

Model H Principle of Operation

The micro-controller on the Remote Transmitter reads the resistance of the temperature sensor (thermistor) every 16 second. It then converts the resistance reading into temperature reading and display the temperature on the LCD.

When the user press the auto button on the Remote Transmitter, the micro-controller will compare the preset temperature with the room temperature. If the room temperature is above/below the preset temperature, it will send a series of on/off code words to turn on/off the RF oscillator which in turn will transmit an ASK RF signal to the Remote Receiver.

When the user press the manual on the Remote Transmitter, the micro-controller on the Remote Transmitter will send a series of on code words (if the Remote Transmitter is at off state) or off code words (if the Remote Transmitter is at on state) to the RF oscillator. The RF oscillator will in turn transmit an ASK RF signal to the Remote Receiver.

When the user press the flame or fan buttons on the Remote Transmitter, the micro-controller will send a series of code words to the RF oscillator. The RF oscillator will turn transmit ASK RF signal to the Remote Receiver.

The super-regenerative circuit on the Remote Receiver receives the RF signal from the Remote Transmitter, converts it into code words (CMOS logic level) and feed the received code words to the Decoder IC. If the received code words match the setting at the Decoder IC it will send a signal to the micro-controller to indicate valid code words are received.

When the micro-controller receives a on or off code cord, it will turn on or off the relay output. When the micro-controller receives fan speed setting code word, it will turn on/off the relay output to control the fan speed. When the micro-controller receives flame height setting code word it will alter its digital output which converted by R-2R network to analog signal for adjusting the flame height of the gas valve.

All timing on the Remote Transmitter is derived from 32768 Hz Crystal-Oscillator and all timing on the Remote Receiver is derived from 2 MHz RC-Oscillator.

Series 1
FAC - 108



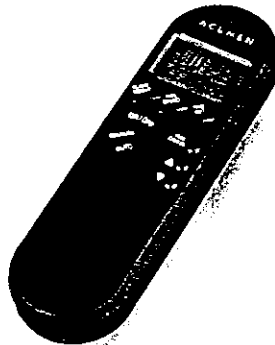
Series 2
FAC - 208



Series 3
FAC - 308



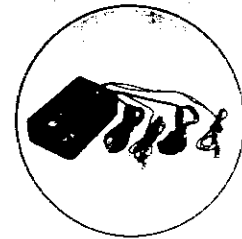
Series 4
FAC - 408



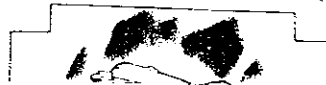
MODEL H

Features :

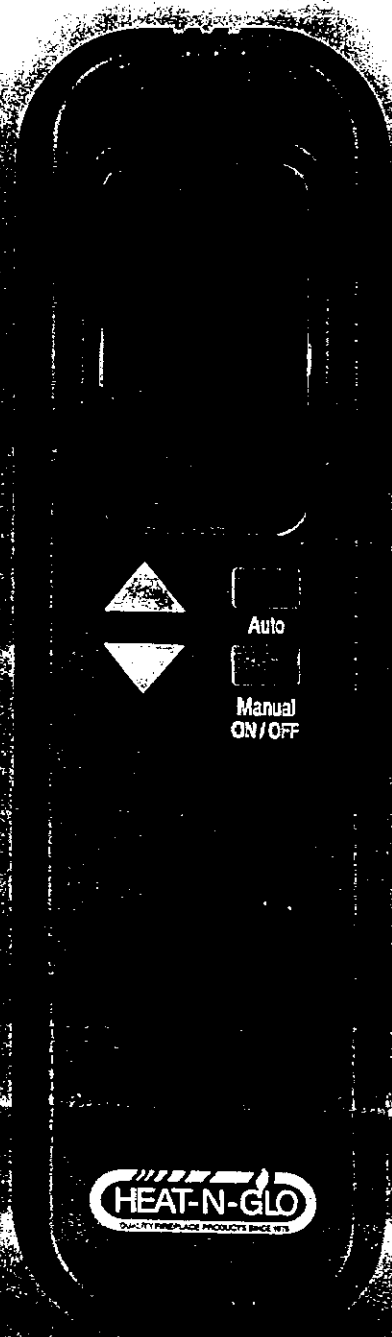
1. Auto On/Off
2. Manual On/Off
3. Backlite LCD
4. Low Battery Indicator
5. Room Temperature
6. Timer
7. Fan Speed
8. Clock
9. Child-Proof
10. Celsius/Fahrenheit
11. Matching Receiver
12. Flame Modulating
13. SIT 825 compatible



RX-07



Exclusive style
for Heat-N-Glo



Acumen

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April 29, 1999

Mrs. Jody Zarnowiec
Intertek Testing Services
70 Codman Hill Rd.
Boxborough, MA 01719

Dear Jody,

The information below, along with the following pages should give you all the necessary information for FCC and IC certification for Acumen's Model H remote transmitter and Model RX-07 receiver.

You are to correct to assume that we will do DOC for the receiver and FCC. For the rest of the information you need I'll list them below.

- 1.) TH Yip, Operation Director, Telephone 86-755-75-6530, Fax 86-755-77-45553
- 2.) Factory location: Bao An Xian, San Hop Zhen, Lang Xin Cun, Shen Zhen, China
- 3.) We have only one model and that is Model H. It does come in 5 different series, FAC-108, FAC-208, FAC-308, FAC-408 and RCT-MOD with each series having a different plastic housing. The electronics, features and functions are the same for each. (Refer to product sheet) RCT-MOD is exclusive to HEAT-N-Glo.
- 4.) Intended FCC ID: EPKSLRMJRTX for transmitter
- 5.) Regarding Repair Center located in Canada. Repairs are NOT authorized. In the event of operational failure user is asked to contact appliance manufacturer. We ask all manufacturers to include this information with there fireplaces.

If you need any more information please feel free to contact me at (703) 904-0405

Best Regards


George Carrigan