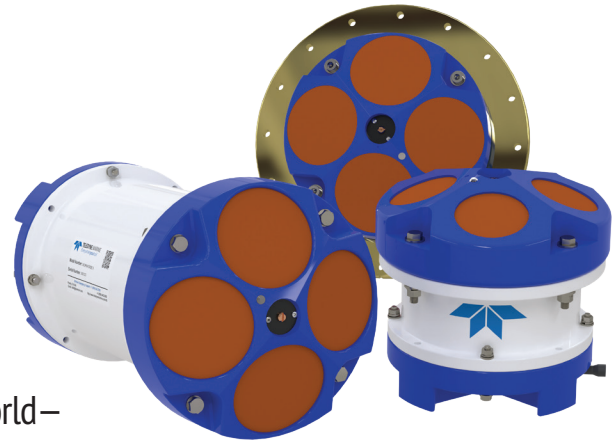
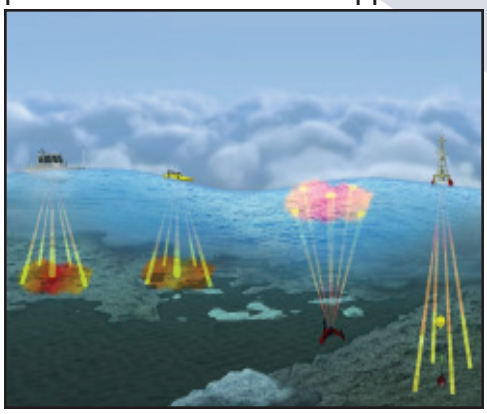
Workhorse II

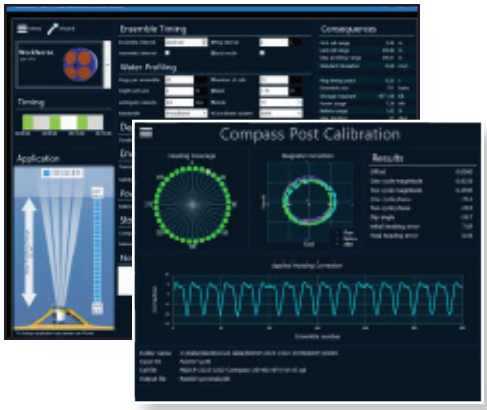
300, 600, 1200 kHz direct-reading and self-contained ADCPs

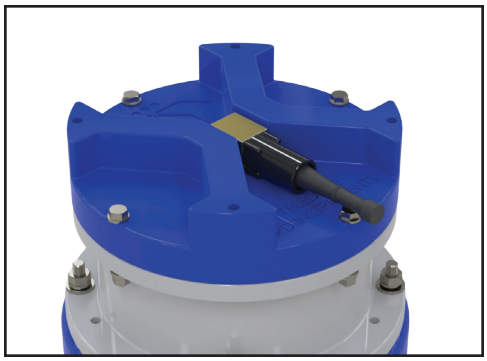


The world's most trusted, reliable ADCP with the longest track record of performance

RD Instruments' Workhorse—the most sold ADCP in the world—just got better. We've enabled new features and even better performance across more applications and demanding environments.







The most versatile ADCP platform

With the direct-reading Monitor, self-contained Sentinel, and vessel-mounted Mariner configurations, the Workhorse II is among the most versatile and capable ADCP platforms. Bottom tracking, directional waves, high-resolution, LADCP, and ice-tracking modes are available on any model, making any model capable of interdisciplinary use.

Better compass data mean better velocity data

We get it—when the ADCP goes over the side of the ship, you want assurance that you'll recover good data. RDI's proven MEMS heading and tilt sensors with 1° RMS heading accuracy at up to ±70 tilt, offers superior performance at the highest latitudes. Raw magnetic data can be logged for post-deployment calibration checks, and the new software makes post-deployement heading corrections a breeze.

Feedback heard

Informed by experienced users, Workhorse II sports some simple yet significant features: Highly robust metal shell connector. Memory up to 64 GB. New software. And original Workhorses can receive Workhorse II upgrades for many more years of successful deployments.

