



Phase Dynamics Full Range Troubleshooting Guide Sheet

CUSTOMER NAME _____ DATE _____
 LOCATION _____ Phone Number _____
 CITY _____

Unit Serial Number _____ (On white EPROM label or on Butt End of Pipe)
 Oscillator Serial Number _____ (On the back of the Oscillator Housing)

- 1.) Switch to Technician Mode (dip switches to the left) take the following:
- | | |
|-----------------------------|----------------------------|
| Frequency (O) = _____ * MHz | Vref(O)= _____ Volts |
| Frequency (W)= _____ * MHz | Vref(W)= _____ Volts |
| Water Cut (%)= _____ | Temperature= _____ |
| Salinity (%)= _____ | Phase = _____ (Oil or Wat) |

*** For units with older phase logic, the two frequencies are not given but, instead only the water or oil frequency is given. For newer systems both are toggled and can be seen in the Technician Menu.**

- 2.) Step through the Technican Menu and write down the following:
- | | |
|------------------------|-------------------------|
| Delta_Salt = _____ | Water_Index = _____ MHz |
| Water_Adjust = _____ % | Oil_Adjust = _____ % |

The Following is for newer DUAL LOGIC Systems (where the frequency Toggles):

Water_Lo = _____ Water_Hi= _____

The Following is for older Systems (no frequency toggling):

Water_Lo= _____	Water_Mid= _____	Water_Hi= _____	
WLoP1= _____	WLoP0= _____	WHiP1= _____	WHiP0= _____
Oil_Lo= _____	Oil_Hi= _____		
OP0= _____	OP1= _____		
Oil_Index= _____	Temp_Adjust= _____		

- 3.a.) Measure the following voltages at the Main Electronics Terminal strip:

NOTE: THIS IS FOR A 24 VDC INPUT UNIT

Name	Terminals		Measured Voltage	Expected Voltage
	GND	POS		
5 Volt Power	31	32		+4.8 to + 5.2 VDC
15 Volt Power	31	30		+14.7 to +15.3 VDC
Heater Power	29	28		+20 to +32 VDC
Ground Sense	31	27		+0.00 to +0.40 VDC
Vincid	31	26		+0.20 to +4.95 VDC
Vref	31	25		+0.20 to +4.95 VDC
Osc. Select	31	17		+1.25 to +8.50 VDC*
Vtune	31	16		+0.00 to +12.5 VDC*
Ext. Vtune	31	15		+0.20 to + 15 VDC*
DC+ to DC -	DC -	DC+		+20 to +32 VDC
DC - to Earth	Earth	DC -		-32 to +32 VDC
DC - to Chassis	DC	Chassis		-32 to +32 VDC

* Note: this voltage may be toggling for newer full cut systems - write down both

- 3.b. **NOTE: THIS IS FOR AN AC INPUT UNIT (120 or 240 VAC)**



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	GND	POS		
	--	+		
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15 Volt Power	31	30		+14.7 to +15.3 VDC
Heater Power	29	28		+20 to +32 VDC
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Vref	31	25		+0.20 to +4.95 VDC
Osc. Select	31	17		+1.25 to +8.50 VDC*
Vtune	31	16		+0.00 to +12.5 VDC*
Ext. Vtune	31	15		+0.20 to + 15 VDC*
AC Line-Neutral	Line	Neutral		
AC Line-Ground	Line	Earth		
AC Neutral-Gnd	Neut	Earth		
AC Line-Chassis	Line	Chassis		

* Note: this voltage may be toggling for newer full cut systems - write down both

4.) Describe below the error conditions and any other problems that you may find.

ERRORS Displayed _____

Comments: