

Coden Hydrographic Survey Remote Controlled Boat

RC-S2

GPS, Echo-Sounder equipped



- Safe and Easy Data Collection
- One-Man Operation
- Quick Deployment
- Auto-Pilot
- Auto Returning

RC-S2



ALL IN ONE

Coden Hydrographic Survey Remote Controlled Boat RC-S2 is equipped with GPS and Echo-Sounder can collect variety of survey data , which enables this boat to measure from 0.5m of shallow water to 80m of deep water that manned boat cannot access.

Boat size 1060mm length and 13kg weight is easy to carry by oneself. Deployment time and man hour totals are less, can mean a cut in costs significantly compare to conventional survey methods.

It is perfect solution for difficult project in shallow waters and hard to reach areas.

For : River, Lake, Sea, Dam

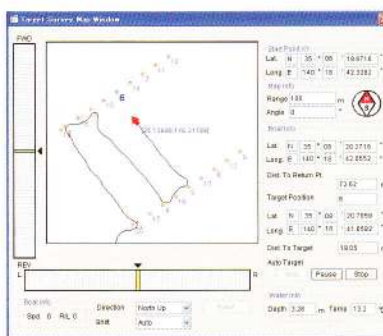
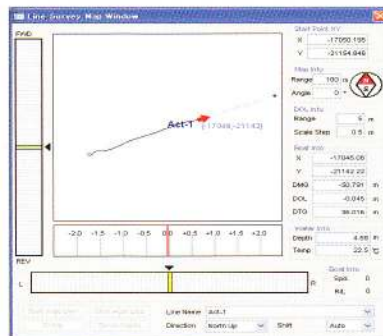


Quick Deployment Safe and Easy Data Collection

Conventional Survey



RC-S2 Survey



Auto-pilot:Line survey

It has the ability to follow planned lines automatically without any control from the operator. The boat will follow the line from its starting point to its end point at a speed of 1 meter per second.

Auto-pilot:Target survey

It has the ability to be cruised planned points automatically without any control from the operator. The boat will be cruised toward points in number order.

