

Recommended Shop Chargers

ODYSSEY® and NorthStar® batteries are AGM batteries with a Thin Plate Pure Lead (TPPL) internal design. They have very low internal resistance which allows them to be recharged with high current. The charge requirements for the batteries are as follows:

- Minimum current** = 10% of C20 rating
- Recommended current = 40% of C20 rating
- Maximum current = 100% of C20 rating

** charge current <10 Amps will not fully charge a TPPL battery

Example: ODX-AGM31 battery has a C20 rating of 103 Amp Hours (AH)

- Minimum current = 10 Amps
- Recommended current = 40 Amps
- Maximum current = 100 Amps

The charge time required to fully charge a battery is dependent on depth of discharge (DOD) and available charge current.

Example: ODX-AGM31 battery that is completely discharged (Open Circuit Voltage = 11.2V), 103 AH needs to be returned to the battery.

- If charge current is 100 amps, charge time = 1 hour
- If charge current is 50 amps, charge time = 2 hours
- If charge current is 10 Amps, charge time = 10 hours

Additionally, since they are sealed batteries, the charge profile used must be appropriate for AGM batteries to be sure they are not overcharged or undercharged. A flooded charge profile should never be used on an AGM battery.

Below is a listing of shop chargers which have been validated as adequate to be used with TPPL batteries.

- Odyssey Shop Chargers OSC-105A (100 amps), OSC-70A (70 amps) and OSC-35A (35amps)
- Associated N6366 (4 channels X 20 amps/channel)
- Associated IBC6008 (60 amps)
- Autometer BPC-100 (100 amps)

Disclaimer: This listing can be modified as necessary. Contact EnerSys Technical Support at 1-800-964-2837 for more information.