

Ondine Residential Warranty

ONDINE provides the following warranties on its products to the original consumer purchaser, installed in residential applications. This warranty is effective for all products purchased after January 1, 2001.

Mechanical Warranty:

A limited Lifetime Warranty is provided on all mechanical parts. ONDINE warrants all mechanical parts to be free from manufacturing defects in material and workmanship under normal use for as long as the original consumer purchaser owns the part.

Finish Warranty:

A limited Lifetime Warranty is provided on all ONDINE product finishes to the original consumer purchaser against manufacturing defects in material and workmanship.

Electrical Components Warranty:

A one-year Limited Warranty is provided on all electrical components to the original consumer purchaser against manufacturing defects in material and workmanship.

At its discretion, ONDINE will repair or replace any part that proves to be defective in material and/or workmanship under normal installation, use and service.

This warranty is extended to the original consumer purchaser and does not cover installation or any other labor charges and shall not apply to any products or any parts of products which have been:

1. Repaired by an unqualified person, or repaired not using original ONDINE replacement parts, or altered in any manner not previously authorized in writing by ONDINE; or,
2. Damaged as a result of misuse, negligence, accident or faulty installation or maintenance; or,
3. Installed or used in a manner contrary to ONDINE's written instructions; or,
4. Damaged by the effects of dirt, hard water deposits, marine climate or through the use of inappropriate cleansers.

ONDINE does not make any other warranty of any kind. This warranty excludes all industrial, commercial or business usage. See Commercial Products Warranty for details.

ONDINE Commercial Products Warranty

ONDINE warrants its mechanical components and products installed in commercial applications to be free from manufacturing defects for a period of 5-years from the purchase date by the original owner.

Electrical Components Warranty:

A one-year Limited Warranty is provided on all electrical components to the original consumer purchaser against manufacturing defects in material and workmanship.

All other terms and limits of the Residential Product Warranty apply.

To obtain warranty repair or replacement, the faulty part must be sent with the proof of purchase (original sales receipts) from the original consumer purchaser to:



Call 800-423-9485 toll-free for quick assistance with any installation, parts or service needs.

Interbath, Inc.

665 N. Baldwin Park Blvd.
City of Industry, CA 91746
United States
Tel: 626 369 1841
Toll-Free: 800 423 9485
Fax: 626 369 3316

Interbath Australia Pty. Ltd.

P.O. Box 677
Mulgrave North
Victoria 3170, Australia
Tel: 03 9558 0655
Toll-Free: 1 800 648 753
Fax: 03 9558 0675

Interbath of Canada, Ltd.

5556 Tomken Road
Mississauga, Ontario
L4W 1P4, Canada
Tel: 905 624 3009
Toll-Free: 800 661 5361
Fax: 905 624 0796



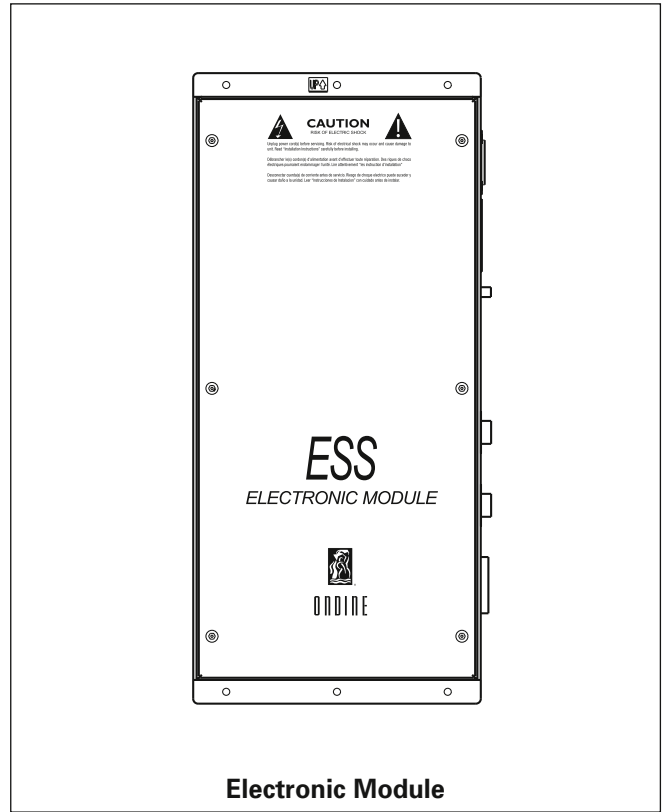
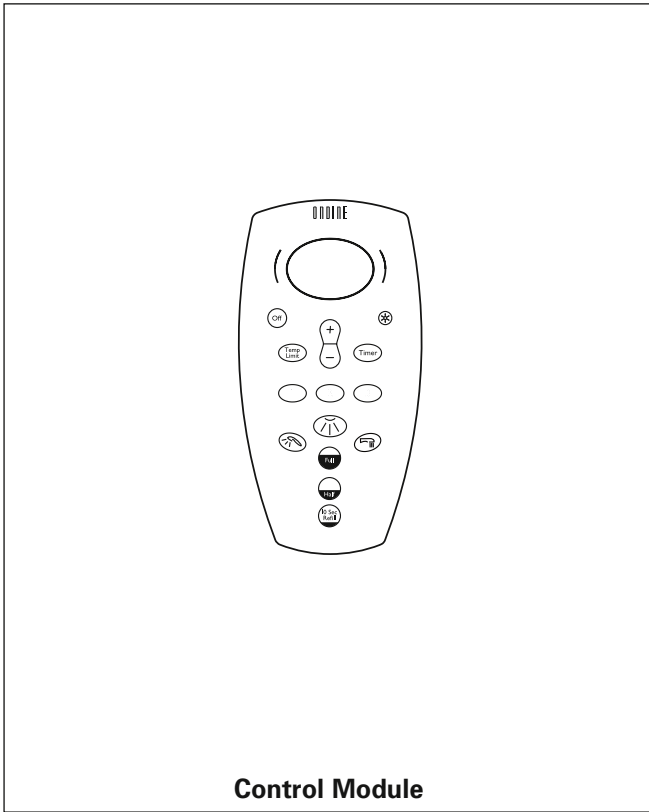
ess installation instructions

electronic shower system

Read and follow these instructions carefully before installation or service. Save these instructions for future reference.

ONDINE[®]
Luxury Shower Systems™

Product Description



The **Electronic Shower System (ESS)** consists of three modules that contain the input and display functions, the electronic, and the plumbing components of the system.

The Control Module

Only the Control Module, connected through an RS-485 cable to the Electronic Module, is visible to the user. The Control Module may be located up to 65 feet (19.8 m) away from the Electronic Module.

The system permits connection of a second Control Module (optional). This may be located anywhere within 65 feet (19.8 m) of Electronic Module.

The Control Module allows for an additional device to be connected and operated. It may be lights, a radio or any other device to be turned on or off via a separate button on the panel.

The Electronic Module

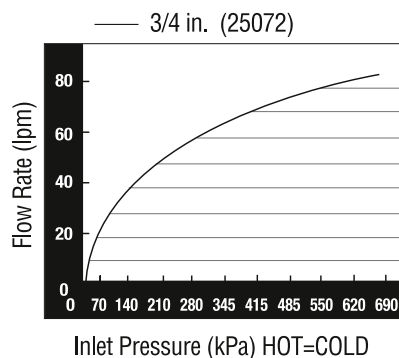
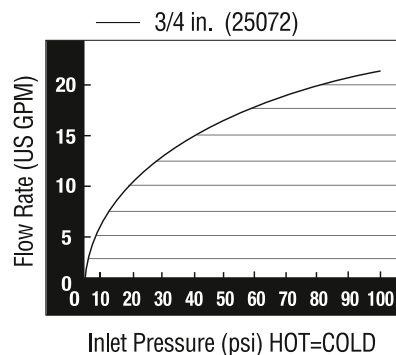
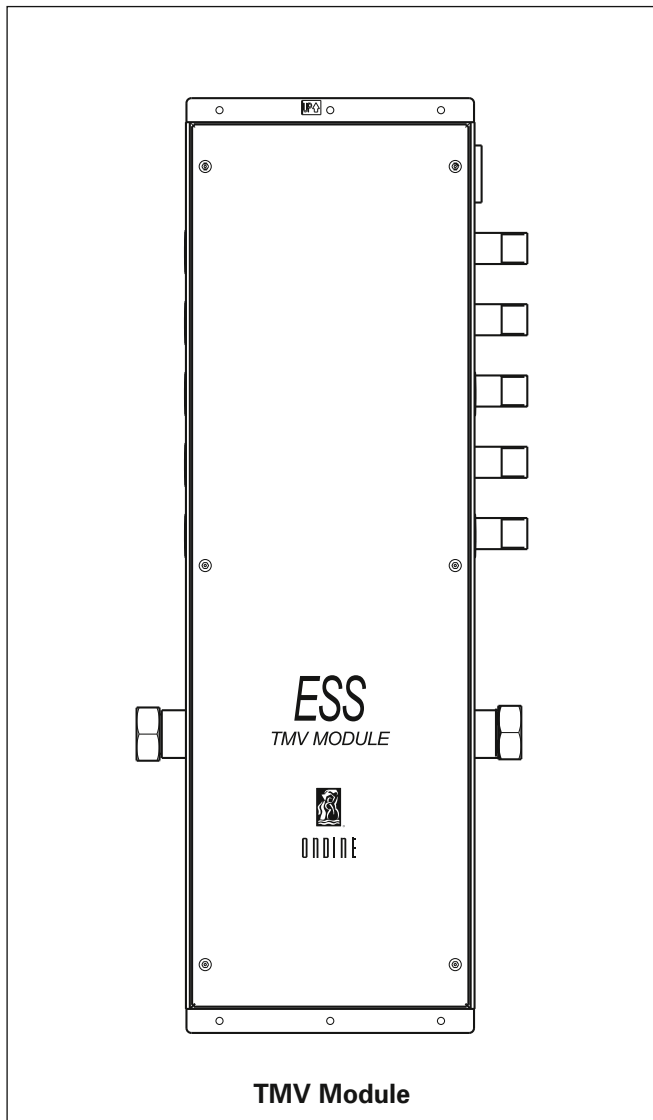
The Electronic Module installs separately from the TMV Module. A transformer built into the Electronic Module converts 120V AC into the 12V DC needed to operate the entire system.

Back-up power is provided by a rechargeable battery. The recharge process is controlled electronically to prevent malfunctioning, overheating, and to extend battery life. In case of power failure, the change-to-battery operation is automatic, with showers continuing to operate without interruption. Electronic processes in the system are monitored continuously. Automatic re-start occurs in case of any failure.

Temperature control is within +/- 2 degrees Fahrenheit (1 degree Celsius). The thermostat reacts mechanically to rapid pressure variations, while water temperature stability is monitored electronically.

Readiness of the system is indicated by a blinking decimal point on the Control Module.

Product Description



Flow Rates

The Thermostatic Mixing Valve (TMV) Module

The TMV Module contains the plumbing components of the system, including the thermostatic valve and an assembly made up of a manifold. Mounted to the manifold are solenoid valves and extensions leading to the individual shower installations to be serviced. It fits inside a 3.5-inch (89 mm) deep wall space.

Technical Specifications

The Thermostatic Mixing Valve (TMV) assures that water temperature stays within 2 degrees Fahrenheit (1 degree Celsius) of any pre-set temperature. The ambient operating temperature is 45° F (7° C) - 110° F (43° C). The TMV meets or exceeds ASME 112.18 requirements.

