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When Accuracy Matters

Medmont M700 Automated Perimeter

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The M700 Advantage

- Video Fixation & Eye Tracking Monitor
- Flexibility to Design Your Own Test and Printouts
- Patient Regression & Progression Analysis with the Ability to Select a Baseline Result

The Medmont M700 Automated Perimeter offers practitioners an effective tool for assessing visual fields. With the advent of Fast Thresholding capabilities to improve patient comfort, perimetry is now more efficient for monitoring and assessment of disease.

VISUAL FIELD COVERAGE

The concentric test point density, which increases towards the fovea, facilitates accurate determination of field loss, particularly for arcuate and small macula defects. In the standard 30° field, 100 testpoints are typically used with a macula region point density of 3°.

With a test capability extended to 80°, the M700 provides a complete diagnosis of a patient's visual field, allowing peripheral defects that are not associated with the central field to be explored.

TESTING SPEED

Advances in visual field testing techniques have resulted in the introduction of a fast threshold test strategy. With the use of advanced predictive logic algorithms, a central field test can be completed in as little as 3 minutes per eye, without compromising testing accuracy. For all tests, patient response time is continuously monitored and the speed of the stimulus presentation is adjusted accordingly.

TEST/ANALYSIS TECHNIQUES

Areas of interest in a test can be verified. Use a mouse to retest completed points or add new test locations, while the test is running or after it is completed, enabling any suspect field defects to be verified and fully explored without undertaking a new test.

A new spatially adaptive test strategy allows an initial pattern of points to be tested, with extra points being added automatically in the region of any suspect defect.

The Central 22A test employs this strategy, providing accurate mapping of any detected field defect.

Advanced regression analysis tests allow visual field progression to be monitored and displayed over a period of time. Changes are clearly displayed using global regression indices and can be identified in specific areas (eg. arcuate region) of the visual field.

PRACTICE MANAGEMENT INTEGRATION

Database integration with practice management systems and other Medmont products is now possible utilising Medmont Studio. This negates the need for multiple patient entries and improves markedly the efficiency of the practice. Several M700 units can operate on a local or geographically remote network, sharing a database.

ADVANCED SYSTEM ANALYSIS

– New 3D HoV Display
– Global Statistics
– Regression and Histogram Analysis
– HoV Profile Analysis
– Difference Analysis
– Full Patient History Via Thumbnails

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PATIENT COMFORT

The open, modern, ergonomic design of the M700 overcomes the claustrophobic problem and lack of ventilation often experienced in full bowl perimeters. Improved patient comfort will result in more reliable field tests.

UNIQUE TEST FACILITIES

BINOCULAR DRIVING TEST:

Meeting worldwide standards to check a driver's visual field, this test covers 160° of a patient's visual field.

FLICKER TEST:

Tests with a flickering stimulus provide improved sensitivity and earlier detection of field loss over normal static perimetry. The M700 offers this facility with a special test strategy, which requires the patient to respond to the presence of flicker in the stimulus.

DIPLOPIA TEST:

The M700 provides a unique diplopia test, where targets are presented in a sequence requiring a progressive change in the direction of gaze by the patient. Indication of a double image results in automatic detailed examination of that area of gaze.

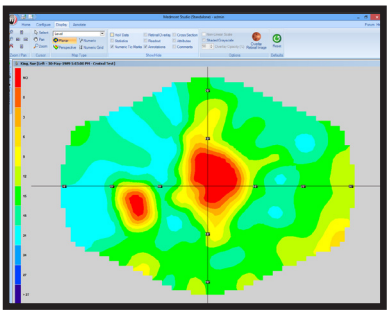
SYSTEM MAINTENANCE

The fully electronic stimulator unit, with no moving parts, together with standard computer hardware, results in minimal maintenance requirements. There are no routine service requirements for the M700.

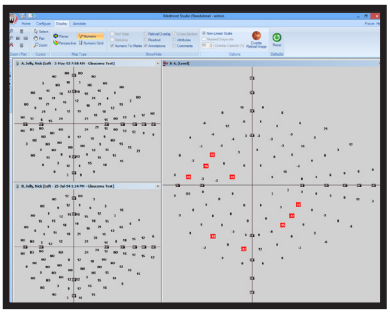
OPERATIONAL SIMPLICITY

With an easy to use but comprehensive menu operating under Microsoft Windows™ no previous computer experience or detailed perimetry knowledge is required to operate the M700.

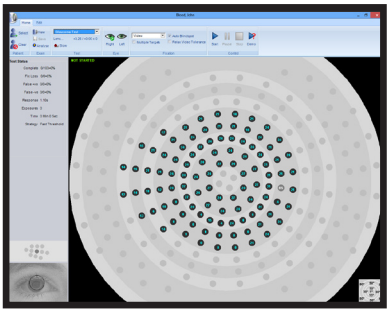
M700 COLOUR DISPLAY
A colour display of a visual field map, with a significant macula loss.



