BRIDGEPORT MAGNETICS GROUP



MARINE-PUCK™

Boat Isolation Transformers

MP3.6 MP6 Dual MP6

UL Listed Marine - E509703
Certified Ignition Protected Made in USA

IMANNA LABORATORY INC
Certified Ignition Protected

UL MARINE LISTED
MARINEPUCK
MARINE ISOLATION TRANSFORMER
BY BRIDGEPORT MAGNETICS
ABYC COMPLIANT

MARINE c UL us LISTED MARINE PUCK E509703

1 IMPORTANT SAFETY INSTRUCTIONS

WARNING:

HIGH VOLTAGE / SHOCK HAZARD

Disconnect all AC shore power before working. Failure to do so may result in serious injury.

QUALIFIED PERSONNEL ONLY

Installation must be performed by a qualified marine electrician familiar with ABYC E-11. Improper installation can create shock, fire, or corrosion hazards.

DO NOT DISASSEMBLE

Units are hermetically sealed in solid epoxy. Do not open or modify the enclosure. Opening voids UL Marine listing, ignition protection, and warranty.

MarinePuck is certified ignition protected (IMANNA 21-21794-1) and may be installed in gasoline machinery spaces. Do not open the shell.

2 PRODUCT OVERVIEW & SPECIFICATIONS

Toroidal isolation transformers fully embedded in solid epoxy inside a non-metallic enclosure. Class II double-insulated (no case ground). Up to 50% lighter and quieter than conventional units. 104 V & 208 V boost and soft-start (MP6/Dual MP6) included.

MODEL	POWER	INPUT / OUTPUT	DIMENSIONS	WEIGHT
MP3.6-30A	3.6 kVA	120/240 V	10″ OD × 5″ H	50 lb
MP6-25A	6 kVA	120/240 V	12.6″ OD × 6.5″ H	80 lb
Dual MP6 50A-I	12 kVA	120/240 V	2 × 12.6″ OD × 6.5″ H	160 lb

All models: 50/60 Hz, AWG #10 copper leads (~36"), solid epoxy potting, non-metallic flame-rated ABS. Soft-start on MP6 and Dual MP6.

3 ABYC E-11 REQUIREMENTS

MarinePuck is designed for ABYC E-11 isolation-transformer practice when installed per these instructions and the wiring diagrams. It is UL Listed Marine (E509703) and ignition protected. Because the unit is non-metallic Class II (no metal case or shield):

- ELCI (30 mA) on the input ahead of the primary. Under E-11-2025 this is the compliance path for a non-metallic transformer (substitutes for a metal shield). Place it as close to the inlet as practical.
- Overcurrent disconnect within 10 ft of the shore power inlet (always required).
- One neutral-to-ground bond only - at the secondary. Bond secondary neutral to boat AC ground. Do not bond a second time
- Cap and insulate the shore green. Do not connect it to the puck or boat ground. Do not install a galvanic isolator in series with the capped green.
- Size conductors and secondary overcurrent per ABYC E-11 for the boat loads, not the dock pedestal.

SHORE INLET	kVA	MARINE PUCK	ELCI / DISCONNECT
30A, 120V	3.6 kVA	MP3.6	30 A, ELCI on input
50A, 120V	6 kVA	MP6	50 A class, ELCI on input
50A, 120/240V	12 kVA	One Dual MP6	50 A double-pole, ELCI on input
100A or two 50A	24 kVA	Two Dual MP6 systems	100 A class or one, ELCI per inlet

Note: Metal-case isolation transformers bond the shore green to the case/shield. MarinePuck has no case ground - the shore green is capped. Follow the diagrams exactly.

4 IMPORTANT SAFETY INSTRUCTIONS

Mount on top of or below a deck or bulkhead with a single central carriage bolt. Wiring may exit from the rear through the mounting surface or radially through the lower rim. Orient the unit in any direction.

Airflow: Install spacers behind the unit so there is clearance for airflow around the thermistor (soft-start). Do not mount the puck flush against a surface that blocks ventilation.

1.Confirm the surface can support the unit weight (50–160 lb). Prefer a dry, accessible location.
2.Install spacers or standoffs to maintain airflow behind the unit for the thermistor.
3.Drill clearance hole for the carriage bolt. Insert bolt from the opposite side of the mounting surface.
4.Secure with flat washer, split lock washer, and hex nut. Tighten firmly.
5.Route wiring rear (caulk the penetration) or radially (use grommet). Seal to prevent water entry.
6.Secondary windings: connect in parallel for 120 V or series for 120/240 V (see schematics).

