Electroencephalograph-analyzer EEGA-21/26-"Encephalan-131-03"







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Electroencephalographs-analyzers EEGA-21/26-"Encephalan-131-03"

Electroencephalographs-analyzers EEGA-21/26-"Encephalan-131-03" are multichannel (up to 32 channels) medical devices produced in various modifications meant for EEG studies, studies of long latency (including cognitive) evoked potentials (EP), and also for long-term EEG studies with video monitoring in stationary conditions.

Electroencephalograph's modifications 08 and 10 provide an analysis of connection between brain electrical activity deterioration and impairment of cerebral circulation, which is reliably detected by means of a unique method of simultaneous EEG and REG studies (patented in RF # 2248745).

Quality registration of EEG and other parameters using original electrode systems with elastic fixing caps from EEG Electrode Set ES-EEG-10/20 "Encephalan-ES", which is included into electroencephalograph-analyzer EEGA-21/26-"Encephalan-131-03" set, as well as other electrodes and sensors from electroencephalograph-analyzer set.

Functionality of electroencephalographs-analyzers EEGA-21/26-"Encephalan-131-03"

Modifications 08, 10 and 11

EEG/EP studies with multichannel mapping of the brain electrical activity. EEG/EP studies with multichannel mapping of the brain electrical activity, carried out in a health care center (functional diagnostic room, neurophysiology laboratory, neurological department, etc.) with a portable or stationary computer.

Modifications 08 and 10

EEG-studies simultaneously with the registration and analysis of cerebral circulation (REG) additionally provide an assessment of the role of the vascular factor in paroxysmal activity manifestations in epilepsy.

Modifications 10 and 11

Continuous synchronized EEG-videomonitoring in a stationary variant is effective for differential diagnosis of epilepsy in neurological and epileptological departments of health care centers.

Modifications 10 and 11

Neuromonitoring and cerebral functions monitoring ICU and resuscitation department.

Additionally – multiparameter analysis of signals from polygraphical channels in combination with EEG signals (patented in RF #2252692).

Enhanced functionality and application of electroencephalograph-analyzer in clinical practice, sports, industrial and institutional medicine, psychophysiology and scientific research are provided by additional sensors and accessories, along with methodical software (SW) from electroencephalograph set.

Software from the electroencephalograph-analyzer set

Software name	page	Medical purpose (briefly)		
Main soft	ware fo	r multichannel electroencephalographic and neurophysiological studies.		
Software EEG-studies "Encephalan EEGA", "Professional" suite		Registration of EEG with phono- and photostimulation, referential reconstruction of EEG, various methods of processing and analysis with topographic (2D and 3D) mapping, automatic search of epileptiform activity manifestations, automatic generation of a textual description of the EEG with an assessment of dysfunctions according to the classification of E.A. Zhirmunskaya		
Software EEG-studies "Encephalan EEGA", "Elite" suite		Includes all the functionality of the "Professional" suite, supplemented by the following functionalities: automatic suppression of artifacts (ECG, EMG, EOG); visual analysis of very low frequency activity; statistical analysis and processing, data export to ASCII, EDF/UDF, MatLab.		
"Encephalan-REG" software for rheoencephalographic studies		Registration and analysis of rheoencephalogram (REG) signals and electrocardiogram (ECG) signal with the aim to evaluate the condition of cerebral vessels (pulse blood filling, elastic and tonic properties of various vessels, venous drainage condition, hemispheric asymmetry, regional distribution characteristics, etc.).		
Software that	at exten	ds the functionality of electroencephalograph-analyzer during EEG studies		
"Encephalan-VLFA" software for analysis of very low frequency activity (patented in RF #2252692)	15	Analysis of very low frequency activity (DC potential) synchronously and simultaneously with the EEG recording from the same derivations for indirect assessment of cerebral energy exchange and reactivity (the dynamics of metabolic changes).		
"Encephalan-FBA" software for functional brain asymmetry analysis	15	For diagnostics of hemispheric and intrahemispheric dysfunctions, identification of foci of pathological activity, treatment monitoring, studies of topical features and intercentral interaction with the various functional tests.		
"Encephalan-3D" software for 3D localization of the electrical activity sources	15	The software presents the results of the inverse problem solution of EEG / EP to identify the probabilistic spatial source on three conditional cuts of the brain in the form of a cloud of equivalent dipoles.		
"HRV" software for heart rate variability analysis	16	Assessment of autonomic nervous system and neurohumoral regulation of the patient based on a study of heart rate variability to assess the adequacy of the physical and psycho-emotional stress.		
Software and accessories for long latency evoked potentials study				
"Encephalan-EP" software for EP-studies, "Basic" and "Professional" suite	17	Study of long-latency evoked potentials - visual, auditory, somatosensory, cognitive (CNV and P300), and the visual EP for chess pattern.		
"Encephalan-AVS" software suite for EEG and EP studies (cognitive EP) using audiovisual stimulation	18	EEG and EP studies for various clinical and scientific tasks in neurology, psychophysiology, studies of the mechanisms of perception using cognitive stimulation.		
Software of elec	ctroence	ephalograph-analyzer for additional study types at continuous EEG monitoring		
"Encephalan-PSG" – somnological studies – polysomnography, "neurological" suite	19	Analysis of sleep phases, automatic building and manual editing of hypnograms, highlighting the sleep events, generation of reports on sleep stages distribution.		
"Encephalan-MPA" software for multiparameter analysis of signals from polygraphical channels in combination with EEG signals (patented in RF #2252692)	19	Calculation and visualization of trends, reflecting cardiocycle-to-cardiocycle (in conjunction with the ECG R-wave) dynamics of various physiological indicators of cardiovascular (CVS), autonomic (ANS) and central nervous system (CNS).		
"Encephalan-CFM" for cerebral functions monitoring	19	Dynamic aEEG analysis for neurophysiological monitoring at continuous EEG monitoring in neonatology, ICU and resuscitation department, and for scientific research.		
"Encephalan-NM" for neuromonitoring	20	Calculation and visualization of trends of the CNS and ANS physiological parameters in the same time scale for the continuous dynamic monitoring and state assessment.		
EEG-videomonitoring "Encephalan-Video"	21	Completely synchronized recording of EEG/PSG and data from one or more video cameras in daytime or at night, its analysis and archiving for the differential diagnosis of epilepsy and diagnosis of sleep disorders.		
Additional software for psychophysiological analysis and testing, neurofeedback and biofeedback				
"Rehacor" software for functional biocontrol with biofeedback training	25	Procedures of functional biocontrol with BFB (biofeedback and neurobiofeedback) for improvement of neural regulation in various disorders, increasing stress tolerance, correction of the status, training skills of self-control and optimal functioning of the athletes, students, top managers and persons of responsible and stressful professions. Scenario Editor creates new procedures and provides the assessment of a procedure and course effectiveness.		
"Egoscop" objective analysis and testing (patented in RF #2319444)	30	New innovative level of psychodiagnostics (paperless technology) with synchronous registration of motor activity parameters of the subject on the touch screen tablet, and physiological indicators that reflect the emotional reactions in the process of testing and data analysis in relation to the semantic clusters of tests.		

