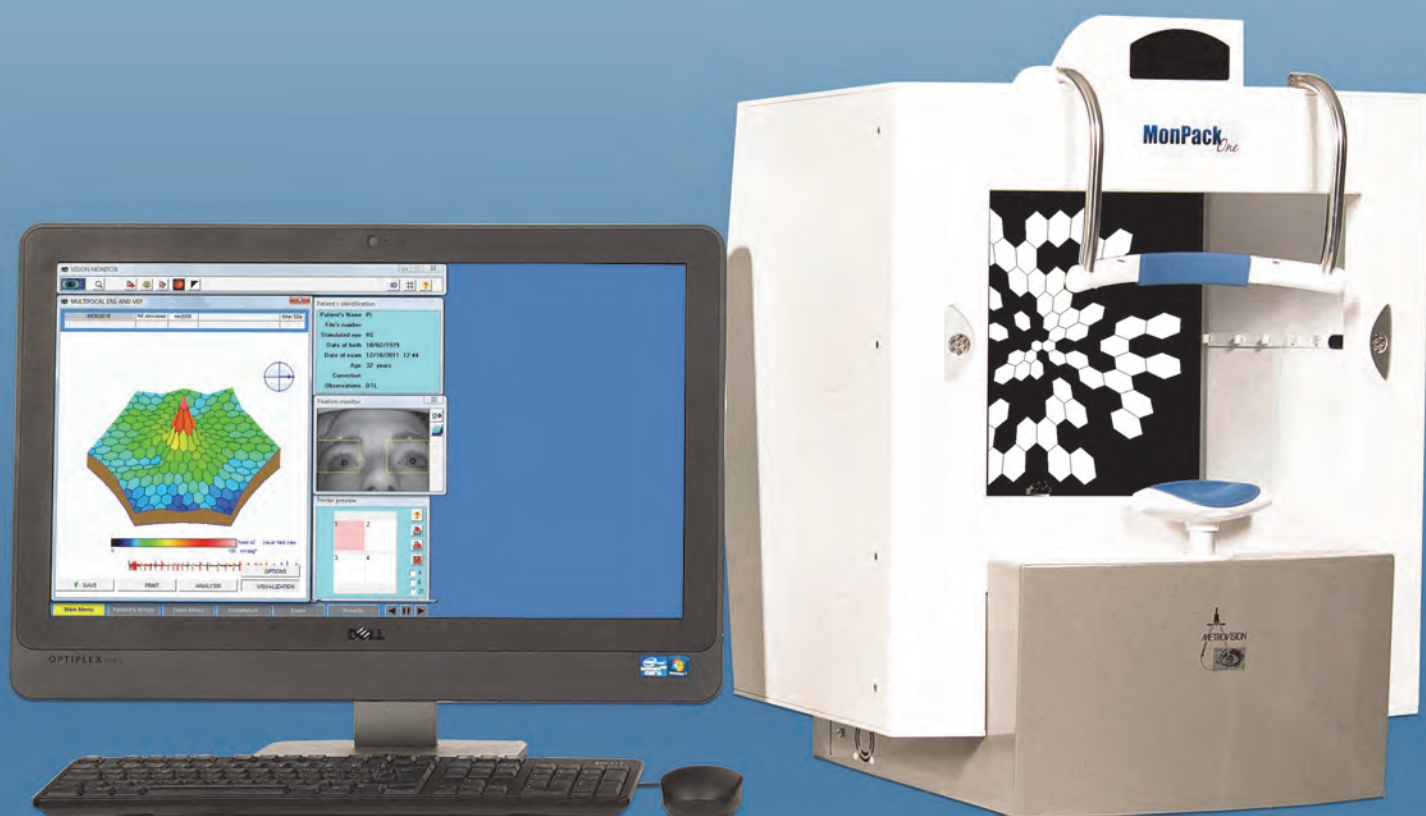


Vision Monitor

Visual electrophysiology systems

- Electroretinography (ERG)
- Visual evoked potentials (VEP)
- Electro-oculography (EOG)

