

M5S Burner Isolation Kit

INSTALLATION INSTRUCTIONS

IMPORTANT SAFETY INFORMATION

Please read all instructions before installing these components. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored.

WARNING indicates a potentially hazardous situation that if not avoided, could result in personal injury or death.

WARNING:

RISK OF ELECTRICAL SHOCK

Shut off all electrical power to the unit before performing any maintenance or service on the system. Failure to follow this warning can cause serious injury, fire, electrical shock, or death.

WARNING:

This kit must be installed by a qualified service technician in accordance with these instructions and all codes having jurisdiction. Failure to follow these instructions could result in possible equipment damage, serious personal injury, or death.

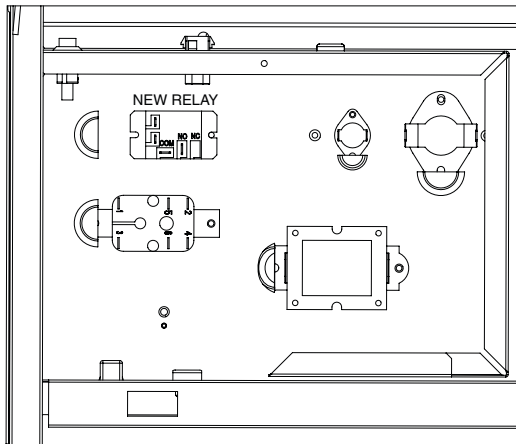


Figure 1. Burner Isolation Kit

DESCRIPTION	PART NUMBER	QTY
Relay	624843	1
20" Wire (Gray)	1018468	1
20" Wire (Blue)	1018510	1
Screws	600255	2
Terminals	632485	2
Wiring Diagram	1018474	1
Instllation Instructions	1018473	1

Table 1. Materials List

ABOUT THE ISOLATION KIT

This kit is to adapt an M5 installation to be compatible with thermostats with only one transformer terminal or to isolate the transformer on the oil burner. The single **R** terminal of the thermostat connects to the fused terminal of the furnace. The existing **W** & **C** connections of the furnace are connected to the coils side of the relay included in this kit. The **NO** and **COM** terminals of the relay are connected to the thermostat terminals of the oil gun (**T** & **T**). The function of this relay is to prevent the furnace transformers and the burner transformer from being out of phase. This kit includes one relay, two wires that lead from the relay to the oil gun, two screws, and two terminals. See Table 1 for a complete list of parts and their part numbers.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of these components. Some local codes may require licensed installation/service personnel for this type of equipment. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Improper installation of the components or failure to follow safety warnings could result in serious injury, death, or property damage. The installer performing this work assumes all responsibility when installing this kit.

INSTALLING THE ISOLATION KIT

1. **IMPORTANT!** Make sure power is turned off to the furnace.
2. Mount the new relay into the electrical box using two screws that are provided in the kit. See Figure 1.
3. Disconnect the two wires from the **T-T** terminals on the oil gun burner. Route them up through the grommet into the electrical box.
4. Cut the wires from step 3. To the appropriate length and strip off ½" from the end. Crimp on the two 20" wires provided in the kit to the **NO** and **COM** terminals on the new relay.
5. Connect the two wires (from step 4) to the coil terminals of the relay. Connect the two 20" wires (provided in the kit) to the **NO** and **COM** relay terminals. See Figure 1.
6. Route the other end of the wires (from the **NO** and **COM** relay terminals) through the grommet in the electrical box.
7. Connect the 20" wires (from step 6) to their corresponding terminals on the oil gun burner control panel. See Figure 2.
8. Affix the new wiring diagram label over the old label. Make sure the new label covers all of the old wiring diagram.

