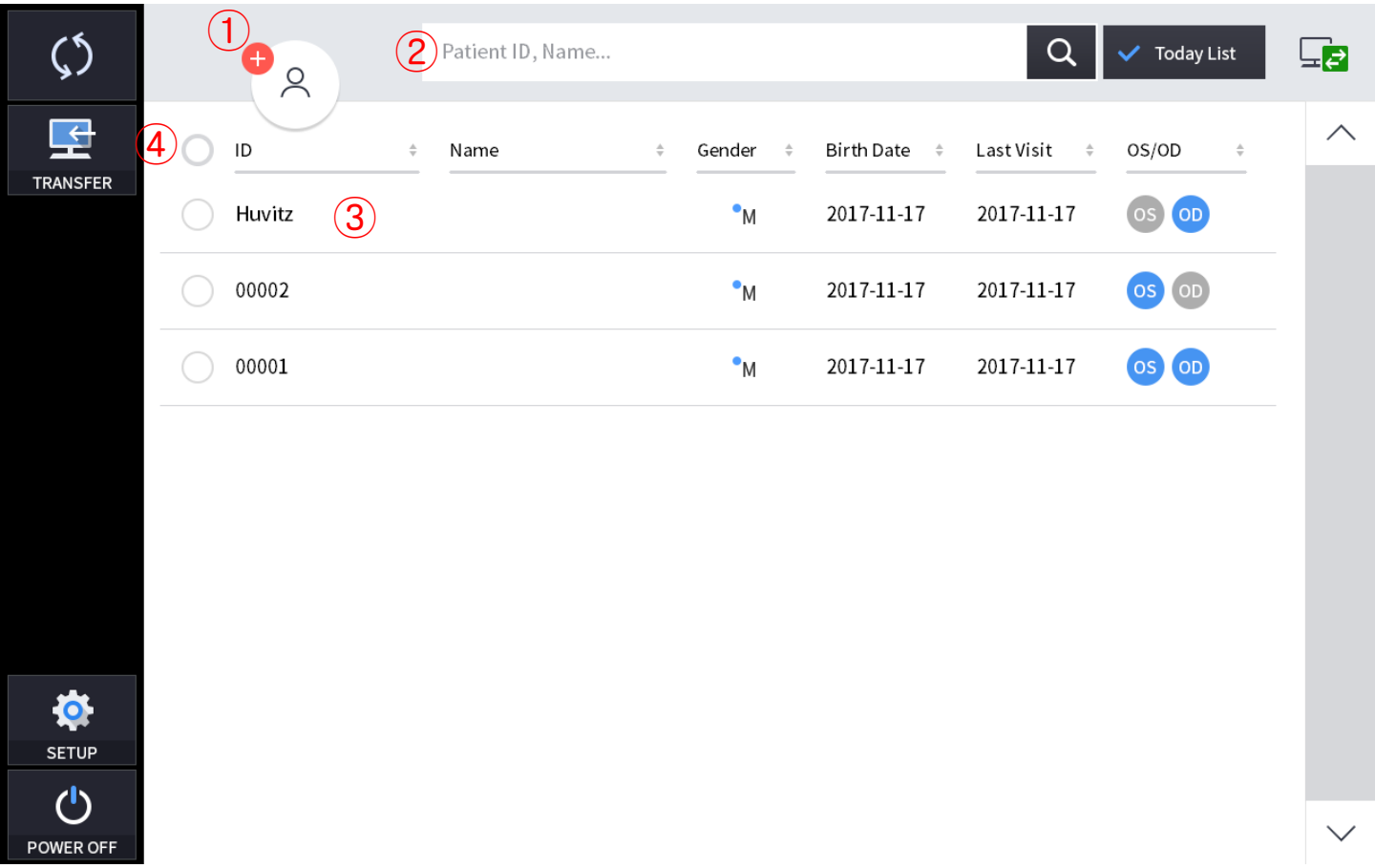
Operation Guide of HOCT-1,HOCT-1F

2017.04.20

Ophthalmic Group

Contents

◆ Patient List



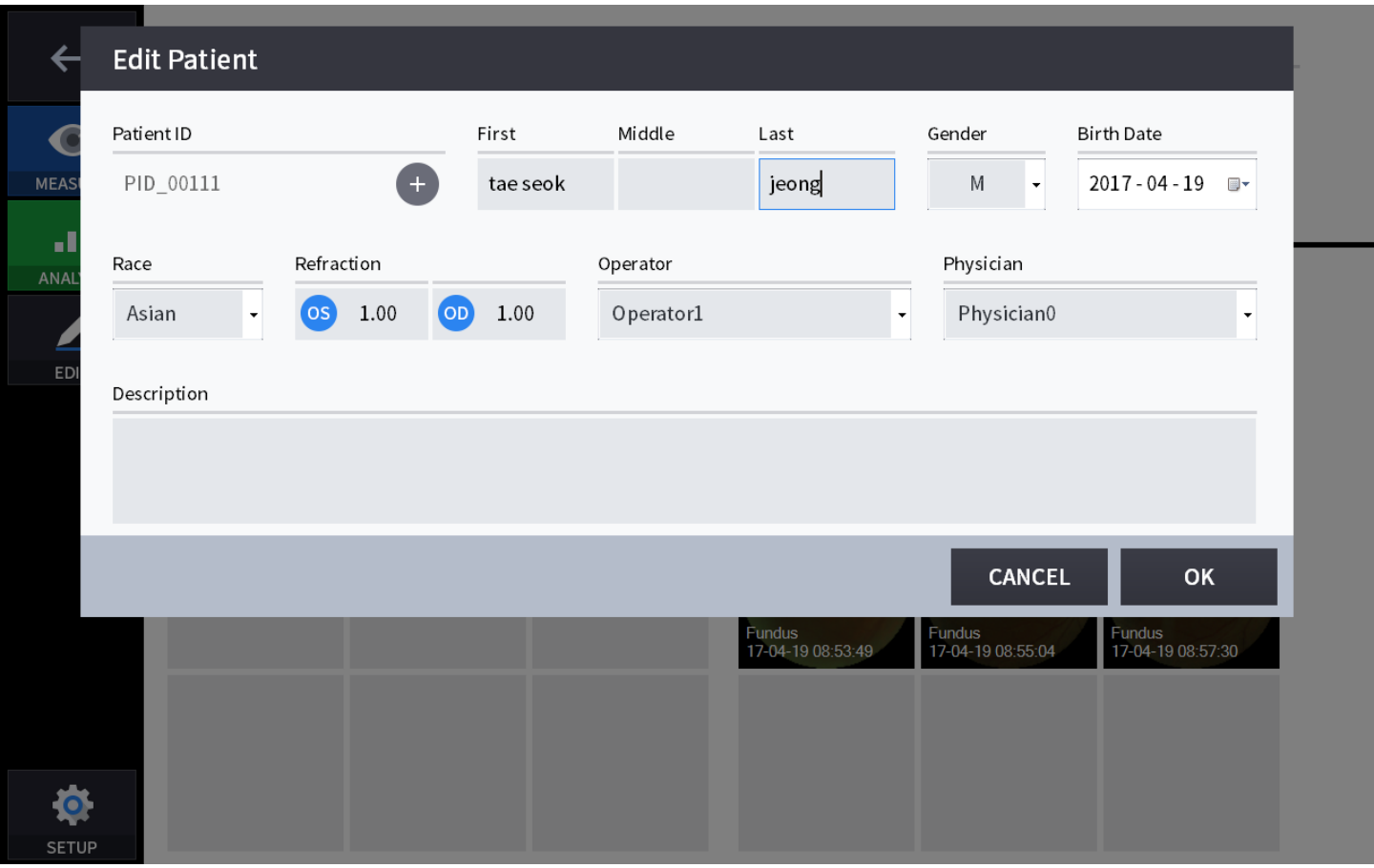
① Open a window for a new patient.

② Input a keyword for patient's ID or patient's name.