Flow Rate	Gallons per minute	Liters per minute	
	Minimum	5	19
Maximum	24	93	
Temperature	F	C	
	Maximum hot water inlet	180°	82°
	Recommended hot water inlet	140°	60°
Output temperature range	68°-113°	20°-45°	
Working Pressure	PSI	KPA	
	Minimum	15	103
	Maximum	125	862
	Recommended	40-80	276-552

Parts List

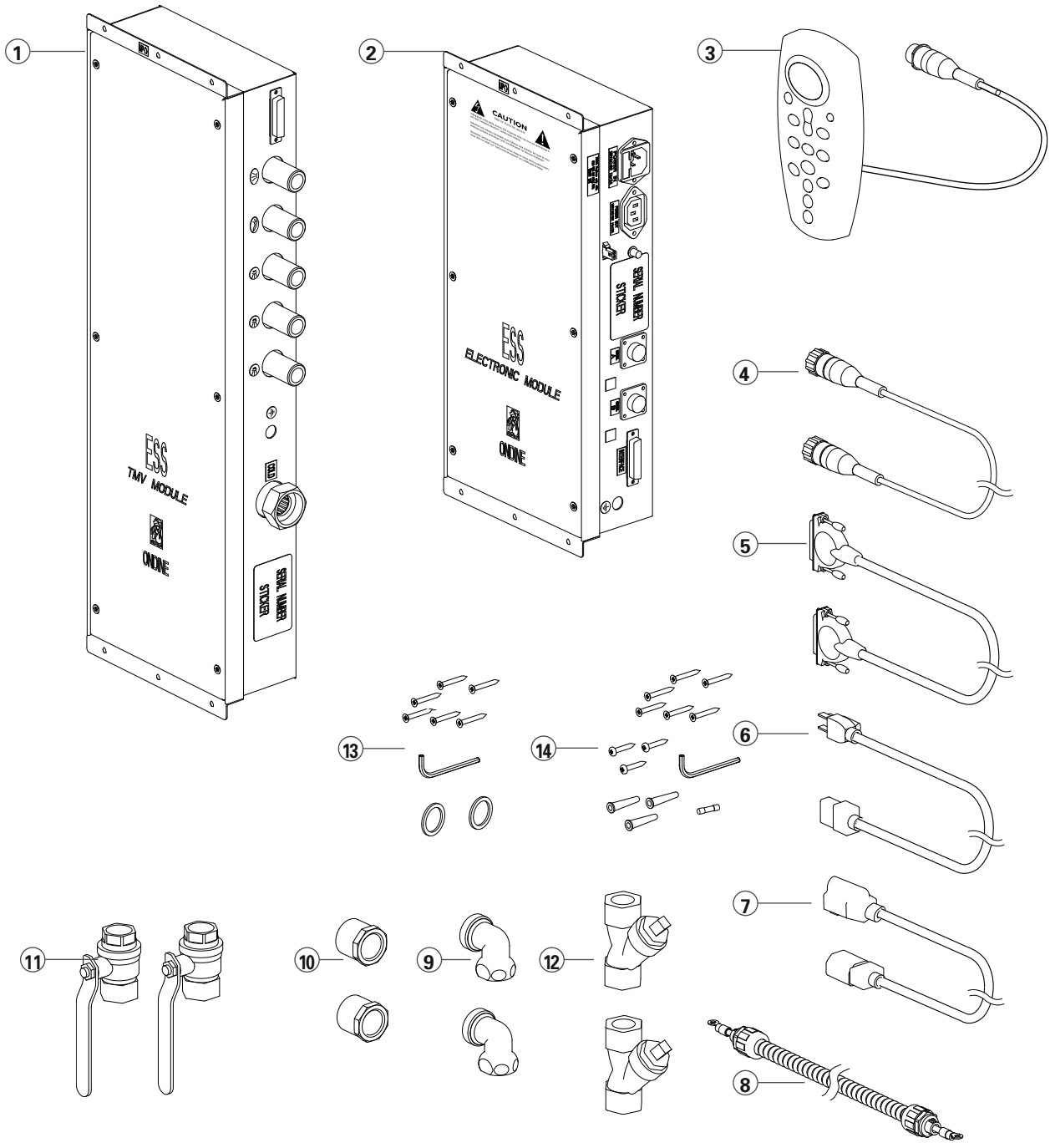
Item	Description	Part No.	Quantity
1	TMV Module (outlets plumbed to the right)*	25025-2	1
2	Electronic Module	25025-3	1
3	Control Module	25020-1XX	1
4	Control Module Cable (10 ft., 3.0 m)	25020-11	1
5	Interface Cable (6 ft. 7 in., 1.8 m)	51001-000	1
6	Power Cable (6 ft. 7 in., 2.0 m)	51002-000	1
7	Additional Device Power Cable (3 ft., 0.9 m) optional	51003-000	1
8	Ground Cable Assembly (6 ft., 1.8 m)	51004-000	1
9	Elbow Fitting (3/4 in.)	41013-000	2
10	Straight Fitting (3/4 in.)	41001-000	2
11	Ball Valve (3/4 in.)	41004-000	2
12	3/4 in. Y-Strainer	51114-000	2
13	Hardware Set - TMV Module	JBK210	1
	• #8 Oval Head Wood Screw	90148-93	6
	• Module Access Wrench	40174-000	1
	• Gaskets	41012-000	2
14	Hardware Set - Electronic Module	JBK211	1
	• #8 Oval Head Wood Screw	90148-93	6
	• #8-32 Pan Head Screw	41103-000	3
	• #8 Anchor	90148-000	3
	• Module Access Wrench	40174-000	1
	• Spare Fuse (5x20mm, 250V, 2A)	51043-000	1

Additional Parts Required for Installation

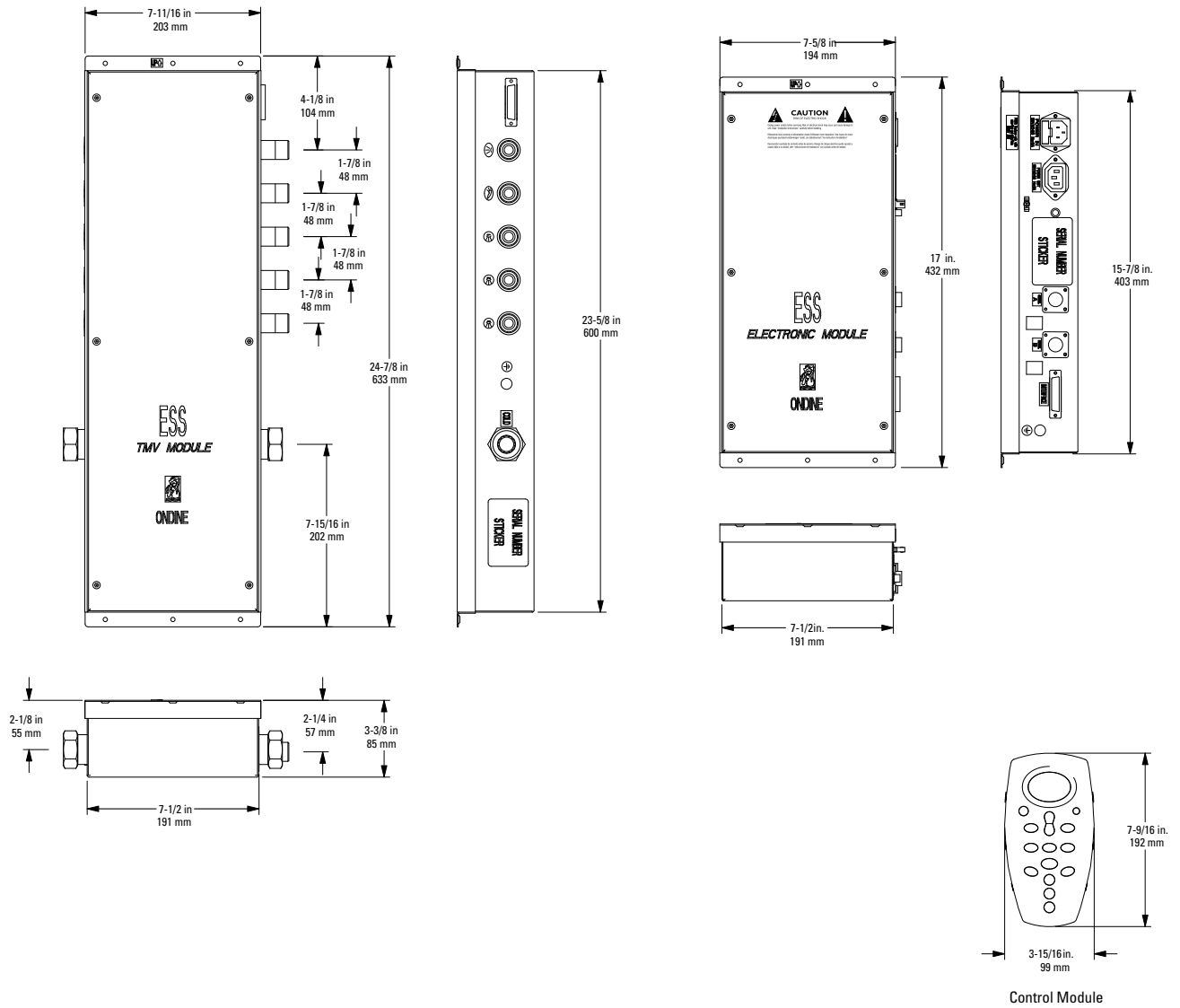
1/2 in. Brass Union	5
3/4 in. x 5 in. (125 mm) Brass Nipple, or	2
3/4 in. x 2 in. (50 mm) Brass Nipple, or	2
3/4 in. x 10 in. (254 mm) Brass Nipple	2
Teflon® Tape or Pipe Sealant	1

***TMV Module is also available with outlets plumbed to the left (Model No. 25021-2)**

****XX refers to a finish suffix.**



TMV, Electronic, and Control Module



READ AND FOLLOW ALL INSTRUCTIONS. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

BEFORE INSTALLING

Read and follow these instructions carefully before installation or service.

1. Verify that the model and accessories are correct as well as incoming line voltage.
2. **WARNING:** Risk of electrical shock may occur and cause serious injury or death if you do not follow installation instructions. The ESS system is provided with a grounding plug (three-prong) for protection against shock hazard. Connect only to a circuit protected by a Class "A" Ground Fault Circuit Interrupter and properly grounded receptacle.
3. The plumbing and electrical sources must conform to local and national codes.

LOCATING THE MODULES

Select a location as near as possible to the bathing area.

1. We recommend that the TMV Module be located no more than 10 ft. (3.0 m) from the point of use. The Electronic Module may be located up to 25 ft. (7.6 m) from the TMV Module. The Control Module may be located up to 65 ft. (19.8 m) from the Electronic Module.
2. The TMV and the Electronic Modules may be installed in any convenient location. However, they must be accessible for service (see "Access Panel Construction" detail for specifics). Suggested locations include in-wall, closet, attic or basement.
3. Do not install the TMV Module in any area that is subject to freezing temperatures.

IMPORTANT SAFETY INSTRUCTIONS

Caution Symbol



The caution symbol calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product. Do not proceed beyond a caution symbol until the indicated conditions are fully understood and met. The product is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against damage to the product.

Hazardous Voltage Symbol



The warning symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in serious injury or death. Do not proceed beyond a warning symbol until the indicated conditions are fully understood and met.

Wall Preparation

CONSTRUCTION

STEP 1

Construct cross members (Figure A). Use standard 2 x 4 studs.

MODULAR APPROACH

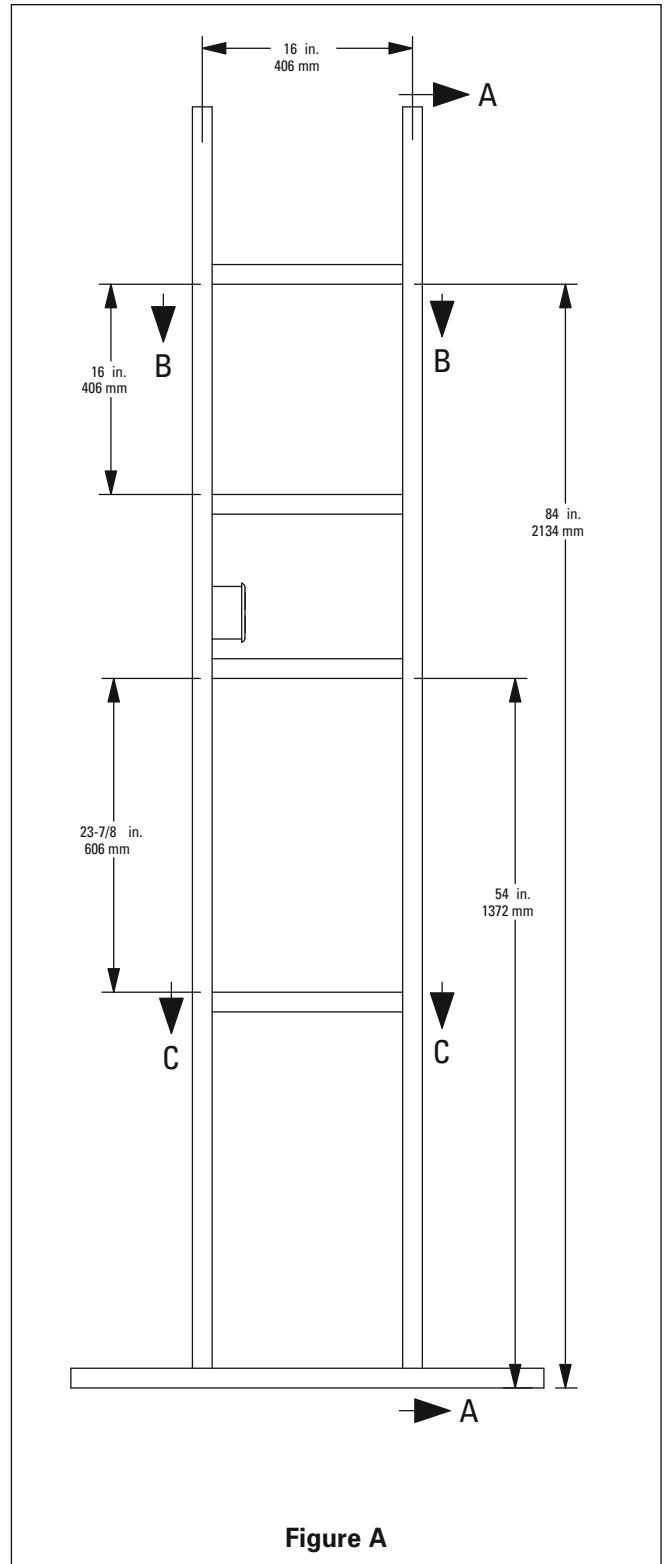
The versatility of the ESS System allows for unlimited installation possibilities. The modular approach (Figure A) is ideal.

