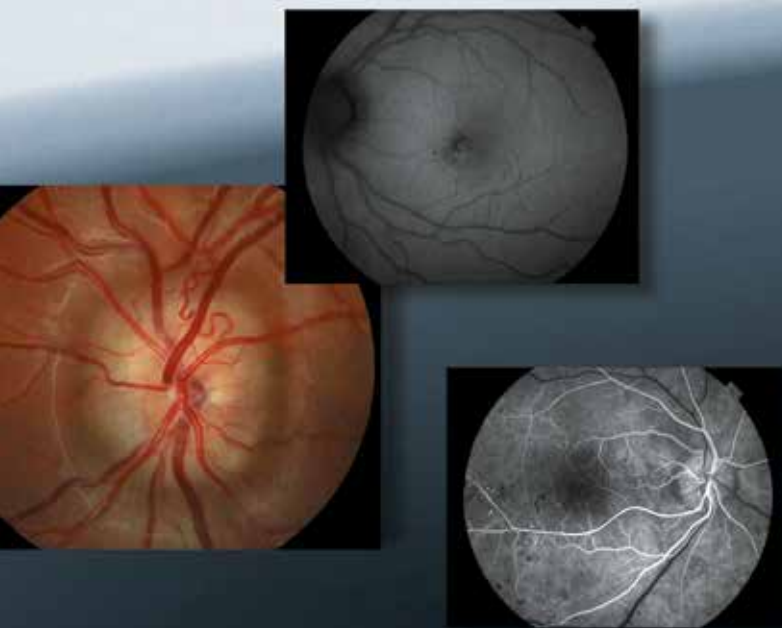


# TRC-50DX

Retinal Camera



# Leading the way in retinal cameras





## Retinal camera TRC-50DX & TRC-50DX Type IA

In the rapidly developing technology of digital cameras, retinal imaging techniques advance quickly towards higher resolution and newer methods. New diagnostic modes and procedures require versatility, precision and reliability more than ever before. The Topcon TRC-50DX, as well as the TRC-50DX (Type IA), improves on the unsurpassed quality of Topcon retinal cameras, incorporating new functions that enhance their versatility and operational ease. The camera can be used with a variety of photo devices, from 35 mm camera back to superhigh resolution digital cameras.

A newly developed control panel, equipped with a touch-screen, allows for a quick and easy change of settings while the Small Aperture function facilitates focusing and enhances sharpness.

Further enhancing its adaptability, the TRC-50DX (Type IA) can perform Auto Fluorescence studies, expanding its diagnostics aptitudes and application availability.

An adaptable filter mechanism lets the user add or exchange filters of his or her choice for different procedures or research projects.