③ Select a patient to go into a patient's detailed window.

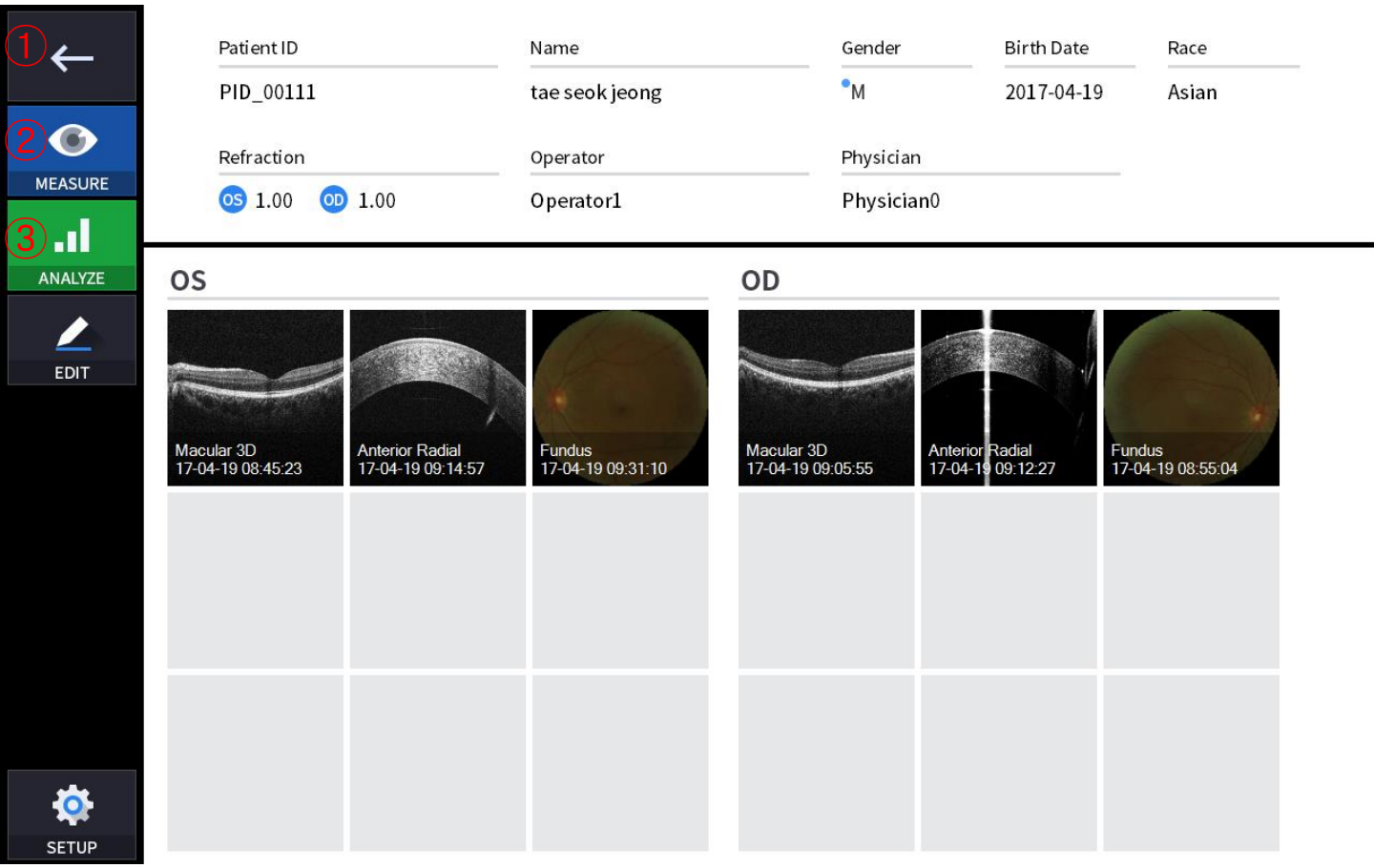
④ Select one or more than one patients to do some tasks.

◆ Add a new patient



.- Input the information of a patient.

◆ EXAM Window

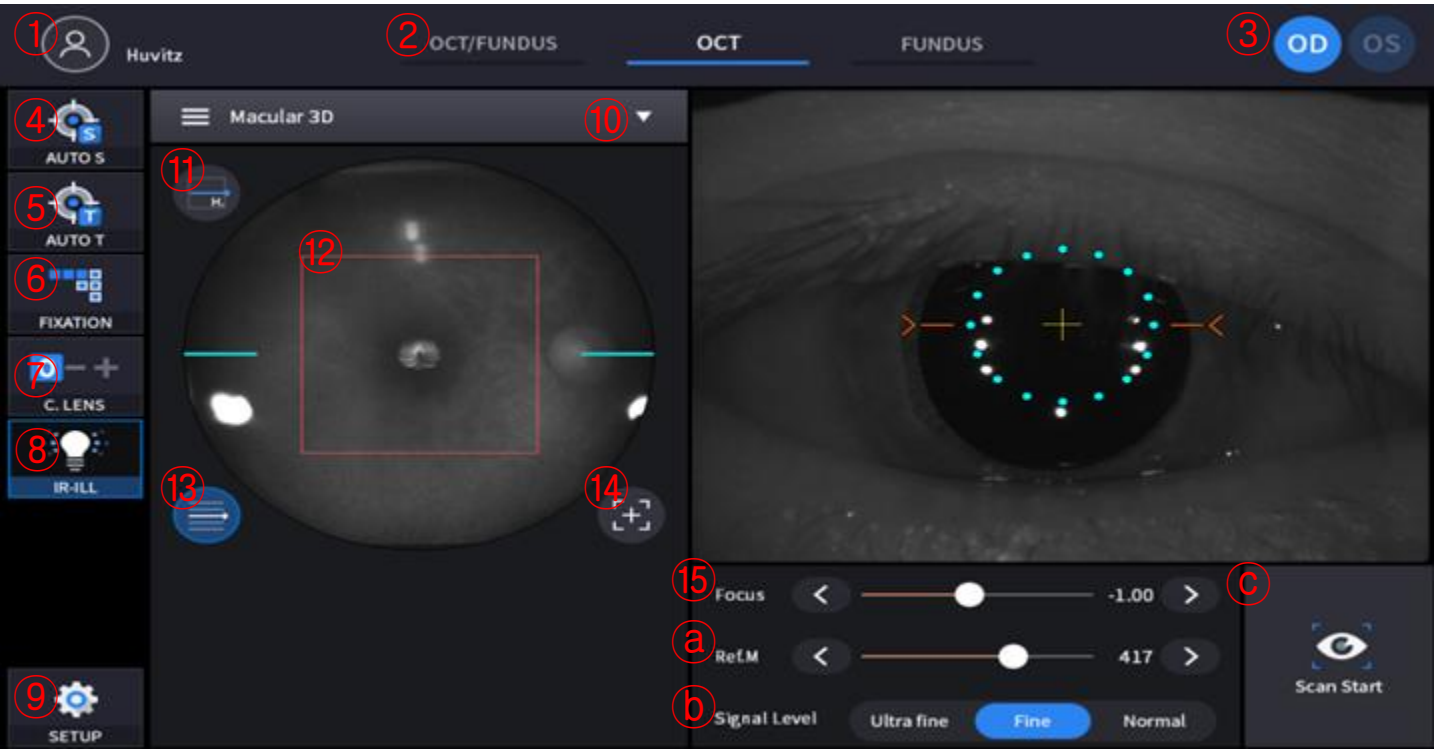


① Move to a previous windows.

② Go into a measurement mode.