WIRING DIAGRAM

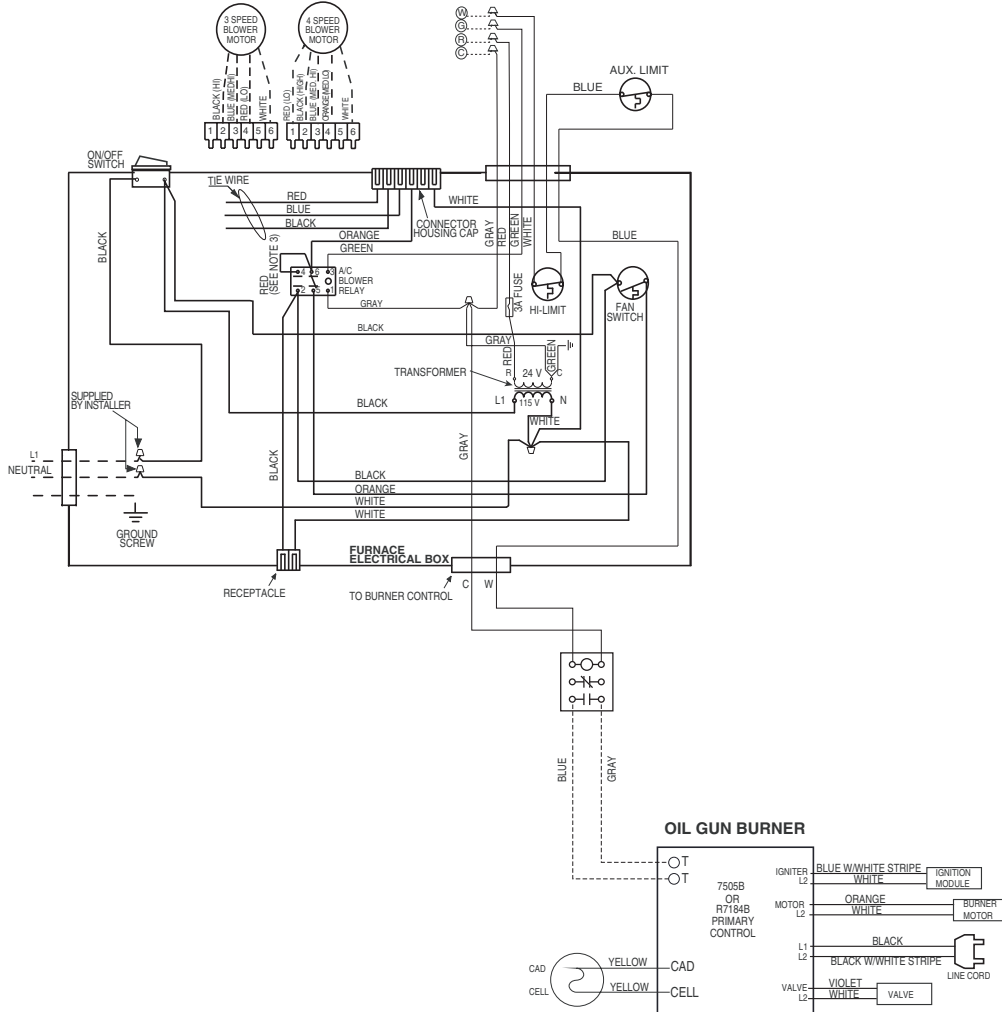
M5S Furnace Series

120 Volt

Single Phase / 60 Hz

NOTES:

- Incoming power must be polarized. Observe color coding. (See furnace data label for electrical information.)
- If any of the original wires (as supplied with the appliance) must be replaced, use 105°C Thermoplastic type wire or its equivalent.
- On models M1(B,S)A and M1/M5(B,S)086 jumper wire is installed. On all other models, cooling speed is connected to black wire.
- A/C Heating Speeds: Refer to Table 12, A/C Blower Selection.
- If any of the original wire supplied with the appliance is replaced, use 105°C wire or equivalent.
- Use copper conductors only.
- Flash Codes: Refer to Table 9, Control Module Status Indicators.



LEGEND:
 FIELD WIRING - - - -
 LOW VOLTAGE ————
 HIGH VOLTAGE ————



10184740
08/17

Figure 2. Wiring Diagram



10184730
(NEW)

Coil Cabinet (Model No. 922594)

INSTALLATION INSTRUCTIONS

Gas & Oil Furnaces for Manufactured Housing

IMPORTANT SAFETY INFORMATION

INSTALLER: Please read all instructions before servicing this equipment. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored.

WARNING - indicates a potentially hazardous situation that if not avoided, could result in personal injury or death.

CAUTION - indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

WARNING:

The safety information listed in this manual must be followed during the installation, service, and operation of this unit. Unqualified individuals should not attempt to interpret these instructions or install this equipment. Failure to follow safety recommendations could result in possible damage to the equipment, serious personal injury or death.

WARNING:

Improper installation, service, adjustment, or maintenance may cause explosion, fire, electrical shock or other hazardous conditions which may result in personal injury or property damage. Unless otherwise noted in these instructions, only factory authorized kits or accessories may be used with this product.

- To minimize equipment failure or personal injury, it is essential that only qualified individuals install, service, or maintain this equipment. If you do not possess mechanical skills or tools, call your local dealer for assistance.
- Follow all precautions in the literature, on tags, and on labels provided with the equipment. Read and thoroughly understand the instructions provided with the equipment prior to performing the installation and operational checkout of the equipment.
- Use caution when handling this appliance or removing components. Personal injury can occur from sharp metal edges present in all sheet metal constructed equipment.

ABOUT THE COIL CABINET

The Coil Cabinet (Model No. 922594) can be used with manufactured housing gas & oil furnaces that do not have a factory installed coil box. Specifically, this coil cabinet allows a 24" tall indoor coil to be used with a manufactured housing gas or oil furnace. This coil cabinet is for use with C**A Series air conditioner/heat pump indoor coils.

INSTALLATION

1. Shut off the electrical power and the fuel supply.
2. Disconnect flue pipes from the furnace and telescope upwards. **NOTE:** Units with roof jack assemblies only.
3. Remove the furnace door.
4. Remove the furnace mounting screws from the front corners of the furnace and slide the furnace off of the duct connector. See Figure 1.
5. Place the coil cabinet on the duct connector.
6. Slide the coil cabinet back onto the mounting plate until the rear tabs (Figure 1) engage with the coil cabinet.
7. Secure the coil cabinet to the floor with one screw at each front corner of the cabinet.
8. Slide the furnace onto the coil cabinet until the rear bracket tabs engage with the rear of the furnace.
9. Secure the front of the furnace with the two mounting screws through the holes provided.
10. If installing an evaporator coil into the coil cabinet, follow the installation instructions provided with the evaporator coil.
11. Remove the front panel from the coil cabinet by removing the sheet metal screws.
12. Remove the knock-out panel on the front panel of the coil cabinet for the refrigerant lines and drain hose.
13. After installation of the refrigerant lines and drain hose, re-install the front panel.
14. Complete the electrical wiring and the fuel line/venting system (for gas and oil furnaces) in accordance with the furnace installation instructions and applicable codes.
15. Install the decorator panel by fitting the clips on the sides of the decorator panel into the clip holes on the coil cabinet. See Figure 2. Secure the top of the decorator panel to the base of the furnace with two screws.

