



SVPRIBOR



CORE
FIBER OPTIC EQUIPMENT

PIPE & CABLE LOCATING EQUIPMENT



FUNCTION

TRACE-LOCATOR **510 MASTER** WAS CAREFULLY DESIGNED TO HELP WITH:

- 1) TRACE SEARCHING, VERIFYING THE UNDERGROUND AND OPEN CABLE LINES (OPEN TRANSMISSION LINES) AND POWER CABLES; METAL CORDS AND PIPELINES (WATER-, OIL- AND GAS PIPELINES); SUPPLY PIPELINES THAT HAVE METALLIC COAT OR METALLIC CONDUCTORS;
 - 2) CONTROL THE POSITION, DIRECTION, DEPTH AND SIGNAL CURRENT FLOWING UNDERGROUND COMMUNICATION AND LOCALIZATION PLACES OPEN OR SHORT CIRCUIT;
 - 3) CONTROL THE DIRECTION OF THE SIGNAL TO DETERMINE ITS CABLE COMMUNICATIONS IN PLACES OF CONVERGENCE OR BUNDLE OF CABLES;
 - 4) SEARCH, POSITION CONTROL AND DETERMINE THE DEPTH ROUTE POWER CABLES WITH A CURRENT OF INDUSTRIAL FREQUENCY (50 HZ);
 - 5) TRACE-SEARCHING IN WIDEBAND MODE FROM 200 TO 26 000 HZ;
 - 6) TRACE-SEARCHING AND CONTROLLING OF RECEIVED FREQUENCIES IN WIDEBAND MODE (SPECTRUM);
 - 7) FAULT LOCALIZATION SHELLS COPPER CABLE LINES AMPLITUDE AND PHASE (CONTACTLESS) METHODS;
 - 8) DEPTH MEASUREMENT AND SIGNAL CIRCUIT WITH ONE-TIME RECORD IN THE FILE;
- IN ACTIVE MODE THE 510 MASTER ALLOWS YOU TO VERIFY 4-FREQUENCY SIGNAL 273 HZ, 2 187,5 HZ, 6 562,5 HZ, 26 250 HZ AND COULD BE USED AS A UNIT WITH SIGNAL CURRENT SOURCE MK 510. ALSO, AT ANY FREQUENCY IN THE RANGE FROM 200 TO 35 000 HZ WITH THE USE OF ANOTHER SIGNAL CURRENT SOURCE.
- IN PASSIVE MODE – WITHOUT USING A SIGNAL CURRENT SOURCE – TRACE-LOCATOR COULD BE USED AS A CONTROLLER OF RECEIVED FREQUENCIES AND FOR TRACE-SEARCHING OF POWER CABLES, TRACE-LOCATING OF NOISY WIRES, MASSIVE METALLIC SUPPLY LINES, AND SUPPLY LINES WITH METALLIC COATING (PIPELINES, ROPES, ETC.).

510 MASTER

SPECIFICATION

ACTIVE FREQUENCY	26 250 HZ ± 12 HZ 6562,5 ± 1 HZ 2187,5 ± 1 HZ 273,5 ± 0,5 HZ
FREQUENCY MODE "FRIENDLY FREQUENCY HZ XXX"	200-35000 HZ
BANDWIDTH AMPLITUDE -3 DB (≤) FOR FREQUENCY 26250 HZ FOR FREQUENCY 6562,5 HZ FOR FREQUENCY 2187,5 HZ FOR FREQUENCY 273,5 HZ 2,	150 HZ 45 HZ 15 HZ 5 HZ
DEPTH	6 M
DEPTH MEASUREMENT ACCURACY	±5%+10 CM
TRACE LOCATION ACCURACY	10 CM
TRACE LOCATING OF INSULATION INTERRUPTION WITH TRANSITIONAL RESISTANCE ¹	0 – 100 KOHM
SPECTRUM FREQUENCY RANGE 10 ?	26 000 HZ
BATTERY LIFE (CONTINUOUS OPERATION, WHEN USING THE BATTERY 2100MAH)	13 H
BATTERY TYPE	4-NI-MH AA TYPE.
CHARGING TIME (≤)	4 H
DIMENSIONS	257X88X685 MM
WEIGHT (WITH THE BATTERY)	1,9 KG
ENVIRONMENTAL SPECIFICATION	
? OPERATION TEMPERATURE	? 20 ? ? 50OC
? RELATIVE AIR HUMIDITY TO	90% AT 30OC
? AIR PRESSURE	86 ? 106 KPA

