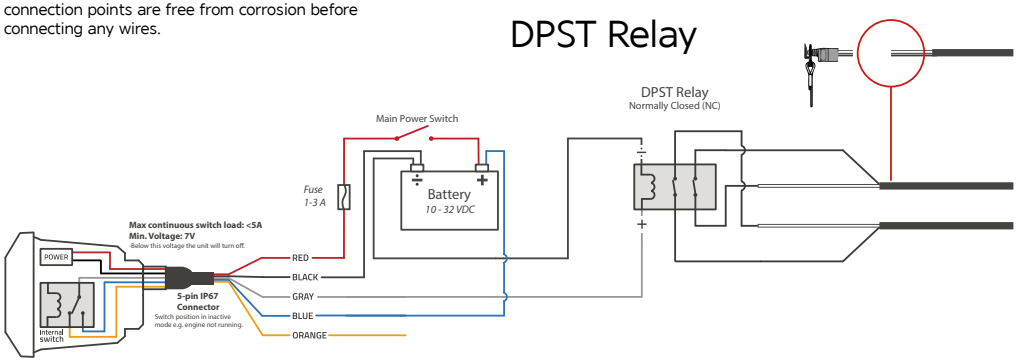
Quick guide for multiple separate engines

Installation of MOB+ Wireless Kill Switch with a relay

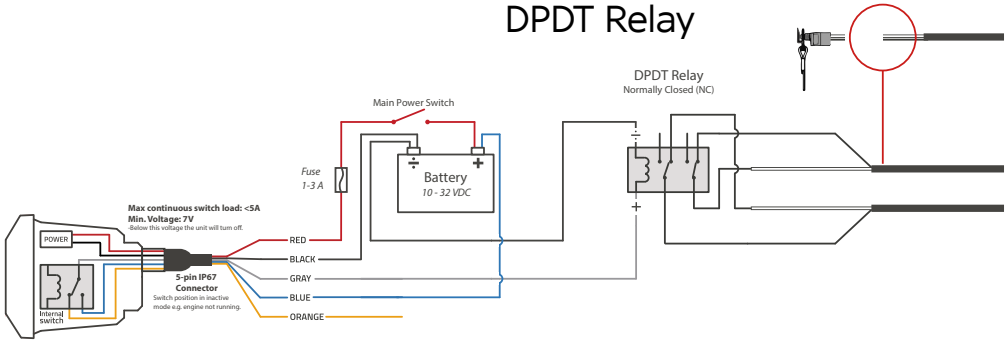
NOTE
Do not touch or cut any existing wires or electrically conducting components before you make sure the main voltage switch is OFF. Only set the main voltage switch to ON after you are finished cutting and connecting wires.
Make sure that all wires and conductive connection points are free from corrosion before connecting any wires.

These wiring diagrams shows how to connect two engines by using an external relay, either DPST or DPDT. This setup can be expanded with more than two engines by either expanding on the poles e.g. 3PDT, or using multiple relays in parallel by wiring the power for both relays through the MOB+.

DPST Relay

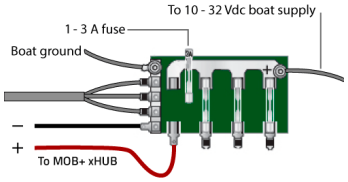


DPDT Relay



Connecting the Power

(10–30 Vdc)
1. Use a test light or a voltmeter to determine the polarity of the voltage source.
2. Connect the red (+ or positive) wire to the positive voltage terminal. (If you use the fuse block on the boat, route the positive connection through the fuse, as shown on the diagram.)
3. Connect the black (– or ground) wire to the negative voltage terminal.
4. Install or check the 1–3 A fuse (in the in–line fuse holder, or on the fuse block of the boat.
5. Use wire hoods suitable for the wire dimension (20AWG, 0.75mm2) or connection point on the fuse block.

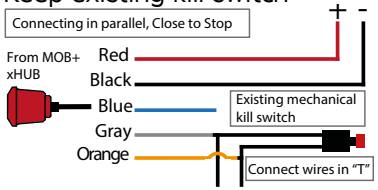


NOTE
The maximum MOB+ xHUB input voltage is 32 Vdc. Do not exceed this voltage because this can damage the MOB+ xHUB and void the warranty.

NOTE
Use an AGC / 3AG – 1–3 Amp replacement fuse.
If it is necessary to extend the power and ground wires, use 20 AWG or thicker wire.
You can wire the Power Wires directly to the main boat battery, or if your boat has an electrical system, you might be able to wire the Power Wires to an unused holder on the fuse block. In any case it should be after the main power switch to avoid current drainage when the boat is left unattended.

It is very important that the MOB+ gets supplied power from a stable source which is not susceptible to voltage drops as if it gets below 7V supply voltage, the unit will restart and stop your engine.

Keep existing kill switch



MOB+ Wireless Kill Switch can be installed together with your existing kill switch by connecting it in series or parallell. If you should connect in series or parallell depends on your existing kill switch function. The above picture shows an example with Close to Stop connection.

Connecting Signal wires

The stop function in MOB+ Wireless Kill Switch consists of a mechanical relay and can thus be used as the control signal to an external relay like shown in the schematics above.

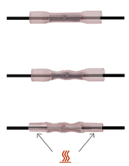
It is important to note that installation will vary between different engine brands and this guide is just to be used as a reference.

The signal cables on MOB+ consists of three wires.
Only two of these three wires should be used when installing the system.
1. Common – Grey – Always used when connecting MOB+, independent on if the system is Open to Stop or Close to Stop configurated.
See relevant schematic above to see where to connect they gray wire. This may change depending on type of boat and must be verified.

2. Open to Stop(OS) – Blue
See relevant schematic above to see where to connect they blue wire. This may change depending on type of boat and must be verified.

2. Close to Stop(CS) – Orange
See relevant schematic above to see where to connect they blue wire. This may change depending on type of boat and must be verified.

NOTE
Make sure that all wire connections are waterproof by using heat shrinkable butt splices or similar when connecting wires.



Insert cables and ensure the conducting part of the cable makes good contact with the conducting part of the butt splice.

Use a crimping plier to squeeze the conducting part of the butt splice around the wire.

Make sure all connections are waterproof by applying heat to the end of the butt splice, which makes it shrink around the wire.

IMPORTANT NOTICE!

The function of the kill switch must be tested after installation to verify that it stops the engine in the event of an emergency situation.

This is done by submerging the xFOB in water or walking with the xFOB away from your boat until the engine stops. The xHUB will then light red and give a sound signal to indicate a man over board event.

Ignition

MOB+ Wireless Kill Switch can be connected in series with the ignition. This will allow your MOB+ to cut the power in the ignition and in turn stop the engine. If you fall over board the MOB+ deactivates it's internal relay and cuts the power through the ignition. FELL Marine recommends to use an external relay for this connection to protect the MOB+ from overcurrent. A standard automotive 12V/24V relay can be used for this purpose. Make sure the relay is rated for higher current than the current running through your ignition.

Installation in a metal boat

If your helm is made out of conducting materials the wireless signals from MOB+ may be degraded. The amount of signal degradation experienced may vary from across boats and must be tested for each case. If the signal is very poor you can extend the antenna outside of your helm with a coaxial cable to increase the signal strength. Please contact FELL support at www.fellmarine.com/support for more information.