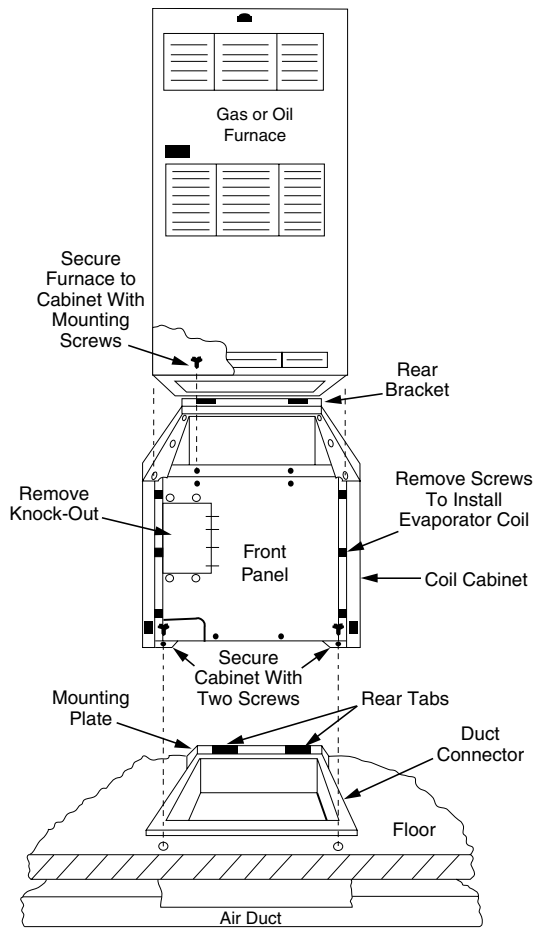


Figure 1. Gas or Oil Furnace

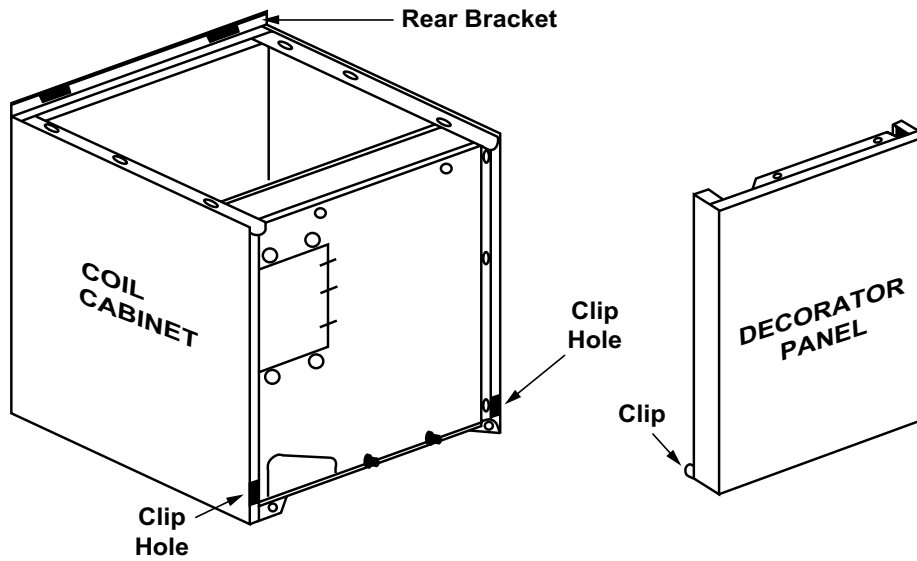


Figure 2. Coil Cabinet with Decorator Panel



Exterior Roof Jack Extension Kits

INSTALLATION INSTRUCTIONS

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of heating and/or air conditioning appliances. Some local codes require licensed installation/service personnel for this type of equipment. Read all instructions carefully before starting the installation.

Used to add additional height to rain caps. (As required by Canadian (CSA) installations.) For Canada the following installation codes apply: CSA B139-1976 Installation code for oil burning equipment. CAN/CGA B149.1-M86 Natural Gas code. CAN/CGA B149.2-M86 Propane Gas code.

DESCRIPTION	MODEL NO.	SPEC. NO.
Exterior Extension 16" Length, 4" Flue Pipe Dia.	EE16A-4	901936-
Exterior Extension 16" Length, 5" Flue Pipe Dia.	EE16A-5	901937-
Exterior Extension (430 SS) 16" Length, 5" Flue Pipe Dia.	EE16A-5SS	902510-

The above extensions may be used to extend the following Telescoping Roof Jack Assemblies.

MODEL NUMBER		
FH1323-4, -5	FO2343-4, -5	SHT2745-4, -5
FH2343-4, -5	SO1835-4, -5	SHT4581-4, -5
SH1835-4, -5	SO2447-4	(F,S)AW(T)-1523 (0,2,4) (A,S)
SH2447-4	SO3263-4, -5	(F,S)AW(T)-2135 (0,2,4) (A,S)
SH3263-4, -5	SO4895-4, -5	(F,S)AW(T)-2747 (0,2,4) (A,S)
SH4895-4, -5	SOT2745-4, -5	(F,S)AW(T)-3563 (0,2,4) (A,S)
FO1323-4, -5	SOT4581-4, -5	(F,S)AW(T)-5195 (0,2,4) (A,S)

⚠ WARNING

Be sure appliance is turned off before installing extension kits.

