

Outdoor Kit Installation Instructions for Elite XL Boiler and VWH Models

Part # 7550P-987 (400 - 1000 Models); Part # 7550P-982 (1500 - 2000 Models)

STOP! Follow these instructions or warranty will be void!

WARNING

These instructions include information specific to outdoor Elite XL model installations. These instructions are meant to replace the venting instructions included in the Elite XL installation manual. The Elite XL installation manual includes instructions that will be necessary for the proper installation and operation of all other functions, such as water and gas piping, wiring, control programming, etc. Failure to follow these instructions could result in substantial property damage, severe personal injury, or death.

This installation shall be done by a qualified service agency in accordance with these instructions, all applicable codes, and requirements of the authority having jurisdiction. Failure to follow these instructions could result in substantial property damage, severe personal injury, or death.

For the Installer

The Elite XL must be installed by qualified and licensed personnel. The installer should be guided by the instructions furnished with the Elite XL, and by local codes and utility company requirements.

Installation Must Comply With

1. National Electrical Code
2. National Fuel Gas Code
3. In Canada, CSA C22.1 Canadian Electrical Code Part 1, and CGA No. B149 (latest version)
4. Local, state, provincial, and national codes, laws, regulations, and ordinances.
5. In the State of California: The Elite XL must be braced, anchored, or strapped to avoid moving during an earthquake. Contact local utilities for code requirements in your area or call 1-866-000-0000 and request instructions.

Foreword

This manual is intended to be used in conjunction with other literature provided with the Elite XL. This includes all related control information. It is important that this manual, all other documents included in this system, and additional publications including the *National Fuel Gas Code - ANSI Z223.1* (latest versions), be reviewed in their entirety before beginning any work.

Installation should be made in accordance with the regulations of the Authority Having Jurisdiction, local code authorities, and utility companies which pertain to this type of water heating equipment. Authority Having Jurisdiction (AHJ) – The AHJ may be a federal, state, local government, or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor department or health department, building official or electrical inspector, or others having statutory authority. In some circumstances, the property owner or his/her agent assumes the role, and at government installations, the commanding officer or departmental official may be the AHJ.

NOTE: HTP reserves the right to modify product technical specifications and components without prior notice.

Tools Required (Not Included):

Phillips and Flat Head Screwdrivers
5/16" Socket Driver
Power Drill



Figure 1 - Example Outdoor Kit Installation

Included with Kit 7550P-987 (ELX-400 - 1000 Models):

Description	Part Number	Quantity
Outdoor Bezel w/ LED Adapter & Harness Assy	7550P-323	1
Internal Display Assy Components	7550P-324	1
Outdoor Interface Board w/ Harness & Hardware	7550P-605	1
Installation Manual	lp-746	1

Included with Kit 7550P-982 (ELX-1500 - 2000 Models):

Description	Part Number	Quantity
LED Adapter w/ Harness Assy	7550P-321	1
Internal Display Assy Components	7550P-324	1
Outdoor Interface Board w/ Harness & Hardware	7550P-605	1
Installation Manual	lp-746	1

Table 1 - Parts Included with Kit

NOTICE

UNCRATING THE OUTDOOR ENCLOSURE - Any claims for damage or shortage in shipment must be filed immediately against the transportation company by the consignee.

COLD WEATHER HANDLING - If the kit has been stored in a very cold location (BELOW 0°F) before installation, handle with care until the components come to room temperature. Failure to do so could result in damage to components.

NOTICE

The manufacturer reserves the right to make changes or updates without notice and will not be held liable for errors in literature.

NOTE TO CONSUMER: PLEASE KEEP ALL INSTRUCTIONS FOR FUTURE REFERENCE.

Location

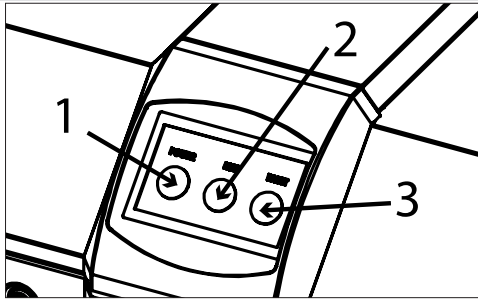


Figure 2 - Elite XL Outdoor Assembly Detail

#	Description
1	Power Indicator
2	Run Indicator
3	Fault Indicator

Table 2 - Outdoor Assembly Indicator Detail

Choosing an Outdoor Installation Location
Outdoor Installation

The Elite XL is approved for outdoor installations and is not intended for use as a pool heater. Clearance to combustible materials: 0" top, bottom, sides, and back. See Table 3 for recommended service clearances. Install the Elite XL in a location where temperature and pressure relief valve discharge, drainage from condensate line, or a leak will not adversely affect the surrounding area or pose a hazard in freezing conditions.

WARNING

Carefully consider installation when determining Elite XL location. Please read the entire installation manual and these instructions before attempting installation. Failure to properly take factors such as piping, condensate removal, venting, and wiring into account before installation could result in wasted time, money, and possible property damage, personal injury, or death.

The outdoor kit is meant for use in outdoor installations ONLY. DO NOT install the Elite XL indoors after installing the outdoor kit. Installing an Elite XL intended for outdoor installations indoors will result in improper Elite XL operation and property damage, and could result in serious personal injury or death.

- Outdoor Installation Area Operating Conditions
 - Prevent the air from becoming contaminated by the products, places, and conditions listed in the Elite XL installation manual.

WARNING

Elite XL outdoor models are intended for warm weather applications. DO NOT install the Elite XL outdoors in areas prone to freezing (below 32°F / 0°C). Incorrect ambient conditions can lead to damage to the heating system and put safe operation at risk. Ensure that the installation location adheres to the information included in this manual. Failure to do so could result in property damage, serious personal injury, or death. Failure of Elite XL or components due to incorrect operating conditions IS NOT covered by product warranty.

WARNING

The Elite XL must be installed as described in these instructions: Upright and level, with the supplied outdoor enclosure positioned as described in these instructions. DO NOT attempt to install the Elite XL in any other orientation. Failure to follow these instructions will result in improper Elite XL operation and property damage, and could result in serious personal injury or death.

Figure 3 - DO NOT INSTALL the Elite XL INDOORS

- Check for nearby connections to:
 - System water piping
 - Venting connections
 - Gas supply piping
 - Electrical power
 - Condensate drain

NOTICE

To conserve water and energy insulate all water piping, especially the hot and recirculation water lines.

CAUTION

Locate the Elite XL where any leakage from the relief valve, related piping, tank, or connections will not result in damage to surrounding areas, lower floors of the building, or pool on the ground and freeze. The Elite XL should be located near a drain or piped to a drain. Leakage damages ARE NOT covered by warranty.

- Check area around the Elite XL. Remove any combustible materials, gasoline, and other flammable liquids.

WARNING

Failure to keep the Elite XL area clear and free of combustible materials, liquids, and vapors can result in substantial property damage, severe personal injury, or death.

- If the Elite XL is to replace an existing appliance, check for and correct any existing system problems, such as:
 - System leaks
 - Location that could cause the system and the Elite XL to freeze and leak
 - Incorrectly sized expansion tank
- Clean and flush system when reinstalling an appliance.

CAUTION

Do not introduce toxic chemicals, such as antifreeze or heating system treatments, into an Elite XL VWH or any piping meant for potable purposes.

NOTE: When installing in a minimum clearance location, it may not be possible to read or view some product labeling. It is recommended to make note of the Elite XL model and serial number.

Leveling

CAUTION

The Elite XL must be installed level in order for the condensate to properly flow out of the collection system.

Clearances for Service Access

See the table below for recommended service clearances. Clearance to combustible materials: 0" top, bottom, sides, and back.