M700 DIFFERENCE VIEW
Numeric difference of two results, highlighting points of significant loss.



M700 TEST SCREEN
A typical test screen showing a glaucoma test field pattern.



SPECS + FEATURES

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STIMULATOR SCREEN
Part Hemispherical Bowl
Radius 30cm Integrated Diffusing Surface

TEST FIELDS
Binocular 30°/40° : 21-128 Points
Binocular Driving 80° : 119 Points
Central 22A 22° : 45 to 96 Points
Central 30° : 100 Points
Driving Test 50°/80° : 103 Points
Flicker 15°/22° : 69 Points
Full 50° : 164 Points
Glaucoma 22°/50° : 104 Points
Macula 10° : 49 Points
Neurological 50° : 164 Points
Peripheral 30° to 50° : 73 Points
Flash Scan 22°/30° : 40 Points
Spatially Adaptive 50° : 39 to 168 Points
CV% 100 Points 60° : 100 Points
Central 22 22° : 50 Points

STIMULUS SOURCE
Rear Projection Light Emitting Diode

STIMULUS COLOUR
Pale Green 565nm
Half Bandwidth 28nm
Red 626nm (Optional)

STIMULUS SIZE
Goldmann Size III (0.43°)
Model CR Red (0.72°)(Optional)

STIMULUS INTENSITY
16x3dB Levels 0db (Max Brightness) to 45dB (Min Brightness) +/-1dB

STIMULUS DURATION
Adjustable: 0.1 to 9.9 sec. (nom. 0.2 sec)

PATIENT RESPONSE TIME
Adaptive to Patient Speed
Operator Selection of Normal or Slow Ranges
Adjustable: 0.1 to 9.9 sec (nom. 1.1 sec)

MINIMUM INTER-STIMULUS DELAY
Adjustable 0.1 to 9.9 sec (nom. 0.4 sec)

BACKGROUND ILLUMINATION
10 asb (3.2cd/m2), Automatic Level Control
31.5 asb (10cd/m2) – German Driving Test

TEST LENS DIAMETER
38mm

FIXATION METHOD
Automatic Iris Tracking During Test with Relaxed Tolerance. Heijl-Krakau Blind Spot Method. Visual and Audible Warning of Fixation Errors. Video Fixation Monitoring

SHIPPING DIMENSIONS / WEIGHT
71cm x 52cm x 85cm
23 kg (Unit and Box)

STIMULATOR UNIT DIMENSIONS
626mm Wide x 438mm Deep x 713mm High

STIMULATOR UNIT WEIGHT
12kg

STIMULATOR UNIT POWER
100-240 VAC 50-60Hz
0.25-0.15A

PC MIN REQUIREMENTS
Compliant to IEC 60950 and Powered via Medical Isolation Transformer. Processor 1GHz, 2 GB Ram, 80GB HD, 1 USB port, Windows 7, Windows 8. DirectX9 Compatible Graphics Card

PRINTER
Compliant to IEC 60950
Bubblejet/Laser, Colour/Black & White

BACKUP
Choice of CD ROM/DVD/External HD etc.

Rapid Testing Times

Full Field Coverage (160°)

Advanced Fast Threshold Testing Strategy, Employing Baysean Testing Techniques

Flicker Test Facility, With Proven Early Field Loss Detection Capabilities

Patient Reliability Indicators:
– False Positives
– False Negatives
– Fixation Losses
– Video Fixation Eye Tracking Monitor
– Automatic Fixation Tracking

Field Analysis Tools:
– Glaucoma Progression
– Pattern Defect Index (PD)
– Overall Defect Index (OD)
– Cluster Analysis (Glaucoma) Index
– Regression Analysis Over Entire Field or Localised Areas
– Baseline Analysis

Display Options:
– Grey Scale
– Numeric Decibel Data
– Patient Hill of Vision Deviation (Localised Defect Identification
– Age Normal Deviation (General Depression Identification)
– Severity of Loss Indicators (Relative Probability of Loss)

Result Outputs:
– Customizable Page Layout
– Single Result Per Page
– Left Eye/Right Eye On One Page
– Difference Maps
– Multiprint with 5 Results Per Page (Extendable)
– Regression graphs printing:
  – Pattern Defect Index
  – Overall Defect Index
  – Data Histograms
  – OP
  – 3D Display

Microsoft Windows™ Based Software:
– Multiple Workstations Connected to Central Database
– EMR/EHR Interface
– USB Computer Interface
– DICOM Interface

No Regular Professional Servicing and Maintenance Requirements

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According Directive 93/42 EEC
ISO 13485
Certified Quality System

CE

Note: These specifications are subject to change without notification.

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