General Service Bulletin

Gas Valve Adjustment Policy

Affected Models Numbers
All Gas Fired Residential Furnaces

Affected Serial Numbers
All Serial Numbers

Bulletin: FURN-SVB054A-EN

Date: December 12, 2014

⚠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 bulletin and on the tags, stickers, and labels, as well as the instructions below:

- **Before installing/servicing this unit, technicians MUST put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. ALWAYS refer to appropriate MSDS sheets and OSHA guidelines for proper PPE.**
- **When working with or around hazardous chemicals, ALWAYS refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations.**
- **If there is a risk of arc or flash, technicians MUST put on all Personal Protective Equipment (PPE) in accordance with NFPA 70E or other country-specific requirements for arc flash protection, PRIOR to servicing the unit.**

ATTENTION: Warnings, Cautions and Notices appear at appropriate sections throughout this literature. Read these carefully:

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

⚠CAUTION 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.

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

⚠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.

⚠WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER and DISCHARGE CAPACITORS BEFORE SERVICING

⚠ WARNING

This information is intended for use by individuals possessing adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacture or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

⚠ WARNING

LIVE ELECTRICAL COMPONENTS!
During installation, testing, servicing, and troubleshooting of this product, it may be necessary to work with live electrical components. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Introduction:

Field reports indicate gas pressure adjustments are being made to furnace gas valves, in an effort to improve efficiency. This bulletin is to address the manufacture's required methods of setting firing rates and gas pressure for gas furnaces. This is not to address a safety concern.

Discussion:

Residential gas fired furnaces have always included instructions for proper installation to insure safe, efficient, and reliable operation of the furnace. These instructions include specific information related to adjustments that the field technician needs to perform at the time of install and subsequently during routine service visits. Typical adjustments include airflow settings, blower off-delays and gas valve manifold pressure. For both natural gas and LP applications, manifold pressures should be set at the time of startup and also checked periodically during maintenance.

This bulletin addresses the manufacturers recommended procedures for setting the gas valve manifold pressure to obtain proper firing rate and temperature rise across the heat exchanger for optimum efficiency and reliability. It is not possible to increase efficiency by increasing the firing rate of our furnaces. Operation at higher gas inputs than stated on the rating nameplate can shorten heat exchanger life, cause safety switches to open and shut down the furnace.

The Products must be properly installed, operated, and maintained by a licensed HVAC service provider in accordance with the Product specifications or installation, operation, and maintenance instructions provided by Company with each Product. Failure to conform to such specifications and/or instructions shall void this limited warranty. Company may request written documentation showing the proper preventative maintenance.

Field Action:

There are three approved methods for verifying that a Trane or American Standard gas furnace is performing to manufacturer's specifications. Clocking the gas meter, measuring the manifold pressure setting or measuring for temperature rise are all described in the Installation Guide and Service Facts that ship with every gas furnace that Trane and American Standard produces.

Combustion and Input Check (Example only, see specific model for correlating detail)
Clock the gas meter with the furnace operating. Multiply the final figure by the heating value of the gas (obtained from the utility company) and compare to nameplate rating. This must not exceed the nameplate rating.

Final Manifold Pressure Setting (Example only, see specific model for correlating detail)

FINAL MANIFOLD PRESSURE SETTINGS (inches w.c.)		
FUEL	2nd Stage Max.	1st Stage Max.
NATURAL GAS	3.5" W.C.	1.7" W.C.
LP GAS	10.5" W.C.	6.0" W.C.

Temperature Rise Method (Example only, see specific model for correlating detail)

CFM VS. TEMPERATURE RISE														
MODEL	Cubic Feet Per Minute (CFM)													
	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
*UX060R936W	56	50	45	42	39	36								
*UX080R942W			61	56	51	48	44	42						
*UX100R948W					64	60	56	52	49	46	44	42		
*UX120R960W								63	59	56	53	50	48	46

Conclusion:

Any proposed methods of combustion analysis that promotes altering the firing rate to obtain a specific CO2 or Oxygen concentration levels should not be used. Altering the firing rate is not supported by this manufacturer and may result in efficiency loss, with higher fuel consumption, reduced heat exchanger life, and additional service calls for “no heat”.

Expiration Date:

This bulletin does not expire.

Questions:

Dealer and Distributor Personnel: Contact your Local Field Service Representative.

Field Service Representatives: Contact Technical Support in Tyler, TX.

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