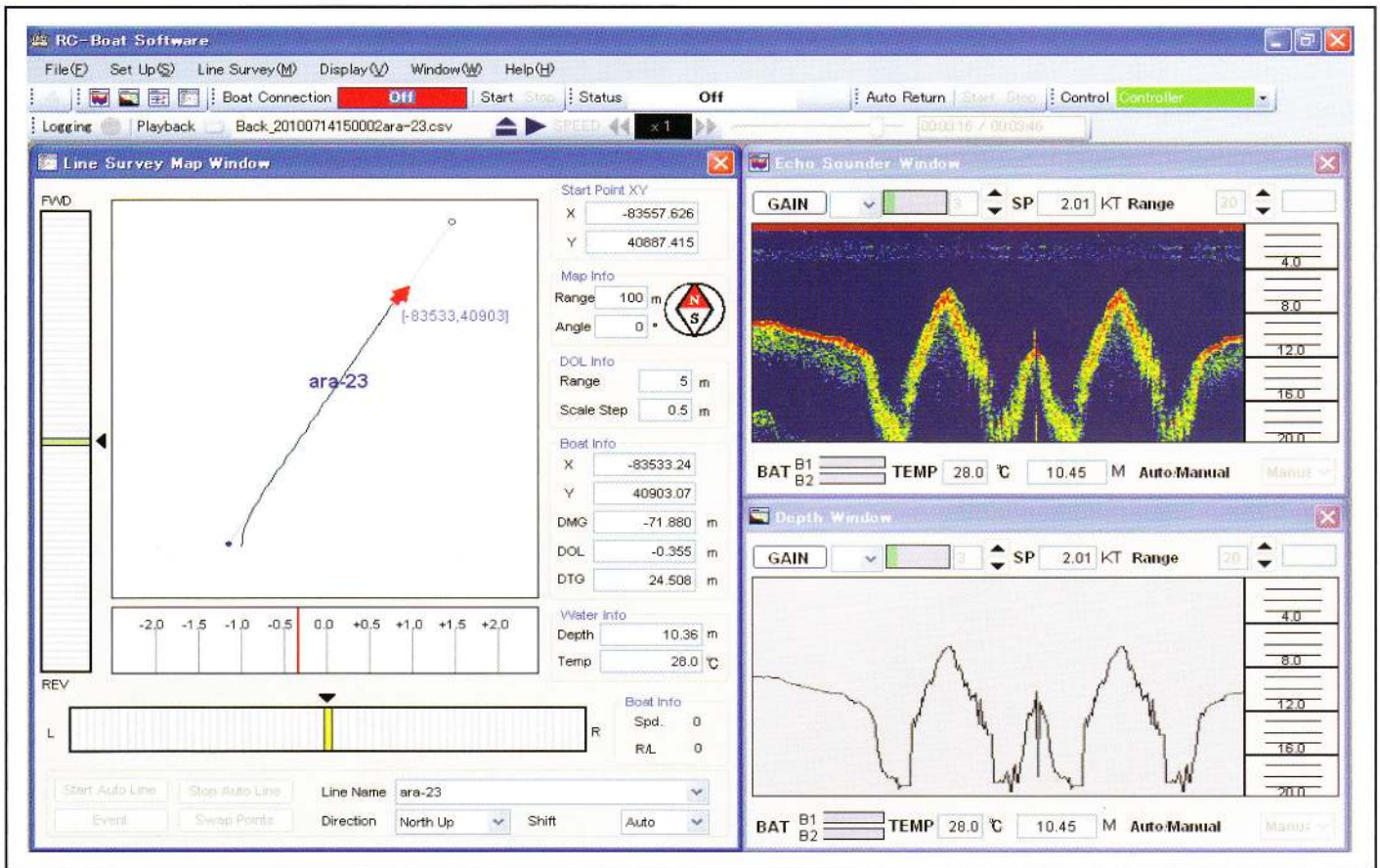
Auto returning

The boat returns automatically to the initial starting point in 2 cases:

1. Loss of wireless LAN communications.
2. 20% left of boat battery power.



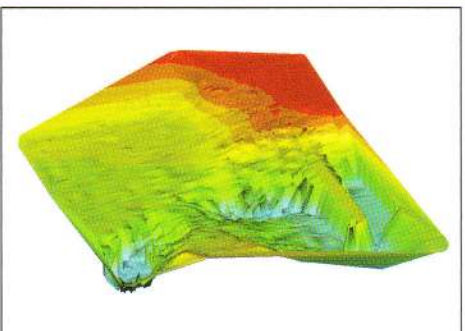
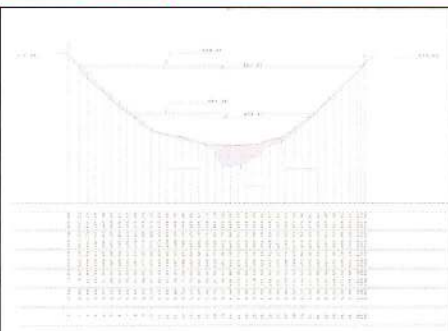
Collecting data in real-time with Coden Boat Control Software



Data (CSV)

