



Tempest Torch 24V

Owner's Manual

Natural Gas (sku 94900745) - Propane (sku 94900755)



Listed by

Omni-Test Laboratories, Inc.

ANSI Z21.97-2017 / CSA 2.41-2017, CSA 2.17-2017

Outdoor Decorative Gas Appliances

Report # 0028GM083S

⚠ WARNING: For Outdoor Use Only. Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

⚠ WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

⚠ WARNING: Do not store or use gasoline, or other flammable vapors and liquids, in the vicinity of this or any other appliance.
An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

⚠ DANGER: FIRE OR EXPLOSION HAZARD

If you smell gas:

- Shut off gas to the appliance.
- Extinguish any open flame.
- If odor continues, leave the area immediately.
- After leaving the area, call your gas supplier or fire department.

Failure to follow these instructions could result in fire or explosion, which could cause property damage, personal injury, or death.

! DANGER



Hot glass will cause burns.
Do not touch glass until cooled.
Never allow children to touch glass.

! DANGER



CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor.
Using it in an enclosed space can kill you.
Never use this appliance in an enclosed space such as a camper, tent, car, or home.

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.



**TRAVIS INDUSTRIES
HOUSE OF FIRE**

French language manuals at tempesttorch.com
Manuels de langue Française à tempesttorch.com

Overview

This manual details the installation, operation, and routine maintenance for the Tempest torch.

Listing Details

This torch was tested to ANSI Z21.97-2017 / CSA 2.41-2017, CSA 2.17-2017 "Outdoor Decorative Gas Appliances". The listing label is chained to the appliance. A copy is shown to the right.

Important Registration and Service Information

No other Tempest torch has the same serial number as yours. The serial number is on the safety label attached by a chain near the control panel. This serial number will be needed in case you require service of any type. To receive full warranty coverage, you will need to show evidence of the date of purchase. Mail your warranty card or visit traviswarranty.com to register your Tempest torch. If any service issues arise, contact your dealer for details.

Serial Number



Tempest Torch

(U.S. & Foreign Pat. Pending)
Report Number: 0028GM083S



**TRAVIS INDUSTRIES
HOUSE OF FIRE**
12521 Harbour Reach Drive
Mukilteo, WA 98275
tempesttorch.com

Min. Clearances to Combustible Materials*

- 26" from top of glass
- 8" from side of glass
- 2.5" from bottom of glass

*See manual for further details

Gas Rating	NG	LP
Input Rating (BTU/h)	20,000	20,000
Orifice Size	#50	#55
Burner Port Holes	25 Holes	49 Holes
Manifold Pressure	7" WC	11" WC
Max. Inlet Pressure	7" WC	11" WC
Min. Inlet Pressure	5" WC	9" WC

MANUFACTURE DATE:

<input type="checkbox"/> 2021	<input type="checkbox"/> Jan.	<input type="checkbox"/> Apr.	<input type="checkbox"/> Jul.	<input type="checkbox"/> Oct.
<input type="checkbox"/> 2022	<input type="checkbox"/> Feb.	<input type="checkbox"/> May	<input type="checkbox"/> Aug.	<input type="checkbox"/> Nov.
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Tested to: ANSI Z21.97-2017 / CSA 2.41-2017 "Outdoor Decorative Gas Fireplace", "CSA 2.17-2017 - "Gas-Fired Appliances for Use at High Altitudes", Suitable for use in elevations of 0-4500 ft (0-1370 m). Electrical Rating: 24 VAC., 60 Hz, 1.6 Amps

For outdoor installation only. If stored indoors, detach and leave cylinder outdoors (if applicable). The gas supply must be turned off at the LP-gas supply cylinder when this appliance is not in use (if applicable). Cover must be removed when burner is in operation.

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- ! **This appliance must be installed in accordance with all local codes if any; if not, follow ANSI Z223.1.**
- ! **This appliance must only be used outdoors in a well-ventilated area. It may not be used in a building, garage, or other enclosed space.**
 - This appliance is not for use with solid fuel.
 - The torch must be kept clean and free of leaves and debris to ensure safe operation.
 - Any hose or gas-supply line that is damaged or shows evidence of excessive abrasion or wear must be replaced prior to use of the torch.
 - If using a gas supply line to the torch, make sure it is properly located away from any walkway or in an area where it may be subject to accidental damage
 - Educate all children and adults about the dangers of the torch. Young children should be supervised when they are in the same area as the torch. Do not let children play with the torch.
 - Do not place clothing or other flammable items on or near the torch.
 - Any screen or guard removed for servicing must be replaced prior to operating the torch.
 - This unit must be installed and repaired by a qualified installer to prevent the possibility of an explosion. Your dealer will know the requirements in your area and can inform you of those people considered qualified. The torch should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive debris from leaves, dirt, insects, etc.
 - Do not use this appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been underwater.
 - The instructions in this manual must be strictly adhered to. Do not use makeshift methods or compromise in the installation. Improper installation will void the warranty and safety listing.
 - This appliance is approved for either natural gas (NG) or propane (LP). Burning the incorrect fuel will void the warranty and safety listing and may cause an extreme safety hazard. Direct questions about the type of fuel used to your dealer. A label is placed on the control panel to show which fuel the torch is designed for (in addition, NG units have 25 burner holes, LP units have 49 burner holes).
 - Contact your local building officials to obtain a permit and information on any installation restrictions or inspection requirements in your area.
 - If the flame becomes sooty, dark orange in color, or extremely tall, do not operate the torch. Call your dealer and arrange for proper servicing.
 - Do not operate the torch if it is not operating properly in any fashion or if you are uncertain. Call your dealer for a full explanation of your torch and what to expect.
 - Do not store or use gasoline or other flammable liquids in the vicinity of this torch.
 - Never remove, replace, modify, or substitute any part of the torch unless instructions are given in this manual for routine maintenance and cleaning. A trained technician must do all other work. Do not modify or replace orifices.
 - Allow the torch to cool before carrying out any maintenance or cleaning.
 - Operate the torch according to the instructions included in this manual.
 - If the burner does not start correctly turn the gas off at the gas control valve and call your dealer for service.
 - Do not use this appliance to cook food.
 - Instruct everyone in the house how to shut the gas off to the torch and at the gas main shutoff valve. The gas main shutoff valve is usually next to the gas meter or propane tank and requires a wrench to shut off.
 - Do not operate the torch during a lightning storm or a possible lightning storm.
 - Do not operate the torch during high wind conditions.
 - Do not install in or on recreational vehicles and/or boats.
 - Do not throw this manual away. This manual has important operating and maintenance instructions that you will need at a later time. Always follow the instructions in this manual.
 - **Travis Industries, Inc. grants no warranty, implied or stated, for the installation or maintenance of your torch, and assumes no responsibility for any consequential damage(s).**

Features:

- Electronic Ignition (switch turns the torch on or off)
- Maximum 20,000 BTU Input
- Removable Rain Cap
- Tempered Glass (easy to remove and clean)
- Stainless Steel Construction
- Automatic Gas Shutoff Valve for Safety

Installation Options:

- For Outdoor Installation Only
- For Fixed Line Installations Only
- Wall Mount
- Post Mount
- Pillar Mount

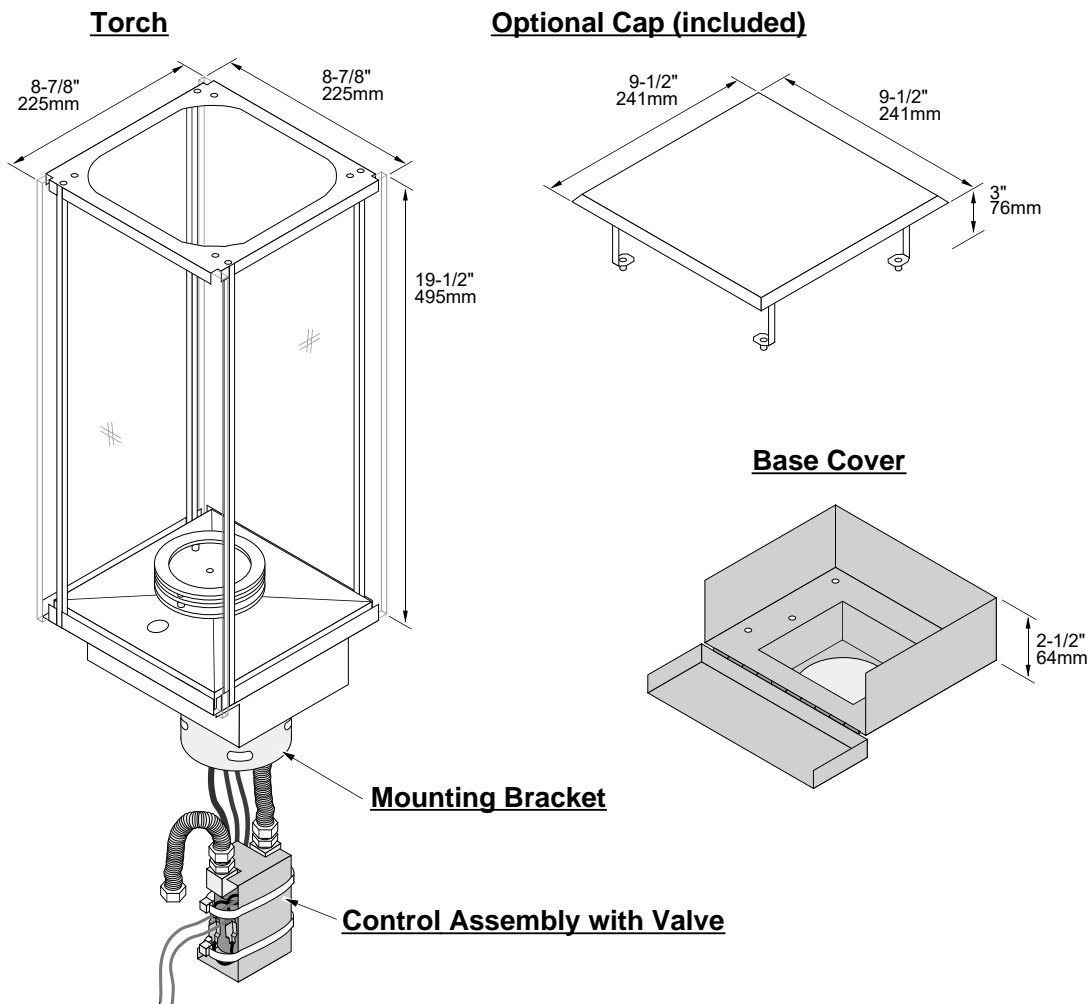
Gas Specifications:

	NG	LP
Input Rating (Btuh)	20,000	20,000
Orifice Size (DMS)	#50	#55
Burner Ports	25 Holes	49 Holes
Manifold Pressure	7" wc	11" wc
Max. Inlet Pressure	7" wc	11" wc

Electrical Specifications:

24 Volts AC, 1.6 amps (on startup), 40 watts (on startup)

Dimensions:



NOTE: All Clearances are measured from the glass (and glass frame).

Installation Warnings:

- ! This appliance is designed for outdoor use only, in well-ventilated areas.
- ! Failure to follow all of the requirements may result in property damage, bodily injury, or even death.
- ! This torch must be installed by a qualified installer.
- ! This appliance is designed to operate on natural gas, or propane (LP).
- ! This appliance requires a switched, 110v AC, GFCI (ground-fault circuit interrupter) protected power supply. This circuit provides power to the 24v AC transformer (not supplied).
- ! Notify your insurance company before hooking up this appliance. All relevant information on the Tempest Torch is located on page 2, *Important Information*. You can fax them page 2.
- ! The requirements listed below are divided into sections. All requirements must be met simultaneously. The order of installation is not rigid – the qualified installer should follow the procedure best suited for the installation.