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* The external appearance of the products is given as an example and may have some differences that do not affect functionality when delivered.

Item #	Ref. no.
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Electroencephalograph-analyzer EEGA-21/26-"Encephalan-131-03" To form a sales package, select from this table the modification of electroencephalograph-analyzer – an amplifier unit with the basic set of accessories, as well as necessary additional accessories, electrodes, sensors and software.

1.			Modificatio	ons of electroend	ephalograph:	analyzer		
1.1.	A_2648-3	Modification 08 – 19-channel electroencephalograph with	1 polygraphic	and 6 REG (rheoe	ncephalograph	ic) channels		For routine EEG studies required:
		The set includes:		• "Encenhalan EEG	A" software for F	FC-studios "Professional" s	uite	 set of cup EEG Electrodes and accessories SEEG-8/21:
		19 EEG, 1 ECG, 6 REG channels;			with topographic m	anning Profound EEG-studies	and analysis of	caps set of rubber
		basic set of equipment and accessories (see item 1.4. for composition and external appea	arance of the	epileptiform activity. A mathematical process	utomatic generation	of study description. Additiona	l possibilities of	straps
		set);		Unique option of EE	G analysis simult	aneously with REG;		• electrode gel.
		 REG electrodes set (A_2665); 		"Encephalan-REG	software for rhe	eoencephalographic studies;		F
		 Snap Connector Wire Set (A_2092); 		"Cardfile" software	e for patient data	management.		monitoring required:
		• operation documentation;	ele	REG ctrodes		Snap Conr Wire Set	nector	 sets of accessories with electrode systems from EEG Electrode Set ES-EEG-10/20 "Encephalan-ES"; patient cable (A_2460); electrode gel. Additionally: software for expanded functional capabilities;
			"Enconho	lan PEC" so	ftwaro	Model Philade Description Descripion <thdescripion< th=""> <thdescri< th=""><th>ATT AND AND AND AND AND AND AND AND AND AND</th><th> accessories; </th></thdescri<></thdescripion<>	ATT AND	 accessories;
			спсерна	ian-neu su	twate	Name Annume Converts Statement Stateme	Gener Préparent	 video equipment kit;
				Милиник Милиник	No. (1.5, 10) Bit ison 1. 307, 400, 10, 100 Bit ison 1. 307, 400, 10, 100 Bit ison ANULE PROOF Bit ison			computing hardware.
		Amplifier Unit EEGA–19–REG	Indexe Indexe			"Encephalan EEC for EEG-s	GA" software tudies	

Comments







1.5.2.	A_2684-1	Tabletop Mount Includes: • vertical tube with a table clamp; • bracket with VESA mount for electroencephalograph amplifier unit.		Photostimulator from the basic set is mounted on the vertical tube. Phonostimulators complete with holders are purchased separately.
1.5.3.	A_1728	Phonostimulator FNST-02L left Complete with a holder.		Purchased for phonostimulation tests at auditory EP or routine EEG studies.
1.5.4.	A_1727	Phonostimulator FNST-02R right Complete with a holder.		
1.5.5.	A_1726-1	Photostimulator FO-02L Complete with a holder for mounting to the column of the floor stand or vertical tube of the tabletop mount.	CO DE	Stimulator additional to the basic set of electroencephalograph for separate stimulation of semi-fields of view, mainly when estimating functional asymmetry
1.5.6.	A_2329	SW-key (USB) Allows working with software at any additional PC including network variant. Connected to USB port of a computer.	SW-key (BET A.2229 (SN) 030113001 Wedicom MTD Ltd	The number of keys that required to be purchased corresponds to the number of software installations on the user's computers for data processing including network variant.

