

Hydrobox/Hypack or third party survey software Connections for use on 1 PC

All information between the Hydrobox system and the Hypack Survey software is interfaced via the COM ports on a standard PC. Presently, all of the connection are accomplished via COM port cables and up to 5 COM ports are required if all possible external devices are connected during the survey. The information below details the individual COM port needs of both the Hydrobox and Hypack products:

Hydrobox COM Port Connections:

- **Hydrobox Sensor Interface** – Full Duplex, 57.6KBaud, 8, 1, None fixed.
- **NMEA Interface** – Full Duplex, User selectable baud rate, user selectable NMEA sentence. Input used for NMEA GPS, output used for NMEA Depth.

Hypack Survey Software Port Connections:

- **NMEA GPS Interface** – Half Duplex, User selectable baud rate, user selectable NMEA sentence.
- **NMEA Depth Interface** – Half Duplex, User selectable baud rate, user selectable NMEA sentence.
- **Hydrobox Data Interface** – Half Duplex, 57.6KBaud, 8, 1, None fixed.

When the Hydrobox and Hypack are used together, the NMEA output information from the Hydrobox is provided via a null modem connection from one user assign COM port connection to another user assigned COM port as shown in the attached drawing. To make full use of the capabilities of both systems: a minimum of 5 COM Ports will be required. (3 for Hydrobox, 2 for HyPack).

The four COM ports (GPS data is needed for both applications) require a splitter cable to be used for the PC connections. The loopback null modem serial cable should be connected as shown in attached document.

Instructions for configuring Hydrobox to use with survey software and laptop PC

1. Install PCMCIA 4 port serial card. Recommend Quatech QSP-100. Windows will assign COM ports for connectors A through D. Typically it will be COM 5 through 8 where COM 5 is A, COM 6 is B etc.
2. Connect Interface cable to 4 port cable and equipment as shown in Figure 4-1.
3. In Hydrobox software, select EDIT from taskbar then “Configure Sonar Port”. Select COM port Windows assigned for connector A.
4. In Hydrobox software, select EDIT from taskbar then “Configure NMEA I/O”. Select COM port Windows assigned for connector B. Select Baud rate, Data bits, Stop bits and parity to match your GPS. Select NMEA PMC output string for Hydrobox.
5. Connect your GPS receiver to Interface Connector # 2.
6. In survey software (Hypack, Hydropro etc), select COM port Windows assigned for connector C as GPS input.
7. In survey software, select COM port Windows assigned for connector D as your echosounder input.

NOTES: For Hypack use SyQwest Hydrobox syqwest.dll driver. For HYDROpro, use generic echosounder driver and configure to accept NMEA DBT strings.