Packing List

- Main Assembly
- Burner Top
- (4) Support Bars (w screws)
- Top Plate
- Rain Cap
- 5/32" Hex Wrench
- Control Cover (pre-installed)
- (4) 1/4-20 x 1/2" Hex Head Screws
- Glass (4 Pieces)

Additional Items Required

This Torch Requires One of the Following Base Assemblies:

- Wall Mount Kit
- Post Mounting Kit
- Pillar Mounting Kit

This Torch Requires a 24Volt AC transformer. Travis Industries provides the following transformer options:

- Travis Industries 24V AC Single Appliance Transformer (94800833).
- Travis Industries 24V AC Multiple Appliance Transformer (94800830).

Recommended Order of Installation

1. Determine the location of the torch. Make sure all clearances are met, (see page 8).
2. With the torch head location identified, prepare and mount the torch head support (pillar, post, or wall mount). This order of installation may need to be modified due to individual installation conditions. NOTE: sections 4, 5, 6, and 7 of this page detail gas and electrical connections to the torch head.
3. **GAS SUPPLY:** The torch requires 20,000 BTU input (natural gas or LP). A shutoff valve and 12 inches of flex line are provided to assist connection from the supply line to the torch head. The shutoff valve accepts ½" MPT (male pipe thread). Before turning gas on to the torch, leak-test all gas line connections.
4. **ELECTRICAL SUPPLY:** The power supply must be routed through a switch to turn the Lantern on and off (see page 10). Each Lantern uses 24VAC at approximately 1.6 amps. Each Travis Industries SKU-94800830 transformer can run up to 6 torches. Up to 24 torches can be operated on a single 15amp 120VAC home circuit. Make sure the circuit and wiring are appropriately sized (see diagram on pg 15.). If multiple Lanterns are powered through a single transformer, the control modules for each of the individual Lanterns may be daisy-chained together. Make sure to leave slack in the electrical line so the head can be removed for service.
5. For outside post and pillar installations route a ½" stainless steel flexible gas line from the shutoff valve to the torch head (you will have to provide this gas line).
For wall mount applications; if using a flex line to pass through the wall of a building the flex line must be enclosed in conduit for protection, or local code may require you to hard pipe the connection from the control module to the torch head.
6. Attach the torch head to the mount. Attach the gas line. Attach the 24vac electrical supply. Leave the control covers loose to allow for leak testing access. Install the torch assembly (see page 21).
7. Bleed the gas line and start the torch by switching on the electrical power to the control module. Leak test the gas lines. Verify the torch works correctly and there are no gas leaks. Attach the control covers.
8. Give the manual to the homeowner and explain the operation of the torch.

Placement Requirements

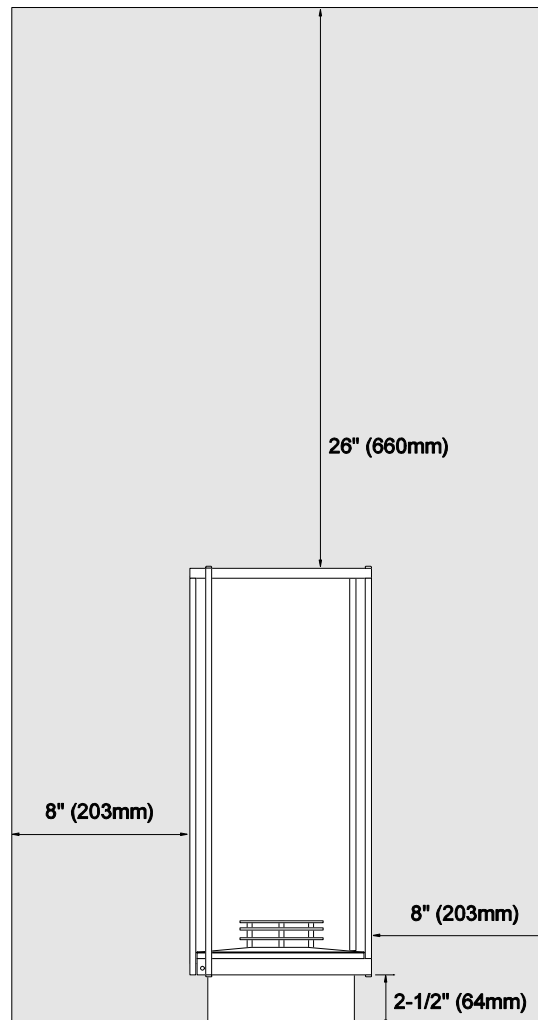
! For Outdoor Use Only. Install in well-ventilated areas.

Do Not Locate the Torch:

- In high traffic areas.
- Under or near trees, plants, and buildings where debris may constantly fall into the torch. Excessive debris will require high maintenance and/or cause malfunctioning of the torch.
- In places where people, children, and pets may contact the torch. Guards or fences around the torch in these locations are recommended.
- In places where the controls beneath the torch may be submerged underwater. Submerging of any part of its controls may require the complete replacement of the controls.

Clearances:

- The distance from ground level to the top of the torch shall be a minimum of 7 ft. (2.1M) where installed within 2 feet (0.6M) of public walkways (e.g.: sidewalk, a shared walkway between two homes, or pathway in commercial applications). Lesser clearances shall be permitted to be used only where acceptable to the authority having jurisdiction.
- Keep combustibles away from the shaded heat zone of the torch (see illustration below).



Gas Line Requirements

MASSACHUSETTS INSTALLATIONS - WARNING:

THIS PRODUCT MUST BE INSTALLED BY A LICENSED PLUMBER OR GAS FITTER WHEN INSTALLED WITHIN THE COMMONWEALTH OF MASSACHUSETTS.

OTHER MASSACHUSETTS CODE REQUIREMENTS:

- Flexible connector must not be longer than 36 inches.
- Shutoff valve must be a "T" handle gas cock.
- Only direct vent sealed combustion products are approved for bedrooms or bathrooms.
- Fireplace dampers must be removed or welded in the open position prior to the installation of a fireplace insert or gas log.
- A carbon monoxide (CO) detector is required in the same room as the appliance.

- ! The gas line must be installed in accordance with all local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, International Fuel Gas Code, Natural Gas, and Propane Installation Code, CSA B149.1, or Propane Storage and Handling Code, B149.2, as applicable. Consult your local gas supplier or propane gas dealer for code regulations and recommended procedures.
- ! The torch and gas control module must be disconnected from the gas supply piping during any pressure testing of that system at test pressures in excess of 1/2 psig. For pressures less than 1/2 psig, isolate the gas supply piping by closing the manual shut-off valve.
- ! Leak test all gas line joints and the gas control valve prior to and after starting the torch.

LP and NG Configuration

This torch is shipped either for natural gas or propane. **The torch is not convertible from one fuel to another.** Check the sticker on the control panel to make sure the correct fuel is used. The torch has unique orifices and burners for each fuel. See the table below for details.

	NG	LP
Input Rating (Btuh)	20,000	20,000
Orifice Size (DMS)	#50	#55
Burner Ports	25 Holes	49 Holes
Manifold Pressure	7" wc	11" wc
Max. Inlet Pressure	7" wc	11" wc

Gas Line Connection

A manual shutoff valve is required on the gas supply to the torch.

Electrical Connection Requirements

- ! The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes with the National Electrical Code, ANSI/NFPA 70; or the Canadian Electrical Code, CSA C22.1
- ! The electrical line must be installed by a qualified installer and must meet all local codes. Consult your local building official for code regulations and recommended procedures.
- ! The 24VAC transformer may require a circuit protected by a GFCI (see local building codes).

Wiring Installation

- We recommend outdoor-suitable connectors (silicone-filled wire connectors, dielectric grease, etc.) on the power-in connections to the control module to prevent corrosion.
- Route the wires from the 24VAC transformer to the torch using listed wiring. The wiring is routed through the post or wall mount. Make sure to provide slack in the electrical line for removal and service.
- Each torch uses approximately 40 watts during startup (1.6 amps at 24VAC). Make sure the circuit and wire are sized appropriately. The torch requires a minimum of 21VAC to operate (if the voltage drops below this, the torch may not start).
- Up to 24 torches can be operated on a single 15amp 120VAC home circuit. Make sure the circuit and wiring are appropriately sized (see diagram on pg 15.). If multiple Lanterns are powered through a single transformer, the control modules for each of the individual Lanterns may be daisy-chained together (make sure polarity is correct, see pg. 16). Make sure to leave slack in the electrical line so the head can be removed for service.

24VAC Transformer

- This torch must be used with a 24VAC switched circuit. The transformer is sold separately.
- Travis Industries offers the following two transformers:
 - 94800833 Powers 1 Torches (120v input only). See the instruction sheet included with the transformer for details.
 - 94800830 Powers 1 to 6 Torches (120v input only with 26v and 28v output leads). See the instruction sheet included with the transformer for details.

**Important Information**

Some jurisdictions and commercial applications require an emergency shutoff for the appliance. If a shutoff is required, we recommend the shutoff shown to the left (or equivalent).

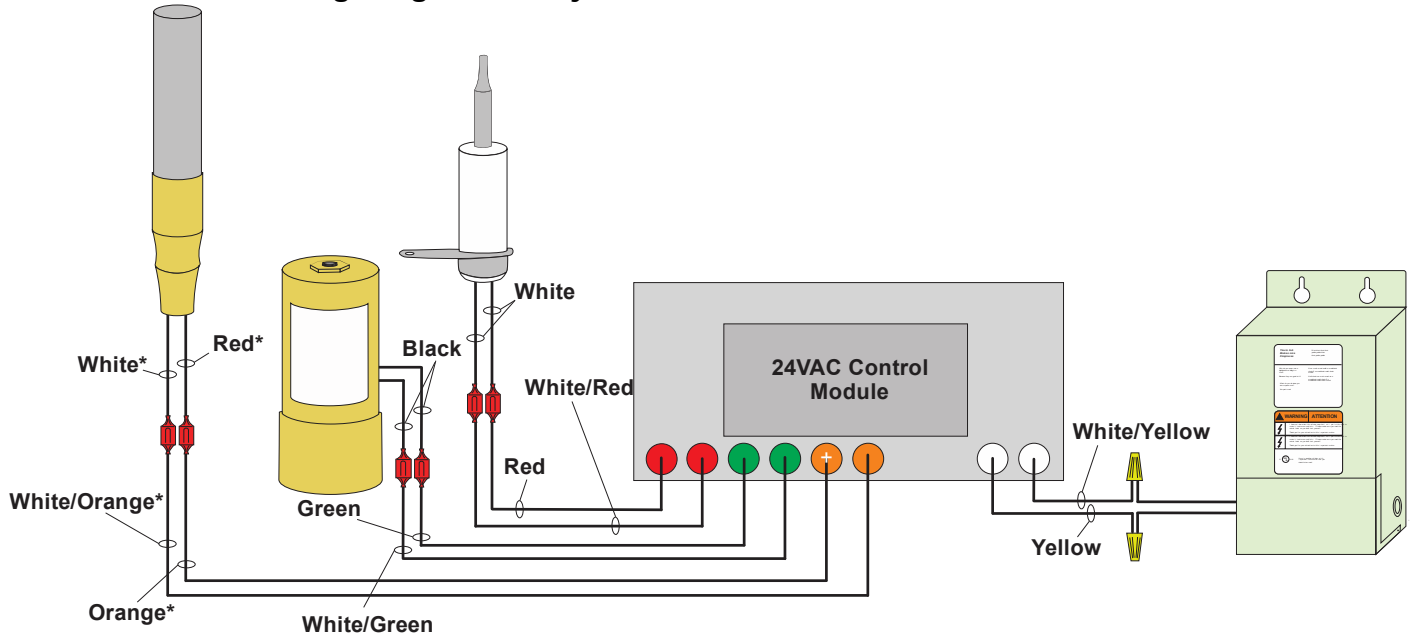
SCHNEIDER ELECTRIC Push Button Control Station
Mfr. Model: XALD164H29H7
Contact Rating: 10A @ 600V AC

Refer to the switch manufacturer's instructions, the National Electric Code, and the local authority having jurisdiction for proper installation or any additional requirements.