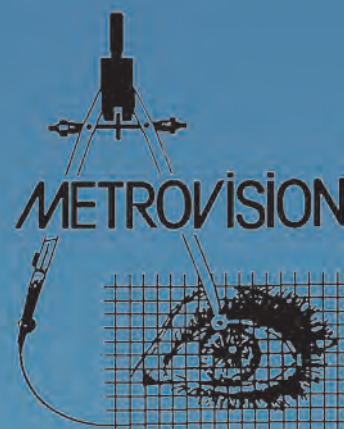


METROVISION MONPACK ONE Vision Monitor
NO AKL: KEMENKES RI AKL 21201915811

© 2017 Metrovision



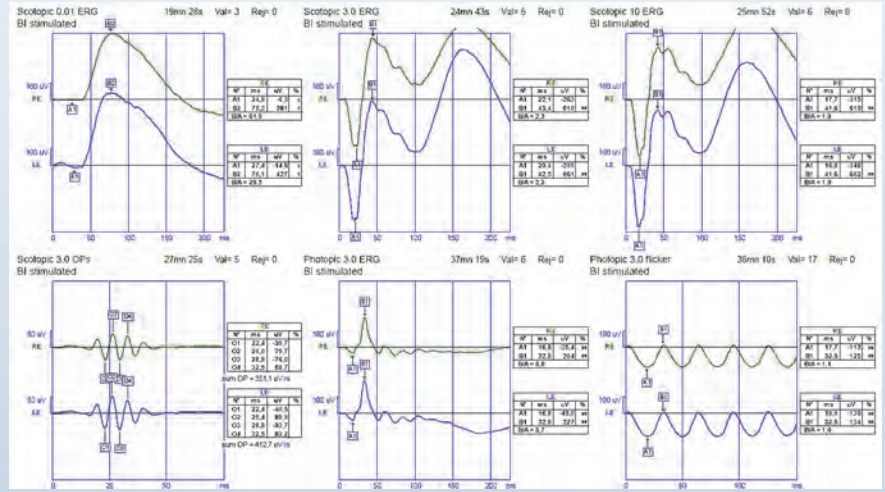
Manufactured by Metrovision
ISO 9001:2008 ISO 13485: 2003
certified quality system



Flash ERGs

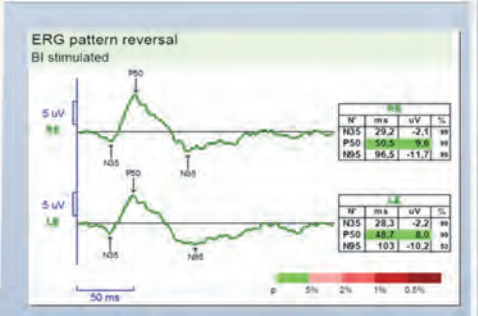
Evaluation of responses from the different layers of the retina and from the rod and cone systems.

Realization of ISCEV protocols and of research protocols.



Pattern ERGs

Evaluation of responses from ganglion cells and from the macula.

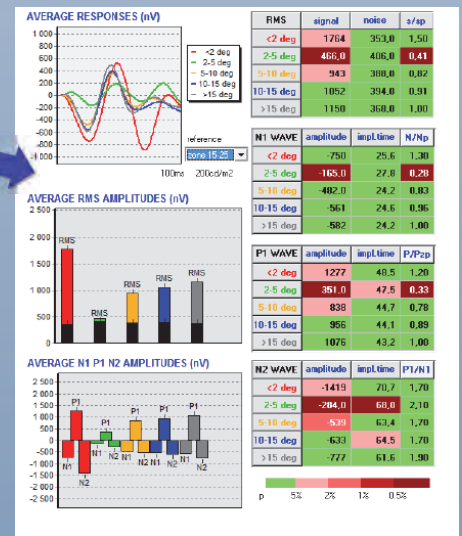
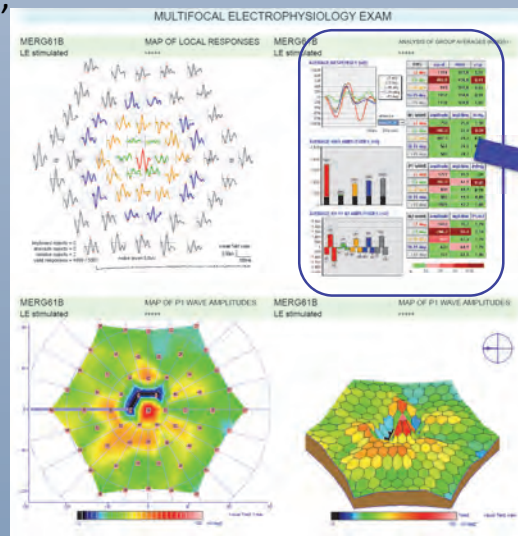
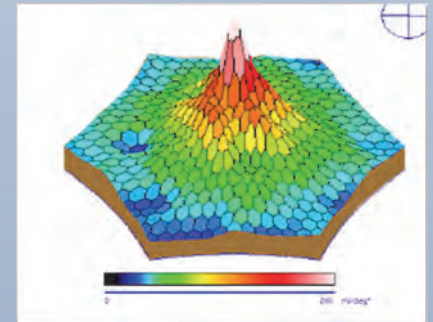