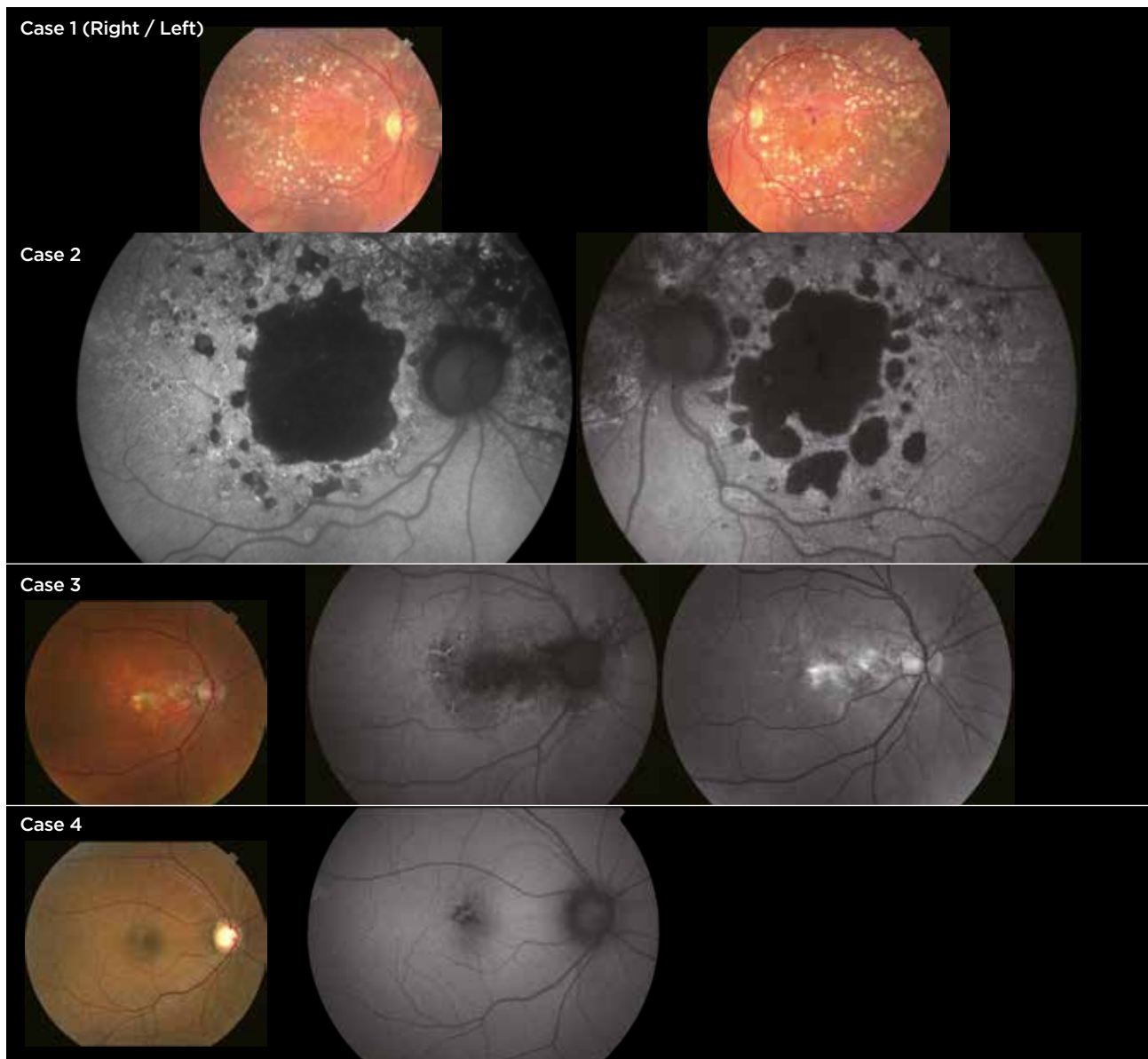


# Features

## Auto fluorescence

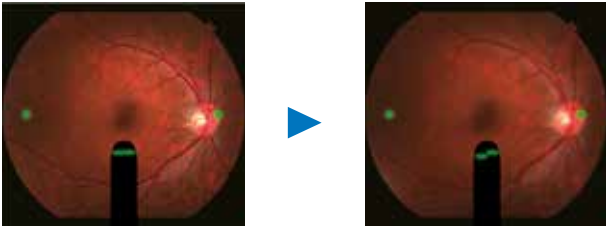
Fundus auto fluorescence (FAF) is a non-invasive technique to acquire images of the retina without injection, that visualizes the auto fluorescence of lipofuscin distribution contained on the retinal pigment epithelium (RPE), lipofuscin, is a byproduct of cell metabolism. With age, lipofuscin accumulates in many types of cells throughout the body and it has been associated with several eye diseases. FAF is becoming increasingly important in the diagnosis of retinal pathology and is nowadays one of essential tools

for observing and diagnosing exudative age-related macular degeneration (AMD), Geographic atrophy (GA) and addressing retinal pigment epithelium (RPE) functionality. Topcon is the only company licensed by Dr. Richard Spaide for the use of his co-developed FAF filters. Dr. Spaide's filters are optimized for the observation of lipofuscin deposits in the retina and require 40% less illumination than conventional FAF filters. Additionally the optimized wavelength of those filters do not stimulate fluorescein or ICG, so images can be taken during or post angiography.



Images courtesy of Vitreous-Retina-Macula Consultants of New York, PC

# TRC-50DX & TRC-50DX Type IA



## Split image focusing

This convenient feature minimizes out-of-focus images and allows even less experienced operators to obtain clear, sharp images with minimal effort.



