

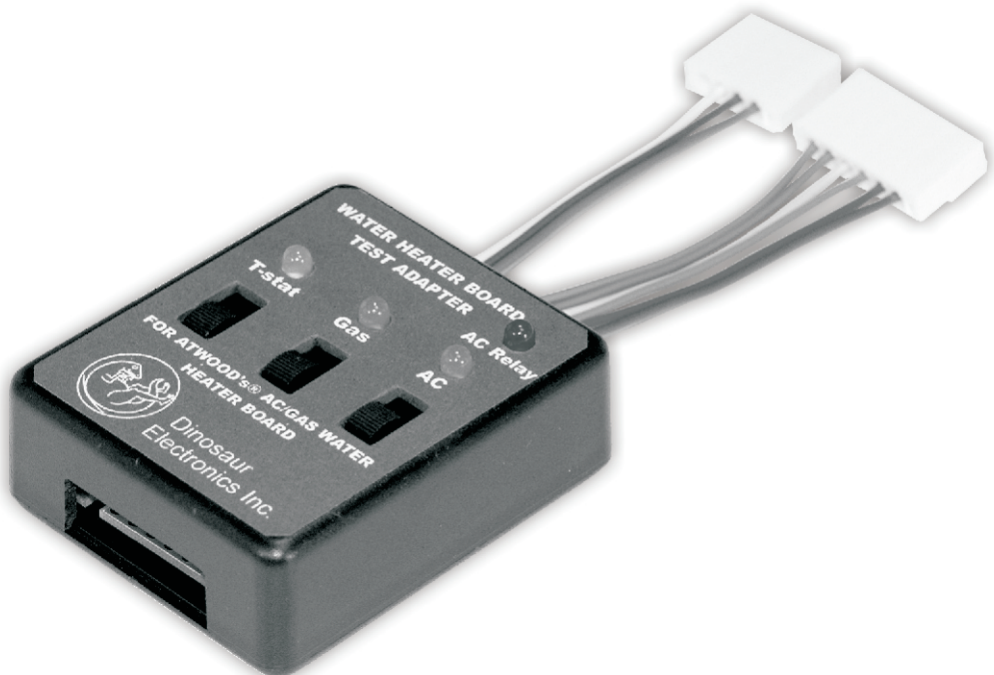


Dinosaur Electronics

Instruction booklet

Test adapter for Atwood's® AC/GAS Water Heater Board

(For use with Dinosaur's IMT-12P Tester)



Setting up the IMT-12P and the Test adapter for the test procedures

- 1) Connect the 4 pin and the 6 pin connectors of the test adapter to the water heater ignition module being tested.
- 2) Connect the IMT -12P's 6 pin test cable to the test adapter. The 6 pin test cable will only slide into the back of the test adapter one way.
- 3) Connect the red spark wire from the IMT-12P to the spark coil on the ignition module.
- 4) Make sure the 2 Amp fuse on the ignitor module is good.
- 5) Turn the flame sense switch on the IMT-12P to the "Off" position. Turn the test adapter function switches to their "Off" positions. Turn the IMT-12P power switch to the "On" position. The "On" light on the IMT-12P should come ON, all other indicator lights should be OFF.

Check for Gas operation:

Slide the "Gas" switch on the adapter to the "On" position. The "Gas" indicator light should come ON. Slide the "T-stat" switch to the "On" position. The "T-stat" indicator light should come ON. Approximately 3 seconds later the IMT-12P's "Ignitor" lamp should start FLASHING and the "Valve" indicator light should come ON for about 6-7 seconds.

The ignition module's Gas operation has failed IF either the "Valve" indicator light "does not come ON" or the "Ignition" lamp "fails to FLASH" during the 6-7 second ignition cycle.

If the ignition cycle works properly, wait approximately 10 seconds for the 2nd ignition try. As soon as the 2nd ignition try starts, flip the flame sense switch on the IMT-12P to the "Local" sense position. The "Ignitor" lamp should stop flashing and the "Valve" indicator light should remain ON. Allow the test 15 seconds or so to make sure the ignition module flame sense is working correctly.

Turn the IMT-12P "Flame sense" switch to the OFF position. The "Ignition" lamp should start flashing and the "Valve" indicator light should turn ON.

Gas check light function test

Start with all switches in the OFF position. Turn the IMT-12P power switch and the test adapter "Gas" function switch to the ON position. The IMT-12P "ON" light and the test adapter "Gas" function indicator light should be ON. Turn the "T-stat" switch to the ON position. The T-stat indicator light should be ON. Let the ignition

module go uninterrupted thru the following ignition sequence:

3 second delay
6-7 second spark cycle
10 second delay
6-7 second spark cycle
10 second delay
6-7 second spark cycle
lockout

At the end of the 3rd ignition attempt the ignition module will go into “lockout” mode. The IMT-12P “Ignition” indicator lamp should stop flashing, the “Valve” indicator light should turn OFF and the “NC Check” indicator light should come ON indefinitely or until the ignitor module is reset.

End of Gas operation test. Turn all switches to the OFF position.

AC Operation test

Start with all switches in the OFF position.

Turn on the IMT-12P tester “power” switch to the ON position. The “On” indicator light should come ON, all other lights should be OFF.

Turn the test adapter “AC” switch to the ON position. The “AC” indicator light should be ON.

Turn the test adapter “T-stat” switch to the ON position. The “T-stat” indicator light should come ON. After approximately 2 seconds the “AC Relay” indicator light should come on.

If the “AC Relay” indicator light does not come on, then ignitor module AC test has failed.

Test AC + Gas operation

Start with all switches in the OFF position.

Turn on the IMT-12P tester “power” switch to the ON position. The “On” indicator light should be ON, all other lights should be OFF.

Turn the adapter “Gas” and the “AC” operation switches to the ON position. Both the “Gas” and the “AC” operation lights should come ON.

Turn the “T-stat” switch to the ON position. The “T-stat” indicator light should come on. Approximately 2 seconds later the “AC Relay” indicator light should come on and then the IMT-12P’s “Ignitor” lamp should start FLASHING and the “Valve” indicator light should come ON for about 6-7 seconds...

If everything is working properly and you turn the “Flame sense” switch to the “LOCAL”

Position during the spark cycle, the “AC Relay” indicator light on the test adapter and the “Valve” indicator light on the IMT-12P test should remain on until you turn the “T-stat” switch to the OFF position (thermostat is satisfied).

IF! You do not activate the “Flame sense” switch to simulate a flame sense condition, the ignitor module “Gas” operation will continue the 3 try sequence and go into “lockout” but the “NC Check” indicator light on the IMT-12P will NOT come on until the “AC” operation switch on the test adapter is turned to the OFF position. OR! If the “T-stat” switch is turned OFF while the “AC” & “Gas” operation switches are both ON, the process will repeat the “AC” + “Gas” operation the next time the “T-stat” switch is turned on.

IF the ignitor module goes into a “NC Check” condition while operating only in “Gas” mode operation, activating the “AC” operation switch will NOT activate the “AC” relay output from the ignition module.

If the igniton module has failed any of these tests, replace it.

These tests mimic actual operating conditions of the ignition module in the Water heater.

Note: Our Test Adapter for Atwood's® AC/GAS Water Heater Board is not compatible with Fenwall's® “Gas ignition field tester” Part #05-080224-005