

**MODEL: MSI-BSTMS** 

# Manual Spark Ignition (MSI) Kit

For Use only with Thermocouple Manual Safety (TMS)

UL Approved Fire Pit Pans with Burning Spur

# **Installation and Operating Instructions**

IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS DO NOT ATTEMPT TO INSTALL OR OPERATE THIS APPLIANCE



Warning: For Outdoor Use Only



We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE

**PRODUCT DESCRIPTION:** This Manual Spark Ignition (MSI) kit is designed to be installed with a UL approved Firegear Outdooors TMS fire pits burner system only. It comes partially assembled and uses a AAA battery inside the ignitor module and push button to light a fire pit burner with spark ignition.

## PREPARING THE FIRE PIT BURNER PAN FOR THE 2-PROBE SPARK IGNITOR

<u>CAUTION</u>: If the fire pit is installed then remove all media prior to installation of MSI Kit and turn OFF main gas supply.

**Step #1:** Prepare the fire pit pan by first removing the screen cover hood from the ignitor hood. See Fig. 1.

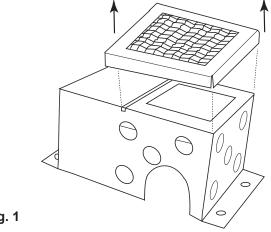
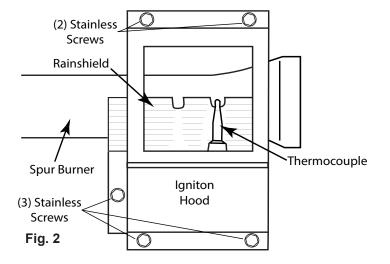


Fig. 1

**Step #2:** Remove the five (5) stainless steel thread cutting screws from the ignition hood exposing the rainshield and thermocouple.

See Fig. 2



**Step #3:** Remove Thermocouple from the back of the gas valve with a 10mm open-end wrench or an a small adjustable wrench. See Fig. 3.

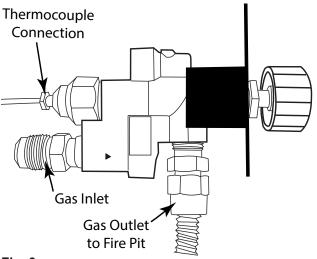
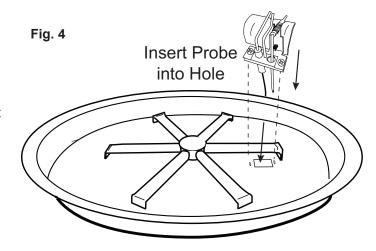


Fig. 3



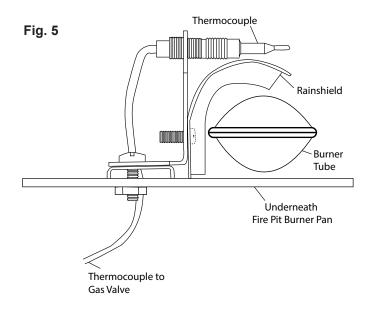
**Step #4:** Remove the two thread cutting screws from the existing rainshield bracket and carefully lift out the existing Thermocouple, rainshield and rainshield bracket assembly from the rectanglar hole and set aside.

**Note:** The old Thermocouple, rainsheild and bracket will no longer be used. Set it aside and save as a replacement part or discard the parts.

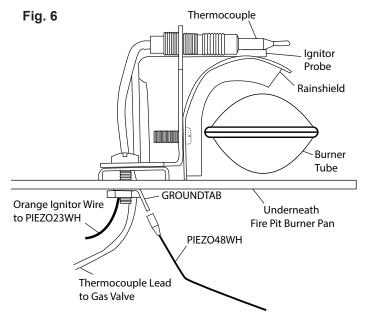


**Step #5:** Remove the two nuts from the new MSI probe assembly/Thermocouple but leave it assembled.

Carefully guide the thermocouple lead and orange ignitor wire through the rectanglar hole and insert the screws into the existing holes. See Fig. 4. Ensure the assembly rests flat against the fire pit pan. Temporarily secure one of the screws with one of the nuts prevoiusly removed. See Fig 5.



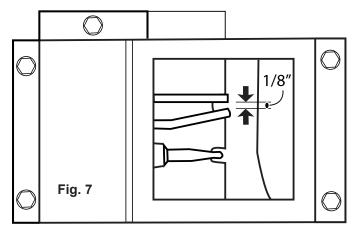
**Step #6:** Install the Ground Tab over the remaining screw (without the nut) and secure the tab with the other nut (See Fig 6). **NOTE**: Ensure the nut is secured tight against the Ground Tab and fire pit pan because this will serve as the "ground" connection for the ignitor to spark. At the same time secure the other nut from Step 5.



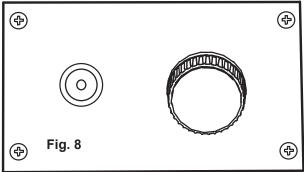


**Step #7:** Install the ignition hood over top of the probe assembly into the existing pre-punched holes of the burner pan by using the five thread cutting screws previously removed. See Fig. 7.

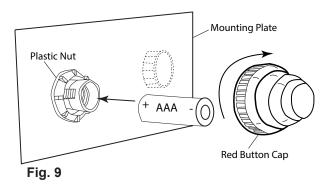
Ensure the Thermocouple and ignitor are overtop of the knotched area of the hood as seen in Fig. 7 for proper ignition and operation.



**Step #8:** Remove the black plastic plug from the valve mounting plate for preparation of installing the ignition module. See Fig. 8.



