



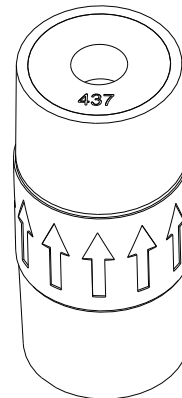
Installation Guide

LP Conversion Kit

IntelliPak™ 1 and 2 with Symbio™ Controls

2-Stage, Modulating, and Ultra Modulating Gas, 20 to 130 Tons

Kit #	Used on IntelliPak 1 Model
439305590001	SFH>(*20,*25)_L
439305590002	SFH(*30,*40)_L SFH(*20,*25,*30)_(H,P) SFH(*50,*55,*60,*70,*75)_(L,M)
439305590003	SFH(*40,*50,*55,*60,*70,*75)_(H,P) SFH(*90,*11,*12,*13)_(H,P)
439305590004	SFH(*20,*25,*30)_T SFH(*50,*55,*60,*70,*75)_K
439305590005	SFH(*40,*50,*55,*60,*70,*75)_T
439305590006	SFH(*90,*11,*12,*13)_T
Kit #	Used on IntelliPak 2 Model
175261720001	SFHN(090,105)_(A,B,D,E) SFHN(120,130,150)_(A,D)



⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.



Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.



Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury.

All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in **NEC** and your local/state/national electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury.

Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labelling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER** PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.

⚠ WARNING**Follow EHS Policies!**

Failure to follow instructions below could result in death or serious injury.

- **All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.**
- **Non-Trane personnel should always follow local regulations.**

Copyright

This document and the information in it are the property of Trane, and may not be used or reproduced in whole or in part without written permission. Trane reserves the right to revise this publication at any time, and to make changes to its content without obligation to notify any person of such revision or change.

Trademarks

All trademarks referenced in this document are the trademarks of their respective owners.



General Information

These instructions describe converting gas heat unit models from natural gas to propane (LP) gas. Conversion from natural gas to LP gas is a critical procedure, therefore, these instructions must be followed.

Important: Horizontal discharge 800MBH uses the corresponding 850MBH conversion kit.

Figure 1. LP conversion kit

Inspection

1. Unpack all components of the LP conversion kit.
2. Check carefully for any shipping damage and/or missing parts. Contact local Trane Parts Center, if assistance is needed. The gas nipple orifice and spring, if included, must all be replaced for a complete conversion.

Note: This kit contains the correct parts required to complete the LP conversion.

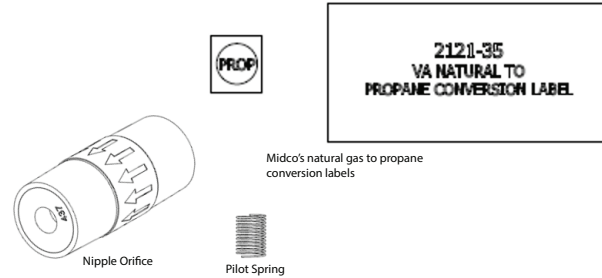


Table 1. Parts list for IntelliPak 1

Trane Part No.	Midco Part No.	Kit Description	Kit Parts	
			Nipple Orifice	Pilot Spring
439305590001	3695050	235MBH 2-stg	3/4" CLOSE nipple with 0.302 orifice	NA
439305590002	3695051	350MBH 2-stg / 500MBH 2-stg and Mod	3/4" CLOSE nipple with 0.396 orifice	NA
439305590003	3695052	850MBH 2-stg and Mod / 1000MBH 2-stg and Mod	1" x 2-1/2" nipple with 0.516 orifice	NA
439305590004	1495061	500MBH Ultra Mod	1" x 3" nipple with 0.437 orifice	REG spring 3/8" ID x 9/16" LONG (BRN)
439305590005	1495062	850MBH Ultra Mod	1" x 5" nipple with 0.516 orifice	REG spring 3/8" ID x 9/16" LONG (BRN)
439305590006	1495063	1000MBH Ultra Mod	1" x 4" nipple with 0.516 orifice	REG spring 3/8" ID x 9/16" LONG (BRN)

Table 2. Parts list for IntelliPak 2

Trane Part No.	Midco Part No.	Kit Description	Kit Parts	
			Nipple Orifice	Pilot Spring
175261720001	1495064	850MBH 2-stg and Mod / 1100MBH 2-stg and Mod	1" x 3" nipple with 0.516 orifice	REG spring 3/8" ID x 9/16" LONG (BRN)

Installation

Note: Prior to conversion ensure that gas supply to unit is shutoff and power to unit is disconnected.