	Recommended Service and Proper Operation Clearances
Top	6 in. (152.4 mm)
Back	24 in. (609.6 mm)
Front	24 in. (609.6 mm) or more (A combustible door or removable panel is acceptable front clearance.)
Right Side	24 in. (609.6 mm)
Left Side	18 in. (457.2 mm)

Table 3 - Installation and Service Clearances

NOTE: The Elite XL outdoor kit is approved for zero clearance to combustible construction.

NOTE: If the Elite XL is installed in a narrow space, ensure that there is sufficient space for service. A combustible door or removable panel is acceptable front clearance.

NOTE: In multiple Elite XL installations, ensure the recommended service clearances between units to ease servicing in the future.

⚠ WARNING

Moisture will be produced by the exhaust vent. Take precautions when determining Elite XL location. Moisture may fall from the vent termination to the ground and turn to ice in freezing conditions. Moisture or ice can produce a hazardous condition.

Failure to follow these instructions could result in substantial property damage, serious personal injury, or death.

Prevent Combustion Air Contamination

Do not install the outdoor Elite XL in locations that can allow contamination of fresh intake air.

NOTE: See the table below to prevent combustion air contamination.

⚠ WARNING

Ensure that the intake air will not contain any of the contaminants in Table 2. Contaminated air will damage the Elite XL, resulting in possible substantial property damage, severe personal injury, or death. For example, do not install near a swimming pool or laundry facilities. These areas always contain contaminants.

This Elite XL has a condensate disposal system that may freeze if exposed to sustained temperatures below 32°F. Precautions should be taken to protect the condensate trap and drain lines from freezing conditions. Failure to take precautions could result in property damage, serious personal injury, or death.

Products to Avoid	Areas Likely to Have Contaminants
Spray cans containing fluorocarbons	Dry cleaning / laundry areas and establishments
Permanent wave solutions	Swimming pools
Chlorinated waxes / cleaners	Metal fabrication plants
Chlorine-based swimming pool chemicals	Beauty shops
Calcium chloride used for thawing	Refrigeration repair shops
Sodium chloride used for water softening	Photo processing plants
Refrigerant leaks	Auto body shops
Paint or varnish removers	Plastic manufacturing plants
Hydrochloric or Muriatic acid	Furniture refinishing areas and establishments
Cements and glues	New building construction
Antistatic fabric softeners used in clothes dryers	Remodeling areas
Chlorine-type bleaches, laundry detergents, and cleaning solvents	Garages and workshops
Adhesives used to fasten building products	

Table 4 - Products and Areas Likely to Have Contaminants

NOTE: DAMAGE TO THE Elite XL CAUSED BY EXPOSURE TO CORROSIVE VAPORS IS NOT COVERED BY WARRANTY. (Refer to the limited warranty for complete terms and conditions.)

Freeze Protection

⚠ WARNING

Elite XL outdoor models are intended for warm weather applications. DO NOT install the Elite XL outdoors in areas prone to freezing (below 32°F / 0°C). Incorrect ambient conditions can lead to damage to the heating system and put safe operation at risk. Ensure that the installation location adheres to the information included in this manual. Failure to do so could result in property damage, serious personal injury, or death. Failure of Elite XL or components due to incorrect operating conditions IS NOT covered by product warranty.

CAUTION

Freeze protection is not effective if the power fails. Additional freeze protection must be used if the Elite XL is a boiler and glycol heat transfer fluid is used.

In addition, the Elite XL's freeze prevention devices will not prevent the external plumbing from freezing. Protect external plumbing with insulation, heat tape, heaters, solenoids, or pipe covers. Failure to follow these instructions could result in Elite XL failure and substantial property damage.

NOTE: Damages resulting from incorrect installation or from use of products not approved by the manufacturer ARE NOT covered by warranty.

Venting

DANGER

The Elite XL must be vented as detailed in this section. Ensure exhaust vent and intake piping complies with these instructions regarding vent system. Inspect finished exhaust vent and intake piping thoroughly to ensure all joints are well secured, airtight, and comply with all applicable code requirements, as well as the instructions provided in this manual. Failure to properly install the vent system will result in severe personal injury or death.

General

DANGER

This Elite XL is certified as a "Category IV" appliance and requires a special venting system. The vent system will operate with a positive pressure in the pipe. Exhaust gases must be piped directly outdoors using the vent materials and rules outlined in these instructions. Do not connect vent connectors serving appliances vented by natural draft into any portion of mechanical draft systems operating under positive pressure. Follow the venting instructions carefully. Failure to do so will result in substantial property damage, severe personal injury, or death.

1. Installation should be made in accordance with the regulations of the Authority Having Jurisdiction, local code authorities, and utility companies which pertain to this type of water heating equipment.
2. Install the venting system in accordance with these instructions and with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, CAN/CGA B149, and / or applicable provisions of local building codes.
3. This Elite XL must be vented with materials, components, and systems listed and approved for Category IV appliances.

DANGER

Exhaust and intake are to be piped separately. This Elite XL cannot share a common exhaust or intake with multiple appliances. Failure to follow these instructions will result in substantial property damage, severe personal injury, or death.

WARNING

Improper seating of vent pipe gaskets can cause eventual gasket failure and exhaust gas leakage. Ensure the exhaust vent pipe is properly beveled and seated before insertion into the flue adapter. Failure to do so could result in property damage, severe personal injury, or death.

Exhaust vent adaptors are not designed as load-bearing devices, and must not be used to support exhaust vent piping. All vent pipes must be properly connected, supported, and the exhaust vent must be pitched a minimum of 1/4" per foot back to the Elite XL to allow drainage of condensate. Failure to properly support vent piping and follow the information in this statement could result in product damage, severe personal injury, or death.

It is required to insert exhaust and intake screens into the vent terminations to prevent blockage caused by debris or birds. Failure to keep terminations clear could result in property damage, severe personal injury, or death.

When installing the Elite XL outdoors, ensure the installation location is not near the exhaust or intake terminations of other gas-fired products – water heaters, furnaces, etc. Failure to do so could result in the recirculation of exhaust fumes. Exhaust recirculation could result in a hazardous condition and cause substantial property damage, severe personal injury, or death.

WARNING

Breathing Hazard - Carbon Monoxide Gas



- Do not operate heater if flood damaged.
- Install vent system in accordance with local codes and manufacturers installation instructions.
- Do not obstruct heater air intake or exhaust. Support all vent piping per manufacturers installation instructions.
- Do not place chemical vapor emitting products near unit.
- According to NFPA 720, carbon monoxide detectors should be installed outside each sleeping area.
- Never operate the heater unless it is vented to the outdoors.
- Analyze the entire vent system to make sure that condensate will not become trapped in a section of vent pipe and therefore reduce the open cross sectional area of the vent.

**Breathing carbon monoxide can cause brain damage or death.
Always read and understand instruction manual.**

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DANGER

Due to the extreme flammability of most glues, cements, solvents, and primers used to join plastic exhaust vent and intake pipes, explosive solvent vapors must be cleared from all vent piping before start-up. Avoid using excess cement or primer, as this may pool in the vent pipes. Vent assemblies should be allowed to cure before powering a connected appliance. Failure to follow these instructions will result in substantial property damage, severe personal injury, or death. It is the installers' responsibility to understand the hazards associated with explosive solvents and take the necessary precautions to avoid these risks.

