

DINOSAUR ELECTRONICS

IMT-12P Tester Manual

Third Edition



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Introduction

The IMT-12P is a portable 12v Ignitor Board Tester. It can be used on the workbench or at the job site. It is even possible to test boards without removing them from the appliance.

The battery is a sealed lead-acid type that will provide enough power to test over 100 boards before recharging is necessary.

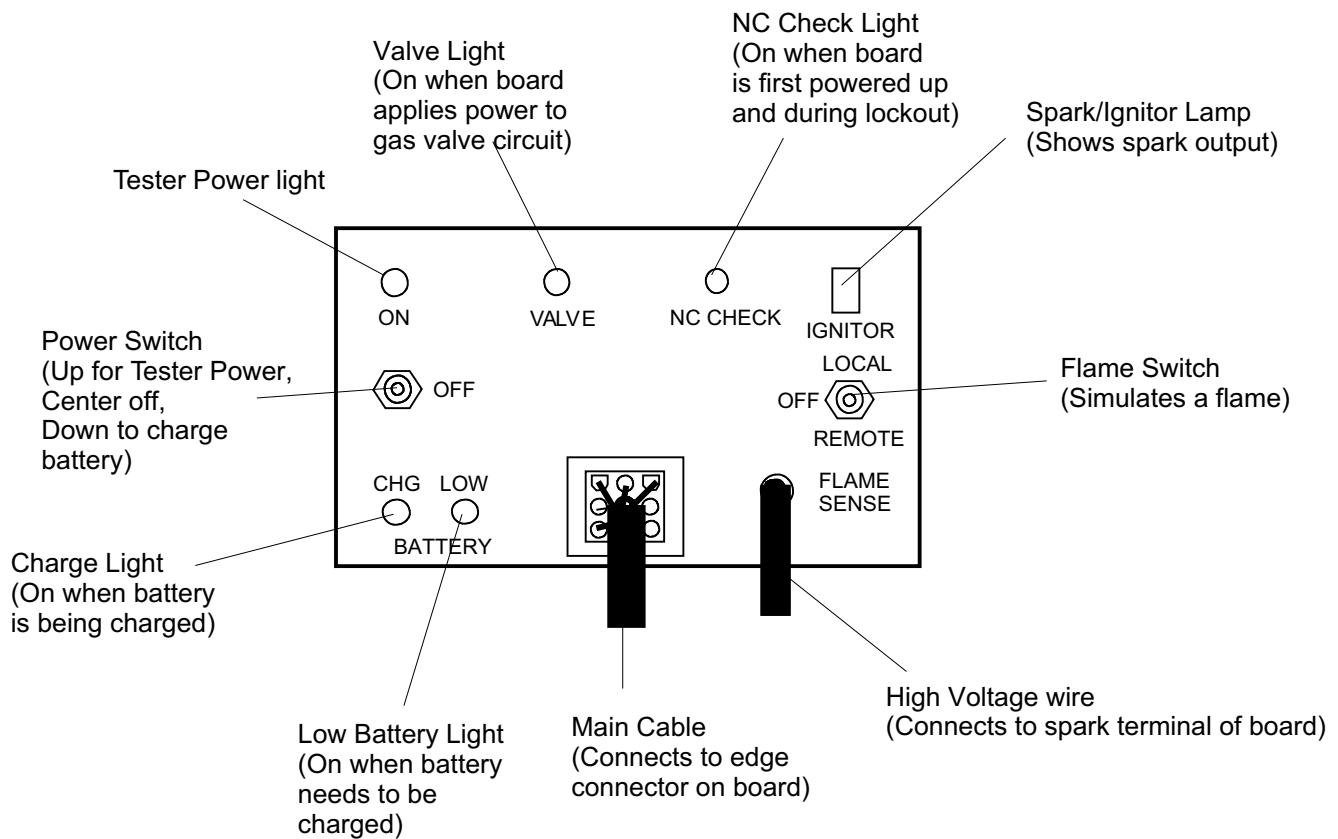
The IMT-12P is designed to be easy to operate, and has only 2 controls: a Power Switch that turns on the tester and applies power to the board under test, and a Flame Switch to apply a simulated flame to either the remote or local sense terminals of the board.

