

Cross Fox Condominium Gas Sub-meters

- Information and Care -

- Third Issue -

Document Change History

- 1) Original Issue ó December 2005
- 2) Second Issue ó August 2011. EBSø (Energy Billing Systems) name was changed due to new company name of YES (Yardi Energy Solutions). Also, references to the initial sub-meter installation by EBS in November 2005 was removed since that occurred six years ago.
- 3) Third Issue - September 2015. Recommend that changes to furnaces or townhome gas hot water heaters be forwarded via email to the Cross Fox Managing Agent (CVI). Changes include installation of new furnaces/hot water heaters having a different input BTU rating than the previous unit and requests to re-connect the YES Gas Sub-meter to the furnace/hot water heater for any reason.

Introduction

In November 2005, new gas sub-meters¹ were installed in all Cross Fox units. For garden units, sub-meters were installed on gas furnaces. For townhouses, sub-meters were installed on gas furnaces and hot water heaters. Yardi Energy Solutions (YES) (**formerly Energy Billing Systems, Inc (EBS)**) installed the sub-meters and is responsible for sending out monthly gas bills. They are also responsible for collecting the gas payments. YES then forwards payment to the Cross Fox Property Managing Agent minus their gas billing charges.

These new sub-meters replace a previous sub-metering system that was old, unreliable, had questionable accuracy, required manual meter reading, and had a high failure rate. With the price of natural gas escalating each year since the construction of Cross Fox, the Cross Fox Board felt compelled to install a modern gas sub-metering and billing system that was reliable and accurate. YES was unanimously chosen after an extensive evaluation of several sub-metering vendors. Under normal circumstances, the YES sub-meters operate automatically and require no maintenance other than battery replacement every 5-7 years.

The YES gas sub-meters automatically monitor the time gas is being used by the furnace (garden units and townhouses) and hot water heaters (townhouses only). The sub-meter continually monitors itself for proper operation and continually checks for sub-meter tampering. The sub-meter randomly sends recorded information via a wireless transmitter to a central Data Concentrator/Collector (DCC) that accumulates information from all Cross Fox units. The YES central billing computer located in Colorado Springs, Colorado, then contacts the DCC on a regular basis in order to determine anomalies and to gather data to prepare monthly gas invoices. See <http://www.yardi.com/product/YardiEnergySolutions.aspx> for more information about YES, their equipment and services.

The gas billing algorithm is described in another Cross Fox Condominium document. See the current version of that document for details. The Cross Fox Managing agent will supply a copy of the billing algorithm upon request.

Purpose

The purpose of this document is to provide Cross Fox owners and residents important information regarding the Cross Fox Gas sub-meters. The information contained herein is accurate to the best of the Cross Fox Board's knowledge but, where differences exist, official policies and contract terms override this document.

¹ The term sub-meter in this application is not universally accepted. Some refer to "sub-meters" such as those installed at Cross Fox as "energy allocation devices". We will use the term "sub-meter" in this document to refer to the Run Time Module and wireless transmitter that comprise the YES "sub-meter" module. The YES system is also generically called an Automated Meter Reading (AMR) System.

Sub-metering Equipment

Figure 1 is a picture of a typical furnace gas sub-meter. Figure 2 is a picture of a typical hot water heater sub-meter.