Approved Materials for Exhaust Vent and Intake Pipe


Item	Material	Standards for Installation In:	
		United States	Canada
Pipe and Fittings Approved for Intake ONLY	ABS*	ANSI/ASTM D2661	ANSI/ASTM D2661
Pipe Approved for Intake OR Exhaust Vent	PVC Schedule 40/80	UL-1738 or ANSI/ASTM D1785	UL-1738 or ULC-S636
	PVC-DWV Schedule 40/80	UL-1738 or ANSI/ASTM D2665	
	CPVC Schedule 40/80	UL-1738 or ANSI/ASTM F441	
	Stainless Steel AL29-4C	Certified for Category IV and Direct Vent Appliance Venting	
Pipe Fittings	PVC Schedule 40	UL-1738, ANSI/ASTM D2466 or D2665	UL-1738 or ULC-S636
	PVC Schedule 80	UL-1738, ANSI/ASTM D2467 or D2665	
	CPVC Schedule 40	UL-1738 or ANSI/ASTM F438	
	CPVC Schedule 80	UL-1738 or ANSI/ASTM F439	
Pipe Cement	ABS*	ANSI/ASTM D2235	IPEX System 636 Cements and Primers
	PVC	ANSI/ASTM D2564	
	CPVC	ANSI/ASTM F493	
Pipe Primer	PVC / CPVC	ASTM F656	

DANGER

- The exhaust and intake components installed with this appliance must be used for near appliance piping BEFORE transitioning to the approved materials listed above. DO NOT REMOVE these installed components. Doing so WILL VOID appliance warranty.
- PVC / CPVC pipe and fittings of the same diameter are considered interchangeable.
- The use of cellular core PVC (ASTM F891), cellular core CPVC, or Radel[®] (polyphenolsulfone) in exhaust venting systems is prohibited.
- Covering non-metallic vent pipe and fittings with thermal insulation is prohibited.
- When installing AL29-4C vent piping, install a PVC-to-stainless adapter at the appliance vent connection, and at the termination when using a PVC termination kit. DO NOT mix AL29-4C piping from different manufacturers unless using adapters specifically designed for the purpose by the manufacturer.
- *ABS may be used for air intake applications ONLY.
- Contact the venting material manufacturer if there is any question about the applicability of the proposed venting material.

Failure to follow these directions will result in substantial property damage, severe personal injury, or death.

Table 5 - Approved Materials for Exhaust Vent and Intake Pipe

 WARNING
DO NOT mix components from different venting systems without proper adapters. The vent system could fail, causing leakage of flue products into the living space. Use only the approved pipe and fitting materials, and primer and cement specifically designed for the material used, as listed in the above table. Failure to do so could result in property damage, serious injury, or death.
CAUTION
High heat sources may damage plastic components of the Elite XL as well as plastic vent pipe materials. Such damages ARE NOT covered by warranty. It is recommended to keep a minimum clearance of 8" from high heat sources. Observe heat source manufacturer instructions, as well as local, state, provincial, and national codes, laws, regulations, and ordinances when installing this Elite XL and related components near high heat sources.

DANGER

You must not use "B" vent in an exhaust application. "B" vent is for intake applications ONLY. Using "B" vent in an exhaust application will result in serious injury or death.

Additional Requirements for Installation in Canada

1. Installations must be made with a vent pipe system certified to ULC-S636. Additionally, you may use AL29-4C stainless steel venting to comply with Canadian requirements.
2. The first three (3) feet of vent pipe from the Elite XL flue outlet must be readily accessible for visual inspection.
3. The components of the certified vent system must not be interchanged with other vent systems or unlisted pipe / fittings.

Exhaust Vent and Intake Pipe Location

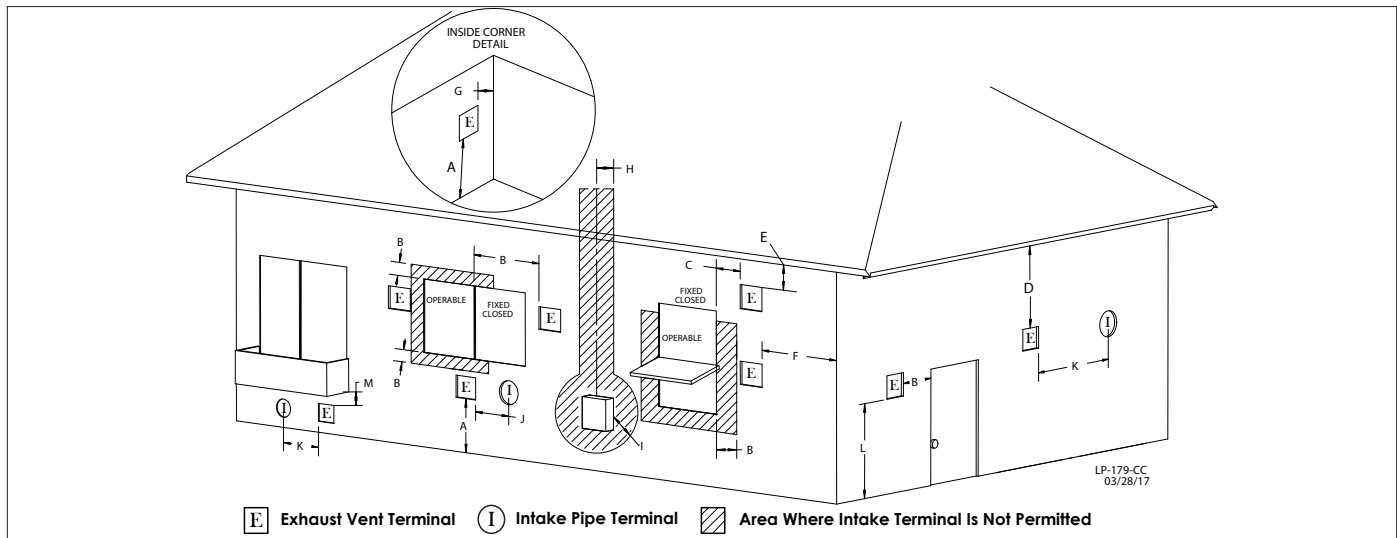


Figure 4 - Exit Terminals for Direct Vent Systems - ANSI Z223.1 / NFPA 54 for US and CAN/CSA B149.1 for Canada

	DESCRIPTION	US	CANADA
A	Clearance above grade, veranda, porch, deck, or balcony	1 foot (30 cm)	
B	Clearance to window or door that may be opened	4 ft below or to side of opening; 1 ft above opening	3 feet (91 cm)
C	Clearance to permanently closed window	*	
D	Vertical clearance to ventilated soffit located above the terminal within a horizontal distance 2 feet (61 cm) from the center line of the terminal	*	
E	Clearance to unventilated soffit	*	
F	Clearance to outside corner	*	
G	Clearance to inside corner	*	
H	Clearance to each side of center line extended above meter / regulator assembly	*	
I	Clearance to service regulator vent outlet	*	Above a regulator within 3 feet (91 cm) horizontally of the vertical center line of the regulator vent outlet to a maximum vertical distance of 15 ft (4.5 m)
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	4 ft below or to side of opening; 1 ft above opening	3 feet (91 cm)
K	Clearance to mechanical air supply inlet	3 feet above if within 10 feet horizontally	6 feet (1.83 m)
L	Clearance above paved sidewalk or paved driveway located on public property	7 feet (2.13 m)	7 feet (2.13 m)
M	Clearance under veranda, porch deck, or balcony	*	1 foot (30 cm)

Table 6 - Vent Termination Clearances - *NOTE: For clearances not specified in ANSI Z223.1 / NFPA 54 for US and CAN/CSA B149.1 for Canada, please use clearances in accordance with local installation codes and the requirements of the gas supplier.

WARNING

The building owner is responsible for keeping the exhaust and intake terminations free of snow, ice, or other potential blockages, as well as scheduling routine maintenance. Failure to keep the vent piping terminations clear and properly maintain the Elite XL could result in property damage, severe personal injury, or death.

Exhaust Vent and Intake Pipe Sizing and Installation

1. The exhaust vent and intake pipe size is 4", 6", or 8", depending on model.
2. Install an appropriately sized intake pipe and 90° elbow into the intake adapter. Face the open end of the elbow down.
3. Install an appropriately sized exhaust vent pipe and 90° elbow into the exhaust adapter. Face the open end of the elbow up and run the exhaust pipe vertically **a minimum of 24" above the top of the Elite XL**. See Figure 5 for detail.
4. Ensure these components meet the material requirements detailed in this manual.