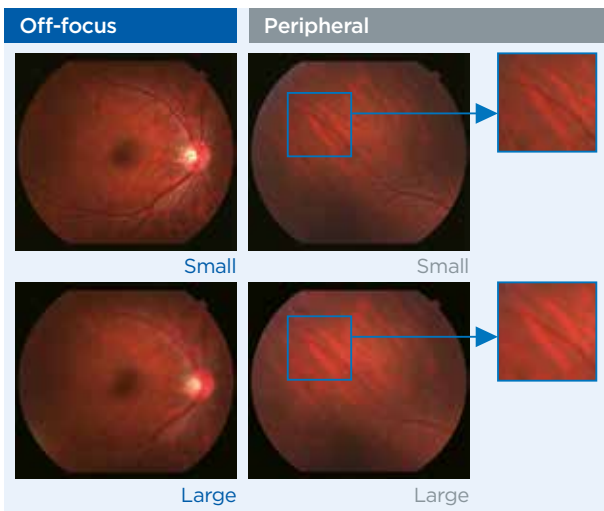
## Flash intensity control

Conveniently illuminated for use in subdued light, the flash intensity control has 21 levels and can be used in full or half steps. Sensitive membrane buttons permit total control on the image brightness.



## External fixation target

The newly designed fixation target guides the patient's eye to any desired position with a brilliant LED that shines in red or green light, changing automatically according to the study mode.



## Touchpanel control

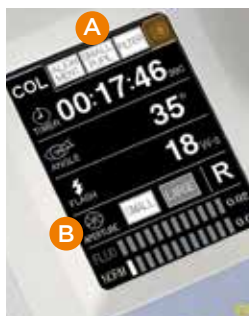
Designed with user convenience in mind, the TRC-50DX features a touchpanel control that allows the operator to change the camera settings with a single touch. All adjustments are at the photographer's fingertips.

### A Small pupil mode

The small pupil mode permits imaging through pupils as small as 4.5 mm diameter.

### B Aperture adjustment

The "Small" setting of the aperture produces a sharper, easier to focus image with enhanced depth of field. It offers remarkable effect in peripheral photography. Furthermore, its enhanced range of focus helps when using high resolution camera which requires severe focus aligning.



