

INTRODUCTION



CAUTION

Please follow these installation instructions carefully in order to avoid a safety hazard and/or injury.

- The Easy Plumbing Cascade Manifold Kit is approved for use with RTGS, RTGR, and LT Series water heaters ONLY. This manifold is not to be used with any other manufacturer's products.
- This accessory must be installed and serviced by a professional service contractor or service agency per manufacturer instructions in addition to local codes.

This Easy Plumbing Cascade Manifold Kit can be installed on the cascade rack system or mounted directly onto a wall. When mounting on a wall, use the proper screws and anchors to affix the units and manifold piping to existing wall studs. Do **NOT** mount the assembly to dry wall with no additional support.

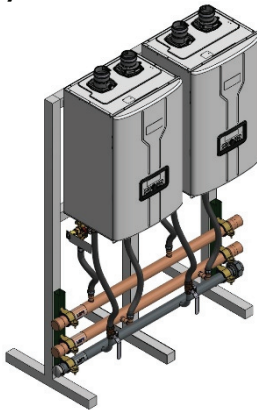
Before starting the installation, determine the desired manifold setup based on the number of tankless water heaters as well as the amount of available space at the location. See below for the various installation options.

REQUIREMENTS FOR THE STATE OF MASSACHUSETTS

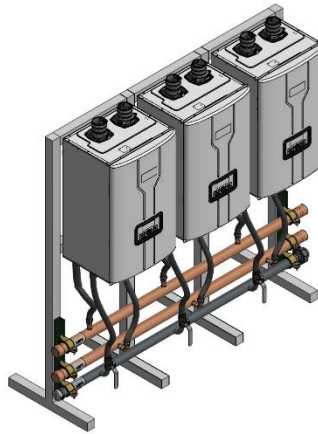
This accessory must be installed by a licensed plumber or gas fitter in accordance with the Massachusetts Plumbing and Fuel Gas Code 248 CMR Sections 4.00 and 5.00. Refer to the Installation Manual for more information.

PROVIDED SOLUTIONS

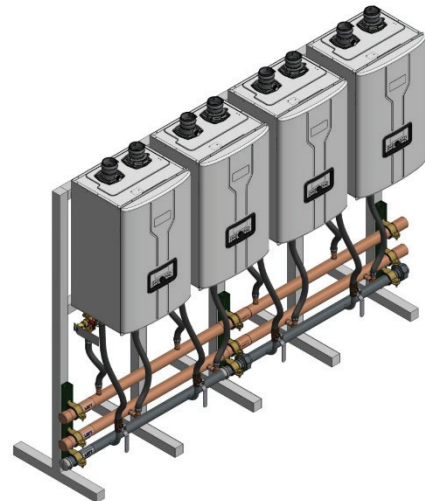
Side-by-Side Solutions



2-Unit Side-by-Side
(P2151900)

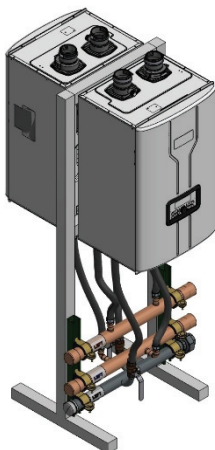


3-Unit Side-by-Side
(P2152100)

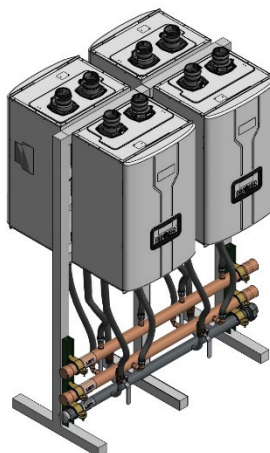


4-Unit Side-by-Side
(2 kits of P2151900)

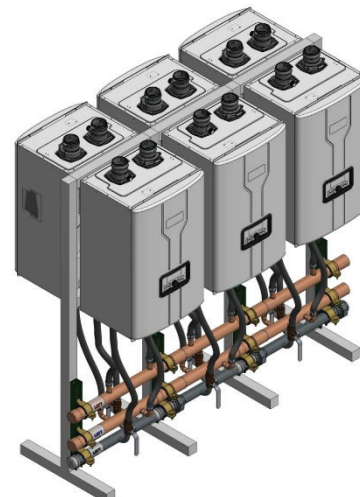
Back-to-Back Solutions



2-Unit Back-to-Back
(P2152000)



4-Unit Back-to-Back
(P2152200)

