

Airmar CS 4500 Ultrasonic Speedo Thruhull Specification and Compatible Paddlewheel

The CS4500 sensor fits into a standard 2" inside diameter black nylon thruhull, the same thruhull that fits the Depth/Temp Smartducer sold as Ockam part 029AFP. *But, there is an important difference between them!*

The outside diameter of the Depth/Temp Smartducer is 2", so the whole installed assembly consists of two parts – the Smartducer and the thruhull (a 2" diameter dummy plug is supplied with the Smartducer).

The CS4500 Ultrasonic speedo consists of 3 parts – the same 2" diameter thruhull, a liner with a flap (valve) to reduce the geyser when the sensor is pulled, and the sensor itself whose outside diameter is smaller than the 2" diameter thruhull (smaller by the wall thickness of the valve insert). Further complicating matters is the fact that a short, 2" diameter, "emergency" dummy plug and cap are supplied which allow you to temporarily plug the standard 2" hole.

If a backup paddlewheel is requested (to be installed when the Ultrasonic unit is pulled), Ockam sells a kit consisting of a paddlewheel, valve insert and dummy plug (with additional short "emergency dummy as well) in the 2" diameter thruhull. This assembly is Ockam 016APW, List \$120

AirMar CS4500 to Ockam 015 interface (Black)

1. The CS4500 should be hooked up per instructions. Then add a jumper wire from the terminal block marked "Battery" (RED) to the terminal block marked "Instrument" (RED).
2. Run a wire from "Instrument" (BARE) to the 016K boatspeed pigtail (TNC) shield and (GRN) to the 016K center for the 015 Boatspeed Interface.
3. Set the signature switch to position "B" (5.56hz/Knot) cal = 1.00.

AirMar CS4500 to Ockam T2 mux interface (Grey)

1. The CS4500 should be hooked up per instructions. Then add a jumper wire from the terminal block marked "Battery" (RED) to the terminal block marked "Instrument" (RED).
2. Run those wires to Gnd (3) and Port (4). Note: Pull up resistors will **NOT** be required.
3. Set the signature switch to position "B" (5.56hz/Knot) cal = 1.00.

AirMar ST650 paddle to Ockam 015 interface (Black)

This is a "Hall Cell" type transducer, which normally requires a separate power source. What Ockam does is to power up the "Hall Cell" with the wires indicated below and then senses the current draw as the "Hall Cell" is turned on and off.

1. The resistors at the bottom of the platform should be 51 ohms (Green, Brown, and Black).
2. The red wire goes to the center conductor of the 016K pigtail and the shield will be attached to the shield of that pigtail.
3. The signature switch will be "B" and cal boatspeed master set to .84 or signature "C" with cal at 1.3.

AirMar ST650 paddle to Ockam T2 mux interface (Grey)

1. The red wire goes to terminal 6 (Power), black and shield go to terminal 3 (Gnd) and the green wire goes to terminal 4 (single or port paddle) or 5 (stbd paddle).
2. Set the power jumper to 12 volts (marked 'Paddle jumper'). Note: Pull up resistors will **NOT** be required.
3. The signature switch will be "3" and cal boatspeed master set to .84.