

Cygnus Underwater and Topside Repeater Systems

Addendum to the Operation Manual for the USB-485 Converter



Doc No. M4-CYG1UW-TSR-A-USB485-ENG_Iss1.doc
16th September 2009
(Mk4 Cygnus UW Gauges)

1. RS422 to USB Converter Module

The Cygnus Underwater Gauges supplied with Topside Repeater (TSR) facility that connects to a computer USB port will be supplied with a single RS-422 to USB converter module instead of two separate units as stated in the manual, shown in Fig. 1.


 *The converter is labelled as a USB-485 converter but is suitable for RS-422 use as the RS-485 standard is written to be electrically compatible with RS-422.*



Fig 1. RS-422 to USB Converter Module (USB-485)

The USB-485 converter is powered entirely from the USB port on the computer and is completely isolated internally from the computer supply.

Once installed the USB-485 converter functions exactly the same as the separate RS422 to RS-232 and RS-232 to USB converters previously supplied. The instructions in sections 6 and 7 of the Operation Manual are therefore still relevant.

Electrical Connections

RS422 input signal connections to the converter are made using a 9 way D-sub plug, shown below in Fig 2.

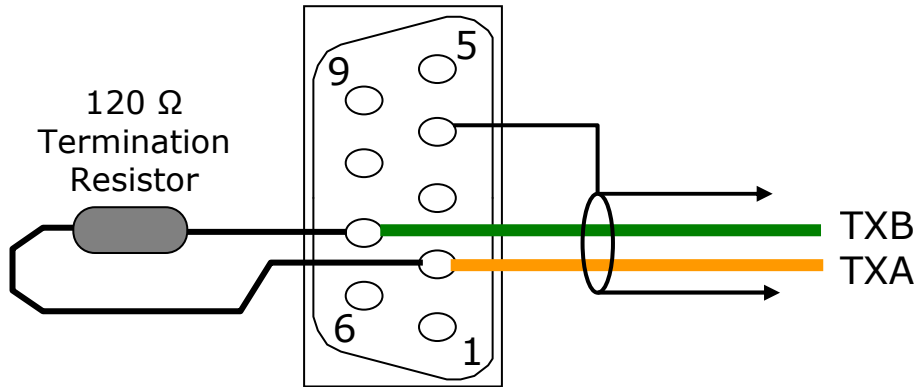


Fig 2. RS-422 Connections to Converter

Impulse Connector IE-LPMIL-4-MP (Gauge End)	RS-422 Converter 9 way D-sub Plug (Topside)	Signal
Pin 1 (black)	-	No Connection
Pin 2 (white)	Pin 2 (yellow)	RS-422 : A (TX-)
Pin 3 (red)	Pin 4	Shield (GND)
Pin 4 (green)	Pin 7 (green)	RS-422 : B (TX+)

Cable Termination

For cable lengths over 300 meters a 120 Ω termination resistor should be wired over the A and B signals at the converter end. See Fig 2.

Drivers for Windows

The kit is supplied with a Cygnus Cyglink CD ROM, this CD contains drivers for the USB-485 converter. The drivers are compatible with Windows XP, Vista 32 bit & Vista 64 bit operating systems.

When the USB-485 converter is first plugged into the computer you will be prompted to provide drivers, make sure the Cygnus CD

is in the computer drive and instruct the driver wizard to search for the drivers automatically from the CD.

The driver is located in the CD folder,

D:/USB-485/CDM 2.04.16 WHQL Certified/

Changing the COM Port Number

See section 6 in the main Operation Manual for details of how to change the COM port number assigned by the driver installation.