

## Replacement Kit - Gas Gun Air Box

# Installation Instructions

### For M1 and CMF Furnaces

**IMPORTANT:** Read these Installation Instructions and the furnace Installation Instructions carefully before beginning the installation.

#### GENERAL:

These instructions are primarily intended to assist a qualified individual who has good knowledge and experience in the installation of gas gun furnaces and in gas gun maintenance. These instructions show you, step by step, how to replace the old air box with newly designed combustion air adjustment system. Some local codes require licensed installation/service personnel for installation of this type of equipment.

#### CONTENTS OF KIT

- 1- Installation Instructions
- 1- Left-Half of Blower Housing
- 1- Plastic Air Adjustment Device
- 1- Flexible Hose, 2" x 40"
- 1- Hose Clamp
- 1- Adhesive tube

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 **WARNING!**

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**The gas gun air box must be replaced by a qualified service technician in accordance with these instructions and all codes having jurisdiction. Failure to follow these instructions could result in serious injury, property damage, or death. The qualified service technician performing this work assumes responsibility for this furnace air box replacement.**

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 **WARNING!**

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**The fuel supply and electric power shall be shut off before proceeding with replacing the air box.**

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#### REMOVING EXISTING AIR BOX

1. Disconnect gas gun electric cord and gas supply line from the furnace.
2. Disconnect flexible hose from the burner and furnace
3. Remove three 5/16" nuts from the gas gun mounting flange (9:00, 12:00 and 3:00 O'clock positions).
4. Turn the gun burner slightly to the left and gently pull it out from the furnace.
5. Remove two 11/32" nuts from the left side of the blower housing and remove air box.
6. Remove two 1/4" screws from top of the left blower housing
7. Remove sealer from the joint of the blower housing and disassemble the left side of the blower housing by starting from the top.

#### ASSEMBLING NEW AIR ADJUSTMENT DEVICE (see Figure 1)

Note: The new combustion air adjustment device (air shutter) does not have an air box. It consists of left-half blower housing and a combustion air shutter. The flexible hose is to be installed directly on the air shutter.

1. Clean sealer from the right blower housing. Assemble left blower housing and secure it with two 1/4" screws
2. Seal blower joint with the supplied silicone.
3. Install plastic combustion air shutter.
4. Set combustion air shutter at wide open and tighten the two nuts until it does not move. DO NOT OVERTIGHTEN.

**Note:** After completing installation, the air shutter has to be reset, while the furnace is operating, based on CO<sub>2</sub> reading and flame pattern. (See “SETTING COMBUSTION AIR SHUTTER” section below.)

5. Install burner by reversing steps 3 and 4 in burner removal.
6. Install the supplied flexible hose (40” long) on the air shutter with the supplied hose clamp. Note: Do not over tighten clamp or the plastic shutter could be damaged.
7. Connect hose to furnace or route the hose as it was.
8. Reconnect the fuel line and check it for gas leaks. Use only soap and water solution or other approved method.

## SETTING COMBUSTION AIR SHUTTER

1. Set air shutter based on CO<sub>2</sub> readings below while furnace is operating:  
For Natural Gas: 8.6 % to 9.2 %  
For Propane Gas: 9.0% to 10.0%  
Note: CO reading should not be more than 100 PPM. If its reading is higher than 100 PPM, increase combustion air amount.
2. Tighten the air shutter until it does not move. Note: Do not over tighten the nut or it could be damaged.

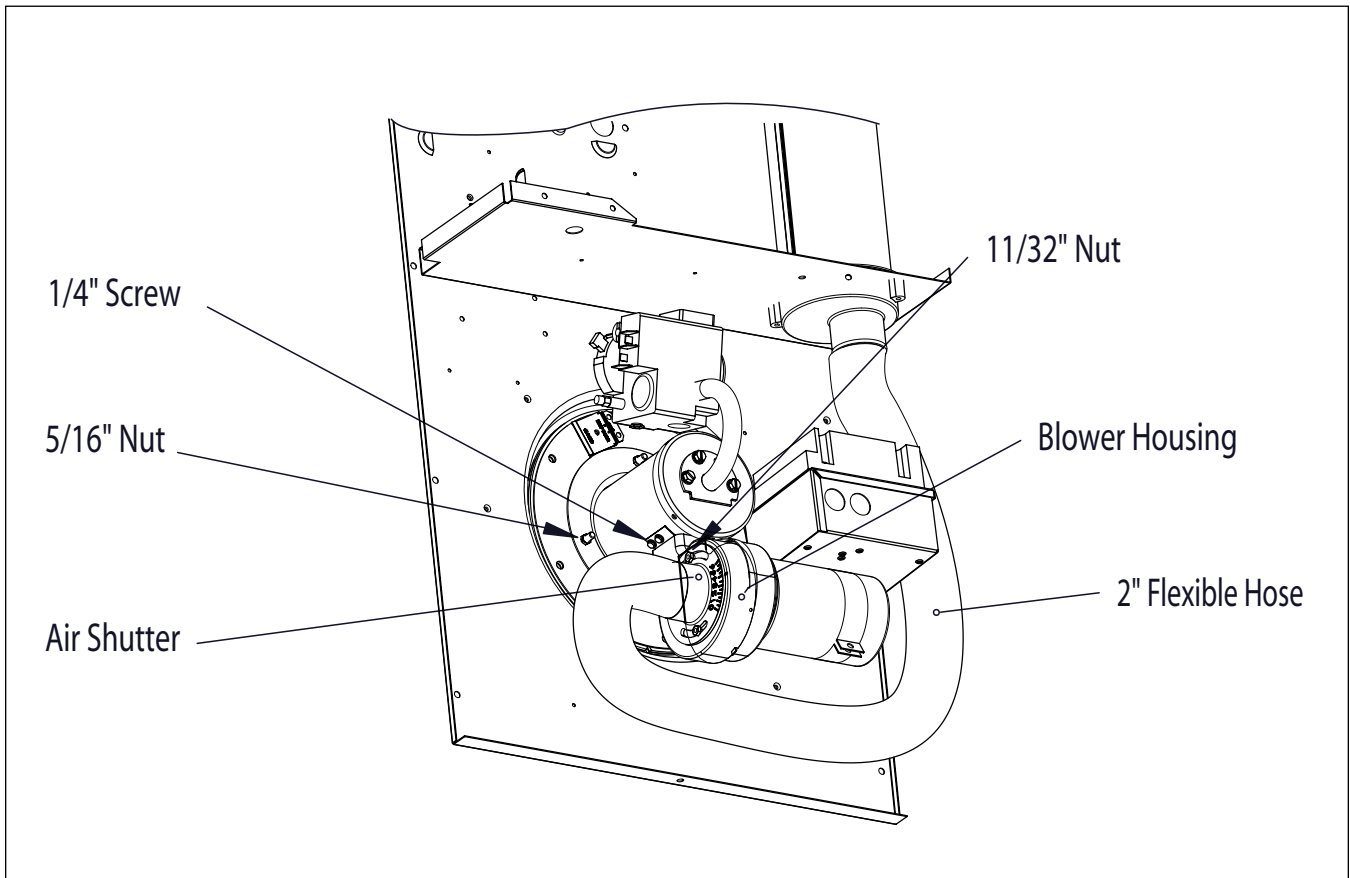


Figure 1.

