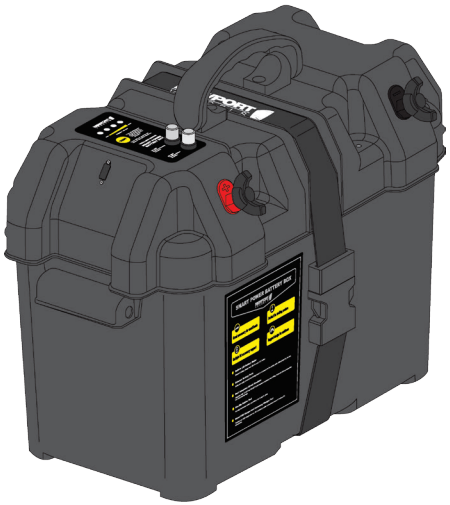
NEWPORT VESSELS

Smart Battery Box

Owner's Manual & Safety Instructions

PLEASE READ THIS MANUAL BEFORE USE



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Dear Valued Customer,

Thank you for purchasing our Newport Vessels Smart Battery Box!

A battery is not included with purchase, you will need to purchase it separately.

Please read this manual before using the Newport Vessels Smart Battery Box. This manual contains information that describes the procedure for safe operation and maintenance; and prevents personal injury and product damage.

Sincerely,

The Newport Vessels Team

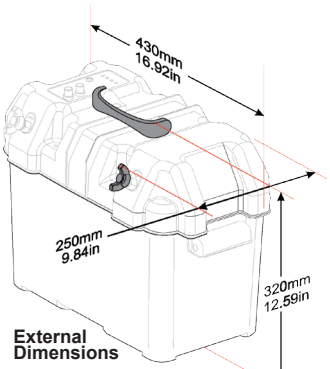
Contents

1. SPECIFICATIONS....3
2. SAFETY INFORMATION....4
3. FIRST TIME USE....4
    Battery Type Compatibility....6
    How To Use the Battery Meter....6
4. USB AND ACCESSORY PLUG USE....7
    USB Port Use....7
    DC12V Accessory Plug Use....8
5. CIRCUIT BREAKERS....8
    10A Circuit Breaker....8
    60A Circuit Breaker....8
6. PARTS LIST....9
7. MAINTENANCE....11
8. CONTACT US....11

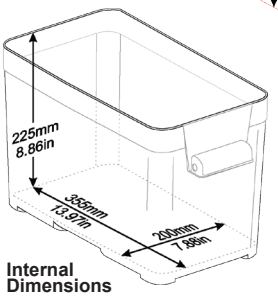
1. SPECIFICATIONS

Box Dimensions

The Smart Battery Box internal dimensions are 13.97" (340mm) Long x 7.88" (187mm) Wide x 8.86" (222mm) Tall. External dimensions are 16.92" (430mm) Long x 9.84" (250mm) Wide x 12.59" (320mm) Tall.



External Dimensions



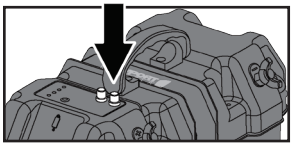
Internal Dimensions

Maximum Capacity

The rated maximum carry weight is 77lbs (35kg).

Dual Integrated Circuit Breakers

Two circuit breakers are integrated into the Smart Battery Box. These help protect trolling motors and other devices from electrical surges.

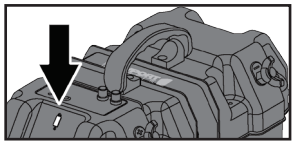


The 10A circuit breaker is connected to the DC12V accessories plug.

The 60A circuit breaker is connected to the Smart Battery Box terminal ports. Please see the **Circuit Breakers** section for more information.

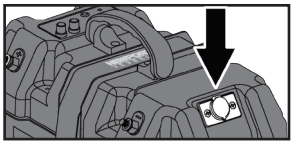
USB Port

The rated power output of this built-in USB port is 5V/0.5A. To use, first activate the USB port by pressing the “TEST” button. Please see the **USB Port Use** section of this manual for more info.



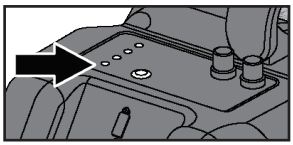
DC12V Accessory Plug

The built-in DC12V Accessory plug allows charging to various DC12V accessories. The DC12V plug, it is protected by a 10A circuit breaker. Please see the **DC12V Accessory Plug Use** section in this manual for more info.



