

## Rudder Limits Switch Setting

The rudder limits prevent the steering motor driving the rudder beyond its physical (mechanical) stops. The **limit switch** is set so that the limit display comes on before the rudder reaches the stops.

There are two display symbols **P\_L** (port limit), **S\_L** (starboard limit) indicating the state of the rudder limit circuits:

- \* The port limit **P\_L** display will come on when the rudder position is further to port than the limit set by the **rudder limit port setting**. This will cause any port drive command to be ignored and turn off the port drive light on the front panel.
- \* The starboard limit **S\_L** functions in the same way for rudder angles to starboard.
- \* The symbols do not appear in the SET mode.

**NOTE:**      **THE RUDDER LIMITS ARE FACTORY SET BETWEEN 25 AND 30 DEGREES. IF THE RUDDER FEEDBACK HAS BEEN INSTALLED CORRECTLY, THE P\_L AND S\_L SYMBOLS SHOULD DISPLAY WHEN THE RUDDER IS MOVED TO THE PORT OR STARBOARD LIMIT.**

### **Setting Rudder Limit**

- \* Switch to **SET** mode
- \* Hold down **GPS** button, press **TIMER** button, display shows [900].
- \* Dial up [905] by **COURSE** knob, press **TIMER** button. Display shows rudder position as a scale of 0 to 255, 128 being the centre.
- \* Rotate **steering helm** to desired **Port Limit Position** (display should be between 000 and 110), then press **GPS** button to set the **PORT LIMIT**.
- \* Rotate **steering helm** to desired **Starboard Limit Position** (the display should be between 150 and 255), then press the **TIMER** button to set **STARBOARD LIMIT**.

To check **Rudder Limits**, switch AP4 to **PWR** mode, rotate **COURSE** knob to **Port** and **StarBoard lock** in turn and visually check rudder has moved to desired limit positions.