We recommend the TMV Module be located no more than 10 ft. (3.0 m) from the point of use.

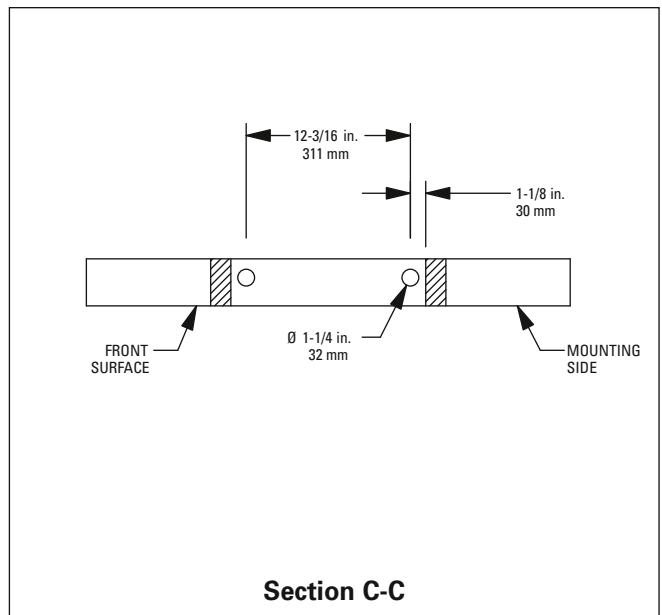
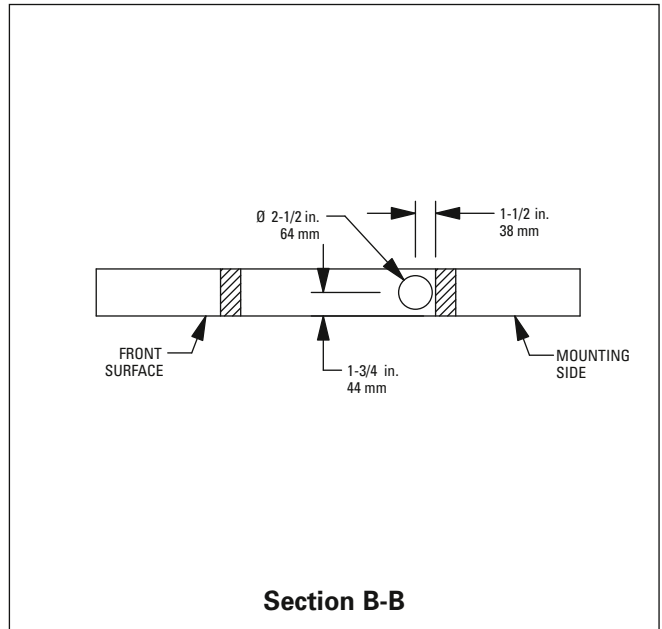
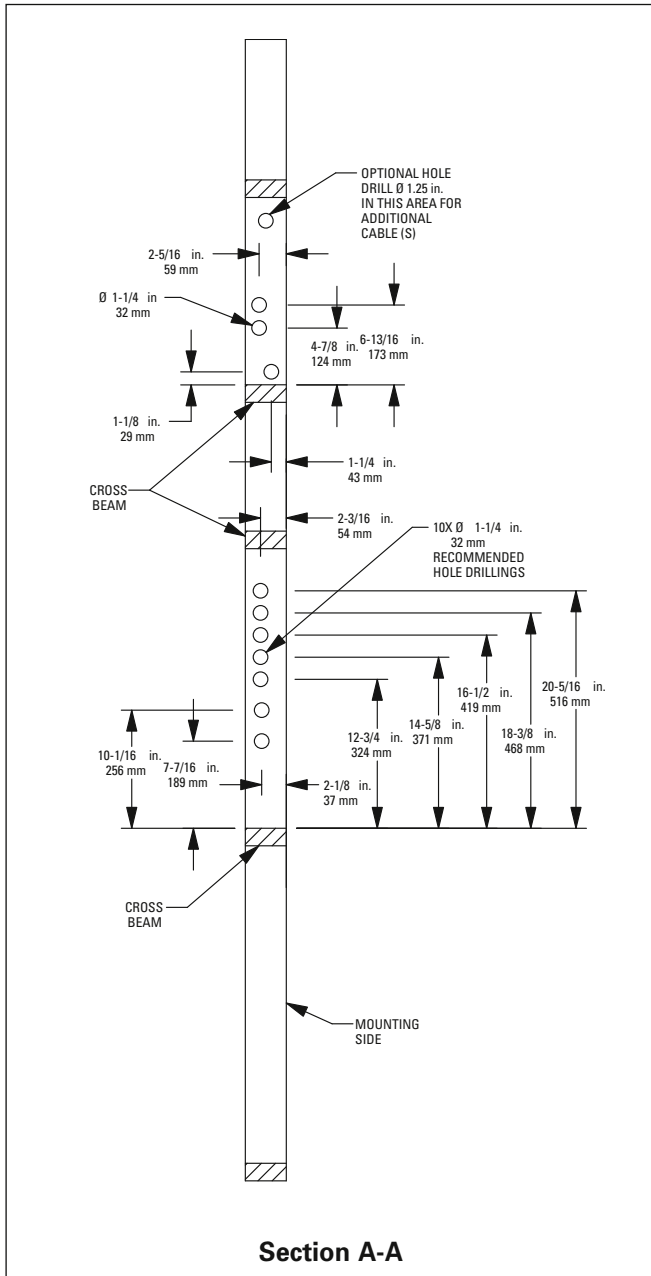
The Electronic Module may be located up to 25 ft. (7.6 m) from the TMV Module. (Optional, additional 25 ft. interface cables and 25 ft. GND cables are required.)

Control Module (one and two) may be located up to 65 ft. (19.8 m) from the Electronic Module. (optional 65 ft. control cable is required)

Remember, for ease of maintenance, always provide easy access to the TMV Module and the Electronic Module.



Wall Preparation



CONSTRUCTION

STEP 2

Drill holes for cables and pipe routing (Section A-A, Section B-B, Section C-C).

Use templates included with this manual.

Wall Preparation

ELECTRICAL



Risk of electrical shock may occur and cause serious injury or death if you do not follow installation instructions. The ESS system is provided with a grounding plug (three-prong) for protection against shock hazard. Connect only to a circuit protected by a Class "A" Ground Fault Circuit Interrupter and properly grounded receptacle. The plumbing and electrical sources must conform to local and national codes.

STEP 3

Install Ground Fault Interrupter (GFI) power outlet box at recommended location (Figure B).

Check and follow local and national codes for firewall construction.