Battery Meter

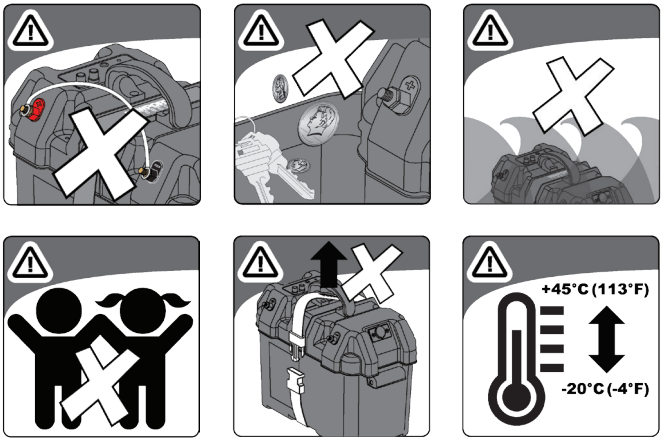
The Smart Battery Box is equipped with a built-in LED battery meter, which allows convenient testing of the battery charge level. Please see the **How To Use the Battery Meter** section for more information.



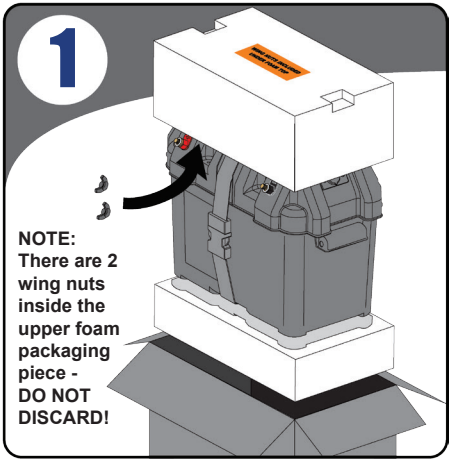
In addition, the battery meter also behaves as an indicator to signal if the USB port is activated. Please see the **USB Port Use** section in this manual for more info.

2. SAFETY INFORMATION

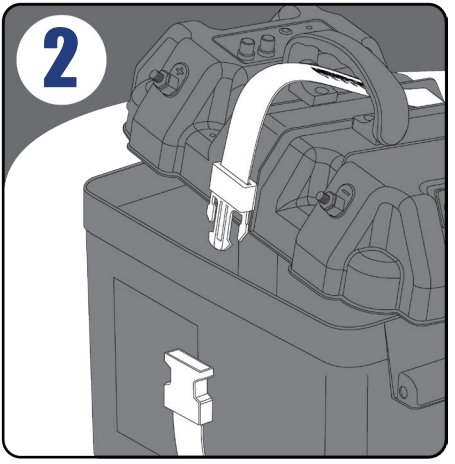
- Never connect positive (red) and negative (black) terminals of the Smart Battery Box together.
- Do not allow metal objects to fall into the Smart Battery Box. This could cause a short circuit, and poses a risk to the user.
- When using the handle to move the Smart Battery Box, make sure the strap is tight and the buckle is latched.
- Do not allow children to operate the Smart Battery Box.
- This product is not fully waterproof, never fully submerge the unit. If the unit is accidentally submerged, remove the battery from the box and leave the unit out to dry.
- Only use this product between the temperatures of -20°C to +45°C (-4°F to +113°F).



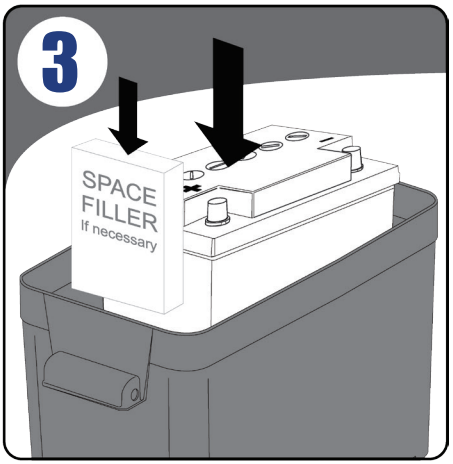
3. FIRST TIME USE



Remove the Smart Battery Box from the shipping container. Remove wing nuts from the underside of the styrofoam packaging.