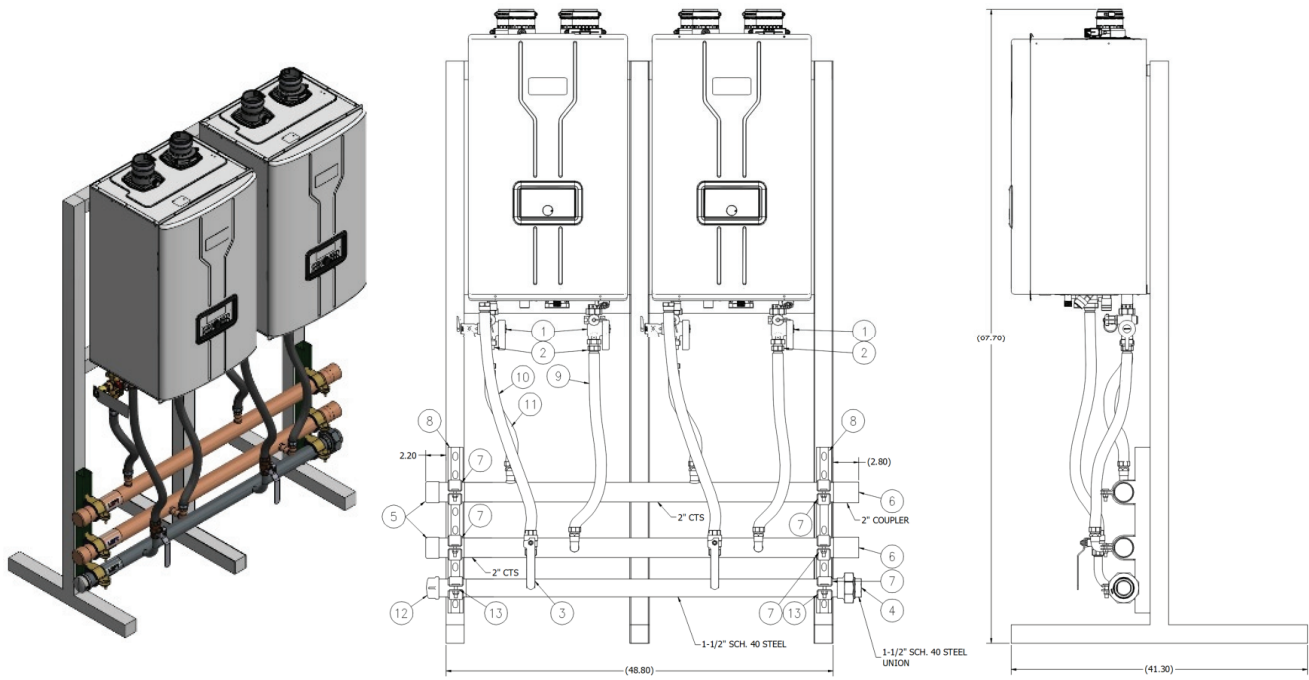


6-Unit Back-to-Back
(P215200 and P2152200)

Easy plumbing Cascade Manifold Kit

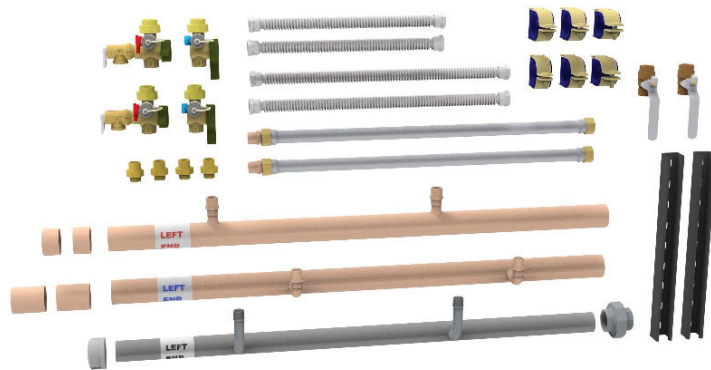
Installation Instructions

INCLUDED PARTS AND DIMENSIONS



2 Side-by-Side Cascade Manifold

INCLUDED MATERIALS IN KIT		
ITEM	QTY	DESCRIPTION
1	2	3/4" Service Valves with PRV
2	4	3/4" X 3/4" Adapter
3	2	3/4" NPT Ball Valve
4	1	1-1/2" Gas Union
5	2	2" Copper End Cap
6	2	2" Copper Coupling
7	4	2-1/8" Strut Clamp
8	2	1-5/8" x 18" Strut Channel (14ga)
9	2	3/4" x 24" SS Corrugated Flex Connector
10	2	3/4" x 30" Gas Flex Connector
11	2	3/4" x 18" SS Corrugated Flex Connector
12	1	1-1/2" FPT Galvanized Iron End Cap
13	2	1-7/8" OD Strut Clamp
14	1	Hardware Kit