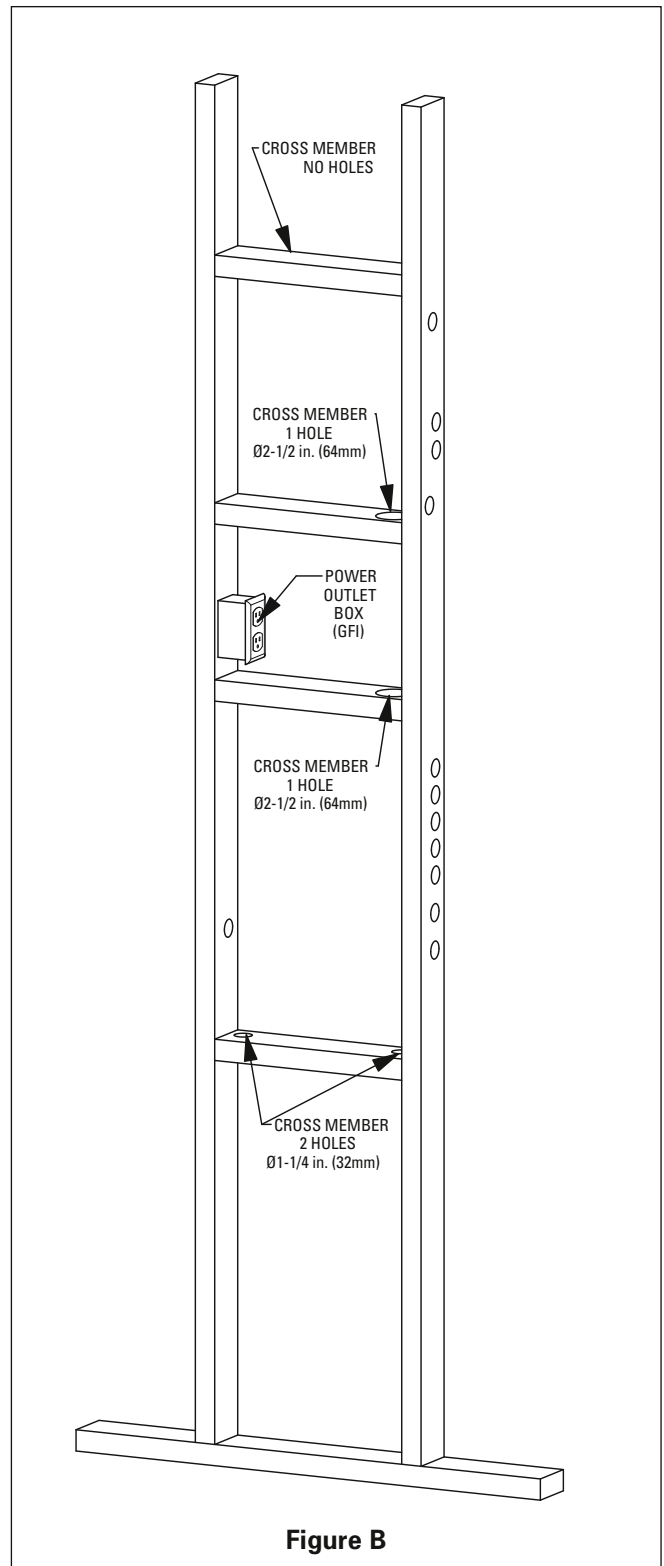


Figure B

Wall Preparation

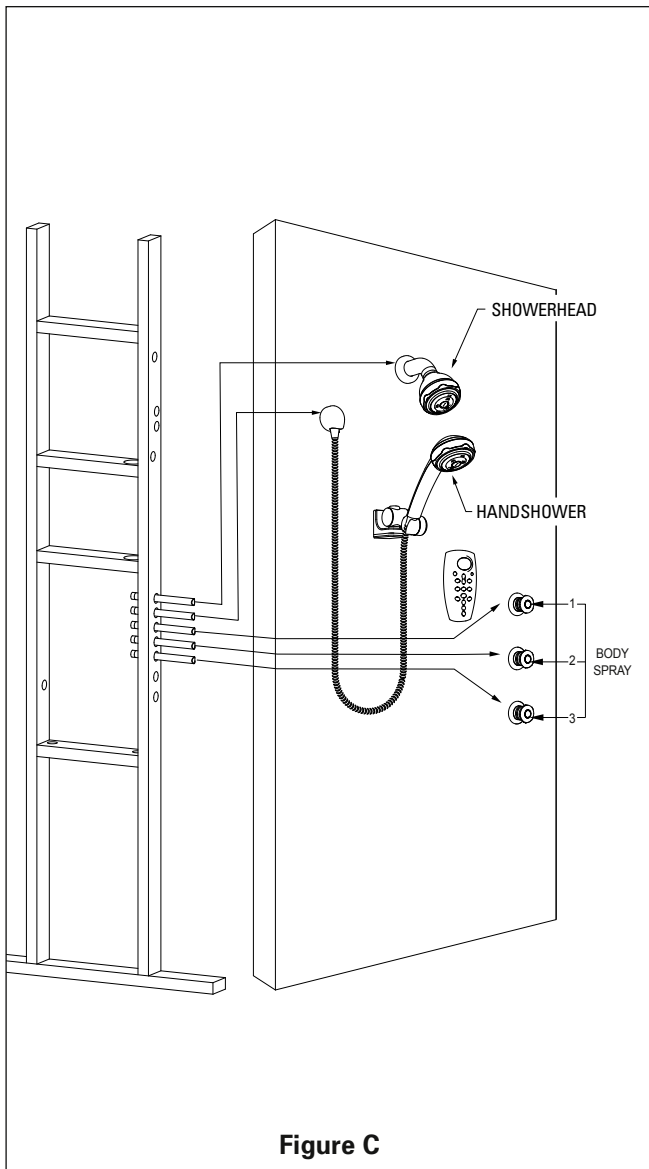


Figure C

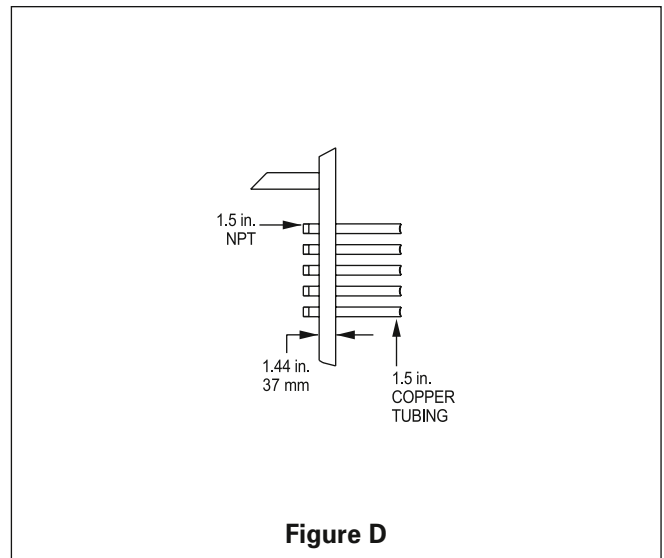


Figure D

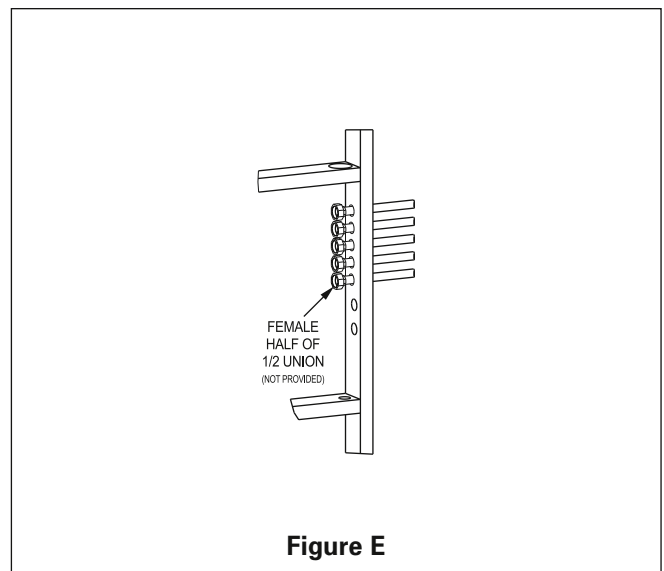


Figure E

PLUMBING

STEP 4

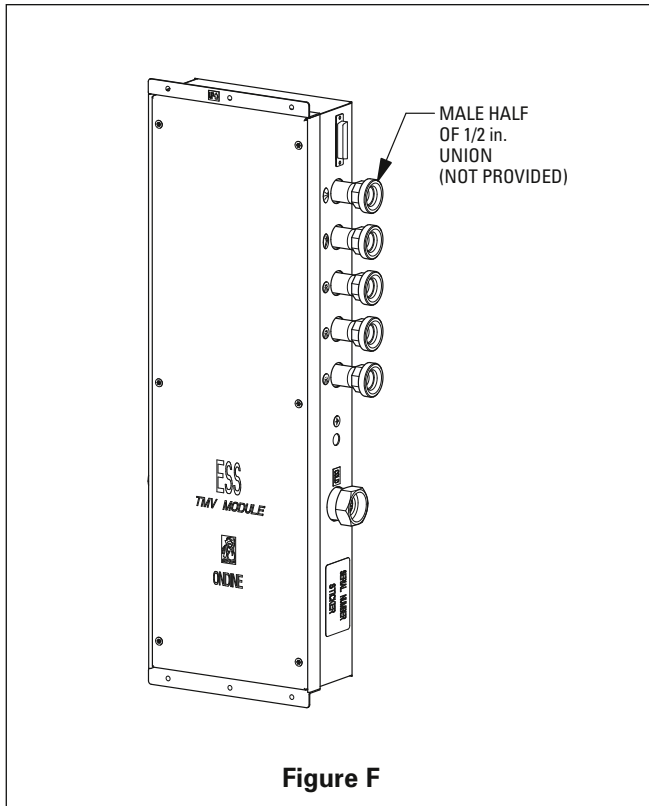
Install 1/2 in. copper tubing from shower outlets to the location shown (Figure C). End tubing with 1/2 in. male NPT fitting (Figure D). Install female half of 1/2 in. union to each fitting (not included) (Figure E).

Use pipe sealant on all pipe-threaded connectors.

Installation With Ondine Electronic Light Shower (ELS):

Use of the Electronic Shower System with the Ondine ELS only allows installation with a single, wall-mounted showerhead (versus showerhead and handshower shown). Route supply to the ELS showerhead from the TMV Module's top supply as shown. For alternative methods of product configuration, contact Interbath Technical Services at 800-423-9485.

TMV and Electronic Module Installation



STEP 1

Install male half of 1/2 in. union (not included) (Figure F).

STEP 2

Install TMV Module (Figure G). Center module and attach with #8 wood screws provided in Hardware Set – TMV Module.

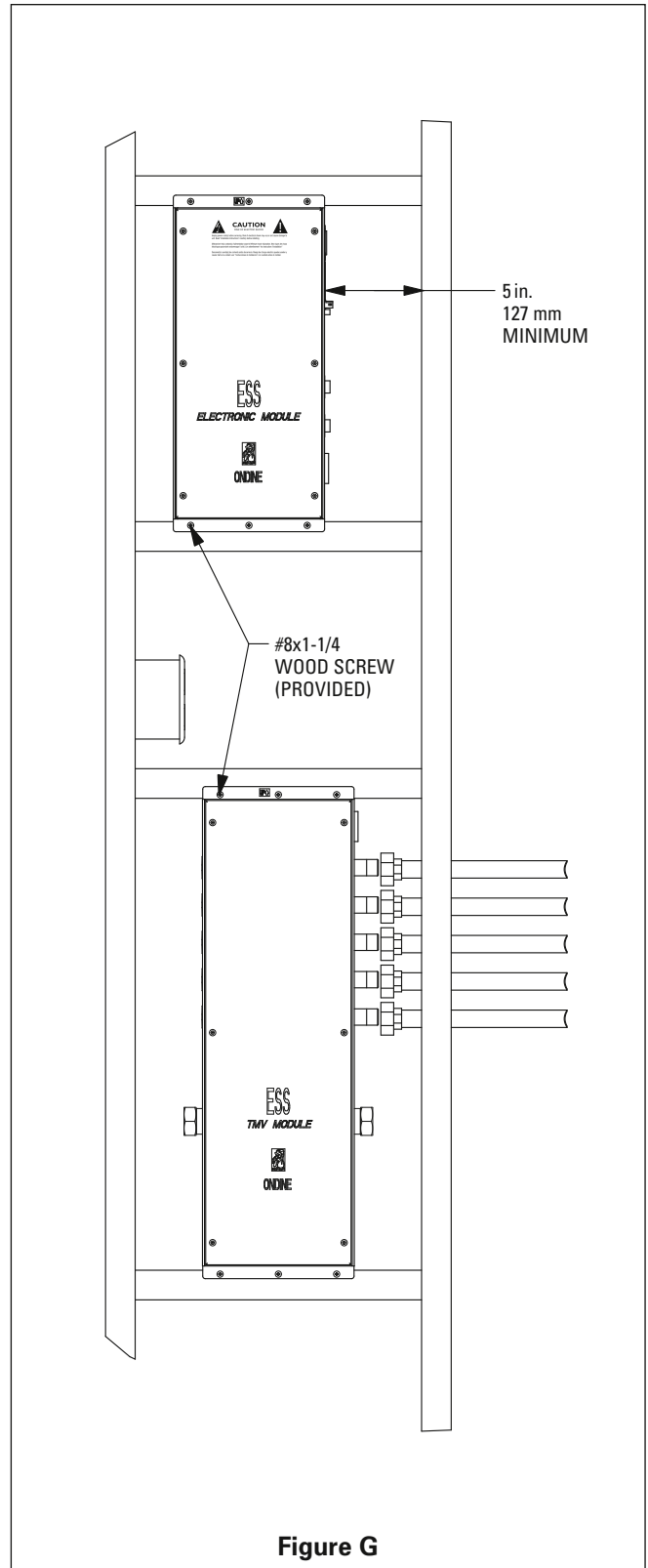
STEP 3

Install Electronic Module (Figure G). Attach using #8 wood screws provided in Hardware Set – Electronic Module. Position a minimum of 5 inches (127 mm) from right stud.

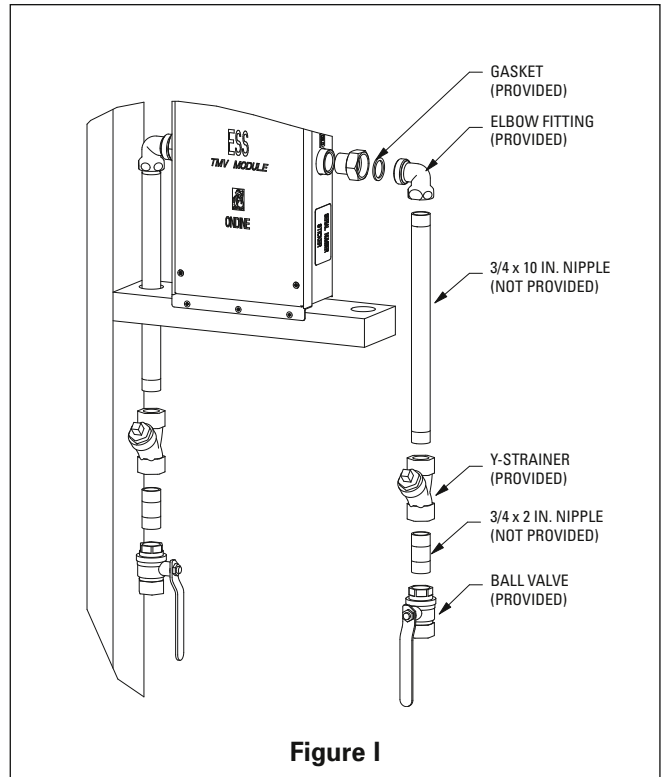
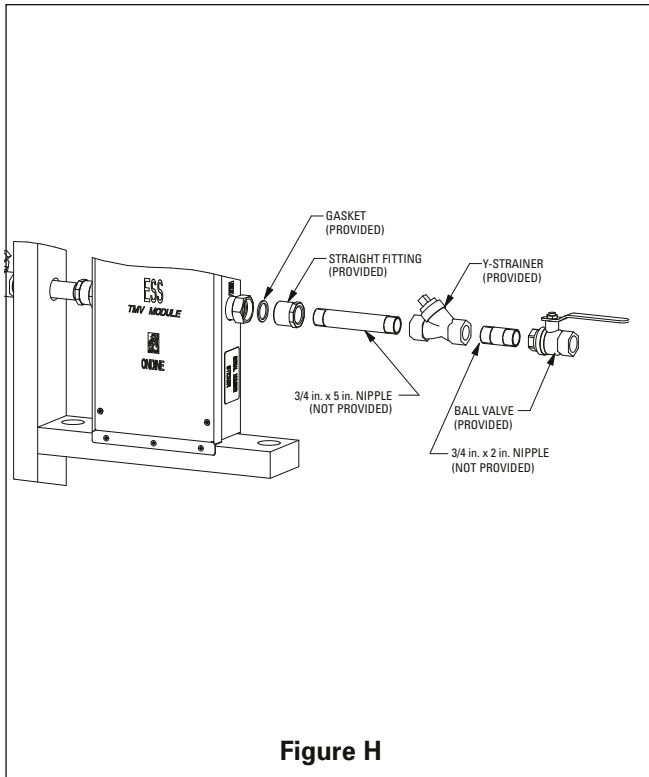
STEP 4

Connect unions at TMV Module.