Neither of these controls is capable of damaging a board, and if you need to test a board whose number does not appear on our tables, just plug it in, turn on the power, wait for the spark, and then try the Flame Switch in the local position, and if the board does not sense, try the remote position. All ignitor boards should sense in 1 of these positions, and hold the valve light on.

The IMT-12P kit contains:

- Tester
- Main Cable
- High Voltage wire
- Fan Control Adapter
- Wall Transformer (12v DC, 2.1mm coax, center negative)
- 2 spare fuses (3AG, 3/4 Amp)
- Rubber feet

Controls



To charge the battery:

Plug the wall transformer into an AC outlet and plug the connector into the back of the tester. Move the Power Switch to the down (charge) position. Let the tester charge 8 hours or more.

Before using the tester for the first time, charge it for 8-12 hours.

****Never let the tester sit for more than a day or two with a low battery, and never leave the power on after the low battery light comes on.**

OEM part number	Tester model to use	Test routine	Delay Time sec.	Ignition time sec.	Ignition tries
05-152435-003	IMT-12P	Remote	1 sec.	7 sec.	1 try
05-152435-103	IMT-12P	Remote	1 sec.	7 sec.	1 try
05-152436-053	IMT-12P	Remote	1 sec.	7 sec.	1 try
05-152436-103	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-159000-003	IMT-12P	Remote	1 sec.	7 sec.	1 try
05-159000-053	IMT-12P	Remote	1 sec.	7 sec.	1 try
05-159000-103	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-159003-253	IMT-12P	Remote	1 sec.	7 sec.	1 try
05-159006-753	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-159006-755	IMT-12P	Remote	1 sec.	10 sec.	1 try
05-159007-103	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-169002-003	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
05-169003-103	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
05-169005-123	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
05-259000-153	IMT-12P	Remote	15 sec.	7 sec.	3 try
05-299000-153	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
05-299004-153	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
05-306435-153	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-309008-153	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-309017-153	IMT-12P	Remote	15 sec.	7 sec.	1 try
05-309022-153	IMT-12P	Remote	15 sec.	7 sec.	1 try
230481	IMT-12P	Remote	1 sec.	7 sec.	1 try
230483	IMT-12P	Remote	1 sec.	7 sec.	1 try
230587	IMT-12P	Remote	15 sec.	7 sec.	1 try
230608	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
231427	IMT-12P	Remote	15 sec.	6 sec.	1 try
231741	IMT-12P	Local	15 sec.	6 sec.	3 try
231741-2	IMT-12P	Local	15 sec.	6 sec.	3 try
232582	IMT-12P	Local	15 sec.	7 sec.	3 try
315526	IMT-12P	Remote	1 sec.	7 sec.	1 try
316019	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
318816	IMT-12P	Remote	15 sec.	7 sec.	3 try
35-525900-113	IMT-12P	Local	15 sec.	7 sec.	3 try
3802	IMT-12P	Remote	15 sec.	7 sec.	1 try
3845	IMT-12P	Remote	15 sec.	7 sec.	1 try
4322-321	IMT-12P	Remote	1 sec.	7 sec.	1 try
5119	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
61525022	IMT-12P	Remote	1 sec.	10 sec.	1 try
61549522	IMT-12P	Remote	5 sec.	12 sec.	1 try
61688922-G	IMT-12P	Local	2 sec.	12 sec.	1 try
6215	IMT-12P	Remote	15 sec.	7 sec.	1 try
6713	IMT-12P	Local	15 sec.	6 sec.	3 try
7705-315	IMT-24 VAC	Remote	15 sec.	7 sec.	1 try
91315	IMT-12P	Remote	3 sec.	5 sec.	1 try
91731	IMT-12P	Remote	3 sec.	5.5 sec.	1 try
93256	IMT-12P	Local	2 sec.	5 sec.	1 try