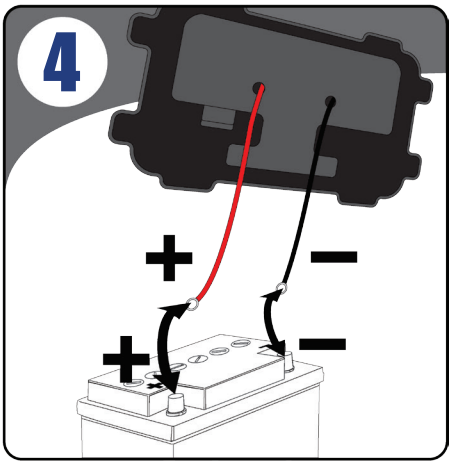


Open the strap buckle and remove the lid.

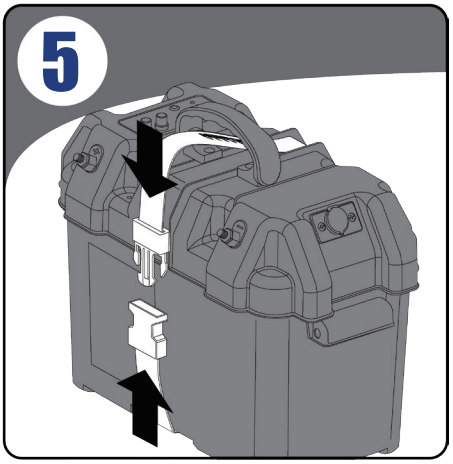


Place the battery into the Smart Battery Box.

NOTE: If the battery is too small and there is space left between the battery and Smart Battery Box interior; secure the battery by filling the space with styrofoam, or a nonconductive material.

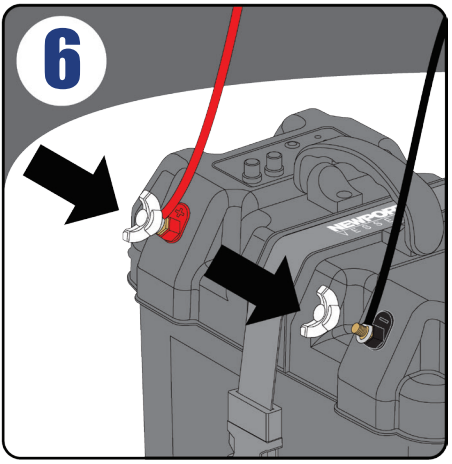


Connect the positive (red) and negative (black) wires from the Smart Battery Box lid to their respective terminals on the battery. Make sure the connections are fastened and tight.



Replace the lid, then fasten the buckle and tighten the strap to secure.

CAUTION! Make sure the wires from an externally connected device are tightened fully when connected to the battery box terminals. A loose connection will increase electrical resistance and generate heat, in an extreme situation, it may even melt the battery box case.



Connect the positive and negative leads to the corresponding terminals on the Battery Box. Retrieve the two black wing nuts located on the underside the styrofoam packaging. Tighten these to secure the cables to the battery box terminals.

WARNING! Never connect positive (red) and negative (black) terminals of the Smart Battery Box together. This will cause the battery to short and create a fire hazard.

Battery Type Compatibility

The Smart Battery Box is compatible with Group 24 and Group 27 lead acid, deep cycle marine 12V batteries.

If a battery is too small and there is space left between the battery and Smart Battery Box, secure the battery by filling the space with styrofoam, or a nonconductive material.

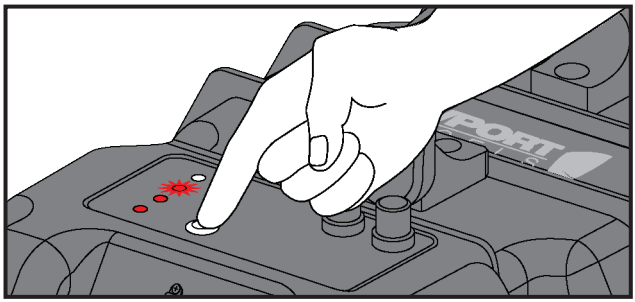
How To Use the Battery Meter

The LED battery meter is designed to help the user easily estimate the amount of usable charge left in the battery.