Outlets plumbed to the right are standard. This module is available with outlets plumbed to the left.



Plumbing Connection



Straight Fitting Connection



Failure to comply with this instruction may result in damage to or destruction of part or all of the product and may void warranty.

STEP 1

Connect 3/4 in. straight fitting with gasket to both hot and cold inlets on the TMV Module (Figure H).

STEP 2

Connect 3/4 in. x 5 in. nipple, Y-Strainer, 3/4 in. x 2 in. nipple and ball valve to both hot and cold inlets on the TMV Module (Figure H).

STEP 3

Connect hot and cold water supply to ball valves. **FLUSH HOT AND COLD WATER SUPPLY LINES THOROUGHLY PRIOR TO CONNECTION TO THE TMV MODULE.**

STEP 4

Shut off both ball valves.

Position ball valve levers as shown.
Use Teflon® tape or pipe sealant for all fittings.

Elbow Fitting Connection



Failure to comply with this instruction may result in damage to or destruction of part or all of the product and may void warranty.

STEP 1

Connect 3/4 in. elbow fitting with gasket to both hot and cold inlets on the TMV Module (Figure I).

STEP 2

Connect 3/4 in. x 10 in. nipple, Y-Strainer, 3/4 in. x 2 in. nipple and ball valve to both hot and cold inlets on the TMV Module (Figure I).

STEP 3

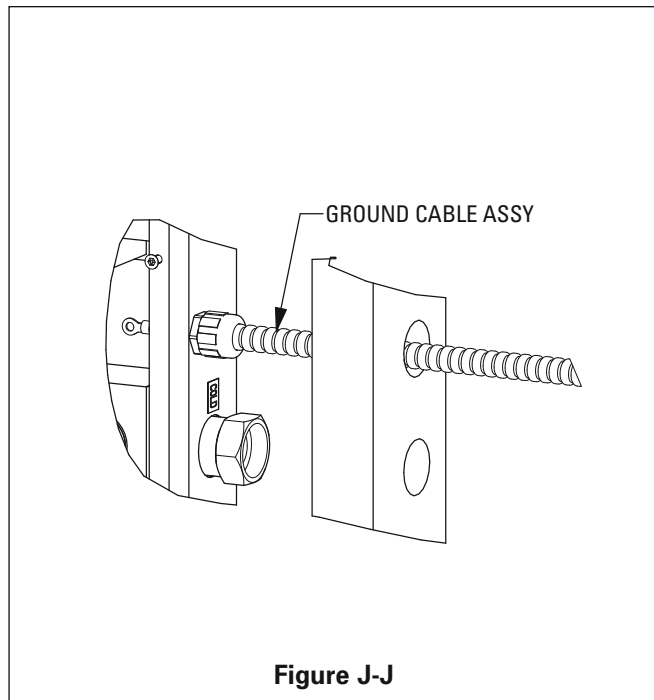
Connect hot and cold water supply to ball valves. **FLUSH HOT AND COLD WATER SUPPLY LINES THOROUGHLY PRIOR TO CONNECTION TO THE TMV MODULE.**

STEP 4

Shut off both ball valves.

Position ball valve levers as shown.
Use Teflon® tape or pipe sealant for all fittings.

TMV and Electronic Module Installation



Electrical

STEP 1

Route ground cable assembly as shown (Figure J).

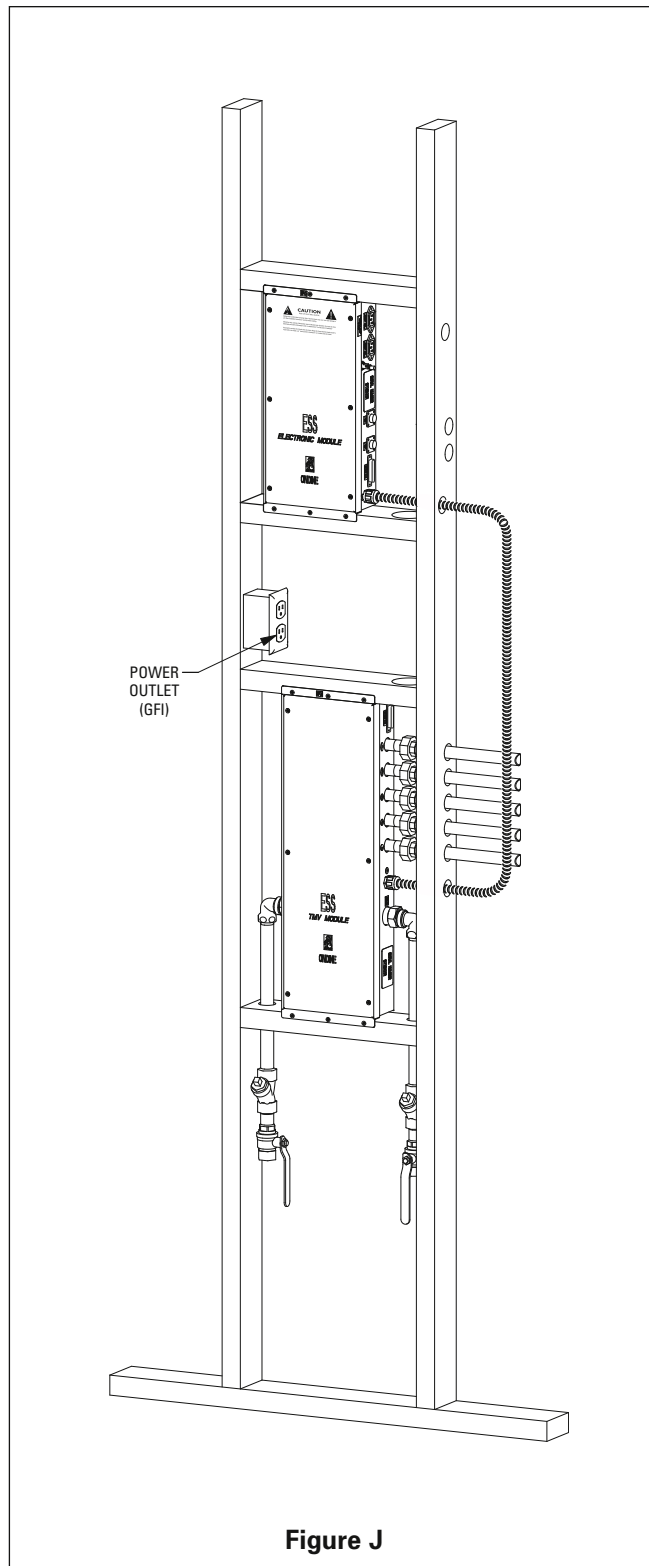
STEP 2

Look for hole in each module near the ground label \oplus . Insert ground wire into each hole and snap conduit fitting into place. Make sure the fitting is snug (Figure J-J).

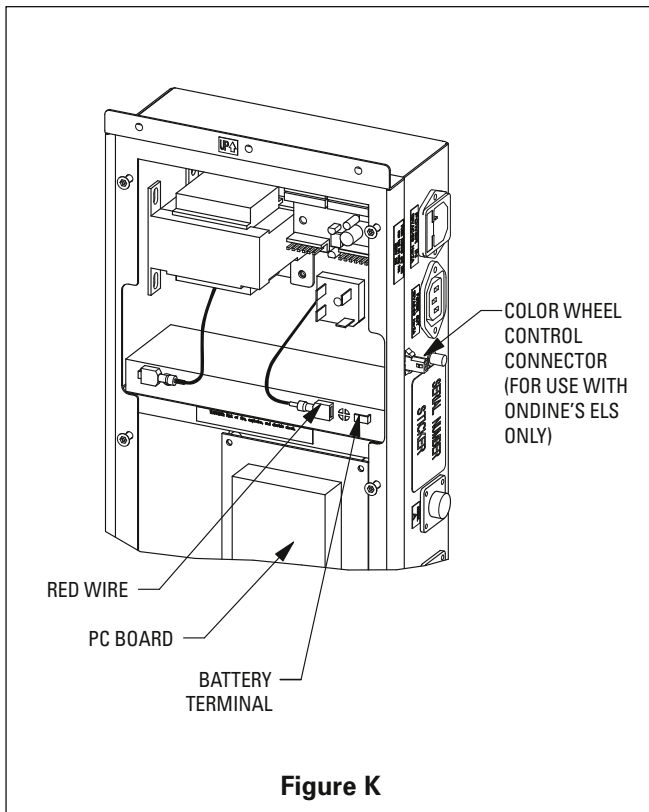
STEP 3

Remove tamper-resistant covers from TMV and Electronic Modules with Module Access Wrench (provided).

Short ground wire end goes into Electronic Module.
See Figure L, next page.



TMV and Electronic Module Installation



Electrical



Failure to comply with this instruction may result in damage to or destruction of part or all of the product and may void warranty.

Do not touch PC board when performing the following installations.

STEP 4

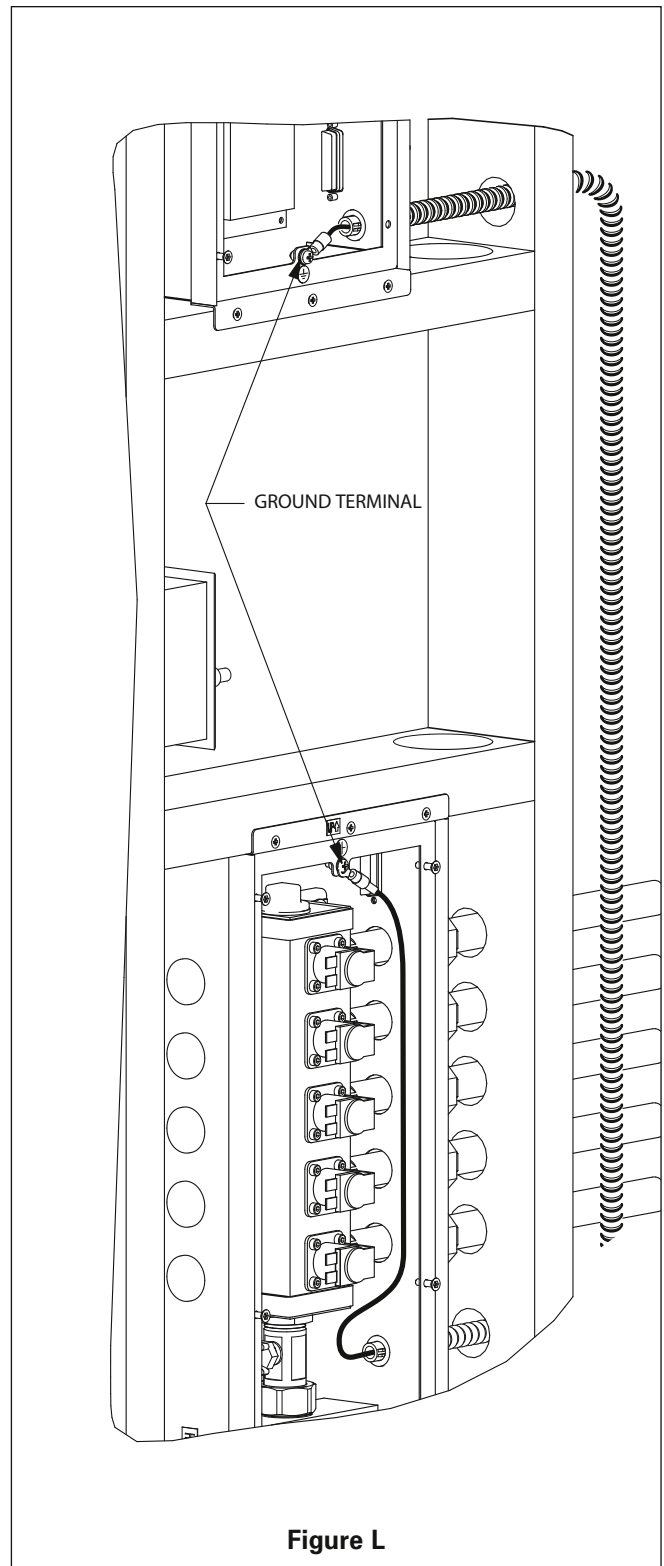
Connect ground leads as shown to ground terminal (Figure L).

