

# MMTS Display Comparison

## C450-1 vs C450-7 vs C451-N1

The available MMTS display units are: the original, and upgraded unit and a commercial off the shelf (COTS) unit. The original is a weather service design that has served well but is now no longer logistically supportable. The upgraded unit, commonly referred to as the Dash7, replaces the microprocessor and enhances the battery supply. The COTS unit is manufactured by Sensor Instruments Co, Inc., model Nimbus PL-2. There are a few operational differences between the units that you should be aware of.

The units are:



C450-1, Original



C450-7, Upgrade



C451-N1, Nimbus PL-2

## Operational Differences

	<b>C450-1</b>	<b>C450-7</b>	<b>C451-N1</b>
<b>Installation</b>	No differences. Wired to the sensor and lightning protection equipment in the same manner.	No differences. Wired to the sensor and lightning protection equipment in the same manner.	No differences. Wired to the sensor and lightning protection equipment in the same manner.
<b>AC Power Outage</b>	The system stops collecting the data and the battery stores the data that has been collected. Normally the battery power is adequate to store the information for 4 or more hours.	The system continues to collect data as long as the battery has power. The display will go blank except for the decimal point. The battery pack will operate the unit for more than 4 hours.	The system continues full operation long as the battery has power. The display back-lighting will go off to save pwr. The 9V alkaline battery will operate the unit for more than 2 weeks.

	<b>C450-1</b>	<b>C450-7</b>	<b>C451-N1</b>
<b>AC Power Restored</b>	When power is restored, the unit will display AHELP@ but does not start collecting data again until the unit is reset. This means the data is of questionable quality and should not be reported although the observer has the option to report the information if they feel it is acceptable. In most cases this data should not have been reported.	<ul style="list-style-type: none"> <li>- If power is restored before the battery goes dead, no interruption of operation has occurred and no data is lost. This data should be reported as if no power interruption had occurred.</li> <li>- If the battery power is depleted before the electricity is restored, the unit will display AHELP@, must be reset, and the data can not be used.</li> </ul>	<ul style="list-style-type: none"> <li>- If power is restored before the battery goes dead, no interruption of operation has occurred and no data is lost. This data should be reported as if no power interruption had occurred.</li> <li>- If the battery power is depleted before the electricity is restored, the unit will reset itself, starting full operation from that time. No historical data is available to report.</li> </ul>
<b>Battery Recharge</b>	When the internal battery is being recharged, the 10ths (.1) figure flashes. If this figure continually flashes for more than 4 hours, the battery has failed and the unit should be repaired.	When the internal battery is being recharged, the 10ths (.1) figure flashes. If this figure continually flashes for days, the battery has failed and the unit should be repaired. A fully depleted battery will require more than 24 hours to recharge.	<ul style="list-style-type: none"> <li>- The unit does not recharge the battery.</li> <li>- When AL@ blinks on the display, replace the 9V alkaline battery, or annually. If operating on AC pwr, battery can be replaced without affecting measurements.</li> </ul>
<b>Operations</b>	No difference as long as power supply is not interrupted.	No difference as long as power supply is not interrupted.	<ul style="list-style-type: none"> <li>- Press and hold the RECALL button to toggle between the max and min readings.</li> <li>- Press and hold CLEAR button until E2E.2 is displayed. Resets max and min to current temp.</li> <li>- MEMORY On/Off switch should be OFF at all times.</li> </ul>