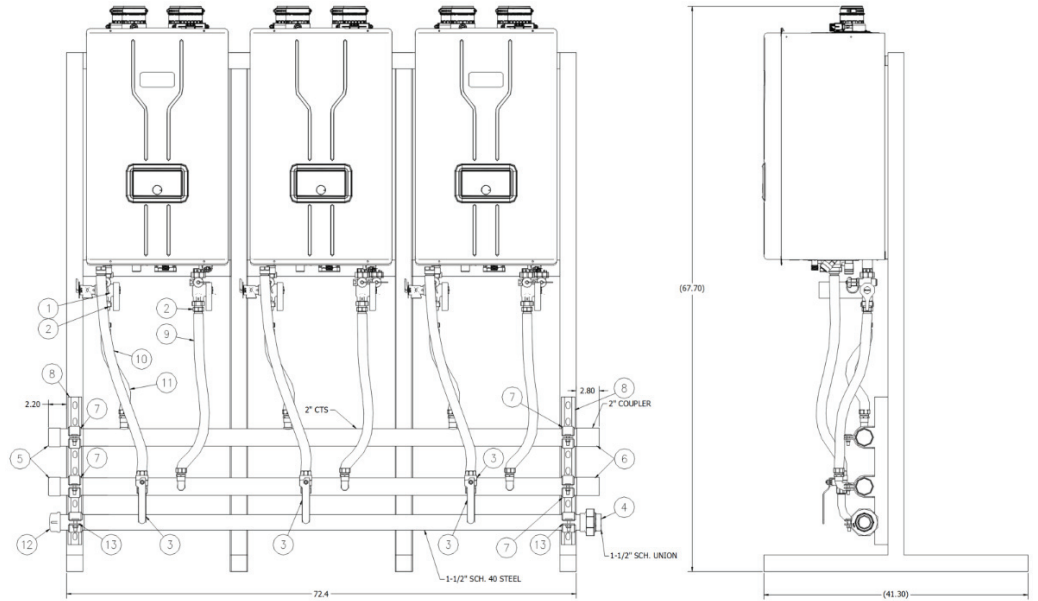
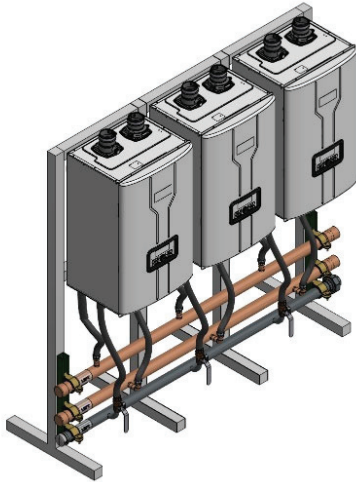


Easy plumbing Cascade Manifold Kit

Installation Instructions

INCLUDED PARTS AND DIMENSIONS

3



3 Side-by-Side Cascade Manifold

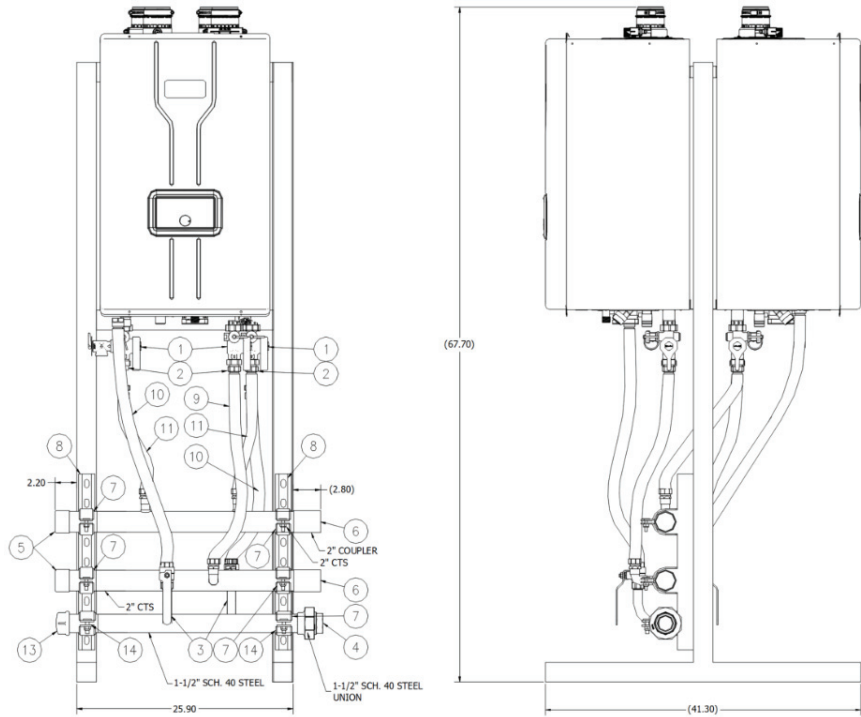
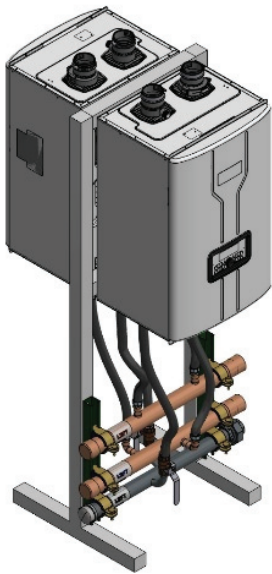
INCLUDED MATERIALS IN KIT		
ITEM	QTY	DESCRIPTION
1	3	3/4" Service Valves with PRV
2	6	3/4" X 3/4" Adapter
3	3	3/4" NPT Ball Valve
4	1	1-1/2" Gas Union
5	2	2" Copper End Cap
6	2	2" Copper Coupling
7	4	2-1/8" Strut Clamp
8	2	1-5/8" x 18" Strut Channel (14ga)
9	3	3/4" x 24" SS Corrugated Flex Connector
10	3	3/4" x 30" Gas Flex Connector
11	3	3/4" x 18" SS Corrugated Flex Connector
12	1	1-1/2" FPT Galvanized Iron End Cap
13	2	1-7/8" OD Strut Clamp
14	1	Hardware Kit