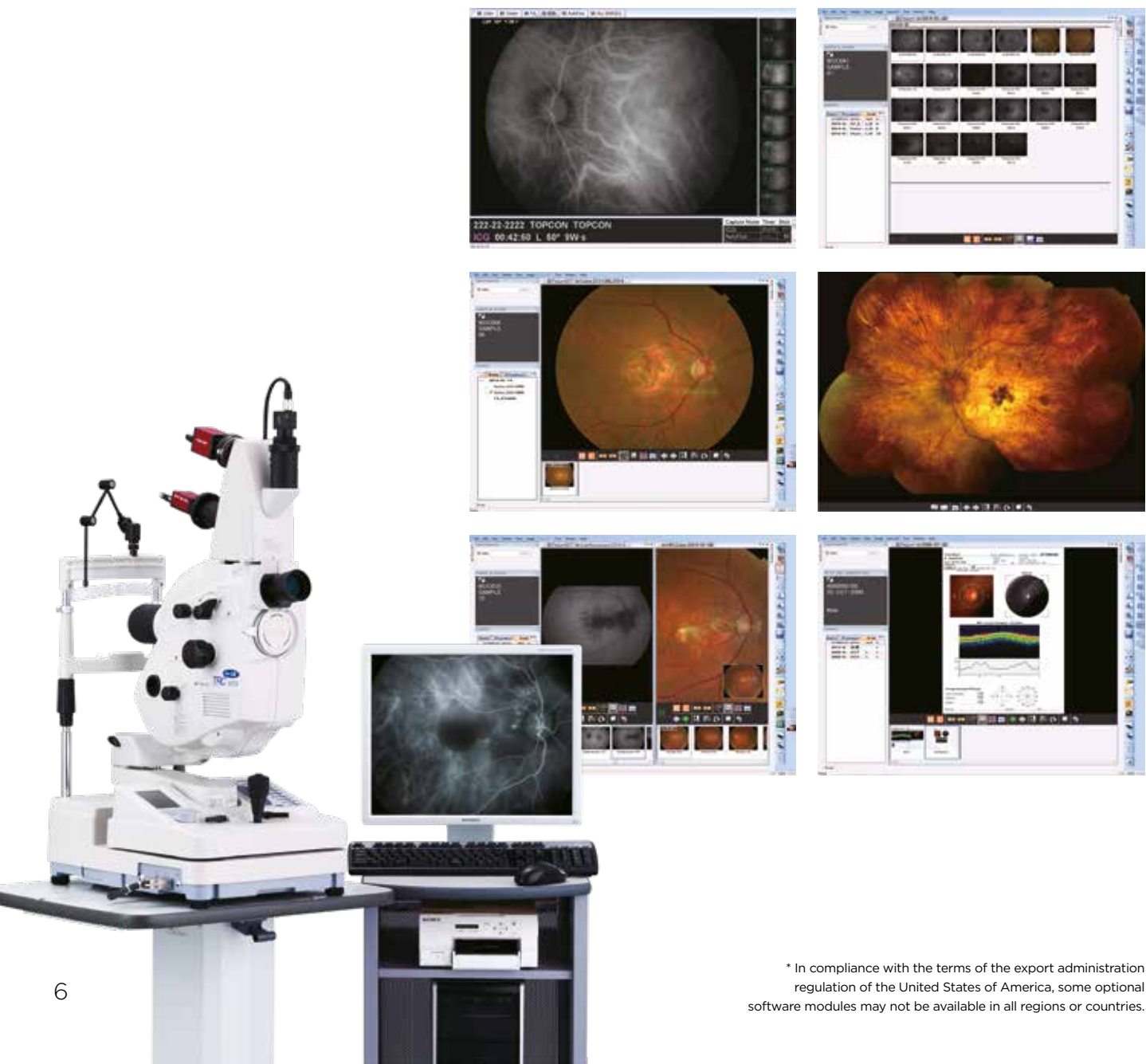
## IMAGEnet®

IMAGEnet® is a comprehensive digital imaging system capable of acquiring, processing, displaying, analyzing, and saving digital images obtained by a variety of Topcon capture devices. It enhances the clinical applications of the TRC-50DX retinal camera and integrates slit lamp images, non-mydratric retinal camera images, OCT reports, etc. to maximize the diagnosis capability. IMAGEnet® allows selecting capture modules depending on the configuration. For the TRC-50DX, DX capture module will help for comfortable image acquisition. DX capture detects the filter settings and CCD camera in use from

the TRC-50DX and automatically sets the capture screen to the corresponding procedure.

IMAGEnet® R4 (not available in all region and countries) furthermore acquires the measurement data from refraction instruments and facilitates comprehensive ophthalmology data management.

DICOM connectivity is included in IMAGEnet®, which allows communicating with EMR, PACS and hospital servers. IMAGEnet® fits the needs of small practices to the large hospitals.



# TRC-50DX & TRC-50DX Type IA



## Optional accessories Relay lens

### Triple mount TV relay lens

Triple mount TV relay lenses enable integration of 3 CCD cameras to the top part.



