

# Compact Touch<sup>®</sup>



**COMPACT IN  
DESIGN,  
DEFINITIVE IN  
DIAGNOSIS**



**LUMIBIRD<sup>®</sup>**  
MEDICAL

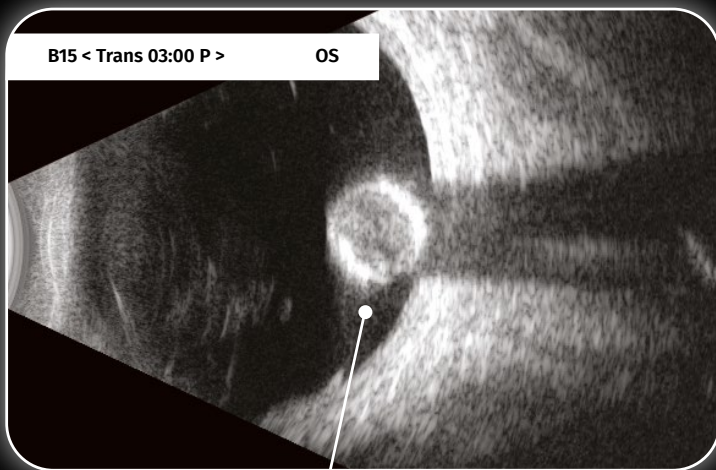
**A/B/P Ultrasound Platform**

# Compact Touch<sup>®</sup>

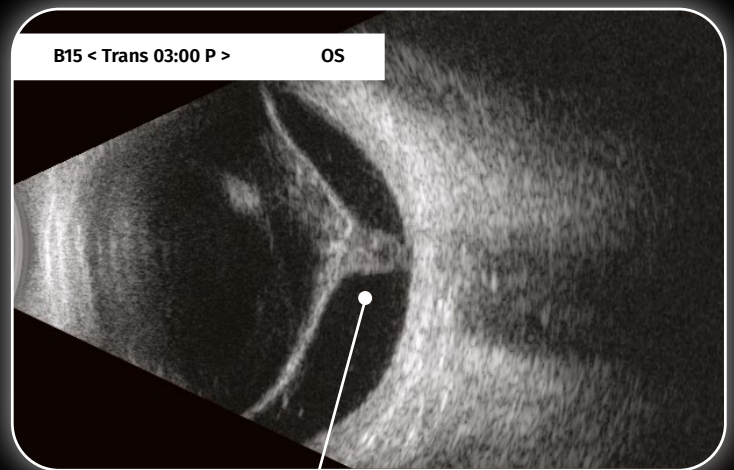
## ■ QUANTEL MEDICAL REDEFINES THE STANDARD IN B-SCAN IMAGING

The Compact Touch<sup>®</sup> benefits from a **new generation of 15 MHz B probe with a resolution increased by 30%**. It allows for a better visualization of the eye structures and the orbit hence a better diagnosis.

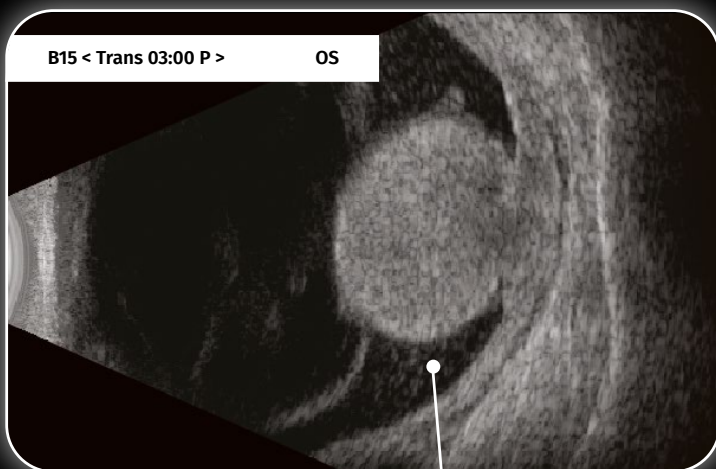
**Small in size**, this probe benefits from an **excellent ergonomics to facilitate its handling and use**.