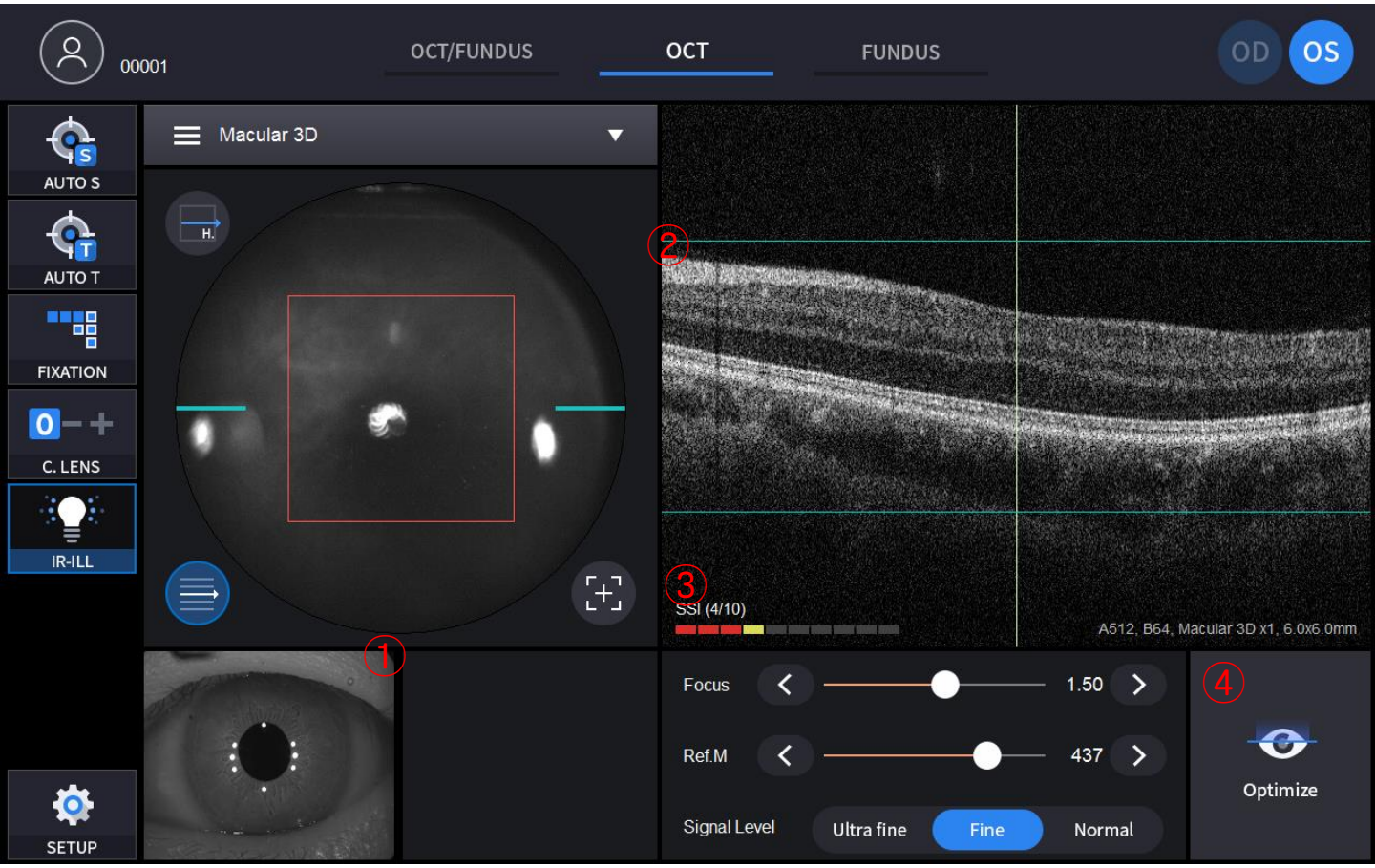
③ Go into Analysis window of a selected exam.

◆ OCT Measurement Window



No	Name	Function
1	Patient information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	Measurement Mode	Current Measuring Mode OCT/Fundus: OCT/Fundus together – OCT: OCT measurement – Fundus: Fundus measurement
3	OD/OS	Measuring Side : OD(Right side), OS(Left side)
4	AUTO S	Turn on/off 'Auto Shooting'
5	AUTO T	Turn on/off 'Auto Tracking'
6	FIXATION	Show and change a position of fixation
7	C LENS	Choose an additional lens for a diopter of a patient. 0: No additional lens –: Insert (–) diopter lens, +: Insert (+) diopter lens.
8	IR-ILL	Choose the illumination brightness of a retina, brighter mode for OCT, darker mode for OCT/Fundus and Fundus.
9	SETUP	Go into 'User Setup Window'
10	Scan (Capture region)	Choose measurement area and measurement option. – Fundus/OCT or OCT mode: Macular, Disk, Anterior – Fundus mode: Single, Panorama
11	Scan direction	Choose a scanning direction.
12	Scan Range	Scan range
13	On/off for a Scan range	Turn on/off a scanning range
14	Reset a scan position	Reset a scanning position
15	Focus	Show the diopter of lens for a patient.
a	Ref.M	Change the position of a reference mirror.
b	Signal Level	Show a signal level of OCT.
c	Scan Start	Start OCT scanning.

◆ OCT Measurement Window



No	Name	Function
1	Cornea Image	Show ‘Anterior Live Image’
2	OCT window	Show ‘Scanning image’ in OCT
3	Signal Sensitivity Index (SSI)	Show the quality of ‘Scanning Image’
4	Optimize	Make best a scan signal

◆ OCT Macular Measurement option

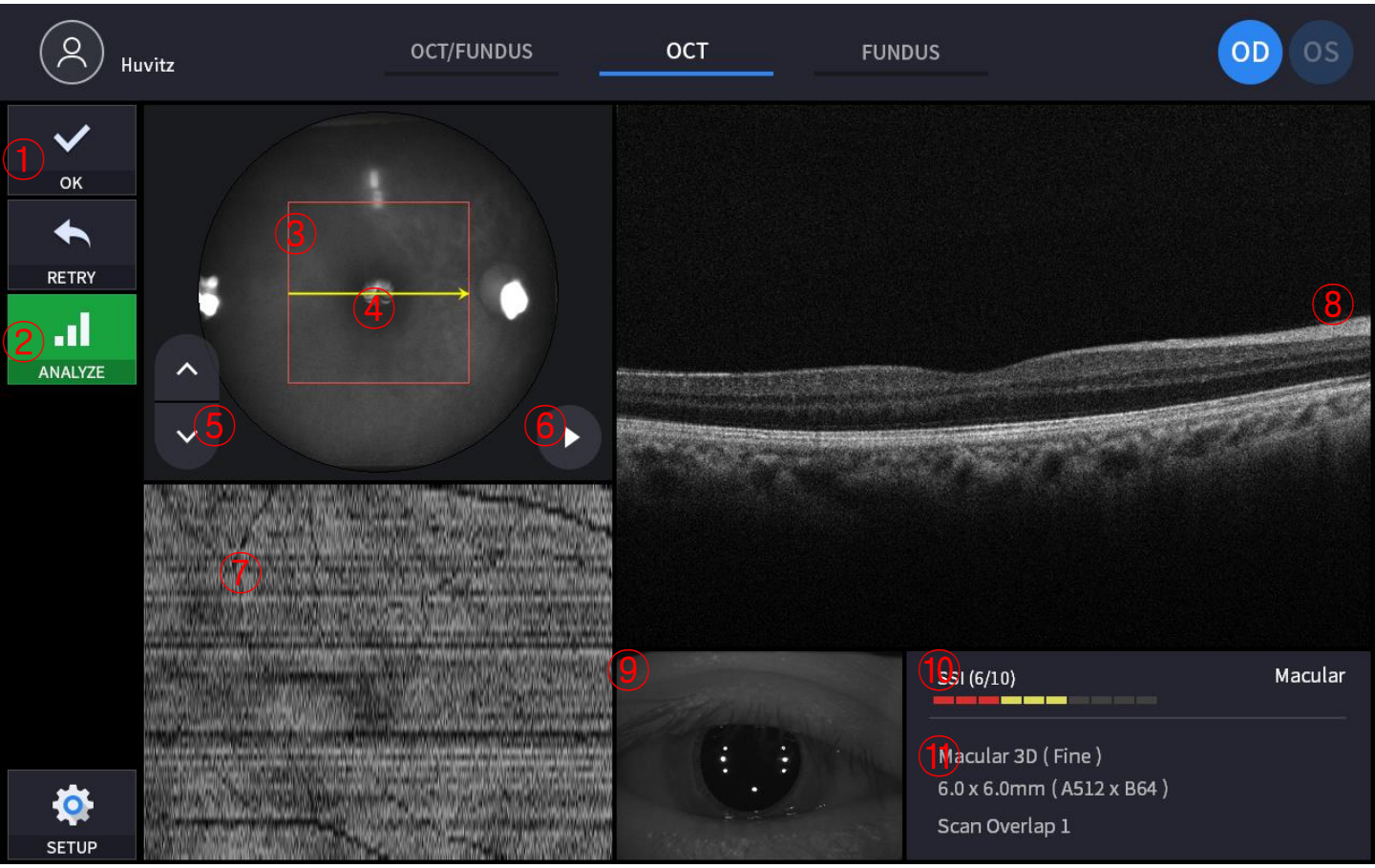
① Macular
- L ④ **Macular Line**: A line scanning
- L ⑤ **Macular Cross**: Horizontally and vertically
- L ⑥ **Macular Radial**: Scan along 12 directions like a clock.
- L ⑦ **Macular Raster**: Scan along 24 parallel lines.
- L ⑧ **Macular 3D**: Scan along multiple parallel lines and make 3D image.
  - L ⑨ **Scan Range**: Specify the size of B-Scan,
  - L ⑩ **Ascan Points**: Specify the number of A-Scan
  - L ⑪ **Bscan Lines**: Specify the number of B-Scan
  - L ⑫ **Scan Direction**: Specify the direction of a scan.
  - L ⑬ **OCT Enface**: Turn on/off a Live Enface.
  - L ⑭ **OCT Sensitivity**: Choose a sensitivity of a scan. If a sensitivity is high, a scan time is down. There are 13kHz, 26kHz, 68kHz of a scanning speed.