Easy plumbing Cascade Manifold Kit

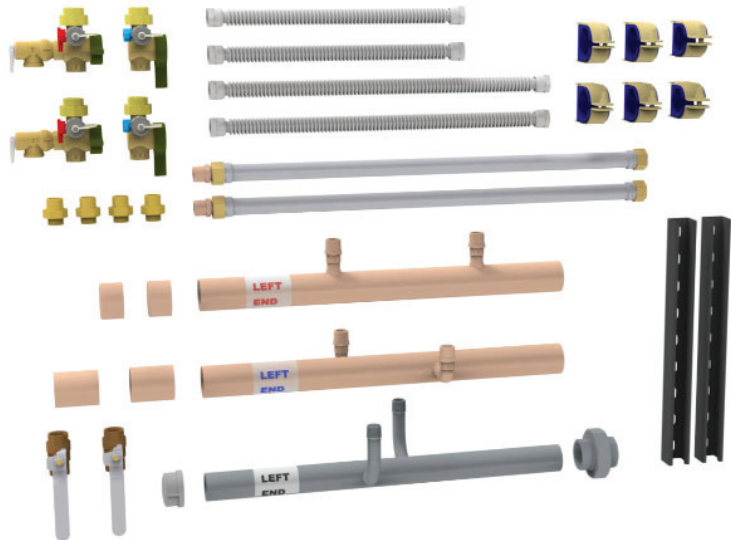
Installation Instructions

INCLUDED PARTS AND DIMENSIONS



2 Back-to-Back Cascade Manifold

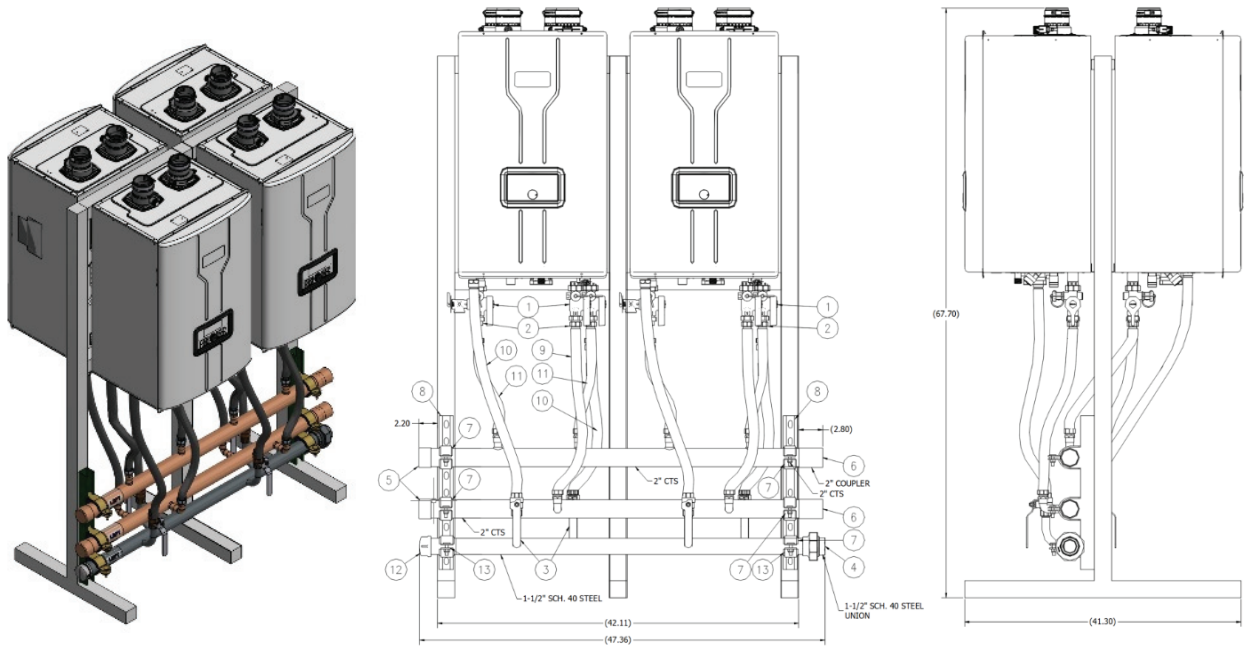
INCLUDED MATERIALS IN KIT		
ITEM	QTY	DESCRIPTION
1	2	3/4" Service Valves with PRV
2	4	3/4" X 3/4" Adapter
3	2	3/4" NPT Ball Valve
4	1	1-1/2" Gas Union
5	2	2" Copper End Cap
6	2	2" Copper Coupling
7	4	2-1/8" Strut Clamp
8	2	1-5/8" x 18" Strut Channel (14ga)
9	2	3/4" x 24" SS Corrugated Flex Connector
10	2	3/4" x 30" Gas Flex Connector
11	2	3/4" x 18" SS Corrugated Flex Connector
12	1	1-1/2" FPT Galvanized Iron End Cap
13	2	1-7/8" OD Strut Clamp
14	1	Hardware Kit