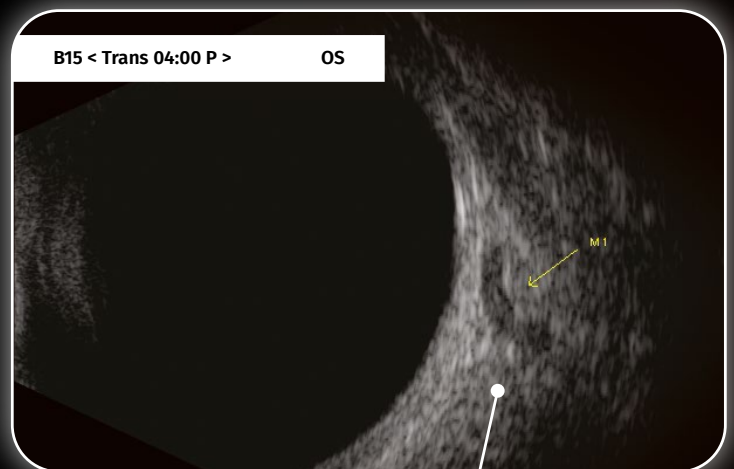
**LUXATED LENS**



**RETINAL DETACHMENT**



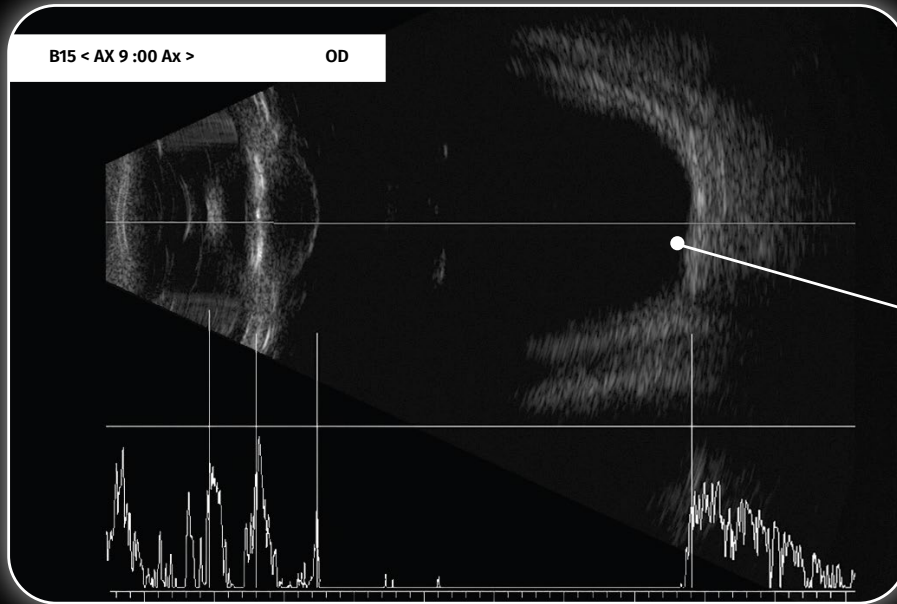
**MALIGNANT MELANOMA**



**SUBTLE AV FISTULA**

## ■ BIOMETRY IN B MODE

**Compact Touch®** has the exclusive technology: **Biometry in B-Mode**, it allows the **measurement of axial length**, just in the macula, especially in eyes of unusual geometry, like patients with long myopic eyes associated with staphylomas, while ruling out any other pathology of the posterior pole.



● **HIGH MYOPIA**

## ■ BIOMETRY AND IOL CALCULATION

**Ultrasound biometry** is the **only technology** suitable for axial measurement of all eye types, regardless of cataract density and media opacity. Ultrasound axial length measurement offers similar levels of precision to optical measurement (0.03 mm with immersion technique)<sup>1</sup>.

