

1/2" LPG Flare

by: Responder Training Enterprises, LLC



Assembly

&

Operating Guide



Version 1.4.1

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Responder Training Enterprises, LLC.

9/20/2025



Thank you for purchasing our Small Cylinder Flare system (<https://www.respondertraining.com/product/small-cylinder-flare-kit/>). My intention in creating and producing this product was to provide response and propane service organizations with a quality tool that would exceed anything else currently on the market and last the owner for years to come.



As a career and volunteer firefighter I know how important it is to respond with the tools you need to get the job done quickly and safely. The Small Cylinder Flare was designed to be carried in a small space and easily set up.

Every responder knows that they have the potential of an incident involving propane. They also know that most propane flares on the market today take up a lot of space and because of it they're normally carried on a HazMat rig. With this system every fire department has the option of carrying a fully functional propane flare that takes up about the same space as a vent saw.

With this system your agency will have the ability to start forcing a tank into auto refrigeration (reducing pressure) or lower the liquid level (gain head space) with a propane flare designed to fit in a side compartment on most vehicles.

If you have any questions, concerns or comments please contact me.

Be safe brothers and sisters

Ronald D. Huffman
Owner, Responder Training Enterprises, LLC
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Photo of the "Dragon" looking down on me during a Propane Live Fire class taught in Greenfield IN.



FLARING OPERATIONS ARE INHERENTLY DANGEROUS. Failure to follow the appropriate safety measures could result in serious injury or death. In addition to this product literature, all appropriate local, State and Federal codes, regulations and guidelines must be identified and followed at all times.

Only personnel that have received proper training and understand the proper use of this product(s) and associated equipment should operate the Responder Flare and/or any of its accessories during training or incident response.

WEAR APPROVED PPE INCLUDING: GLOVES, BODY, HANDS, EYES and RESPIRATORY PROTECTION DURING SET-UP AND OPERATIONS

A copy of this document should be kept with the flare at all times

Read before using the warranty, liability and additional special information found at the end of this document.

CAUTION: Pinch/Scissor points exist. Moving parts can create a pinch or cutting action, ensure that no body parts are placed at any location where two components cross, lock together or may cause injury.

Specifications

Name:	½" Propane Flare, aka "1/2" Flare"
SKU:	SCFK001
Flare Stack:	Stainless Steel
Connectors:	7141M, 7141F, POL, 1-3/4" ACME
Product:	LPG (vapor or liquid)

Use with any other material voids all warranties expressed or implied.

Highlighted text: Indicates special attention should be applied to the information provided

IMPORTANT: Prior to operating the Small Cylinder Flare and any of its accessories you must fully read, understand and follow the information in this document. IF YOU ARE UNSURE OF HOW TO CONDUCT ANY FUNCTION OR OPERATION "STOP", CONSULT THIS DOCUMENT OR CONTACT RESPONDER TRAINING ENTERPRISES, LLC. FOR CLARIFICATION.

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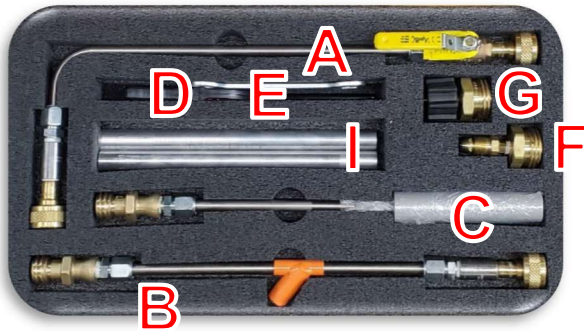
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Small Flare Set-Up and Assembly

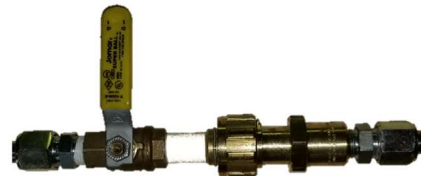
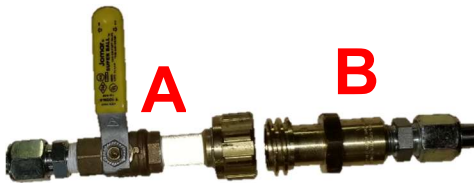
A – Valve Assembly
B – Extension Tube
C – Burner Assembly
D – Ignition Device

E – Tool
F – POL x 1-3/4" Adapter
G – QCC Type1 Adapter
H – 25-Foot Hose

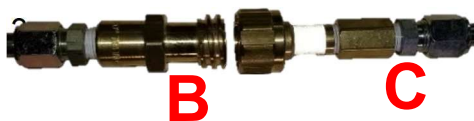
I – Stand Extensions
J – Stand
K – Sand Bag Case



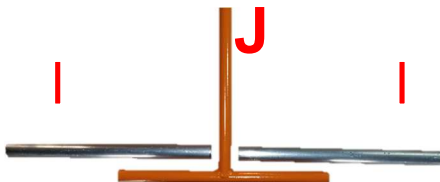
1. Connect valve/POL line "A" to extension tube "B".



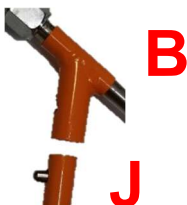
2. Connect extension tube "B" to burner assembly "C".