TELEDYNE MARINE
RD INSTRUMENTS
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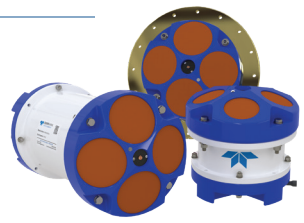
TELEDYNE MARINE

Workhorse II

300, 600, 1200 kHz direct-reading and self-contained ADCPs



TECHNICAL SPECIFICATIONS

		1200 kHz		600 kHz		300 kHz	
Water Profiling	Depth Cell Size[1]	Typical Range[2] 12 m		Typical Range[2] 50 m		Typical Range[2] 110 m	
	Vertical Resolution	Range[3]	Std. Dev.[4]	Range[3]	Std. Dev.[4]	Range[3]	Std. Dev.[4]
	0.25 m	11 m	14.0 cm/s				
	0.5 m	12 m	7.0 cm/s	38 m	14.0 cm/s	see note[1]	
	1 m	13 m	3.6 cm/s	42 m	7.0 cm/s	83 m	14.0 cm/s
	2 m	15 m[2]	1.8 cm/s	46 m	3.6 cm/s	93 m	7.0 cm/s
	4 m	see note[1]		51 m[2]	1.8 cm/s	103 m	3.6 cm/s
	8 m					116 m[2]	1.8 cm/s
Long Range Mode	2 m	19 m	3.4 cm/s				
	4 m			66 m	3.6 cm/s		
	8 m					154 m	3.7 cm/s
Profile Parameters	Velocity accuracy	0.3% of water velocity relative to ADCP ±0.3 cm/s		0.3% of water velocity relative to ADCP ±0.3 cm/s		0.5% of water velocity relative to ADCP ±0.5 cm/s	
	Velocity resolution	0.1 cm/s		0.1 cm/s		0.1 cm/s	
	Velocity range	±5 m/s default, ±20 m/s max		±5 m/s default, ±20 m/s max		±5 m/s default, ±20 m/s max	
	Number of depth cells	1–255		1–255		1–255	
	Ping rate	2 Hz (typical)		2 Hz (typical)		2 Hz (typical)	
Echo Intensity Profile	Vertical resolution	Depth cell size, user configurable					
	Dynamic range	80 dB					
	Precision	±1.5 dB					
Standard Profiling Modes	• High-resolution water-profiling • Fast sampling • Ice tracking and LADCP modes						
Transducer and Hardware	Beam angle	20°					
	Configuration	4-beam, convex					
	Internal memory	16 GB Compact Flash Card					
	Communications	Serial port selectable by switch for RS-232 or RS-422 ASCII or binary output at 1200-115,200 baud					
Environmental	Standard depth rating	200 m; optional 6000 m					
	Operating temperature	-5° to 45°C					
	Storage temperature (without batteries)	-30° to 60°C					
	Weight in air	7.5 kg (Monitor) 13.5 kg (Sentinel)					
	Weight in water	3.5 kg (Monitor) 5.0 kg (Sentinel)					
Software	TRDI's WindowsTM-based software included: **Workhorse II Plan**, **ISM Compass Calibration**, **Compass Post Calibration** ,**WinADCP**						
Power	Input Power	20–50 VDC					
Standard Sensors	Temperature (mounted on transducer)	Range -5° to 45°C, Precision ±0.4°C, Resolution 0.01°					
	Tilt	Range ±90°, Accuracy ±0.3°[5], Resolution 0.06°					
	Compass (TRDI ISM magnetometer / accelerometer)	Accuracy ±1RMS°[5], Resolution 0.06°					
Available Options	• CompactFlash card: 64GB • External battery case • Bottom tracking • AC/DC power converter, 48VDC output • Conversion kit for internal power supply and memory • Directional Waves Array • Velocity—Data Display, Processing, and Export software						
Dimensions	228.0mm wide x 216mm long (Monitor); 228.0mm wide x 420mm long (Sentinel) *(line drawings available upon request)*						

1 User's choice of depth cell size is not limited to the typical values specified.
2 Longer ranges available.
3 Profiling range based on temperature values at 5°C and 20°C, salinity = 35ppt.
4 BroadBand mode single-ping standard deviation (Std. Dev.).
5. Heading Accuracy after Field Calibration: Calibration with >0.45 Gauss total field and <70° dip.

TELEDYNE MARINE
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