

TRANE S1-1PS3301 High Altitude Application Conversion Single Stage Furnaces



TRANE S1-1PS3301 High Altitude Application Conversion Single Stage Furnaces User Manual

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TRANE S1-1PS3301 High Altitude Application Conversion Single Stage Furnaces



Specifications:

- Model Series: TG8S, TM8X, TG9S, RGF19*P, Z8ES*L, TGLS, TMLE, GG9S, MG9S, Z8ES*S, GG8S, TMLX, TM9E, MM9E, RL18, GGLS, RGF1L*E, TM9X, Y81E*L, Y82E, TM8E, RGF1L*P, RGF19*E, Y81E*S, Z8ET
- Altitude: Designed for altitudes greater than 5,000 ft above sea level
- Pressure Settings: 0.60 IWG, 0.70 IWG, 0.80 IWG, 0.90 IWG

Product Usage Instructions

1. General Information

This high altitude conversion kit is intended for use with specific model series and is designed for altitudes greater than 5,000 ft above sea level.

2. Installation

Follow the basic unit installation instructions provided in the manual for all other aspects of the installation. For altitudes above 2,000 ft, ensure field derating as per relevant codes and regulations.

3. Pressure Switch Installation

The high altitude pressure switch must be changed by following these steps:

1. Remove the burner access door.
2. Replace the pressure switch as shown in Figure 1 or Figure 2.
3. Note the wire locations on the pressure switch and disconnect them.

4. Remove the hose from the pressure switch.

4. Kit Contents

The kit includes a conversion label, installation manual, pressure switch, and other necessary accessories as per the specific model requirements.

5. Pressure Settings

Refer to Table 2 and Table 3 to determine the correct pressure switch accessory based on the furnace model and input/output MBH values.

FAQ

Q: Can I adjust the original pressure switch for high-altitude operation?

A: No, adjusting the original pressure switch for high-altitude operation is unsafe and not recommended. It is necessary to replace the pressure switch with the appropriate high altitude accessory.

WARNING

This conversion kit is to be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, an explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

WARNING

The conversion of new certified central heating gas appliances must conform to directions outlined in this instruction. Installation must be made in accordance with American National Standard National Fuel Gas Code, ANSI Z223.1-latest edition unless superseded by local codes. For Canadian installations, the conversion shall be carried out in accordance with the requirements of the Provincial authorities having jurisdiction and in accordance with the CAN1-B149.1 and 2 installation codes. The manufacturer accepts no responsibility for malfunctions due to improper conversions

Application

This conversion kit is intended for use with the following model series

- TG8S TGLS GG8S GGLS TM8E
- TM8X TMLE TMLX RGF1L*E RGF1L*P
- TG9S GG9S TM9E TM9X RGF19*E
- RGF19*P MG9S MM9E Y81E*L Y81E*S
- Z8ES*L Z8ES*S RL18 Y82E Z8ET

Note: This kit does not apply to Y81E*U or Z8ES*U Ultra LoNOx models.

General

These instructions are intended for the conversion of new equipment only, for operation at altitudes greater than 5,000 ft above sea level. Follow the basic unit installation instructions for all other aspects of the installation. All units are equipped to operate up to 5,000 ft above sea level without a high-altitude kit. Installations above 2,000 ft must be field derated as required by the National Fuel Gas Code, ANSI Z223.1 (latest edition), or in Canada, CAN/CGA B149.1 or B149.2, and all other applicable local codes and utility requirements. These instructions provide the necessary information to select and install the correct pressure switch for your specific application. This high-altitude accessory includes a special switch and other items as detailed below.

WARNING

Improper installation, adjustment service, or maintenance can cause injury or property damage; therefore, only a qualified installer or qualified service personnel must perform this conversion.

Table 1: Kit contents

Common parts		
Description	Part number	Quantity
Conversion label	S1-03511635000	1
Installation manual	035-22079-001	1
Pressure switch		
Accessory kit	Switch part number	Pressure setting (IWG)
S1-1PS3301	S1-02435778000	0.60
S1-1PS3302	S1-02435797000	0.70
S1-1PS3306	S1-02435779000	0.90
S1-1PS3307	S1-02435815000	0.80

Pressure switch

For installations below 5,000 ft, refer to the furnace installation instructions to correctly derate applications that do not require a pressure switch change. For applications above 5,000 ft, a pressure switch change is required to provide safe and reliable operation. Table 2 and Table 3 indicate the correct pressure switch accessory for each unit model applied.