Torch Wiring Diagram

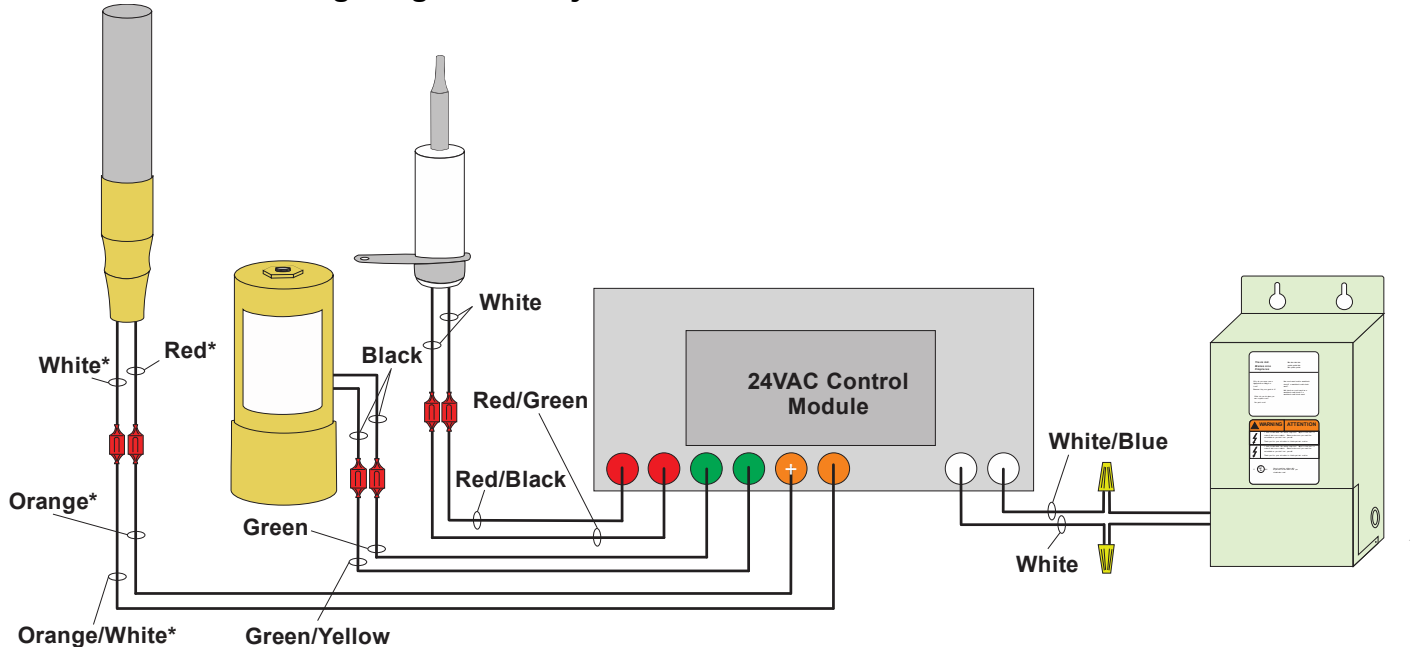
- All wiring inside the torch leads to the control module. The module has remained the same, but the color of the wires from the module has changed. See the two diagrams below.

Control Module Wiring Diagram – July 2019 or Later



* **NOTE:** The thermopile must connect to the control module as shown above (**white/orange** wire connects to the **white** thermopile wire and **orange** wire connects to the **red** thermopile wire). **Do not reverse the wires.** If the wires are reversed, the torch will not work correctly.

Control Module Wiring Diagram – July 2019 or Earlier



* **NOTE:** The thermopile must connect to the control module as shown above (**orange/white** wire connects to the **white** thermopile wire and **orange** wire connects to the **red** thermopile wire). **Do not reverse the wires.** If the wires are reversed, the torch will not work correctly.

Single Appliance Installations

When installing a single appliance, we recommend using the Single Appliance Transformer (sku 94800833). This transformer can only power a single appliance. If powering multiple appliances with a single transformer use the higher capacity transformer (sku 94800830).

24v Single Appliance Transformer (sku 94800833)



Hazardous Voltage can shock, burn, or cause death. Disconnect all input power before installing or maintaining this equipment.

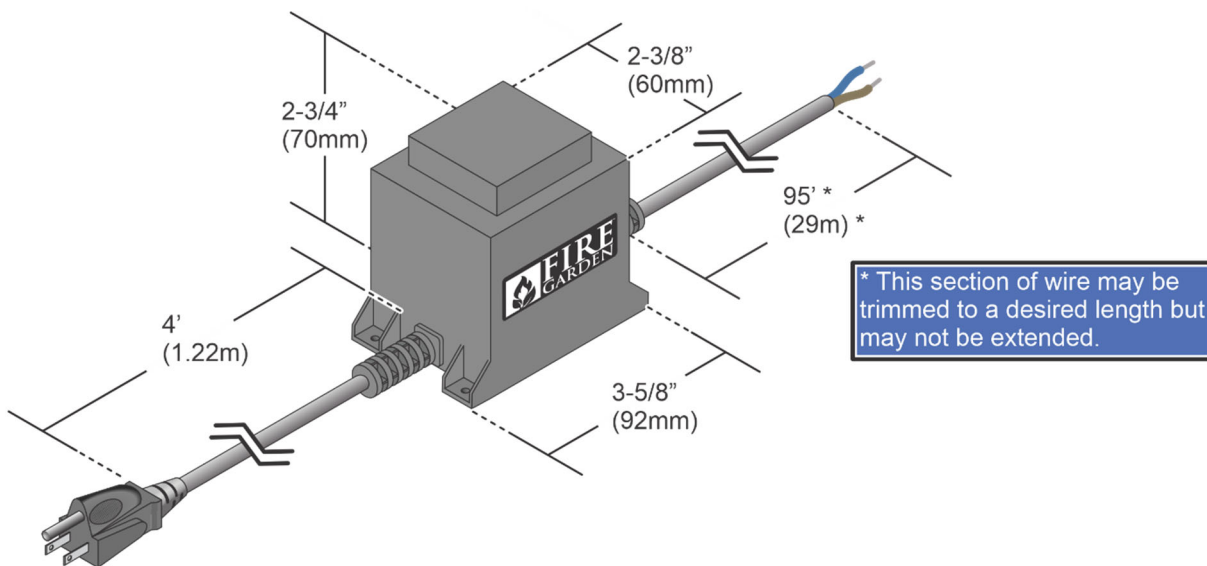
Compatibility

This transformer is designed for the Fire Garden 24v single control module appliances. It is not designed for 2017 (or earlier) Tempest 120v torches.

This transformer is rated for 120VAC, 60Hz, 50W input, and 24VAC output. The transformer will power (1) appliance. See the section "Wire Length Chart" for additional details.

NOTE: The wire after the transformer box is allowed for direct bury installation. Check with the local authority having jurisdiction before installing in this manner.

Dimensions



Warnings



NOTE: Disconnect power at the service breaker prior to installing the transformer. After installation, restore power to the transformer and test both the incoming and outgoing circuits.



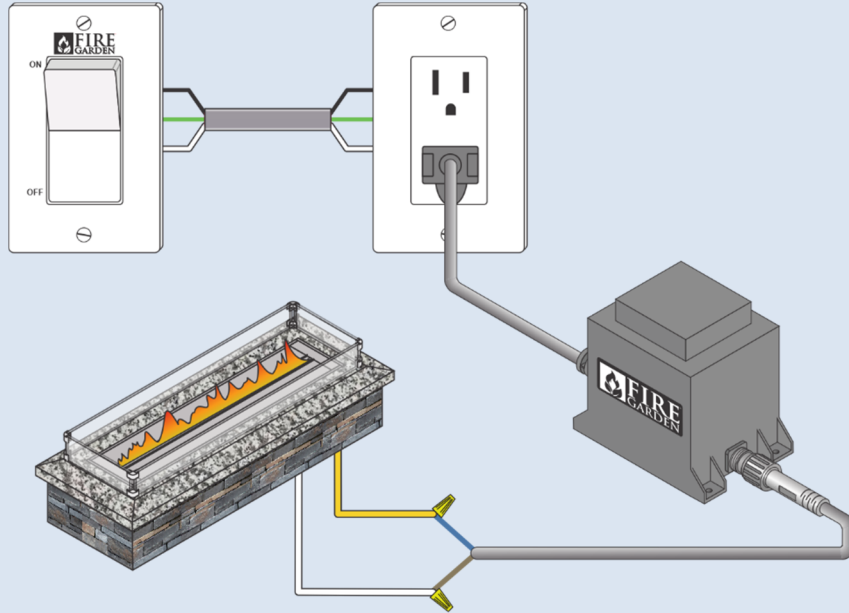
Installation should only be performed by a qualified electrician or installer (consult local codes). Use suitable connectors when wiring the transformer (silicone-filled wire nuts).

Mounting Requirements

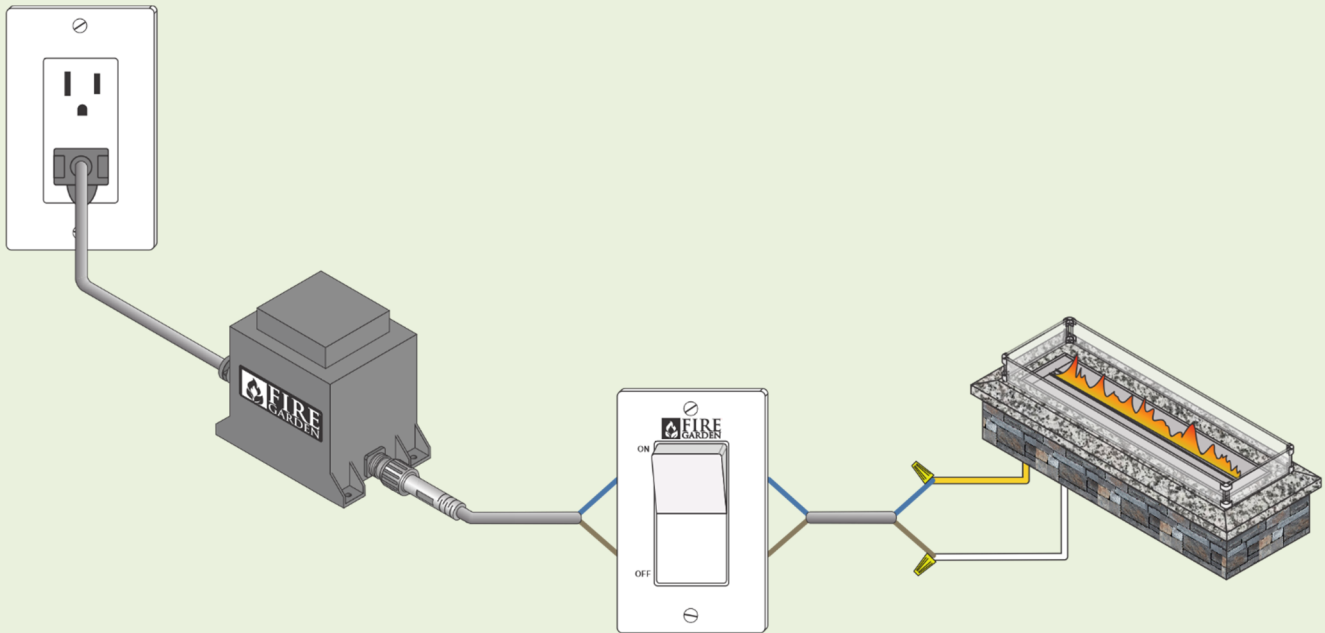
- This transformer is intended to be plugged into a standard household GFCI-protected outlet.
- The transformer is wet-rated and can be exposed outdoors.
- If this transformer will be used on an outdoor outlet, the outlet must have a weatherproof receptacle cover.

Wiring Diagrams

- The transformer is plugged into a GFCI-protected, switched outlet. The two-conductor low voltage wire is connected to the yellow and white wires from the control module. Polarity does not matter for any of these connections.



- The transformer is plugged into a GFCI-protected, non-switched outlet. One low-voltage conductor is interrupted by a switch. The low-voltage conductors are then attached to the yellow and white wires from the control module. Polarity does not matter for any of these connections.



Multiple Appliance Installations

When installing more than one 24v appliance, use the large 24v Appliance Transformer (sku 94800830). This transformer is capable of powering up to (6) 24v Fire Garden outdoor appliances.