② Choose the measurement option of an optic disk.

③ Choose the measurement option of an anterior.

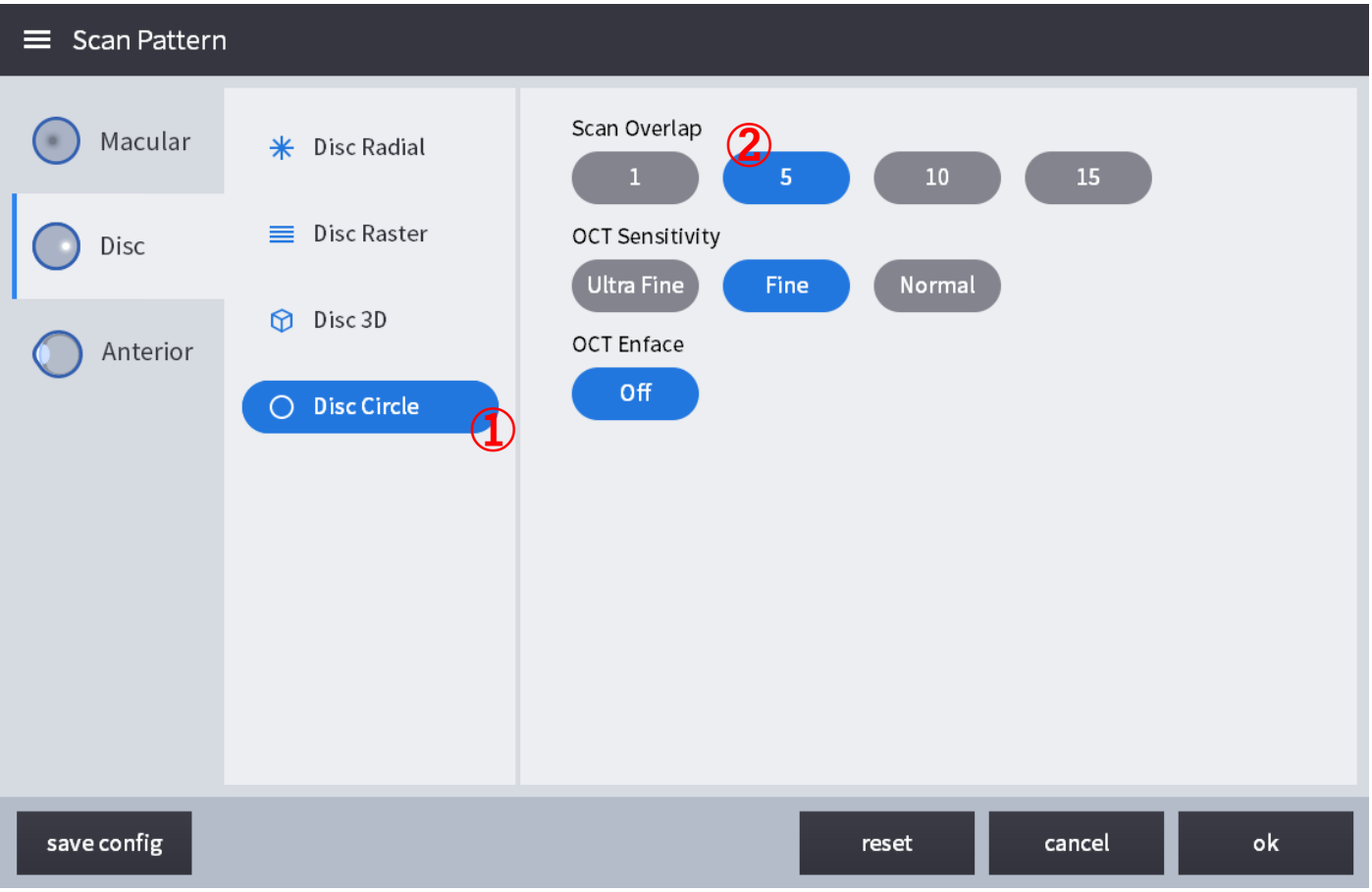
※ **A-Scan**: An axial scan for one point.
※ **B-Scan**: Multiple A-Scans. It makes a tomography.
※ **C-Scan**: Multiple B-Scans. It makes 3D image and Enface.
※ **EnFace**: A front-side projection view using C-Scans.

◆ OCT Measurement Completion



No	Name	Function
1	OK	Choose ‘Save’, ‘Retry’, ‘Analysis’ - OK: Save - RETRY: Retry
2	Analyze	Save and Go into ‘Analysis Window’.
3	Scan Range	Show ‘Scan range’.
4	Scan Position	Show a scan position that correspond to the left B-scan.
5	Movement of B-scan	Move to previous or next B-scan.
6	Continuous movement Of B-scan	Show B-scan continuously.
7	Enface image	Show Enface image.
8	OCT image	Show B-scan image.
9	Anterior image	Show an anterior image.
10	Image Sensitivity Index (SSI)	Image Sensitivity Index
11	Scan Information	Show a scan information