Multifocal ERGs

Realization of a detailed and objective cartography of the electrical activity of the retina.

Unique features:

- high luminance stimulation,
- precise control of stimulation timing,
- large field refractive lenses,
- age corrected normative database,
- ring ratio analysis



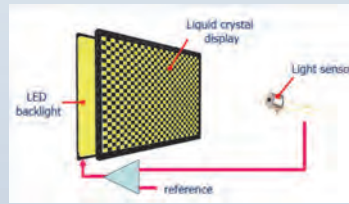
MfERG in hydroxychloroquine intoxication showing a reduction of amplitude between 2 and 5 degrees of eccentricity.

Flash and pattern VEPs

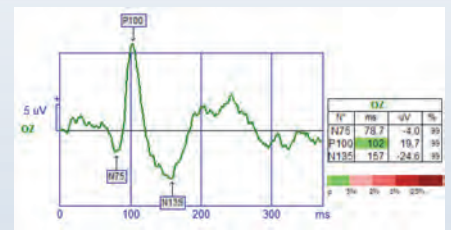
Evaluation of cortical responses to flash and pattern stimulations.

Unique features:

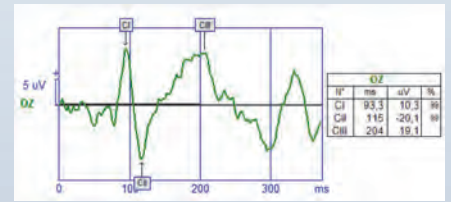
- Active control of luminance
- Statistical analysis of the reliability of responses



Principle of the active control of luminance



Response to a pattern reversal stimulation



Response to a pattern on-off stimulation

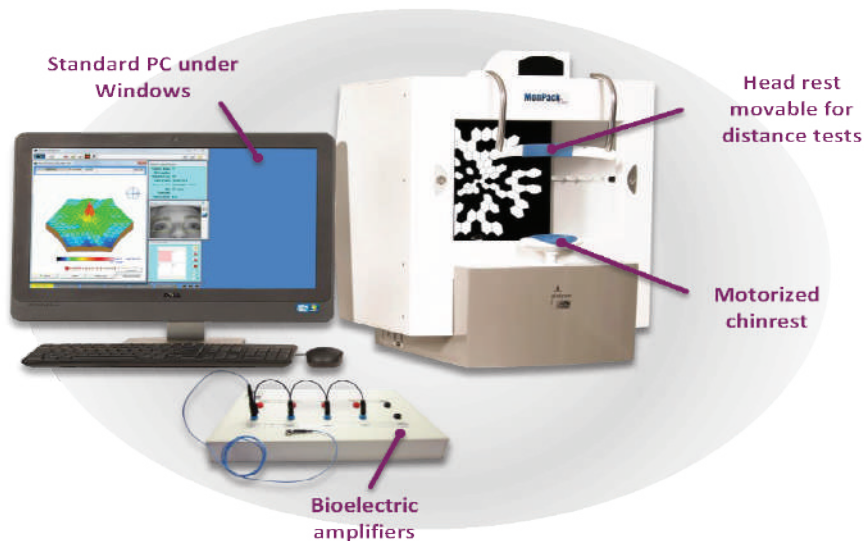
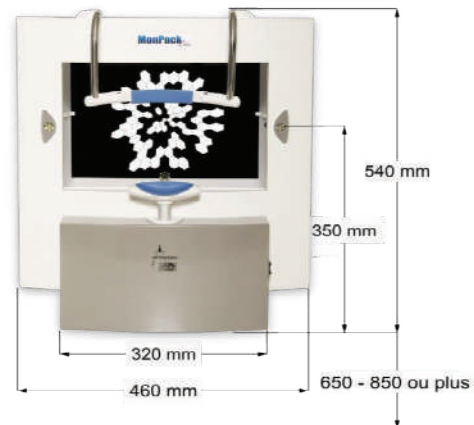
Electrical and mechanical specifications