24v Multiple Appliance Transformer (sku 94800830)



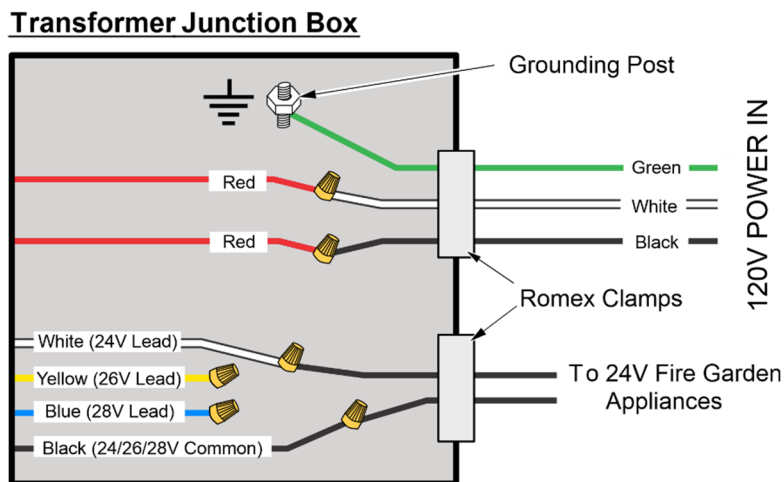
Hazardous Voltage can shock, burn, or cause death. Disconnect all input power before installing or maintaining this equipment.

Compatibility

This transformer is designed for the Fire Garden 24v appliances. It is not designed for 2017 (or earlier) Tempest 120v torches.

This transformer is rated at 300 VA. The transformer will power up to (6) appliances. See the section "Wire Length, Wire Gauge, and Voltage Settings" for additional details.

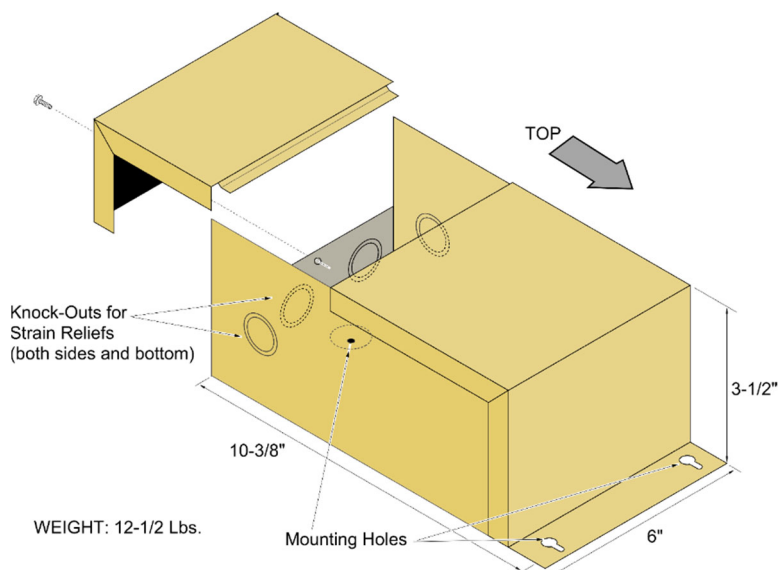
Wiring Diagram 120V



NOTE: In this example the 24V Lead is used.

WARNING: Make sure to put wirenuts on un-used power leads (in this example the 26V and 28V Leads)

Dimensions



Mounting Requirements

- Transformer weighs approximately 12-1/2 lbs. Make sure the mounting location provides sufficient support.
- The transformer is rated for damp locations.
- Do not place the transformer where it will become submerged.
- We suggest placing the transformer out of direct contact with the elements (rain, snow, sun, etc.) to extend longevity.
- Consult your local building department for requirements in your area pertaining to the mounting and installation of this transformer.

Voltage Settings, Number of Appliances, and Wire Configuration

Voltage Setting: This transformer has three different voltage leads: 24v; 26v; and 28v. Refer to the wire length charts (either direct-run or daisy-chain) to determine which voltage lead you should use.

Why Does the Transformer Have Multiple Voltage Leads?

The wires from the transformer to the 24 appliances create additional resistance. The longer the wire length, the more resistance is created. The smaller the wire diameter (larger-number gauge), the more resistance is created. If your installation creates additional resistance, you will need to use a higher voltage lead to overcome the voltage drop the resistance creates. The Fire Garden appliances must receive a minimum of 21v.

Number of Appliances: This transformer is rated 300 VA and may be used on (1) to (6) - 24v appliances. The higher the number of appliances, the higher the amp load. The higher the amp load, the higher the voltage drop. You must know the number of appliances on the transformer before wiring.

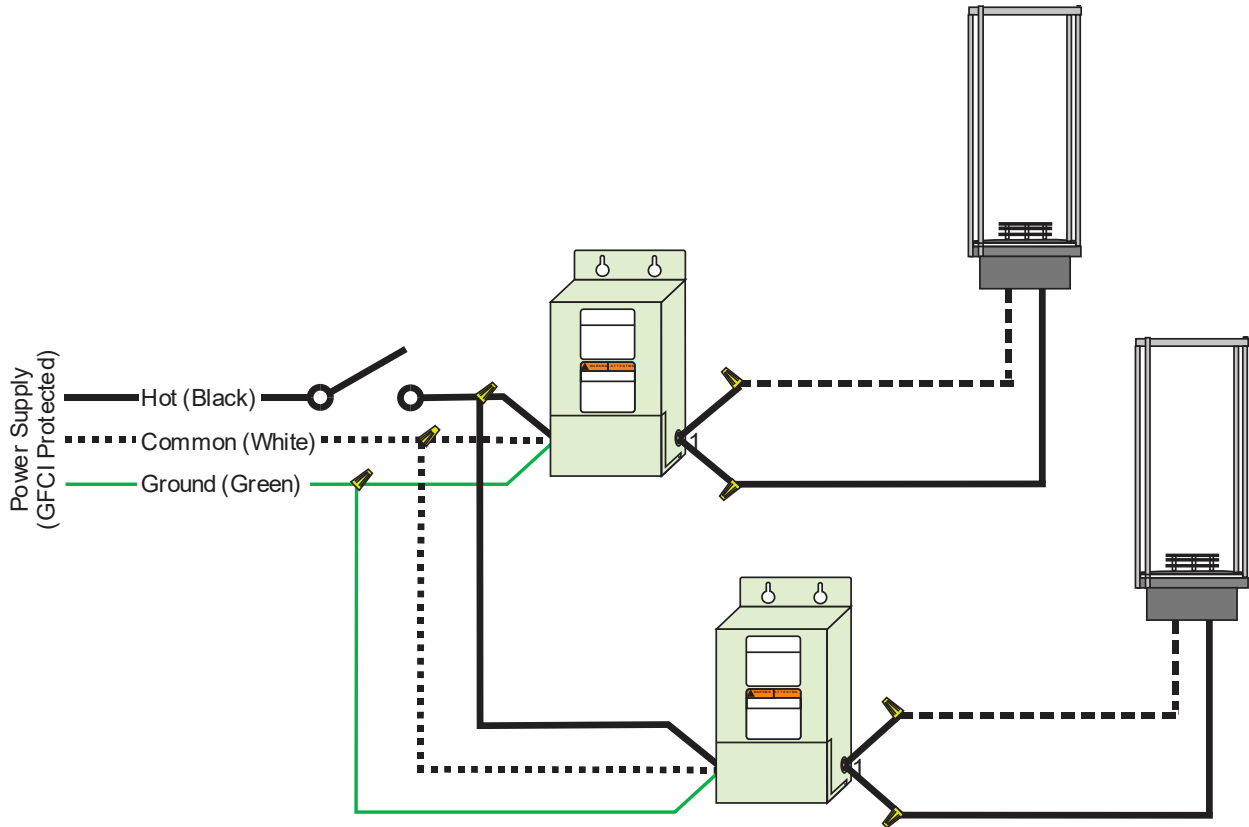
Wire Configuration - Direct-Run vs Daisy-Chain Installations: How you wire the appliances to the transformer affects the maximum length of wire and wire gauge. Make sure to determine the wire configuration before installation. NOTE: You may use both direct-run and daisy-chain configurations just make sure the number of appliances is (6) or less per transformer.

Wire Configuration - Direct-Run vs Daisy-Chain Installations

The manner in which you wire the torches to the transformer affects the maximum length of wire and wire gauge. Make sure to determine the wire configuration before installation. NOTE: You may use both direct-run and daisy-chain configurations, just make sure the maximum number of torches is not exceeded.

Wiring Multiple Transformers to One Switch

- Multiple 24VAC transformers may be wired to a single switch (see diagram below).



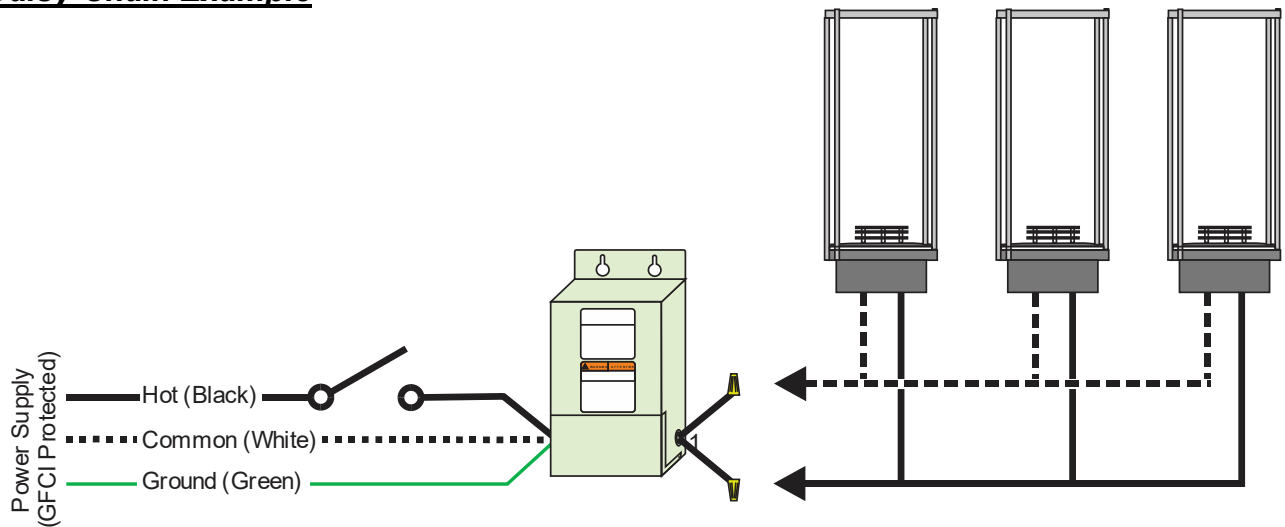
Wiring Multiple Torches to One Transformer

The manner in which you wire the torches to the transformer affects the maximum length of wire and wire gauge. Make sure to determine the wire configuration before installation. NOTE: You may use both direct-run and daisy-chain configurations.