STEP 5

Connect red wire to the positive battery terminal (+), as shown in (Figure K).

STEP 6

Re-install TMV and Electronic Module covers with tamper-resistant screws using the Module Access Wrench (provided).



Cable Connection



Failure to comply with this instruction may result in damage to or destruction of part or all of the product and may void warranty.



Risk of electrical shock may occur and cause serious injury or death if you do not follow installation instructions. The ESS system is provided with a grounding plug (three-prong) for protection against shock hazard. Connect only to a circuit protected by a Class "A" Ground Fault Circuit Interrupter and properly grounded receptacle. The plumbing and electrical sources must conform to local and national codes.

STEP 1

Connect Interface Cable to Electronic Module and TMV Module as shown (Figure M-1).

STEP 2

Route Control Cable from shower mounting location to the Electronic Module as shown (Figures M-1 and M-2). Route or protect cable in a manner that prevents puncture from dry wall screws.

STEP 3

Connect Control Cable to Electronic Module by first aligning and then turning swivel nut clockwise to lock securely.

STEP 4

Plug Power Cable into Electronic Module and plug into power source (120V AC).

STEP 5

Additional Device

Follow the steps below to connect Additional Device Power Cable into Electronic Module:

- Plug the Additional Device Power Cable into the Electronic Module.
- Plug the additional device into the Additional Device Power Cable as shown in Figure M-3

Check and follow local electrical codes for installation.

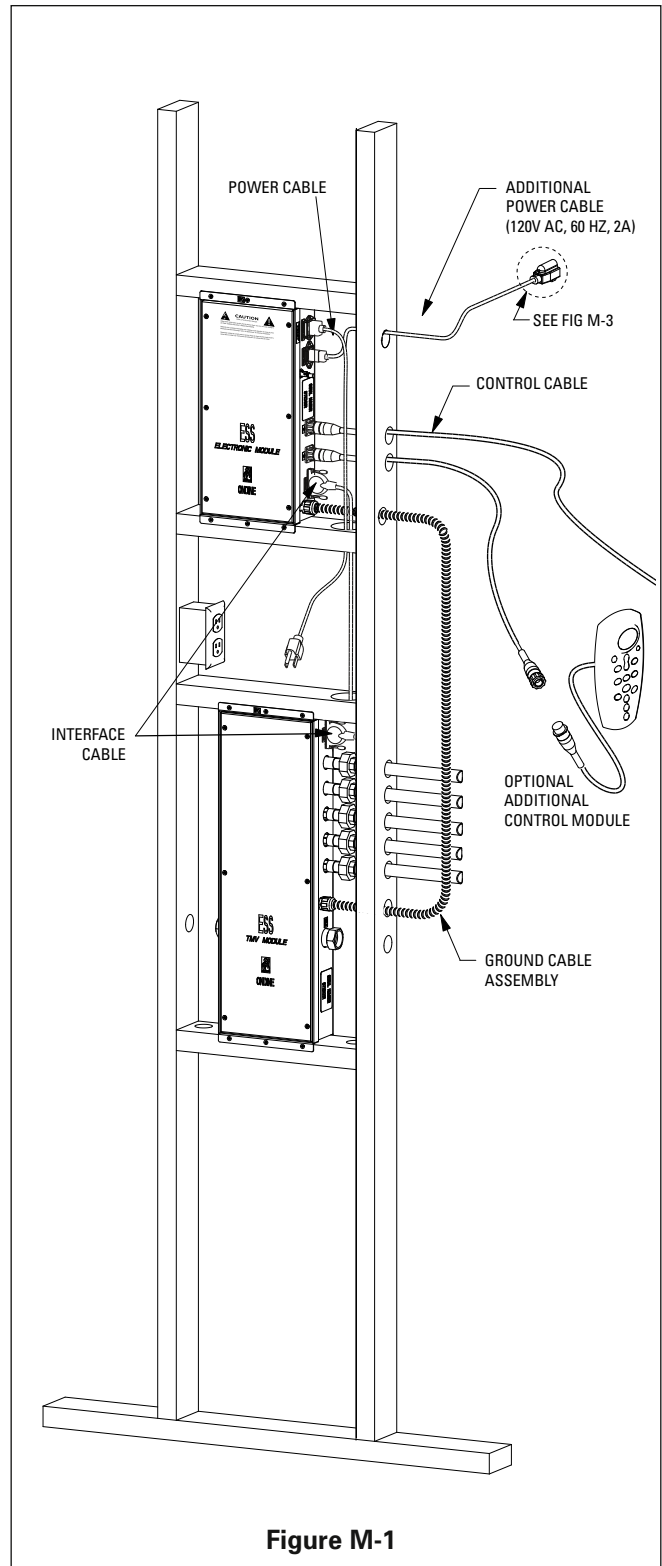
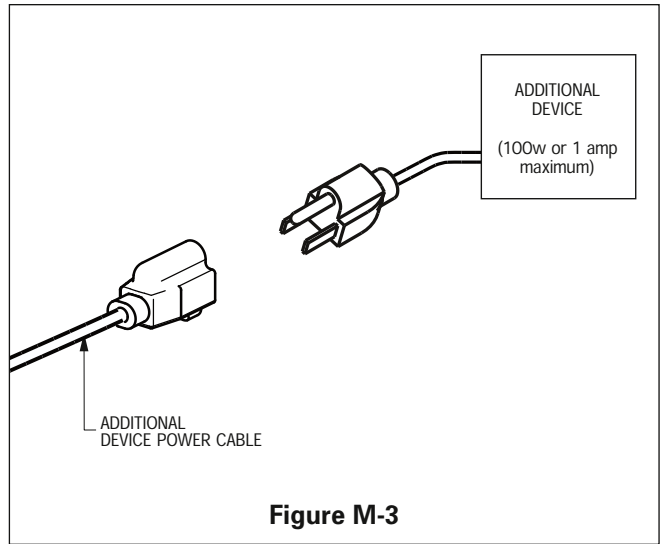
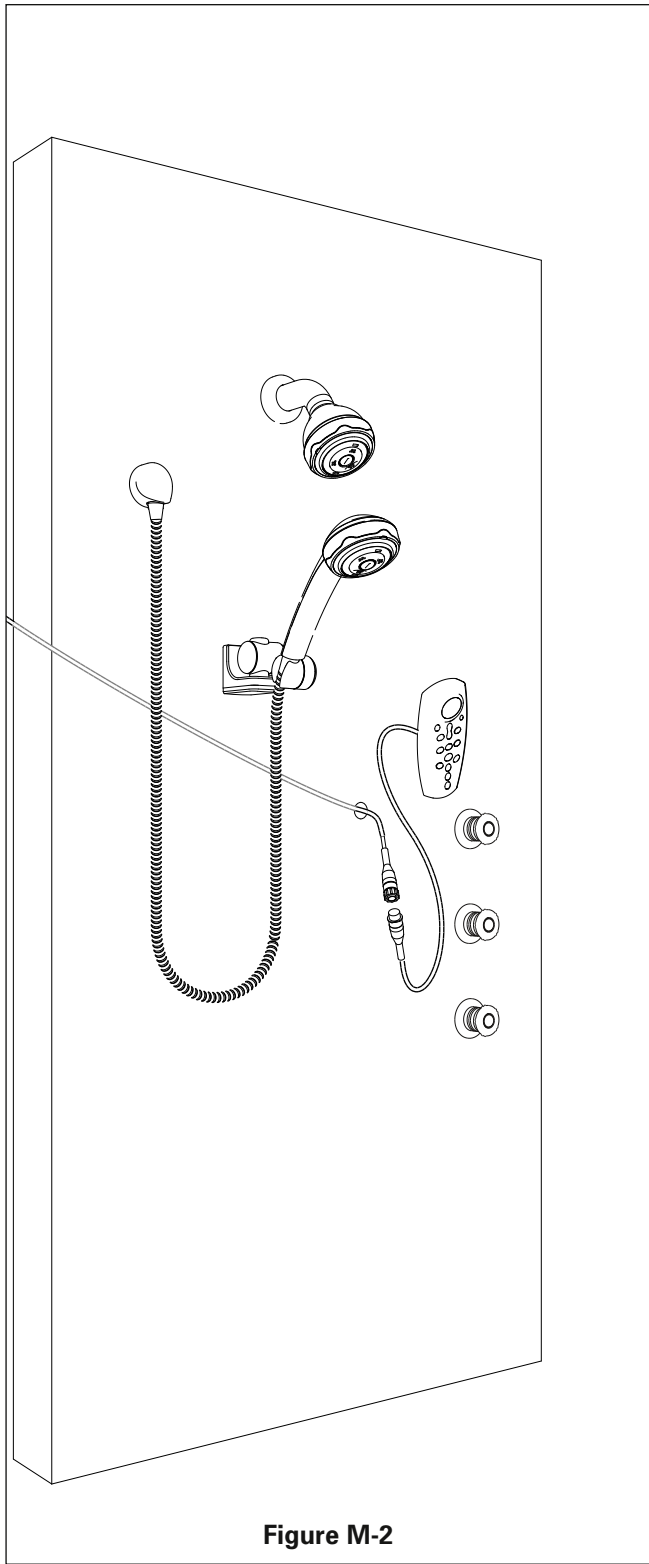


Figure M-1

Cable Connection



For Control Module installation, see pages 20-21.



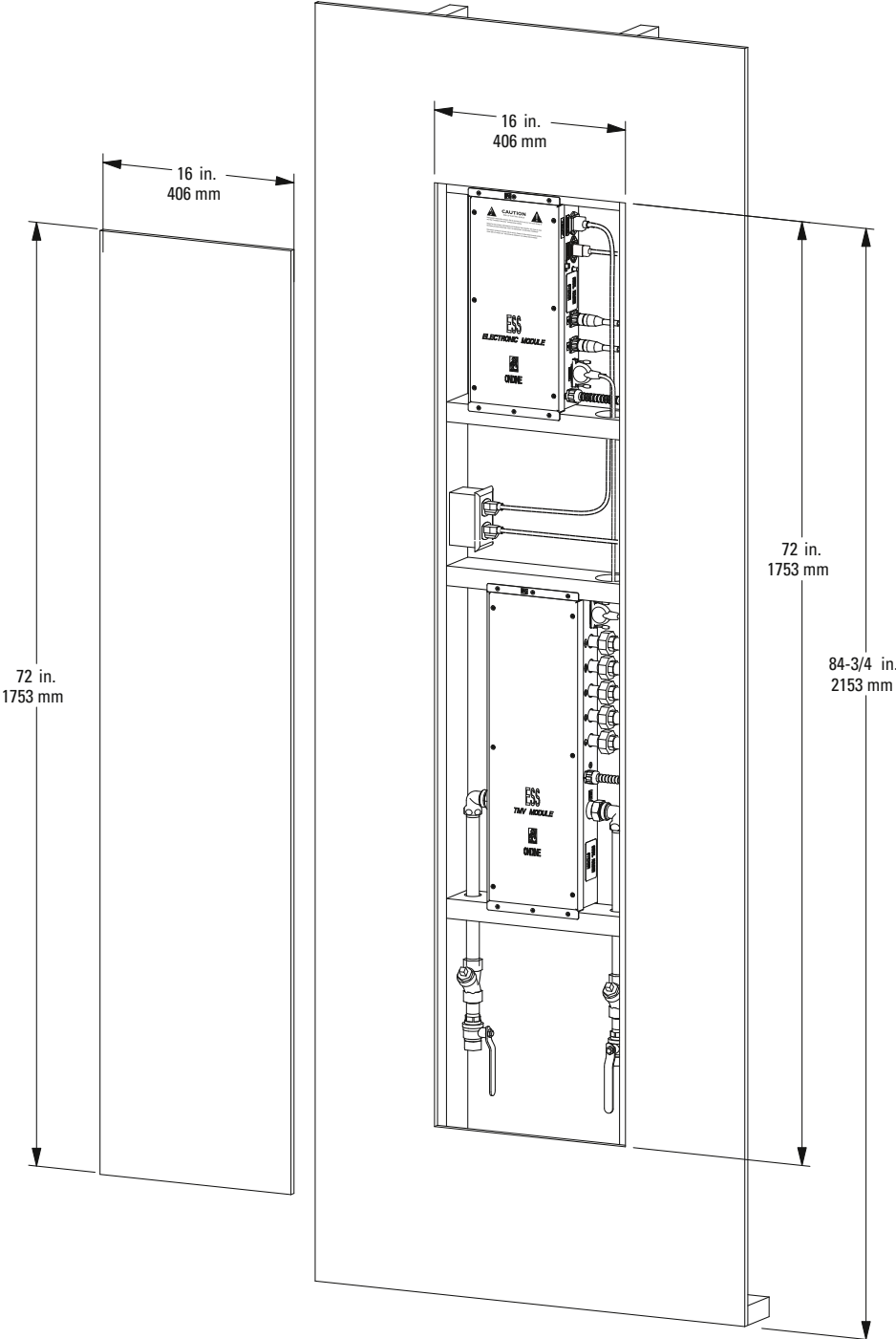
Risk of electrical shock may occur and cause serious injury or death if you do not follow installation instructions. The ESS system is provided with a grounding plug (three-prong) for protection against shock hazard. Connect only to a circuit protected by a Class "A" Ground Fault Circuit Interrupter and properly grounded receptacle. The plumbing and electrical sources must conform to local and national codes.

