

# TRC-50DX

Retinal Camera



# TOPCON'S PREMIER MYDRIATIC RETINAL CAMERA

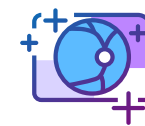


## Experience the Advantages of TRC-50DX

Rapidly developing technical advancements in digital cameras has led to retinal imaging with higher resolutions and newer capturing methods. Topcon's TRC-50DX retinal cameras incorporate latest generation sensors that enhance versatility, image quality and operational ease. The TRC-50DX offers multimodal fundus imaging including color, red-free and fluorescein angiography (FA) while the TRC-50DX (Type IA) can also perform indocyanine green (ICG<sup>1</sup>) and fundus autofluorescence (FAF<sup>1</sup>).

Optional filters can let the operator add or exchange them to accommodate different procedures.

## Features



**High Quality  
Fundus Image**



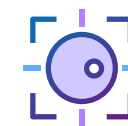
**Multimodal Fundus Imaging  
(Color, Red-free, FA, FAF<sup>1</sup> and ICG<sup>1</sup>)**



**Mydriatic  
Retinal Camera**



**Comprehensive  
Fundus Imaging Tool**



**High Resolution  
Imaging Sensors**



**Connect with  
IMAGeNet® 6**

1. FAF and ICG are only available on the TRC-50DX (Type IA)

# Advantages

## Easy to Operate

An intuitive, touch-screen control panel simplifies its use, allowing the operator to better concentrate on the patient. Ergonomically located adjustment knobs make the capture process effortless and comfortable.



## Flash Intensity Control

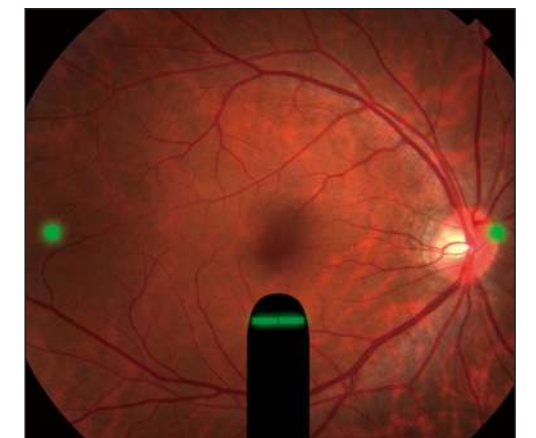
The Flash Intensity Control<sup>1</sup> has 21 levels and can be used in full or half steps. Sensitive membrane buttons permit total control of image brightness and are illuminated for use in subdued light.