◆ OCT Disk scan option

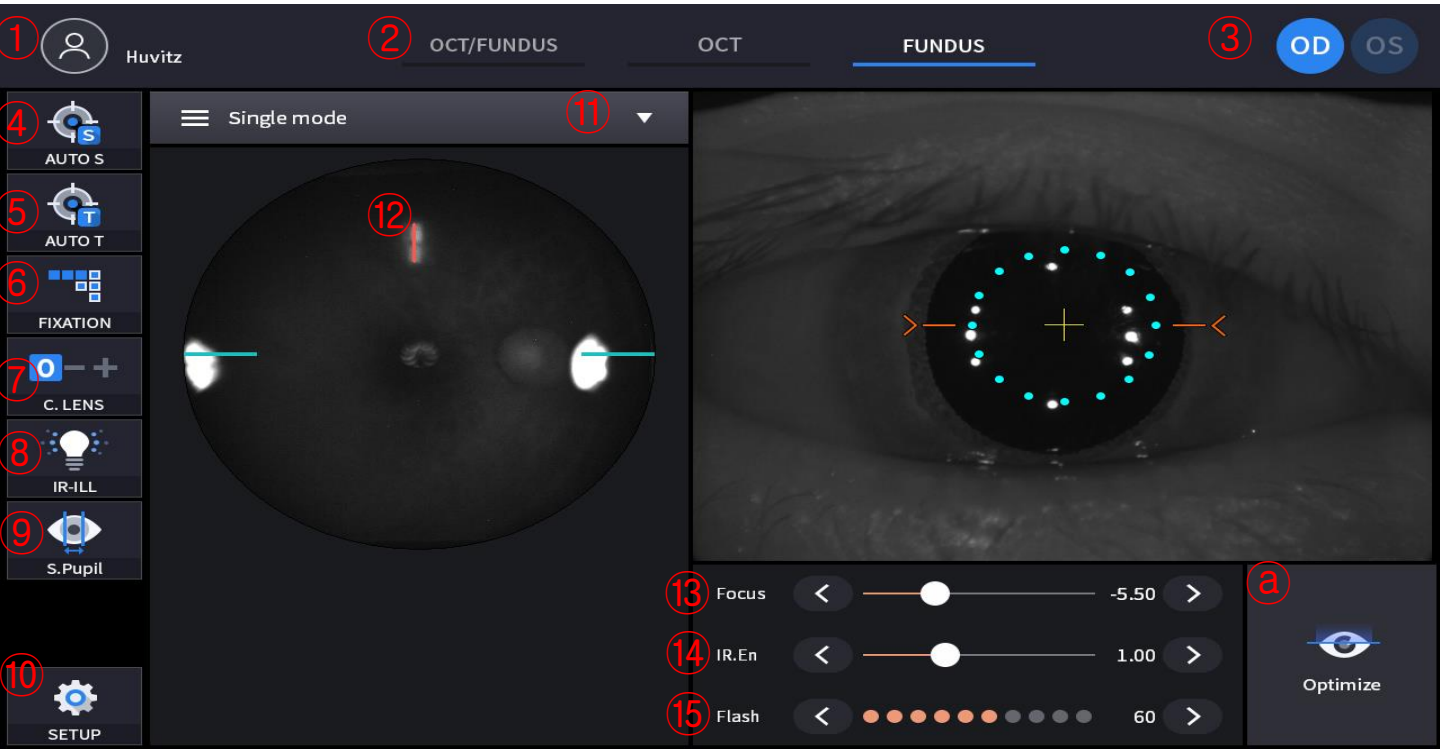


① Disc Circle. scan along a 3.5 circle based on an optic disc.

L ② Scan Overlap: Choose the counter repeated. If it is higher, then a scan signal is better, but a computing time is longer.

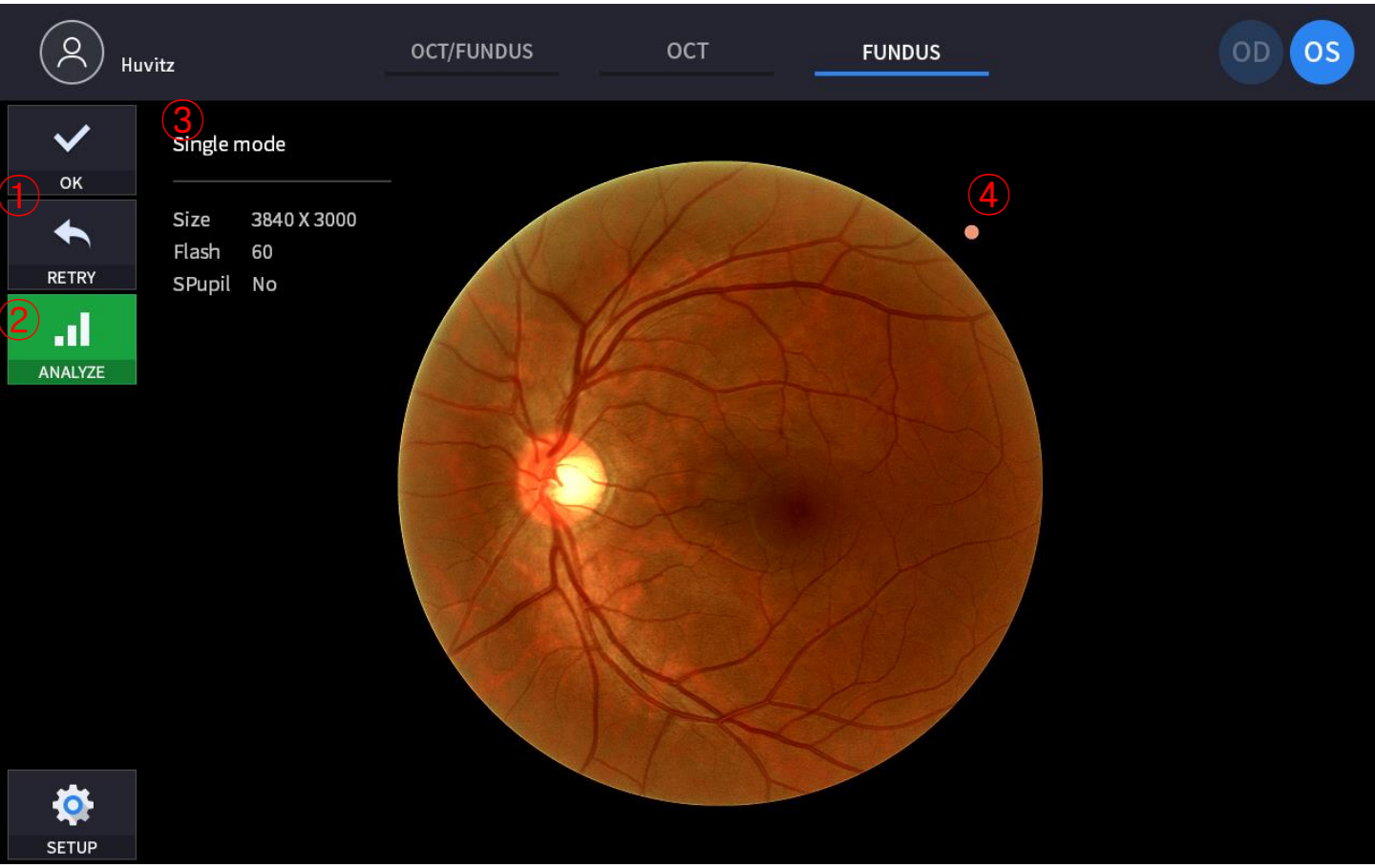
※ The other options are same with a macular scan.