Easy plumbing Cascade Manifold Kit

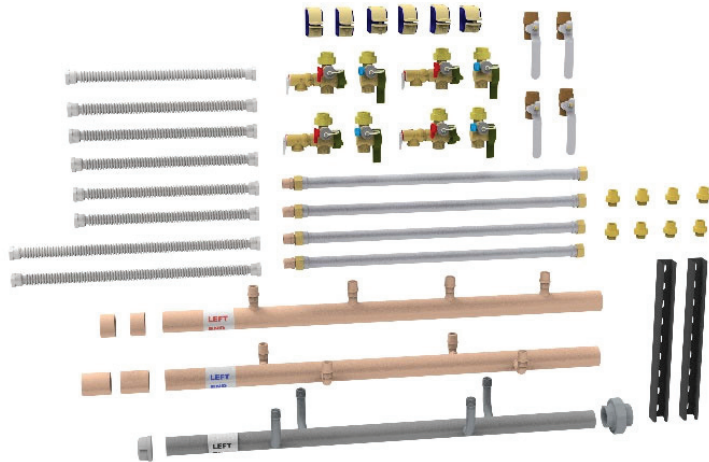
Installation Instructions

INCLUDED PARTS AND DIMENSIONS



4 Back-to-Back Cascade Manifold

MATERIALS INCLUDED IN KIT		
ITEM	QTY	DESCRIPTION
1	4	3/4" Service Valves with PRV
2	8	3/4" X 3/4" Adapter
3	4	3/4" NPT Ball Valve
4	1	1-1/2" Gas Union
5	2	2" Copper End Cap
6	2	2" Copper Coupling
7	4	2-1/8" Strut Clamp
8	2	1-5/8" x 18" Strut Channel (14ga)
9	2	3/4" x 24" SS Corrugated Flex Connector
10	4	3/4" x 30" Gas Flex Connector
11	6	3/4" x 18" SS Corrugated Flex Connector
12	1	1-1/2" FPT Galvanized Iron End Cap
13	2	1-7/8" OD Strut Clamp
14	1	Hardware Kit



Easy plumbing Cascade Manifold Kit

Installation Instructions

INCLUDED PARTS AND DIMENSIONS

Side by Side Installations			
Heater Count	Manifold required	Part Number	Quantity
2	2 Unit Side-by-Side	P2151900	1
3	3 Unit Side-by-Side	P2152100	1
4	2 x 2 Unit Side-by-Side	P2151900	2
5	2 Unit Side-by-Side + 3 Unit Side-by-Side	P2151900	1
		P2152100	1
6	2 x 3 Unit Side-by-Side	P2152100	2
7	2 x 2 Side-by-Side + 3 Unit Side-by-Side	P2151900	2
		P2152100	1
8	2 Unit Side-by-Side + 2 x 3 Unit Side-by-Side	P2151900	1
		P2152100	2
Back to back Installations			
Heater Count	Manifold required	Part Number	Quantity
2	2 Unit Back-to-Back	P2152000	1
3-4	4 Unit Back-to-Back	P2152200	1
5-6	2 Unit Back-to-Back + 4 Unit Back-to-Back	P2152000	1
		P2152200	1
7-8	2 x 4 Unit Back-to-Back	P2152200	2
9-10	Bank 1: 2 Unit Back-to-Back + 4 Unit Back-to-Back Bank 2: 4 Unit Back-to-Back	P2152000	1
		P2152200	2

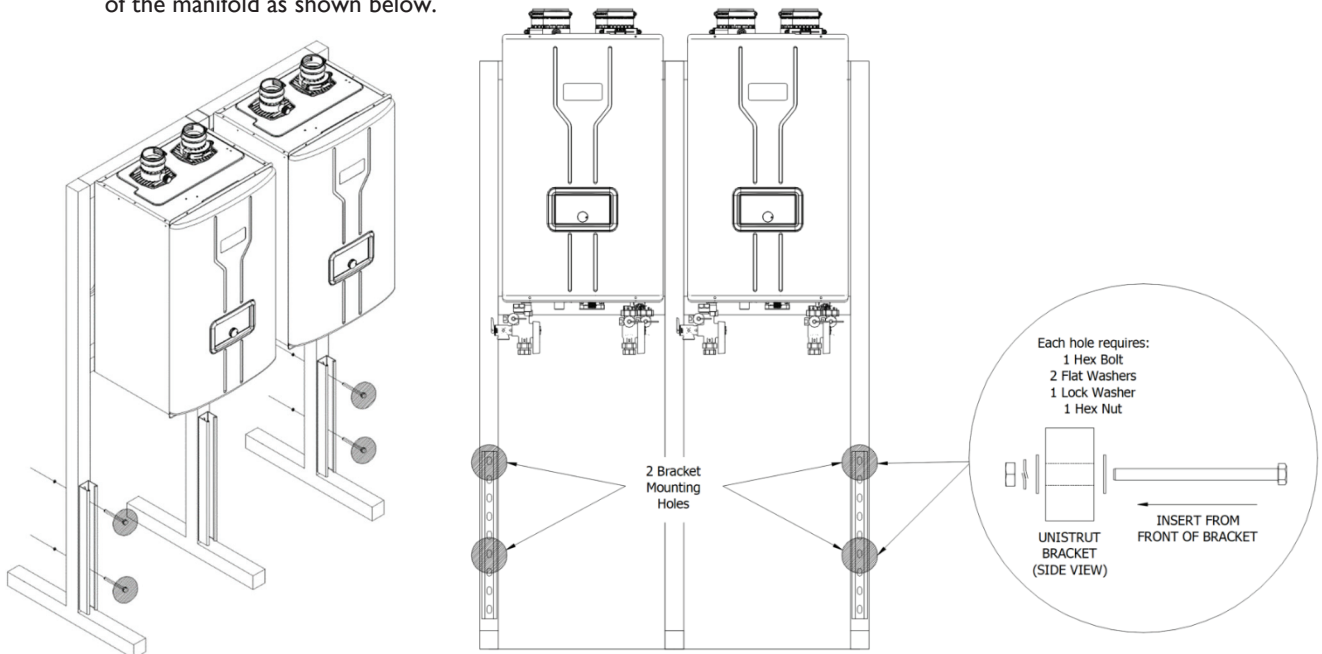
NOTE: When adding additional manifolds, field adjustment of the main piping may be necessary in order to properly connect the provided flex connectors to the water heaters. See page 7 for more information.