1. Remove gas valve access panel(s).
2. Undo union(s) on gas train.
3. Remove nipple as identified in the appropriate figure:
 - IntelliPak 1 for 2-stage and modulating, see [Figure 2](#), p. 5 through [Figure 4](#), p. 5.
 - IntelliPak 1 for ultra modulating, see [Figure 5](#), p. 5 through [Figure 7](#), p. 6.
 - IntelliPak 2 for 2-stage and modulating, see [Figure 8](#), p. 6

Figure 2. Nipple location – 235, 350, and 500MBH 2-stage and 500MBH modulating (IntelliPak 1)

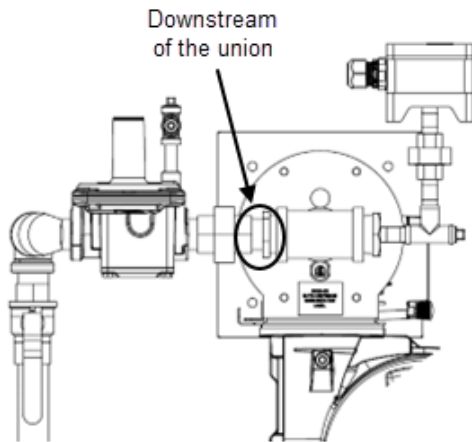


Figure 3. Nipple location – 850MBH 2-stage and modulating (IntelliPak 1)

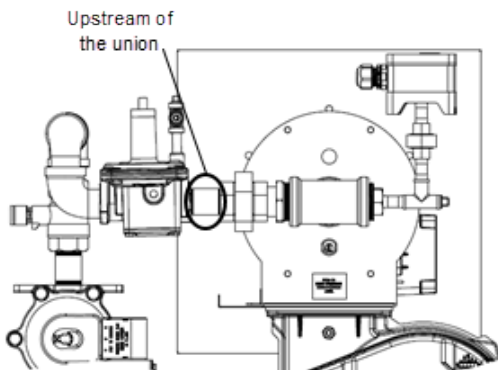


Figure 4. Nipple location – 1000MBH 2-stage and modulating (IntelliPak 1)

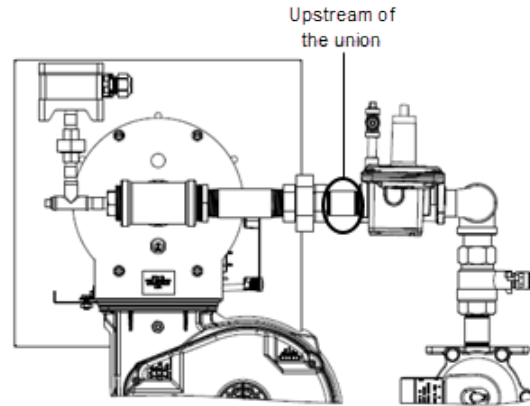


Figure 5. Nipple location - 500MBH ultra modulating (IntelliPak 1)

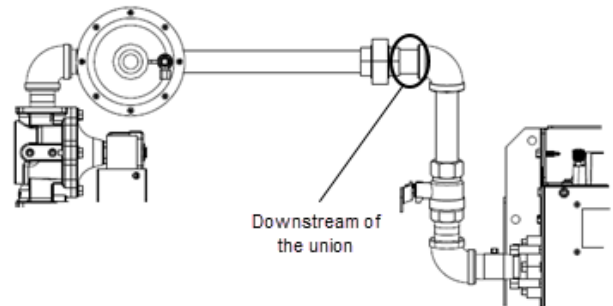
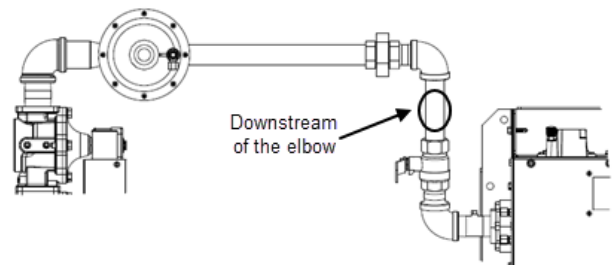


Figure 6. Nipple location – 850MBH ultra modulating (IntelliPak 1)





Installation

Figure 7. Nipple location – 1000MBH ultra modulating (IntelliPak 1)

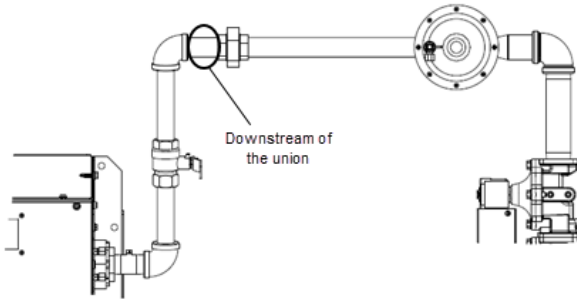
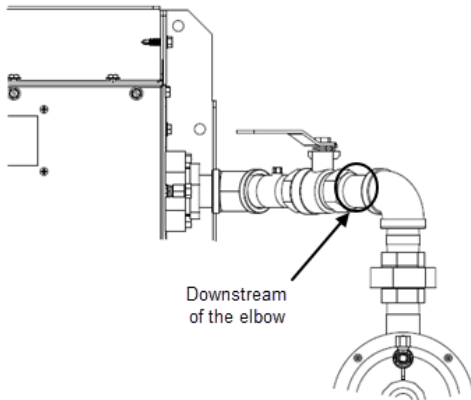
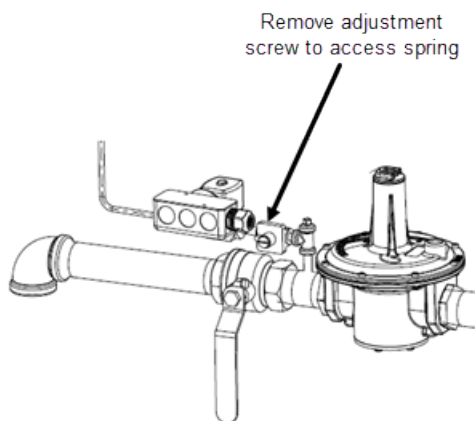