◆ FUNDUS Window



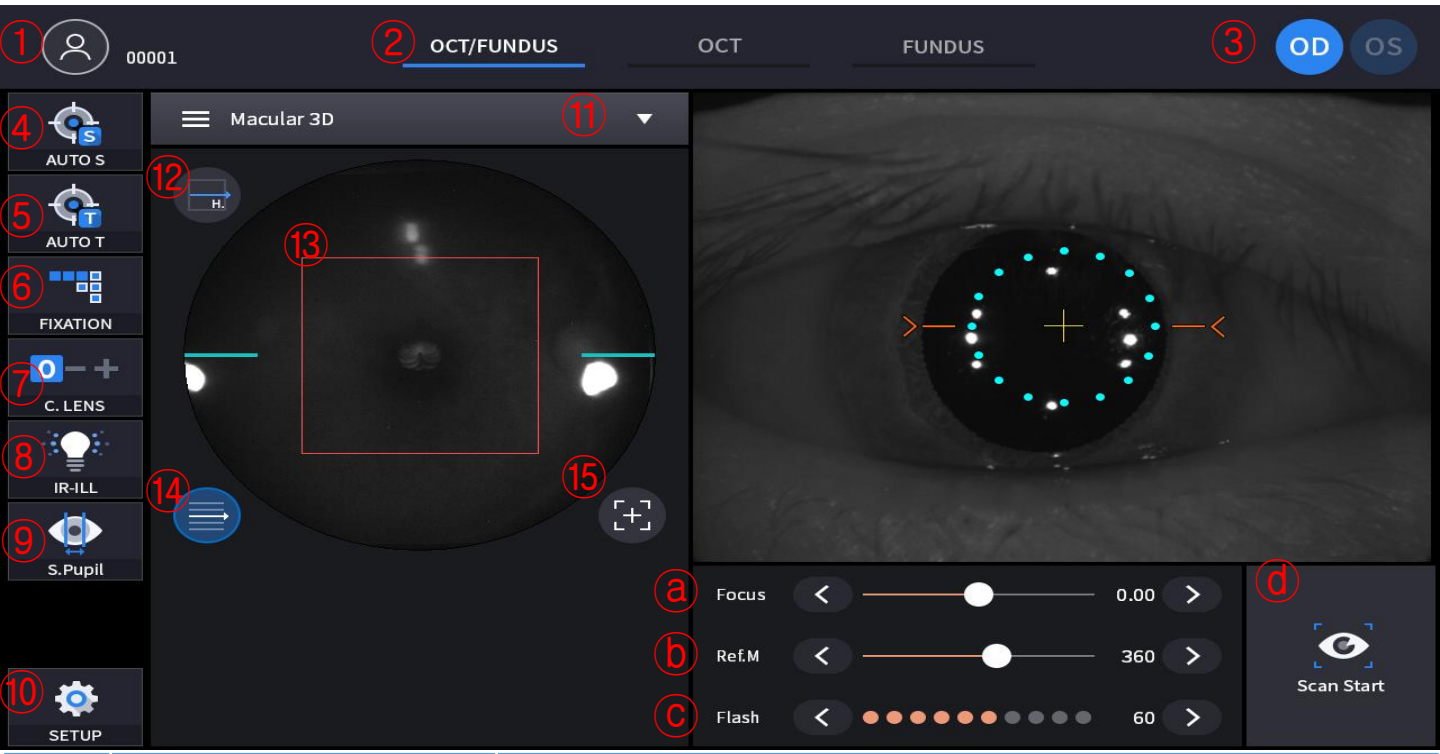
No	Name	Function
1	Patient Info	Show patient's name and patient's ID number. If clicked, move to patient's detail window.
2	Measurement mode	Current Mode - Fundus
3	OD/OS	Side of eye - OD: right, - OS: left
4	AUTO S	Turn on or off 'Auto Shooting'
5	AUTO T	Turn on or off 'Auto Tracking'
6	FIXATION	Turn on a fixation mode in which we can look at and set the position of a fixation.
7	C LENS	An additional lens for a diopter compensation 0: No additional lens which covers from -13D ~ +13D -: (-) additional lens which covers from -33D ~ -13D +: (+) additional lens which covers from +13D ~ +33D
8	IR-ILL	Lighting for a retina. If ON, the brighter lighting shoots, else, the darker lighting shoots. Normally, the brighter lighting is for 'OCT' mode, the darker lighting is for 'OCT/FUNDUS' and 'FUNDUS' mode. The values of lighting can be set in 'Device_Calibrator'
9	S.pupil	Turn on/off a small pupil mode
10	SETUP	Go into 'User Option' window
11	Single or Panorama	Choose 'Single' or 'Panorama'. Take a picture in 'Single' mode, Take 7 pictures in 'Panorama' mode.
12	Split focus	Split focus : shows the status of a correspondence with patient's diopter.
13	Focus	Show the position of a diopter lens. Can be adjusted a diopter lens manually by clicking or dragging.
14	IR.En	IR Brightness which is based on 'Image Processing' with S/W

◆ FUNDUS Confirmation Window



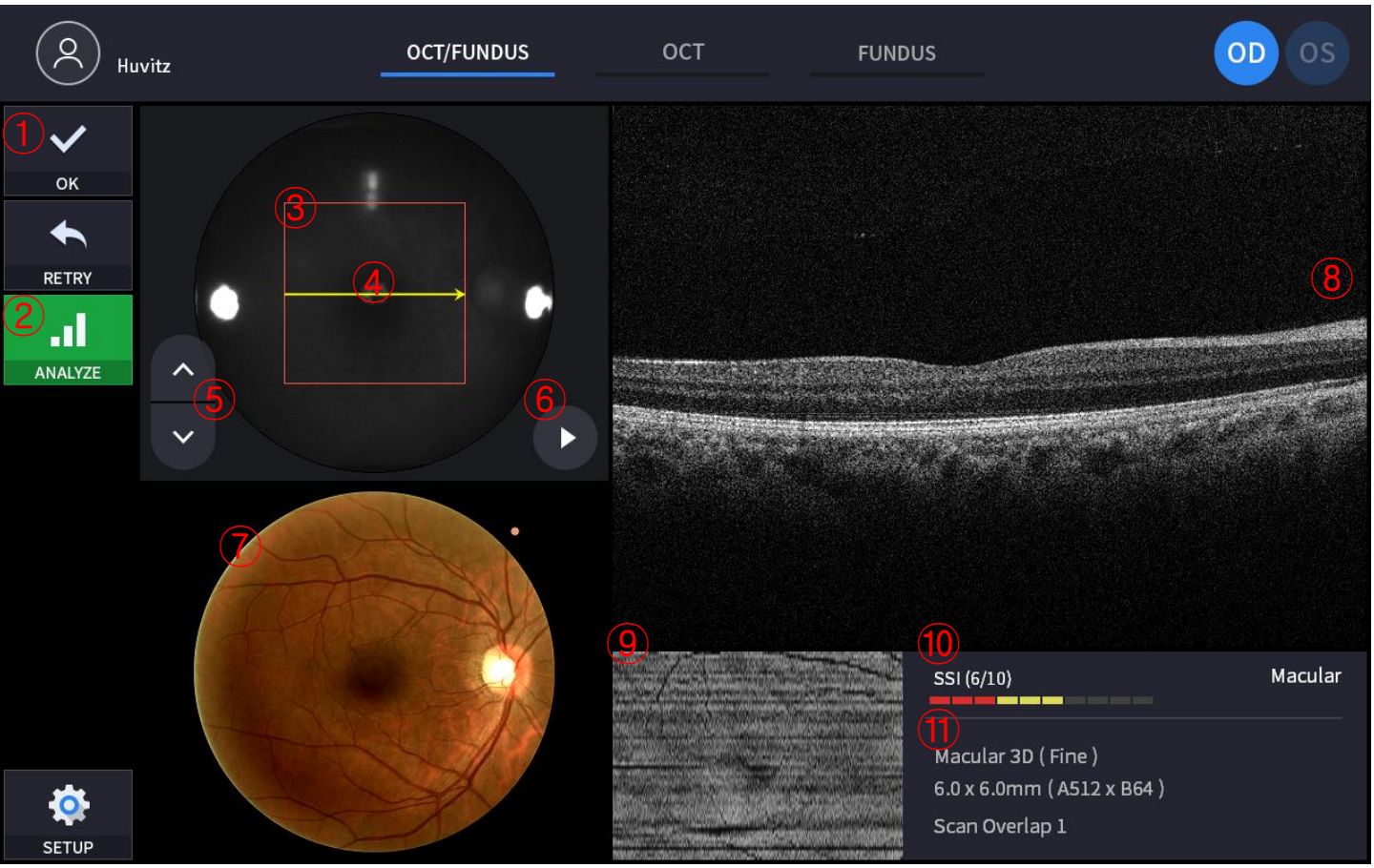
No	Name	Function
1	Save or discard	Save or discard a measured examination and go back a measurement mode - OK: Save - RETRY: Discard
2	Analyze	Save a measured examination and move into a analysis window with it.
3	Information	Information of an examination
4	Side mark	Mark image's side which is right or left.

