

[illegible]

Pin #	Pin Label	Function
0		0
1		0
2		0
3		0
4		0
5		0
6		0
7		0
8		0
9		0
10		0
11		0
12		0
13		0
14		0
15		0
16		0
17		0
18		0
19		0
20	SDA	
21	SCL	
22	RS	LCD screen controls
23	EN	LCD screen enable,
24	D4	D4-D7 = data into the LCD screen
25	D5	D4-D7 = data into the LCD screen
26	D6	D4-D7 = data into the LCD screen
27	D7	D4-D7 = data into the LCD screen
28	EncoderClk	encoder input for menu screen
29	EncoderDT	encoder input for menu screen
30	EncoderSw	button encoder input for menu screen
31	AC_ID	Connects to input switch and tells mcu whether its switched to HV,MV,LV or AC
32	LV_ID	Connects to input switch and tells mcu whether its switched to HV,MV,LV or AC
33	MV_ID	Connects to input switch and tells mcu whether its switched to HV,MV,LV or AC
34	HV_ID	Connects to input switch and tells mcu whether its switched to HV,MV,LV or AC
35	ModControl	Controls whether the DC output is modulated or not
36	SafeRelay	Sends a signal to the saftey relay circuit in case of overcurrent, thermal overheat or other failure
37	TempLED	The LED that turns on when the temperature warning is exceeded
38	InterlockRelay	
39	HW_Interlock	
40	FNC_PIN	Used for AD9833 Waveform Generator
41	LV_Relay	LV Output Relay Control
42	MV_Relay	MV Output Relay Control
43	HV_Relay	HV Output Relay Control
44	ModLo	Low side gate driver for DC modulation
45	ModHi	High side gate driver for DC modulation
46		0
47	CS_PIN	
48	Up/Down Control Pin for Digital Potentiometer	
49	Increment Control for Digital Potentiomter	
50	MISO	SPI
51	MOSI	SPI
52	SCK	SPI
53	SS	SPI
54	N/C	
55		0
56		0
57	Gnd	
58	Gnd	
59	9V in	Power into the microcontroller from 9V supply
60	V_out	Voltage output of DC sensing op-amp
61		0
62	Thermistor	Measures the voltage and calculates the resulting temperature
63	AC_V_Read	AC voltage reading after voltage divider
64	LV_V_Read	Voltage reading of LV
65	MV_V_Read	Voltage reading of mV
66	HV_V_Read	Voltage reading of HV
67		0
68		0
69		0
70		0
71		0
72		0
73		0
74		0
75		0
76		0
77		0
78		0
79		0
80		0
81		0

