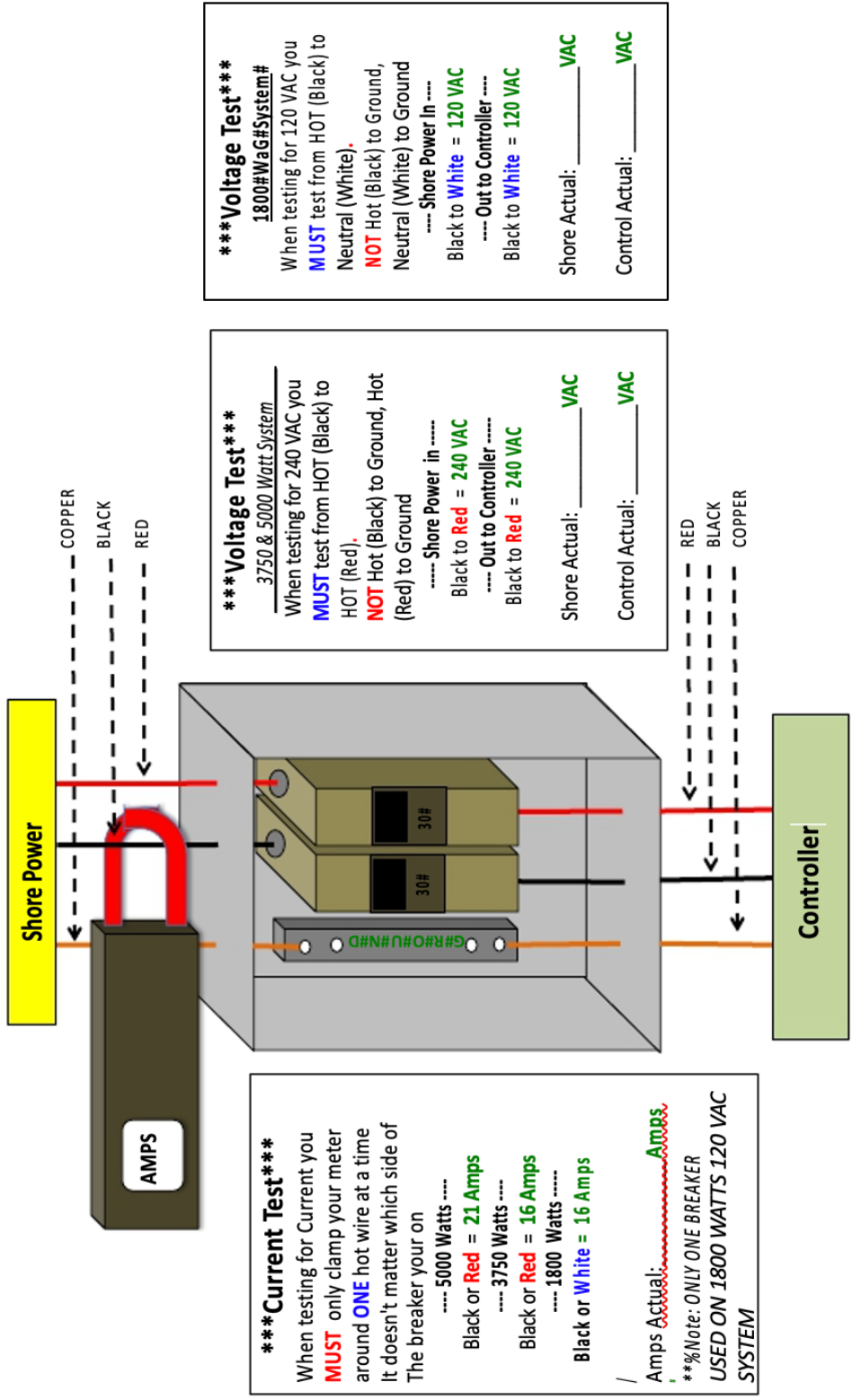




## Testing Guide

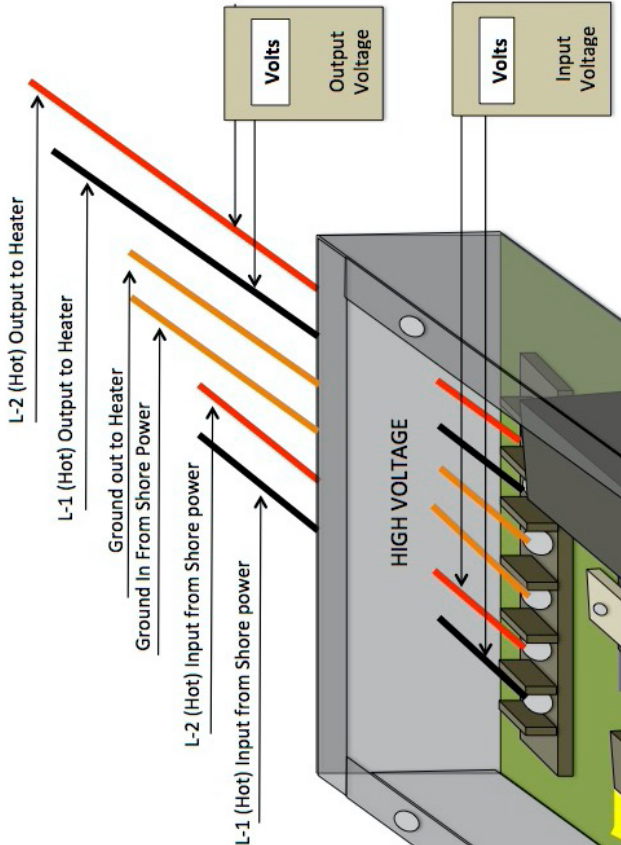
**\*\*These test should only be performed by a qualified Technician\*\***



**\*\*\*Current Test\*\*\***  
 When testing for Current you **MUST** only clamp your meter around **ONE** hot wire at a time. It doesn't matter which side of the breaker you on  
 ---- 5000 Watts ----  
 Black or Red = **21 Amps**  
 ---- 3750 Watts ----  
 Black or Red = **16 Amps**  
 ---- 1800 Watts ----  
 Black or White = **16 Amps**  
 / Amps Actual: **.....Amps**  
 \*\*\*Note: ONLY ONE BREAKER USED ON 1800 WATTS 120 VAC SYSTEM

**\*\*\*Voltage Test\*\*\***  
 3750 & 5000 Watt System  
 When testing for 240 VAC you **MUST** test from HOT (Black) to HOT (Red).  
**NOT** Hot (Black) to Ground, Hot (Red) to Ground  
 ---- Shore Power in ----  
 Black to Red = **240 VAC**  