Mounting: Marine-Puck mounts on top of or below a deck or a bulkhead with a central carriage bolt and washer. Four spacers are required to maintain proper airflow around the thermistor. Input and output wiring may exit from the rear through the mounting surface or radially through the lower rim in any orientation. All models feature two secondary 120V windings which may be user connected in parallel for 120V service or in series for 120/240V service.

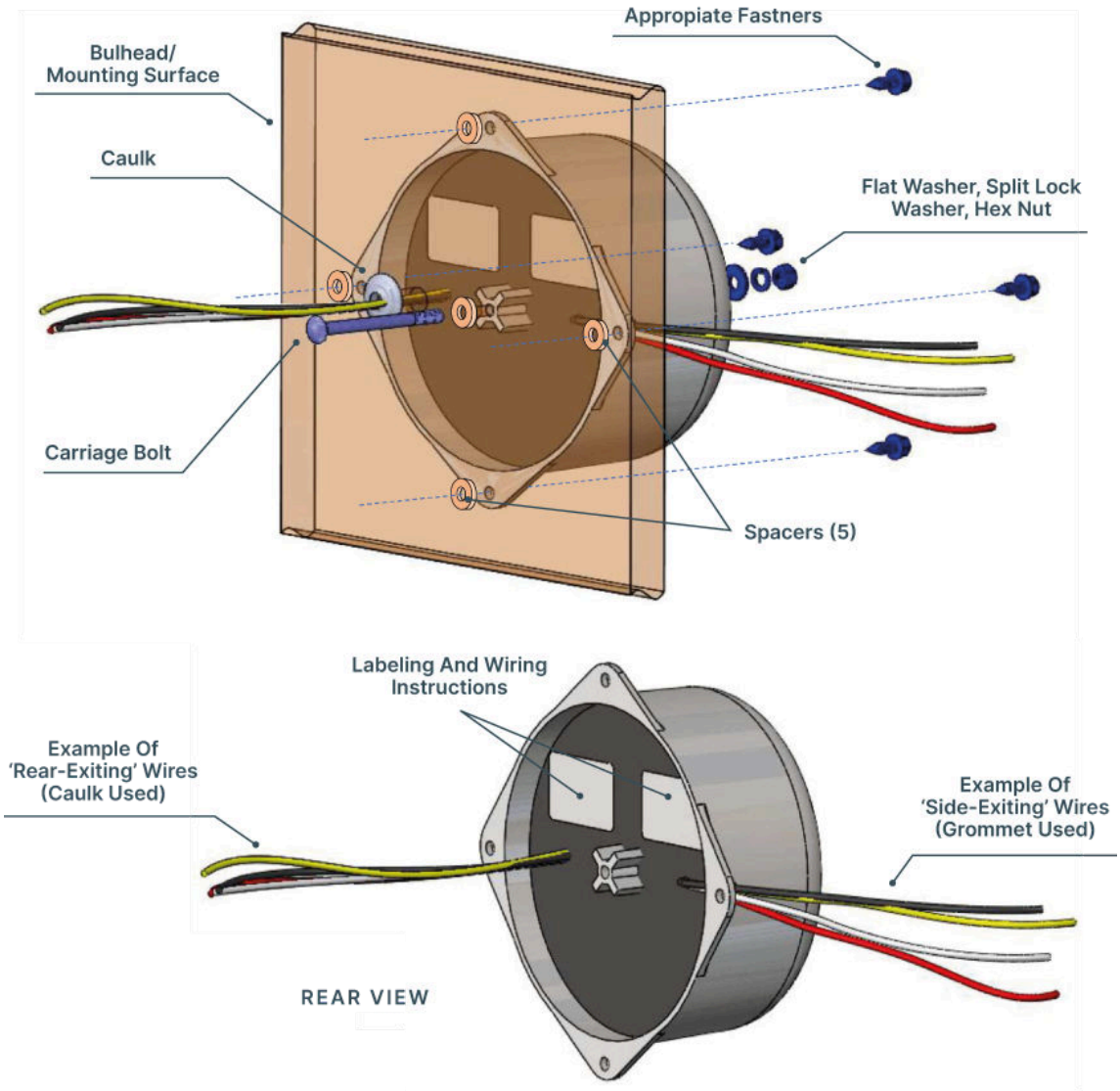


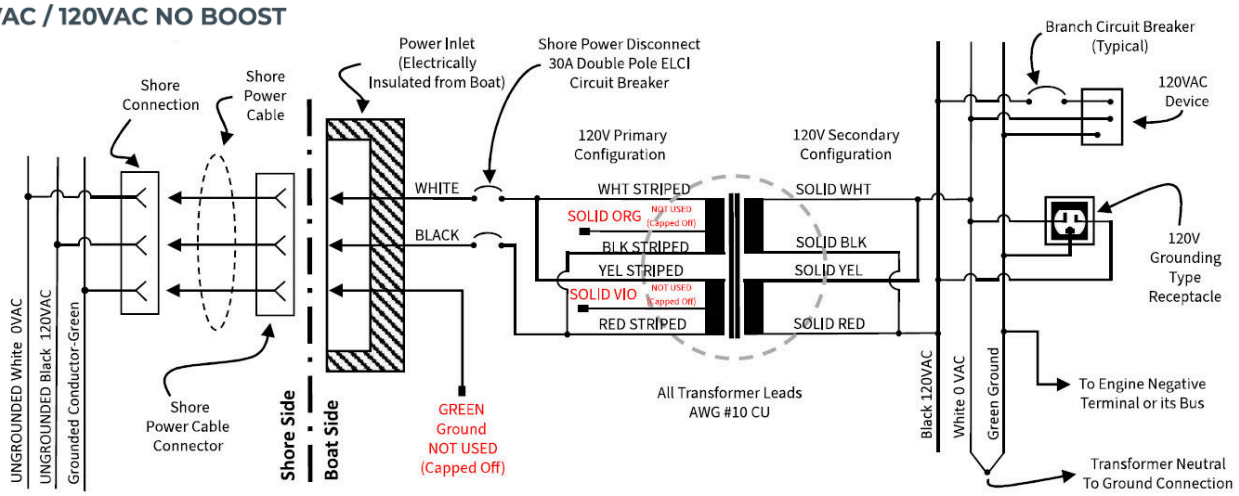
Figure: Central carriage bolt mounting. Rear or radial wire exits.

5 WIRING & ELECTRICAL SCHEMATICS

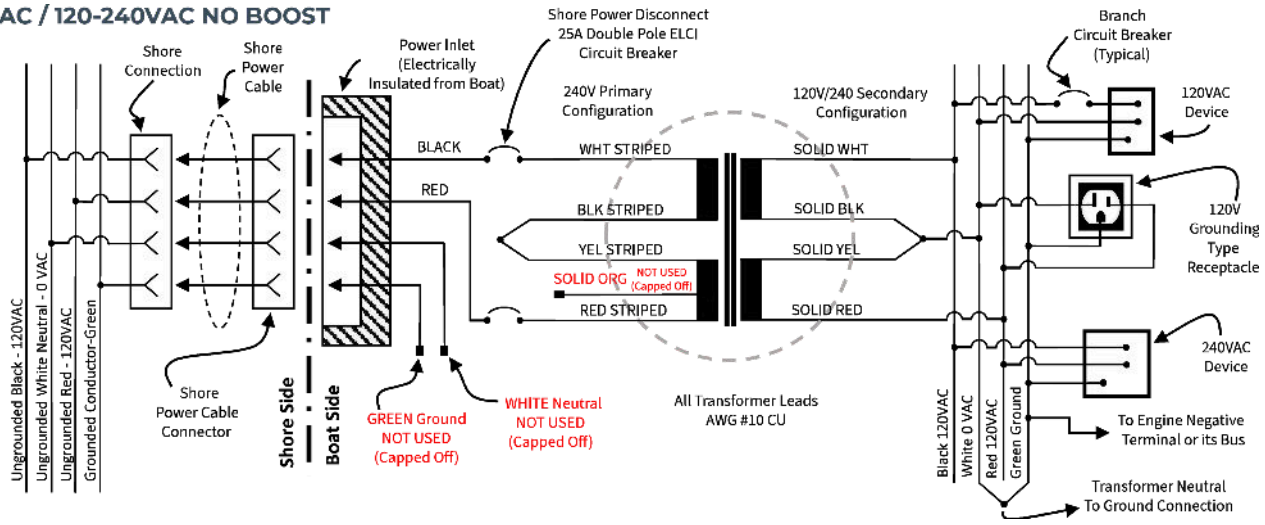
Follow the schematic matching your shore configuration. All leads AWG#10CU. Cap shore green. Bond secondary neutral to boat ground at one location only. Install ELCI on the input.

