PTMP Chargers - 24V Modular Programmable

- Programmable:
  - Battery Types
  - Operating & Alarm Parameters
- Self-Monitoring/Diagnosis Reported On-Screen:
  - Operational Data
  - Out of Limit Conditions
  - Component Fault Identification
- Form C Remote Monitor Relay Outputs:
  - AC Fail, DC Voltage Low/High
- Onboard Serviceability:
  - Plug-In Replacement Components
  - Charger Remains Installed On Vessel

The PTMP represents a new level of functionality, reliability, and serviceability in very smart battery charging for critical 24 volt systems aboard work boats, military, commercial, and recreational craft. A menu of pre-programmed battery type charge profiles as well as custom settings option allow user to select or program optimal three step charging voltages and operating parameters. The chargers interact with batteries providing the ideal profile for replenishment and conditioning, resulting in maximum performance and extending service life.

LCD screen diagnostics and system status and alarm conditions, plus remote alarm contacts improves reliability as operators are kept apprised and forewarned of potential system issues. The LCD monitor indicates nature of the service required, yet the charger will rarely need to be removed from the vessel! The front panel hinges upward allowing access to the power module and controller circuits which can be easily removed, and a replacement quickly plugged back in place, specialized techs not required, minimizing down time and service labor expense.

Reliability is further enhanced on the 100 and 150 amp systems via use of multiple power modules, should one fail the system will signal a fault but continue to operate at reduced power output.

Features
- User selection of Pre-programmed charge profiles for multiple battery types. Plus full customization for special requirements
- On-screen status and system diagnostics, with audio alarm
- Independent temperature sensors, 3 battery banks
- 3 step charging for long battery life
- Equalization program
- Remote Status monitoring via Form C relay contacts

- ABS Type Approval Battery Charger and Power Supply. Multiple modules qualifies as redundant ABS essential service device
- Easy front panel access to plug-in modules for quick field service, no need to remove charger from vessel, high tech personnel not required
- IP45 solids and water ingress protection

<table>
<thead>
<tr>
<th>PTMP Model</th>
<th>24-100</th>
<th>24-150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Amps (115V/230V AC)</td>
<td>26/17</td>
<td>42/24</td>
</tr>
<tr>
<td>Output Amps @ 24V</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>Banks</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Size (Inches)</td>
<td>24 x 10 x 7</td>
<td>24 x 12 x 7</td>
</tr>
<tr>
<td>Weight (Lbs.)</td>
<td>28</td>
<td>35</td>
</tr>
</tbody>
</table>

Preliminary Specifications
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Operation Status Screen
A 2" x 2.6" Front panel LCD screen provides system status information:

Battery program selections include:
- Flooded Cell 1
- AGM
- Flooded Cell 2 (AGM 2)
- Gel
- TPPL (Thin Plate Pure Lead)

Custom settings include:
- Absorption & float voltage
- Absorption stage time
- Absorption stage end amps
- Bulk stage time out
- Max charge amps (AC input limit)
- End of Absorption condition
- Hi/Low DC alarm voltages

Programmable
Enter charge profile for multiple battery types, and monitoring parameters via front panel key pad, LCD screen or by laptop connection.

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- Bulk stage time out
- Max charge amps (AC input limit)
- End of Absorption condition
- Hi/Low DC alarm voltages

Self-Monitoring/Diagnosis
Displayed on-screen with audio alarm when critical condition detected:
- AC Failure
- Charger Over Temp
- Battery Over Temp
- High Charger Voltage Output
- Low Charger Voltage

Form C Remote Monitor Relay Outputs
- AC Fail
- DC Voltage Low/High

Controller Communication Fail

Reliable
Hardened for marine environment:
- Redundant power modules ensure continued operation should one fail
- IP 45 rating: protected from dust and water jets
- Cooling air flow ducted to minimize contact with power circuit components
- Conformal coated circuit boards
- High temperature rated circuits to 50° C
- Automatic power reduction in high temp environments

On-Bulkhead Serviceability
On-screen diagnostic define fault conditions. Hinged front panel access to internal modular plug-in circuits makes replacement easy without removing charger from installed location.
- Module change-out takes only minutes via plug and play configuration
- Technical personnel not required
- No need to remove the charger case from the boat

Options
- Remote installation of LCD display and touch pad.
- Battery Temperature Sensors.

System Status

<table>
<thead>
<tr>
<th>VOLTS - BANK</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>27.2 27.0 27.5</td>
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<tr>
<td>TOTAL OUTPUT AMPS</td>
<td>100</td>
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<tr>
<td>CHARGER MODE ON - FLOAT</td>
<td></td>
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<tr>
<td>BATT TEMP BANK</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72</td>
<td>80</td>
<td>77</td>
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</tbody>
</table>

System Normal Screen

Programmable by key pad

System Status

<table>
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<tr>
<th>VOLTS - BANK</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>22.0 24.8 25.0</td>
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</tr>
<tr>
<td>TOTAL OUTPUT AMPS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CHARGER MODE OFF/FAULT</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>BATT TEMP BANK</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>128</td>
<td>72</td>
<td>80</td>
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</tr>
</tbody>
</table>

Battery #1 Over Temp

Alarm Condition Screen

Front panel pivots up providing access to plug-in modules allowing easy onboard service

Newport Beach, CA USA

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