X	Y	Depth	PC Date	PC Time	GPS Latitude	GPS Longitude	GPS Date	GPS Time	PDOP	Boat Status
3743277.53	389314.32	0.8	2/20/10	06:15:01	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743279.20	389314.50	0.8	2/20/10	06:15:02	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743279.88	389314.69	0.8	2/20/10	06:15:03	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743279.52	389314.87	0.8	2/20/10	06:15:04	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743279.16	389315.05	0.8	2/20/10	06:15:05	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743278.80	389315.23	0.8	2/20/10	06:15:06	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743278.44	389315.41	0.8	2/20/10	06:15:07	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743278.08	389315.59	0.8	2/20/10	06:15:08	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743277.72	389315.77	0.8	2/20/10	06:15:09	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743277.36	389315.95	0.8	2/20/10	06:15:10	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743277.00	389316.13	0.8	2/20/10	06:15:11	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743276.64	389316.31	0.8	2/20/10	06:15:12	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743276.28	389316.49	0.8	2/20/10	06:15:13	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743275.92	389316.67	0.8	2/20/10	06:15:14	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743275.56	389316.85	0.8	2/20/10	06:15:15	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743275.20	389317.03	0.8	2/20/10	06:15:16	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743274.84	389317.21	0.8	2/20/10	06:15:17	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743274.48	389317.39	0.8	2/20/10	06:15:18	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743274.12	389317.57	0.8	2/20/10	06:15:19	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743273.76	389317.75	0.8	2/20/10	06:15:20	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743273.40	389317.93	0.8	2/20/10	06:15:21	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743273.04	389318.11	0.8	2/20/10	06:15:22	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743272.68	389318.29	0.8	2/20/10	06:15:23	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743272.32	389318.47	0.8	2/20/10	06:15:24	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743271.96	389318.65	0.8	2/20/10	06:15:25	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743271.60	389318.83	0.8	2/20/10	06:15:26	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743271.24	389319.01	0.8	2/20/10	06:15:27	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743270.88	389319.19	0.8	2/20/10	06:15:28	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743270.52	389319.37	0.8	2/20/10	06:15:29	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743270.16	389319.55	0.8	2/20/10	06:15:30	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743269.80	389319.73	0.8	2/20/10	06:15:31	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743269.44	389319.91	0.8	2/20/10	06:15:32	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743269.08	389320.09	0.8	2/20/10	06:15:33	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743268.72	389320.27	0.8	2/20/10	06:15:34	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743268.36	389320.45	0.8	2/20/10	06:15:35	46.08000	101.1	2/20/10	06:15	2.8	137.4
3743268.00	389320.63	0.8	2/20/10	06:15:36	46.08000	101.1	2/20/10	06:15	2.8	137.4

Editing and processing data example



Data : X, Y, Depth, PC Time, PC Date, Latitude, Longitude, GPS Date, GPS Time, PDOP and more.

Option



Catamaran

It is capable of carrying sensors such as velocity meter, water quality meter, and ADCP. In addition, roll will be reduced compare to monohull.

- Underwater video camera
- SD card drive
- Heave sensor system
- High performance auto-pilot line survey

Application



In the strong current and rushing river, towing RC-S2 by manned boat is good application. RC-S2 is all equipment in one survey boat.



In no GPS reception area, collecting position information is possible by an auto tracking total station with 360 degree prism on board RC-S2.



Coden Hydrographic Survey Remote Controlled Boat RC-S2 Standard equipment

- Remote controlled boat
- Boat antenna
- Coden boat control software
- Wireless LAN modem
- Antenna with work board
- Power supply box
- Boat controller
- Battery for boat x2
- Battery for remote control unit x1
- Battery charger x1

■ Specifications

Boat size	
Length	1,060mm
Width	270mm
Height	250mm (Without antenna)
Weight	9.3kg (13kg with batteries)

Power	
Motor	Brushed DC motor x2
Traction	2.2kg f
Boat Speed	2.8kt (Maximum)
Power Source	Rechargeable nickel hydride battery 10A x2
Battery Life	120 minutes (Auto-pilot)

Geodesy	Transverse Mercator User-settable (UTM-North, UTM-South available)
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Auto-Pilot	
Line Survey	Maximum 128 lines (one project)
Target Survey	Maximum 255 points (one project)

Echo Sounder (Single Beam)	
Frequency	200kHz
Depth Range	From 0.5m to 80m
Resolution	0.01m
Gain	Auto or Manual (H/L 20 level each)
Sampling Interval	500ms
Beam	6degrees or 24degrees

GPS (SBAS)	
Resolution	1/10000s

Communication	2.4GHz Wireless LAN
Operating Range	500m

Computer Operating System	Windows XP Professional, Windows 7 (32bit)
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Information in this brochure is subject to change without notice.



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