WARNING

Ensure the vent lengths meet the minimum requirements described in this manual. Failure to do so could result in exhaust gas recirculation, premature Elite XL failure, property damage, serious injury, or death.

All joints of positive pressure vent systems must be sealed completely to prevent leakage of flue products. Failure to do so could result in property damage, serious injury, or death.

5. Use only solid PVC, CPVC, or stainless steel pipe approved for use with Category IV appliances.

ABS pipe material may be used on air intake piping **only**.

6. Work from the Elite XL to exhaust vent or intake air termination.
7. Cut pipe to the required lengths and deburr the inside and outside of the pipe ends. Chamfer the outside of each pipe end to ensure even cement distribution when joining.
8. When using PVC or CPVC pipe, all joints must be properly cleaned, primed, and cemented. Use only cement and primer approved for use with the pipe material. Cement must conform to ASTM D2564 for PVC and ASTM F493 for CPVC pipe.

NOTE: The use of colored primer is recommended.

NOTE: Follow manufacturer's instructions for proper installation.

NOTE: Clean and dry the Elite XL adapters.

DO NOT use primer or cement on the Elite XL adapters.

- a. Clean all pipe ends and fittings using a clean dry rag. (Moisture will retard curing and dirt or grease will prevent adhesion.)
 - b. Dry fit piping to ensure proper fit up before assembling any joint. The pipe should go a third to two-thirds into the fitting to ensure proper sealing after cement is applied.
 - c. Priming and Cementing:
 - i. Handle fittings and pipes carefully to prevent contamination of surfaces.
 - ii. Apply a liberal even coat of primer to the fitting socket and to the pipe end to approximately 1/2" beyond the socket depth.
 - iii. Apply a second primer coat to the fitting socket.
 - iv. While primer is still wet, apply an even coat of approved cement to the pipe equal to the depth of the fitting socket along with an even coat of approved cement to the fitting socket.
 - v. Apply a second coat of cement to the pipe.
 - vi. While the cement is still wet, insert the pipe into the fitting, if possible twist the pipe a 1/4 turn as you insert it. **NOTE:** If voids are present, sufficient cement was not applied and joint could be defective.
 - vii. Wipe excess cement from the joint removing ring or beads as it will needlessly soften the pipe.
9. If the exhaust vent is to be terminated in a walled off area (such as a roof with a parapet wall), ensure the exhaust vent terminates a minimum of 10' from nearest wall and extends level with or above the top of the wall. This will ensure flue gas does not get trapped and possibly recirculated into the intake air pipe, which could contaminate the combustion air.
 10. Do not locate vent over public walkways, driveways, or parking lots. Condensate could drip and freeze, resulting in a slip hazard or damage to vehicles and machinery.

11. Exhaust gas may lead to potential moisture build-up. To save time and cost, carefully consider venting installation and location.
12. Horizontal lengths of exhaust vent must slope back towards the Elite XL not less than 1/4" per foot to allow condensate to drain from the vent pipe.
13. The exhaust vent must terminate where vapors cannot make accidental contact with people or pets, or damage shrubs or plants.
14. All piping must be fully supported. Use pipe hangers at a minimum of 4 foot intervals to prevent sagging of the pipe where condensate may form.
15. Do not use the Elite XL to support any piping.
16. Ensure the outdoor exhaust vent and intake pipe terminations are screened to prevent blockage caused by debris or birds.

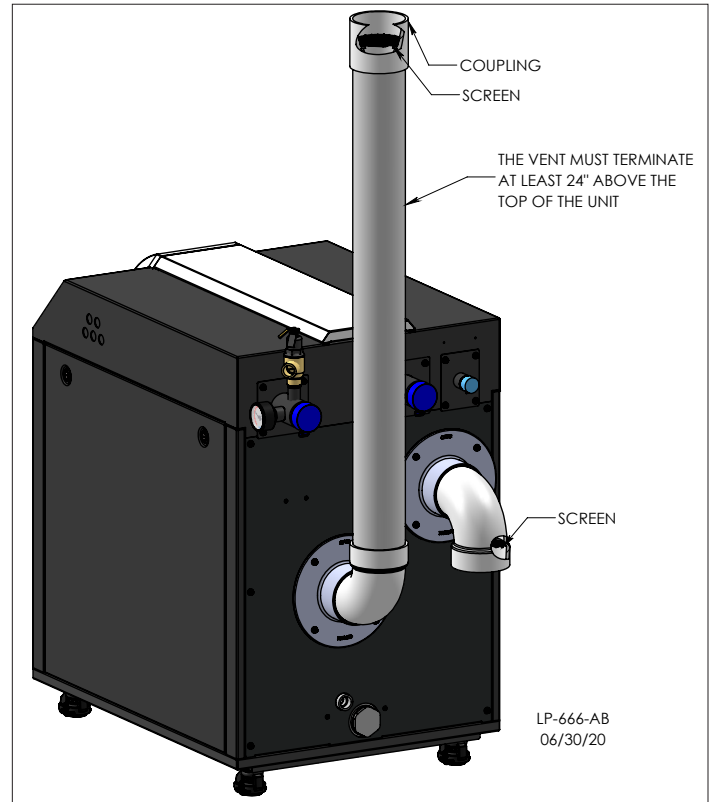


Figure 5 - Elite XL Outdoor PVC/CPVC Venting Installation

Outdoor Installation Requirements

This Elite XL is designed to draw combustion air through the intake pipe at the rear of the unit. This combustion air also serves to cool the internal electronics when the Elite XL is installed in warm climates.

To prevent combustion air contamination or exhaust recirculation:

- Ensure the Elite XL is located away from buildings. Flue gas can cause damage to exterior walls and other devices.
- Locate the Elite XL at least 48" below or horizontally from any window, door, walkway, or gravity air intake.
- Locate the Elite XL 10' away from any public area, outdoor sitting area, or forced air inlet.
- Locate the Elite XL away from areas that may change over time. Do not allow the growth of trees, shrubs, or plants to obstruct proper operation of the exhaust vent system.
- If the Elite XL is located in a fenced area, ensure the unit exhaust vent extends level with or above the top of the fence to ensure flue gas does not get trapped and possibly recirculated into the intake, which could contaminate combustion air.
- Do not install directly on the ground, as the Elite XL is heavy. Install the Elite XL level on a concrete pad, block, or brick platform, designed to support the weight of the Elite XL and components when filled with water - more than 2000 lbs for some models. The Elite XL must be properly supported and installed level in order to operate and drain condensate properly.
- Ensure the installation location protects the Elite XL from standing water.

- Do not install the Elite XL in a well, stairwell, alcove, courtyard, or other recessed area.
- Provisions must be made to protect the Elite XL, condensate lines, and piping from freezing conditions. The use of heat tape is recommended to avoid freezing. It is also recommended to bush up the condensate line size to 1" and terminate condensate discharge line as close to the unit as possible. Longer condensate runs are more prone to freezing.
- Locate Elite XL at least 10' away from any forced air inlet. Maintain a clearance of at least 48" below or horizontal from any window, door, walkway, or gravity air intake. Never place Elite XL under a deck or porch.

