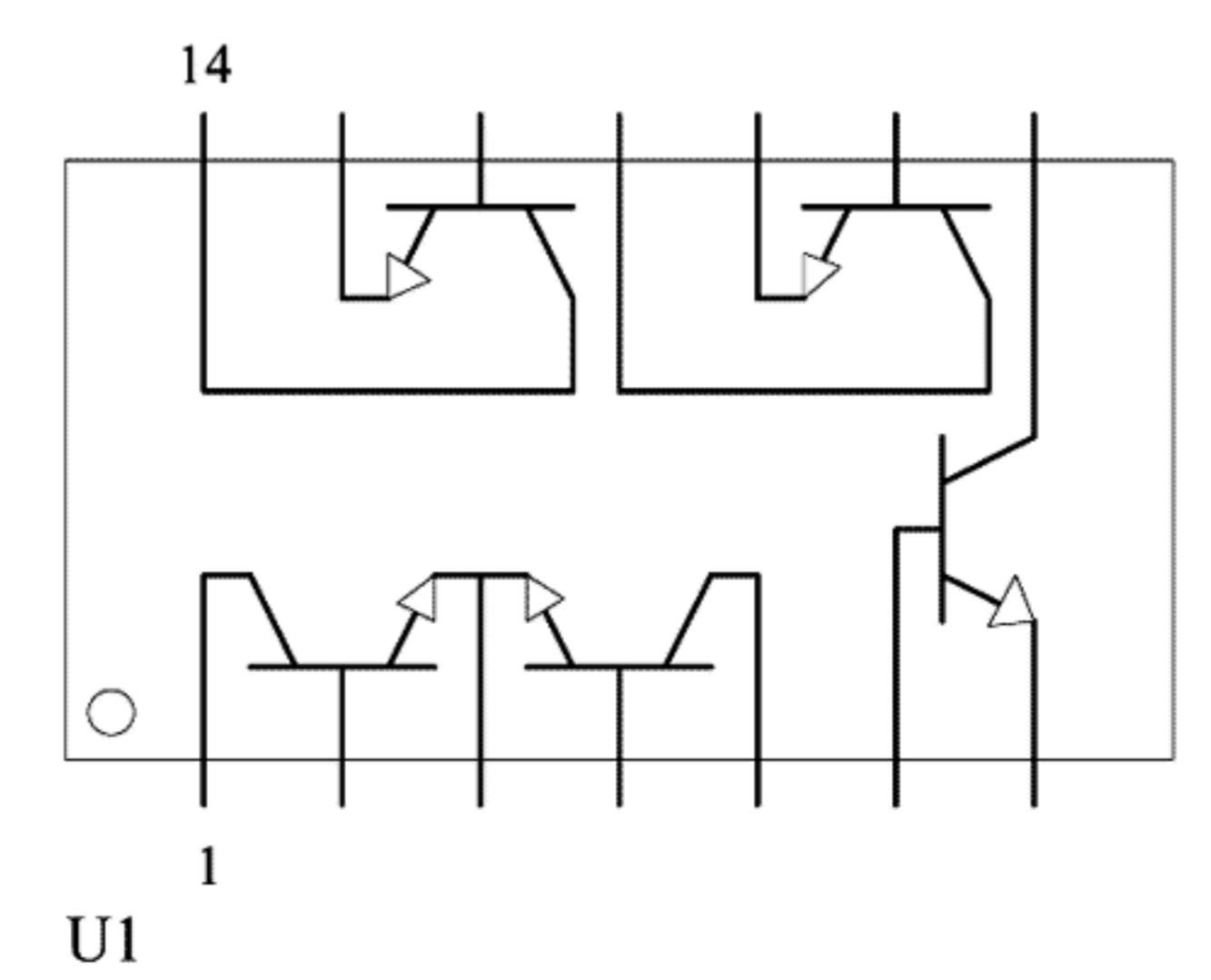
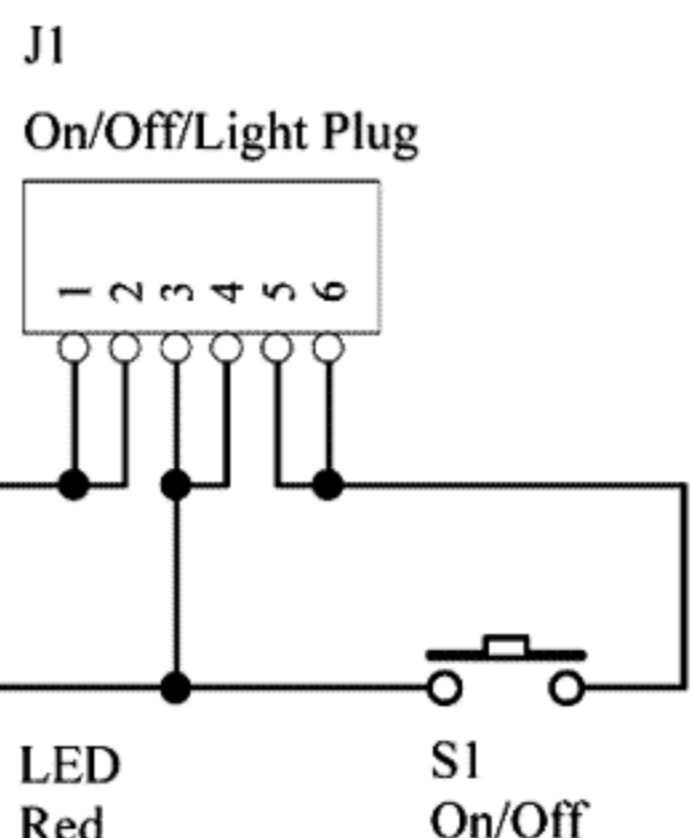
**Motor Connections**  
 1 - Gray motor lead  
 2 - Gray motor lead  
 3 - Red motor lead  
 4 - Blue motor lead

X1  
 3.2768 MHz - 50 Hz  
 3.9200 MHz - 60 Hz

R1 replaced by a surge resistor VR1 in later versions.

R40 & D3 added to later versions.

P1  
 Supply Conns. Only



Substitutions					
U1 - MC 3386	U2 - LM2902	U3 - MC14060	U4,5 - MC14013	Q1 - BC327	Q2, 3, 4 - 2SC2501
MC 3346 LM 3045 LM 3046 LM 3086 LM 3144 ECG 912	LM324 TL074 ECG 987	4060 74HC4060	4013	BC 309 BC 307 BC 260 BC 281 ECG 159	2SC2335 2SC2552 2SC3038 2SC2929 2SC2534 ECG51

RV1 is set to 85 volts +/- 1 volt. Measured at P2 between terminals 3 (red motor wire) and 1 (grey motor wire).

All .1uf capacitors are rated at 100 volts DC.  
 All resistors are .25 watt unless otherwise specified.

Fuse - 250 volt 1 amp fast blow.

Varistors V1, V2, VR1, D3 and R40 are in later versions.

Title: <b>Valhalla PCAS 022 Motor Control PCB</b>			Linn Products Ltd Floors Road, Waterfoot Eaglesham, Glasgow Scotland, UK, G76 OEP 04 644 51111		
Original Date: July 7, 1989	Number: 1	Revision: 1	Date: 7-Jul-2001 Sheet: 1 of 1		
File: C:\WRK\LINN\VALHALLA.SCH					