TEXHOAC®
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DEVELOPMENT, PRODUCTION, DELIVERY
Detection and locating, measuring equipment, water leak detectors, cable locators, cable and pipe locators

NEW

Cable locator SUCCESS AG-309.15N

Three modes: «ROUTE», «GRAPHIC», «FRIEND-OR-FOE»

Built-in omnidirectional antenna consisting of 4 sensors!

Universal monoblock receiver with advanced graphical LCD display, improved noise immunity and the ability of external sensors connection.

AG-309.15N is used for:

- Direct digital measurement of the ***armoured OFC depth up to 10 m***
- ***Indication of the deviation*** from the utility axis in the mode "ROUTE"
- ***Measurement of the current*** in the utility on the operating frequency
- ***Distance of tracing*** from the place of origin connection is ***up to 3 km***

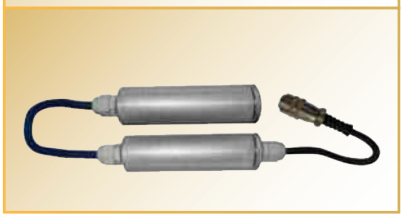
The set consists of:
Receiver AP-019.1
Transmitter AG-105
Operation manual
Cables and accessories
Grounding rod
Passport of the set
Carrying case

Extra equipment:

Sensor NR -117
Identification of the cable, the function "selection the cable from a bunch"

Clamps transmitting CI - 110
Noncontact connection to the pipelines or to the cable lines

Sensor DKI - 117
Searching of outer insulation defects of metal pipelines (water, gas) at trenchless laying



Sensor DODK - 117
Searching of cable faults at shorting of its armoring to the ground

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High tech device for detection of armoured fibre optic cable, with direct digital measurement of the current.

Features:

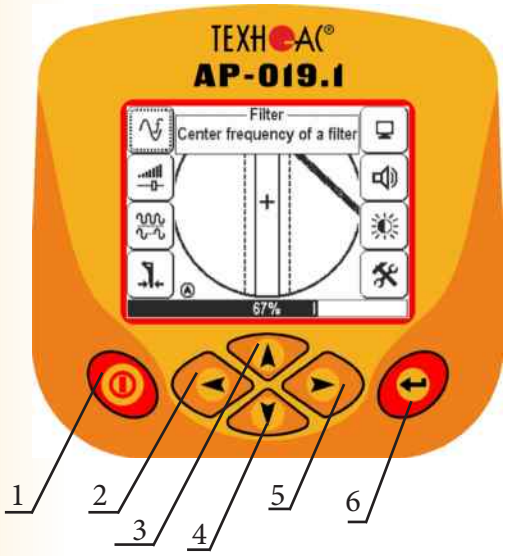
Monoblock AP-019 digital receiver
20W AG-105 transmitter
high precision location of underground utilities up to 10m
direct digital measurement of cable current
direct digital depth measurement up to 10 m

Brief description:

three modes of operation : «ROUTE», «GRAPHIC», "FRIEND-OR-FOE"
three inbuilt sensors make omnidirectional antenna showing a direction of a cable
inbuilt sensor for digital measurement of the depth and current
measured depth is 10 m

active equency: 512/1024/8192/32768 Hz
sensitivity : 100µA
large LCD display with high resolution and adjustable backlight brightness
built-in microprocessor control simplifies the preparation of the device for operation, and protects against the error of the operator
transmitter – 20W
cast body, the case is sealed along the entire length to the connectors

Face panel, controls



	«Power» button (1) Switching on/off the receiver
	«Enter» button (6) - calls out a menu, - enters into the editing mode of the selected menu option, - exit for the editing mode saving selected parameters.
	Buttons «Up» (3), «Down» (4), «Right» (5), «Left» (2). - selection of the menu option (icon), - selection or changing the parameter inside the menu, - operative change in the parameters

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AP-019.1 technical characteristics:

Parameter	Value
Quasi-resonant frequencies of the filter	512/ 1024/ 8192 / 32768 Hz
Quasiresonant filter quality factor (Q)	Not less than 100
Frequency range "Broad band"	0,04...8 kHz
Frequency range "Radio"	8...40 kHz
The maximum gain of the electric path	>100 dB
Number of built-in sensors	4
Connected external sensors	CI-110, NR-117, DODK-117, DKI-117 (made by «TECHNO-AC»)
Sensitivity control	Auto - for 2D display «Route». Semi-automatic or manual (optional) - for the «Graphics». Automatic or manual (optional) - for the «2F» mode.
Determination the burial depth of the route	Automatically in the mode Route 0...9,99 m
The accuracy of determining of the depth	±5%
Measurement of the current of the signal received	Automatically in the mode Route 0.001...9,99 A
Accuracy of the measurement of the current of the signal received	±5%
Support of energy saving (intermittent) modes of the route locating generators	At combined work with the route locating generators made by "TECHNO-AC" ("Pulse" mode)
Visual indication	LCD display, 320x240 pix., LED lighting
Induced parameters	-parameters of setting and control - 2D visualization of the route location relative to the device -graphics of the signal level from sensors - route burial depth - signal current
Audio indication	Built-in transmitter - synthesized sound HM- sound indication of buttons pressing
Power supply source	4...7 V (4 elements of C type)
Time of continuous work from the one complete of the alkaline batteries	Not less than 20 hours
Automatic shutdown when the device is not active	After 30 minutes of inactivity
Temperature range for storage / operation	-30...60 / -20...60°C
House protection degree	IP54
Dimensions	330x140x700 mm
Weight	2,1 kg