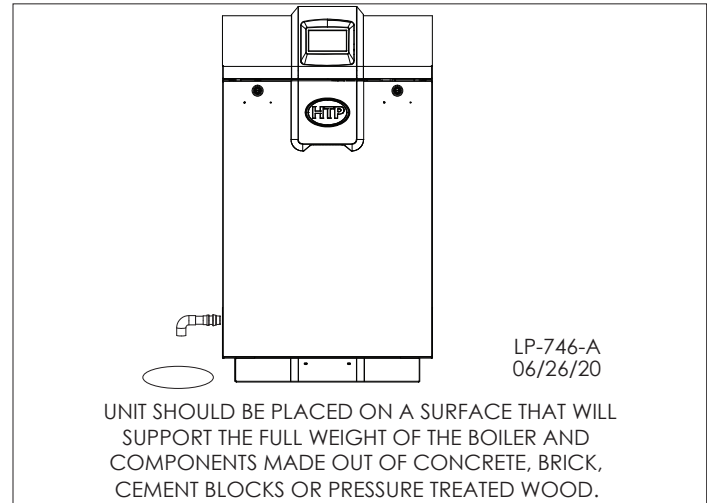


Figure 7 - Outdoor Installation Recommendations

CAUTION

When drawing combustion air from the outdoors, care must be taken to provide adequate freeze protection. Failure to do so could result in property damage and premature product failure. Such damages and failures ARE NOT covered by product warranty.

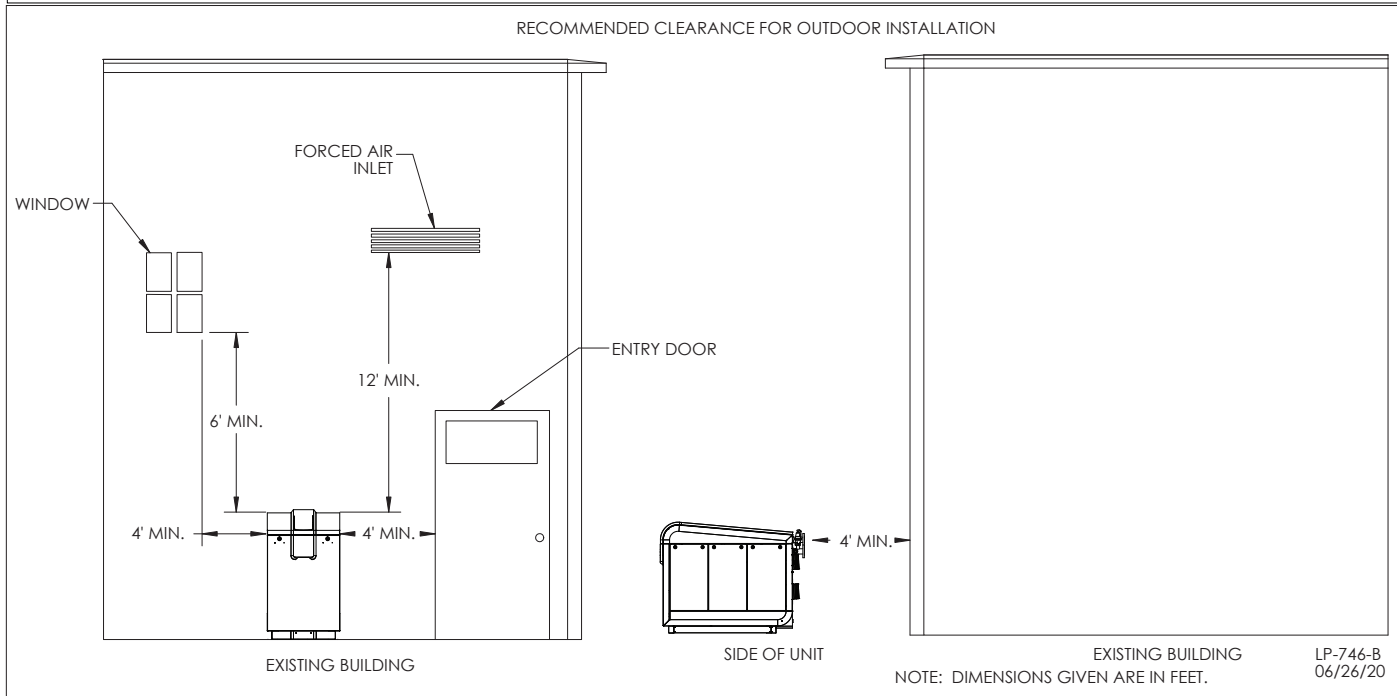
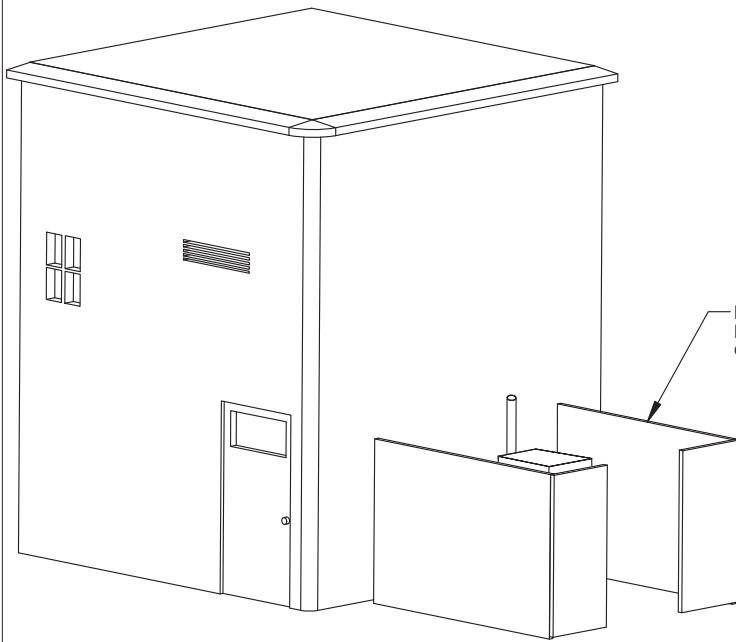
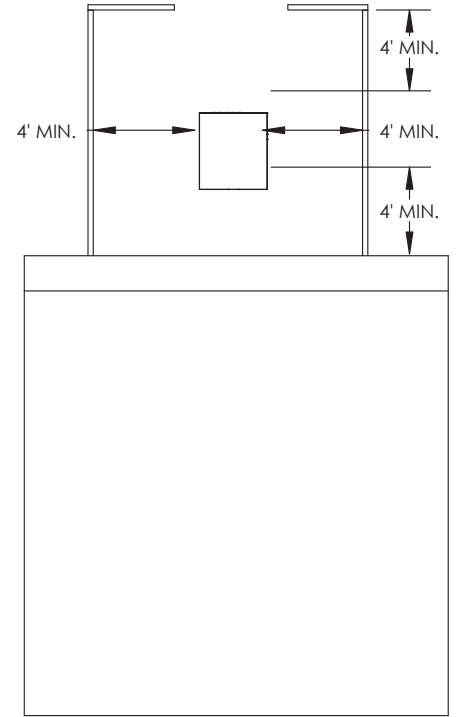


