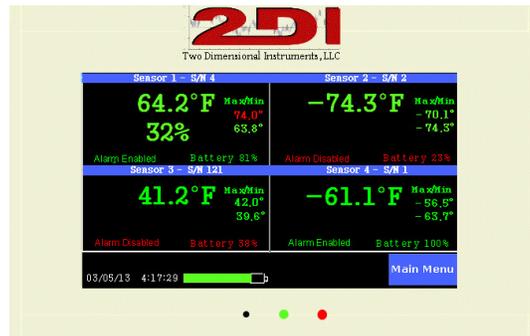


# TV2 Wired & Wireless Sensors



*TV2 for wired or wireless sensors*

## Installing Wireless Sensors



All wireless sensors use a transmitter to send the temperature to an internal base station which is part of the TV2 monitor. There are two styles of wireless sensors; ones with internal sensors and ones with external sensors. The internal sensors can be used inside refrigerator and freezers if they are cabinet type refrigerators or freezers. The temperatures can usually be transmitted back to the base station from inside the refrigerator or freezer because the signal can usually find its way through the rubber door gasket. The signal will not go through the metal sides of the refrigerator or freezer so positioning the base station behind the fridge or freezer where the cooling coils are located is not a good idea.

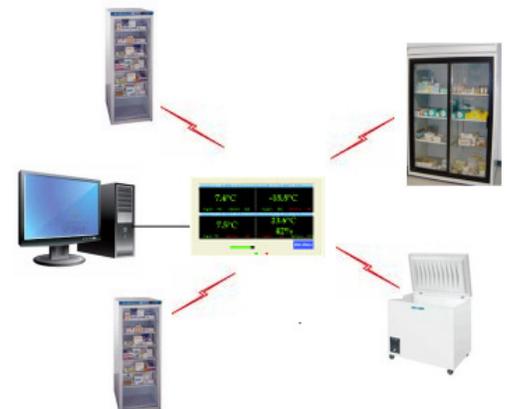
If you are monitoring a walk-in refrigerator or freezer you must use a wireless sensor with an external probe, as pictured on the right. The temperature can not be broadcast through the metal walls of a walk-in unit. And if there is a rubber door gasket where the signal might be able to get out it is usually buried back behind the door. So, to use a wireless sensors to monitor a walk-in refrigerator or freezer the transmitter portion of the sensor must be placed on the outside of the walk-in and the probe itself inside the cold cavity. The easiest way to get the probe inside is to drill a hole through the wall, thread the probe through it and stick the transmitter on the outside of the walk-in. If the hole through which the probe is treaded is filled with silicon, the cold air will not escape.



### To install wireless sensors

1. Put a battery in each wireless sensor
2. Put sensor in each fridge or freezer
3. Plug in the display to the wall or your computer
4. Set the date and time on the display
5. Set the high low alarm for each sensor
6. **You are done**

The external probe, if used can be digital, a thermistor or a thermocouple.



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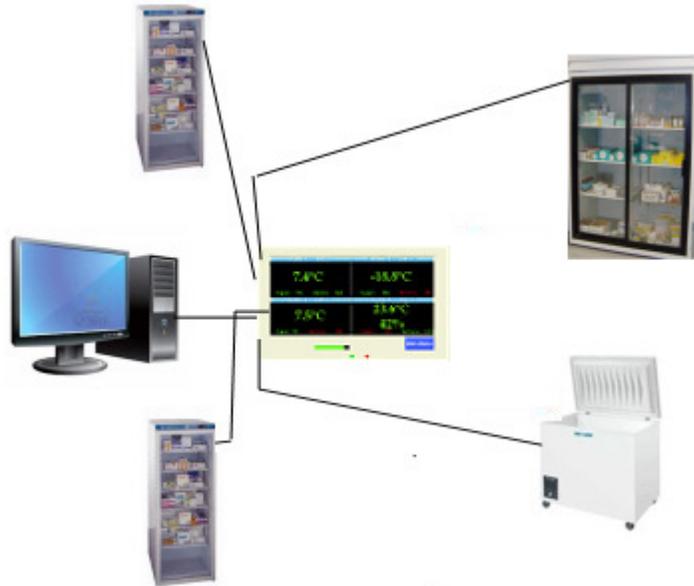


## Installing Wired Sensors



All wired sensors have a 20-foot wire which plugs directly into the TV2 base station as shown at left. The sensor itself can be digital, a thermistor, or a thermocouple and is located at the end of the wire. The sensor must be positioned inside the cold cavity of the refrigerator, freezer or room whose temperature is being monitored.

Each TV2 can be fitted with four plugs for wired sensors. Extensions can be provided to lengthen the 20-foot wire. Fifty-foot extensions are available and will work with any sensor.



## Deciding on wired or wireless sensors

Configuration of sensors is the same whether wired or wireless sensors are used. The accuracy of each sensor is the same whether the data is being sent to the base station through a wire or wirelessly. The decision of whether to use wired or wireless sensors is not always an easy one. No one likes to mess with running wires, so the idea of a wireless sensor is really appealing. But there are cases where wireless just will not work.

Always choose wired sensors if:

1. There are concrete or metal walls between the sensor and the base station.
2. The sensor is going inside a walk-in refrigerator or freezer.
3. It is imperative that you never miss a measurement.
4. You are worried about interference between the sensor and another piece of equipment.  
(All wireless sensors transmit at 433mhz).
5. If the distance between the sensor and the base station is further than 60 feet.
6. If the sensor is more than one room away from the base station.