UPPER PIPE EXTENSION KIT

(Consists of 2 pipes 16" long and 6 #10 sheet metal screws)

1. Remove 3 #10 sheet metal screws from base of roof jack assembly and lift assembly off of the pipes. See Figure 1.

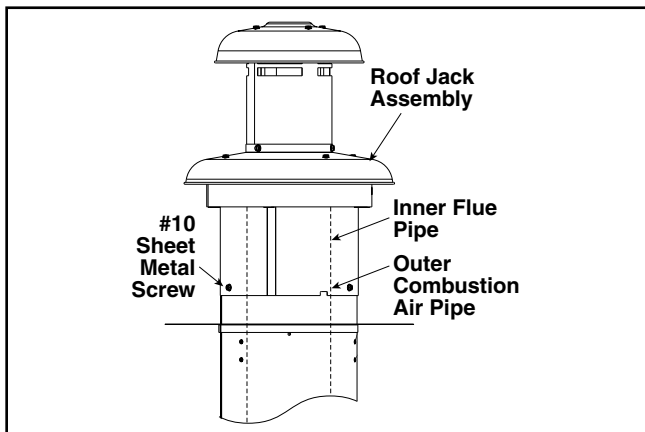


Figure 1.

2. Attach smaller diameter flue pipe to existing flue pipe as shown in Figure 2 by inserting the larger diameter end with stop bead into existing flue and push down to stop. Attach larger diameter outer combustion air pipe onto outer pipe and push downward until pipe seats on stop bead. Secure the outer combustion air pipe in place using the 3 #10 sheet metal screws supplied.

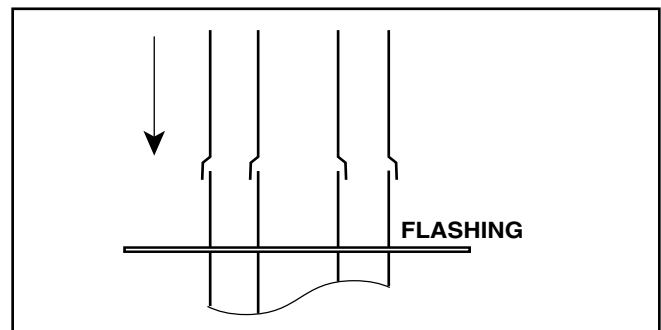


Figure 2.

3. Re-attach previously removed roof jack assembly to newly installed extension pipes. Be sure both pipes slide and seat onto the mating pipes in the roof jack assembly. Secure the roof jack assembly in place onto the outer combustion air pipe as originally installed using 3 #10 sheet metal screws. See Figure 3.

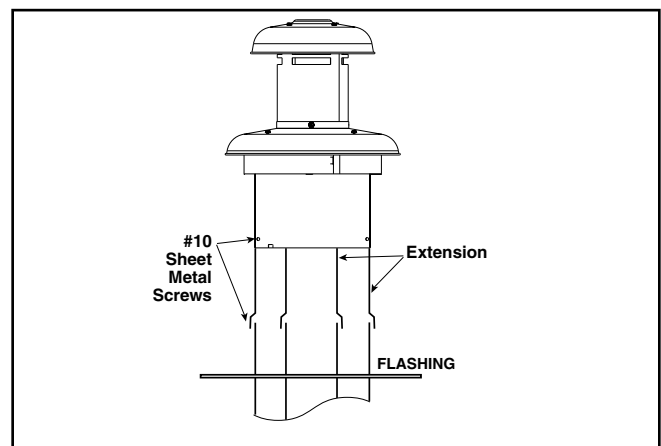


Figure 3.

Interior Roof Jack Extension Kits

INSTALLATION INSTRUCTIONS

IMPORTANT SAFETY INFORMATION

These instructions are primarily intended to assist qualified individuals experienced in the proper servicing of heating and air conditioning appliances. Some local codes require licensed installation / service personnel for this type equipment. Use of this kit must be in accordance with these instructions and with all applicable national and local codes and standards.

INSTALLER: Please read all instructions thoroughly before servicing this equipment. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored. **WARNING** - Indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** - Indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

- The information shown in these instructions must be followed during the installation of this kit. Unqualified individuals should not attempt to interpret these instructions or install this equipment. If you do not possess mechanical skills or tools, call your local dealer for assistance.
- Use caution when removing components or handling this product. Personal injury can occur from sharp metal edges present in all sheet metal constructed equipment.

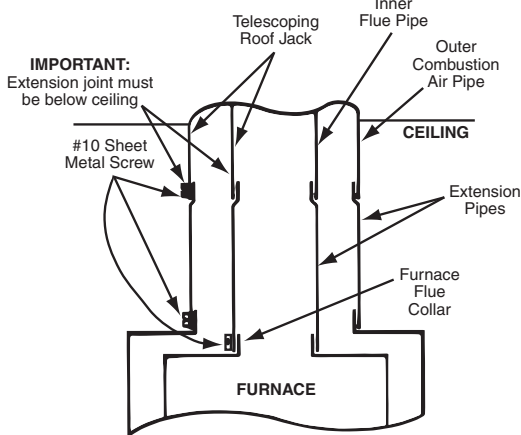


Figure 1. Extension Kit Installed

NOTE: Installation is to be made in accordance with H.U.D. Manufactured Home Construction And Safety Standard (Title 24, Part 3280). For Canada the following installation codes apply: CAN/CSA B139-1976; Installation code for oil burning equipment. CAN/CSA B149.1-M86 Natural Gas code. CAN/CSA B149.2-M86 Propane Gas code.