Figure 6 - Recommended Outdoor Installation Clearances

RECOMMENDED OUTDOOR ENCLOSURE



FENCING SHOULD NOT EXCEED HEIGHT OF THE EXHAUST VENT

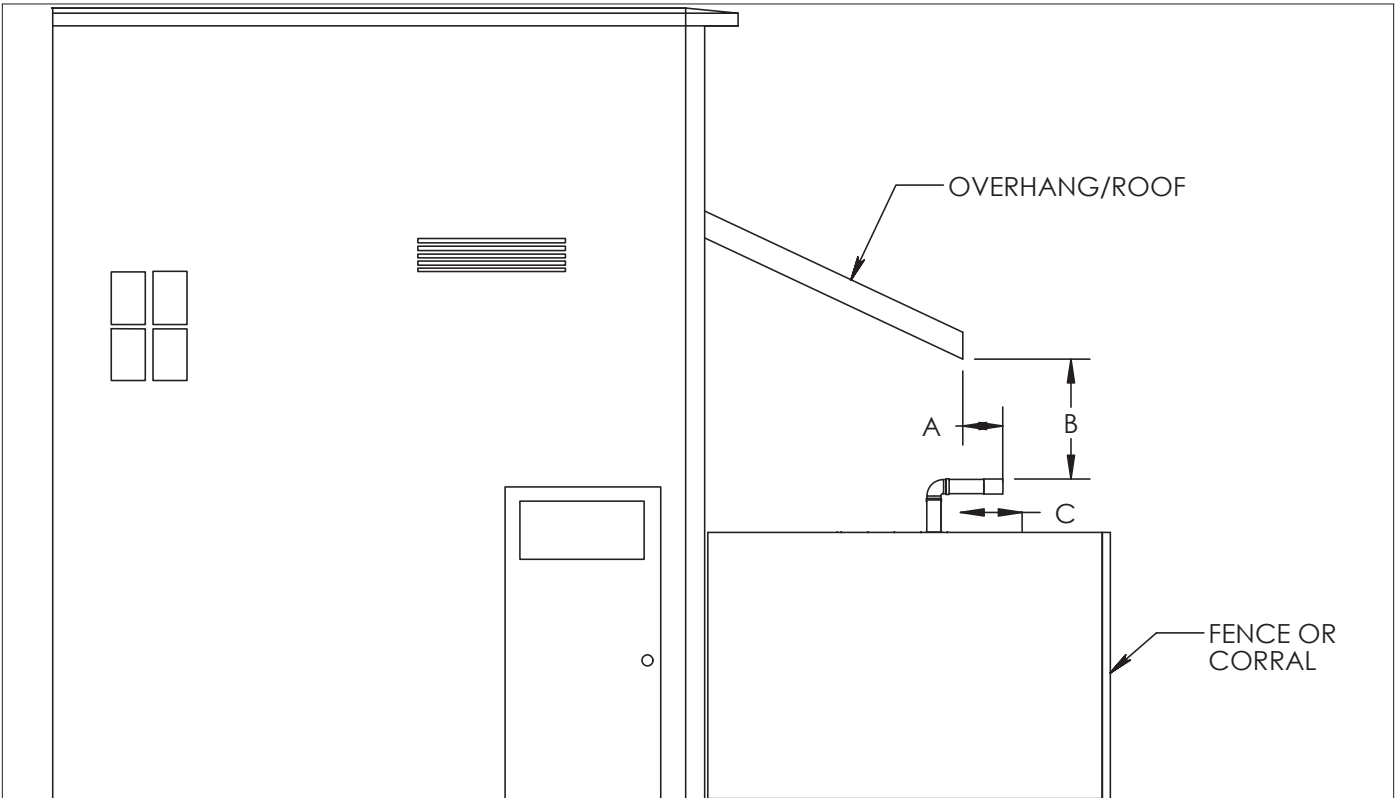


TOP VIEW

NOTE: IN EXTREMELY HOT CLIMATES IT IS RECOMMENDED TO PLACE THE UNIT ON THE NORTH SIDE OF THE BUILDING TO EXTEND THE LIFE OF THE CONTROLS.

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Figure 8 - Recommended Outdoor Enclosure



OVERHANG/ROOF

A
B
C

FENCE OR CORRAL

- A. MAINTAIN AT LEAST 12" FROM END OF OVERHANG
- B. FOR EVERY 1' OF OVERHANG, THE EXHAUST VENT MUST BE LOCATED 1' VERTICAL BELOW OVERHANG.
- C. 12" MIN. BEYOND AIR INTAKE

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Figure 9 - Outdoor Enclosure with Overhang

Installing the Outdoor Kit

Installing the Outdoor Kit

NOTE: DO NOT install the outdoor enclosure if the Elite XL is powered. The outdoor enclosure cannot be installed on the Elite XL if it is powered.

WARNING

Do not proceed with the installation if the Elite XL remains powered. Wait until the Elite XL has had sufficient time to cool before proceeding with installation.

Failure to follow these instructions could result in substantial property damage, serious personal injury, or death.

1. Use a flat head screwdriver to open the Elite XL cabinet - front and side doors. See Figure 10.
2.
 - a. For 400 - 1000 Models - Use a Phillips Head screwdriver to remove the four (4) screws securing the touch screen display assembly to the boiler cabinet. See Figure 10.
 - b. For 1500 - 2000 Models - Use a Phillips Head screwdriver to remove the six (6) screws securing the touch screen display. Then install the LED adapter with harness assembly.

NOTE: A new gasket and brackets are provided with the Kit.

NOTE: The screws can be accessed from inside the boiler cabinet (use left side of boiler cabinet to ease accessibility).

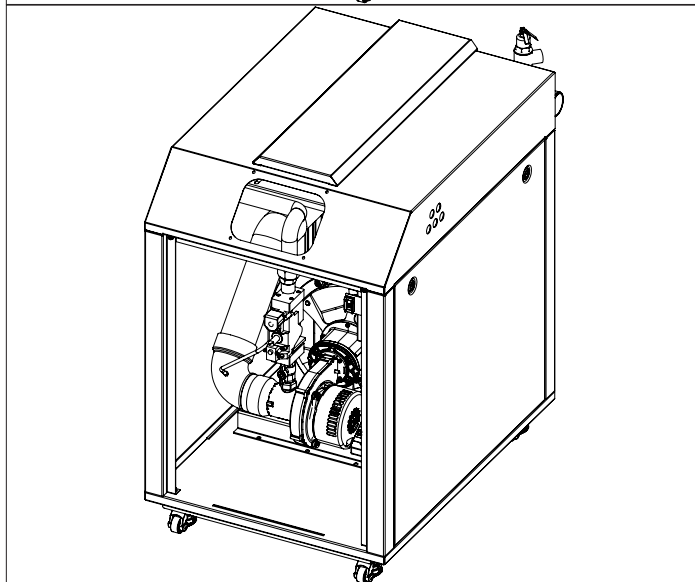
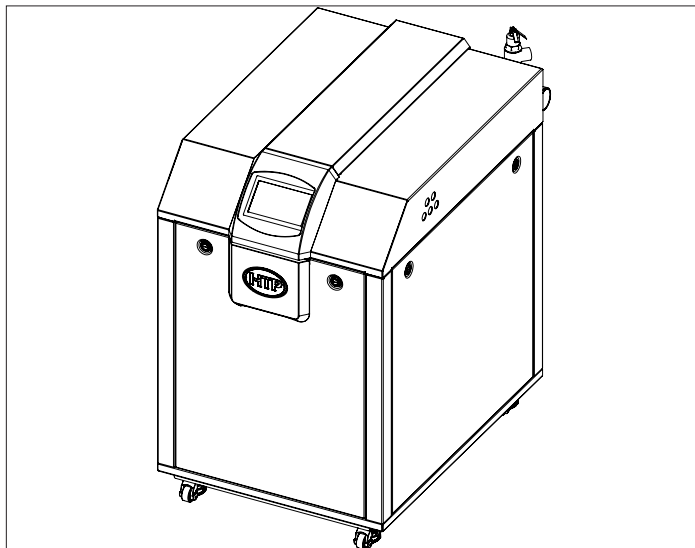


Figure 10 - Boiler with Closed and Open Cabinet.

3. Thread the four (4) standoffs onto the right side of the boiler cabinet.
4. Use a Phillips Head screwdriver and the four (4) screws to mount the Outdoor Interface Board (OIB) onto the four (4) standoffs. See Figure 11 for 400 - 1000 models, and Figure 12 for 1500 - 2000 models. See Figure 13 for installed board with harnesses.

