To Program the TriMetric:

Press and hold Select until P1 appears, then press Select to toggle through the different programmable data (P1-P22). To change the data, briefly press Select and Reset at the same time and let go. The green lights will flash to indicate that you are in Change Mode. Press the **Reset** button **to change the value**, then press **Select** to get out of change mode.

P1:   **Charged voltage set point:** The battery is signaled as "charged" when volts exceeds the P1 value, and charging amps is less than as described in P2, below. P1 is also the "absorb voltage" set point for the SC-2030 charger when used. **Default "14.3" (14.4 for Battle Born)**

P2:   **Charged amps set point:** The charged setpoint amps (mentioned in P1 above) is the percentage in P2 times the value of amp hours in P3. If P2 is 2.0, and P3 is 220, then the setpoint amps value = 4.4. It also signals the SC-2030 to go into "finish charge" mode. **Default "2.0"% (2.0 for Battle Born)**

P3:   Battery system capacity in Amp-Hours (10 to 9990 A-hr). **Default "220" (100 for Qty 1 Battle Born)**

P4:   Choose either amps ("A") or power (watts) ("Pr") to be in the primary display group. **Default "A"**

P5:   Days since charged alarm set point (off, 0.0 to 250 days). **Default "Off"**

P6:   Days since equalized alarm set point (off, 0.0 to 250 days). **Default "Off"**

P7:   User "complexity" level. L1,L2,L3,L4. L3 or L4 is required to access "advanced" program parameters. **Default L1 (L4)**

P8:   Maximum voltage limit: *SC-2030 solar charger only*: this limits the maximum charging voltage. **Default 65.0**

P9:   Lo-battery audible alarm: based on % full and battery voltage. Set "low % full" alarm point with **P9 (OFF, 1-100%)**. Set "low threshold volts" at **P13** below**. Default "OFF"**.

P10:   Efficiency factor (60-100%): This parameter affects how the "% full" is evaluated. Discharging amp-hours always evaluated at 100%. Charging amp-hours evaluate at an amps rate determined by this setting. This compensates for battery charging inefficiency. **Default 94% (98% for Battle Born)**

P11:   Shunt type: "H" means 500A/50mV. "L" means 100A/100mV. **Default H (L 100A/100mv)**

P12:   Auto Reset **On-OFF**: When OFF percent full and amp hours are not automatically reset. **Default ON**

P13:   Low battery voltage alarm setting: (10.0-65.0 V) **Default: 10.0** Audible alarm also controlled by **P9**

P14:   Maximum finish-charge time in hours until float, SC-2030 solar charger only: (0.0-5.0 Hr.)

P15:   High finish charge voltage, SC-2030 solar charger only:: (10.0-65.0 V)

P16:   Float voltage setting: *SC-2030 solar charger only:* (10.0-65.0 V)

P17:   Shows how many hours after "now" that daily history data **H7, H8 ,H9** will be recorded: (0-24)

P18:   Battery calibration voltage adj. Rarely needed. See TM-2030 User's Instructions, Section 6.4, P18.

P19:   Reset TriMetric to factory settings

P20:   Percentage overcharge compared to last discharge until float *SC-2030 solar charger only:* (1-20%)

P21:   Finish charge current: *SC-2030 solar charger only:* enter as a percentage (0-10%) of battery capacity **P3**

P22:   Battery charging profiles—quickly enter correct settings for SC-2030 charger.

History Number	X.1 Most Recent	X.2	X.3	X.4	X.5 Least Recent
H1.1 Cumulative A-hr	H1.1	╳	╳	╳	╳
H2: Hours since cycle ended	H2.1	H2.2	H2.3	H2.4	H2.5
H3: Length of Cycle-hours	H3.1	H3.2	H3.3	H3.4	H3.5
H4: Amp-hour efficiency %	H4.1	H4.2	H4.3	H4.4	H4.5
H5: Cycle Low % Full	H5.1	H5.2	H5.3	H5.4	H5.5
H6: Cycle Min. volts	H6.1	H6.2	H6.3	H6.4	H6.5
H7: Day's Maximum Volts	H7.1	H7.2	H7.3	H7.4	H7.5
H8: Day's Minimum Amps	H8.1	H8.2	H8.3	H8.4	H8.5
H9: Day's percent amp-hr charge	H9.1	H9.2	H9.3	H9.4	H9.5

(Rows H2–H6: *5 Charge-Discharge cycle info*; Rows H7–H9: *5 day Log Info*)

H1: Cumulative lifetime Amp-hours drawn from the battery. Acts like an odometer for batteries.

H2-H6 History data: for each of the last **five charge-discharge cycles:** Use SELECT button go down the table rows. For each row, push RESET to step back in time up to five earlier charge cycle periods.

H2.X Hours since last charge/discharge cycle ended.

H3.X Charge/discharge cycle duration hours.

H4.X Charge efficiency of cycle: % a-hr discharged ÷ % a-hr charged.

H5.X Lowest battery charge percentage within charge/discharge cycle.

H6.X Lowest battery voltage within charge/discharge cycle.

H7-H9 History data: Use SELECT to go down each row. RESET to go back in time up to **five days:**

H7.X Highest battery voltage each day.

H8.X If the charge set point voltage (set in program P1) was reached on a particular day, this parameter shows the least charge current during that time. If set point was not reached this parameter, shows the charge current when the highest voltage was attained that day.

H9.X Highest percentage of overcharge returned to the batteries for the day.