<sup>1</sup>Light Source: For photography: Max300ws Xenon

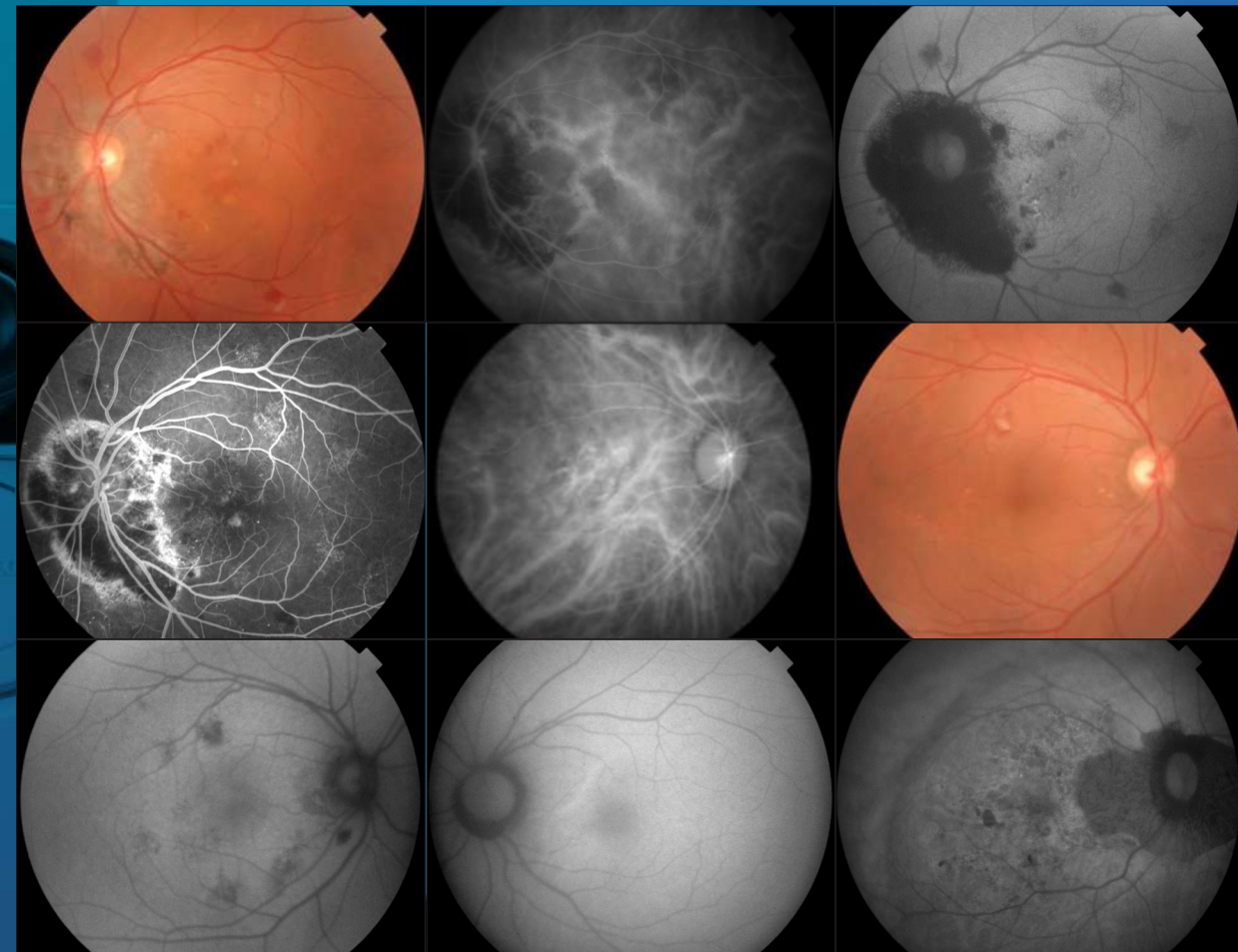
## Working Distance Dots

Green alignment dots provide easy confirmation of working distance of the objective lens alignment. These dots are helpful for pre-injection positioning in fluorescein angiography (FA), red-free and color fundus photography.



## High and Wide Eyepiece Viewing

The eyepiece of the TRC-50DX is designed for high and wide eye distance viewing making alignment and focusing fast, easy and comfortable.



\* Image courtesy of Adachi Keiyu Eye clinic, Japan.

# Fundus Autofluorescence

Fundus autofluorescence (FAF<sup>1</sup>) is a non-invasive technique to acquire images of the retina by visualizing the autofluorescence of lipofuscin within the retinal pigment epithelium (RPE). The Topcon-exclusive, Spaide FAF filters<sup>2</sup> are optimized for the observation of lipofuscin deposits in the retina as they require 40% less illumination than conventional FAF<sup>1</sup> filters<sup>3</sup>. As an added benefit, Spaide filters do not stimulate fluorescein or ICG<sup>1</sup> and images can be taken during or post-angiography.

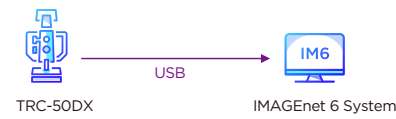
1. FAF and ICG are only available on the TRC-50DX (Type IA).  
2. Richard F. Spaide, MD, Vitreous Retina Macula Consultants of New York.  
3. "Optimized Filters for Fundus Autofluorescence Imaging" Reviewed by Richard Spaide, MD - Retina Today - April 2009.

# Software Configuration

## IMAGEnet® 6

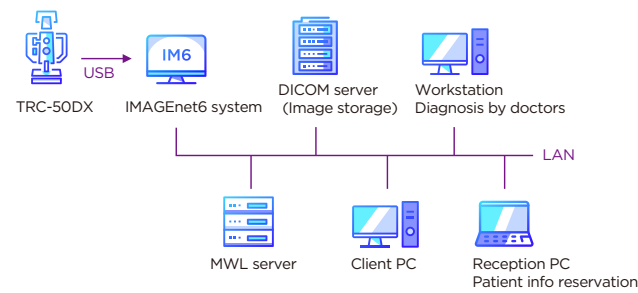
IMAGEnet 6 is a comprehensive digital imaging system capable of acquiring, processing, displaying and saving digital images obtained by a variety of Topcon devices.

IMAGEnet 6 allows the camera to detect the filter settings and CCD camera being used by the TRC-50DX and automatically sets the capture screen to the corresponding procedure.



## DICOM

Full DICOM compliance allows IMAGEnet 6 to communicate with EMRS and servers, e.g. PACS, save data to remote locations, operate with modality work lists and save images in DICOM format.





## Ez Capture

Ez Capture is the basic software used to capture and view images with the TRC-50DX. The live view feature within Ez Capture allows for direct observation of the retina in real time while performing ICG studies. You can easily operate ICG capture and direct view simultaneously on one monitor.