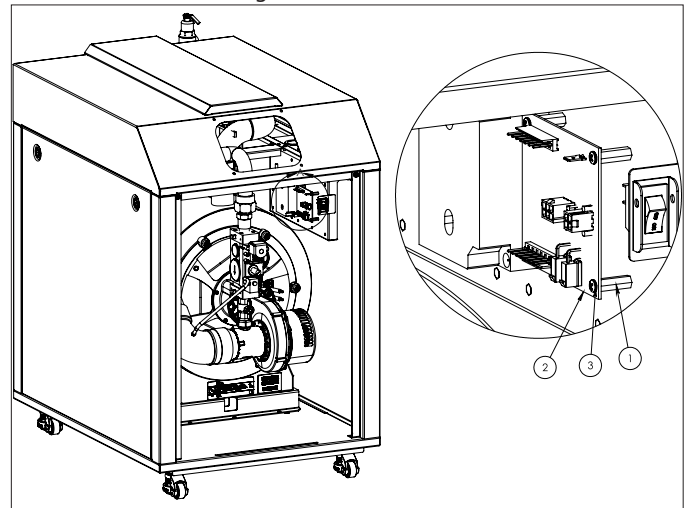


Figure 11 - Outdoor Interface Board Mounted on Standoffs

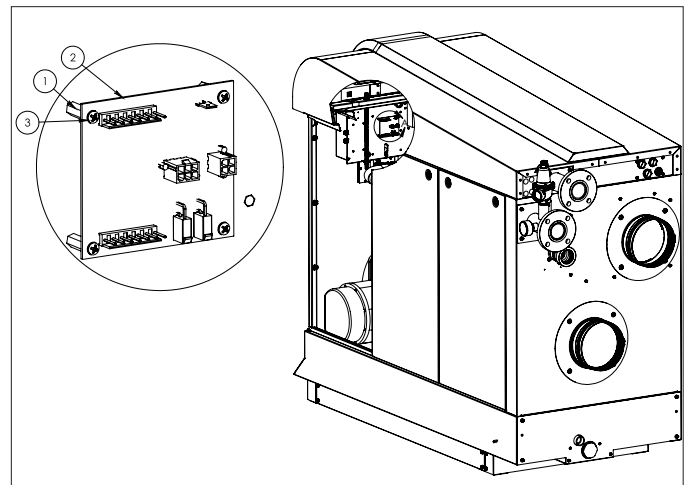


Figure 12 - Outdoor Interface Board Mounted on Standoffs

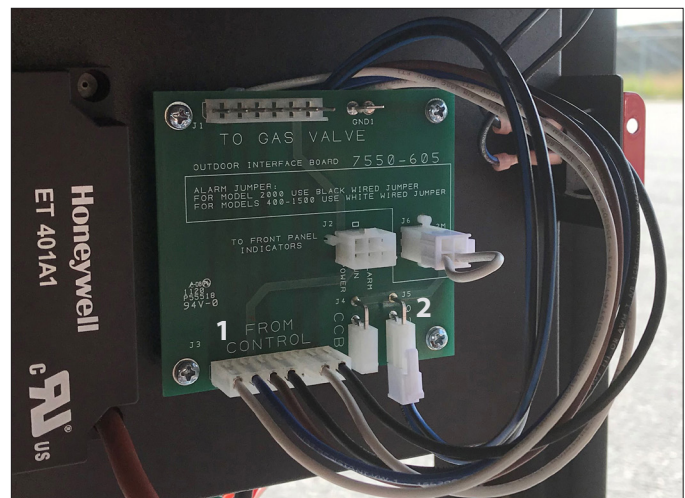


Figure 13 - Installed Outdoor Interface Board with Attached Wire Harnesses

- Unplug the 7-pin cable from X-9 (3) and disconnect the ground tab (4) from the green extension wire on the electronics assembly. See Figures 14 and 15.

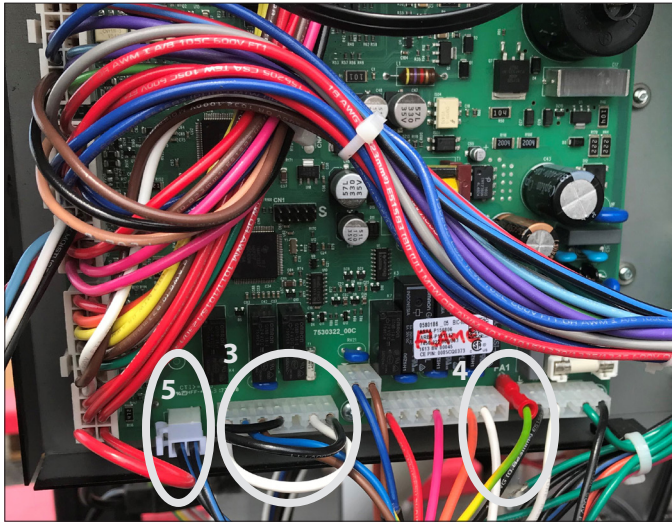


Figure 14 - Factory Wired Electronics Assembly

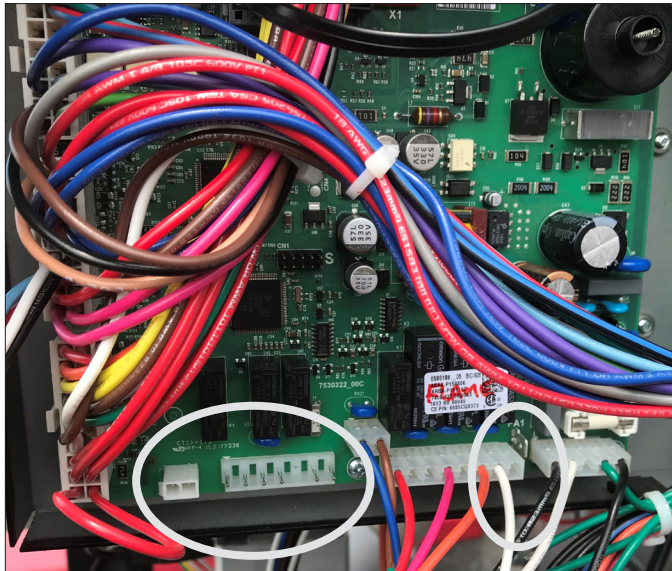


Figure 15 - Electronics Assembly with Unplugged Connectors

- Plug the unplugged end of the 7-pin cable (3) into J1 (TO GAS VALVE) and wire the ground tab (4) into GND1 of the OIB.
- Insert one end of the included 7-pin interface cable (1) into X9 on the control, then insert the other end of the 7-pin interface cable into J3 (FROM CONTROL) of the OIB.
- Unplug the 2-pin connector labelled X8 on the 928 control and plug it into the 2-pin connector J4 (CCB) (5) of the OIB. See Figure 16.

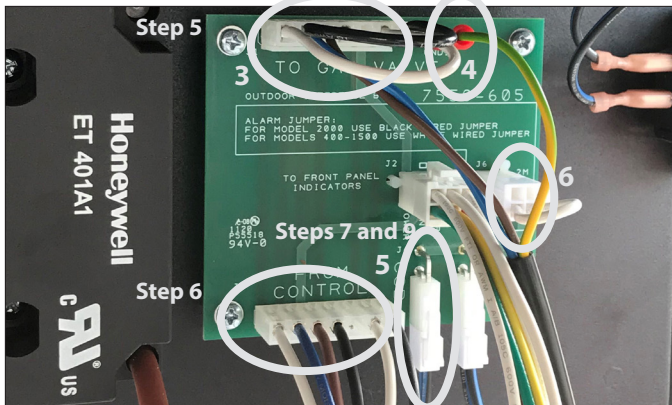


Figure 16 - Wired Outdoor Interface Board

NOTE: Ensure the molex connectors are properly aligned with the mating part on the board. Failure to do so could prevent the gas valve from being energized.