WARNING

Do not adjust the original pressure switch to allow operation at high altitude. An unsafe operation will result

Table 2: High altitude pressure switch usage 80% furnaces – upflow/horizontal and downflow/horizontal models

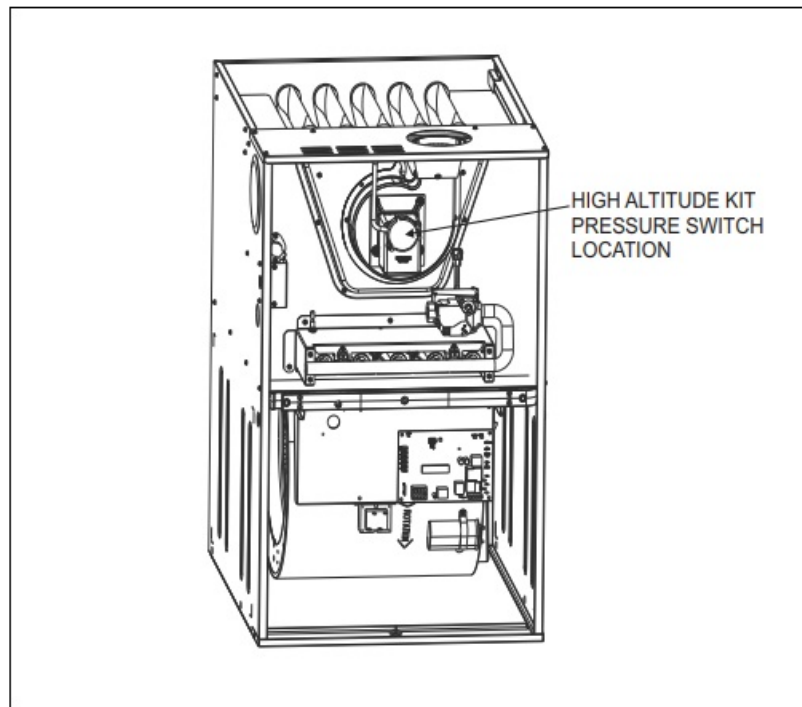


Figure 1: Pressure switch location - 80% models

Input (MBH)	Output (MBH)	Accessory part number
40	32	S1-1PS3301
60	48	S1-1PS3301
80	64	S1-1PS3301
100	80	S1-1PS3302
120	92	S1-1PS3301
130	104	S1-1PS3302

Table 3: High altitude pressure switch usage 95% furnaces – upflow/horizontal and downflow/horizontal models

Input (MBH)	Output (MBH)	Accessory part number
40	38	S1-1PS3307
60	57	S1-1PS3306
80	76	S1-1PS3307
100	95	S1-1PS3302
120	114	S1-1PS3302
130	123.5	S1-1PS3302

The high-altitude pressure switch must be changed by following this procedure:

1. Remove the burner access door. Replace the pressure switch in accordance with Figure 1 or Figure 2, and the

following procedures.

2. Note the location of the wires on the pressure switch and then disconnect them. Remove the hose from the pressure switch.
3. Remove the screws securing the pressure switch and remove the pressure switch from the unit. Check that the new pressure switch kit is correct for your application – see Table 2 and Table 3. Install the new pressure switch.
4. Replace the hose and wiring as originally connected.
5. Complete the conversion label as required. Install the label onto any section of the furnace door or cabinet that is accessible.
6. Replace the burner access door

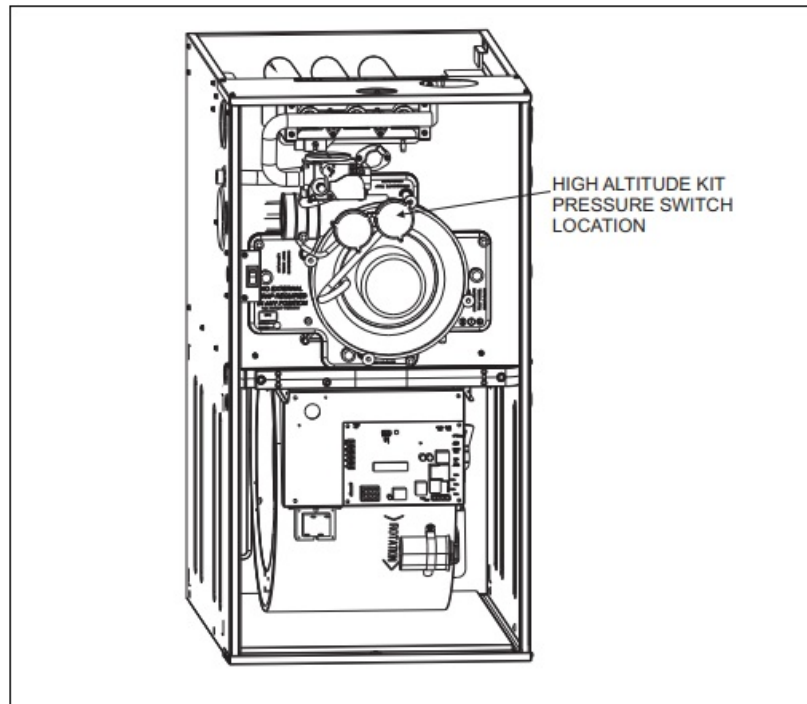


Figure 2: Pressure switch location - 95% models

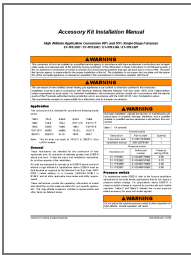
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References

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