 ---- Out to Controller ----  
 Black to Red = **240 VAC**  
 Shore Actual: \_\_\_\_\_ VAC  
 Control Actual: \_\_\_\_\_ VAC

**\*\*\*Voltage Test\*\*\***  
 1800 Watt System#  
 When testing for 120 VAC you **MUST** test from HOT (Black) to Neutral (White).  
**NOT** Hot (Black) to Ground, Neutral (White) to Ground  
 ---- Shore Power In ----  
 Black to White = **120 VAC**  
 ---- Out to Controller ----  
 Black to White = **120 VAC**  
 Shore Actual: \_\_\_\_\_ VAC  
 Control Actual: \_\_\_\_\_ VAC



**LOW VOLTAGE**

**\*\*Heat Calling (ON)\*\***  
 Black to Orange----- 12 VDC  
 Black to Red ----- 12 VDC  
 Black to Blue ----- 12 VDC

**\*\* Heat Not Calling (OFF)\*\***  
 Black to Orange----- 12 VDC  
 Black to Red ----- Zero VDC  
 Black to Blue ----- Zero VDC

Actual Volts (ON)

Black to Orange \_\_\_\_\_ VDC  
 Black to Red \_\_\_\_\_ VDC  
 Black to Blue \_\_\_\_\_ VDC