DESCRIPTION	SPEC. NO.	MODEL NO.
Interior Extension		
10" Length, 4" Flue Dia.	901934	EI 10A-4
10" Length, 5" Flue Dia.	901935	EI 10A-5
18" Length, 5" Flue Dia.	903107	EI 18A-5

NOTE: Kit Consists of 2 pipes (10" or 18") long and 2 #10 sheet metal screws.

Table 1. Kit Model & Part Information

Lower Pipe Extension Installation

NOTE: Only 2 extension kits are allowed per furnace installation.

1. **IMPORTANT!** Make sure power is turned off to the unit.
2. Remove sheet metal screw securing outer combustion air pipe and flue pipe to furnace.
3. Lift pipes up and off furnace.
4. Insert inner flue pipe extension over furnace flue collar and attach with one of the supplied sheet metal screws.

NOTE: Small end of extension pipe (end with bead) must be installed pointing upwards for attachment to the inner flue pipe. See Figure 1.

5. Attach outer combustion air pipe extension to top of furnace using 1 #10 sheet metal screw (factory supplied).

NOTE: Small end of extension pipe (end with bead) must be installed pointing upwards for attachment to the roof jack outer combustion air pipe. See Figure 1.

6. Slide inner flue pipe assembly down onto both extension pipes until stopped against bead.
7. Secure outer combustion air pipe using #10 sheet metal screw, to extension pipe. See Figure 1.

NOTE: Extension joint of the interior roof jack extension must be below ceiling. See Figure 1.



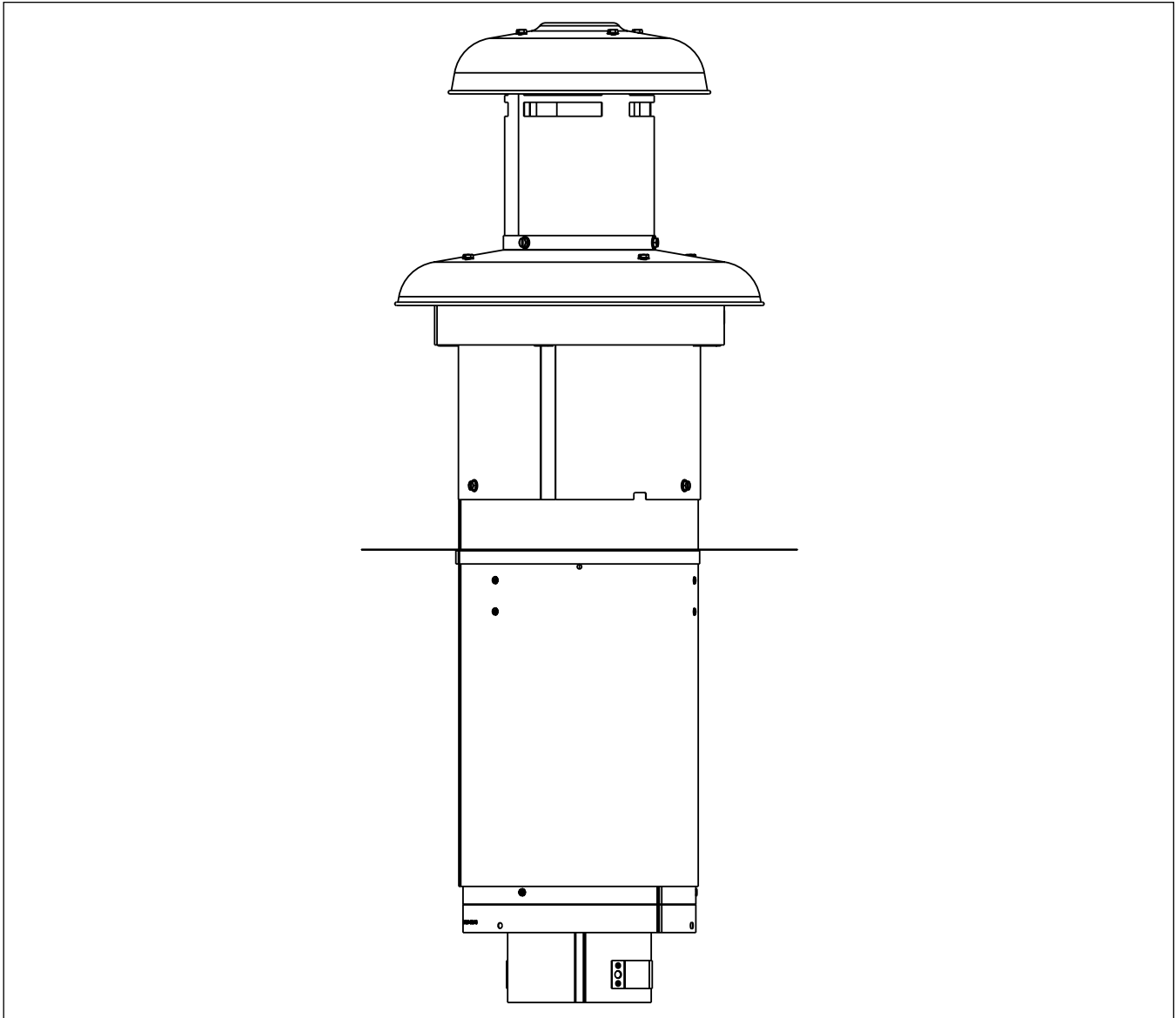
707627A

(Replaces 7076270)

All Weather Roof Jack Kit

Installation Instructions

Model Series MG, MB, MS, MM, and M1 Furnaces



These instructions are primarily intended to assist qualified individuals experienced in the proper installation of heating and/or air conditioning appliances. Some local codes require licensed installation/service personnel for this type of equipment. Read all instructions carefully before starting the installation.