OEM part number	Tester model to use	Test routine	Delay Time sec.	Ignition time sec.	Ignition tries
FA7615	IMT-12P	Remote	15 sec.	7 sec.	1 try
HSCI	IMT-12P	Local	15 sec.	6 sec.	3 try
MARK 10-12-1-12-12-E340	IMT-12P	Remote	2 sec.	12 sec.	1 try
MARK 10-12-2-5.5-5.5-E310	IMT-12P	Remote	2 sec.	5.5 sec.	1 try
MARK 10-12-2-5.5-5.5-E340	IMT-12P	Remote	3 sec.	5 sec.	1 try
MARK 10-12-2-7-7-E312	IMT-12P	Remote	3 sec.	7 sec.	1 try
MARK 10-12-2-12-12-E310	IMT-12P	Remote	3 sec.	12 sec.	1 try
MARK 10-12-15-7-7-E002	IMT-12P	Remote	15 sec.	7 sec.	1 try
MARK 10DN-12-1-7-7-E3002	IMT-12P	Local	1 sec.	7 sec.	1 try
MARK 10N-12-1-5.5-5.5-E322	IMT-12P	Local	2 sec.	5.5 sec.	1 try
MARK 10N-12-1-12-12-E342	IMT-12P	Local	2 sec.	12 sec.	1 try
MARK 14-12-20-7-7-E002	IMT-12P	Remote	30 sec.	7 sec.	1 try
MARK 14N-12-15-7-7-E202	IMT-12P	Remote	15 sec.	7 sec.	3 try
Micro Pulse Ignitor "Ruby"	IMT-12P	Local	18 sec.	6 sec.	3 try
Ram	IMT-12P	Local	15 sec.	6 sec.	3 try
Triton 1250D902-113	IMT-12P	Local	15 sec.	7 sec.	3 try
Triton 1250D903-113	IMT-12P				

Dinosaur Electronics Products

Dinosaur Model Number	Tester model to use	Test routine	Delay Time sec.	Ignition time sec.	Ignition tries
UIB Fan Control (Lg / Sm)	IMT-12P***	Fan Control	15-20 sec.	6-7 sec.	*3 try ^③
UIB L (Post or Spade)	IMT-12P	Local	*15-20 sec. ^①	*6-7 sec. ^②	*3 try ^③
UIB S (Post or Spade)	IMT-12P	Local	*15-20 sec. ^①	*6-7 sec. ^②	*3 try ^③
UIB 24 VAC	IMT-24 VAC	Local	17 sec.	7 sec.	3 try