AG-105 technical characteristics:

The frequencies of the continuous «Co» or pulse «Pu» signal, Hz ± 0,1% - «kHz»	
Load ***«clips»*** or ***«clamp»***	***512*** - «0.5» / ***1024*** - «1.0» / ***8192*** - «8.2» / ***32768*** - «33»
«Antenna» modes	***8192*** - «8.2» / ***32768*** - «33»
Operating modes	
«Antenna» modes	Internal transmitting inductor «***In***».
	External induction transmitting antenna «***An***».
«Modulation» modes (special form signal)	Pulse «***Pu***» (short-term transmissions of the sine signals). Transmission duration 0,12sec. Transmissions repetition frequency 1Hz.
	Dual-frequency «***2F***» (simultaneous frequency generation 1024Hz, 8192Hz). Amplitudes ratio 4/1 (respectively).
Output parameters under power supply voltage 12…15V	
Output current, A	
Restricted by the program ***under manual increment,*** ≥	***5*** – at frequency 512Hz «0.5» / 1024Hz «1.0» / 8192Hz «8.2» / «2F»
	3 - at frequency 32768Hz «33»
Set by the program for ***automatic adjustment*** with the external load of «clips» or «clamp», ≥	***0,2*** – at frequency 512Hz «0.5» / 1024Hz «1.0» / «2F»
	0,1 – at frequency 8192Hz «8.2» / 32768Hz «33»
Maximum output voltage, V	
Depending on «modulation», ≥	***32*** – in the dual-frequency modulation mode «2F»
	40 – in other modes
Maximum output power, W	
Restricted by the program, ≥	***20 -*** In the continuous «Co» and pulse «Pu» modes at frequencies 512Hz «0.5» / 1024Hz «1.0» / 8192Hz «8.2» at load resistance up to 80Ω In dual-frequency mode «2F» at load resistance up to 50Ω.
	6 - At frequency 32768Hz «33» at load resistance up to 260Ω.
Power supply sources	
Operating range of the supply ***voltages***	Minimally acceptable voltage for oscillation start-up - ***7V.***
	Maximum allowed voltage for operation – ***15V.***
	Automatic shutdown voltage in the “oscillation” mode < ***4,2V.***
Battery set	8 «alkaline» cells 1,5V «type C» Recommended – «Duracell ® ULTRA».
External power supply sources (optional)	***Battery*** «12V» (e.g. automotive) Output voltage 11…14V, maximum current not less than 4A.
	Mains power supply adapter AG114M.02.020 (extra accessory based on GS60A15-P1J «MEAN WELL») Output voltage 15V, power 60W.
Operating time («life cycle»)	While in operation of the battery set «type Cx8» is defined by the quality (capacity and «load capability») of the applied alkaline cells and can be equal to ***from 4 to 6 hours in the «Co» и «2F» modes or from 20 to 30 hours in the «Pu» mode*** at initial output voltage 7W in «continuous» modes «Co» / «2F» or at initial output voltage 15W in pulse modulation mode «Pu».
	Under the external power supply is fully conditioned by this external energy source characteristics therefore ***under mains supply operating time is unlimited.***

AG-105 technical characteristics:

An automatic ***control over the output voltage*** during oscillation process	Proportional control over the output power depending on the “energy potential” of the power supply source.
Automatic ***shutdowns*** of the device	At power supply voltage in the “stop” mode < 6,5V.
	At power supply voltage in the “oscillation” mode < 4,2V.
	At power supply voltage > 15,5V.
	In case of exceeding of the admissible absorbed current value (the exact figure depends on the actual mode).
	In case of short circuit of the output during the adjustment process (actuation of the hardware safety system of the terminal amplifier).
	In case of non-compliance of the oscillation mode settings depending on whether the external antenna is installed in the output or not (the switch to the “stop” mode).
	In case of “long” (≈ 100sec) downtime in the “stop” mode (if the buttons are not pushed).
Adjustment with load	***Automatic***, up to the reaching of the specific consumption rate or attainment of the load current: - ≥ 0,2A at frequencies 512Hz «0.5» / 1024Hz «1.0» / «2F»; - ≥ 0,1A at frequencies 8192Hz «8.2» и 32768Hz «33».
	Manual (via buttons LESS / MORE «« »») after the automatic adjustment.
Connection options to the utility under examination	«Contact» connection with “earth return”.
	«Non-contact» connection with application of the internal transmitting antenna «In».
	«Non-contact» connection with the use of external induction transmitting antenna «An» (the emission intensity is higher and easier access to the utility in comparison with the internal transmitting antenna «In»).
	«Non-contact» connection using the transmitting induction “clamp” (selection of the cable from the bunch us possible).
Electromagnetic compatibility	
Classification in accordance with the Russian State Standard (GOST) 51318.22-2006	Class A
Structural parameters	
Power output ***amplifier***	The technology — updated ***CLASS D*** ***Efficiency to 85%.***
LED ***indicators***	Separate light-emitting diodes indicating parameters and modes.
	Digital indicator displaying the modes and parameters values and also showing output parameters of the ***«MULTIMETER»*** measurements, e.g.: output voltage (V), load current (A), load power (W) and load resistance (Ω /kΩ).
Overall dimensions of the electronic unit (case), not more than, mm.	***216x180x105mm***
The ***weight*** of the electronic unit, not more than, kg	***2***
The admissible environment ***temperatures range*** when in operation	***- 30…+60ºC*** With “battery” power supply it is not recommended to use the device under sub-zero environmental temperatures.
Ingress protection rating	IP65 (when the enclosure-case is shut).