

INSTALLATION INSTRUCTIONS

OVERVIEW

The ITI Feature Expansion Module (FEM) lets you use the Energy Saver Module (ESM) with the Central Processing Unit (CPU). The Energy Saver Module overrides the thermostat to control furnace temperature. Also, the FEM resets devices that require a reset following a fire alarm, typically a smoke detector such as ITI PN 13-077.

SPECIFICATIONS

The Feature Expansion Module has:

- a maximum current draw of 300 mA from the CPU's total available output current draw of 500 mA.
- a 12 VDC siren driver with speaker output. An 8-ohm minimum load is required, ITI Part # 60-252 or 13-060 is suggested. Do not use in a U.L. Listed installation.
- a built in self-test. If the light-emitting diode (LED) on the FEM is OFF, the Feature Expansion Module is okay. If ON, call ITI Technical Services.

Refer to the System Installation Manual 46-504, for current capacities.

INSTALLATION

The Feature Expansion Module mounts "piggy-back" style on the CPU. Use the following steps to install the FEM.

1. Remove the CPU cover.
2. Turn off CPU power to prevent damage to the CPU or FEM.
3. Align notches on the FEM circuit board with the small metal guides on the system chassis, then align plated holes on the circuit board with standoffs. (See Figure 1).

CAUTION: Overtightening the screws can cause damage to the circuit board.

4. Place mounting screws through plated holes into standoffs and secure the circuit board to the CPU.
5. Connect the following five terminals from the FEM to terminal strip 2 of the system. Hint: An 8-inch section of a 5 or 6-conductor cable, stripped back 2 inches on each end, can be used as a connecting bridge between the respective terminals.

FEM	CPU	
6	11	CPU GND
7	15	CPU DC OUT
8	16	CPU VOICE
9	18	CPU Bus Out
10	19	CPU Bus In

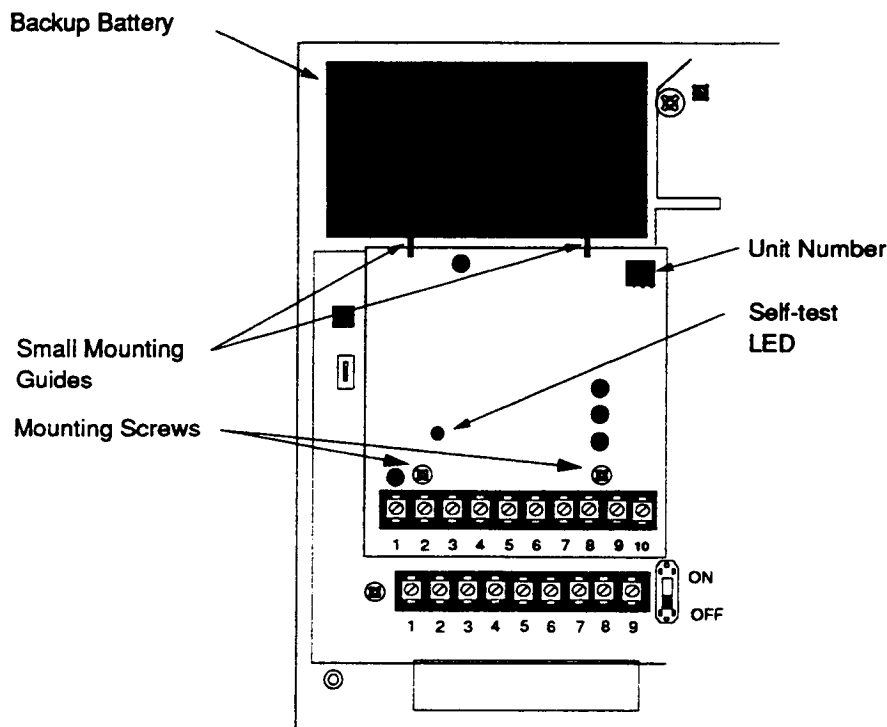


Figure 1. Installing the FEM on the CPU.