NOTE:

To connect to an additional device that requires more than 1 Amp, please contact Interbath Technical Services at 800-423-9485.

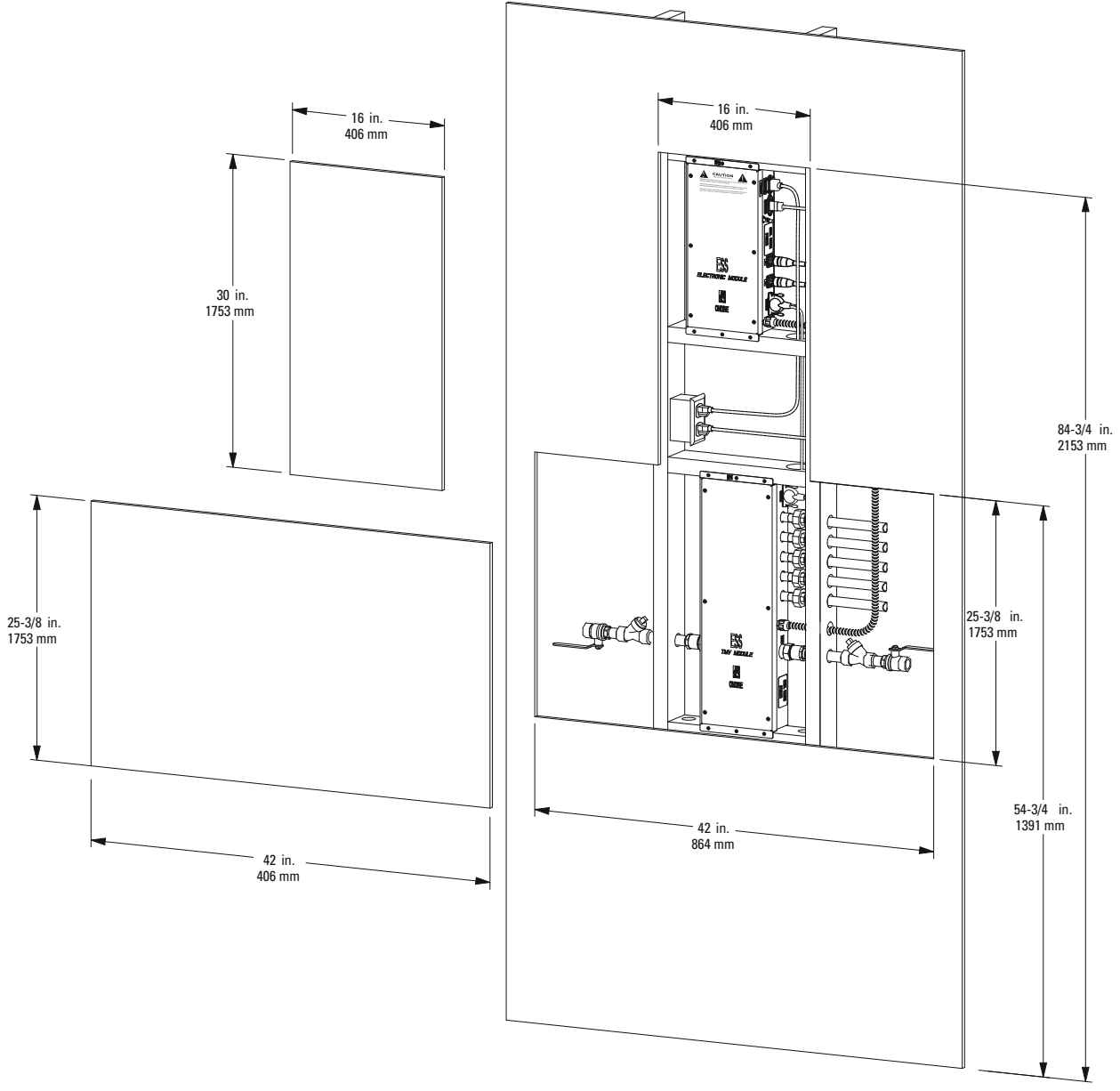
Access Panel Construction

Elbow Fitting

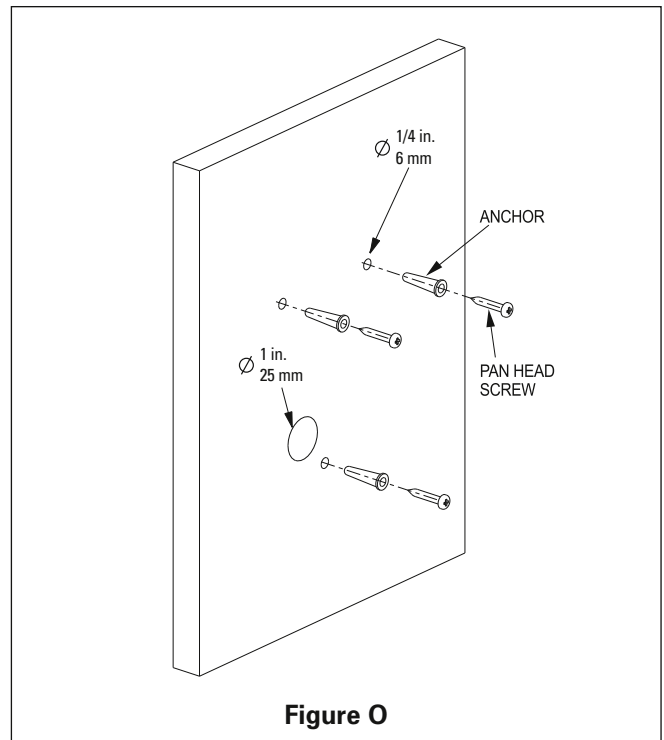
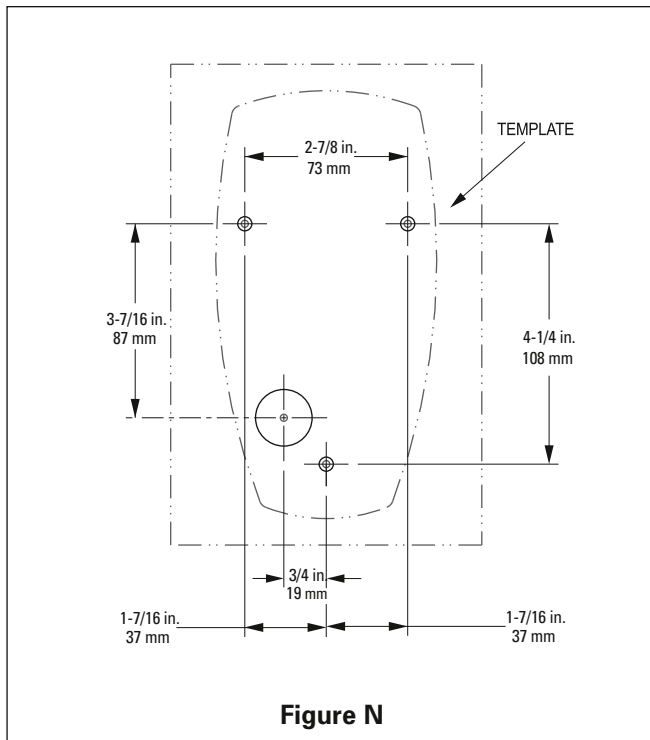


Access Panel Construction

Straight Fitting



Control Module Installation



STEP 1

See enclosed templates from "Instruction Booklet."

STEP 2

Place template in desired location in bathing area.

STEP 3

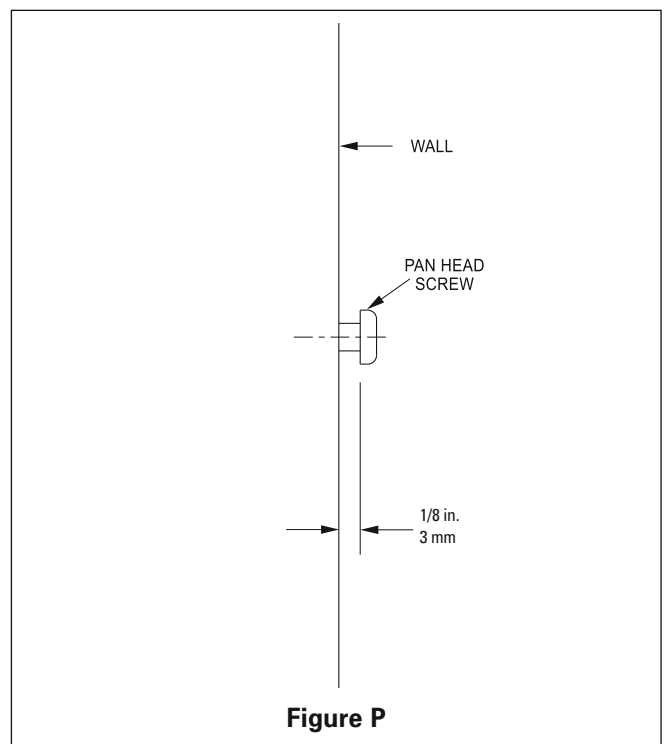
Locate mounting holes and mark centers (Figure N).

STEP 4

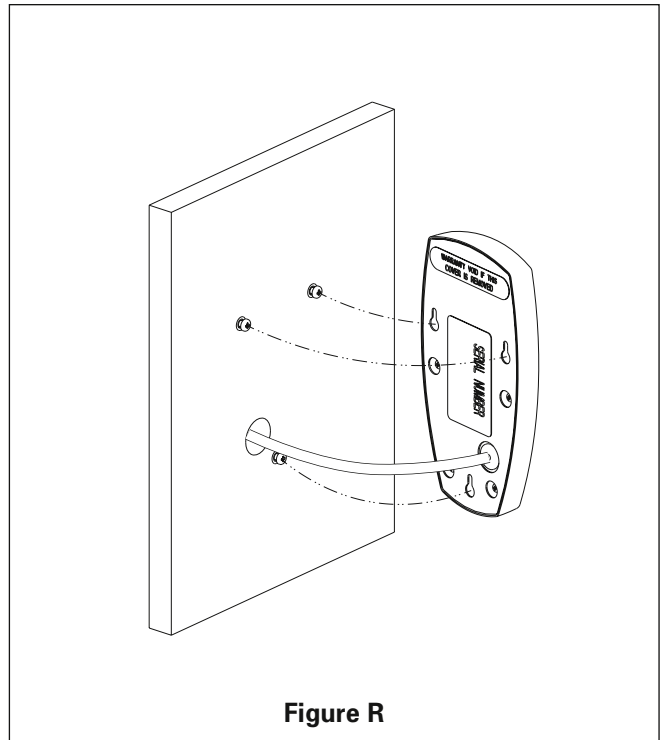
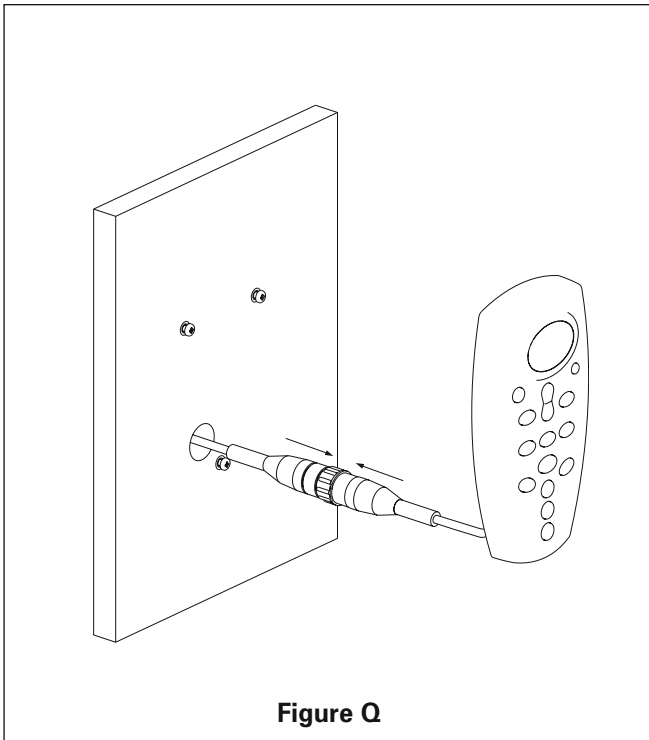
Level first, then drill holes to recommended size (Figure O). Insert anchors into the three $\frac{1}{4}$ -inch holes (Figure P).