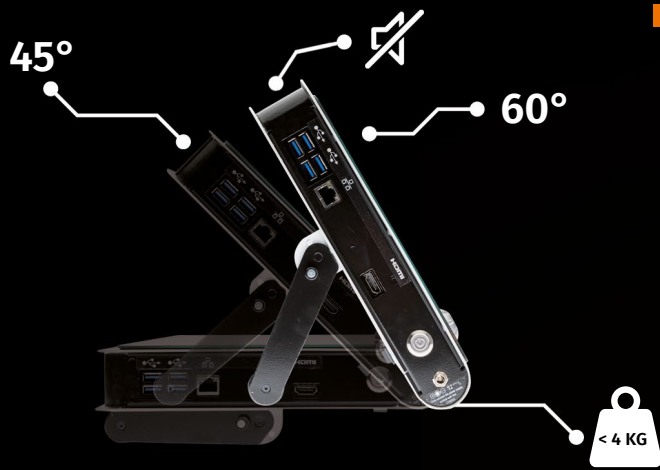
The IOL calculation function can compare the results of different types of IOLs and formulas. A total of 12 calculation formulas are available, including formulas for post-refractive surgery patients. IOLs can be calculated in intervals up to 0.25D.

## ■ PROBEAM™ BIOMETRY PROBE\*

**ProBeam™** is exclusive to Quantel Medical. The probe generates a laser beam that creates a focal point for the patient to look at with the other eye macula: this facilitates measurement while increasing the precision of the probe<sup>2</sup>.



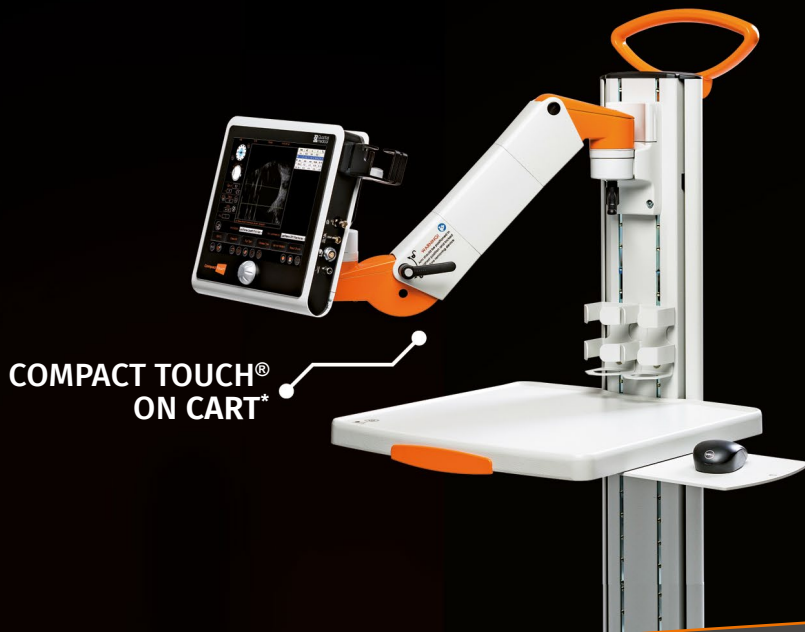
Quantel Medical, a brand of Lumibird Medical,  
the world leader in ophthalmic ultrasound



## ■ A SLEEK DESIGN, WITH INCREASED ERGONOMICS

A weight less than 4 kg, Compact Touch® is aptly named, since its dimensions have been reduced to suit for all types of clinical settings.

- It is more easily transportable, thanks to its foldable and reclining carrying handle.
- Fanless, it is as **silent** as a tablet.
- Its **VESA fixation system** offers the possibility to be **mounted either on a wall, on an articulated arm or on a mobile cart**, to enhance ergonomics around the patient\*.



## ■ PACHYMETRY\*

Pachymetry is essential for **refractive surgery and glaucoma diagnosis**. The Compact Touch® has several measurement modes, offering a precision of  $\pm 5$  microns and a measurement range of 200 to 999 microns.

IOP measurements can be corrected using integrated tables of correlations between IOP and corneal thickness, including Ehlers, Doughty and Dresdner.

(\* ) Option



## ■ A CONNECTED ULTRASOUND PLATFORM

- With **DICOM interface**, the Compact Touch® can import (worklist function) and export (storage function) images and patients reports to the PACS. Reports and images printout is also possible either on a **DICOM printer**, or a **local printer**.
- **Video sequences** (Cineloops) can be sent in **DICOM format**.
- For easier use, a **wireless keyboard** and **mouse** can be connected.