### Double mount TV relay lens

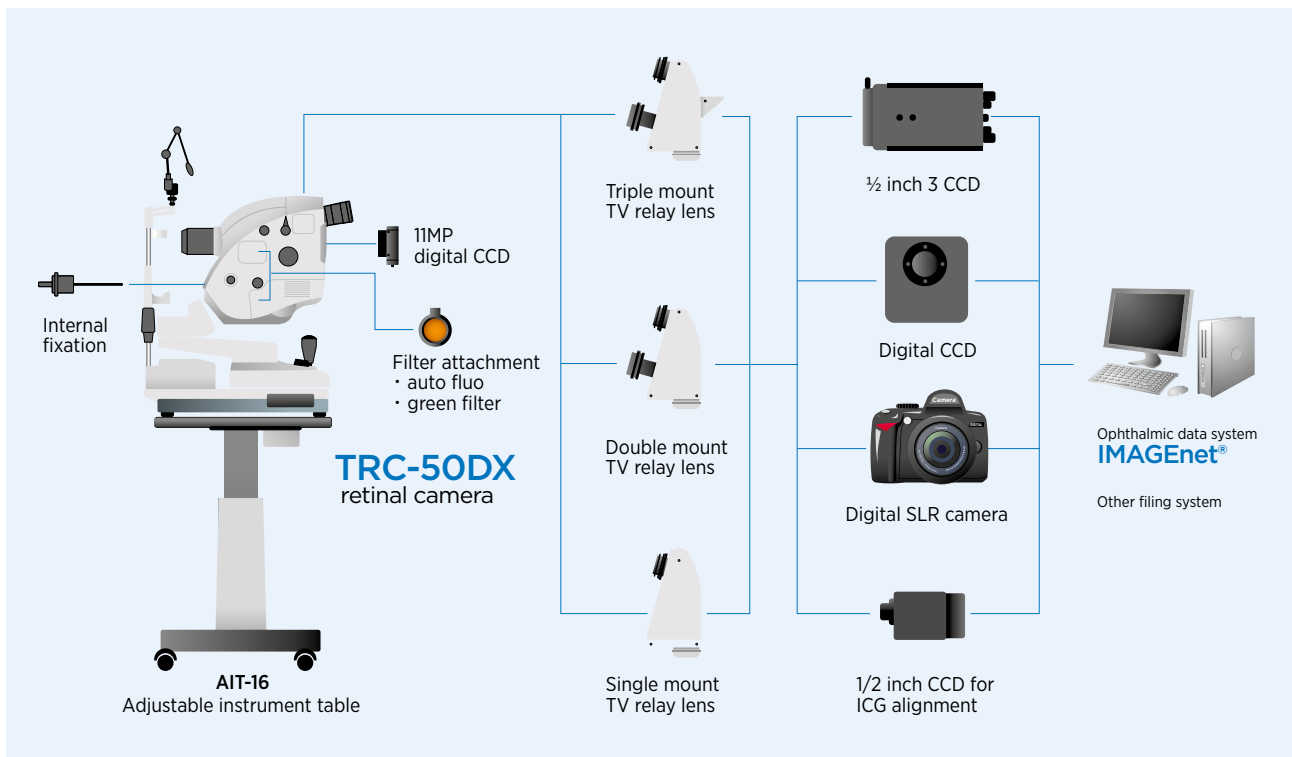
Various double relay lenses meet the requirement of attaching CCD cameras to the top part.



### Single mount TV relay lens

Single mount TV relay lenses make up simple and economical systems for color photography and fluorescein angiography.

## System chart



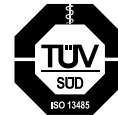
# Specifications

	TRC-50DX	TRC-50DX (type IA)
<b>Capture mode</b>	Color / red-free / FA	Color / red-free / FA / ICG / auto fluo
<b>Auto fluorescence</b>	Option*	●
<b>Photographic magnifications</b>	50° / 35° / 20°	
<b>Working distance</b>	With 35 mm camera at zero diopter: 1.84x at 50°, 2.45x at 35°, 4.28x at 50°	
<b>Diopter compensation range for patient's eye</b>	0 -10D - +6D - -23D - -9D + +5D - +23D A +22D - +41D	
<b>Diopter compensation at finder</b>	-6D - +5D	
<b>Split focus</b>	●	●
<b>Internal fixation</b>	Option*	●
<b>Counter</b>	●	●
<b>Optical head tilt</b>	Up 15° / Down 10°	
<b>Light source</b>	For photography: max 300WS Xenon	
<b>Power supply</b>	100-120V, 200-240V / 50-60 Hz	
<b>Power consumption</b>	1500VA	
<b>Dimensions / weight</b>	340 mm (W) x 505 mm (D) x 506-715 mm (H) / approx. 35 kg	
<b>Assessories</b>	1x relay lens adapter OR-2 TV relay lens adapter TL-209 TV relay lens adapter TL-211 TV relay lens adapter TL-233D TV relay lens adapter TL-235T TV relay lens adapter TL-236D TV relay lens adapter TL-237T TV relay lens adapter TL-238D TM conversion adapter MD-2 Auto fluo filter attachment AF-1 Auto fluo filter attachment AF-2 Internal fixation target mount Green filter attachment GF-1 Green filter attachment GF-2	

\*Not available in all countries

## IMPORTANT

Subject to change in design and/or specifications without advanced notice. In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation. Medical device Class IIa. Manufacturer: Topcon Corporation.



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