STEP 5

Mount #8-32 pan head screws as shown. Tighten screws until screws bottom out, then back off $1\frac{1}{2}$ turns (Figure P).



Control Module Installation



STEP 6

Connect Control Module to pre-routed Control Cable. Align keyway and turn swivel nut to lock (Figure Q).

STEP 7

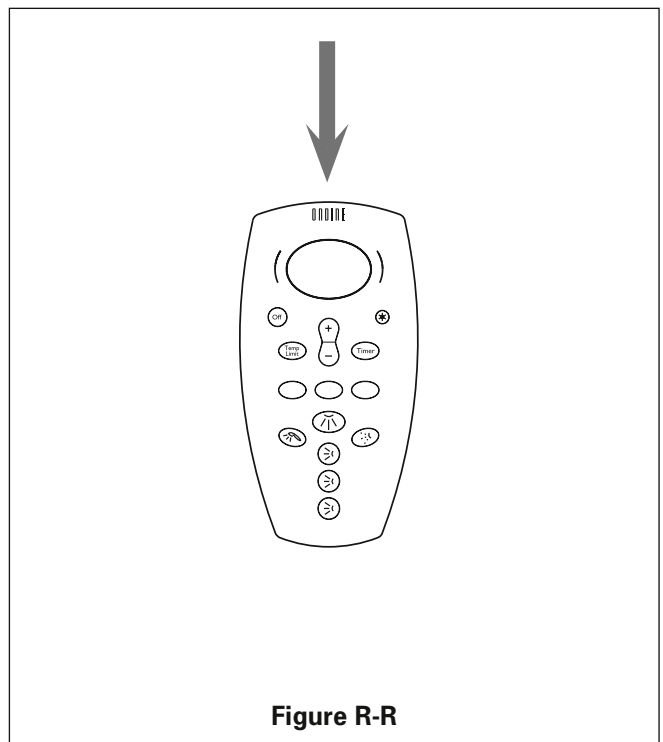
Insert Control Cable Assembly into 1 in. hole (Figure R).

STEP 8

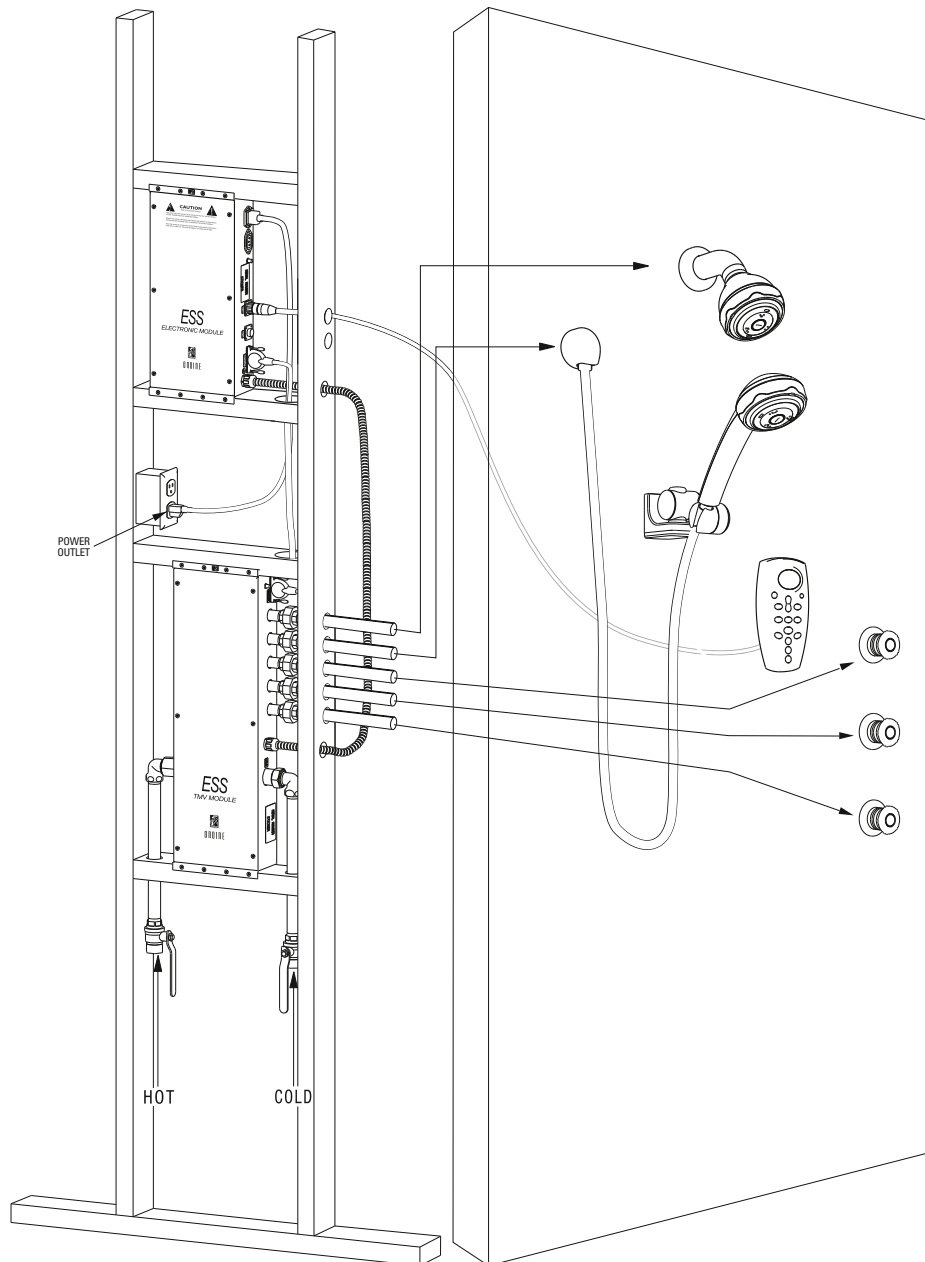
Align mounting-slot on the Control Module to mounted screws and slide Control Module downward (Figure R-R).

STEP 9

If the Control Module is loose, remove unit and tighten mounting screws slightly.

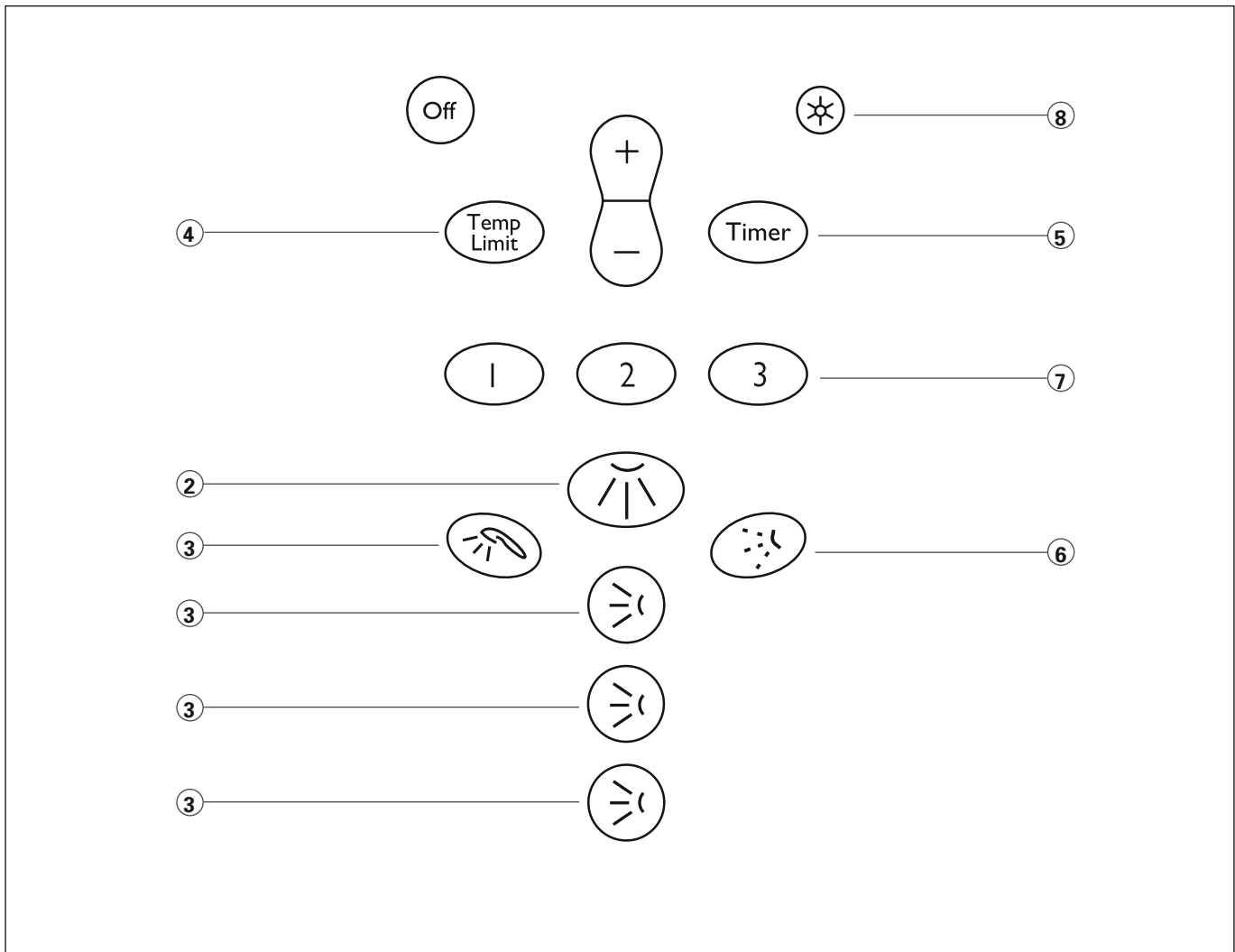


Pre-Operation System Check



- 1. Power outlet supplies 120V AC, 60Hz, 2A.
- 2. Unit is plugged into power outlet.
- 3. Ground Cable is connected and secure.
- 4. Interface Cable is connected and secure.
- 5. Control Cable is connected and secure.
- 6. Hot and cold water are supplied to the correct inlets.
- 7. Check all plumbing connections for leaks and tighten, if necessary.

System Function Check



- 1. A blinking light appears in the display window of the Control Module.
- 2. Press Showerhead button . Display should read 98° F (38° C). Showerhead icon lights up on left side of the display window. Showerhead should be on. Press again to turn the showerhead off.
- 3. Repeat Step 2 as needed for the other buttons.
- 4. Press and hold Temp Limit button . Display should read 113° F (45° C).
- 5. Press and hold Timer button . Display should read 20 (minutes).
- 6. Press Pulsation button . Body sprays should be on and pulsating at 2 second intervals. Press again to turn body sprays off.
- 7. Press Preset buttons , and . Corresponding numbers light up at the top of the display. Press again to turn Preset programs off.
- 8. If you have installed an additional device, such as a separate light or audio system, press button to test. If you have installed ONDINE's Electronic Light Shower (ELS) with ESS, the button can turn the light on or off and control the color wheel. Here is how it works:
 Press button 1st time to turn the ELS light on which also activates the color wheel. The light will change color as the color wheel rotates through the 4 different light pallets.
 Press a 2nd time and the color wheel will stop and remain on the light color of your choice.
 Press button a 3rd time and the light and color wheel will turn off.