

The SBE 46 LCD Display Box is designed for indoor shipboard or laboratory display of up to four parameters obtained from an external instrument, without the need for a dedicated computer. The SBE 46 can interface with many Sea-Bird instruments. The SBE 46:

Receives power from and displays data from —

- SBE 11*plus* V2 Deck Unit
(interfacing with SBE 9*plus* CTD)

Provides power to and displays data from the following instruments with an RS-232 interface —

- SBE 37-SM or 37-SMP MicroCAT Conductivity and Temperature (pressure optional) Recorder with optional 4-pin I/O bulkhead connector
- SBE 37-SI or 37-SIP MicroCAT Conductivity and Temperature (pressure optional) Sensor
- SBE 38 Digital Oceanographic Thermometer
- SBE 39 Temperature (pressure optional) Recorder with optional 4-pin I/O bulkhead connector
- SBE 45 MicroTSG (Thermosalinograph)
- SBE 48 Hull Temperature Sensor
- SBE 50 Digital Oceanographic Pressure Sensor



DISPLAY DESCRIPTION

The SBE 46 has a two-line LCD display with twenty, 12.7 mm (0.5 inch) high characters per line. Each line can display up to two parameters with user-programmable labels, providing a maximum of four parameters total.

OPERATION OVERVIEW

Communication between the instrument and the SBE 46 is over an RS-232C link, providing real-time data transmission and display. The SBE 46 can be externally powered (115 / 230 VAC or 6 - 24 VDC) or internally powered with a 9-volt battery. If used to power an SBE 37-SIP or 37-SMP, the SBE 46 requires 115 / 230 VAC or 6 - 15 VDC input.

User-selectable modes include:

- **Programming mode** – While connected to a computer and running a terminal program, setup commands can be sent to the SBE 46. Setup parameters are stored in EEPROM, so the SBE 46 only has to be programmed once for a particular data format.
- **Testing mode** – While connected to a computer and running a terminal program, data input to the computer is displayed on the SBE 46.
- **Operating mode** – While connected to an instrument that is logging data, the SBE 46 displays the instrument's data. The SBE 46 can be programmed to sound an alarm, acting as a remote depth display with alarm when used with the SBE 11*plus* V2.

SOFTWARE

The SBE 46 is supplied with a powerful Win 2000/XP software package, SEASOFT® V2, which includes SEATERM®, a terminal program for easy communication and setup. SEATERM can send commands to the SBE 46 and/or the connected instrument to provide system setup and testing. Note that SEATERM does not process the data.

SPECIFICATIONS

Display	2 line display, 20 characters each line, up to two parameters and associated user-programmable labels per line, character height 12.7 mm (0.5 inch)
Input AC Power	115 / 230 VAC
<i>Steady State Power Output</i>	up to 750 milliamps to power an external instrument
Input DC Power	6 - 24 VDC (external power or internal, 9 volt alkaline or lithium transistor battery); for powering SBE 37-SIP or 37-SMP, provide 6 - 15 VDC
<i>Operating Current</i>	20 milliamps when not powering an external instrument
<i>Steady State Power Output</i>	At 6 - 12 VDC input: up to 500 milliamps to power an external instrument At 15 VDC input: up to 400 milliamps to power an external instrument At 20 VDC input: up to 150 milliamps to power an external instrument
Environmental	For indoor use; do not get wet
Materials	ABS plastic housing
Weight	0.9 kg (2.0 lbs)

MECHANICAL INSTALLATION

The SBE 46 has four 4 mm (⁵/₃₂ inch) holes for mounting with customer-supplied hardware.