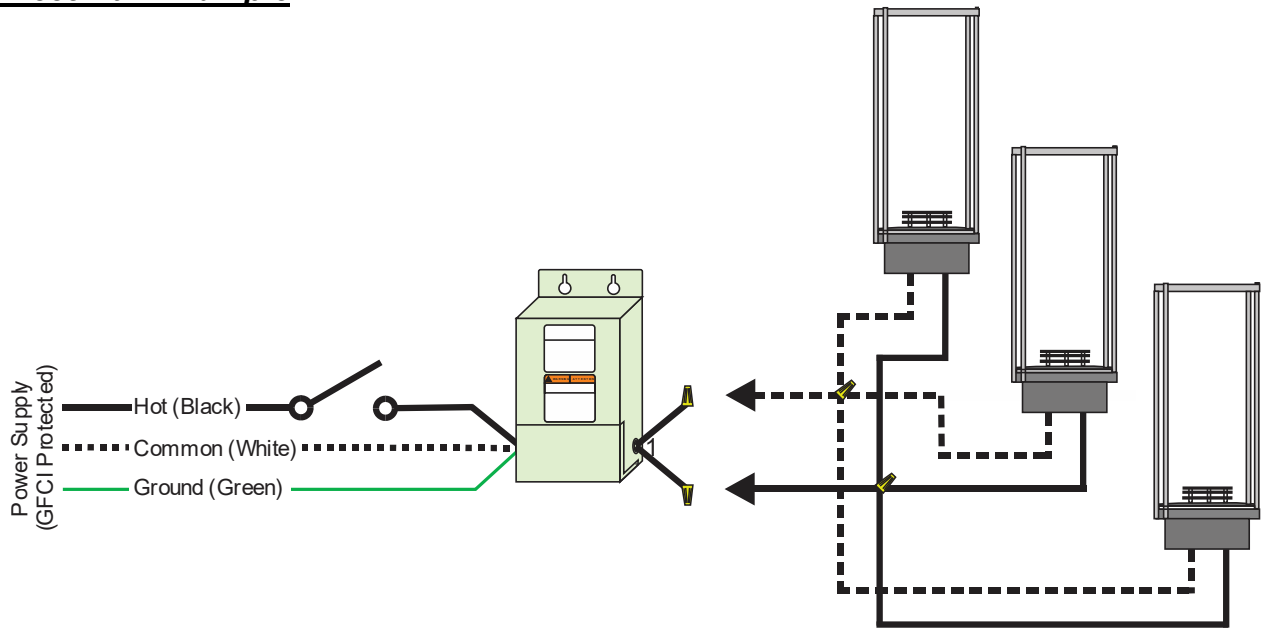


Polarity must be maintained in all multiple torch installations. Failure to maintain polarity will result in damage to the control module.

Daisy-Chain Example



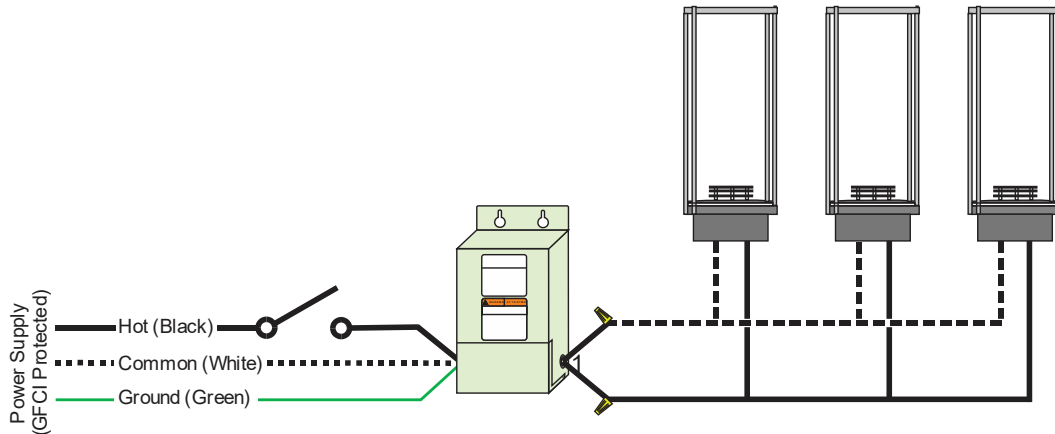
Direct-Run Example



Daisy-Chain Wire Length Chart

This type of wire configuration allows for torches to be wired in a series, reducing the amount of wire used. Use the charts below to determine the correct wire gauge and length. In the example below, the transformer has 3 torches on one branch.

How to Calculate Wire Length: Add together all of the wire length(s) used for the entire installation. If you have one 80' length and three 20' lengths, your wire length would be 140'.



24 Volt Lead

Wire		<u># Of Torches On Branch</u>				
		<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
14 G	min	0'	0'	0'	0'	0'
	max	113'	71'	49'	37'	28'
12 G	min	0'	0'	0'	0'	0'
	max	173'	108'	75'	55'	43'
10 G	min	0'	0'	0'	0'	0'
	max	266'	165'	115'	85'	65'

26 Volt Lead*

Wire		<u># Of Torches On Branch</u>				
		<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
14 G	min	27'	10'	1'	0'	0'
	max	184'	118'	85'	65'	51'
12 G	min	41'	16'	2'	0'	0'
	max	281'	179'	129'	99'	79'
10 G	min	63'	23'	3'	0'	0'
	max	432'	276'	198'	151'	121'

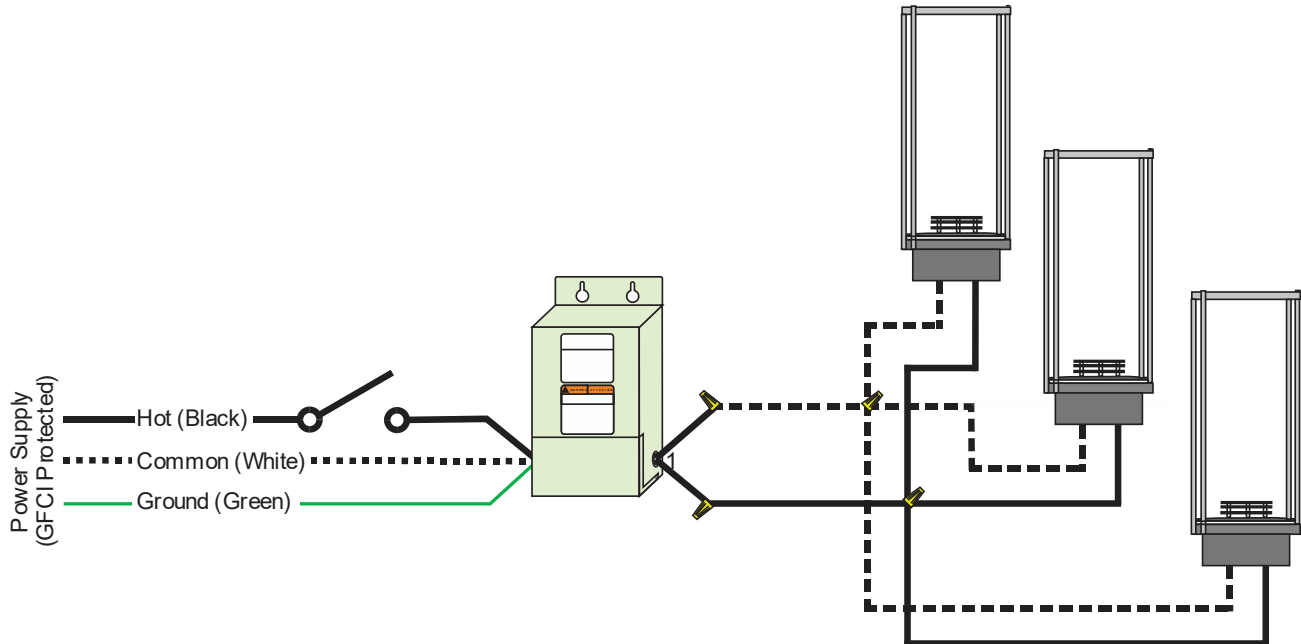
28 Volt Lead*

Wire		<u># Of Torches On Branch</u>				
		<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
14 G	min	104'	62'	40'	27'	19'
	max	242'	157'	113'	88'	71'
12 G	min	160'	94'	61'	41'	28'
	max	369'	238'	173'	134'	108'
10 G	min	245'	144'	93'	63'	43'
	max	566'	366'	266'	206'	165'

* Not available on some transformers.

Direct-Run Wire Length Chart

This type of wire configuration allows for long distances between the transformer and the torch (see illustration below). Use the charts below to determine the correct wire gauge and length.



24 Volt Lead

Wire		
14 G	min	0'
	max	242'
12 G	min	0'
	max	369'
10 G	min	0'
	max	566'

26 Volt Lead*

Wire		
14 G	min	79'
	max	384'
12 G	min	120'
	max	584'
10 G	min	184'
	max	897'

28 Volt Lead*

Wire		
14 G	min	234'
	max	499'
12 G	min	356'
	max	760'
10 G	min	548'
	max	1168'

* Not available on some transformers.

Wiring Examples:

Daisy-Chain Installations:

- When using 3 torches on one branch, 14 G wire, and 150' of wire, use the 28V Lead.
- When using 4 torches on one branch, 10 G wire, and 100' of wire, use the 24V Lead.

Direct Run Installations:

- When using a torch on a 200' run, 14 G wire, use the 24V Lead.
- When using 6 torches, each on a 200' run, 14 G wire, use the 24V Lead.

How to Determine Wire Gauge: When purchasing your wire, it should include wire gauge (the larger the number, the smaller the diameter wire). The wire will also be printed with a gauge number (e.g. AWG#14 = 14 gauge, 10AWG = 10 gauge, etc.). Do not use wires of dissimilar gauges (do not use 14 gauge & 10 gauge wire on the same transformer).

Post Mount and Control Cover Installation

A post mount is pre-attached to the torch for use with the optional post (3" round lamp post) or pillar mount. If using the wall mount, use the control cover included with the wall mount kit.

- (a) If using a post mount, slide the control cover over the post.

HINT: Use low-tack tape to protect the post from scratches.

NOTE: When installing the post, make sure the post is positioned with the mounting holes 45° offset from the front. The post mount has obround holes that allow 20° of rotation (10° in each direction).

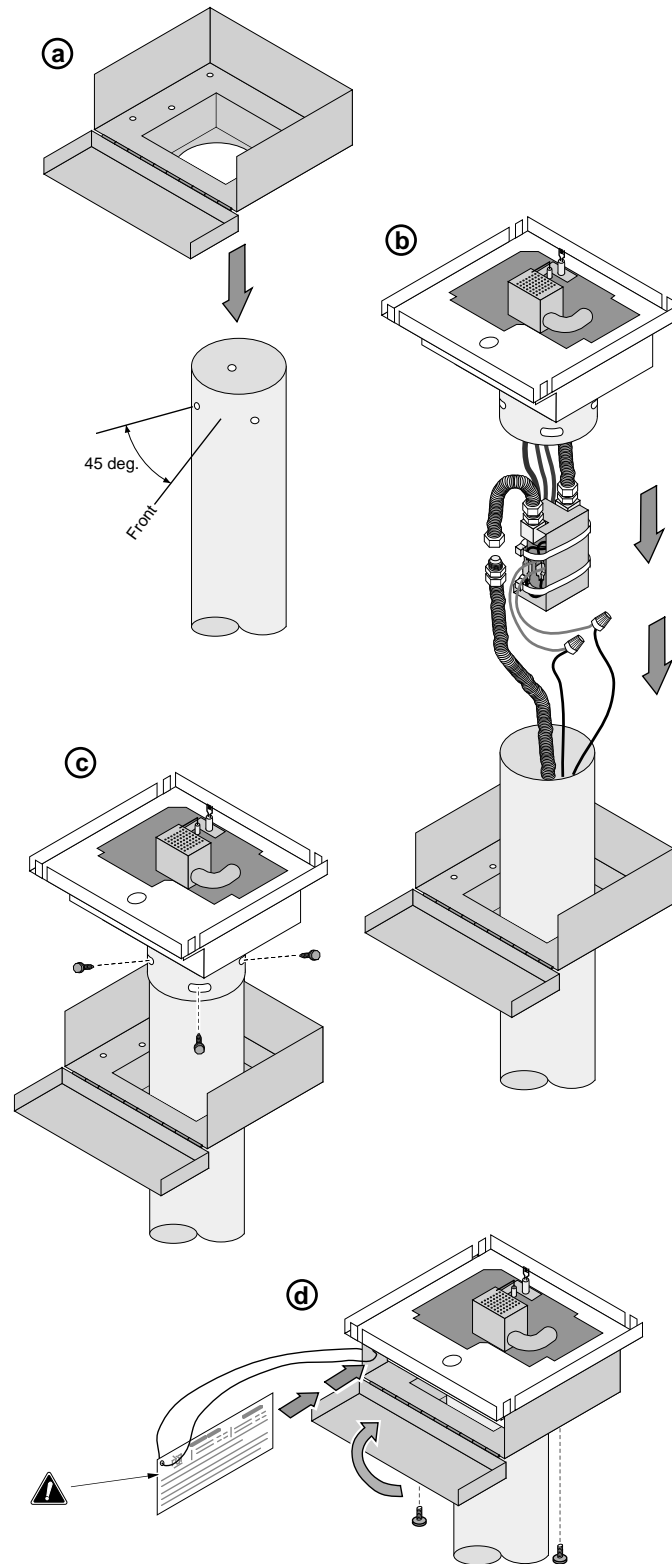
- (b) Attach the gas and electrical lines.

