Battery Evaluation Process

1. Visual Inspection
    a. Look for obvious signs of damage,
    b. Clean the top of the battery and remove any excess debris.
2. Check open cell voltages
    a. This allows us to see if there is consistent voltage from one cell to another. If you see cells that are very low in voltage compared to the others it can indicate a bad cell that might need replacement. Variations of +/- 0.05 volts might indicate a weak cell.
3. Check the Specific Gravity if possible and record readings on the "Battery Capacity Report".
4. Add water if necessary to just cover the top of the plates.
5. Put the battery on an equalize charge.
    a. This allows us to determine if is a customer charger issue or a battery issue.
6. Once the battery has cooled check Specific Gravity & Voltage
        i. If the Specific Gravity is low (below 1.280) then it's an indication that the battery may be sulfated. This can be caused by age, poor charging or watering habits, long-term storage, or a charger that's not bringing the battery to full charge. See DESULFATION
        ii. If the voltage is low on one or more cells you'll want to do a discharge where you can test at what point the cell fails. See DESULFATION WITH CELL EVALUATION

DESULFATION:

1. Fill water level and place the battery on the BDX/MVD cycling devices.
    a. Enter the listed battery Amp-Hour Capacity on the BDX's display and begin the discharge. The battery will cycle 2 times, beginning with a discharger, then charge, discharge and ending with a charge. NOTE: You may need to add water during the process, so keep an eye on it"
2. Once the battery has completed the cycling process, you can reference the BDX display to quickly reference the results. Discharger 1 "D1" will state the run time and AH's removed from the battery. Discharge 2 "D2" will state the run time and AH's removed from the second discharge. If there was a sizeable jump you may wish to run the cycling process again to see if you can achieve even better results.
3. Once the process is complete now you can use the Service Tool software to generate a runtime report.

DESULFATION WITH CELL EVALUATION:

1. With the battery not yet connected to the BDX. Press the Down Arrow and enter the password DOWN, DOWN, DOWN, UP, UP and hold enter for two seconds.
2. Once in the menu, scroll until you see Number of Events. Press enter and change the quantity to "2" and press enter again to save the record.
3. Cycle the on/off switch.
4. Fill water level and place the battery on the BDX/MVD cycling devices.

    a. Enter the listed battery Amp-Hour Capacity on the BDX's display and begin the discharge. Check the cell voltage once per hour and record them on the "Battery Capacity Test Report".
5. Once the battery is fully discharged it will begin the recharge process automatically but not cycle any further.
6. Now once again measure the specific gravity and record the results on the "Battery Capacity Test Report".
7. Repeat the process until you achieve the desired results or they fail to further improve and move onto possible cell replacement or acid adjustment.
8. Disconnect the battery from the BDX.
9. With the battery now disconnected to the BDX. Press the Down Arrow and enter the password DOWN, DOWN, DOWN, UP, UP and hold enter for two seconds.
10. Once in the menu, scroll until you see Number of Events. Press enter and change the quantity to "4" and press enter again to save the record.
11. Cycle the On/Off Switch to return to "System Ready"