

TECHNICAL BULLETIN

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Subject: Default Settings for Conductivity, Turbidity, and Color Meters

This technical bulletin provides instructions for resetting default settings used by MANTECH for each of the various instruments used in automated chemistry systems. These include the MANTECH turbidity meter, Jenway 4510 conductivity meter, and Shimadzu 1280 spectrophotometer.

Turbidity

Meter Settings

1. On the meter control panel, click the down arrow twice until you see the 'SETUP' option highlighted, then press enter. For each of the following settings, use the arrows to change values and enter to move to next setting.
2. Enter the following values:
 - Scale: NTU
 - Ratio: OFF
 - Resolution: 0.0001
 - Code: OFF
 - Print: 5 seconds
 - Baud: 9600
 - Cal Interval: 180
 - Date/Time: Your date/time
3. Selecting enter after the last setting saves the settings.

Conductivity

Meter Settings

1. To first reset the meter, hold the STO button on the meter keypad while the power is on, then unplug and re-plug in the meter. If done correctly, E2 RST will flash on the screen.
2. To access the settings menu, press the left arrow. The settings are adjusted with the arrows and set by pressing the STO button, which moves on to the next setting.
3. Set the following values:
 - Cell K: K value as printed on the probe cable
 - Coeff: 1.910
 - Ref T: 25
 - TDS: 0.64
 - Units: C
 - Baud: 1200
4. The meter can now be re-calibrated. Follow standard procedures to perform a meter calibration and software calibration before sampling.

Spectrophotometer (Color)

Meter Settings

1. From the main menu on the screen of the spec, press 8 to enter the Utilities Menu. Perform the steps below in the Utilities Menu.
 - a. Set four decimal places displayed i. Press 2. Decimal display until Abs(4) appears to right
 - b. Set to white light source only used i. Press 3. Light source
 - ii. Select WI lamp only
 - iii. Press Enter
 - c. Set the Date and Time i. Press 5. Clock Set
 - ii. Use the enter button and numbers to input the current date and time
 - iii. Press Enter
 - d. Turn Beep off (optional) i. Press 6. Beep to select Off
 - e. Set Data Accumulation time i. Press 7. Data Accum. time
 - ii. Select 0.2 sec
 - iii. Press Enter
2. Press Return to go back to the Main Menu.

3. Set the Wavelength to 410 nm
 - i. Press "Go to WL" button on spectrometer keypad
 - ii. Enter wavelength (410) and Enter

4. Set to PC control
 - i. Press F4 to set to PC Control

PC-Titrate Communication

The UV-1280 Spec communicates using a virtual comm port, and therefore does not occupy a serial port on the interface.

1. Open the folder called Shimadzu UV-1280 virtual comm port driver, which will be included on customer computers, USB drives, and available on dropbox.
2. Click on "AutoRun" and follow the installation prompts.
3. Plug the communication cable directly into a USB port on the computer, and the other end into the spec.
4. Open PC-Titrate and go to Interface/Hardware Setup.
5. Click on "Modify Serial" and select "Shimadzu UV 1280".
6. Select the appropriate comm port (open device manager to determine which comm port the meter is on), set the Wavelength to 410 nm, and the Baud rate to 9600.