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2.	Electrodes from electroencephalograph-analyzer set					
2.1.	A_0720-1	Set of cup EEG Electrodes and asseccories for 20 EEG derivations The set includes: • cup EEG electrodes for contact electrode gel (electrode wire length 1.2 m) – 25 pcs., including 1 additional; • set of EEG electrodes fixers "ear clips" – 4 pcs.	ear clip ear clip	Required: • caps set of rubber straps; • electrode gel.		

2.2.	A_5891-3	Bridge EEG Electrodes set for 21 EEG derivations The set includes: • bridge EEG electrodes – 24 pcs., including 2 additional; • pick-up cables for bridge EEG electrodes with snap connector (wire length 1.2 m) – 24 pcs., including 2 additional; • ear EEG electrodes with a clip – 4 pcs., including 2 additional.	EEG bridge electrodes	Required: • caps set of rubber straps; • electrode gel.
2.3.	A_2804-1	Caps set of rubber straps for EEG/REG electrodes The set includes 3 resizable caps with sizes 48-54; 54-58; 58-62.		Used: • with cup EEG electrodes (for contact
2.3.1.	A_2804-4	Caps set of rubber straps for 20 EEG electrodes (additional set) The set includes 2 resizable caps with sizes 38-42 and 42-46.		electrode gel); • with bridge EEG electrodes.

12	12					
3.	Sets of accessories with electrode systems for continuous EEG monitoring by 19 derivations (for babies – 13 derivations)					
3.1.	Additional	cables for connecting electrode systems to electroencephalograph amplifie	er unit	Required for connecting electrode systems		
3.1.1.	A_2460	Patient cable 1 m adapter cable for connecting electrode systems from EEG Electrode Set ES-EEG-10/20 "Encephalan-ES" to amplifier units. 	to electrode system	Required for electrode systems "Encephalan- ES" for routine or continuous studies near the amplifier unit (no more than 1.5 m).		
3.1.2.	A_2647-2	Patient cable 6 m adapter cable for connecting electrode systems from EEG Electrode Set ES-EEG-10/20 "Encephalan-ES" to amplifier units. The set includes fixing belts, wall fixer, test plug.		Required for electrode systems "Encephalan- ES" for continuous studies (including EEG- video monitoring) at a distance from the amplifier unit of no more than 6 m. Allows the patient to move within the ward area of up to 25 sq m.		

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3.2.	The sets wi	ith electrodes for contact gel	Electrode system	Used with amplifier unit
	The sets incl	ude:		cables (A_2460 or
	electrode s	systems ES-EEG-19-3A, ES-EEG-19-3C or ES-EEG-13-3B;		A_2647-2) for continuous FEG
	Electrodes cable and h	are fixed in the eyelets of elastic fixing caps. Wires for electrodes are grouped in a common ave a group connector to amplifier unit.		studies.
	Provides re	gistration of 20 EEG (14 derivations for ES-EEG-13-3B), 2 EOG, 1 EMG, 1 non-standard ECG		Required:
	derivation (o Sensor.	one ECG electrode relative to the reference EEG electrode). 1 channel for Respiratory Effort		electrode gel;
	• set of addi 5 pcs.;	tional cables to connect disposable ECG, EMG, EOG electrodes to electrode system -		 disposable ECG electrodes (for EOG, EMG, ECG).
	set of elast elastic caps	tic fixing caps ES-EEG with eyelets for electrodes and covers for them – 5 sizes, fixer for s, chest fixing belt, syringe with plastic nozzles set for electrode gel insertion.		Chin fixer for cap ES- EEG can also be
3.2.1.	A_2493-21	ES-EEG-13-3B "Baby" set	Elastic cap	purchased.
		Sizes from 34 to 45.	electrode system	
3.2.2.	A_2493-22	ES-EEG-19-3C "Children" set		
		Sizes from 45 to 55.		
			Electrode of the system	
3.2.2.1.	A_5007-2	Set of elastic fixing caps ES-EEG-19C Sizes from 39 to 45 – 3 caps and covers.		
		Additional to "Children" set for recording 19 EEG derivations in infants.	and chest belt	
3.2.3.	A_2493-23	ES-EEG-19-3A "Adult" set		
		Sizes from 55 to 66.	Cover cap	
			Set of additional cables	

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3.3.	Chin fixers for elastic ca	ap or cover cap	
3.3.1.	A_0497	Chin fixer "adult"	
3.3.2.	A_0496	Chin fixer "children"	
3.4.	A_1553-1	Respiratory Effort Sensor for using with electrode system (with micro-8 connector)	
3.4.1.	A_7350	Small additional belt for respiratory effort sensor For chest circumference of 40-80cm.	