CONTROL INSTRUMENTS

PRINCIPLE OF OPERATION

510 MASTER TRACE LOCATOR IS A SIGNAL RECEIVER FOR SEARCHING OF UNDERGROUND LINES, THEIR DEPTH AND SIGNAL CURRENT, AND ALSO THE LOCATING OF CABLE INTERRUPTION. IN ACTIVE SEARCH MODE ("CABLE MAP", "CABLE MAP +, «COMPASS» AND "CLASSIC" MODES) SIGNAL CURRENT SOURCE IS THE SOURCE OF THE SOUND FREQUENCY SIGNAL THAT BEING CONNECTED TO CORE OF THE SEARCHED CABLE. ALTERNATING CURRENT PRODUCES A MAGNETIC FIELD THAT INDUCES A SIGNAL IN THE RECEIVER INDUCTIVE SENSOR. SENSORS ARE LOCATED IN THE UPPER AND LOWER PARTS OF THE RECEIVER. SIGNALS INDUCED IN THE SENSOR THEN COME INTO THE RECEIVING DEVICE WHERE ANALOG AND DIGITAL PROCESSING IS BEING DONE. THEN THE RESULTS ARE DISPLAYED ON THE LCD AND SOUND EMITTER.

IN PASSIVE MODE ("SPECTUM" MODE) THE RECEIVER IS BEING REGISTERED AS AN ALTERNATING MAGNETIC FIELD IN FREQUENCY SOUND RANGE WITH THE SOURCE IN THE POWER CABLE WITH POWER CURRENT AND NOISY WIRE NETS

CONTROLS

IN THE UPPER PANEL THERE ARE:

① LCD DISPLAY;

② UP/DOWN KEYS OF SENSITIVITY;

③ OK KEY AND AUTOMATICALLY SET OF SENSITIVITY;

④ FUNCTION KEY.

IN THE LOWER PANEL THERE ARE:

⑤ MENU KEY;

⑥ ON/OFF KEY;

⑦ USB B CONNECTOR;

⑧ HEADPHONES CONNECTOR;


⑨ AC/DC ADAPTOR CONNECTOR.



MENU


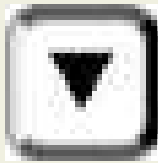

TURN THE DEVICE ON USING  BUTTON. THE DISPLAY WILL FIRST SHOW THE DEVICE SERIAL NUMBER AND ITS VERSION, FOLLOWED BY THE MENU.



THE DEVICE OPERATION MODES ARE SHOWN ON THE TOP. PRESS  BUTTON TO SWITCH. THE LIST OF MENU ITEMS CHANGES FOR EACH OPERATION FREQUENCY.

LF - 273 HZ
2K - HF - 2,187.5 HZ
6K - 6,562.5 HZ
26K - 26,250 HZ

«PASS» - PASSIVE OPERATION MODES (SIGNAL CURRENT SOURCE - FREE)

THE SELECTED ITEM IS DISPLAYED INVERSELY. THE ITEM SELECTION IS CHANGED BY PRESSING  OR  PRESS  TO CHANGE TO THE REQUIRED MODE.

PRESS  TO GO TO THE MENU FROM THE OPERATION MODE

«FREQUENCIES LIST»

FOR SIMPLE WORK WITH THE DEVICE YOU WILL CHOOSE NECESSARY WORKING FREQUENCIES IN "FREQUENCIES LIST". ENTER TO THE MENU ITEM "FREQUENCIES LIST", FREQUENCIES LIST CONTAINS THE STANDARD FREQUENCIES (MODES), WHICH CAN BE ACTIVATED OR DEACTIVATED (PRESS BUTTON -): 273,4 HZ - LF, 2 187,5 HZ - HF, 6 562,5 HZ, 26 250 HZ.:

273.4 ГЦ LF ON.
2187.5 ГЦ HF ON.
6562.5 HZ OFF.
26250 HZ ON.
F1 1069 HZ ON.
F2 8440 HZ ON.
ADD FREQUENCY

ALSO THE USER CAN ADD UP TO 9 NEW FREQUENCIES. YOU WILL SELECT ITEM "ADD FREQUENCY".

ESTABLISH FREQUENCY FROM THE RANGE OF 200 HZ - 35 KHZ. ESTABLISH NECESSARY VALUE OF THE CATEGORY, MOVE TO THE FOLLOWING CATEGORY, PRESS OR AND . FOR SAVE OF NEW FREQUENCY OF A SIGNAL AND RETURN PRESS THE BUTTON . CUSTOM FREQUENCIES MARKED "F-EDITING." ("F1" - "F9").

THE FREQUENCIES SWITCHED ON IN "FREQUENCIES LIST" ARE DISPLAYED IN THE TOP PART OF THE MAIN MENU. FREQUENCIES PLACES IN THE MENU WITH INCREASE IN WORKING FREQUENCY.