WARNING: Take care when handling the torch assembly to not damage the gas or electrical line.

- (c) Attach the torch to the post using the included ¼-20 screws.

- (d) Attach the control cover to the torch with the two thumbscrews.

! The safety label slides into place between the control cover and the torch body.



Torch Assembly

- (a) Place the burner top over the main assembly. Make sure the burner top is fully seated.

! Make sure the igniter element lines up with the hole on the burner top.

- (b) The support bars are shipped with two screws pre-installed. Remove the screws from the support bars and attach the four bars to the main assembly. Make sure the bars are properly aligned (square to the edge of the main assembly).

- (c) Attach the top plate.

NOTE: If using the optional rain cap, you may wish to install it now before the glass is installed (see page 13).

- (d) Slide one piece of glass into place until it contacts the support bar.

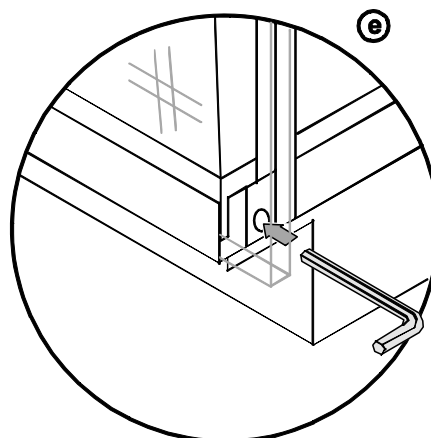
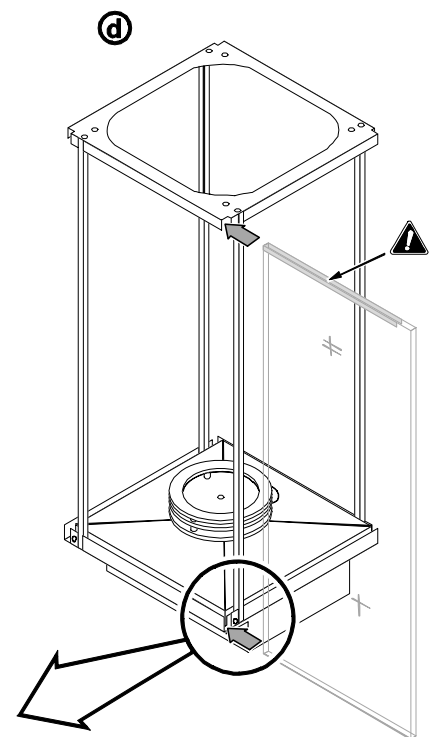
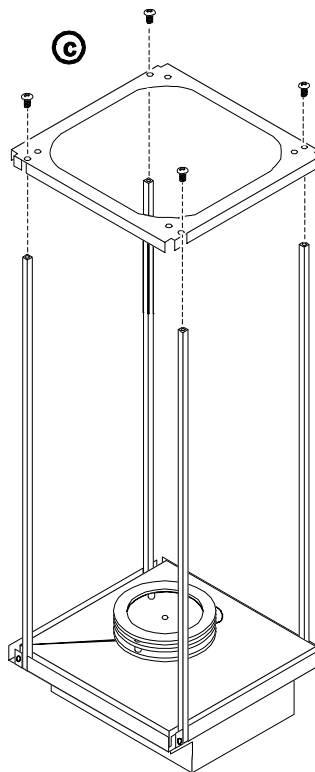
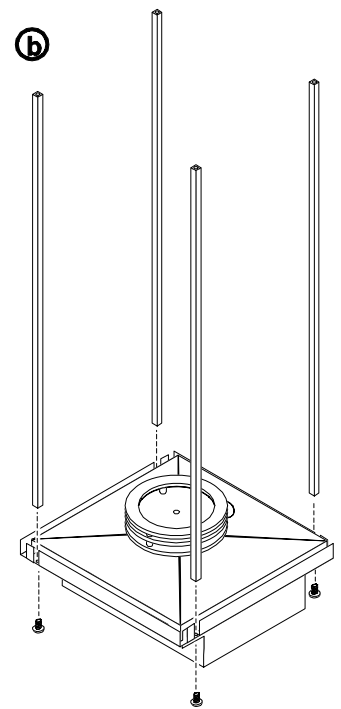
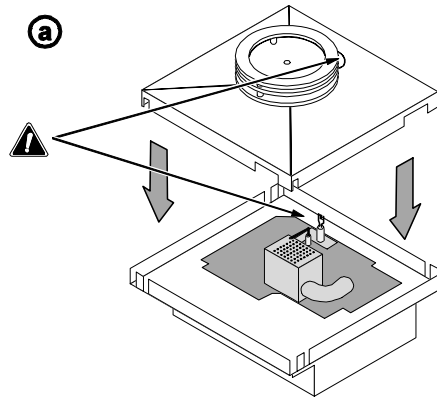
! Make sure the Teflon tape is at the top of the glass with the wrap-around edge facing inwards.

HINT: Make sure the glass is clean before installing and handle with soft gloves or other non-marking material (e.g. paper towel).

- (e) Use a 5/32" hex wrench to tighten the glass support bolt.

! Tighten the bolt only enough to hold the glass in place – **overtightening may break the glass.**

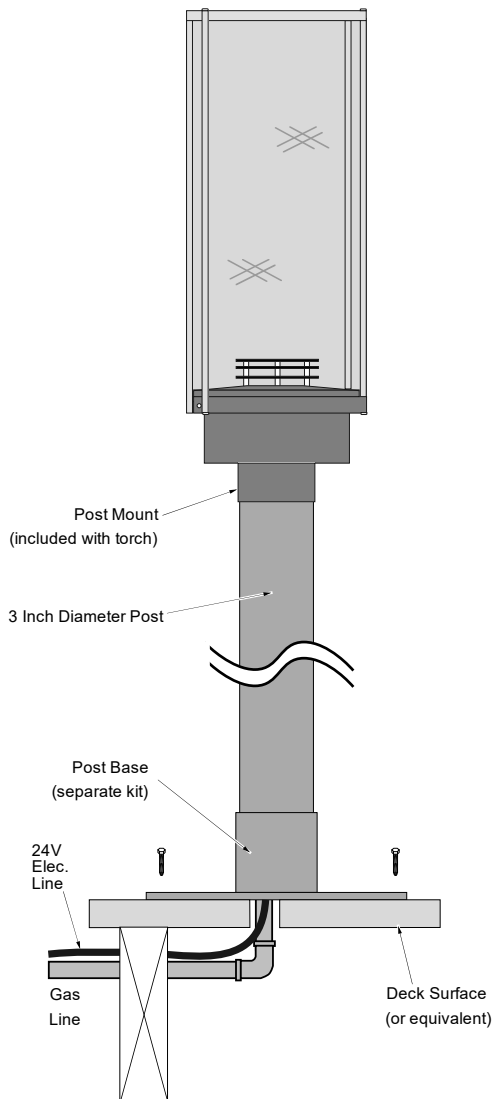
Repeat steps “d” and “e” for the other three pieces of glass.



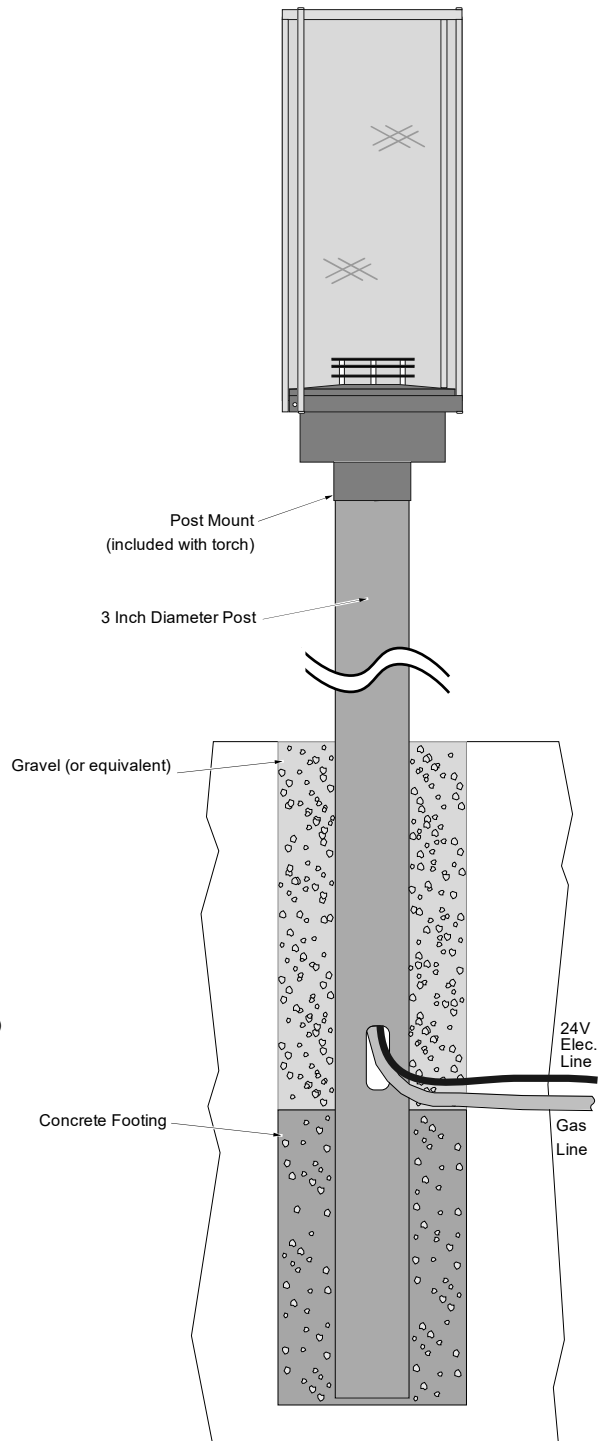
Post or Pier Mounted Torch (Optional)

The Tempest Torch may be mounted to a 3" diameter post using the included post mount. This post may be surface mounted on a deck or similar platform with the optional post base kit. If the post is placed in a remote location, it may be sunk into the ground using concrete or other suitable means. See the post or post base kit for assembly and installation instructions.