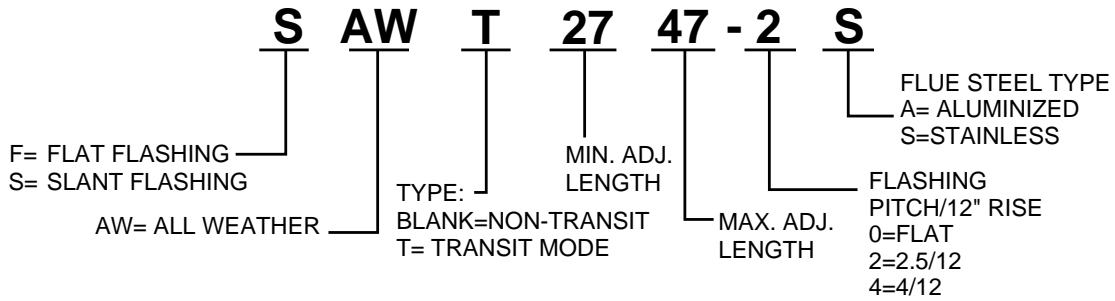
NOTE: Installation must be made in accordance with H.U.D Manufactured Home Construction And Safety Standard (TITLE 24. PART 3280); For Canada, the following installations apply: CSA B139; Installation Code for Oil burning equipment (CSA B139 requires

the usage of stainless steel flue assemblies for Oil burning equipment). CAN/CGA B149.1-M86 Natural Gas Code. CAN/CGA B149.2-M86 Propane Gas Code.

SELECTING THE ROOF JACK

1. Determine the depth of the ceiling cavity from the center of the roof opening to the top of the furnace (see dimension "A" in Figure 1).
2. Add dimensions "A" and "X" from Table 1 and Fig. 2 if slant deck flashing is used.
3. Select the appropriate Roof Jack from Table 2.

MODEL NUMBER KEY



CAUTION:

Any attempt to operate furnace before replacing the transit-mode weather cap with the upper roof jack section may result in hazard of fire, explosion or asphyxiation.

INSTALLING THE ROOF JACK

1. RECOMMENDED ROOF CUT-OUT FOR ROOF JACK. The recommended roof cut-out is depicted in Figure 5.
2. APPLY CAULKING TO ROOF FLASHING. Apply caulking compound on the underside of the roof flashing to form a continuous strip about 1 1/2" wide around the underside of the perimeter of the flashing.

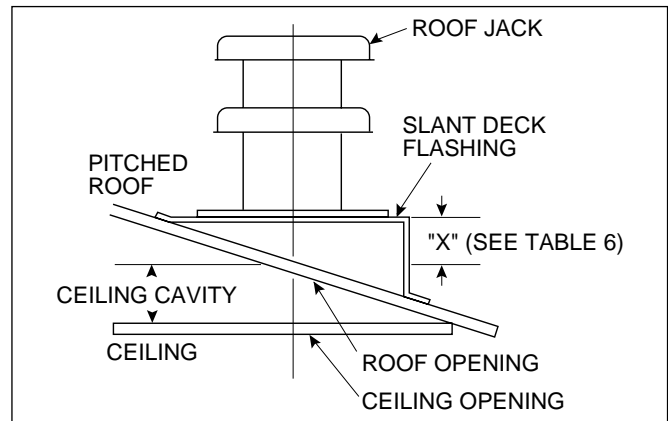


Figure 2.

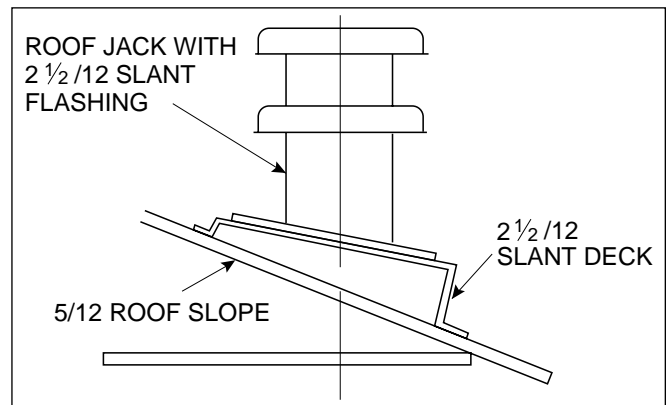


Figure 3.