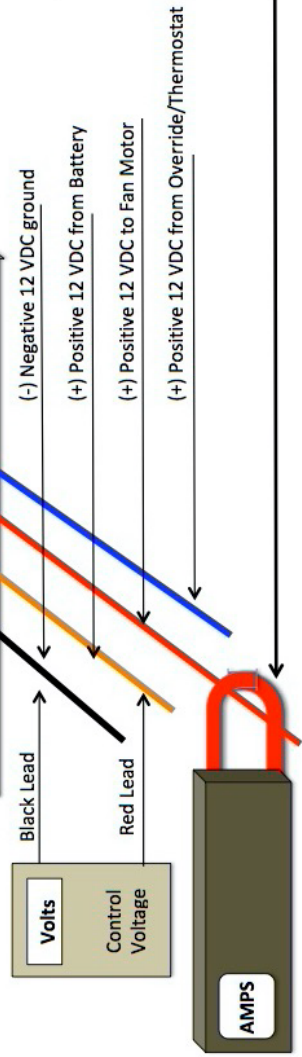
**System on Readings Voltage Testing**  
 When testing voltage all test should be made L-1 to L-2 Hot to Hot, **NOT Hot to ground.**

**Correct Readings**  
 Low Heat (1800 Watts) = 120 VAC  
 Med Heat (3750 Watt) = 240 VAC  
 High Heat (5000 Watts = 240 VAC

Actual Input \_\_\_\_\_ VAC  
 Actual Output \_\_\_\_\_ VAC

**Blower Motor Test**  
 Voltage Red to Black----- 13.5 to 14.1 VDC  
 Actual Black to Red \_\_\_\_\_ VDC

**Current Check**  
 If rating is not with-in 10% of factory rating you have:  
**Low Voltage, or Supply ducting blockage, or Defective motor.**  
 Furnace Manufacture Rating \_\_\_\_\_ Amps  
 Actual Current Reading \_\_\_\_\_ Amps



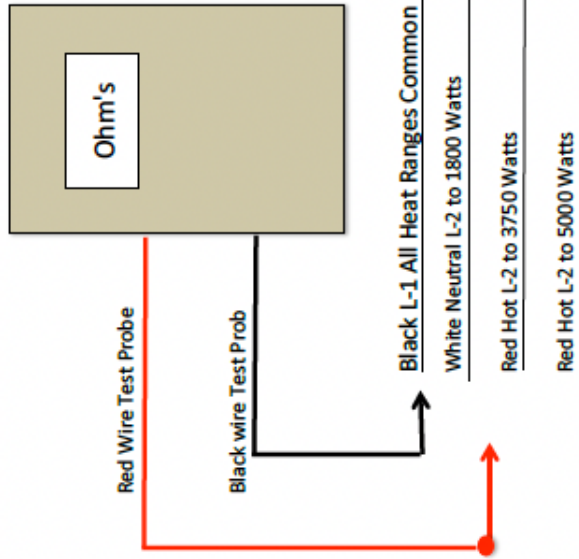
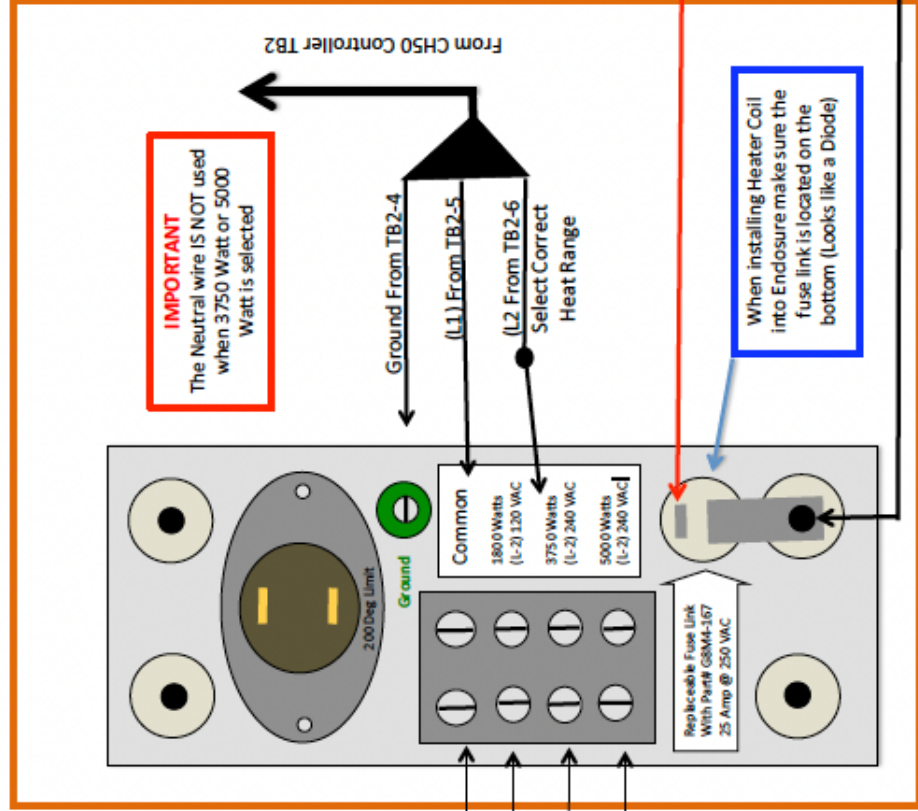
**\*\*\*WHEN TESTING RESISTANCE MAKE SURE ALL POWER IS TURNED OFF\*\*\***

