This information is for electric connections of Sidepower control panels to control hydraulic thrusters with ON / OFF hydraulic thrusters.

**Description:**

All Sidepower control panels can be used also for controlling hydraulic thrusters when a Sidepower electronic interface box is used. This interface must be used because the panels are designed to send only control signals in the mA range so they do not support currents above 0.50 A.

What is important to note is that the electronic control box will send a negative (ground) run signal to the valve. This will often be the opposite of what is “normal” so that you might experience that the connection point for the “constant” power to the valve is marked ground. Because of this it is important to use valves that has a fully isolated electric control system so that the necessary constant positive power on it is not also connected to the valve housing. However this is the most common types of valves.

This information contains the following diagrams:
- Visual wiring diagram for electronic control box per thruster
- Technical wiring diagram for electronic control box per thruster
- Pin configuration of Sidepower control cables
- Wiring diagram for dual panels with bow and stern thruster installations with Sidepower dual control panels.

**Typical hydraulic system**
Visual wiring diagram for 6-1225-HYD

To Sidepower control panel(s) by Sidepower control cables.

**Terminals are:**
A = 4 pin AMP male  
B = flat 6,3mm female  
C = flat 6,3mm male  
All terminals are isolated.

6 1225
Electronic control box with HYD connector set

Technical wiring diagram for 6-1225-HYD

**Technical info sheet**
Wiring of hydraulic thrusters with SP panels

AMP contacts are used on all Sidepower control cables.

**Pin configuration:**
Pin1: BLACK = Ground / negative power  
Pin2: BLUE = Engages thruster SB  
Pin3: GREY = Engages thruster Port  
Pin4: RED = Positive power

Sidepower control cables are available in various lengths between 4 and 22 metres, please see pricelist for all available lengths. When more than one control panel is needed, use the Sidepower Y-connectors which should be fitted in an appropriate position in the boat. The panels are connected in parallel.

NOTE!
The hydraulic valve must be of the "two pole" type (electric control system fully isolated from body) so that the constant power on it can be positive as it is negatively switched.

* blue and grey output from interface box provides negative / ground to the hydraulic valve. Max. draw 4,0 A
Sidepower dual control panel connections:

- When using the original Sidepower control cables just connect them to the corresponding joystick.
- There are no plus/positive power connected from the bowthruster.
- This wiring requires correct connections of the thrusters as per separate wiring diagrams.

Visual connection diagram for dual joystick panel

![Diagram showing connections between joysticks and thrusters]

Functional diagram (simplified) for dual joystick panel

- Joystick for bowthruster
- Joystick for sternthruster
- Positive lead from bowthruster have been removed in panel to avoid current leakage between if the thrusters are powered by different battery banks.

ON / OFF System (with control light and auto-off) Internally in "potted" area of panel