Easy Plumbing Cascade Manifold Configuration Chart

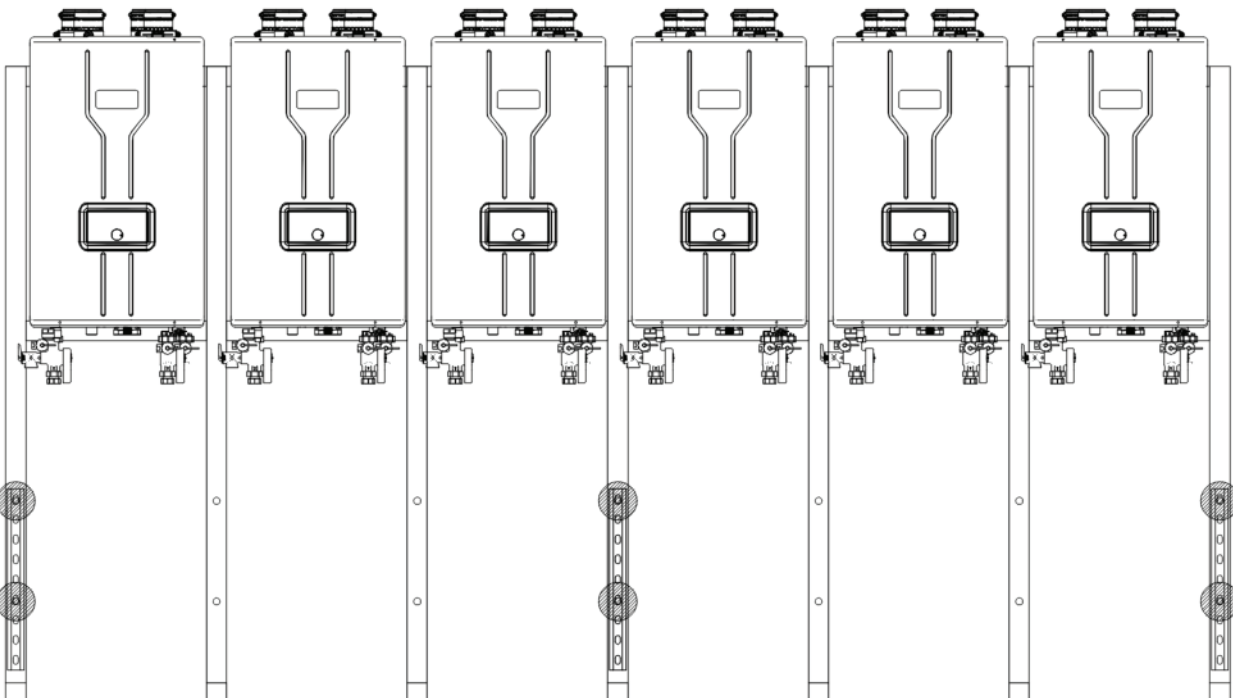
CASCADE MANIFOLD INSTALLATION

- After the Cascade Rack System is fully assembled and the water heaters are mounted, find the 2 pre-drilled mounting holes on each side of the rack. Prepare the necessary parts from the hardware kit to attach the strut channel to the rack (see below).

For individual kits, install the provided strut channels using the bottom 2 mounting holes on both ends of the manifold as shown below.



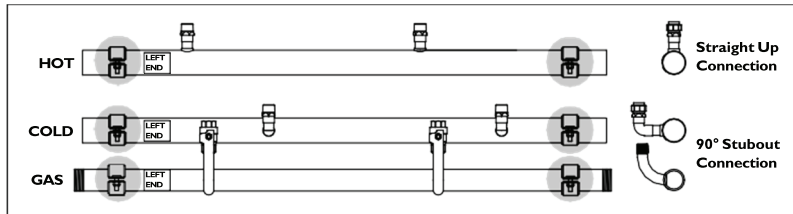
- For any **SIDE-by-SIDE** or **BACK-to-BACK** applications that require multiple manifold kits, install strut channels on both ends and also at the location closest to the midpoint of the rack as shown below. See page 6-7 for additional guidelines when using multiple kits.



6-Unit Side-by-Side Manifold Pre-Installation

EASY PLUMBING CASCADE MANIFOLD INSTALLATION (continued)

- Starting from the bottom to top, install the **GAS**, **COLD**, then **HOT** water piping in this order to allow for an easier installation. The piping can be pre-set on the floor before attaching to the rack or wall.