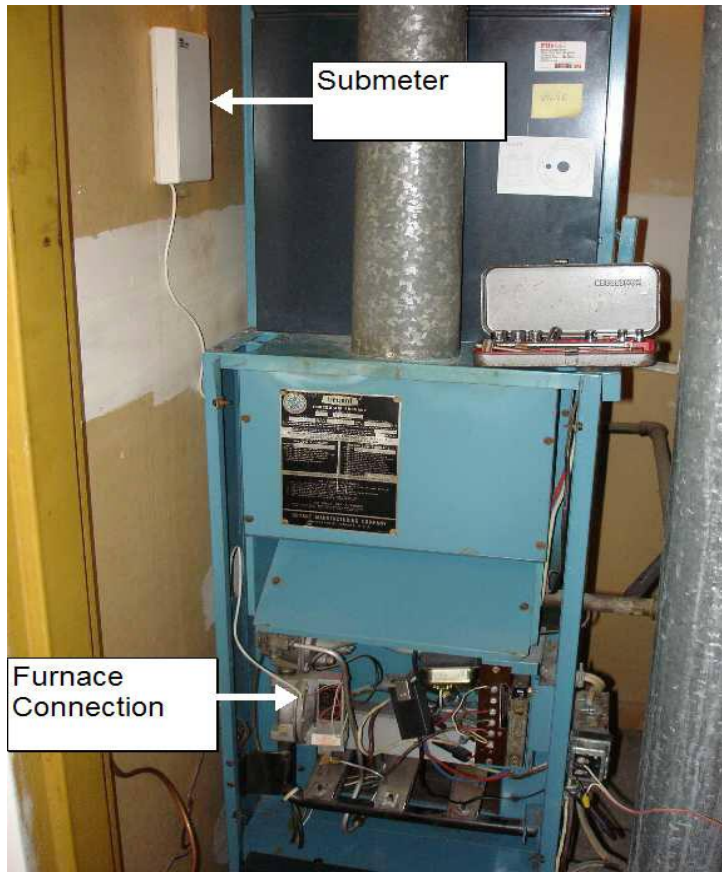


Figure 1



Figure 2

Failures/Problems/Equipment Relocation

Parts and labor for covered sub-meter failures are covered by owners paying a monthly maintenance fee as part of the YES monthly billing. Otherwise, repair of failures will be billed to the homeowner on a case by case basis

For failures resulting from sub-meter tampering or abuse, the homeowner is responsible for all repair costs regardless of warranty or maintenance coverage.

For routine failures/problems that are detected automatically by YES, YES will contact the owner to arrange for repair.

For any failures that prevent the sub-meter from accurately recording gas usage, YES will calculate estimated gas usage during the period of failure and use that calculation to determine the gas bill until the failure is resolved.

When a furnace sub-meter needs to be removed or transferred (such as when installing/repairing a furnace), and/or **when a hot water heater gas sub-meter needs to be removed or transferred** (such as when installing/repairing a hot water heater) the gas sub-meter must be reconnected by a qualified installer to the furnace/hot water heater in the same way the sub-meter was attached to the old unit. See guidance on pages 7 and 8. Alternatively, the owner could contact YES to arrange for reconnection. Contact YES for further information including the cost of this service.

Whenever a new furnace or hot water heater is installed, the owner must contact YES with the following information:

Input capacity (in BTUs per hour) of the new furnace and/or the new hot water heater - The simplest way to do this is to send CVI a copy of the invoice showing the date of installation, make, model, input BTU rating, and address of the equipment installed. Email or mail this information to CVI (the Cross Fox [Managing Agent](#)).

The gas sub-meters periodically require battery replacement. The estimated life of a battery is 5-7 years. YES will replace batteries or arrange to have batteries replaced when necessary. Assuming the sub-meters are covered by a maintenance contract, there is no cost for battery replacement unless there is some unusual circumstance.

Note: Removal of old furnaces (garden units and townhouses) and hot water heaters (townhouses) is the responsibility of the unit owner.

Energy Use Reduction and Safety Considerations

The following items are recommendations for reducing gas usage:

- Replace furnace filters regularly (as often as once per month for fiberglass filters, as often as once every three months for higher efficiency paper/electrostatic filters.)
- Have a qualified contractor inspect your furnace for safety and efficiency periodically.
- Keep the thermostat at a low but comfortable setting, if possible, even when the unit is occupied. Every degree increase in thermostat setting increases gas consumption. Turn the thermostat down when leaving for more than a few hours. Turn the thermostat down at night.²
- Take shorter showers. The hot water heater can consume a considerable amount of gas. Reducing the use of hot water reduces gas consumption.
- Make sure windows are properly sealed. When replacing windows, choose energy efficient windows such as those that are Energy Star compliant.