The **MonPack One** stimulator is classified as class I type B protection equipment.

To prevent electric shock, the instrument must be plugged into an earth grounded outlet.

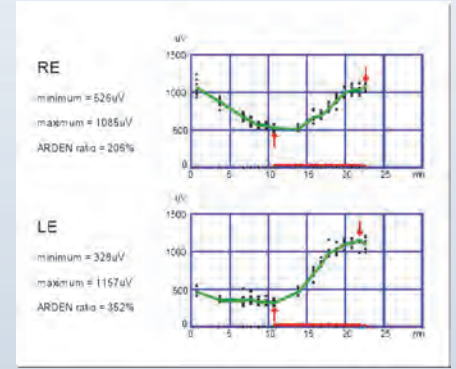
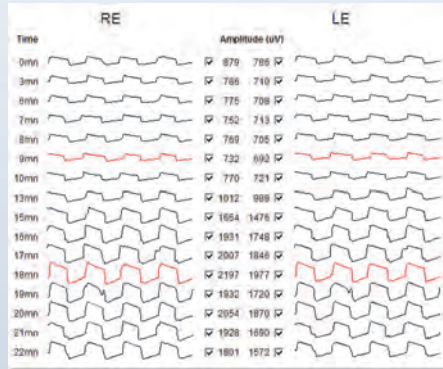
The power requirements are 230V, 0.7A or 110V, 1.4A, 50 or 60Hz.

Weight = 25 kg
(without PC and electric table).



Sensory EOG

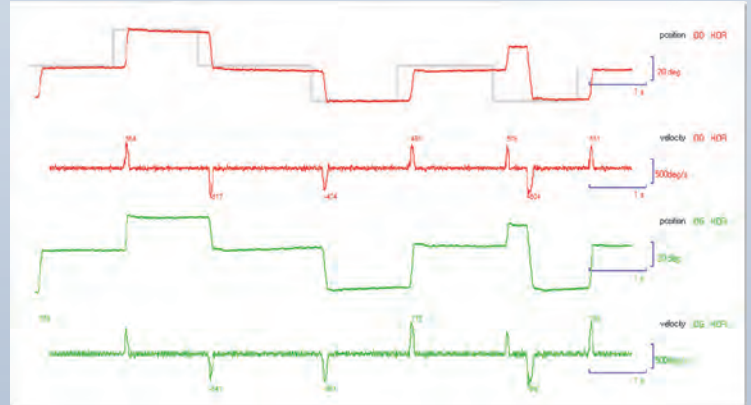
Evaluation of responses from the pigment epithelium.