4.	Software that extends the functionality at EEG studies					
4.1.	A_0836	"Encephalan-VLFA" Software for Analysis of Very Low Frequency Activity (patented in RF #2252692) Software additionally provides analyzing of very slow EEG responses simultaneously with recording of EEG by the same derivations. Dynamic trends of very slow potentials and topographic maps of instantaneous values and reactive shifts of the DC-potentials level to functional tests or functional stresses at continuous EEG studies carried out allow a doctor or experimentalist-researcher to use obtained information for indirect evaluation of cerebral energy exchange and reactivity (metabolic change dynamics) and match it with EEG studies results and indices of cardiovascular system, CNS and ANS (if corresponding sensors are available). For scientific and clinical research in neurophysiology and psychophysiology.		Additional software which provides DC potential registration (up to 20 derivations) simultaneously with EEG registration using electrode systems or electrodes for EEG registration.		
4.2.	A_1037	"Encephalan-FBA" Software for Functional Brain Asymmetry Analysis Software provides visualization of intercentral connections maps (interhemispheric and intrahemispheric) on the basis of calculated matrixes of relative functions (cross-correlation, cross-spectrum, coherence function) by the set combinations of derivations, which gives a doctor additional information for solving scientific and clinical tasks of intra-and intercotical dysfunctions diagnostics, detection of pathological activity and control of the treatment, studies of topical features and intercentral cooperation in carrying out various activities.	PA (Cross-Correlation function) PA (Cross-Correlation function) PA (Cross-Correlation function) Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Image: Correlation function Ima	Additional software which uses quantitative methods of EEG analysis. Analysis can be performed both in real time and at processing continuous EEG studies.		
4.3.	A_0382	"Encephalan-3D" Software for 3D Localization of the Electrical Activity Sources Software presents the results of solving the reverse task EEG/EP to detect probabilistic spatial source of selected graph elements of EEG signal on three nominal brain cuts in the form of equivalent dipoles cloud. Such spatial localization gives a doctor additional information on supposed location of the EEG epileptiform activity focuses or EP components sources.	Anamenie -X Strieters R. () Strieters R. () Strieters R. () Strieters X & C X & C Strieters R. () Strieters X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & C X & X & C X & X & X & X & X & X & X & X & X & X &	Additional software which uses quantitative methods of EEG/EP analysis.		

4.4. A_1964 "HRV" Software for Heart Rate Variability Analysis Software is used to assess the state of the autonomic nervous system and neurohumoral regulation of the patient, to evaluate the adequacy of physical and psycho-emotional stress taking into account the autonomic reactivity to a provoking effect, as well as to control the effect of medicinal drugs and efficiency of treatment prescribed. Software uses standard recommended types of quantitative analysis and results representation in the form of cardiointervalogram trends (HR, RR), statistical and spectral parameters, hystograms and scattergrams (correlation rhythmograms) of RR-intervals allocation, spectrograms with frequency ranges that characterize the state of ANS and balance of sympathetic and parasympathetic sections (HF, LF, VLF). There is an option of forming the formalized protocol with description of initial state and autonomic reactivity. Software allows analyzing selected fragments of continuous ECG records (24 hrs, night recording) at long-term EEG/PSG studies or multiparameter monitoring.	Dependence - Augusenerepesancepaders (Mannos Mannos	It can be used independent additional to type and as concomitant related to the EEG study, fo at neuromonito multiparamete epileptological EEG-video mo

ed both ly as an EEG study t software, e basic for example oring, er monitoring, I studies with onitoring.

5.	Software and accessories for long-latency evoked potentials study			
5.1.	A_0500	"Encephalan-EP" Software for EP-studies, "Basic" Suite For long-latency EP studies: visual and auditory, somatosensory, cognitive EP (CNV and P300). Software generates specified stimulation scenarios of different modality, records and analyzes long-latency and cognitive EP for objective analysis of corresponding analyzers' state and highest cognitive functions to diagnose and treat pathologies of central character.		The stimulating devices (photo, phono- or somatosensory (electro-) stimulators) are required depending on the selected modality of EP studies. Cognitive EPs require a button sensor.
5.1.1.	A_1599	Electrostimulator ES-03 for somatosensory EP The set includes: • stimulating bar electrode; • set for electrodes attachment.		Can also be used for procedures of stress tolerance increasing in SW "Rehacor"
5.1.2.	A_1554	Button sensor DK-2.1 to capture patient's response to presented stimuli.		Required for cognitive EP studies (CNV, P300, MMN) as well as for EEG and EP studies using audiovisual stimulation.

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5.2.	A_0650	"Encephalan-EP" Software for Evoked Potentials studies, "Professional" suite (upgrading the "Basic" suite) In addition to the functionality of the "Basic" suite studies of visual EP for chess pattern are provided.	Opportune Bill (produce larged) upp. 31 Image: Transmission Transmission Transmission <	Required: • additional monitor (21'); • optical synchronization sensor.
5.2.1.	A_2425	Optical synchronization sensor meant for detection of exact moment of video stimulus presentation		Attached to additional monitor and used for: studies of visual EP for chess pattern, EEG/EP studies for audiovisual stimulation.
5.3.	A_0712	 "Encephalan-AVS" Software Suite for EEG and EP Studies Using Audiovisual Stimulation Software provides flexible forming and playback of scenarios of cognitive stimulation using graphic images, audio files and text information as stimuli. Images can be of tiff, jpg, bmp, gif formats with any resolution, including FullHD; audio files – formats wav, mp3; text information can be customized by font color and size, background color, and area of visualization on the screen. Option of unconscious stimuli presentation with direct and inverse masking with control of responses (latent periods of button pressing). Accurate synchronization of presented stimuli and recorded physiological signals (EEG, EP), which allows carrying out EEG and EP studies (cognitive EP) to solve different clinical and scientific tasks in neurology, psychophysiology, studies of perception mechanisms, etc. 	Image:	 Required: additional monitor for stimuli presentation; patient button unit; optical synchronization sensor.

