

# frequently asked questions

## Sonic Speed TTL Hardware and Wiring Modifications

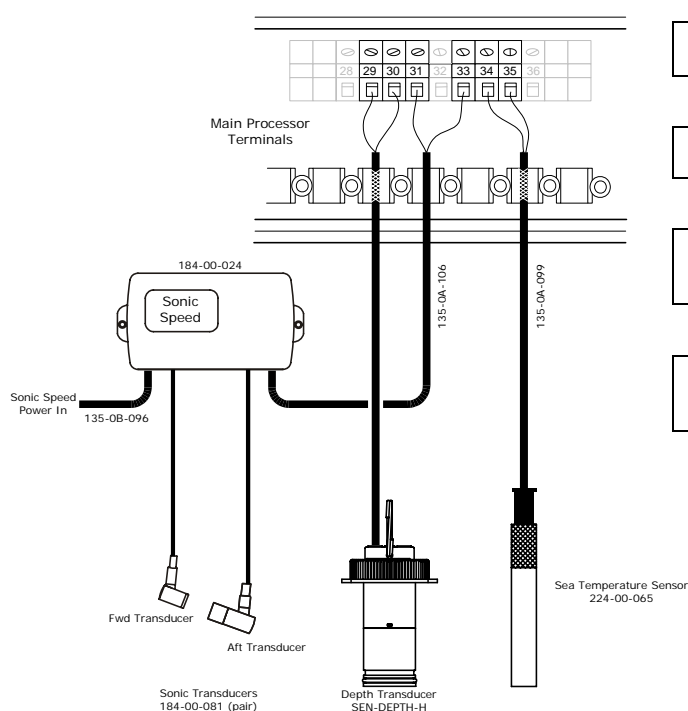
This document describes the procedure to modify the Sonic Speed Processor (184-00-024) to transmit TTL (5V square wave) boat speed signal.

Note: Sonic processors with serial number I091001 onwards already have this hardware modification.

### Procedure

#### Modifying the Sonic processor hardware

- 1) Switch off power to the system electronics.
- 2) Open up the Sonic processor by removing the six slot-head screws located on the reverse side of the case.
- 3) Carefully remove the PCB from the white support pillars, by squeezing the tabs, and then sliding the PCB off the support.
- 4) Remove R67 (33K $\Omega$ ) and replace with a 100 $\Omega$  resistor.
- 5) Remove C38 (22nF) and replace with a shorting link (piece of wire).
- 6) Remove C39 (10uF) and replace with a shorting link (piece of wire).
- 7) Reassemble the Sonic PCB onto the support pillars, ensuring that the contacts engage correctly with the rear-case connector pins, and replace the cover.
- 8) Re-wire the system as detailed below:



TERMINAL	FUNCTION	CABLE and WIRE COLOUR
Depth Transducer		15m cable attached
29	Depth -	Black
30	Depth +	Blue
Sonic Speed Signal		15m cable (135-0A-106)
31	Boat Speed +	Red (Sonic Speed Terminal 25)
33	Boat Speed -	Blue (Sonic Speed Terminal 26)
		Screen not connected
Sea Temperature Sensor		9m cable attached
34	Sea Temperature Supply	Red
35	Sea Temperature Input	Green
		Blue not connected

<ENDS>