Electronystagmography

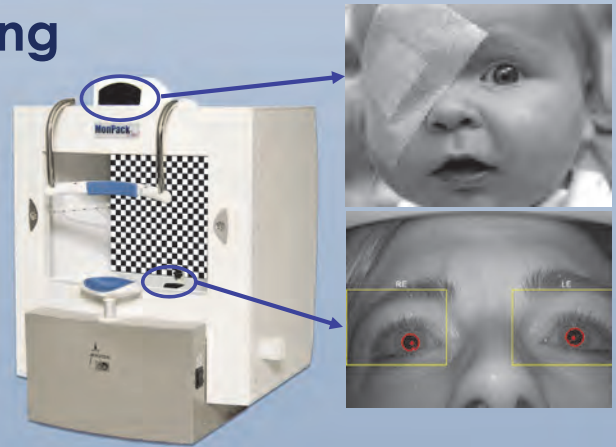
Analysis of eye movements:

- fixations,
- saccades,
- pursuits,
- optokinetic nystagmus



Fixation control and video imaging

All stimulators are equipped with a near-infrared camera for near vision tests (30 cm).
 On the MonPackONE stimulator a second camera is proposed as an option for distance tests (1 m).
 Another option allows the video recording of exams which may be used for a post-exam analysis of responses .



Other applications

(refer to the specific brochures for detailed information)

Pupillo-metry 	Contrast sensitivity 	Dark adaptation 	Eye gaze strategy 	Video oculography 	Baby vision
Visual field 	Visual field PRO 	Attention field 	Metamorphopsia 	Macular pigments 	Visual aptitudes

MonPackONE stimulator



Compact and universal stimulator:

- Combines ganzfeld, pattern and multifocal stimulation functions
- Active control of luminance (patent pending)



MonBaby stimulator

Portable stimulator for flash ERG and VEP suitable for tests on young children and in ambulatory conditions.

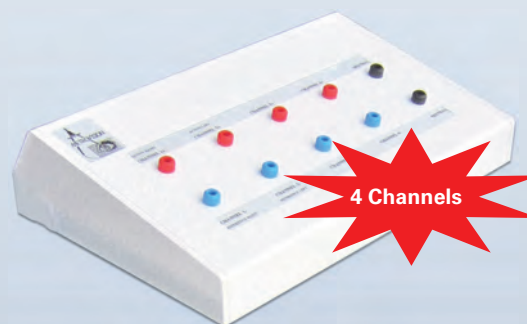
It includes a matrix of light emitting diodes with programmable intensity and frequency.

	MonPack <i>One</i>	MonColor	MonCV <i>One</i>	MonBaby
Wavelength	Blue, green, red and their combinations	Violet, blue, green, red, deep red and their combinations	Blue, green, red and their combinations	White Blue and red
Dynamic range	from 3×10^{-6} up to 10 cd.s.m^{-2}	from 15×10^{-6} up to 15 cd.s.m^{-2} or 150 cd.s.m^{-2} (**)	from 3×10^{-6} up to 10 cd.s.m^{-2}	from 10^{-3} up to 100 cd.s.m^{-2}
Background luminance	Up to 100 cd.m^{-2}	Up to 2000 cd.m^{-2}	Up to 2000 cd.m^{-2}	0 or 30 cd.m^{-2}
Stimulus duration	from 2 ms and up	from 2 ms and up	from 2 ms and up	< 5 ms
Electrophysiologic exams	Flash ERG and VEP Pattern ERG and VEP Multifocal ERG and VEP Multifrequency VEP Sensory EOG	Flash ERG and VEP S and L cone responses PhNR responses Sensory EOG	Flash ERG and VEP Sensory EOG	Flash ERG and VEP
Psychophysical exams	Dark adaptation Contrast sensitivity Central visual field perimetry	Dark adaptation	Dark adaptation Standard automated perimetry Goldmann perimetry	
Eye movement exams	Electronystagmography Video-oculography Pupillometry	Pupillometry	Pupillometry Field of eye movements	

- Notes:**
- MonPackONE, MonColor, MonCvONE and MonBaby can be combined in a unique system with unequalled performance
 - ** MonColor Plus option

Bioelectric amplifiers

- 2, 4 or 5 channels
- High performances
(input noise < $0,5 \mu\text{V pp}$, CMRR > 115 dB, input impedance > 200 Mohms)
- Optoelectronic isolation
- Automated control of electrode impedances



Include Printer



User interface

- Standard PC with Windows 7, 8 or 10 environment
- Access to results through the computer network
- Easy exportation of data
- Video monitoring window
- Unique data base for all exams
- Internet assistance and maintenance
- DICOM option

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