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6.		Software for additional study types at	continuous EEG monitoring	
6.1.	A_1627-21	"Encephalan-PSG" Software for Somnological Studies, "Neurological" Suite Used mainly as an addition to EEG videomonitoring for epileptological studies. Software provides sleep stages analysis, automatic building and manual editing of hypnograms, marking sleep events, reporting for sleep statistics and stages distribution.	Description (Description (Descr	Only for modifications 10 and 11 Sleep related breathing and movement disorders are not analyzed. Only EEG, EOG and EMG analysis is available.
6.2.	A_0803	 "Encephalan-MPA" software for multiparameter analysis of signals from polygraphical channels in combination with EEG signals (patented in RF #2252692) Software provides calculation and visualization of trends which display beat-by-beat dynamics (dynamics of indices from cardio cycle to cardio cycle) of different physiological parameters of cardiovascular (CVS), autonomic (ANS) and central nervous system (CNS) in unified time scale which provides visual evaluation of the interrelations (signals from the list (if corresponding sensors are purchased): EEG, EOG, EMG, ECG, RespEff, SpO2, Rheo-CHD, REG, PPG, temperature, etc.). Software allows analyzing recorded physiological signals, evaluating physiological shifts in response to provoking actions to detect weak and compensatory links in the systems of the body. Software allows carrying out statistical and spectral analysis, building histograms or scattergrams of selected quantitative parameters distribution by the specified study fragments, as well as generating automatic report with formalized results description and table data illustrating initial state and significant changes caused by functional tests. 	Comment Personal Comment	Only for modifications 10 and 11 Used for PSG studies, as well as for psychophysiological, scientific and clinical studies. For system analysis of hemodynamics as an independent study electrodes are required.
6.3.	A_0803-3	 "Encephalan-CFM" Software for Cerebral Functions Monitoring in ICU Software provides long-term dynamic aEEG analysis for detection of epileptiform activity, neurological prognosis for perinatal asphyxia in neonatology, post-comatose unconsciousness in ICU, neurophysiological control of ischemic strokes, and evaluation of phasic sleep structure at PSG studies. Trends of amplitude-integrated EEG (aEEG), 3D representation of compressed spectral array (CSA), density spectral array (DSA), trends of EEG spectral indices, mirror spectrogram, automatic reporting with quantity characteristics of recorded phenomena allows identifying epileptiform activity and classifying the specific aEEG patterns. Can be used at clinical and scientific research. 		

6.3.1.	A_7478	Atlas of amplitude-integrated EEG in the newborns	Conjugated Material THE ENCYCLOPEDIA OF VISUAL MEDICINE SERIES	The text of the Atlas in English
			An Atlas of	
			AMPLITUDE-INTEGRATED	
			EEGS in the NEWBORN Second Edition	
			informa unities Linda S. de Vries and Ingmar Rosén Copyrighter Materia	
6.4.	A_0803-1	"Encephalan-NM" Software for Neuromonitoring	201 00-07.1 (190-03.1 (190-03.1) 2020 00-07.1 (190-07.1) 2020 00-07.	Only for modifications 10 and
		Software provides calculation and visualization of trends (duration of averaged parameters time quantum can be set in the range from 10 to 300 s) of different physiological parameters (if corresponding sensors and devices are present) of CNS (amplitude and spectral EEG parameters, DCp values), ANS and cardiorespiratory system (respiration parameters, galvanic-skin response, heart rate, temperature, tonus of muscles and vessels, oculomotor manifestations, etc.) in unified time scale in long-term multiparametric monitoring.	Image: State of the state o	11
		Software gives an information in digital and graph form for long-term dynamic monitoring and evaluation of the patient's state in ICU and can be used at clinical and scientific research.		

7.	Video equipment kit and Software for EEG-videomonitoring "Encephalan-Video"				
7.1.	The kit is used for continuous synchronized videomonitoring for EEG and PSG studies, CFM monitoring and additional study types. The kit includes adapted Software for epileptologycal studies with videomonitoring «Encephalan- video». Software provides continuous synchronized EEG/PSG and video data recording, analysis and storage. Includes option of short video clip preparation (AVI format) for demonstration of pathological manifestations. Specialized "EEG Viewer" application allows viewing specified EEG fragments and video data on doctor's PC (onto CD/DVD discs or other storage devices) using main functions of visual EEG analysis.			The manufacturer may replace the video cameras with similar ones with the same characteristics without prior notice.	
7.1.1.	A_2310-42	 Mobile Basic Economic kit (day-night) The kit includes: fixed digital HD video camera, built-in IR backlight and patient's microphone; power injector for the camcorder with a set of cables; Software for epileptologycal studies with videomonitoring "Encephalan-Video". 	Intriston,	 Sensitivity - 0.07 lx @ F1.2; day-night mode - a mechanical IR-cut filter; resolution 1920x1080, 1280x720, 704x576; frame rate - 25 fps; built-in IR illumination; powering - 220 V (via injector); built-in microphone. 	
7.1.1.1.	A_2811	Portable stand for camera		At customer's option	

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7.1.1.2.	A_8233	Mobile basic advanced kit (day-night)	At customer's option
7.1.2.	A_2310-33	 Mobile basic advanced kit (day-night) The kit includes: advanced digital HD video camera with night mode – optical Zoom, rotator, built-in IR backlight for night mode; video camera network controller; power injector for the camcorder with a set of cables; portable stand for camera; Software for epileptologycal studies with videomonitoring "Encephalan-Video". 	 Optical zoom – 10x; day-night modes – a mechanical IR-cut filter; sensitivity – coloured: 0.01 lx @ F1.6 (day), b/w 0 lx @ F1.6, 0 lx (IR, night); resolution 1920x1080, 1280x720, 704x576; frame rate – 25 fps; built-in IR illumination; powering – 220 V (via injector); built-in microphone (integrated in video camera network controller).