Figure 8. Nipple location – 850 and 1100 MBH 2-stage and modulating (IntelliPak 2)



4. Install the nipple with orifice from the kit. Ensure that the nipple is installed with the orifice closest to the burner. Refer to flow arrows on the nipple.
5. Reinstall the gas train by reversing disassembly procedure. Secure all the components.
6. For IntelliPak 1 ultra modulating and IntelliPak 2 only, install the LP spring in the pilot pressure regulator. See [Figure 9, p. 6](#)

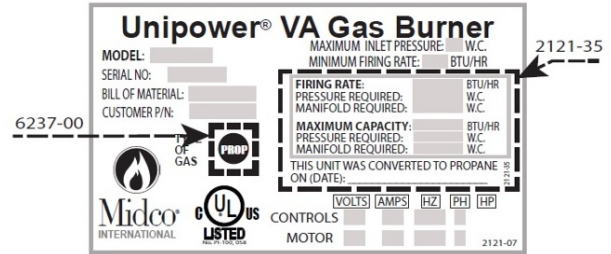
Figure 9. Pilot pressure regulator spring replacement



Note: IntelliPak 1 1000MBH shown

7. Attach the LP labels provided in the conversion kit to the burner labels. See [Figure 10, p. 6](#).

Figure 10. Kit label placement on burner



8. Attach the Trane LP conversion label (supplied with the unit literature packet) to the inside of the gas heat control panel near the gas heat nameplates. See [Figure 11, p. 7](#).
9. Check all piping joints and electrical connections for tightness.
10. Turn on the gas supply to the unit.
11. Measure the gas pressure. If the pressure exceeds 14" w.c., reset the regulator at the gas supply.
12. Restore unit power.
13. Check the manifold gas pressure of each gas valve. Follow the appropriate Burner Setup procedure in the Gas Furnace Startup section of the unit IOM (RT-SVX072*-EN for IntelliPak 1 and RT-SVX073*-EN for IntelliPak 2). Set the Siemens controller fan speed, the shutter position, and the ratio regulator turns according to the LP settings tables in the unit IOM's Installation section for Gas Heat Units.
14. Replace access panel(s).

Figure 11. Trane LP conversion label

*Note: Label subject to change and is representative only.
 Label shown for IntelliPak 1.*

TRANE
 CLARKSVILLE, TN 37043
 LP GAS CONVERSION FOR MODEL SERIES SFH_20-130

This furnace was converted on: _____
 (day-month-year)

to LP gas with Kit No. _____

by _____

 (Name and address of organization making conversion)

The gas orifice has been changed as shown below.

LP Gas Kit Part Number	Total Input (BTUH)	Performance Type	Gas Orifice Size
439305590001	235,000	2-stage	0.302
439305590002	350,000	2-stage	0.396
	500,000	2-stage and 4:1	
439305590003	850,000	2-stage and 6:1	0.516
	1,000,000	2-stage and 8:1	
439305590004	500,000	14:1	0.437
439305590005	850,000	17:1	0.437
439305590006	1,000,000	20:1	0.437

Min Supply Pressure 11.0 in. w.c. (2.739 kpa)
 Max Supply Pressure 14.0 in. w.c. (3.487 kpa)
 Manifold Pressure 10.0 in. w.c. (2.491 kpa)

Ce générateur d'air chaud a été converti le _____
 (jour mois année)

pour fonctionner au gaz GPL à l'aide de l'ensemble n' _____

par _____

 (nom et adresse de l'organisme qui a effectué la conversion)

Press Min d'Alim 11.0 in. w.c. (2.739 kpa)
 Press Max d'Alim 14.0 in. w.c. (3.487 kpa)
 Press Au Collecteur 10.0 in. w.c. (2.491 kpa)

MADE IN U.S.A. X3390****001A

Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

Trane has a policy of continuous product and product data improvements and reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

RT-SVN048B-EN 10 Sep 2022
Supersedes RT-SVN048A-EN (May 2022)

©2022 Trane