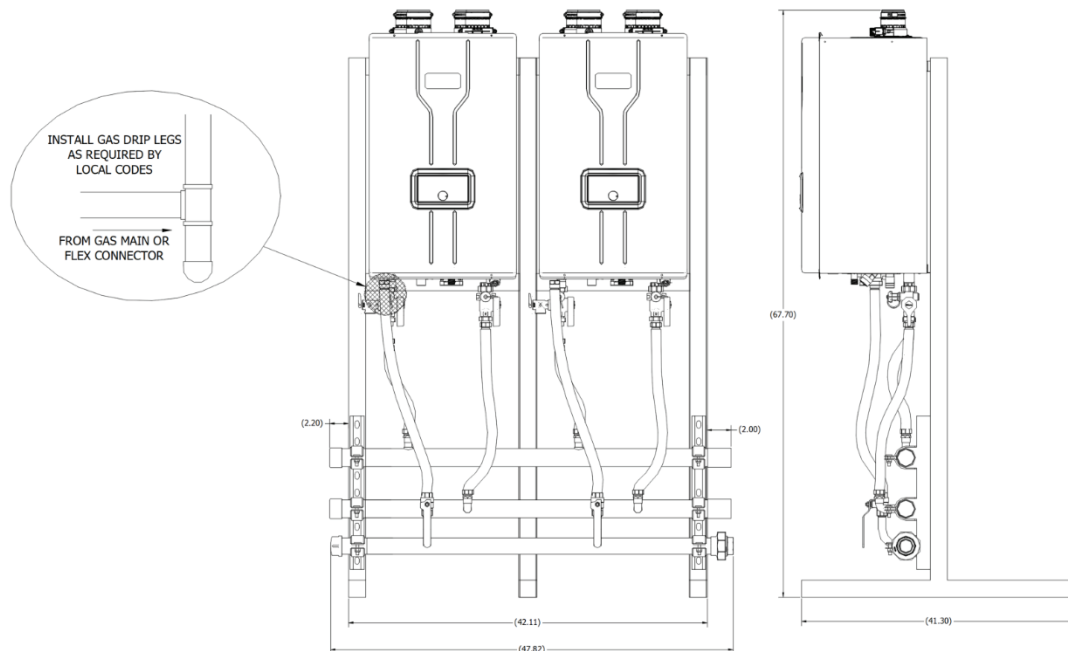
Example of Pre-Installation Setup for 2-Unit Side-by-Side Application

With each manifold pipe positioned in order and the portions labeled **LEFT END** all placed on the left side of the assembly, install the provided strut clamps onto the ends of each manifold pipe as shown in the illustration above. With the clamps in place, insert them into the strut channel while holding the pipe in position. Apply sufficient vertical spacing between the piping to allow for proper connection to the units using the flexible water and gas connectors.

Lock all the strut clamps in place by tightening the attached nuts and bolts, then proceed with the installation of the flexible **GAS** (gray) and **WATER** (corrugated stainless) lines, 3/4" service valves, pressure relief valves and gas drip legs (as required by local codes).

Choose the desired location of the main **GAS** and **WATER** supply connections on either the **LEFT** or **RIGHT** side of the manifold and use the included couplings and unions on the proper ends of the piping. Install caps on any unused connections to prevent water leakage.

NOTE: Account for proper spacing of the strut channels and manifold piping as well as suitable positions for the mounting hardware before attaching the manifold to the Ready-Link® Rack or on a wall. Additional plumbing such as recirculation and condensate drain lines must also be considered.



- Up to 2 manifold kits can be combined by connecting the portion of the pipe labeled **LEFT END** to the open end of the manifold piping. See below and the following page for additional guidelines.
 - The provided strut channels must be installed at both ends of the manifold as well as near the midpoint for even distribution of weight support for the water and gas piping. Also, choose a location for the brackets where they are placed away from any fittings that may cause interference.

Easy Plumbing Cascade Manifold Kit

Installation Instructions

EASY PLUMBING CASCADE MANIFOLD INSTALLATION (continued)

