

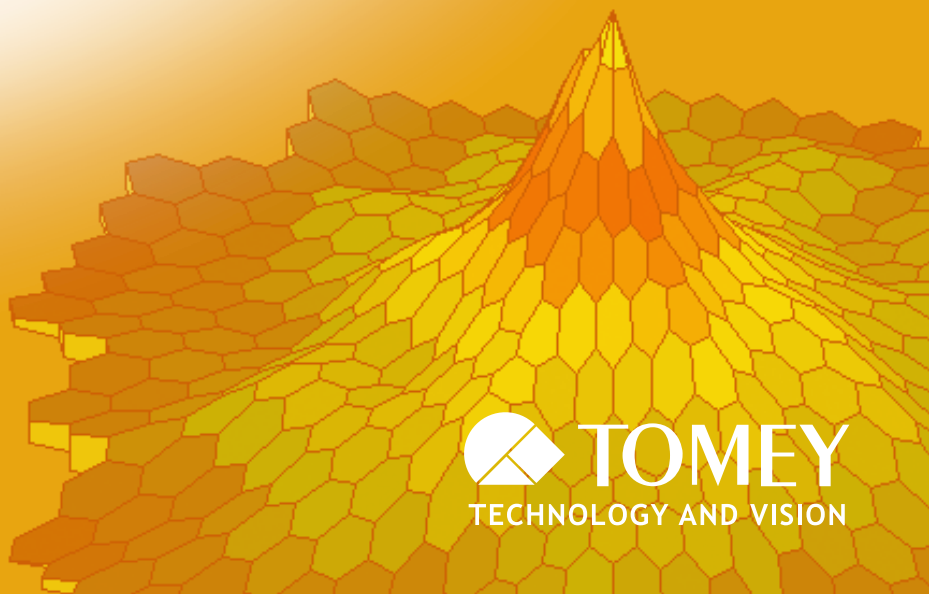
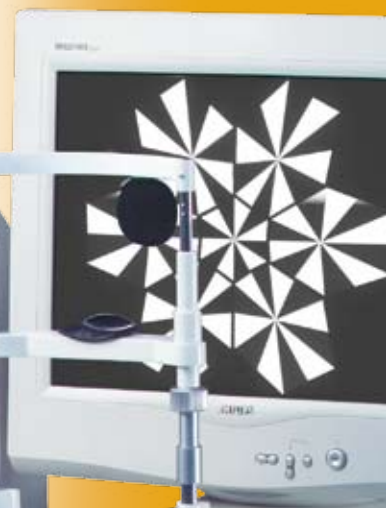
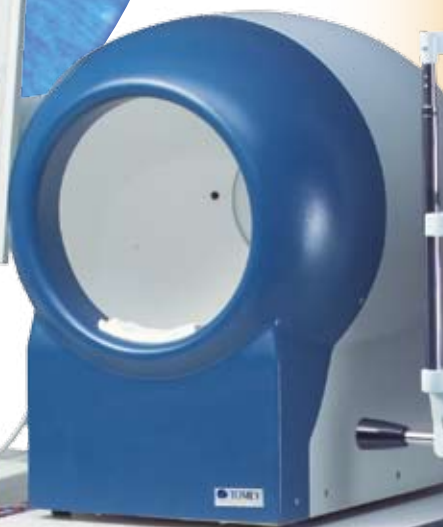
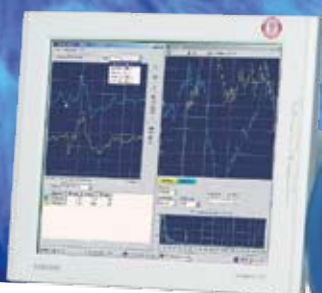
MODULAR

ELECTROPHYSIOLOGY

▶ EP-1000 PRO / MULTIFOCAL



- *High Intensity LED Colour Flash and Background Illumination*
- *Corresponds to ISCEV Recommendation*
- *VEP, ERG, PERG, EOG, Sweep VEP, Multi-Channel VEP, S-Cone Analysis*
- *Multifocal (mf) ERG & VEP, Short M-Sequences*
- *Program Editor for Individual Examinations*
- *Mf-Analysis Function: Traces, all Values, 2D, 3D, Periphery & Center Ring Analysis, Segment/Groups, Tables*



TOMEY

TECHNOLOGY AND VISION

THE EP-1000 SYSTEM IS THE ESSENCE OF 15 YEARS EXPERIENCE OF DEVELOPING ELECTROPHYSIOLOGY INSTRUMENTS

You can choose between the computerised professional system and the high-end multifocal device. Both systems confirm to ISCEV and are multilingual.