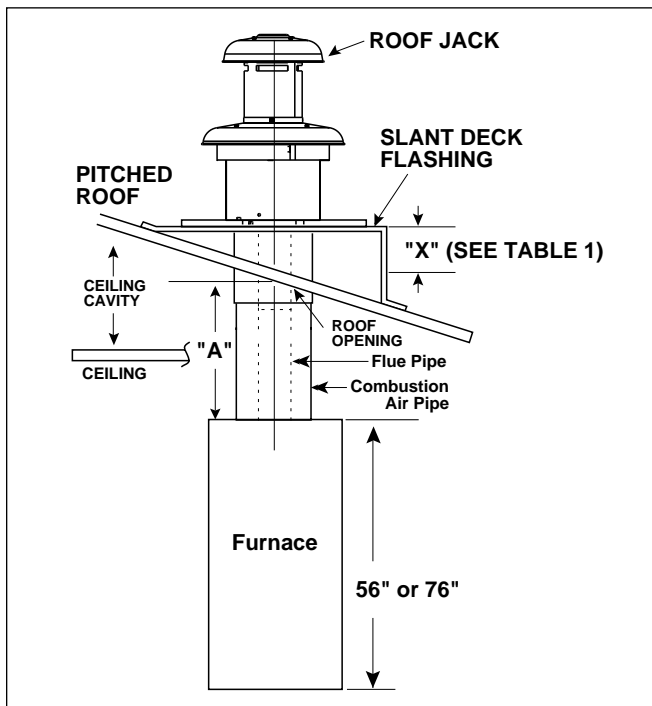


Figure 1.

IF PITCH IS:	FLASHING NO.	"X" FACTOR IS:
2.5" x 12"	903893	2.5"
3" x 12"	903894	3.0"
4" x 12"	903895	4.0"

Table 1. Optional Slant Deck Flashings

Flue Material	Length Min. - Max.	Transit Mode			Fixed Mode		
		Roof Flashing Pitch			Roof Flashing Pitch		
		FLAT	2.5" / 12"	4" / 12"	FLAT	2.5" / 12"	4" / 12"
Galvanized	15" - 23"				X		
	21" - 35"		X		X	X	
	27" - 47"	X	X	X	X	X	X
	35" - 63"		X	X		X	X
	51" - 95"		X	X			X
430 S.S.	15" - 23"				X		
	21" - 35"				X	X	
	27" - 47"	X	X				
	35" - 63"					X	
	51" - 95"		X	X			X

Table 2. Telescoping Roof Jack Assemblies

3. **CONNECT ROOF JACK ASSEMBLY TO FURNACE.** Insert the telescoping Roof Jack assembly through the opening cut in the roof. Engage the flue pipe and the flue collar of the furnace. Connect the combustion air pipe to the furnace collar with a sheet metal screw. The connection of the combustion air pipe to the furnace should be made before the flashing is secured to the roof to maintain alignment to the roof jack and the furnace connections, see Figure 4.

4. **ATTACH ROOF FLASHING.** If necessary, shift the roof flashing slightly in the roof opening so that the assembly is in good alignment with the furnace. Press down firmly over the caulking on the roof flashing to make the seal watertight with the roof. Secure the flashing with appropriate fasteners.

As an added protection against leaks, coat the flashing plate and fasteners with roof compound.

Each slant flashing will flex through the range shown:

Flashing	Range
2.5/12	1/12 - 4/12
4/12	3/12 - 5/12

! CAUTION:

Do not extend Roof Jack beyond recommended extension length in Table 2 unless a listed extension is used.

INSTALLATION OF TRANSIT-MODE VENTING SYSTEM

Requirements:

These instructions pertain to the installation of the transit-mode venting system only and are intended for use by qualified individuals experienced in the proper installation of home heating appliances. Installation of venting systems other than those described in these instructions shall be in accordance with the installation manual supplied with furnace.

A 10" interior extension kit is available to extend the roof jack connection pipes. Extension joints must be visible below ceiling.

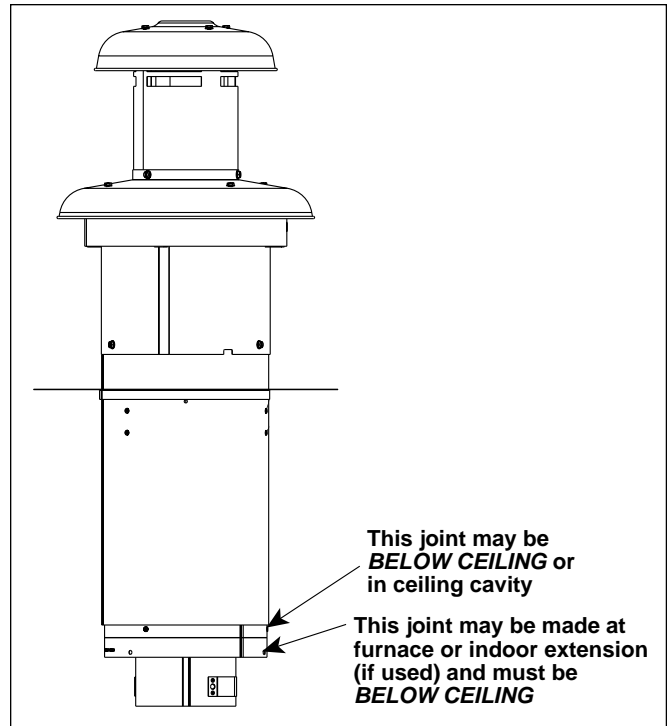


Figure 4.