NO BOOST EXAMPLES

120VAC / 120VAC NO BOOST



240VAC / 120-240VAC NO BOOST



DUAL MP6 -240VAC / 120-240VAC 12KVA 50A NO BOOST

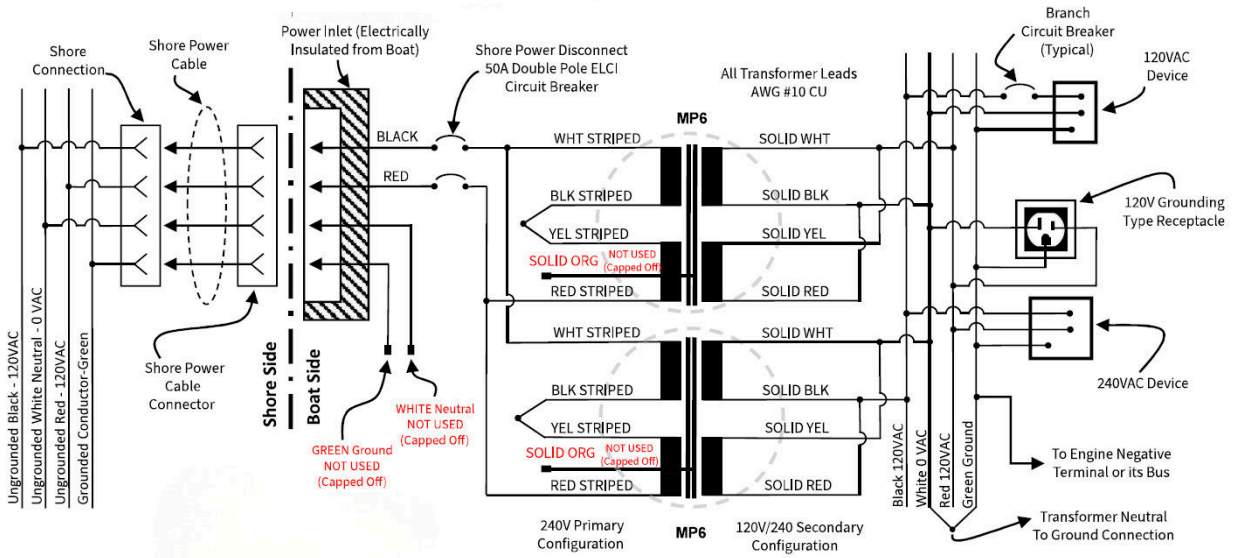
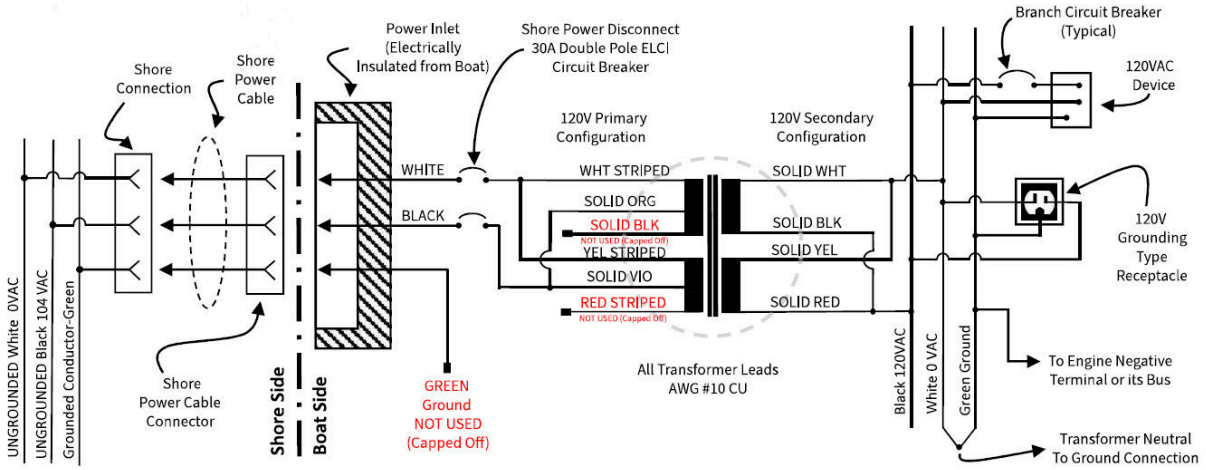