CONNECTING DEVICES

The following wiring configurations are for optional devices connected to the FEM (see Figure 2):

Wiring the Energy Saver Module to the FEM:

ESM	FEM	
1	6	CPU Ground
2	7	CPU DC Out
4	4	Temp Control
3	3	Temp
5		to thermostat in series with furnace
6		to furnace

Wiring the 8-ohm Speaker to the FEM:

FEM	SPEAKER
1	Positive (+)
2	Negative (-)

Wiring Device to the 6.8 VDC Switched Output Terminals:

FEM	DEVICE
5	Positive (+)
6	Negative (-)

NOTE: The switched output's maximum current draw is 100 mA (50mA U.L. Listed Installation) and calculate this in with the CPU's total available output current of 500 mA. The output switches off for 3 seconds at siren timeout or when the system is disarmed following a high-level fire alarm.

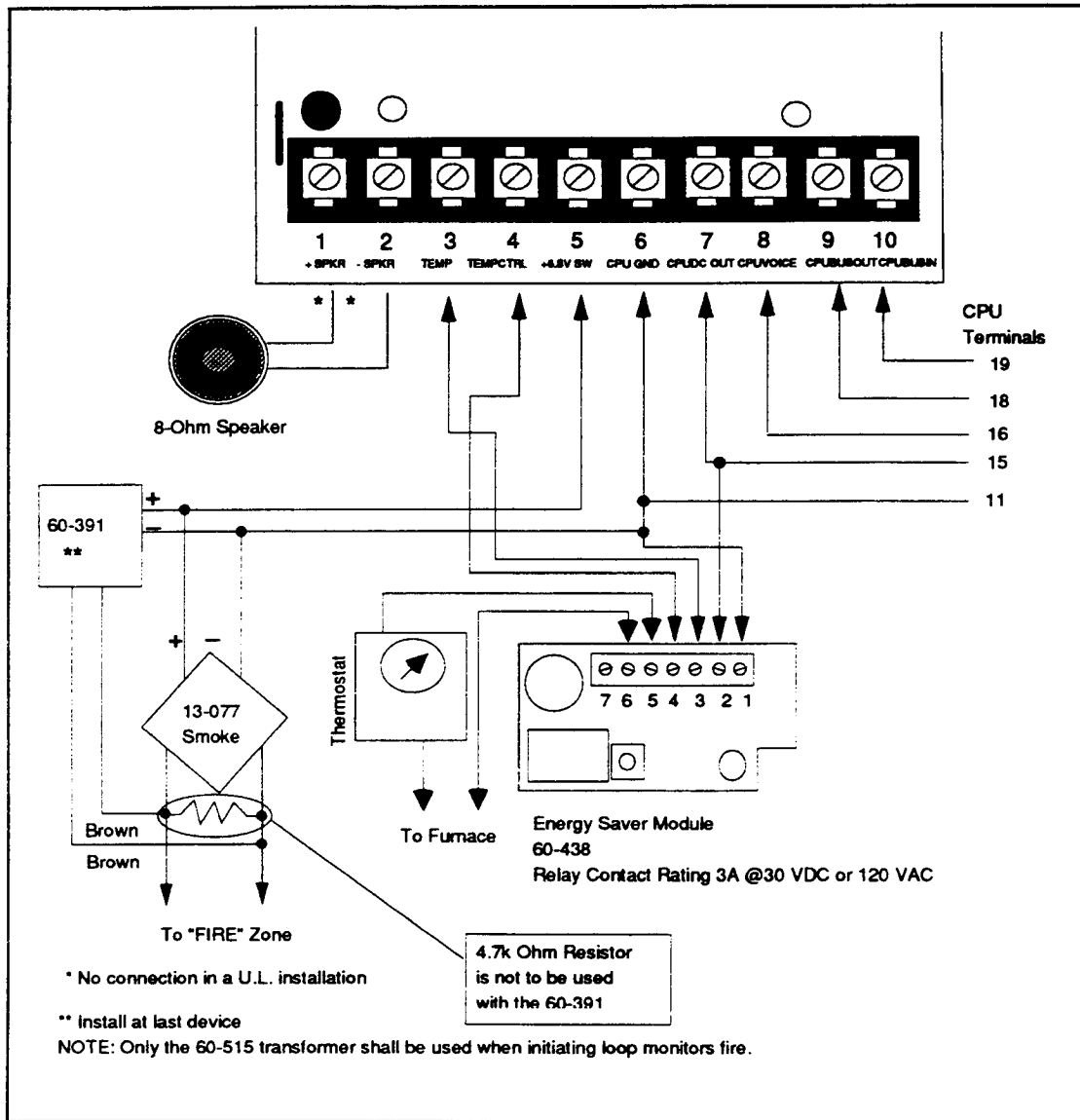


Figure 2. Complete wiring diagram for FEM and devices

PROGRAMMING AND ADJUSTMENTS

Setting the FEM Address

Any device wired to terminals 18 (Bus Out) and 19 (Bus In) on terminal strip 2 of the CPU has a unit number assigned to it. Each device wired on terminals 18 and 19 must have a separate unit number because duplicating unit number prevent all bus devices from operating. (See Figure 3.)

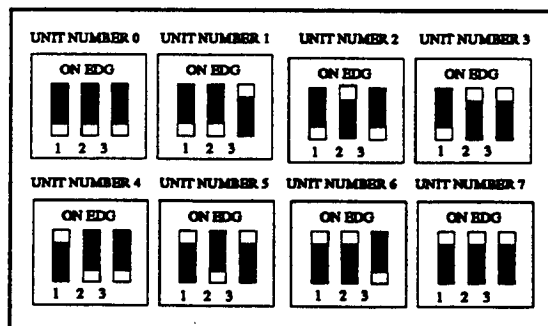


