

HDD LOCATING SYSTEMS
Sense
IT MAKES SENSE

**Russian Multifrequency Locating
Systems For Horizontal-Directional
Drilling**

2020 CATALOG



SNS 1t

- 1 frequency 12 kHz (SNS1 protocol);
- 1 working segment screen;
- non-sleep transmitter mode;
- compatible with all t-series transmitters;
- depth up to 9,90 m;
- transmitter working time – 20 hours;
- angle accuracy 0,1%.



SNS 2t/7t/8t



- noise stable p SNS;
- 2 (12, 30 kHz) or 7 frequency (2, 8, 12, 18, 24, 30, 41 kHz);
- depth with wireless transmitter is up to 45 m;
- 3 power modes of the transmitter;
- Noise test for choosing better frequency on jobsite;
- Predicted depth to drill on target;
- Permanent displaying current depth, distance and all needed info;
- Switching to any frequency in drilling process;
- Passive cable detection for industrial frequencies 50, 60, 100, 120 kHz;*
- Ultrasonic sensor to measuring receiver distance from the surface.

* for SNS 8t

SNS Seek Generator* – active seeking function

Seek generator created for creating AC with setted frequencies in steel communication (pipe). Generator and all needed accessories are put down to shock-proof case.

* for SNS 8t



Probe Series t

##	Name	Dimensions	Power level	Depth, m
1	SNS st (st/P)	Ø 32, L 380 mm	2C, up to 10V	45 m
2	SNS st/A (st/AP)	Ø 32, L 480 mm	2C, up to 10V	70 m
3	SNS st/C (st/CP)	Ø 32, L 480 mm	кабель, up to 24V	50 m
4	SNS st/E (st/EP)	Ø 32, L 480 mm	4C, up to 10V	45 m
5	SNS st/EA (st/EAP)	Ø 32, L 580 mm	4C, up to 10V	70 m
6	SNS Pt	Ø 15, L 205 mm	AAA, up to 5V	30 m
7	SNS MSt2	Ø 22, L 205 mm	AA, up to 5V	10 m
8	SNS MKt2	Ø 22, L 205 mm	AA, up to 5V	15 m
9	SNS MKt3	Ø 25,4, L 205 mm	AA, up to 5V	15 m

DW & TT adapters

SNS Vision



Full-functional Repeater-Tablet

- dimensions: 215 x 135 x 20 mm, 8-inch screen;
- shock-, dust-, moisture-proff;
- OS – Android;
- Power source: 5V, 2A. Self battery – 7400 mA/h.

Kit:

Repeater, leg, antenna, 2 cables, car adapter.

SNS Vision App

Telemetry:

- power level of transmitter;
- power level of Repeater;
- transmitter temperature;
- angle (%, \angle);
- locating line, clockface position, locating points, # of shot;
- predicted depth (only at front (F) point);
- current depth;
- horizontal distance Receiver Transmitter.

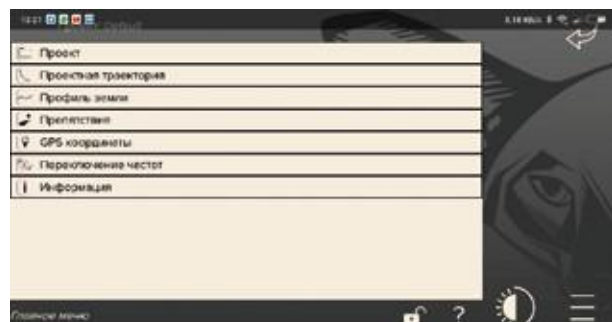


Graphic editor:

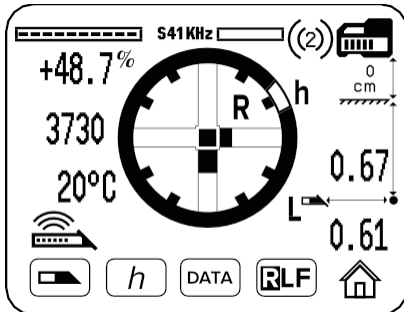
- surface profile;
- project trajectory;
- obstacles;
- actual drilling trajectory;
- actual surface profile;
- double window view.

