# PTMP Chargers - 24V Modular Programmable



24 Volt, 150 Amp

- 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 Insalled 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 alam
- Independent temperature sensors, 3 battery banks
- 3 step charging for long battery life
- 21 day automatic re-conditioning cycle
- Equalization program

PTMP Model	24-50	24-100	24-150
Input Amps (115V/230V AC)	14/8	28/16	42/24
Output Amps	50	100	150
Banks	3	3	3
Size (Inches)	23 x 10 x 7	23 x 10 x 7	23 x 12 x 7
Weight (Lbs.)	28	30	35

- Remote Status monitoring via Form C relay contacts
- Multiple modules provide redundancy and qualifies as redundant ABS essential service device (100 & 150 amp models)
- Easy front panel access to plug-in modules for quick field service, no need to remove charger from vessel, high tech personnel not required



Preliminary Specifications



DC Power Onboard

# PTMP Chargers - 24V Modular Programmable

#### **Operation Status Screen**

A 2" x 2.6" Front panel LCD screen provides system status information:

- DC volts per battery bank
- Total charger output amps
- Charge stage mode (bulk, absorption float)
- Battery temperature (per enabled temp probe)
- Recondition cycle in process
- Absorption stage timed out
- Equalize mode time remaining
- Alarm conditions (see self-diagnostics section below for list of alarm monitored functions)

## Programmable

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

### 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



**System Status** 

VOLTS - BANK # 1 2 3 27.2 27.0 27.5

TOTAL OUTPUT AMPS 100

CHARGER MODE ON - FLOAT BATT TEMP BANK 1 2 3 72 80 77

System Normal Screen

Programmable by key pad or laptop

**System Status** 

## 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
- Internal Power Module over temp
- Internal Power Module Failure
- Fan failure
- Output Fuse Failure

## Form C Remote Monitor Relay Outputs

- AC Fail
- DC Voltage Low/High (set points programmable)

#### Doliable

Hardened for marine environment:

- IP 54 rating: protected from dust and splashing water
- 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
- Redundant power modules ensure continued operation should one fail (100 and 150 amp models)

#### 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.





Remote Panel

# VOLTS - BANK # 1 2 3 22.0 24.8 25.0 TOTAL OUTPUT AMPS 0 CHARGER MODE OFF/FAULT BATT TEMP BANK 1 2 3 128 72 80 Battery # 1 Over Temp

Alarm Condition Screen



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