Due to our analog-digital converter box you receive pure patient responses. They set a new standard with a sampling rate of 16 bits. This means more data, 32 times higher resolution and exact measurements.

Pro

The EP-1000 Pro workstation provides full-computerised control of electrophysiology testing and data management

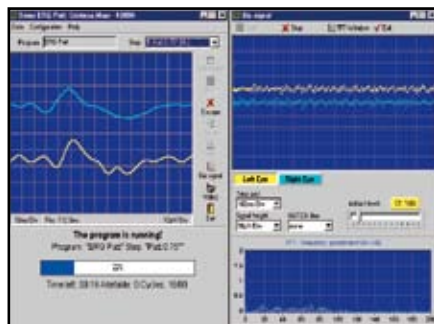
Up to 6 channels are possible for multi-channel VEP. With the EP-1000 Pro you are able to perform all standard tests like ERG, VEP and EOG, PERG and SWEEP VEP. Due to the LED-based flash technology you have unlimited number of flash stimulation colours on an also unlimited mix of background illumination colours. This allows you to separate S-cones from ML-cones and you are prepared for future test routines.



The initial screen simultaneously displays all information related to patients: personal data, stored exams, thumbnail pictures of curves with latency and amplitude and personal diagnostic information.

4-KV network isolation of the optional network kit provides full network capability of the EP-1000 Pro and multifocal workstation, e. g. to compare and discuss examinations with fellow experts.

Full computerised control of electrophysiology testing and data management

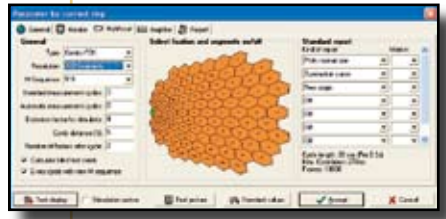
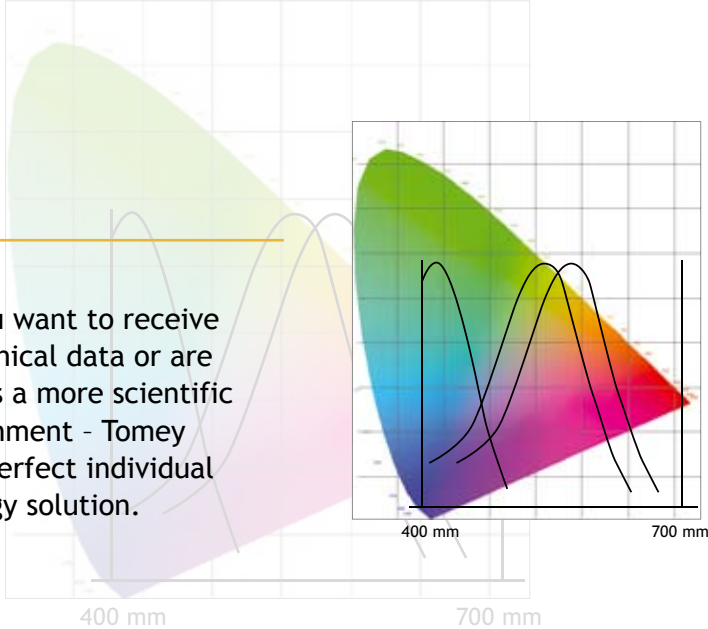


During examination, different windows are shown:

- Biosignal
- Averaged trace
- Fourier analysis
- Live video of patient's fixation

In addition, the impedance can be monitored before the actual exam starts. The curves can be compared to each other.

No matter if you want to receive standardised clinical data or are heading towards a more scientific oriented environment - Tomye offers you the perfect individual electrophysiology solution.

