

# SnackMiser™

## SM160 / SM161 Outdoor Installation Instructions

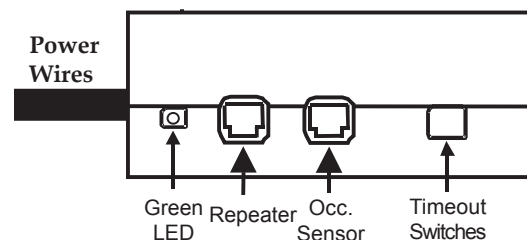
SnackMiser™ is designed to operate as an intelligent power controller for non-refrigerated vending machines. Note that the SnackMiser may not be used on any vending machine which contains refrigerated products.

### General Theory of Operation

Using a Passive Infrared (PIR) occupancy sensor, SnackMiser will automatically shut down the controlled vending machine when the area around the machine has been vacant for 15 minutes (factory default) or whatever time the unit is set for by the Timeout Switches.

### Locating and Mounting the SnackMiser

1. Unplug the vending machine's power cord from the outlet. If it is necessary to move the machine, be careful as it can be heavy.
2. Identify a suitable mounting location for the SnackMiser, most likely on the wall adjacent to or behind the vending machine. The SnackMiser must be located so that the machine's power cord can reach SnackMiser, and SnackMiser's power cord can reach the power outlet.
3. Mount the SnackMiser's back plate to the wall with suitable fasteners oriented, as shown at right, so that the side of the plate with the mounting tabs is at the top.
4. "Snap" the SnackMiser **DOWNWARDS** onto the mounting bracket.
5. Plug the vending machine's power cord into the SnackMiser. Note that if the vending machine has an aftermarket straight plug, this will need to be replaced with an original style right angle plug to avoid interference with the case cover. Do not yet plug the SnackMiser into the wall outlet or attach the case's cover.



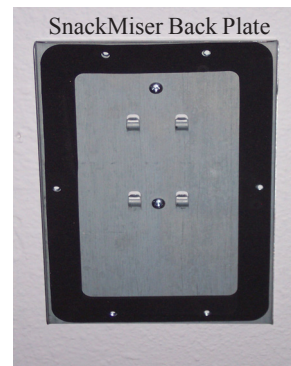
#### Switch Settings

↑↑↑	= 3 Seconds
↑↑↓	= 2 Hours
↑↓↑	= 3 Hours
↑↓↓	= 1 Hour
↓↑↑	= 25 Minutes*
↓↑↓	= 15 Minutes*
↓↓↑	= 25 Minutes
↓↓↓	= 15 Minutes

First Timeout after power up is 30 seconds except \*

### Occupancy Sensor or Sensor Repeater Installation

6. If this SnackMiser is stand-alone, or the first unit in a bank of machines, a PIR sensor must be installed, as described below, to create a Primary SnackMiser. If this SnackMiser is not the first unit in a bank, skip to Step 11 to install a Secondary SnackMiser.
7. The PIR sensor must be located so that it can "See" anyone approaching the vending machine. Ideally, the sensor should be mounted on the wall behind the vending machine, about 2 feet above the machine. To mount the sensor, remove the two screws holding the two-piece mounting arm together shown (picture on next page). Do NOT open the sensor itself. When the mounting arm is open, two mounting holes are visible in the rear section of the arm. Use appropriate fasteners to secure the arm's rear housing to the surface on which the sensor will be mounted. Note that the sensor must be mounted horizontally with the label on bottom of the sensor **DOWN**.
8. Remove the rubber plug in the bottom of the mounting arm of the sensor housing attached to the wall. Thread the supplied phone cord through the opening and plug it into the exposed connector on the sensor as shown in the picture on the next page. Notch the rubber plug for the sensor cord, and replace it now.
9. Replace the front half of the mounting arm placing it over the sensor's swivel connection. Ensure that excess sensor



Sales & Service:  
888-561-4748  
www.usatech.com

6810 N. Broadway, Unit C  
Denver, Colorado 80221  
303-296-9800

100 Deerfield Lane, Suite 140  
Malvern, Pennsylvania 19355  
610-989-0340

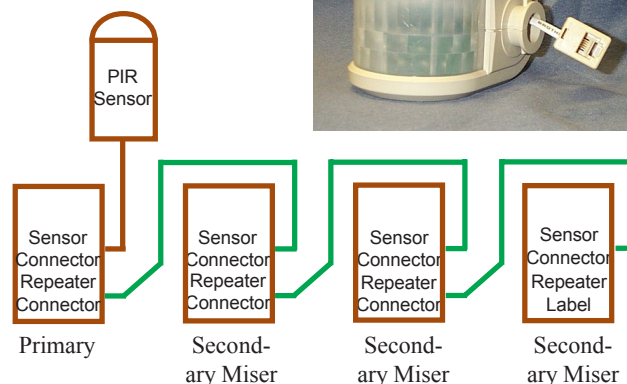
Copyright © 1997-2008  
Revision 12-2008  
Part #23043  
Printed in the U.S.A.

# SnackMiser™

## SM160 / SM161 Outdoor Installation Instructions (cont'd)

cord is pulled through the arm and does not bunch up inside the sensor, as this will inhibit sensor rotation. Secure the sensor arm to the sensor using the two screws removed in Step 7, and tilt it down to properly cover the area in front of the vending machine.

- After carefully uncoiling the sensor cord, plug it into the center socket on the SnackMiser. It is highly recommended that the sensor cable be secured by covering the cable with plastic low voltage wire raceway.
- If a Secondary SnackMiser is being installed, use the supplied 3 Meter (10 feet) phone style cable to connect the OCCUPANCY SENSOR connector on this Secondary to the REPEATER connector on the Primary SnackMiser. Additional Secondary SnackMiser's can be daisy-chained using the same techniques shown in the above diagram. A maximum of four Misers can be daisy-chained in this fashion. It is acceptable to mix SnackMisers with PlugMisers, VendingMisers, and/or CoolerMisers provided the sensor coverage is acceptable for all devices sharing the sensor.



### Power-Up Testing and Install Validation

- Plug the SnackMiser into the wall outlet. The following should occur:
  - The vending machine should power up immediately.
  - The Green LED should flash twice to indicate that the SnackMiser is functional.
  - The Green LED will be on solid to indicate occupancy is detected.
  - The Green LED will indicate no occupancy by flashing off every few seconds.

Verify correct operation of the occupancy sensor by confirming that the Green light behind the sensor lens comes on after power up. The sensor must be allowed to warm up and stabilize for several minutes before its placement can be verified. During this warm-up period, the sensor may go dark – this is normal behavior. Once the sensor is warmed up, it will flash Green at the slightest movement within its field of view. Validate that the sensor can "See" the occupant in all desired areas around the snack machine. If necessary, relocate the sensor and repeat the coverage test.



- As a final functional test, the SnackMiser will power-down the first time only after installation approximately thirty seconds after the area around the machine is vacant. Covering the occupancy sensor will allow validation of the power-down operation if so desired. Following this initial power-down, the SnackMiser will operate with its standard 15 minute time-out or as set by the timeout switches, and will immediately turn the power on when occupancy is detected.

As noted in the Switch Settings table on the previous page, all but two of the time-out selections will power off 30 seconds after initial power-up to enable complete testing of the installed SnackMiser. All subsequent time-outs will be according to the Timeout Switch selection

- Secure the weatherproof cover over the SnackMiser with the supplied screws as shown in the above picture.