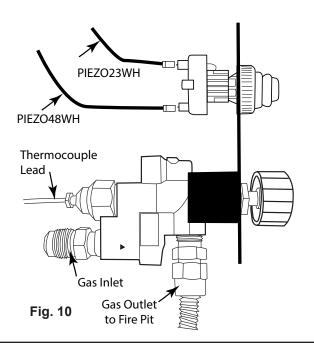
**Step #9:** Behind the black plug is a hole with two knotches inside it. Align the ignitor module with the two knotches and slide the module into the place until it stops. Using the plastic nut, thread it onto the module to secure it into place. Careful not to turn the nut too tight and crack the plastic. Install the AAA battery as shown and thread the red button cap on the remain threads of the module. See Fig. 9.



**Step #10:** Connect the 3/16-inch end of the extension wires into the back side of the spark ignitor module. See Fig. 10 detail.

**Step #11:** Attach the 1/4" extension wires PIEZO23WH to the orange ignitor wire and attach the PIEZO48WH to ground tab under the burner pan. See Fig 10 and Fig 11.

**Step #12**: Reconnect the thermocouple lead to the gas valve. Install it finger tight plus a quarter turn with a wrench.





**Step #13:** Test the ignitor by pushing and holding the red button to ensure the 2-probe ignitor is sparking inside the ignition box in the burner pan. The spark should be located directly overtop of the burner port hole for proper ignition of the gas as previously discussed. Spacing between the probes should be approximately 1/8" for proper spark. Use Fig. 7 for reference.

**Note:** Fig. 6 show details of the PIEZO48WH wire connection if needed.

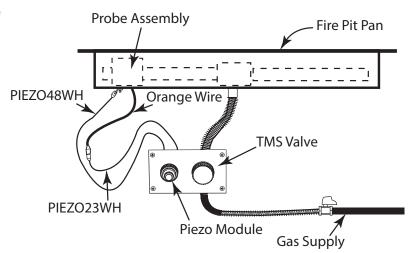
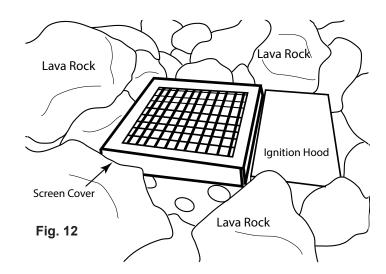


Fig. 11

**Step #14:** . Install the ignition hood screen mesh and ensure no media covers hood. See Fig. 11. Install the lava rock/media material according to fire pit install manual and turn the main gas supply back ON. Installation is now complete.



## LIGHTING INSTRUCTIONS

### READ ALL LIGHTING INSTRUCTIONS BEFORE ATTEMPTING TO LIGHT FIRE PIT

CAUTION: ENSURE YOU HAVE LEAK TESTED THE FIRE PIT BEFORE OPERATING.

### WARNING: Do not stand over fire pit during ignition or operation due to high surface temperatures.

- 1. Push and hold the red button on the manual Piezo ignitor and ensure sparking is occurring at the probes inside fire pit.
- 2. Rotate control knob on gas valve in the counter clockwise to ON position
- 3. Depress control knob inward and push the light the burner at the same time.
- 4. Gas should ignite within 10 seconds or less. If fire pit does not light within 10 seconds turn **OFF** the gas supply. Check ignitor probe location (Fig. 7), ensure there is an 1/8" gap between the probes with a good strong spark then repeat steps 2 through 4.
- 5. Turn gas supply OFF to check probes and battery if fire pit does not light.
- 6. Repeat steps 1-3.

#### TURNING OFF FIRE PIT

- 1. Slight push inward on control knob and turn clock wise until it stops. Fire pit will turn OFF.
- 2. After cooling off install cover.

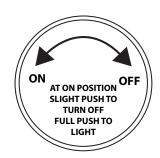


Fig. 13



## **LIMITED WARRANTY**

Firegear Outdoors warrants the MSI-BSTMS Kit for 12 months from date of purchase or installation to original purchaser to be free from defects in materials and workmanship. Damage to the MSI-BSTMS Kit caused by accident, misuse, abuse, or installation error, whether performed by a contractor, service company, or owner, is not covered by this warranty.

Firegear Outdoors will not be responsible for labor charges and/or damage incurred in installation, repair, replacement, or for incidental or consequential damage. Some states, provinces, and nations do not allow exclusion or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply. This warranty gives you specific legal rights. You may also have other rights that vary by state, province, or nation.

## **REPLACEMENT PARTS**

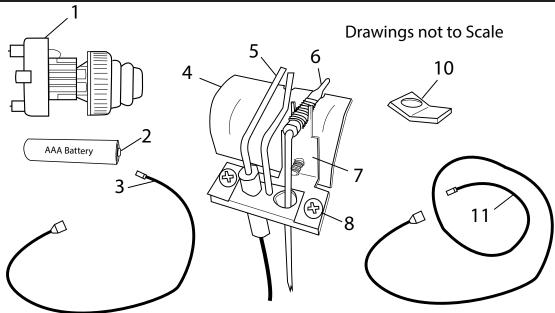


Diagram 1 - Parts

#	Description & Part Number	#	Description & Part Number
1	(1) Manual Spark Ignitor Module (3042-RB)	6	(1) Thermocouple (ST3-040-1025)
2	(1) AAA Battery (BATTAAA)	7	(1) Rainshield bracket (VCS-5000DSIB01)
3	(1) Extension wire - (PIEZO23WH)	8	(2) 10x24 Pan head screw (ST3-113-1019)
4	(1) Burner rainshield (RAINSHIELD)	9	(2) 10x24 nut with #8 (not shown) (ST3-113-1020)
5	(1) 2-Probe Spark Ignitor (VCS-5000DSI2P01)	10	(1) Ground tab for ignitor (GROUNDTAB)
		11	(1) Extension wire - (PIEZO48WH)

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