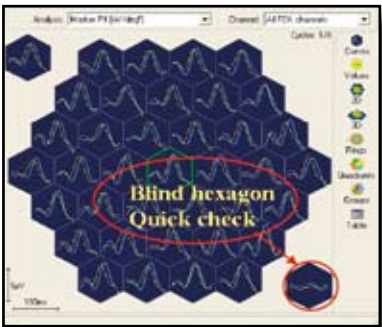


Full access to all settings
e. g. position of the fixation target

Whenever you need detailed information, the Multifocal will be your first choice

Multifocal

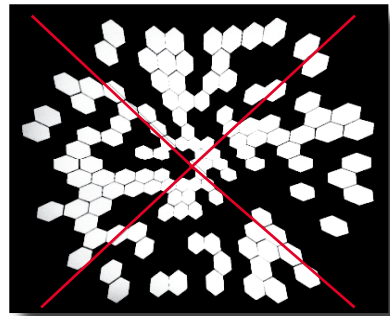
- The EP-1000 Multifocal (mf) allows you to do all mf standard tests:
- mfERG flash (FOK, SOK, flicker)
 - mfERG pattern (9 pattern for stimulation)
 - mfVEP (dartboard stimulation) for analysing local retina functions



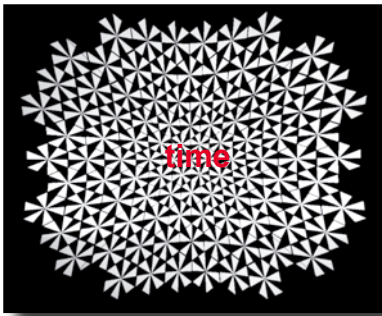
The EP-1000 Multifocal is based on short M-sequences. This allows you to re-check all conditions of the exam, such as proper fit of electrodes or acceptable responses within a very short time (8 sec.).

With the "fixation control hexagon" the results can be controlled after every cycle. You don't have to wait until the end of the whole examination for controlling the fixation of the patient.

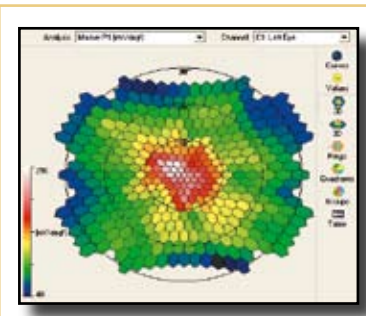
Different fixation targets are available: the cross-target covers the whole stimulation monitor to make exams possible for macula dystrophy patients. The changing animal target is for children and the scrolling text target for all other patients.



Cross-target for macula dystrophy patients



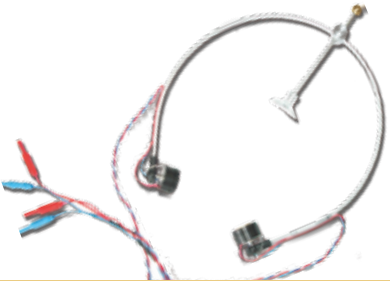
Mf pattern ERG with scrolling text target



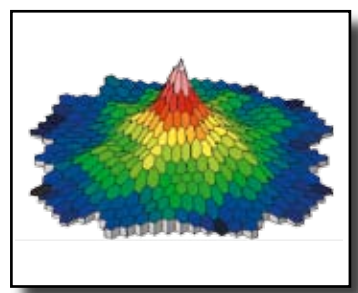
Analyses can be displayed in curves, values, 2D, 3D, rings, quadrants, groups and table.

Accessories and Optionals

TE-1000 Electrode



2 in 1 - it combines the large skin electrode with the DTL silver electrode with fascinating features. No need of any tape for fixation. No local anaesthetic is needed thanks to the very thin, economical and flexible DTL silver electrode. Even sensitive patients feel comfortable during the examination. Approximately 1000 exams are possible before the spool has to be replaced. For PERG the comfortable TE-1000 cornea electrode is recommended since the visus of the patient is not affected.



Multifocal

Accessories and Optionals

Goggle Stimulator Mini Dome



For paediatrics use, uncooperative or bedridden patients. The illumination of the mini dome confirms the ISCEV recommendations.

External Flash Lamp Stimulator



Up to 330 cds/m² for patients even with eyes closed (ISCEV standard flash is 3 cds/m²). Inclusive blue, red, -2.5 Ulog filters.

2-Channel-A/D Converter Box



Up to 6 channels for multi-channel VEP - extremely robust, durable and independent from environmental conditions due to latest amplifier technology.