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7.1.3.	A_2310-34	 Stationary basic advanced kit (day-night) The kit includes: advanced digital HD video cameras with night mode – optical Zoom, rotator, built-in IR backlight for night mode, wall bracket for video camera; IR lamp for night mode. Provides soft IR light reflected from walls and ceiling, thereby improving the quality of the night video; video camera network controller; the patient's microphone (integrated in video camera network controller); power injector for the camcorder with a set of cables; Software for epileptologycal studies with videomonitoring "Encephalan-Video". 	network controller	 Optical zoom – 10x; day-night modes – a mechanical IR-cut filter; sensitivity – coloured: 0.01 lx @ F1.6 (day), b/w 0 lx @ F1.6, 0 lx (IR, night); resolution 1920x1080, 1280x720, 704x576; frame rate – 25 fps; built-in IR illumination; powering – 220 V (via injector); built-in microphone (integrated in video camera network controller); additional external IR illumination - included in a kit.
7.1.4.	A_2310-35	 Stationary Professional advanced kit The kit includes: two advanced digital HD video cameras with night mode – optical Zoom, rotator, built-in IR backlight for night mode, wall bracket for video camera; IR lamp for night mode. Provides soft IR light reflected from walls and ceiling, thereby improving the quality of the night video; video camera network controller; the patient's microphone (integrated in video camera network controller); 8-port IP switch with a set of cables; Software for epileptologycal studies with videomonitoring "Encephalan-Video". 	IP switch	 Optical zoom – 10x; day-night modes – a mechanical IR-cut filter; sensitivity – coloured: 0.01 lx @ F1.6 (day), b/w 0 lx @ F1.6, 0 lx (IR, night); resolution 1920x1080, 1280x720, 704x576; frame rate – 25 fps; built-in IR illumination; powering – 220 V (via switch); built-in microphone (integrated in video camera network controller); additional external IR illumination - included in a kit.

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7.2.		Additional accessories to video equipr	nent kits:	
7.2.1.	A_6396	IR-lamp for quality video recording in darkness Provides soft IR light reflected from walls and ceiling, thereby improving the quality of the night video. It can be placed anywhere in the room, without reference to other elements of the EEG-video monitoring kit. It has an independent mains power supply 220.		Included in stationary video equipment kits. It can be included into mobile kits at customer's option.
7.2.2.	A_8598	Event marker (wireless) For medical staff and patient.		It can't be used with mobile basic economic kit.
7.2.3.	A_6386	Intercommunication system between patient room and doctor's workplace It includes: • loudspeaker with amplifier (connected to the video camera network controller of stationary kits); • doctor's microphone (connected to Real Time Work Station).		It can be used only with stationary video equipment kits.

8.		Additional software "Rehacor" for function required equipment ar	onal biocontrol with biofeedback; nd accessories	
8.1.	A_1010-02	 "Rehacor" Software for Functional Biocontrol with Biofeedback Training, "Professional" Suite Software provides procedures of functional biocontrol with biofeedback (BFB training) to train skills of self-regulation and train the state with the control of various physiological parameters. The procedures library and ability to create new procedures for non-medicated restoration of damaged functions, improvement of nerve regulations in different diseases, phobias, pathological state in different situations and sicknesses, as well as forming the optimal state for performance for sportsmen, persons with stressful and responsible jobs, to overcome the attention deficit hyperactivity disorder (ADHD) in children and adolescents, etc. Multichannel EEG and other parameters registration allows carrying out of neurofeedback procedures – multiparametric training for brain functional asymmetry, optimization of brain rhythms and zonal differences of alpha-rhythm, very low frequency brain activity, combined training for brain electric activity and cerebral blood flow (REG), as well as multiparametric training for correction of psycho emotional state and psychological tension. 	<complex-block></complex-block>	 Only for modifications 10 and 11! Required: electrodes, sensors and accessories from the set (A_2641) for connection to polygraphic channels of amplifier unit; ICG adapters with electrode set for procedures of BFB-training for blood circulation (CHD and impedance plethysmography). Additionally: electrostimulator with procedure for training skills of stress tolerance; stabiloanalyzer for additional diagnostics and BFB procedures for stabilogram; Procedure of Combined Operator's Activity (adaptive model).



8.1.1.2.	A_0813	ICG adapter with electrode set for blood circulation biofeedback training (REG and CHD) The set includes:	Used with polygraphic channels of
			modification 11.
		 rheographic cable "Y-type" (A_6294, length - 1.5 m) - 2 pcs.; set of electrode cables (A_7589, length - 1.5 m) - 2 pcs.; REG Electrode with a snap connector (A_2665) - 2 pcs.; REG Electrode with a snap connector (A_2665) - (A 8567). 	Can be used with polygraphic channels of modification 10
		 ribbon electrode (A_7282, length – 0.4 m) – 4 pcs.; 	Cannot be used with modification 8.
			Electrode gel is required to be purchased.
			Caps set of rubber straps is required for REG- electrodes.
8.1.1.3.	A_2804-2	Caps set of rubber straps for EEG/REG electrodes	Used to attach a small amount of cup EEG or
		Rubber straps caps to attach a small amount of EEG of REG derivations for bioreedback procedures. The set includes caps of 3 sizes from 48 to 62.	REG electrodes in BFB training. It is possible to use A_2804-1 and A_2804-4 caps.
8.1.2.	A_1599-9	Electrostimulator ES-03 for procedures of stress tolerance increasing in SW "Rehacor"	Can also be used for somatosensory EP studies.
		The set includes: • stimulating bar electrode;	
		set for electrodes attachment.	