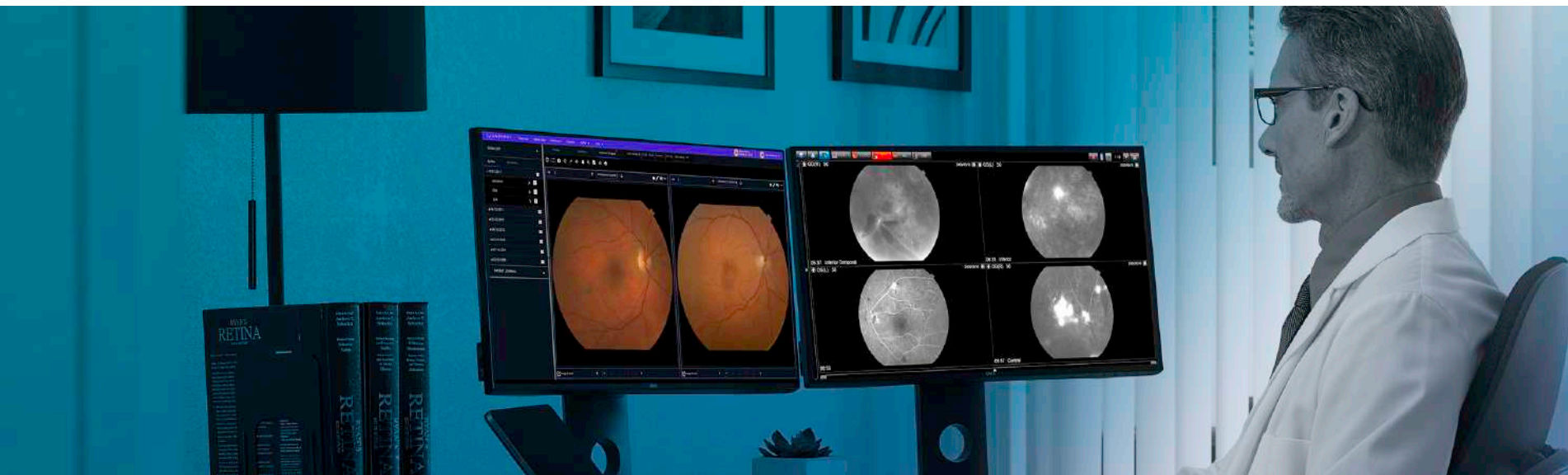


# Sensor Specifications & Product Line-up

## Product Line-up

|  | Color | Red-free | FA | FAF <sup>1</sup> | ICG <sup>1</sup> |
|--|-------|----------|----|------------------|------------------|
|  TRC-50DX           | ●     | ●        | ●  | -                | -                |
|  TRC-50DX (Type IA) | ●     | ●        | ●  | ●                | ●                |

1. FAF and ICG are only available on the TRC-50DX (Type IA)



## Specifications

|  | TRC-50DX  | TRC-50DX (Type IA)                                   |
|--|---|--|
| Capture Mode                                 | Color/Red-Free/FA   | Color/Red-Free/FA/FAF <sup>1</sup> /ICG <sup>1</sup> |
| Auto Fluorescence                            | -   | ○  |
| Angle of Coverage                            | 50°/35°/20°   |  |
| Photographic Magnifications                  | 1.84x at 50°, 2.45x at 35°, 4.28x at 20°                                  |  |
| Working Distance                             | 39.0 mm   |  |
| Diopter Compensation Range for Patient's Eye | 0 : -10D to +6D<br>- : -23D to -9D<br>+ : +5D to +23D<br>A : +22D to +41D |  |
| Diopter Compensation at Finder               | -6D to +5D  |  |
| Optical Head Tilt                            | Upper 15° / Lower 10°   |  |
| Power Supply                                 | 100-120V / 200-240V / 50-60 Hz  |  |
| Power Consumption                            | 1500VA  |  |
| Dimensions / Weight                          | 340 mm(W) x 505 mm(D)x 506-715mm(H) / 35 Kg                               |  |

## Sensor Information

|              | Color Sensor | Monochrome Sensor |
|--------------|--------------|-------------------|
| Resolution   | 12.3MP       | 5MP               |
| Image Sensor | 1.1 inch     | 2/3 inch          |

<sup>1</sup> FAF and ICG are only available on the TRC-50DX (Type IA)

**CAUTION:** Federal law restricts this device to sale by or on the order of a physician.

### TOPCON CORPORATION

75-1 Hasunuma-cho, Itabashi-ku, Tokyo 174-8580, JAPAN.  
 Phone: +81-(0)3-3558-2522/2502  
 Fax: +81-(0)3-3965-6898  
[www.topcon.co.jp](http://www.topcon.co.jp)

### TOPCON MEDICAL SYSTEMS, INC.

111 Bauer Drive, Oakland, NJ 07436, U.S.A.  
 Phone: +1-201-599-5100  
 Fax: +1-201-599-5250  
[topconhealthcare.com](http://topconhealthcare.com)



\* Not available in all countries, please check with your distributor for availability in your country  
 \* Subject to change in design and/or specifications without advanced notice

**IMPORTANT** In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.

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