**Resistance Testing**  
 Common to 1800 = 8 Ohms (+ or - 1)  
 Common to 3750 = 14 Ohms (+ or - 1)  
 Common to 5000 = 12 Ohms (+ or - 1)

**Fusible Link**  
 Red to Black probe points = 0 Ohms

**Actual Test**  
 Common to 1800 \_\_\_\_\_ Ohms  
 Common to 3750 \_\_\_\_\_ Ohms  
 Common to 5000 \_\_\_\_\_ Ohms  
 Fusible Link \_\_\_\_\_ Ohms

*In EVERY case if the Fuse link is open (Burned out) it was caused by a lack of air flow from restricted supply duct or a intermittent/bad blower motor.*



Ohm's

When installing Heater Coil into Endure make sure the fuse link is located on the bottom (Looks like a Diode)

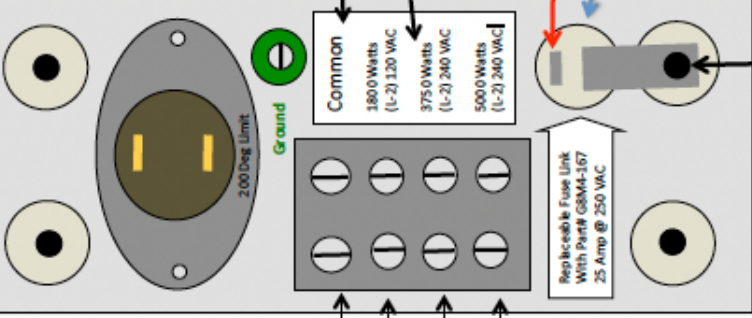
**IMPORTANT**  
 The Neutral wire IS NOT used when 3750 Watt or 5000 Watt is selected

Replaceable Fuse Link With Part# 68MA-167 25 Amp @ 250 VAC

Common  
 1800 Watts (L-2) 120 VAC  
 3750 Watts (L-2) 240 VAC  
 5000 Watts (L-2) 240 VAC

From CH50 Controller TB2

Ground From TB2-4  
 (L1) From TB2-5  
 (L2) From TB2-6  
 Select Correct Heat Range



Ohm's

Red Wire Test Probe  
 Black wire Test Prob

Black L-1 All Heat Ranges Common  
 White Neutral L-2 to 1800 Watts  
 Red Hot L-2 to 3750 Watts  
 Red Hot L-2 to 5000 Watts