## B MODE

Grey levels:	256
Adjustable gain:	20 to 110 dB
Time Gain Control (TGC):	0 to 30 dB
Dynamic range adjustment:	25 to 90 dB
Storage of still images and video sequences (up to 40 second duration) on hard disk	
Image post-processing tools:	calipers, areas, markers, comment

### 15 MHz probe

Transducer frequency:	15 MHz
Angle of exploration:	50°
Depth of exploration:	60 mm (2.36°)
Focus:	24 mm (0.94")
Axial resolution:	115 µm
Lateral resolution:	400 µm
Frame Rate Acquisition:	up to 16 Hz

## BIOMETRY

Adjustable gain:	20 to 110 dB
Time Gain Control (TGC):	0 to 30 dB

### 11 MHz Probe

Transducer frequency:	11 MHz
Tip diameter:	7 mm (0.28")
Electronic resolution:	0.03 mm (0.002")
Depth:	60 mm (2.4") on 1536 points
Contact and immersion techniques compatible	
Aiming beam:	LED or laser pointer ProBeam™

### Axial length measurements

Ultrasound propagation velocity adjustable per segment (anterior chamber, lens, vitreous) and IOL and vitreous material

Built-in pattern recognition: phakic, aphakic, PMMA, acrylic and silicone material for pseudo-phakic eye types

Automatic calculation of standard deviation and average total length (series of 10 measurements)

Acquisition modes: automatic, auto + save, manual

Automatic detection of scleral spike

### IOL calculation

SRK-T, SRK-II, HOLLADAY, BINKHORST-II, HOFFER-Q, HAIGIS

Post-op refractive calculation:

- Pre-op and Post-op refraction, Pre-op and Post-op keratometry

- 6 different methods for keratometric correction and implant calculation:

History derived, refraction derived, contact lens method, Rosa regression, Shammis regression, Double K/SRK-T (Dr. Aramberri's formula)

9 values bracketed for desired ametropia for each IOL (IOL increment steps: 0.25D or 0.50D). Simultaneous display of 4 different IOL calculations

## DATA MANAGEMENT

Built-in physician and patient database

Exportation of still images and video sequences

Customisable digital and printed report

DICOM compatible (Worklist, Storage, Print)\*

EMR compatible

Compatible with PC and USB video printers

## TECHNICAL SPECIFICATIONS

### PACHYMETRY\*

Transducer frequency:	20 MHz
Tip diameter:	1.2 mm (0.05")
Method:	contact
Convergence:	0.5 mm (0.02") from the tip
Angle:	45°

### Corneal thickness measurements

Measurement range:	200 to 999 microns
Number of measurements:	1 to 10
Precision:	± 5 microns
Velocity:	adjustable
Methods:	central measurement or cartographic map (automatic, continuous, scanning)
Cartographic map:	user - 9C8L - 9C4L - 5C8L - 5C4L - 9C - 5C - 8L - 4L

### I.O.P. correlation tables

Tables correlating intraocular eye pressure and corneal thickness: Ehlers + Doughty + Dresdner + unlimited user-defined tables

### Specifications

Bias correction:	up to 120%
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## GENERAL INFORMATION

Back-lit LCD colour touch screen monitor (resolution 1024 x 768 px)

### Electrical requirements

Power supply:	100-240 Vac ±10% single phase with earth
Frequency:	50/60 Hz
Power:	60 W max

### Features

Overall dimensions:	26.8 cm (W) x 4.0 cm (D) x 24.6 cm (H) 10.6" x (W) x 1.6" (D) x 9.7" (H)
Touch screen dimensions:	21 cm (W) x 16 cm (H) - 8.3" (W) x 6.3" (H)
Weight:	3.5 kg (7.7 lbs)
Ports:	4 USB, 1 ethernet, 1 HDMI

### Peripherals and accessories included in the basic configuration

Footswitch  
Bluetooth mouse

### Peripherals and accessories in option\*

External PC printer Windows Operating System compatible (USB or Wifi)  
Video printer with USB connection

### (\* Option

Specifications are subject to change without notice. Non contractual pictures.  
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### BIBLIOGRAPHY

1. Comparison of immersion ultrasound biometry and partial coherence interferometry for intraocular lens calculation according to Haigis - W. Haigis et al. - Graefes Arch Clin Exp Ophthalmol. 2000 Sep
2. New laser fixation device for ultrasound biometry - M. Charles - Ophthalmol. Clin. Exp. 2007



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