All units should have both smoke and carbon monoxide detectors that are properly installed and operational.

Furnace rooms should not be used for any storage. Doing so is against Howard County fire codes.

For townhouses, doors to the gas furnace room should be vented (with louvers or equivalent) to allow for proper air supply to the furnace.

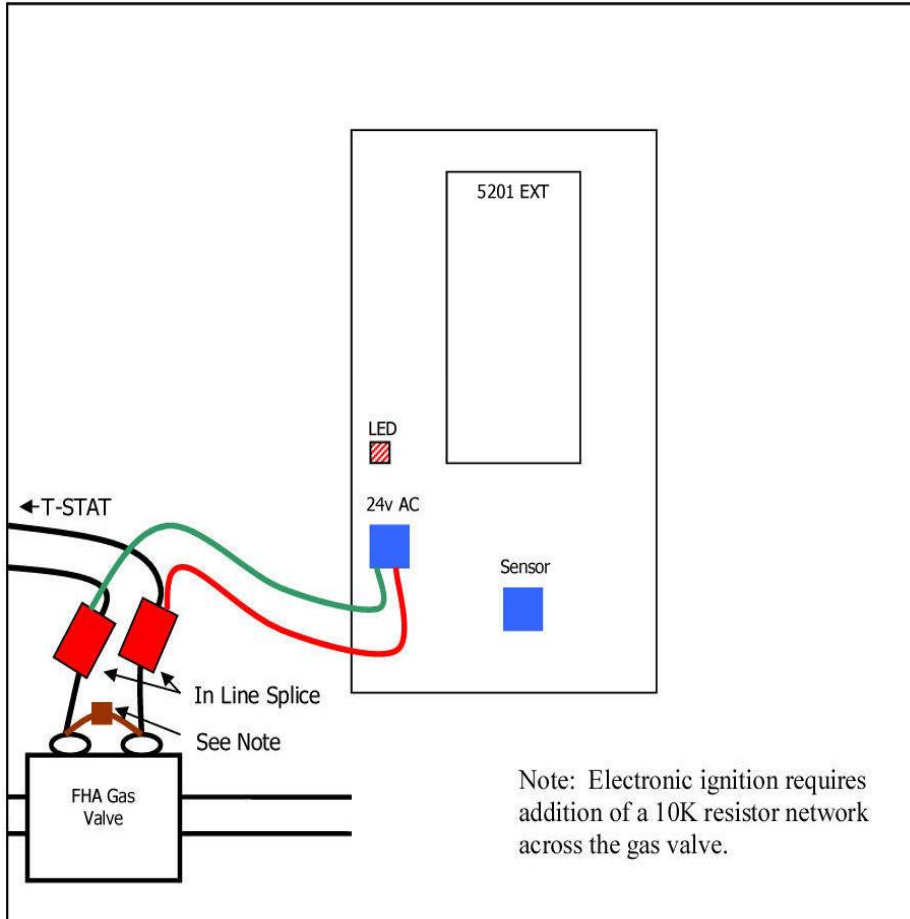
² One way to do this is to install a programmable thermostat.

Attachments For HVAC Contractors

- 1. Sub-meter Installation – Forced Hot Air (FHA) Gas Furnace**
- 2. Sub-meter Installation – Domestic Hot Water (DHW) (Townhouses Only)**

Note – ***The following diagrams read EBS, not YES, since that was the name of the original company that installed gas sub-meters at Cross Fox and substitute diagrams are unavailable. The current name of the company is YES (Yardi Energy Solutions). The address of YES is PO Box 9710, Colorado Springs, CO 80932-0710. The phone number is (800) 637-4242. *******