Figure 3. Setting the unit number dip switches on the FEM.

Energy Saver Module (ESM) Temperature Calibration

The ESM has an on board potentiometer to calibrate the temperature sensor to match the house thermostat. With the FEM and ESM installed and the CPU On, perform a long status, and the current temperature measured by the ESM is given. If this temperature is too low or too high, adjust the potentiometer on the ESM to match the thermostat temperature. Each potentiometer adjustment requires that you perform a long status to receive the current temperature sensed by the ESM. (See Figure 4.)

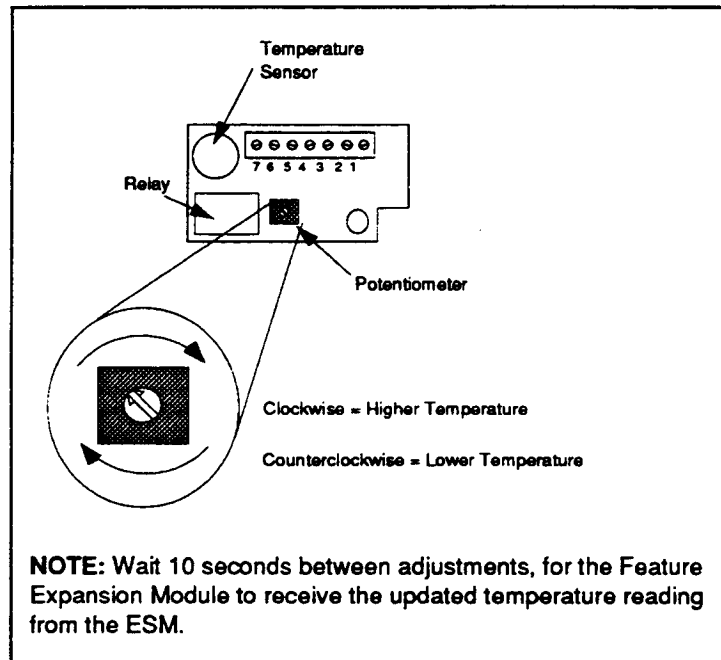


Figure 4. Adjusting the temperature of the ESM to match the house temperature

FCC NOTICE

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions. 1. This device may not cause harmful interference. 2. This device must accept any interference that may be received, including interference that may cause undesired operation. Changes or modifications not expressly approved by Interactive Technologies, Inc. can void the user's authority to operate the equipment.

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Interactive Technologies Inc., Technical Services 1-800-777-2624