1. Once the battery is connected to the Smart Battery Box, press the “Test” button to check the estimated remaining charge.
2. Disconnect any external electrical devices from the battery box. (Including accessories from USB port and DC12V accessory plug.)
3. Press and **HOLD** the test button, the number of LEDs that are illuminated will indicate the charge level of the battery. *The following table below shows all possible results for the four LEDs.*

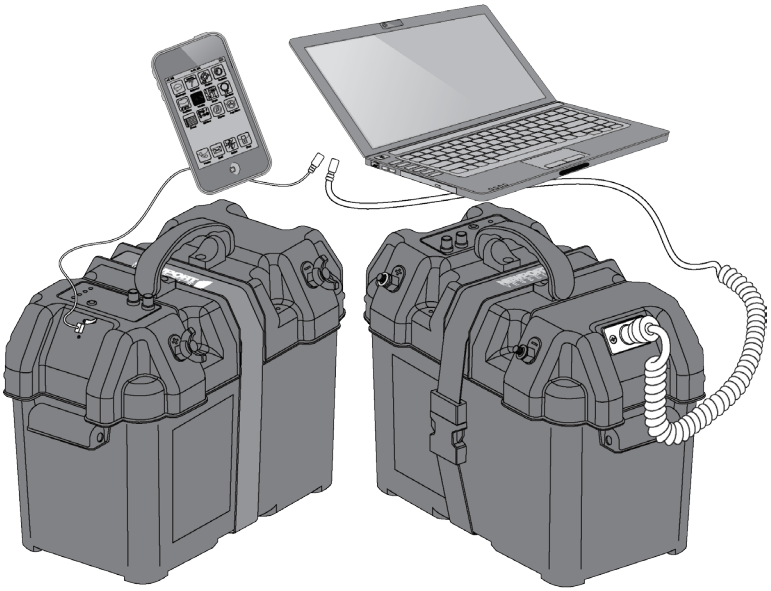
BATTERY VOLTAGE	LED STATUS	
< 7.5 V	None of the LEDs illuminate	
7.5 V - 10.8 V	1st LED Illuminates	
10.8 V - 11.7 V	1st LED lights, 2nd LED flashes	
11.7 V - 12.6 V	1st and 2nd LEDs lights, 3rd LED flashes	
12.6 - 13.4 V	1st, 2nd, and 3rd LEDs lights, 4th LED flashes	
> 13.4 V	All four LEDs illuminate	

The left most LED will keep flashing if USB port is being used to charge electronic devices, this indicates the USB port is active. This is not the reading of measured battery output voltage. To measure the voltage output of the battery, press the “TEST” button and hold it.



NOTE: If using the battery meter while an externally connected device (such as a trolling motor) is still running, the measured output voltage of the battery will be lower than if it is not connected to any device. This is due to the electrical circuit and is not the fault of the battery meter. Please refer to the LED status reading when the Smart Battery Box is fully disconnected from all external devices.

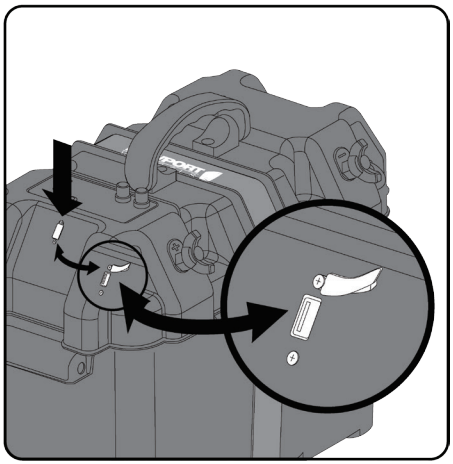
4. USB AND ACCESSORY PLUG USE



USB PORT USE

The USB port included on the Smart Battery Box is a standard USB port intended to charge personal electronics.

1. Connect a personal electronic device to the USB port.



Pull USB rubber cover away from opening to access the USB port.

2. Press the test button to activate the USB port. When the USB port is active, the first LED on the battery meter will begin flashing.
3. When the test button is pressed, the Smart Battery Box will detect if there is anything connected to the USB port. If an electronic device is connected to the USB port, the first LED on the battery meter will keep flashing and charging will begin.
4. If the device is unplugged or the test button is pressed without a device being connected to the USB port, the first LED on the battery meter will flash several times and stop. The USB port will then go back into sleep mode.

NOTE: The power output rating of the USB port is 5V/.05A.