4. Slide the stand extensions in place and ensure the lock buttons have engaged.

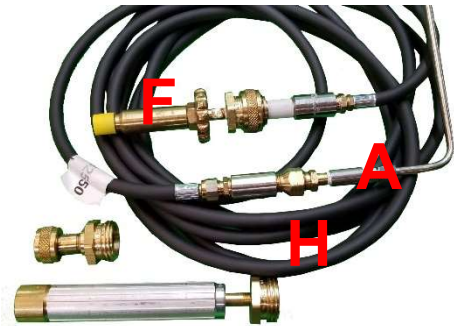


5. Insert the stand (J) into the receiver on extension tube "B" and engage the button.



6. Connect the 25-foot extension hose “H” to Valve Assembly “A”.

NOTE: flares should be stabilized using a sand bag placed behind the lower support



Optional adapters

7. Connect the appropriate tank connector (small POL included) or other optional adapter.

Flaring Operations

Prior to starting a flaring operation ensure that the flare is set up in an area capable of supporting the estimated radiant heat in all directions and located Up Wind and Up Hills from the source of any potential ignitable vapors.

When flaring, it's recommended that a hand line be available to protect the surface area under the flame, suppress possible small ground fires and any components that may be damaged by exposure to flames or radiant heat.

Final Inspection Before Ignition

Site management: ensure the area around the flare is clear of non-essential personnel, other vehicles, stored items, etc...

Verify that there are no leaks that may affect flaring operations.

Use the appropriate PPE (Personal Protective Equipment)

- Eyes – protective eyewear or face shield
- Hands – gloves designed for liquid propane contact
- Body – to protect from potential exposure

Prior to igniting the flare ensure that all connections are tight. It should not be necessary to wrench tight connections, but light pressure may be applied using an appropriate tool (“E”).

Protect all rubber components from sharp edges that may rub and cause damage.

Confirm that the flare is stable. If for any reason it's believed that the flare is in danger of tipping or sliding, adding weight (sandbags or similar items) is an acceptable option.

Clear the area of all materials that may be damaged by radiant heat such as: vinyl siding, painted items, plastics, glass, etc...

Verify that all personnel and others are in a safe area and are aware of operational tactics and hazards.

Lighting the flare

- 1) Close the control valve on the flare ("A")
- 2) Open the valve on the propane cylinder.
- 3) Slowly open the control valve on the flare ("A") and light the escaping propane. Continue opening the valve slowly until it's fully open or the excess flow in the supply source seats.
 - If the excess flow seats, identify the control valve location then close the valve.
 - (i) Wait until the excess flow valve re-opens (usually indicated by a single click).
 - (ii) Slowly re-open the control valve and ignite the escaping propane and continue opening the control valve to a point just before the excess flow shuts.

NOTE: FEED LINES AND THE FLARE STACK MAY BE EXTREMELY COLD DUE TO THE EXPANDING LIQUID AND AUTO-REFRIGERATION. THE PILOT BURNER and FLARE TIP MAY BE EXTREMELY HOT. USE of APPROVED PPE FOR THE HAZARD IS REQUIRED TO PROTECT FROM THE POSSIBILITY OF FREEZING TO EQUIPMENT OR TO PREVENT BURN INJURIES!

**FLARING OPERATIONS MUST BE MONITORED CONTINUOUSLY.
NEVER LEAVE A FLARING OPERATION UNATTENDED.
FOLLOW ALL SAFETY RULES**

Terminating Operations and Flare Storage

Upon completion of flaring operations:

1. Close the valve on the source.
2. Disconnect the flare from the source

CAUTION: Flare components may be HOT or COLD. Use appropriate personal protective equipment at all times. Flare components can be cooled and ice removed using a handline.

3. Disassemble the flare and all accessories in the reverse order of assembly.
4. Inspect all components for damage. If damage is discovered remove the unit from service until repairs can be made including replacement of any damaged or defective items by a qualified service technician.
5. Ensure that all components are clean and dry before storing. Store all flare components in preparation for the next incident.

Use of any Responder Training Enterprises, LLC provided, manufactured equipment constitutes acceptance of the terms and conditions listed in this document.

Warranty: This warranty and use of the product(s) applies to the original purchaser. The manufacturer guarantees all components against failures in materials and/or workmanship for a period of **1 year** from the date of purchase. If any part of the purchased system fails due to materials and/or workmanship the purchaser must contact Responder Training Enterprises, LLC (RTE) for repairs, replacement or refund of the original purchase price of the defective component at the discretion of RTE. RTE may require that the defective component be returned for inspection and repairs. The purchaser must contact Responder Training Enterprises to obtain a Return Goods Authorization number (RGA) prior to returning any component of the system. If the damaged item is deemed to be the result of improper use or neglect, RTE reserves the right to charge for service and/or repairs including shipping to and from RTE.

Do not ship items to anyone other than Responder Training Enterprises.

This warranty does not cover consequential damages resulting from the use of the product, including damage caused by flames or heat created during operations, loss of service availability and/or time involved due to warranty issues.

Manufacturer Liability Limitation: Failure to use this product in any manner or purpose other than intended by the manufacturer and/or for products other than identified or described and/or servicing the equipment by anyone other than Responder Training Enterprises, LLC employees or persons trained by Responder Trainings Enterprises, LLC to conduct service on the equipment and/or applying or installing unapproved alterations to any part of the system voids the warranty and releases the manufacturer from any and all liabilities including damages to equipment, property, injuries and/or death caused by the use of the product and any of its accessories.

NOTE: Retailers/resellers are not responsible for this product in any way other than supplying the products as promised. Retailers, persons, agencies, companies and/or corporations providing advertising may not be held liable for manufacturer defects in materials and/or workmanship, improper training unless the training was provided by the aforementioned and/or use of the equipment by the end user for statements and/or advertising made available by Responder Training Enterprises, LLC in any way.

If for any reason the equipment fails to function as intended, please contact Responder Training Enterprises, LLC immediately so that we can help you.

Thank you for purchasing this quality product.

Ronald D. Huffman

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<http://www.respondertraining.com>

Responder Training Enterprises, LLC
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FOR RESPONDERS
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