Deck Mount (post or pillar)

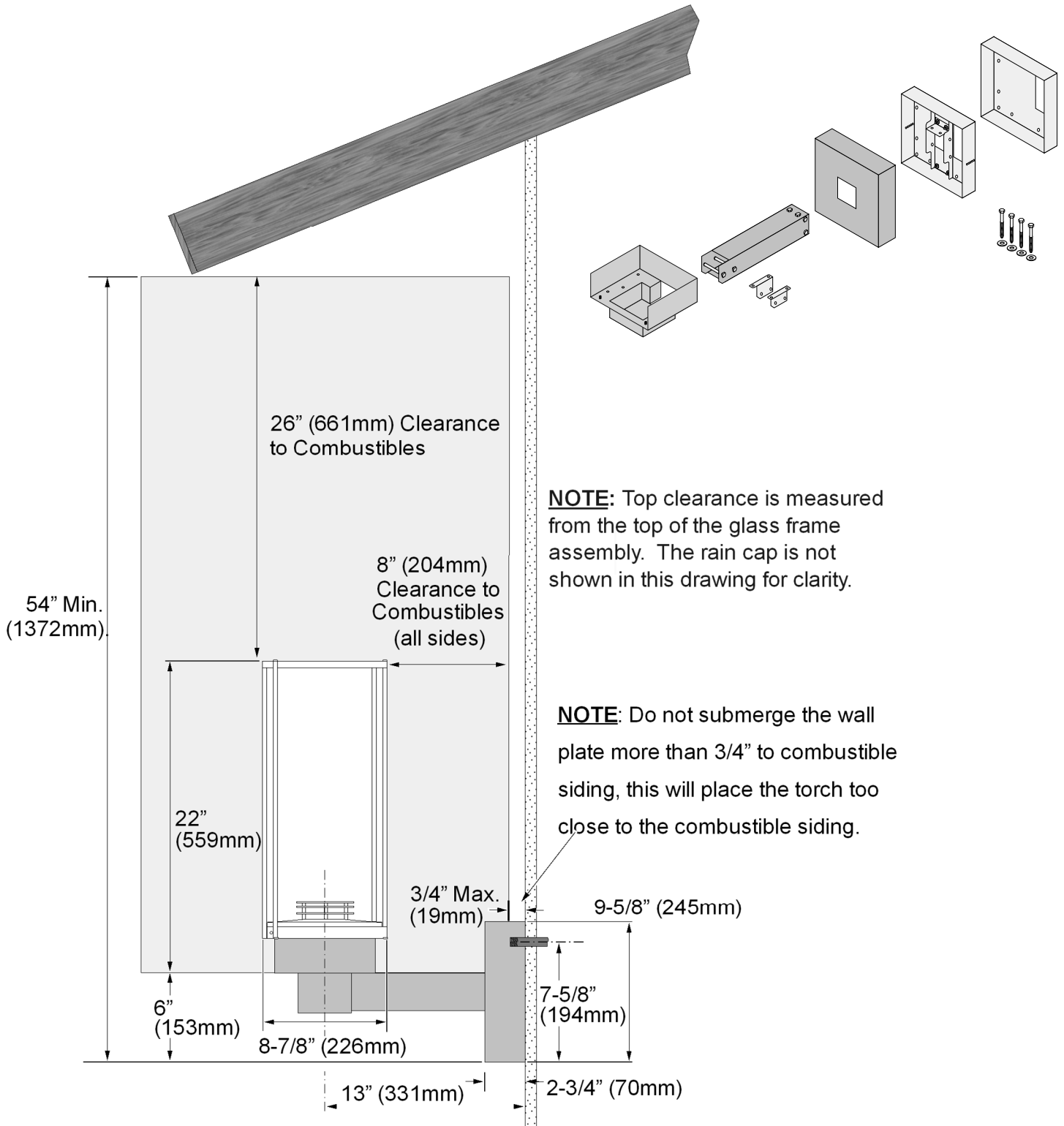


Free-Standing Post Mount



Wall Mounted Torch (Optional)

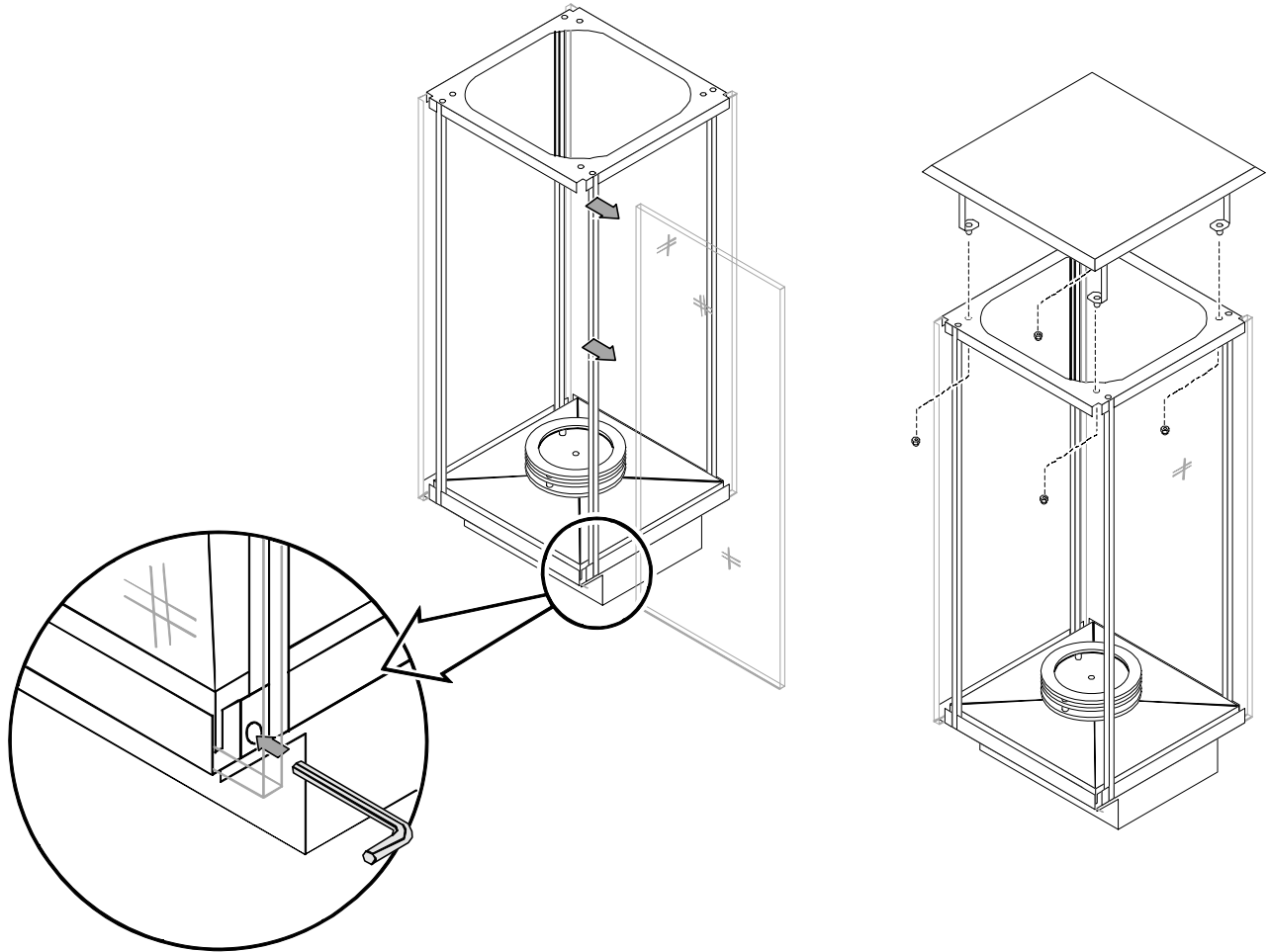
The Tempest Torch may be mounted to an external wall using the optional wall mount kit. Make sure that all clearances are maintained in your application. See the wall mount kit for assembly and installation instructions.



Optional Rain Cap

The optional rain cap may be installed to suit the installation location. If the torch is located in an area where rain or plant debris is prevalent, you may wish to permanently mount the rain cap to the torch with the included nuts.

Place the rain cap on top of the torch so the four studs insert through the top plate. With one or two pieces of glass removed, secure the rain cap using the included nuts (shipped pre-attached to the rain cap).



WARNING: **DO NOT** cover the torch with anything other than the included optional rain cap. Enclosing the torch head in a cover can create a hazardous condition.

Before You Begin

- ! Read this entire manual before you use your new torch, especially the section "Safety Precautions" on page 4. Failure to follow the instructions may result in property damage, bodily injury, or even death.
- ! Remove any cover from the torch prior to operation (the optional stainless-steel rain cap may be left in place.
- ! Inspect the torch to make sure it is free of debris or objects that may have fallen into the torch prior to operation.
- ! Inspect the torch, burner, and supply lines for any damage prior to operation. The burner must be replaced prior to the appliance being put into operation if it is evident that the burner is damaged. Use only Travis Industries replacement burners.
- ! It may be difficult to see the burner operating in direct sunlight.

Operating Instructions

WARNING: This gas torch is automated, it runs off of an electric ignition system and may not be lit with a lighter or matches.

How your torch works

Ignition

When you switch the torch on, electrical power is supplied to the control module, starting the ignition sequence. During ignition, the igniter will glow red (the ignitor is visible behind the burner rings on the torch). Gas is then turned on to the torch. The torch will ignite and the flame sensor will signal the control module that the torch is lit and the igniter will then turn off.

NOTE: In rare cases, the torch will fail to light. In these cases the torch will wait 30 seconds, then re-start the 35-second ignition sequence. The control module will try to restart the torch a total of 3 times. If it fails to light after three tries, the torch will then shut off. To re-start, turn the switch off, wait 3 seconds, then turn the switch on.

Torch in Operation

The torch, once lit, will stay lit until the power to the torch is turned off. If the gas flow is interrupted, or if wind blows out the flame, the torch will start the ignition sequence. If you cycle power to a Hot torch (turn off and back on) it may take up to 1 minute for the torch to start the ignition sequence.

Multiple Torches

Each torch operates independently. If you install multiple torches on one power switch and need to turn one of the torches off, shut the gas off to the specific torch. Shutting one torch off will not affect the others.

Safety Circuit

Each torch has a built in safety circuit that only allows gas to flow during the ignition sequence and when the torch is lit. This prevents gas buildup. The safety circuit relies upon a flame sensor to keep the gas valve open. If the flame goes out the control module will shut the gas off and then try to relight the torch. Your torch can not be operated manually, if a problem persists consult the troubleshooting guide (pg 28) and call a qualified service technician if needed.

Torch Operation Options

Your torch is operated from an electrical circuit similar to an exterior light. You can set up one or many torches on a single power supply. Torches may be set up and operated from any system that a house or exterior light could be operated from. Some examples are:

- Wall switch
- Timer
- Smart home control system
- Remote control

Maintaining Your Torch

! **Failure to inspect and maintain may lead to malfunctioning of the appliance and potentially dangerous situations.**

- Inspect the torch prior to each use.
- Keep the torch clean, and remove any debris that collects in or on the Torch. Inspect for spiders and insects, they may clog burner ports or air inlets and need to be removed before use.
- Have the appliance inspected by a qualified service technician annually.
- The stainless steel burner top will discolor – this is normal.

Your Tempest torch is designed to be cleaned and maintained easily. The most common maintenance that your torch will require is glass cleaning. This is done by loosening the glass retaining screws. Each piece of glass will have its own retainer. Hold the glass by the exposed edge and slide horizontally out of its tracks, the glass should slide easily if its retainer screw is loose.

Clean with glass cleaner or warm soapy water. The glass on your Tempest is tempered and designed for safety. If it breaks it will shatter into small square pieces similar to a car windshield. It is special glass and if you break one or need to replace a piece, use only 3/16" thick tempered glass supplied by your Tempest Torch dealer.