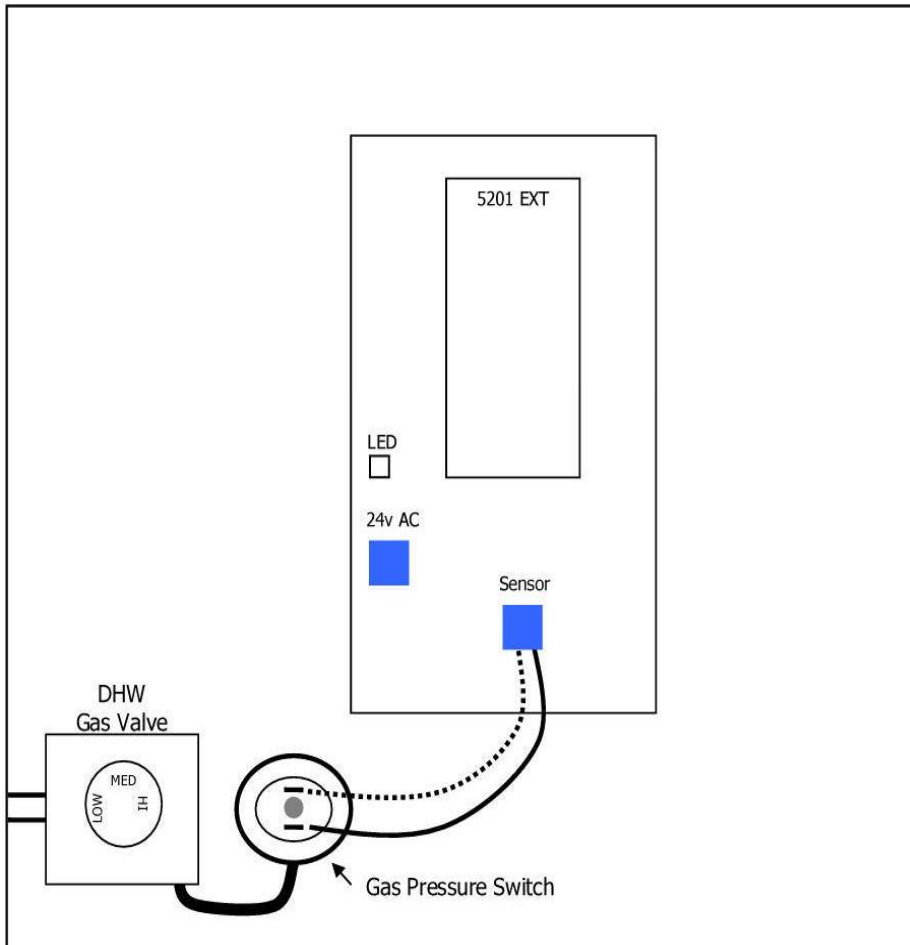
EBS G.A.S. 1 FHA Installation



1. Connect EBS G.A.S 1 Unit.
2. Record BTU input of furnace.
3. Activate furnace; Verify 24v LED is flashing (when gas valve is open).
4. Call in changes to EBS 800.637.4242 – Customer Service
5. Please have the following information Ready:
 - i. Account Name & Unit Number
 - ii. Property Name
 - iii. New BTU Rating
 - iv. Date of Installation

Energy Billing Systems, Inc
 2150 Lelaray Street
 Colorado Springs, Colorado 80909
 719.632.9100
 719.632.9497 fax
energybillingsystems.com

EBS G.A.S. 1 DHW Pressure Switch Installation



1. Remove pressure switch from old gas valve. (be sure to remove nipple from gas valve also)
2. Remove G.A.S. 1 Board from tank.
3. Install pressure switch and G.A.S. 1 Board onto new hot water tank.
4. Activate gas valve and check for continuity at G.A.S. 1 Board sensor input.
5. Record BTU input of new hot water heater.
6. Call in changes to EBS 800.637.4242 – Customer Service
7. Please have the following information ready:
 - a. Account Name & Unit Number
 - b. Property Name
 - c. New BTU Input Rating
 - d. Date of Installation

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