◆ OCT/FUNDUS Measurement Window



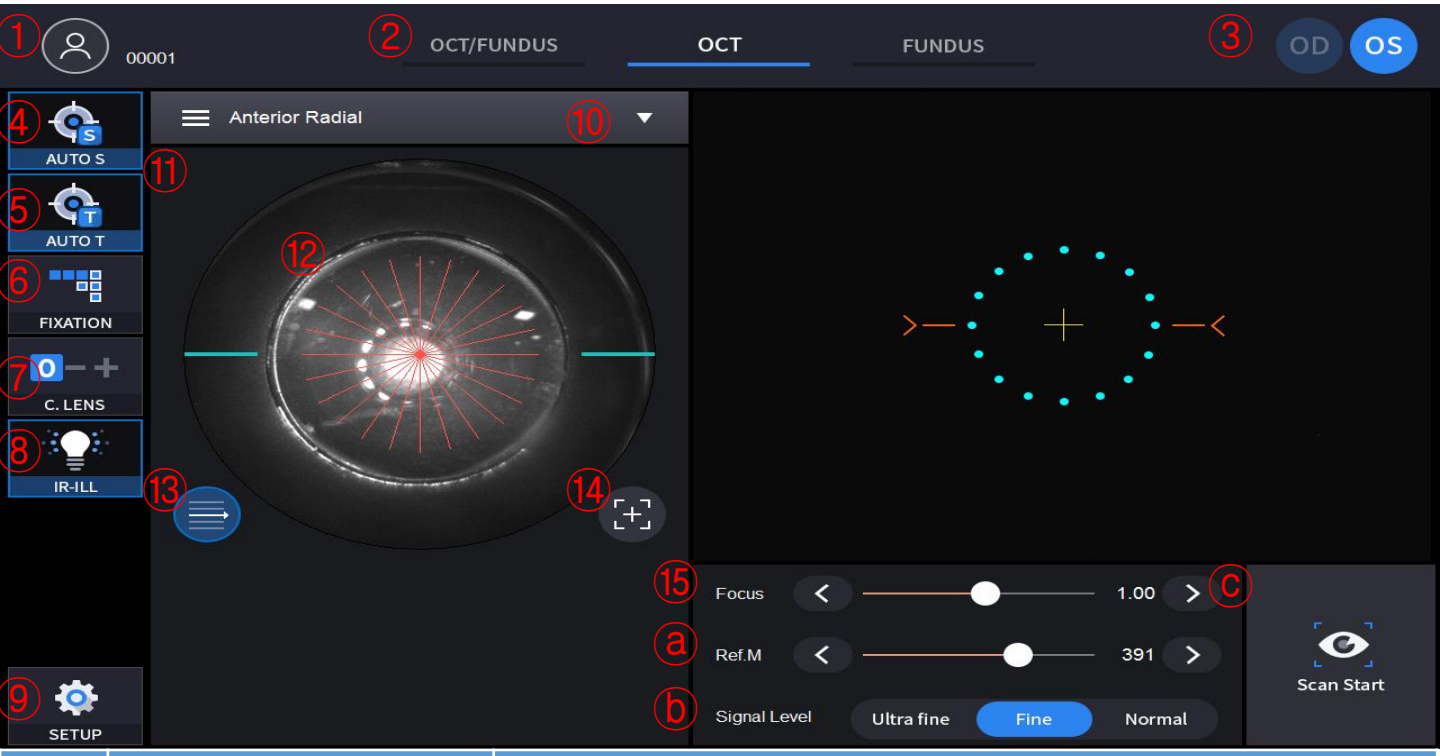
No	Name	Function
1	Patient Information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	Measurement Mode	Current Measuring Mode OCT/Fundus: OCT/Fundus together - OCT: OCT measurement - Fundus: Fundus measurement
3	OD/OS	Measuring Side : OD(Right side), OS(Left side)
4	AUTO S	Turn on/off 'Auto Shooting'
5	AUTO T	Turn on/off 'Auto Tracking'
6	FIXATION	Show and change a position of fixation
7	C LENS	Choose an additional lens for a diopter of a patient. 0: No additional lens -: Insert (-) diopter lens, +: Insert (+) diopter lens.
8	IR-ILL	Choose the illumination brightness of a retina, brighter mode for OCT, darker mode for OCT/Fundus and Fundus.
9	S.pupil	Turn on 'Small Pupil' mode.
10	SETUP	Go into 'User Setup Window'
11	Measurement Option	Choose measurement area and measurement option. - Fundus/OCT or OCT mode: Macular, Disk, Anterior - Fundus mode: Single, Panorama
12	Scan direction	Choose a scanning direction.
13	Scan Range	Scan range
14	Turn on/off Scan Range	Turn on/off a scanning range
15	Reset scan position	Reset a scanning position
a	Focus	Show the diopter of lens for a patient.
b	Ref.M	Change the position of a reference mirror.

◆ OCT/FUNDUS Confirm Window



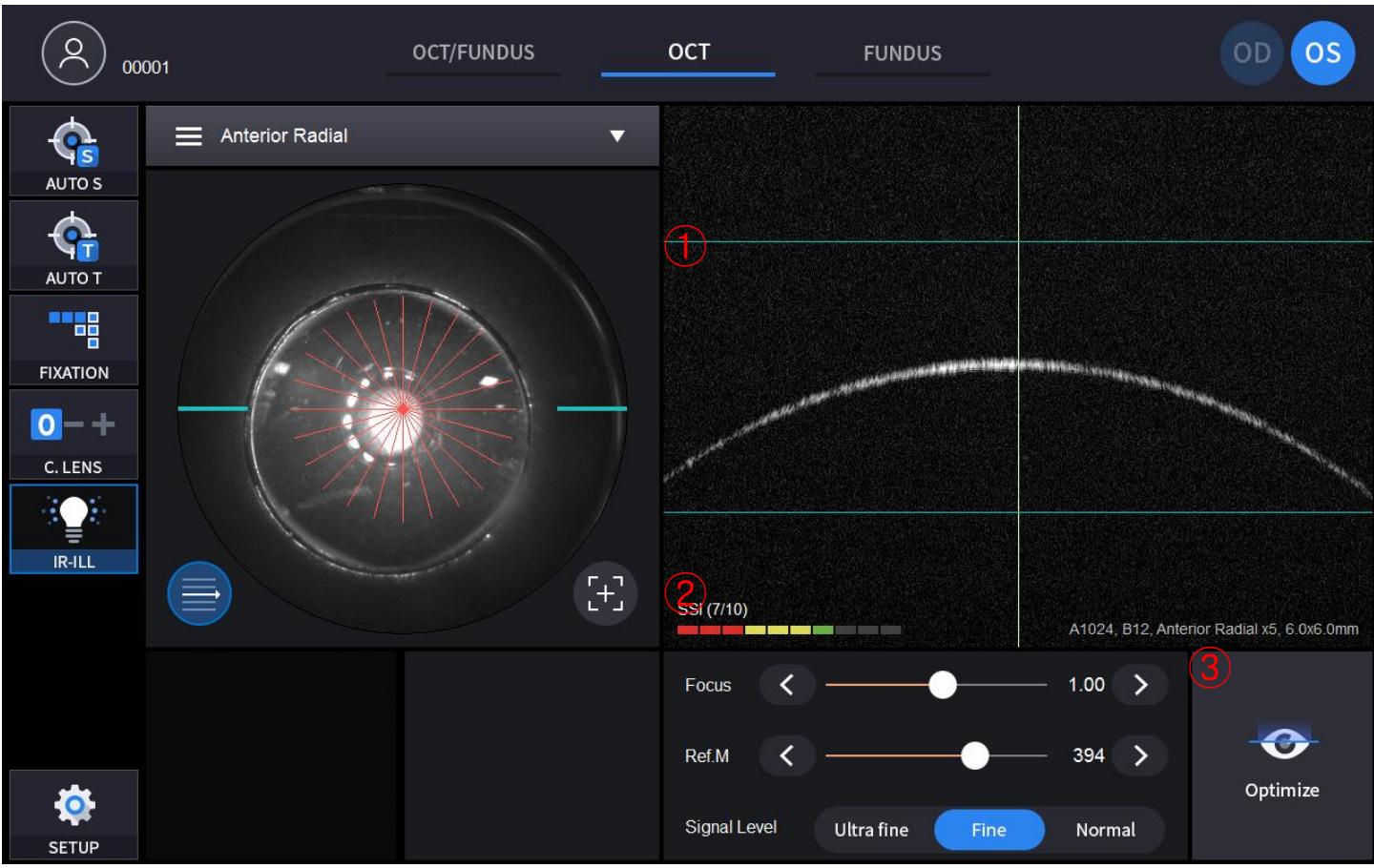
No	Name	Function
1	OK	Choose ‘Save’, ‘Retry’, ‘Analysis’ - OK: Save - RETRY: Retry
2	Analyze	Save and Go into ‘Analysis Window’.
3	Scan Range	Show ‘Scan range’.
4	Scan Position	Show a scan position that correspond to the left B-scan.
5	Movement of B-scan	Move to previous or next B-scan.
6	Continuous movement Of B-scan	Show B-scan continuously.
7	Fundus image	Show Fundus image.
8	OCT image	Show B-scan image.
9	Anterior image	Show an anterior image.
10	Image Sensitivity Index (SSI)	Image Sensitivity Index
11	Scan Information	Show a scan information