DC12V ACCESSORY PLUG USE

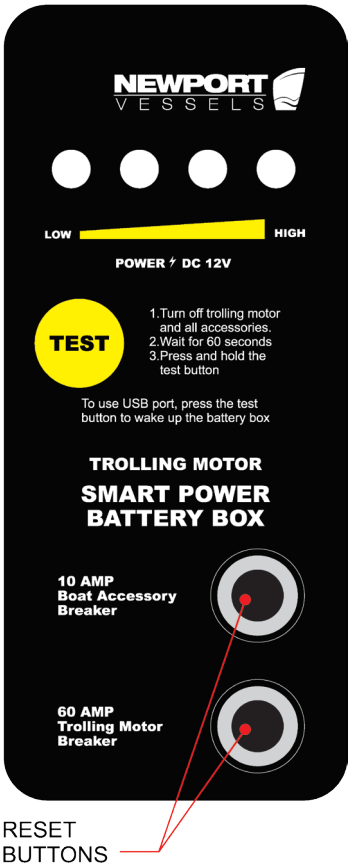
The DC12V accessory plug on the Smart Battery Box is included to provide convenient access to DC12V accessories such as electric pumps, and other marine products.

The DC12V accessory plug is compatible with most DC12V accessories and it is protected by a 10A circuit breaker. The circuit breaker will disconnect the power if the output current from the attached DC12V accessory plug is greater than 10A.

If the circuit breaker is triggered by accident, it can be reset on the Smart Battery Box panel by pressing the reset button.

NOTE: This DC12V accessory plug can be used to recharge the battery. However, it is not recommended for charging the battery. The charging current must be less than 10A, otherwise, the circuit breaker will be triggered and cut off the power.

CAUTION! Before resetting the circuit breaker, please check the connections and make sure the electrical fault in the circuit is fixed. The circuit breaker will be triggered again, if an electrical fault still exists.



5. CIRCUIT BREAKERS

The Newport Vessels Smart Battery Box contains one 10A circuit breaker and one 60A circuit breaker.

10A CIRCUIT BREAKER

The 10A circuit breaker is connected to the DC12V accessory plug. The circuit breaker will be triggered and cut off the power to protect the connected DC12V accessories if the current output from the DC12V accessory plug is larger than 10A.

60A CIRCUIT BREAKER

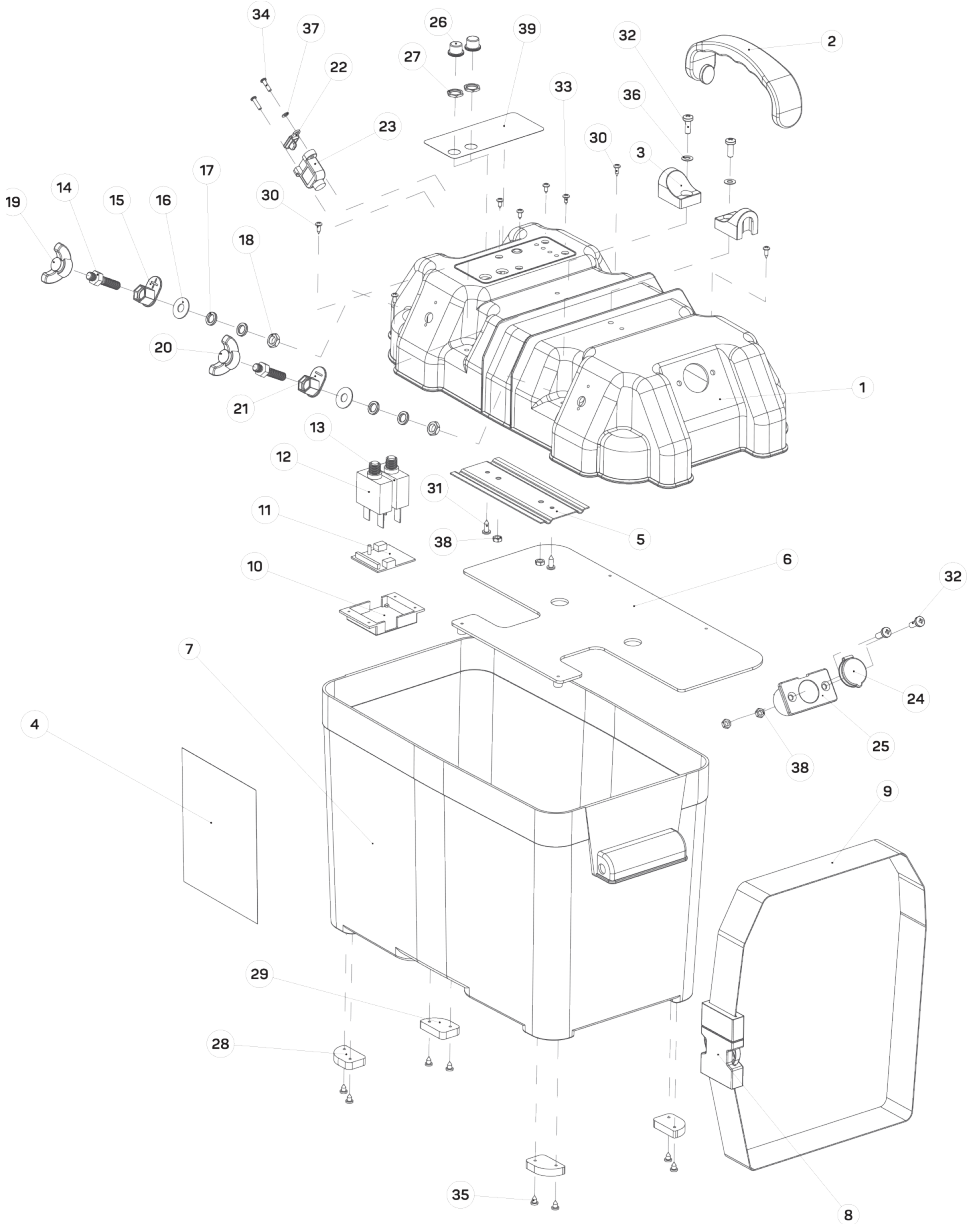
The 60A circuit breaker is connected to the Smart Battery Box terminals. The circuit breaker will be triggered and cut off the power to protect the battery if the current output from the battery box terminals is larger than 60A.

