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## ***Rudder Limits***

The rudder limits prevent the steering motor driving the rudder beyond its physical (mechanical) stops. The limits are factory set and should not need altering. However, the limit setting can be set from the display of the AP500 if deemed necessary.

- From the MANUAL mode select INITIAL then RUDDER LIMITS
- Select SET PORT LIMIT. Mechanically move the steering to the required maximum PORT position via the steering wheel. When the desired position is reached, push the DIAL to select.
- Select SET STBD LIMIT. Mechanically move the steering to the required starboard position via the steering wheel. When the desired position is reached, push the DIAL to select.
- Press CLR/OFF to return to the normal pilot display.
- To cancel the LIMIT settings, select RESET LIMITS and push dial to return to factory settings.

The number on the display between 0 and 256 indicate the rudder position. 000 being fully to Starboard, 128 being the centre and 256 being fully to port.

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## **Wiring:**

Access for wiring must be provided. Cabling will have to be run to the Power Switchboard, rudder feedback unit/s, electric steering wheel and drive unit. Wiring should be kept as far as possible from radio aerials and aerial cables to prevent interference to the radio and to prevent transmitted signals from the radio influencing the C-Drive unit.

The C-Drive must have a direct connection to power supply via a 15 amp fused circuit and an isolating switch. A power cable rated at 15 amps should be connected between the power input switch and the POWER connector on the C-Drive unit.

## **DIP Switch Setting:**

The DIP switch is located on the PCB. These switches are factory set to suit the configuration of the unit, but can be changed as required if the C-Drive system configuration is changed.

- 1 & 2 Set BOTH to ON for Rudder Feedback Unit Standard  
Set BOTH to OFF for Rudder Feedback Unit Heavy Duty  
*(Only on models with serial number greater than ES009)*
- 3 & 4 Set BOTH to ON for Compass Top Sensor (CTS)  
Set BOTH to OFF for Fluxgate Sensor (FLUX)

Rudder Feedback Unit Standard (RFUS), provides an output voltage in the range of approximately 1.6v to 3.4v. This is due to the reduced angle of movement from the potentiometer.

Rudder Feedback Unit Heavy Duty (RFUH), provides an output voltage in the range of 0v to 5v as it can travel through the entire range of the potentiometer.