

BMS BATTERY MANAGEMENT SYSTEM

Yamaha Introduces All-new Battery Management System (BMS)

*Streamlines rigging and provides flexibility in twin-quint applications**

With today's increasing demand for on-board DC power, the layout and management of necessary power systems has never been more important or complex. Now, Yamaha helps to greatly simplify and streamline DC power systems with its new Battery Management System (BMS) for Yamaha-powered boats in twin-quint DEC engine configurations using the Helm Master EX system.

Yamaha's new Battery Management System provides advanced on-board power management that's simpler, cleaner and faster to install than typical conventional systems. It requires only two starting batteries on triple through quint installations to reliably and confidently start the outboards, all while keeping them safely charged and ready. BMS also provides the potential for more room in the boat and a cleaner bilge, while making battery care and management significantly easier for the customer. BMS also reduces battery system installation costs, lowers complexity for easier training, and provides more flexibility for battery use and configuration.

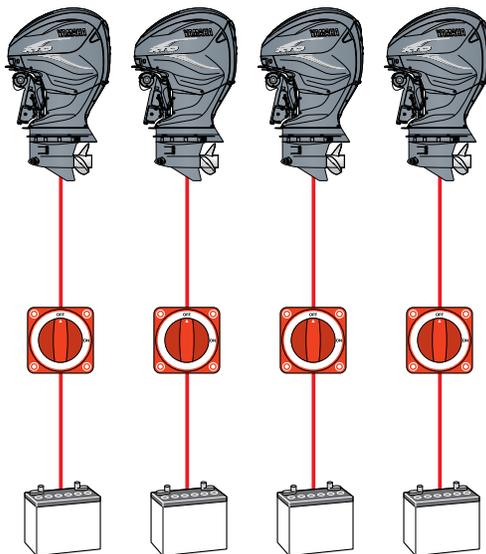
**Requires Yamaha DEC-capable outboards equipped with Helm Master® EX rigging.*



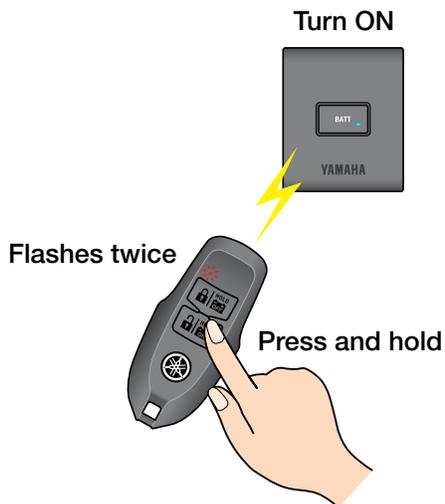
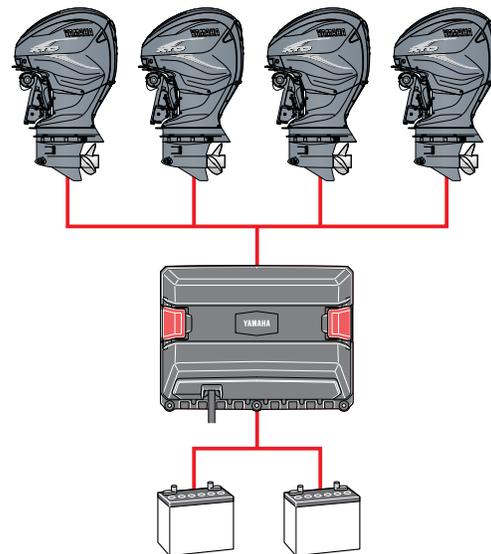
The Yamaha Battery Management System is a product of Yamaha's **CommandBlue™** philosophy. CommandBlue represents Yamaha's commitment to move engineering development into the realm of the customer, ultimately delivering products that are easier to use and create greater satisfaction and confidence on the water.

Yamaha's new BMS reduces the number of starting batteries required in triple through quint installations to just two. That means more room and less weight in the boat or the option for more batteries in the house bank. Additionally, since there are fewer components than in conventional DC wiring systems, BMS means a cleaner, more orderly bilge and easier battery care and management for the customer.