If either circuit breaker is triggered, they can be manually reset by pressing the corresponding reset button on the lid of the Smart Battery Box.

CAUTION! Before resetting the circuit breaker, please check the connections and make sure the electrical fault in the circuit is fixed. The circuit breaker will be triggered again, if an electrical fault still exists.

6. PARTS LIST

ITEM No.	PART NAME	PART No.	QTY	ITEM No.	PART NAME	PART #	QTY
1	Box Cover	P40101	1	21	Terminal Indicator Neg	P40108	1
2	Box Handle	P40102	1	22	USB Port Cover	P40701	1
3	Box Handle Base	P40103	2	23	USB Port	P40504	1
4	Box Sticker	P40601	1	24	Accessory Cover	P40702	1
5	Handle Fix Plate	P40201	1	25	Accessory Plug	P40505	1
6	Wire Fix Plate	P40104	1	26	Circuit Breaker Cover	P40703	2
7	Box Case	P40105	1	27	Circuit Breaker Nut	P40307	2
8	Box Buckle	P40401	1	28	Rubber Foot CCW	P40704	2
9	Box Strap	P40801	1	29	Rubber Foot CCW	P40705	2
10	PCB Case	P40106	1	30	Screw M3-10 ST CR	P40308	4
11	Circuit Board	P40501	1	31	Screw M4-12 ST CR	P40309	2
12	Circuit Breaker 60A	P40502	1	32	Screw M5-14 CR	P40310	4
13	Circuit Breaker 10A	P40503	1	33	Screw M3-8 ST CR	P40311	4
14	Terminal Rod	P40301	2	34	Screw M3-12 ST CR	P40312	2
15	Terminal Indicator Pos	P40107	1	35	Screw M4-7 ST CR	P40313	8
16	Terminal Spacer Large	P40302	2	36	Spacer M5	P40314	2
17	Terminal Spacer Small	P40303	4	37	Spacer M3	P40315	1
18	Terminal Nut	P40304	2	38	Nut M5	P40316	4
19	Terminal Wing Nut Pos	P40305	1	39	Panel Sticker	P40602	1
20	Terminal Wing Nut Neg	P40306	1				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7. MAINTENANCE

Keep the inside of the Smart Battery Box clean and dry. Never leave any metal objects in the battery box.

When the USB port or the DC12V accessory plug is not in use, please cover them with the rubber plug to prevent corrosion.

Keep the Smart Battery Box terminals and wind nuts clean.

Marine batteries are heavy. Be sure not to exceed the maximum carrying load of 77lbs when moving the Smart Battery Box.

8. CONTACT US

If you have any other inquiries regarding the Smart Battery Box please do not contact the retailer, contact Newport Vessels directly.

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