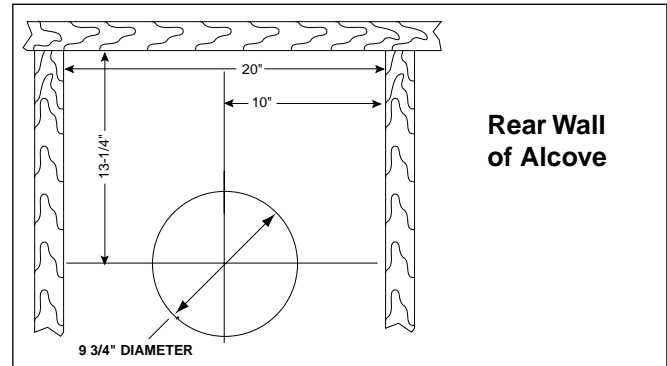


Figure 5.

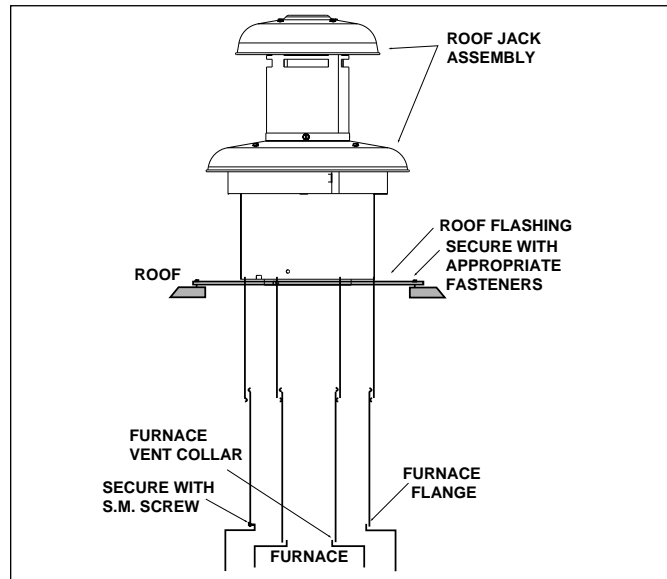


Figure 6.

Manufactured Home Factory

1. Furnace must be installed per furnace installation instructions.
2. Roof Jack to be selected from Page 2 of these instructions.
3. Roof Jack (less upper Roof Jack crown), with weather cap to be installed as described on Figure 7 of these instructions.
4. Upper Roof Jack crown to be stored in a prominent location inside the manufactured home until on-site installation.
5. The four warning tags supplied must be installed as follows:
 - To weathercap
 - To fuel line connection point (Gas) or furnace burner (Oil)
 - To furnace fire door (Gas) or furnace door (Oil)
 - To furnace wall thermostat

Manufactured Home Site

1. Transit-mode weather cap must be removed and the upper Roof Jack crown installed per Figures 7 and 8. Set aside the three screws removed with the cap for use when securing the Roof Jack crown.
2. Venting system warning tags must be removed and discarded.
3. Place the upper Roof Jack crown onto the flue pipe assembly. (See Figure 8.) The flue collar of the transit cap must fit over the flue pipe of the flue assembly. Outer combustion air pipe of the Roof Jack crown must fit over the outer sleeve of the flue assembly. Slide assemblies together. Observe that the roof crown inner pipes are fully engaged or the outer pipe bottoms out against the rear of the roof flashing on slant roof applications. Secure in place using the 3, #10 x 1/2" sheet metal screws removed in step #1. **Do not use the same holes which secured the rain cap in place.**

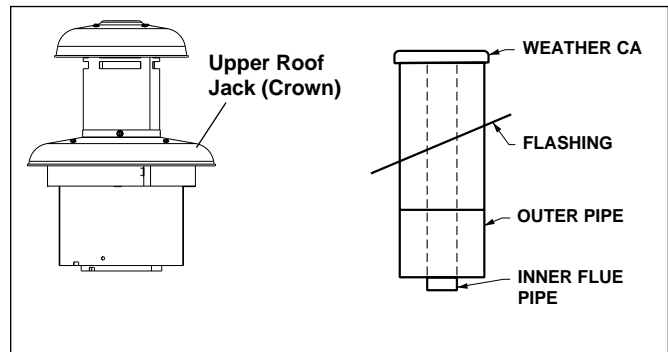


Figure 7.

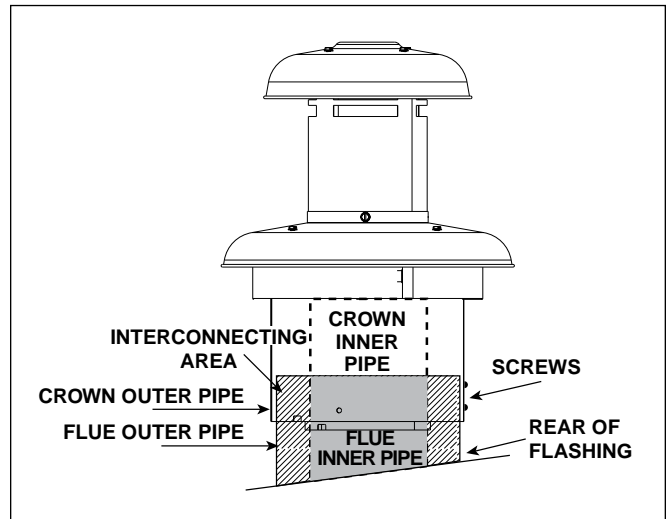


Figure 8.

**INSTALLER:
PLEASE LEAVE THESE
INSTALLATION
INSTRUCTIONS WITH THE
HOMEOWNER.**