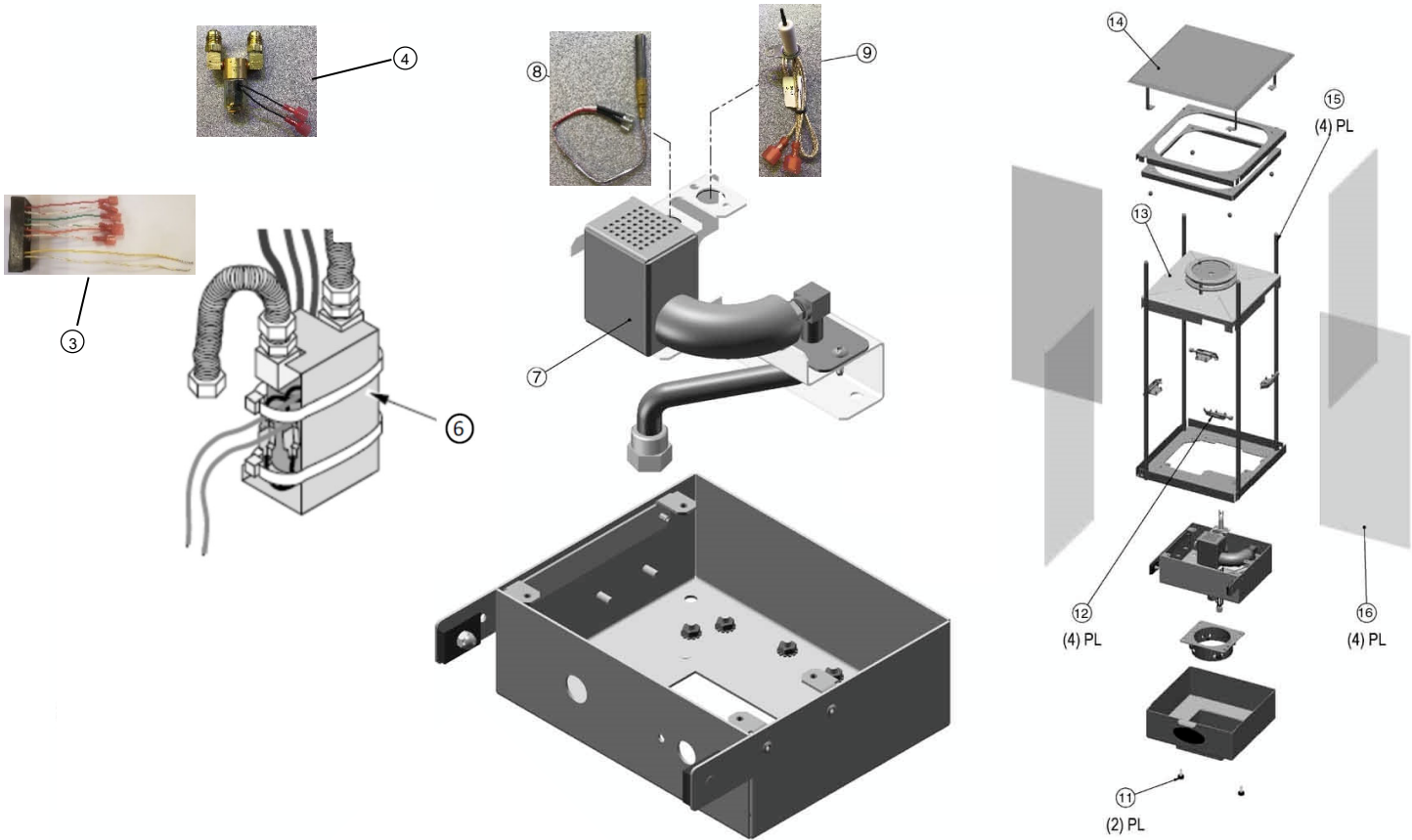
To inspect for or clean debris out of the inside of your torch remove one piece of glass. This will provide access to the inside of your torch. Once your glass piece is removed the pyramid shaped piece with the rings on the top by lifting it straight up, once you are clear of the burner elements turn it sideways and remove it through the glass opening. This will provide you with a clear view of all the torch components. Visually check for and remove all foreign objects, vegetation, bugs, and debris. When reassembling make sure you orient the Pyramid plate correctly, the burner elements that stick up through this plate are delicate. Once oriented, slide the plate straight down onto the burner assembly making sure the edges are seated all the way down.

Winterizing the Torch.

In areas where the torch may not be used in winter, or for an extended period, you may wish to shut off gas to the torch. This will ensure the torch is not accidentally turned on or started with debris or snow inside the torch.

WARNING: Do not cover the torch. A cover could combust if it is in place when the torch is turned on, creating a severe safety hazard.

Replacement Parts



Part #	Description	Diagram #
250-01800	SCW, PHMS M4 x 20mm PK OF 6#	2
250-04553	CONTROL MODULE	3
250-04554	GAS CONTROL VALVE	4
250-04552	CONTROL MODULE ASSEMBLY, TEMPEST	6
250-04610	BRN SYSTEM ASSY, TMP(EI) LP	7
250-04609	BRN SYSTEM ASSY, TMP(EI) NG	7
250-04550	THERMOPILE, TEMPEST	8
250-04549	IGNITOR, TEMPEST	9
250-01799	THUMB SCREW, TEMPEST TORCH	11
250-01445	GLASS RETAINER (TEMPEST) 1 EACH	12
250-01790	FLAME SPREADER w/PYRMD- NG	13
250-01791	FLAME SPREADER w/PYRMD - LP	13
250-01256	RAIN CAP ASS'Y, TEMPEST	14
250-01257	VERTICLE ROD w/SCRWS, TEMPEST	15
250-01251	GLASS - TEMPEST	16
250-04611	STOVE PACK, TEMPEST ELCTRC IGN	
250-01789	BALL VALVE, (SHUT-OFF) TEMPEST	
250-04612	MANUAL	

Replacement parts can be obtained from your Tempest Torch retailer (see www.tempesttorch.com).

Troubleshooting Table

Problem:	Possible Cause:	Don't Call for Service Until You:
Torch Does Not Light and igniter does not Glow Red	<ul style="list-style-type: none"> • Electrical Power Off • Igniter burned out 	<p>Verify power is on and check circuit breaker or GFCI.</p> <p>Replace Igniter</p>
Torch Does Not Light and Igniter Glows Red	<ul style="list-style-type: none"> • Gas is Off • Not enough electrical current to the torch 	<p>Turn Gas On (check shut-off valve)</p> <p>Voltage must be checked with power draw (torch in startup)</p>
Torch Lights During Ignition Sequence then Goes Out During Normal Operation	<ul style="list-style-type: none"> • Dirty Air Channel or Burner • Polarity between torches not correct • Thermopile worn out 	<p>Remove glass and clean soot from pyramid plate, burner, and any air channels. If problem persists, contact dealer for service.</p> <p>Fix polarity</p> <p>Replace thermopile</p>
Flames are too short (under 6")	<ul style="list-style-type: none"> • The gas supply pressure to the appliance is too low. 	<p>Depleted LP cylinder.</p> <p>Gas supply lines or gas regulators do not have enough capacity. This may be due to other appliances in the house using up the available capacity, e.g. pool heaters, furnaces, hot water tanks, etc.</p>
Flames are not Spiral	<ul style="list-style-type: none"> • Torch was just turned on • Windy Condition 	<p>It takes 5 to 10 minutes for the torch to start up and the flame to form a spiral.</p> <p>Wind will influence the flame shape</p>
Glass is Sooting	<ul style="list-style-type: none"> • Burner or burner orifice may be dirty or blocked • Windy Condition 	<p>Contact your dealer for details on removing any debris (spider webs, etc.) from the burner and orifice area.</p> <p>Wind will influence the flame quality and, if persistent, may lead to sooting on the glass.</p>
Torch makes Clicking Sounds	<ul style="list-style-type: none"> • Glass is moving inside the glass frame and the stainless steel parts are expanding and contracting with heat 	<p>THIS IS NORMAL</p>

Register your TRAVIS INDUSTRIES, INC. Limited 1 Year Warranty online at traviswarranty.com. TRAVIS INDUSTRIES, INC. warrants this gas appliance (appliance is defined as the equipment manufactured by Travis Industries, Inc.) to be defect-free in material and workmanship to the original purchaser from the date of purchase as follows:

Check with your dealer in advance for any costs to you when arranging a warranty call. Mileage or service charges are not covered by this warranty. This charge can vary from store to store.

90 Day Coverage: PARTS & LABOR

Burner Assembly:

Burner, Venturi, Flame Spreader, Orifice, Gas valve

Glass:

Glass (breakage from thermal shock only)

Accessories:

Wall mount bracket, in-ground post, and pillar post

One-Way Freight Allowance:

One-way freight allowance on pre-authorized repair done at factory is covered.

Electrical Components:

Flame Sensor, Transformer, Wire Harness, Control Module, Igniter

Exclusions: *Paint and Finish*

Year 1 Coverage: PARTS & LABOR

Burner Assembly:

Burner, Venturi, Flame Spreader, Orifice, Gas valve

Glass:

Glass (breakage from thermal shock only)

Accessories:

Wall mount bracket, in-ground post, and pillar post

One-Way Freight Allowance:

One-way freight allowance on pre-authorized repair done at factory is covered.

Exclusions: *Paint and Finish, Electrical Components*

CONDITIONS & EXCLUSIONS

1. This new gas appliance must be installed by a qualified gas appliance technician. It must be installed, operated, and maintained at all times in accordance with the instructions in the Owner's Manual. Any alteration, willful abuse, accident, neglect, alteration, misapplication, or misuse of the product shall nullify this warranty.
2. This warranty is nontransferable and is made to the ORIGINAL purchaser, provided that the purchase was made through an authorized TRAVIS dealer.
3. Discoloration and some minor expansion, contraction, or movement of certain parts and resulting noise, is normal and not a defect and, therefore, not covered under warranty. The installer must ensure the appliance is burning as per the rating tag at the time of installation. Over-firing (operation above the listed BTU rate) of this appliance can cause serious damage and will nullify this warranty.
4. This warranty does not cover damage to the finish, such as scratches, dents, discoloration, rust, or other weather damage, after purchase.
5. Travis Industries will not be responsible for inadequate performance caused by environmental conditions such as nearby trees, buildings, rooftops, wind, hills or mountains, or other influences from mechanical systems such as fans, etc.
6. This Warranty is void if:
 - a. The unit has been operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals.
 - b. The unit is subject to submersion in water.
7. Exclusions to this 1 Year Warranty include: injury, loss of use, damage, failure to function due to accident, negligence, misuse, improper installation, alteration or adjustment of the manufacturer's settings of components, lack of proper and regular maintenance, damage incurred while the appliance is in transit, alteration, or act of God.
8. This 1 Year warranty excludes damage caused by normal wear and tear, such as discoloration. Also excluded is damage to the unit caused by abuse, improper installation, modification of the unit, drilling of the orifices, or the use of fuel other than that for which the unit is configured. Units are shipped for either natural gas or propane. Confirm fuel configuration with your installer.
9. Damage to stainless steel surfaces caused by fingerprints, scratches, melted items, or other external sources left on the stainless steel from the use of cleaners is not covered in this warranty.
10. TRAVIS INDUSTRIES, INC. is free of liability for any damages caused by the appliance, as well as inconvenience expenses and materials. Incidental or consequential damages are not covered by this warranty. In some states, the exclusion of incidental or consequential damage may not apply.
11. This warranty does not cover any loss or damage incurred by the use or removal of any component or apparatus to or from the gas appliance without the express written permission of TRAVIS INDUSTRIES, INC. and bearing a TRAVIS INDUSTRIES, INC. label of approval.
12. Any statement or representation of TRAVIS products and their performance contained in TRAVIS advertising, packaging literature, or printed material is not part of this 1-year warranty.
13. This warranty is automatically voided if the appliance's serial number has been removed or altered in any way.
14. No dealer, distributor, or similar person has the authority to represent or warrant TRAVIS products beyond the terms contained within this warranty. TRAVIS INDUSTRIES, INC. assumes no liability for such warranties or representations.
15. Travis Industries will not cover the cost of the removal or re-installation.
16. If for any reason any section of this warranty is declared invalid, the balance of the warranty remains in effect and all other clauses shall remain in effect.
17. THIS 1 YEAR WARRANTY IS THE ONLY WARRANTY SUPPLIED BY TRAVIS INDUSTRIES, INC., THE MANUFACTURER OF THE APPLIANCE. ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, ARE HEREBY EXPRESSLY DISCLAIMED AND THE PURCHASER'S RECOURSE IS EXPRESSLY LIMITED TO THE WARRANTIES SET FORTH HEREIN.

IF WARRANTY SERVICE IS NEEDED:

1. If you discover a problem that you believe is covered by this warranty, you MUST REPORT it to your TRAVIS dealer WITHIN 30 DAYS, giving them proof of purchase, the purchase date, and the model name and serial number.
2. Travis Industries has the option of either repairing or replacing the defective component.
3. If your dealer is unable to repair your appliance's defect, he may process a warranty claim through TRAVIS INDUSTRIES, INC., including the name of the dealership where you purchased the appliance, a copy of your receipt showing the date of the appliance's purchase, and the serial number on your appliance. At that time, you may be asked to ship your appliance, freight charges prepaid, to TRAVIS INDUSTRIES, INC. TRAVIS INDUSTRIES, INC., at its option, will repair or replace, free of charge, your TRAVIS appliance if it is found to be defective in material or workmanship within the time frame stated within this 1-year warranty. TRAVIS INDUSTRIES, INC. will return your appliance, freight charges prepaid by TRAVIS INDUSTRIES, INC., to your regional distributor, or dealership.

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