CONVENTIONAL



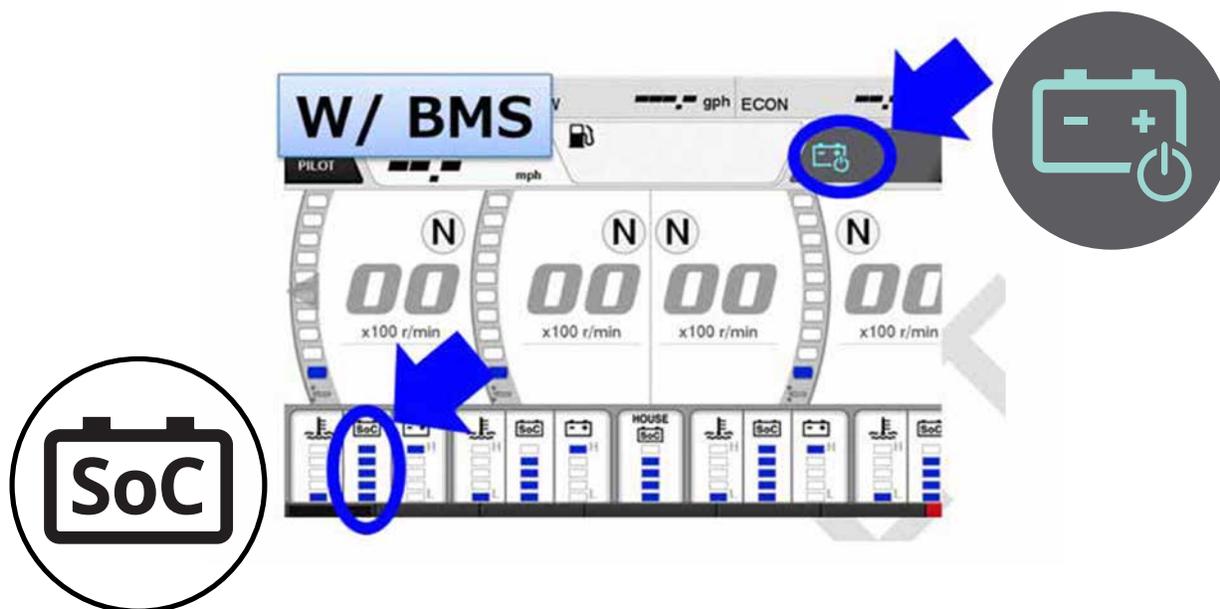
YAMAHA BATTERY MANAGEMENT SYSTEM



Simple push-button operation via the Helm Master® EX EKS wireless key fob (from up to 15' away) and/or a single console-mounted switch panel means customers no longer need to reach into bilge or console areas to turn battery switches on or off. Remotely activating the battery switches allows the operator to illuminate key lights that were left switched on so the boat is illuminated during boarding, and then remotely turn off the batteries and power the lights off when leaving. Additionally, a single surface- or flush-mounted Battery Management Unit (BMU) replaces banks of manually operated battery switches and voltage sensitive relays (VSR), along with many of the cables, wires and connections that come with them. This means significantly less wiring, fewer components and better use of space. That translates to a much cleaner bilge or area under the console.

SMART PRIORITIZED CHARGING SYSTEM

Yamaha's new BMS uses Smart Prioritized Charging System technology that automatically prioritizes charging of the starting batteries at all times, maintaining the starting batteries at or near 100 percent of capable charge. After the starting batteries are charged, either by shore power or by alternator (engine) power, the system automatically devotes all net charging amperage to the house battery bank. The State-of-Charge (SOC) indication on the CL5 or CL7 display, or MFD if equipped, automatically monitors the readiness of the house battery bank, and can also be used to check the readiness of the starting batteries. Should a starting battery malfunction while the boat is in use, a boater can disconnect that battery from the system and start engines* with the good starting battery, using manual switches located directly under the BMS's exterior cover.



Battery Management System (BMS)	Part Number	Availability
Twin/Triple/Quad**	6X9-762C0-00 (BMS KIT)	Summer 2021
Quint**	6X9-762C0-00 (BMS KIT)	Fall 2021

*Startable engines vary by engine configuration. Please consult Battery Management System Operator's Manual for details.

**Twin, Triple, Quad and Quint battery management system is identical regardless of number of outboards (2-5).

Yamaha Battery Management System	YAMAHA ADVANTAGE	Some Typical DC Systems
One single Battery Management Unit (BMU)	<ul style="list-style-type: none"> • Saves time, money, complexity • Fewer wires, connections and components • Simpler, faster install • Easier installation training • Less space required • Completely integrated, seamless rigging • Quick Yamaha connections 	Multiple, individual battery switches, wires, and components
Only two starting batteries required	<ul style="list-style-type: none"> • Saves space, weight • Can provide more batteries to house or other uses 	One starting battery required per engine
Minimal wire and wire connections with no switch connections required (all internal)	<ul style="list-style-type: none"> • Less cost, less hassle • Easier install, less chance for error • Cleaner bilge area 	Lots of heavy, high-amperage wiring and connections
Wireless key fob turns on battery switches with one-touch button (also enables push-button starting)	<ul style="list-style-type: none"> • Customer ease and convenience • No need to raise hatches or open doors to access battery switches under normal operating conditions 	Manual battery switches require access typically before and after use, usually located in less accessible locations
Easily get your boat running. Use the fob to turn on the batteries at a distance, press power and then start at the helm and your are underway.	<ul style="list-style-type: none"> • Simpler operation • Remote battery switch activation/deactivation • Easier pre- and post-voyage preparation 	Multiple steps and operator interactions required to start the boat

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REMEMBER to always observe all applicable boating laws. Never drink and drive. Dress properly with a USCG-approved personal flotation device and protective gear. Boat smart from the start. Take a boating safety course and get a free vessel safety check annually for your boat. For more information, contact: United States Coast Guard Auxiliary online at www.cgaux.org, or United States Power Squadrons at 888-for-usps or www.usps.org.

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