Main Menu:

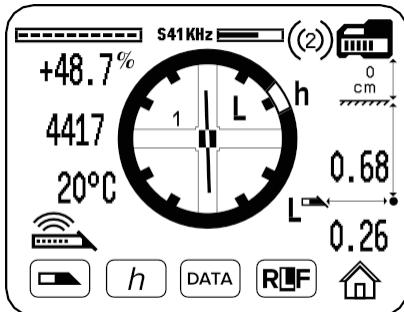
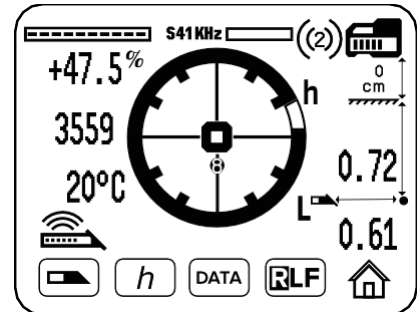
- operations with project;
- project export;
- drilling reports;
- possibility to add comments;
- GPS coordinates.



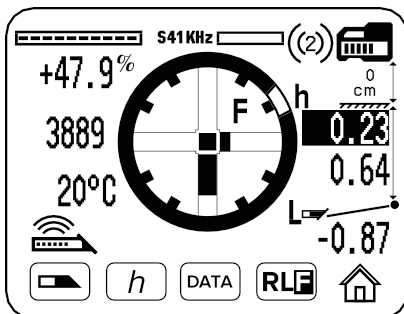
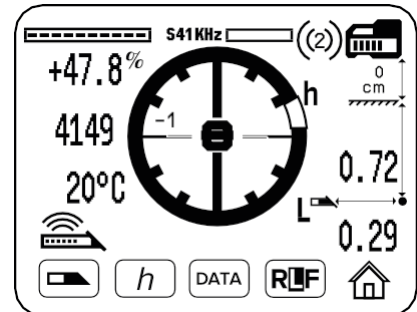
Advantage of SNS Receiver locating screen is constant displaying of all needed information:



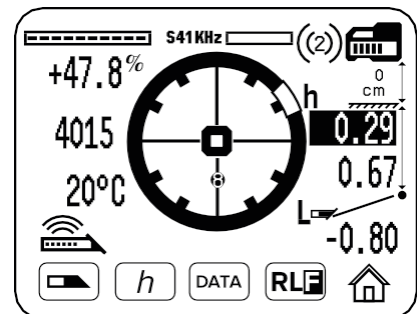
- quality of transmitter signal;
- transmitter angle;
- power of transmitter signal;
- transmitter temperature.



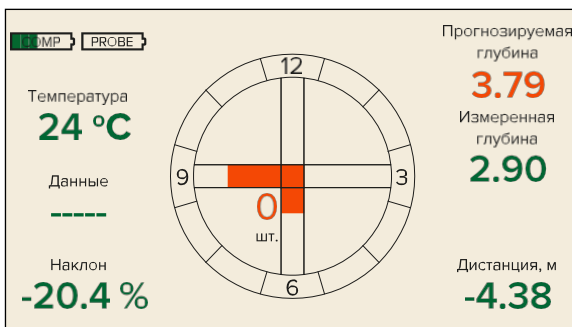
- transmitter power;
- transmitter battery.



- transmitter power;
- transmitter frequency;
- telemetry channel;
- receiver battery;
- distance to surface;
- predicted depth (in the vicinity of the Front point);
 - current depth;
- horizontal distance to the transmitter;
- nearest locating point.



Main information from the Receiver transfers to the Repeater, including directions to locating points



- transmitter angle;
- transmitter battery;
- transmitter temperature;
- repeater power;
- telemetry status;
- predicted depth (in the vicinity of the Front point);
- current depth;
- horizontal distance to the transmitter.

Relay – increase your range

Additional outside antenna that increases telemetry between Receiver and Repeater. Each Relay increases distance of transferring signal by 500 meters. Relay also helps to keep telemetry when there is no direct vision between Receiver and Repeater.



WiFi R-Box – create your Repeater

Hardware-software complex that make Repeater from your Android device. It helps to keep Clients money on one side and make drilling process for operator more comfortable on another. Machine operator can choose convenient dimensions of the Android device and type of fixing it on panel.

Azimuthal cable navigation system SNS 100



This system was built to control HDD process with big depth and length. Working principle is based on measuring of gravity and magnetic field of the Earth using special sensors in the probe. All data goes by cable to the Interface module of the system for decoding. From module data goes to PC where it is calculating to define depth, probe position, angle etc. Final information is assembling to convenient table and goes to Control Panel of Drillmaster.