*** Must use the "Fan Control" Adapter provided with the IMT-12P

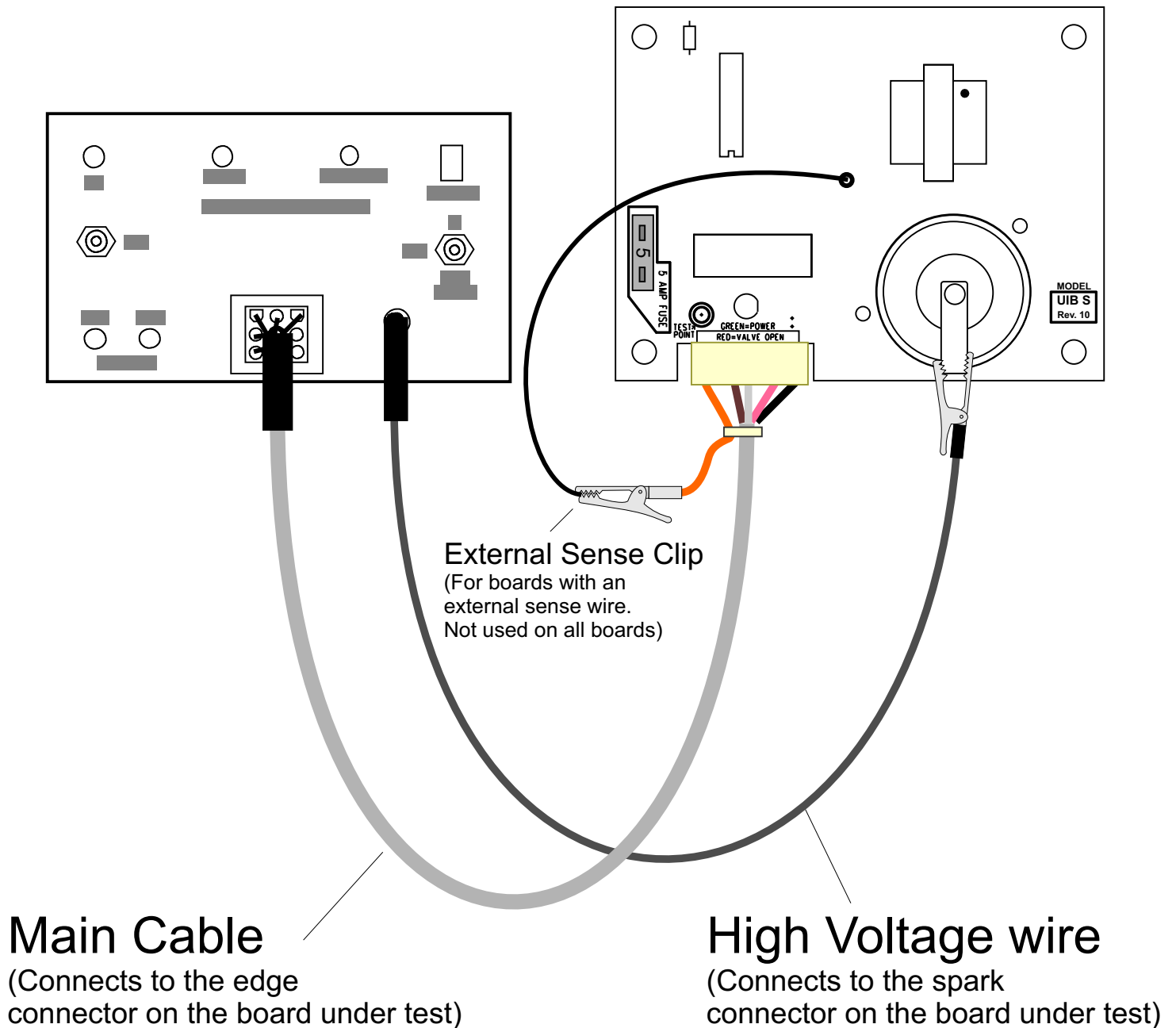
- ① With the "Delay Jumper" cut, the delay = 1-2 sec.
- ② With the "7/12 Jumper" cut, the Ignition time will = 12 sec.
- ③ With the "3/1 Try Jumper" cut, the number of tries will = 1

Use the rest of this chart to compile additional Ignitor board information.

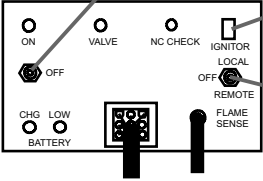
Note: If you need to test a board whose number does not appear on the chart, try the Remote routine and then the Local routine. The sense circuit should hold the valve open in one of these 2 positions.

Hookup Diagram for the IMT cables.

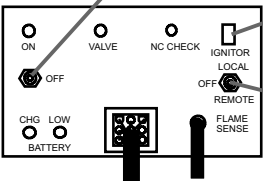
The Main Cable and High Voltage Cable are used for all boards.
The External Sense Clip is used when you need to test a board that has an external sense wire permanently attached.



Local Test Routine

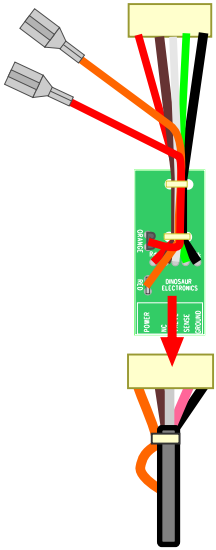
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- The diagram shows a control board with several components: a power switch (ON/OFF), a valve, an NC CHECK indicator, an IGNITOR, a LOCAL/REMOTE flame switch, a CHG LOW BATTERY indicator, and a FLAME SENSE indicator. The flame switch is currently in the LOCAL position.
1. Turn on Power Switch
 2. Wait for Spark
Water Heater boards: 1-2 seconds
Refrigerator boards: 1-2 seconds
Furnace boards: 15-20 seconds
 3. Move Flame Switch up (Local position)
 4. Spark should stop, and valve should stay on as long as Flame Switch is in this position.
 5. Test is complete, but you can also do the following:
 - (a) Twist the board to check for intermittent solder connections.
 - (b) Turn off the Flame Switch and let the board complete all fire cycles and go into lockout.