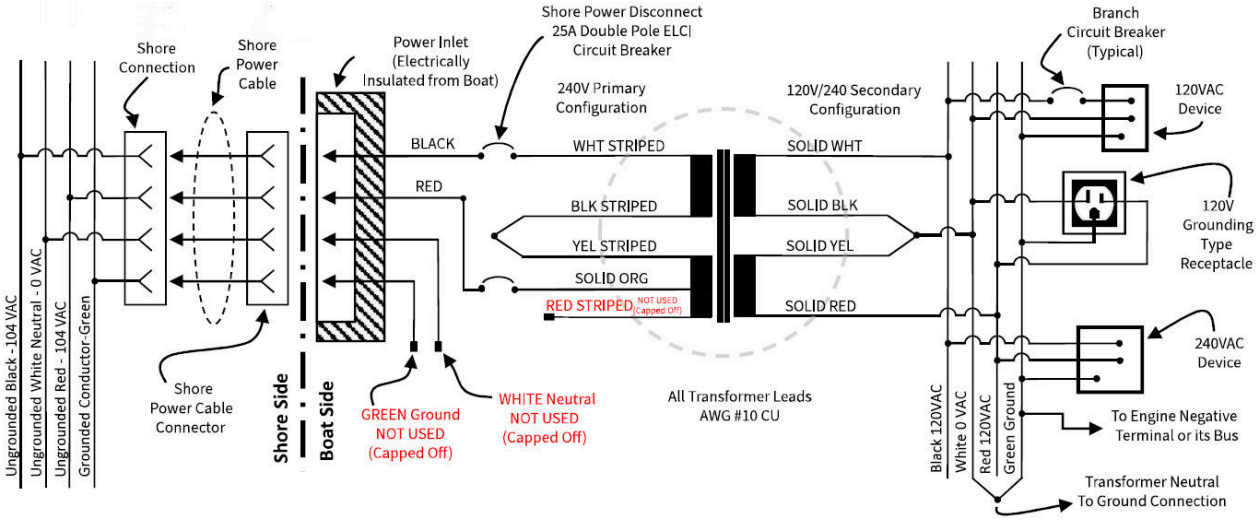
Figure: No-boost configurations.

BOOST EXAMPLES

104VAC / 120VAC BOOST



208VAC / 120-240VAC BOOST



DUAL MP6 - 208VAC / 120-240VAC 12KVA 50A BOOST

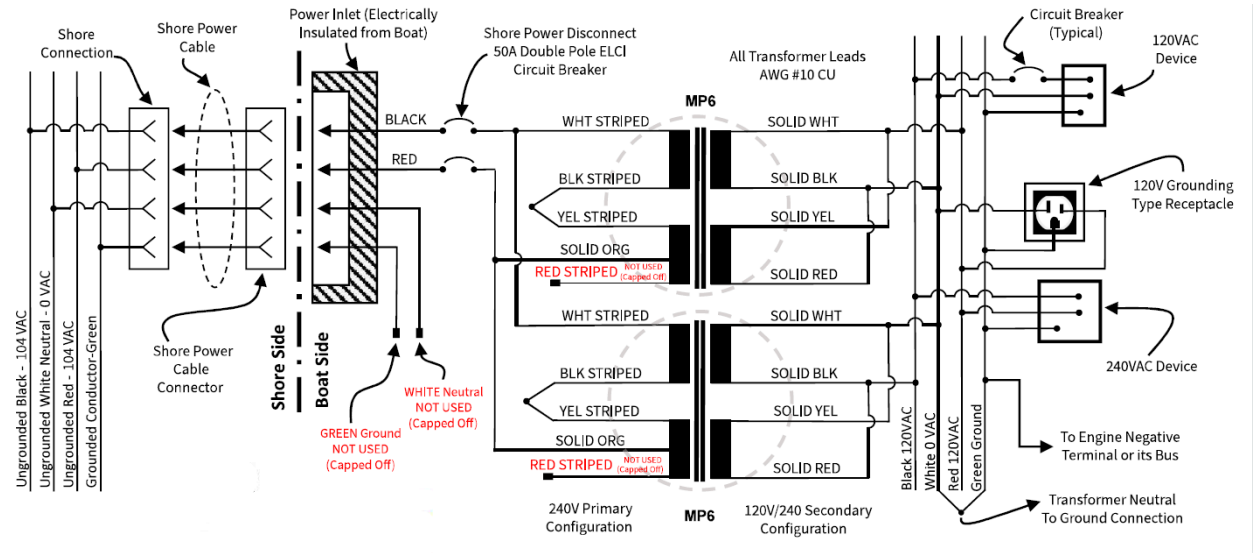


Figure: Boost configurations (104 V / 208 V).

6 COMMISSIONING & NOTES

Before energizing: Verify connections match the schematic, shore green is capped, secondary neutral is bonded once, and ELCI/disconnect are installed and rated correctly. Check voltages under light load. Confirm no abnormal heating or noise.

CONTACT

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