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8.1.3.	A_1010-1	Procedure of Combined Operator's Activity (adaptive model) Software provides the combination of biofeedback training and following the moving objects on screen with logical tasks solving. Parameters of activity model are adaptively changing according to the efficiency of procedure performing, which allows evaluating the functional capabilities of a test person.		Only for modifications 10 and 11. Additional to the "professional" library. Can be performed with a mouse. Joystick is recommended to be purchased.
8.1.3.1.	A_5590	Joystick		It is used in biofeedback training procedure at the combined operator's activity.
8.1.4.	A_6473	Stabiloanalyzer for additional diagnostics and BFB procedures for stabilogram.	Ставилозителности и порта и порт и порта и порта И порта и	



Additional to procedure library of "Professional" Suite of "Rehacor" Software for Functional Biocontrol with Biofeedback Training

8.1.5.	A_6354-1	Pad for tapping test and procedures of biofeedback training "Rhythmo-BFB" additionally to procedure library of "Professional" Suite	
		The set includes:	
		 pad for tapping test with a stylus; 	
		 procedures of biofeedback training "Rhythmo-BFB". 	
		Evaluation and training of the ability to perceive and reproduce sound patterns of varying complexity. Developing a sense of rhythm and time. Increasing the success of cognitive activity and rehabilitation of various brain dysfunctions.	
		For children: improvement of attention, motor control and coordination, speech development, improvement of auditory perception, reducing behavior problems (impulsivity, aggressiveness, hyperactivity, emotional contact difficulties).	
		For adults: cognitive and motor rehabilitation after traumatic brain injuries, stroke, Parkinson's disease, spinal cord injuries, etc.	

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9.		Additional software "Egoscop" for objective required equipment an	psychological analysis and testing; d accessories	
9.1.	A_1531-11	 Software Objective psychological analysis and testing "Egoscop" (patented in RF#2319444), "maximal" suite 1. The possibility of independent creation of scenarios for the psychological (tests, projective techniques), psycho-physiological and cognitive tests in different languages on the basis of tools (embedded software and scripts), allowing the use of text and graphics, audio and video files when creating scenarios; 2. Synchronous auto documentation of processes of psychological and psycho-physiological testing and parameters of motor activity of the subject on the touch-screen tablet, which uses electromagnetic resonance technology, and reflects psychomotor and physiological reactions during the test process; 2. The other height of different for the statement encodered in the touch-screen tablet, which uses electromagnetic resonance technology and reflects psychomotor and physiological reactions during the test process; 	d accessories	Only for modifications 10 and 11. Required: • touch graphical input device – a tablet monitor Wacom CINTIQ 13HD, 13,3" or similar; • sensors, electrodes and accessories set for
		 The software builds additional profiles of psycho-emotional responses in relation to different semantic clusters of the performed scenario and evaluates individual emotional significance of various semantic categories; The export of native physiological signals and calculated psychophysiological and psychomotor parameters into common formats (text format ASCII, Excel) for the possibility of their mathematical processing with external programs; The library of English samples of scenarios consists of the following ones: tests to evaluate sensorimotor responses - SVMR, CVMR); tapping test to assess the strength and lability of nervous processes; reaction to the moving object to estimate the balance of the nervous system by the degree of balance of excitation and inhibition (Time / Movement Anticipation - TMA); assessment of the spatial co-ordination on the basis of tests of static and dynamic tremor; assessment of static and dynamic physical endurance with carpal dynamometer (grip strength dynamometer test); red and black tables to estimate the focus parameters (Red and black table by Shultz-Platonov); critical flicker-fusion frequency test; continuous test to evaluate the dynamic properties of attention (Continuous Performance Test); Hospital scale of anxiety and depression. 	Intell 20 36 56 56 56 76 96 12 OBMT real Image: Second Se	The list of tests is available on request, subjected to change as agreed with the customer.



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10.		Electrodes, sensors, additional devices and accessories with for polygraphic channels of EEGA Amp	"DIN (6-contact 270°)" connector difier Unit	Only for modifications 10 and 11
10.1.	A_1553	Respiratory Effort Sensor For evaluation of parameters of abdominal and thoracic respiration (breathing rate and amplitude, duration of in- and exhalation phases) and detection of breathing disorders basing on respiration belt stretching measurement.		Additional sensors at customers' option for various applications, as well as for procedures of biofeedback training for psychophysiological, clinical and scientific research.
10.1.1.	A_7350	Small additional belt for respiratory effort sensor For chest circumference of 40-80cm.		
10.2.	A_1674	Photoplethysmogram (PPG) Sensor For evaluation of parameters of peripheral blood circulation which characterize pulse blood filling and tone of variable diameter vessels. Cable length – 1.2 m. The set includes: finger cuff; sensor fixer "ear clip". 		

