Model 881 SPORTSCAN Digital Sidescan Sonar

Frequently Asked Questions

What can I use to power the SportScan?

The SportScan requires a DC voltage between 10 and 16 volts for proper operation (+12VDC @ 0.5A max.). A 12 volt lab power supply could be used, or you can connect to the 12VDC wiring on your boat. A 12 volt car battery could also be used. The RED wire from the SportScan cable should be connected to the Positive terminal and the BLACK wire should be connected to the Negative terminal.

How deep can I tow the SportScan?

The maximum allowable depth for the SportScan towfish is 100 feet (30 meters).

Will the Win881SS program operate using Windows NT, 2000 and XP?

Yes, Win881SS (v2.00 and higher) will operate using Windows 95/98/Me/NT/2000 and XP. Versions below v2.00 will only operate on Windows 95/98 and Me.

What do I do when I see the message "Win881SS requires 256 Color Mode!"

Win881SS (v3.00 and lower) must operate in the 256 color mode (8 Bits). From the Start menu, highlight 'Settings' and click on 'Control Panel'. Double-click the 'Display' icon to invoke the Display Properties page. Click the 'Settings' tab and then select '256 Colors' from the Colors drop down list. Press OK.

How do I connect the SportScan and a GPS receiver to my laptop if there is only one or no serial ports?

You can add serial ports to your laptop by using the PCMCIA slots or the USB port. There are many PCMCIA cards available that provide an RS-232 interface to the computer. One example is the Model 232PCC from B&B Electronics (www.bb-elec.com). This card provides a DB-9 male connector which the SportScan cable will directly plug into. B&B also makes the Model US1000A and Model UC232A USB to RS-232 Converters and IOGEAR (www.iogear.com) makes the Model G-UC232A. All of these devices come with driver files which allows Windows to configure the device as an additional COM port.

Frequently Asked Questions (con't)

Why does my GPS work with my NAV program but not with Win881SS?

The serial port used for the GPS input must not be in use by another program when invoking Win881SS (only one program can have access to any one serial port). Ensure that the GPS receiver unit is setup to output $GPGLL, $GPGGA or $GPRMA messages at 4800 bps, No Parity, 8 Data Bits and 1 Stop Bit.

Why does the "No Data at COM1" message always flash when using my Toshiba Laptop computer?

The serial ports on Toshiba laptops behave differently than on other laptops. From the Start menu, highlight 'Settings' and click on 'Control Panel'. Double-click the 'System' icon to invoke the System Properties page. Click the 'Device Manager' tab and Double-click the 'Ports (COM & LPT)' setting. Double-click 'Communications Port (COM1)' to invoke the Communications Port (COM1) Properties page. Click the 'Port Settings' tab and enter the following settings:

> Bits per second = 115200
> Data bits = 8
> Parity = None
> Stop bits = 1
> Flow control = Xon / Xoff

Click the 'Advanced…' button to invoke the Advanced Port Settings page. Set the 'Receive Buffer' to the Low(1) setting (left-most position) and press the 'OK' button. You can also try disabling the 'Use FIFO buffers' check box.

Another solution is to use a USB to RS-232 serial adapter (like the Model G-UC232A from www.iogear.com) rather than the dedicated serial port on the rear panel of the laptop.

Frequently Asked Questions (con't)

How far off the bottom should I tow the SportScan?

The SportScan altitude should be 10 to 20 percent of the operating range above the bottom. For example, if the operating range is set to 90 meters, the SportScan should be 9 to 18 meters above the bottom (remember the 30 meter maximum depth limit!). When the bottom is nearly flat, you can tow close to the bottom. When the bottom is not flat, tow at a higher altitude.

Note: If you are towing in unknown area where there could be obstructions, it is best to tow the SportScan just beneath the surface to avoid collisions with unknown objects.

Can the SportScan be damaged in any way by operating it out of the water?

No, the SportScan can not be damaged by operating it in air. In fact, all units receive a 24 hour burn-in test (in air) before shipping. However, if you do operate it in air (i.e. on the deck of your boat), ensure that the unit is not sitting in direct sunlight for extended periods of time.

How much hard drive space is required for saving the .81S SportScan data files?

Storage consumption is typically about 10–15MB per hour.

How fast can I tow the SportScan?

The best images are developed when towing at about 2-3 knots. The slower the tow speed, the more echoes you will get from any one target and the better the sonar image will appear. Depending on the type of boat you are using, you might need to run as slow as the boat will travel.

Frequently Asked Questions (con't)

What is Speed Correction?

Speed Correction is a process which adds or removes data lines from the sonar image in order to produce a 1:1 aspect ratio on the screen (so a square target appears square and not rectangular). The SportScan transmits and receives data at a fixed rate depending on operating range. If the tow speed increases, the distance traveled is greater, but because the rate remains constant, the sonar image will be compressed in time (along track). Speed Correction will compensate for this compression by adding lines in the data at the appropriate places.

Using the speed from your GPS receiver will give the best results as it will constantly update in real time. Using manual speed entry will suffice if a GPS receiver is not available.

What Gain setting should I use?

The Gain setting is like a volume control on a stereo, the higher the number, the 'louder' the image will be. The type of seafloor beneath you will determine the gain setting that you should use. When the Color Table is set to 'Color', the sidescan data will be displayed using blue, green, orange, yellow, white a red colors. Weak returns will be blue and strong returns will be red. A muddy bottom will be displayed in blue with a Gain of less than about 16dB. Whereas, a rocky bottom might be red at the same Gain setting. In this case, you should lower the gain to maybe less than 6dB. The key is to set the Gain such that only very strong returns show up in the red color. If the Gain is set too high, most of the image will be saturated with red which limits the dynamic range of the system, meaning you won't be able to 'see' the difference between a target lying on the bottom and the bottom itself. Normally, the Gain should be set anywhere between 6dB and 20dB (but please experiment). Once the gain is set, using the 'Grey' Color Table is useful for seeing different shapes on the bottom and shadows will be more apparent.

Frequently Asked Questions (con't)

When collecting sidescan data, why does the "No Data at COM1" message flash once in a while when using a Laptop computer?

If any of the laptop's Power Management settings are enabled (i.e. maximum battery life, hard drive shut down, etc…), the laptop has to monitor these activities at the same time that the real time sonar data is being acquired. This can cause the Win881ss.exe program to miss data from the SportScan Head and the message might flash. Ensure that all Power Management settings are disabled in the BIOS settings and through the Control Panel 'Power' settings.

Why does the SportScan image display stop scrolling when I connect the GPS?

If the GPS speed is 0 knots and Speed Correction is enabled, the display will not scroll. Disable Speed Correction while the GPS coordinates are not changing.