SPECIFICATIONS PRO

Examinations

<i>Pro</i>	ERG / PERG / ERG 30 HZ VEP / FLASH VEP / Sweep VEP / EOG / S-Cone / ML-Cone
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Ganzfeld Dome

<i>Dome / Light Calibration</i>	Automated
<i>Flash / Illumination</i>	RGB-LED + White LED
<i>Flash Intensity</i>	0.1 to 30 cds / m ²
<i>Flash Frequency / Time</i>	0.1 to 90 Hz / 11 ms to 60 s
<i>Light Intensity</i>	0 to 600 cds / m ² colour RGB

<i>Internal Pattern</i>	
<i>Monitor</i>	Colour TFT 1024 x 768
<i>Contrast Intensity</i>	1 :500 / max. 300 cds / m ²
<i>Connector</i>	External Stimulator: CRT Monitor / Flash / Goggle / Video / External Flash / Optional Channel: 3/4 & 5/6

Dimensions & Electric Requirements

<i>Dimensions WDH</i>	390 x 480 x 540 mm
<i>Weight</i>	Approx. 12.0 kg
<i>Power Supply</i>	AC 100 to 240 V
<i>Frequency</i>	50/60 Hz
<i>Power Consumption</i>	Less than 210 VA

Bio-Signal Converter Box

<i>Channel / Digitizing</i>	2 Channel / 16 bit
<i>Electrode Socket</i>	1.5 mm / Din 42802-1
<i>Internal Impedance</i>	> 150 M. @ 10 Hz
<i>Internal Noise</i>	< 2.0 µ @ 1 ... 70 Hz
<i>Input DC Voltage</i>	± 250 mV (max.)
<i>Measuring Maximum</i>	< 0.05 µA

Dimensions & Electric Requirements

<i>Dimensions WDH</i>	158 x 95 x 33 mm
<i>Weight</i>	Approx. 0.35 kg

Isolation Transformer

<i>Type</i>	MTT 1000
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Dimensions & Electric Requirements

<i>Dimensions WDH</i>	141 x 190 x 326 mm
<i>Weight</i>	Approx. 14.6 kg
<i>Maximum Power</i>	1000 VA
<i>Frequency</i>	50/60 Hz
<i>Input</i>	115 V / 240 V
<i>Output</i>	240 V on 9 plugs

TE-1000 Electrode

<i>Type</i>	DTL Silver Electrode
<i>Length</i>	80 m
<i>Exams Each Eye</i>	Approx. 1000 Exams

SPECIFICATIONS MULTIFOCAL

Additional Specifications for Multifocal

Examinations

<i>Multifocal</i>	mfERG (FOK / SOK) / mfPERG / mfVEP
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Stimulations

<i>M-Sequences</i>	Short (127 to 8191)
<i>Hexagon</i>	Screening (1 to 19) Standard (37 to 61) High Resolution (103 to 241)
<i>mfERG Screen</i>	Hexagon (1 to 241)
<i>mfVEP Screen</i>	Dartboard (seq. 60)
<i>Distortion</i>	1 to 80 (standard 4)
<i>Hex-Distance</i>	0 to 50 (standard 5)

Diagnostic Tools

<i>Analysis Displays</i>	Curves (for each hexagon possible), Values (for each hexagon possible), 2D, 3D, Quadrants, Table, Rings (for each ring possible), Groups (8 programmable groups)
<i>Values / Hexagon</i>	P50: (nV/deg ²), (ms), N95: (µV), (nV/deg ²), (ms), Scalar Product: (µV), (µV nV/deg ²) Comp Area: (deg ²)

Multifocal Monitor

<i>Display</i>	21"
<i>Type</i>	ARASC Dual Focus Gun
<i>Display Mask</i>	0.25 mm dot Pitch
<i>Luminance</i>	300 cd/m ² High Contrast
<i>Max. Resolution</i>	1840 x 1440 / 73 Hz
<i>Horizontal Frequency</i>	30 to 110 KHz
<i>Vertical Frequency</i>	50 to 180 KHz

Dimensions & Electric Requirements

<i>Dimensions WDH</i>	493 x 487 x 485 mm
<i>Weight</i>	Approx. 24.0 kg
<i>Power Supply</i>	AC 100 to 240 V
<i>Frequency</i>	50/60 Hz
<i>Power Consumption</i>	Less than 170 VA

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