

## AN257

# TDR Soft Reset and Battery Charging

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## Abstract

If the TDR's Soft Reset (ON + press ENTER 4-5 times) is used, it performs a number of housekeeping routines to recover any program faults and then restores the factory default settings to the TDR. However, in a number of TDRs the housekeep goes too far and will clear or set to NONE or ALKALINE the BATTERY TYPE: setting in the Battery Menu. This will inadvertently turn off the battery charger. The follow instructions are corrective steps the user can employ to avoid the TDR not recharging properly.

## General

The Battery Menu, along with other commonly used settings, can be quickly restored by following any Soft Reset action immediately with recalling an INSTRUMENT SETUP. Saving and recalling INSTRUMENT SETUPS are covered fully in the 20/20 TDR's Operating Manual's Section 2, under the F4 Menu, MEMORY ACTION. The instructions contain in this Application Note are somewhat abbreviated for experienced users.

## Safety Precaution

Before following the instructions below open the battery compartment to ensure the 20/20 TDR has NiMH or NiCd cell installed. Additionally, note the mAh rating printed on the cells for updating the Battery Menu in step 2 below. All the cells should be the same type and rating. Any mix of alkaline cells and rechargeable cells, or NiMH and NiCd, or different mAh ratings could cause severe overheating or cell outgassing.

## Instructions

### Ensure the Battery Menu is set correctly

#### Steps

1. Press F2, then select BATTERY MENU.
2. Make the following settings using any ◀▶ keys:
  - BATTERY SAVER: OFF or ON user's choice.
  - BATTERY TYPE: NICD NIMH (only choice that will enable the charger)
  - BATT. CAPACITY: 2500MAHR (factory supplied cells. If cells have be changed check their mAh rating on the cell and use that rating)All the remaining items in this menu are status only and can not be changed by the user.



3. Press ENTER to exit the Battery Menu and save the settings.

### **Select popular settings and cable type**

These settings are user preferences from the F2 through F5 menus. They include backlight timing, contrast, vertical scale (Ohms), horizontal scale (range), big numbers on/off, input channel, cable type, etc. When completed go to the next steps to save all these settings.

### **Save INSTRUMENT SETUP**

#### Steps

1. Press F4 and select MEMORY ACTION.
2. Select SAVE INST ONLY. This will open a screen to enter a save name.
3. Use the F keys and number keys to enter a name.
4. Press ENTER to save the setup and enter a number 1-9 for the memory slot.
5. Press ENTER to save the setup and exit.

Only one instrument setup is required to recover the Battery Menu correctly. However, you can repeat this process to save up to 9 different setups, with different cable types and other settings as desired. The saved settings can be penciled into the matrix in the Operator Manual in Appendix C.

### **Soft Reset with RECALL INST**

#### Steps

1. If your 20/20 TDR is not performing correctly (i.e. Measurement screen has incomplete data, menu cursor will not move, etc.) perform the Soft Reset to restore the program operation.
2. Turn the TDR off.
3. Turn the TDR on and immediately press the ENTER key 4-5 times rapidly.
4. The TDR will perform the housekeeping necessary to restore operation and stop at a factory default Measurement Screen (normally 0-999 Ohms and Range about 5120 ft).
5. Press the F4 key and select MEMORY ACTION
6. Select RECALL INST and enter a memory slot 1 through 9 to recall.
7. Press ENTER to recall the instrument setup.

This action should avoid the issue of the battery menu changing the BATTERY TYPE to NONE or ALKALINE after a Soft Reset. Both those battery types will turn the TDR's internal battery charger off. As a last check you might wish to select the Battery Menu again to ensure the BATTERY TYPE is NICD NIMH. Also, the EST. RUN TIME will display 0.0 HRS after a Soft Reset. After 1-3 re-charging cycles the charger will learn the cell's capacity and post valid EST. RUN TIME.

If you have any questions with these instructions or need assistance please contact us at 1-800-258-7805 or +1-760-931-8979 or by email at [techsupport@aeatechnology.com](mailto:techsupport@aeatechnology.com).