10.3.	A_1709	ECG Cable for disposable snap electrodes Cable length – 1,5 m.	
10.4.	A_4822	Disposable N-electrode cable	 Required for use in combination with: bipolar cable for disposable electrodes; bipolar cable with cup adhesive electrodes; ECG Cable.

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11.		Gels, disposable el	ectrodes and accessories	es and accessories		
11.1.	A_1390-5	Repair set of electrodes and materials for electrode systems with fixing caps	electrodes with conductor	From EEG Electrode Set ES-EEG-10/20 "Encephalan-ES".		
		The set includes:		Designed to replace the		
		4 electrodes with conductors;		failed electrode from the		
		 heat shrinkable tubes for connection insulation – 5 pcs. 		accordance with the attached instruction.		
11.2.	A_2669	Ten20 EEG Conductive Paste		From EEG Electrode Set		
		For adhesive cup electrodes (114 g).		"Encephalan-ES"		
11.3.	A_6532	Electrode Cream EC-2 or similar				
		For adhesive cup electrodes (100 g).	THE STORE ST			
11.4.	Electrode	gel				
	for cup EE	G electrodes for contact electrode gel;				
	for EEG el	ectrodes from electrode systems with fixing EEG electrodes in eyelets.				
11.4.1.	A_1854	Electrode gel				
		250 ml bottle	May 1			
11.4.2.	A_1854-1	Electrode gel				
		1 L bottle				

11.5.	A_1302	Adhesive plaster (Omnifix elastic or similar) To fix electrodes and sensors.	<section-header></section-header>	Recommended for adhesive EEG electrodes (with EC2, TEN-20 or similar paste) in order to preliminary fix the electrodes before collodion gluing
11.6.	A_6901	Fixing bondage elastic Peha-haft, self-fixing		It is recommended to fix the wires and sensors on the legs and arms at continuous studies, as well as to fix the adhesive electrodes
11.7.	A_2714	Disposable snap ECG Electrode (for EOG, EMG) 50 pcs. in 1 pack	<section-header></section-header>	

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12.		Required computing hardware	and office equipment			
12.1.	Personal computer – Real Time Work Station Software of electroencephalograph-analyzer is installed on the computer in accordance with selected sales package.			Configuration and characteristics are approximate and should be specified when order.		
12.1.1.	A_2380	Personal computer – Real Time Work Station		Minimal requirements:		
				Intel Core i5;		
		One additional monitor is connected.		• RAM 4GB;		
			Here and the second sec	• HDD 500GB;		
				LCD monitor 15";		
				OS Windows 10.		
12.1.2.	A_2380-1	Personal computer – Real Time Work Station		If the customer requires		
		(portable).	and the second second	and is able to purchase the improved		
		Two additional monitors are connected.	Ectiett	characteristics, inform		
				advanced characteristics		
				the manufacturer.		
12.1.3.	A_4305	Personal computer – Real Time Work Station (stationary).				
		One or two additional monitors are connected.				
			Start Cont			

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12.2.	Personal co Software of elo is installed on	al computer – Data Analysis and Storage Station al of electroencephalograph-analyzer al d on the computer in accordance with selected sales package. al		
12.2.1.	A_4309	Personal computer – Data Analysis and Storage Station (portable). One additional monitor is connected.	SW-key (USB) is required. Minimal requirements: • Intel Core i5; • RAM 4GB;	
12.2.2.	A_4309-1	Personal computer – Data Analysis and Storage Station (portable). Two additional monitors are connected.	HDD 500GB;LCD monitor 15";OS Windows 10.	
12.2.3.	A_4308	Personal computer – Data Analysis and Storage Station (stationary). One or two additional monitors are connected.	If the customer requires and is able to purchase the improved characteristics, inform the manufacturer about it: advanced characteristics should be approved by the manufacturer.	
12.3.	Additional	accessories and software for the personal computer		
12.3.1.	A_6843	Mobile HDD 1000 GB		
12.3.2.	A_4300	Computer Acoustic System (2.1, 3.1 or quality closed type headphones – at customer's option) Required if FBC with biofeedback "Rehacor" software is present in sales package		
12.3.3.	A_5109	Antivirus application "Kaspersky Internet Security". Recommended to protect PC from viruses		
12.3.4.	A_4319	MS Office ENG. Recommended to be installed at PC. Required package contains Word and Excel		
12.3.5.	A_2604	Bag for laptop transportation		
12.3.6.	A_4299	Uninterruptible power supply		

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12.4.	A_0687	Additional LCD monitor (minimal diagonal 23") resolution 1920x1080, aspect ratio16x9.	The monitor can be used with any of the computers (real-time work station or data analysis and storage station). Monitor is required if the following software is present in sales package: • FBC with biofeedback "Rehacor"; • "Encephalan-AVS"; • "Encephalan-EP".
12.5.	A_5565	TV-set for chess pattern stimulation	At Customer's option. Makes the work more comfortable due to the arrangement of the software windows and tools on two screens. Required if the following software is present in sales package: • FBC with biofeedback "Rehacor"; • "Encephalan-AVS"; • "Encephalan-EP".
12.6.	A_4087	Printer Laser Black-And-White A4 format	Another printer type supply – by agreement.

12.7.	A_4088	Equipment Trolley	Equipment Trolley is adapted according to the computer and office equipment from the sales package.
12.8.	A_4088-4	Equipment Trolley with a drawer	