Remote Test Routine

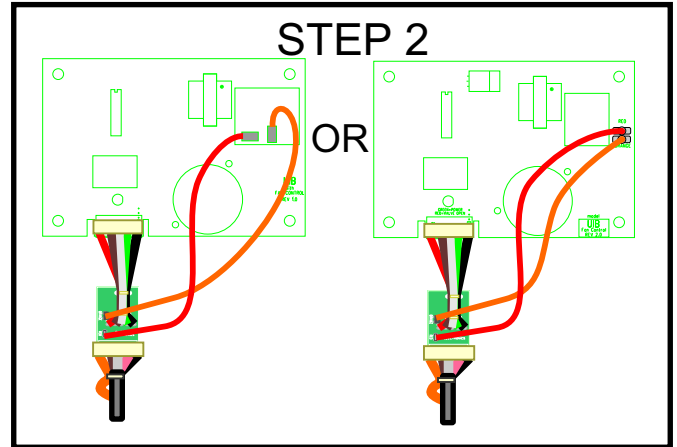
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- The diagram shows the same control board as above, but the flame switch is now in the REMOTE position.
1. Turn on Power Switch
 2. Wait for Spark
Water Heater boards: 1-2 seconds
Refrigerator boards: 1-2 seconds
Furnace boards: 15-20 seconds
 3. Move the Flame Switch down (Remote position)
 4. Spark may or may not stop, and valve should stay on as long as the Flame Switch is in this position.
 5. Test is complete, but you can also do the following:
 - (a) Twist the board to check for intermittent solder connections.
 - (b) Turn off the Flame Switch and let the board complete all fire cycles and go into lockout.

Using the Fan Control Adapter

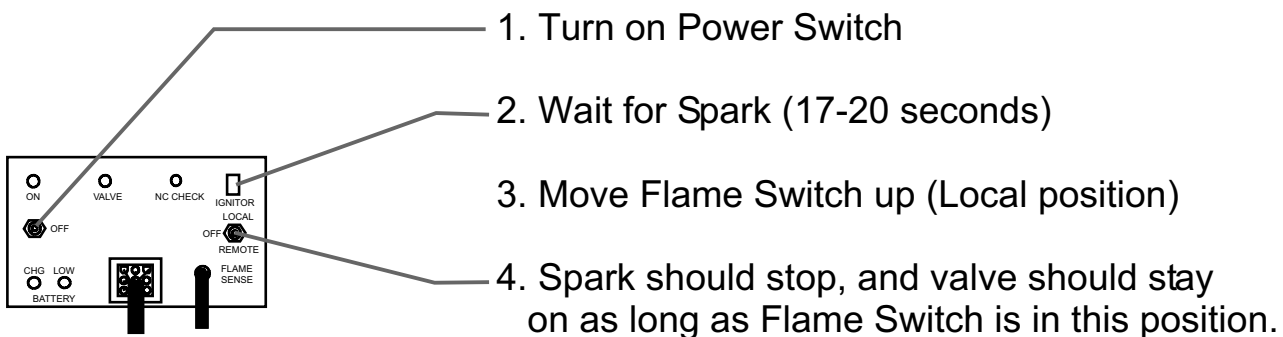
STEP 1



1. Insert the Fan Control Adapter into the Main Cable as shown.
2. Connect the edge connector, red wire and orange wire to the UIB Fan Control as shown.



UIB Fan Control board Test Routine



5. Test is complete, but you can also do the following:

Turn off the Flame Switch and let the board complete all fire cycles and go into lockout. At this point, the board will wait 1 minute and then shut off the fan relay, which will cause the green LED and NC Check light to go out.