

# Your Battery Maintenance Solution Source!

Spring 2021

Happy Spring! Be safe, and Thank you so much for your dedicated service!

In our Winter 2021 newsletter we covered ages of batteries, recovery rates, etc. Did you know that the same logic can be applied to charging and diagnostic systems?

Does your maintenance facility update diagnostic and charging equipment as the performance degrades, becomes unserviceable, or more advanced systems are available?

Upgrading systems as needed to keep a strong viable BMMP does not mean systems should be replaced or upgraded every couple years. However, after 5 years many will see performance degradation and technology deficits compared to newer systems. Fact: There are a lot of older PulseTech systems (many 10+ years old) in use in the field which are candidates for upgrade.

Example: **Performance example:** 

2015 ProHD: 5VDC battery engage, separate VAC input & control Board, 45A Power Supplies.

2021 ProHD: 2.5VDC battery engage, advanced combined VAC input & control Board,

more aggressive engagement algorithm, 50A Power Supplies.

2015 Pallet: 5VDC battery engage, no float, standard recovery algorithm to pulse charge. 2021 Pallet: 2VDC engage, more aggressive engagement algorithm, advanced recovery

algorithm along with full auto Float maintain circuit.

There are many other differences on any given system over the last 5 years, such as; software improvements to engage batteries better, enhanced HD charge circuits, newer technology systems diagnostics, and NSNs assigned to ProHD and Pallet Charger replacement inserts.

So, how can you tell the age of a PulseTech charger? Look for a data sticker near the AC power plug and on/off switch on any of our systems. The sticker will a serial number and usually 2 years listed. Under the years there will be 1 thru 4 numbers with a number punched out.

S/N:	22879
2013	2014
1234	1234
S/N:	27736
2014	2015
1 2 3 4	1284

### Two examples:

- ➤ The top data sticker is from a 3rd quarter 2013 ProHD, Ser# 22879.
- > The bottom data sticker is from a 3<sup>rd</sup> quarter 2015 Pallet Charger.
- > The ProHD is 7.5+ years old, and the Pallet Charger is 5.5+ years old. On both these systems performance & functionality are outdated by newer systems. Both chargers would be great candidates for upgrades via CLIX drop-in replacement inserts.

**Website: WWW.PULSETECH.NET** 



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Are we supposed to test new or used AGM batteries prior to installation on equipment? Yes, we are required to Test!

Reference: TB 9-6140-252-13, Page 0011, Paragraph 1 under Placing New Batteries into Service states, "batteries should be charged (topped off) until the Open Circuit Voltage (OCV) reaches >12.65.

Summary: All 12V batteries, new or used should be tested prior to installation. If VDC is below 12.65 the battery should then be tested with a Digital Battery Analyzer to determine condition and then charged prior to being placed into service.

Digital Battery Analyzers are a quick and easy way to accurately determine a 12V batteries PulseTech Analyzers use testing algorithms to differentiate battery configurations of AGM (flat and spiral plates), flooded cell and gel cell batteries and quickly display battery voltage, cold cranking amps, condition of the battery, and state of charge. The MBT-1 listed below pocket sized Go / No Go tester which can be for initial general condition battery tests. If the MBT-1 finds a battery in a discharged state a Digital Battery Analyzer should be used to accurately determine condition.



390PT Analyzer **Digital Battery Analyzer** NSN 6130-01-580-3882



490PT+ Analyzer **Digital Battery Analyzer** \*NSN 6130-01-510-9594 \*Standard on Army SATS



MBT-1 Go / NO GO Tester NSN 6625-01-463-8499

Contact your supporting FSR below with any questions about PulseTech gear, Solar recommendations / suggested application use (they have examples they can send), equipment specs, troubleshooting, example SOP or for a FREE (within CONUS) on-site support visit.

#### Title / Locations / Units Supported:

VP Military Programs, Eastern US, 2 MEF, International Roy Johnson FSR, South Western US, Pacific, I and 3 MEF FSR, North Central / North Western US, Alaska

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