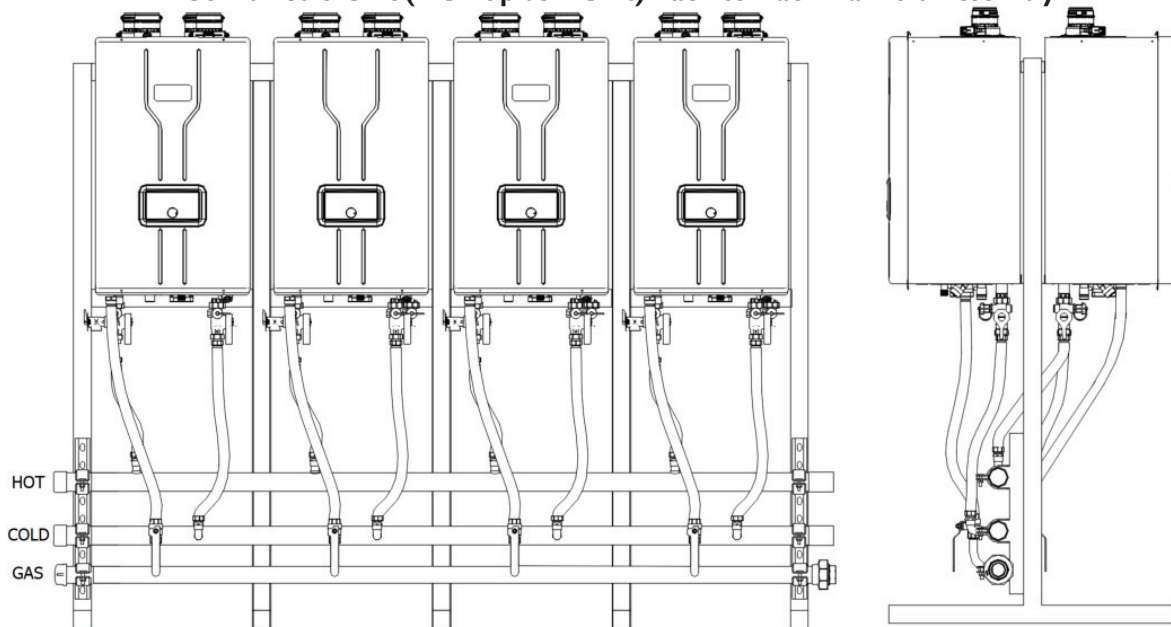
- When adding a third manifold kit, the main piping may require field adjustments in order to properly attach the flex connectors to the available connections on the water heaters.
- The copper water piping can be shortened to compensate for the additional length added from pipe fittings.
- The gas pipe CANNOT be modified in any way but can be shifted LEFT or RIGHT in order to improve the positioning for the pipe to connect to the water heaters using the included flex connectors.

See below for Installation Examples of various applications with individual and multiple Easy Plumbing Manifold kits

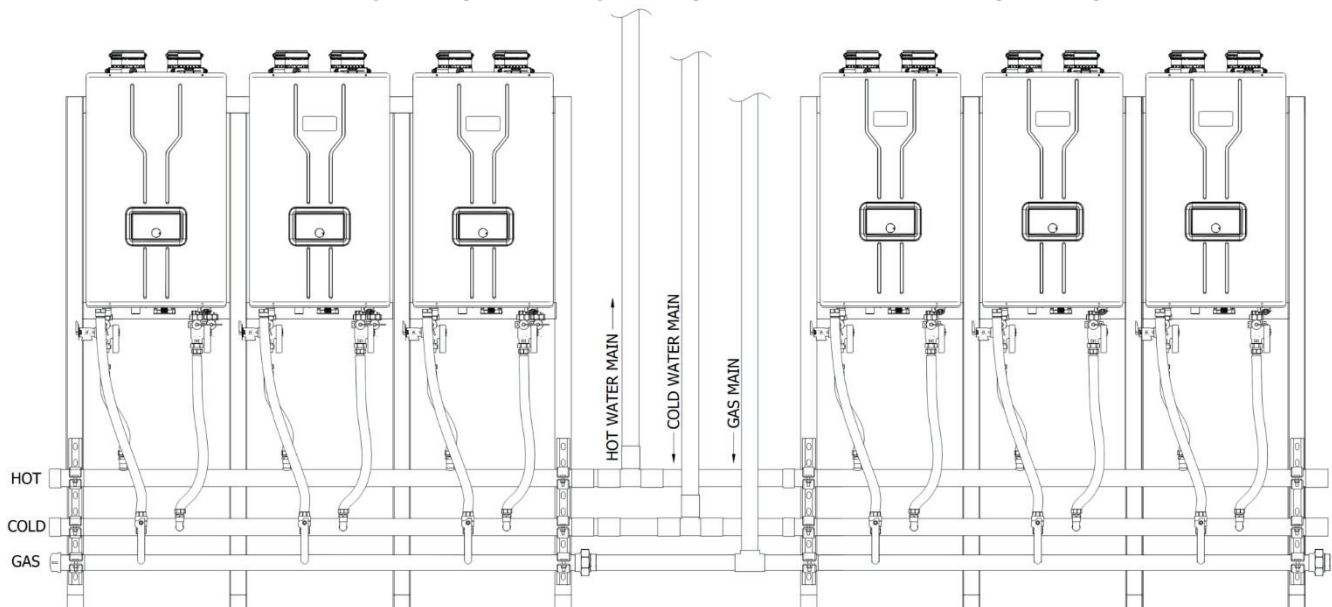
INSTALLATION EXAMPLES

NOTE: These diagrams are for illustrative purposes only.

Combined 8-Unit (4-Unit plus 4-Unit) Back-to-Back Manifold Assembly



Combined 6-Unit (3-Unit plus 3-Unit) Side-by-Side Manifold Assembly with Split Banks



NOTE: Main WATER and GAS lines must be sized for the maximum DHW output capacity of all water heaters in the system.

When a common vent is used, a maximum of 8 water heaters can be connected to a main exhaust trunk.
If the system or bank of units contain 9 or more units, 2 separate exhaust trunks are required.

INSTALLATION EXAMPLES (continued)

4-Unit Side-by-Side Manifold Assembly with Commercial Storage Tank