- Plug one end of the 2-pin interface cable into the 2-pin connector labelled X8 (2) on the 928 control. See Figure 16.
- Plug the other end of the 2-pin interface cable into J5 (928) of the OIB. See Figure 13.
- For 400 - 1.5M boilers: Install the WHITE wired jumper (6) into J6 of the OIB.
- For 2M boilers: Install the BLACK wired jumper into J6 of the OIB.

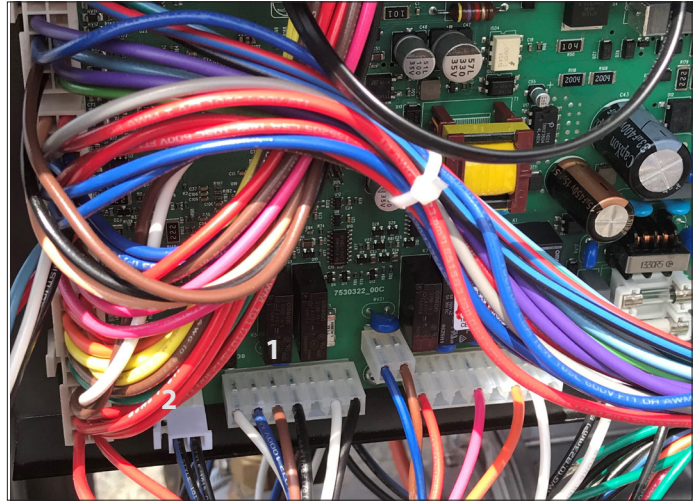


Figure 17 - Wired Electronics Assembly

- Use a Phillips Head screwdriver to remove the six (6) screws securing the touch screen display to the assembly. Remove the touch screen.
- Install the touch screen display into the new internal assembly with the provided screws and bracket (Figure 18), then install the display onto the boiler. See Figure 19 for 400 - 1000 models, and Figure 20 for 1500 - 2000 models.

NOTE: Use the display installed on the boiler. An additional display is not included in this kit.

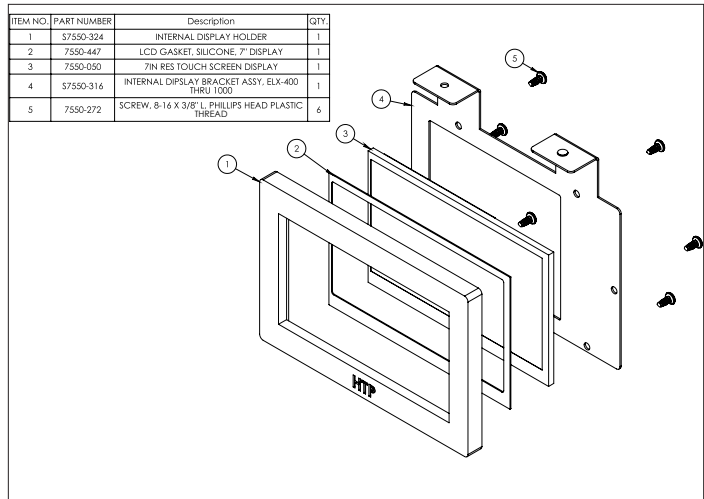


Figure 18 - Installing the Display into the Internal Assembly

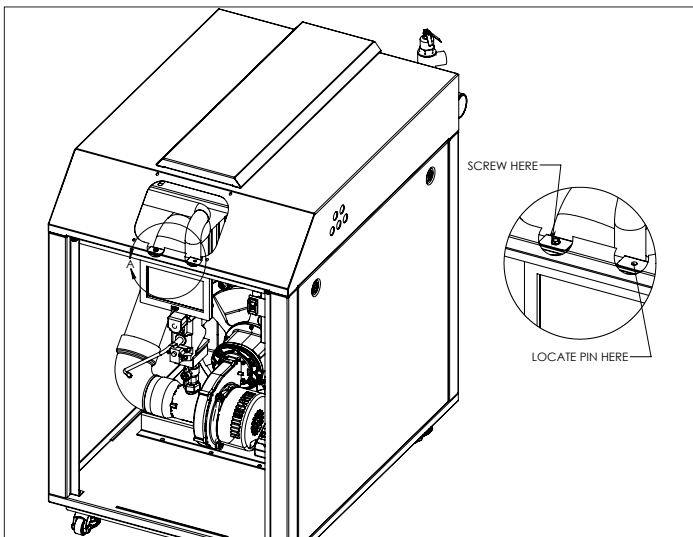


Figure 19 - Display Installed in Internal Assembly - 400 - 1000 Models

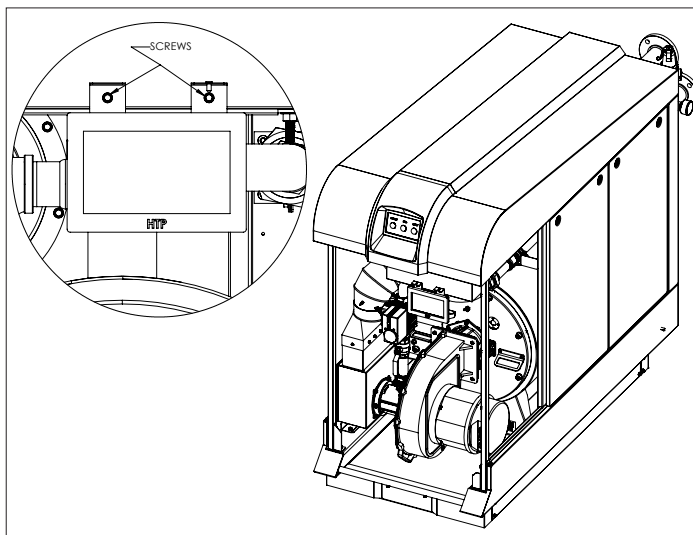


Figure 20 - Display Installed in Internal Assembly - 1500 - 2000 Models

15. Install the internal assembly into the boiler with the provided screws.
16. Install the Indicator Panel Assembly onto the boiler cabinet. See Figure 21.
17. Insert the 6-pin connector of the Indicator Panel Assembly into J2 of the OIB.
18. Connect the display cable.

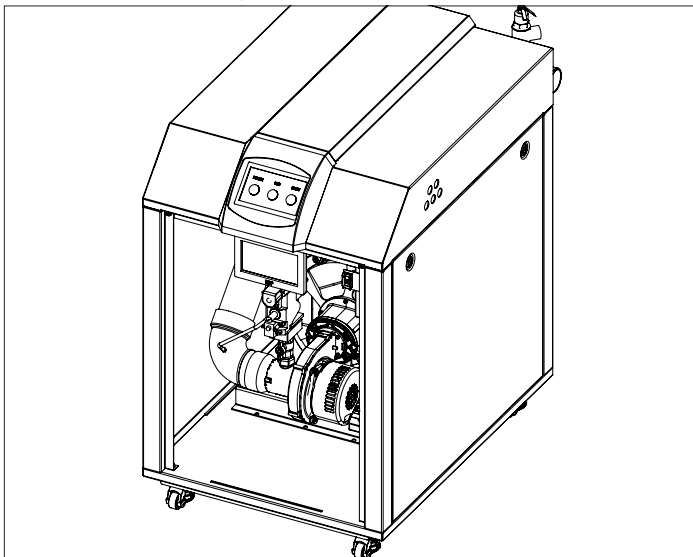


Figure 21 - Installed Assemblies

Start-Up

1. Restore power to the Elite XL and observe the status of the indicators. The green Power indicator should be on.
2. If the red Fault indicator is on and there is no fault, ensure you have the correct jumper installed in J6 of the OIB.
3. To test the Run indicator, create a demand for heat and ensure the yellow Run indicator lights when power is applied to the gas valve.
4. To test the Fault indicator, create a fault by unplugging one of the sensors and ensure the red Fault indicator lights.