R7999/RM7800L/Q7800C (PCB) to NXF4000 Conversion

RM7800L terminal	Q7800C1001 terminal	Q7800C1001 light panel	R7999 terminal	NXF4000 terminal	Description
4	1		1	P3.1	line 120V
L2	2		3	P3.2	neutral 120V
G	GND		2	chassis	physical earth ground
4	CS_B	black wire		*panel 120V*	line to limit string
n/a	CS_Y	yellow wire		P13.1	beginning of operating limit string
6	OL2		13	P15.4	end of operating limit string
6	A1			P15.4	line to safety limit string
7	A2			P5.10	end of safety limit string
			1	P4.4	line to fuel select
			5	P15.8	input to select fuel 1/gas
			6	P15.7	input to select fuel 2/oil
			35	*panel 120V*	to remote reset normally open pushbutton
			38	P15.2	to remote reset normally open pushbutton
3			7	P4.2	line output to alarm (lockout)
5	BM			P4.4	line output to blower motor
8	PV1			P5.7	line output to ignition/pilot valve
9	MF			P5.5	line output to main valve
			39	P11.10	external load controller 4-20mA (+)
			40	P11.11	external load controller 4-20mA (-)
		harness pin 1		P5.7	light panel "IGNITION ON"
		harness pin 2		P4.2	light panel "FSG ALARM"
		harness pin 4		P5.5	light panel "MAIN FUEL"
		harness pin 5		P4.4	light panel "DEMAND"
		harness pin 8		*panel neutral*	light panel neutral

NOTES:

This conversion is designed to allow the Q7800C PCB to be completely removed.
Combustion air switch is in the safety loop. Other limits may be in the operating or safety loop depending upon field wiring.
Program digital input 1 for burner control function with AND action.
Program digital input 14 for remote reset function (if needed).
Connect NXF4000 terminals P4.1 and P4.3 to line 120V.
Ignition and pilot valve are connected to same terminal so ensure that PTFI settings for burner control are the same (i.e. 10/10).
Use profile name GAS for all profiles -- switching of P5.5 is handled using Gas/Oil change switch.
Auto/manual is handled using the NXD410TS user interface.
It is recommended that a temperature or pressure sensor is used instead of the external load controller.