◆ Anterior Measurement



No	Name	Function
1	Patient information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	Measurement Mode	Current Measuring Mode OCT/Fundus: OCT/Fundus together - OCT: OCT measurement - Fundus: Fundus measurement
3	OD/OS	Measuring Side : OD(Right side), OS(Left side)
4	AUTO S	Turn on/off 'Auto Shooting'
5	AUTO T	Turn on/off 'Auto Tracking'
6	FIXATION	Show and change a position of fixation
7	C LENS	Choose an additional lens for a diopter of a patient. 0: No additional lens -: Insert (-) diopter lens, +: Insert (+) diopter lens.
8	IR-ILL	Choose the illumination brightness of a retina, brighter mode for OCT, darker mode for OCT/Fundus and Fundus.
9	SETUP	Go into 'User Setup Window'
10	Scan (Capture region)	Choose measurement area and measurement option. - Fundus/OCT or OCT mode: Macular, Disk, Anterior - Fundus mode: Single, Panorama
11	Scan direction	Choose a scanning direction.
12	Scan Range	Scan range
13	On/off for a Scan range	Turn on/off a scanning range
14	Reset a scan position	Reset a scanning position
15	Focus	Show the diopter of lens for a patient.
a	Ref.M	Change the position of a reference mirror.

◆ Anterior Window



No	Name	Function
1	OCT image	Live preview image
2	Signal Sensitivity Index (SSI)	Show the quality of ‘Scanning Image’
3	Optimize	Make best a scan signal.

◆ Anterior Measurement Option

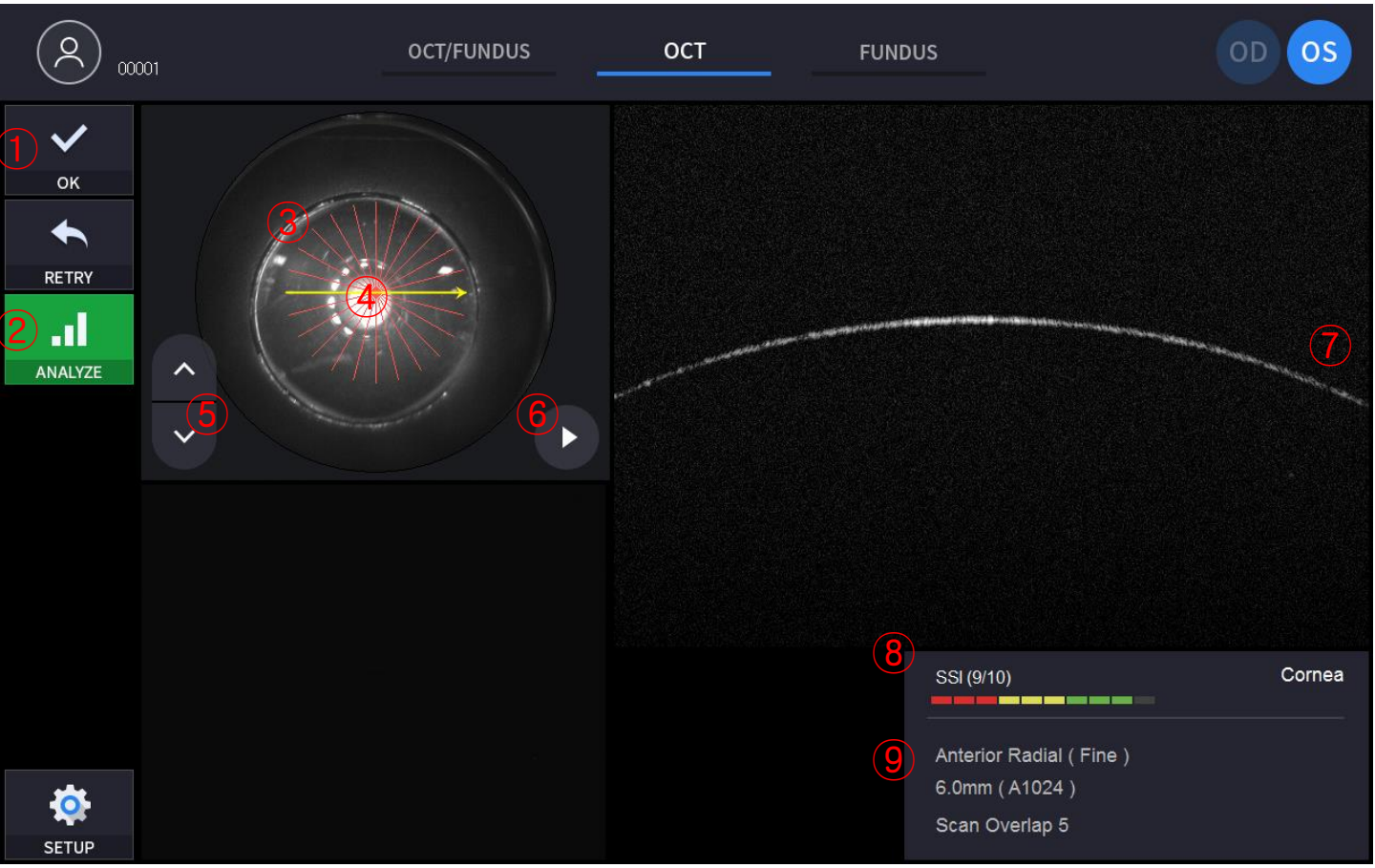
① Macula Scan Option

② Disc Scan Option

③ Anterior Scan Option
- L ④ **ACA Line:** One line scan for Anterior chamber angle
- L ⑤ **Anterior Radial:** Scan along 12 directions like a clock.
- L ⑥ **Anterior 3D:** Scan along multiple parallel lines and make 3D image.
- L **Anterior Radial:**
  - L ⑦ **Scan Range:** Specify the size of B-Scan.
  - L ⑧ **Ascan Points:** Specify the number of A-Scan.
  - L ⑨ **Scan Overlap:** Specify the number of B-scan for a same position.
  - L ⑩ **OCT Sensitivity:** Choose a sensitivity of a scan. If a sensitivity is high, a scan time is down. There are 13kHz, 26kHz, 68kHz of a scanning speed.

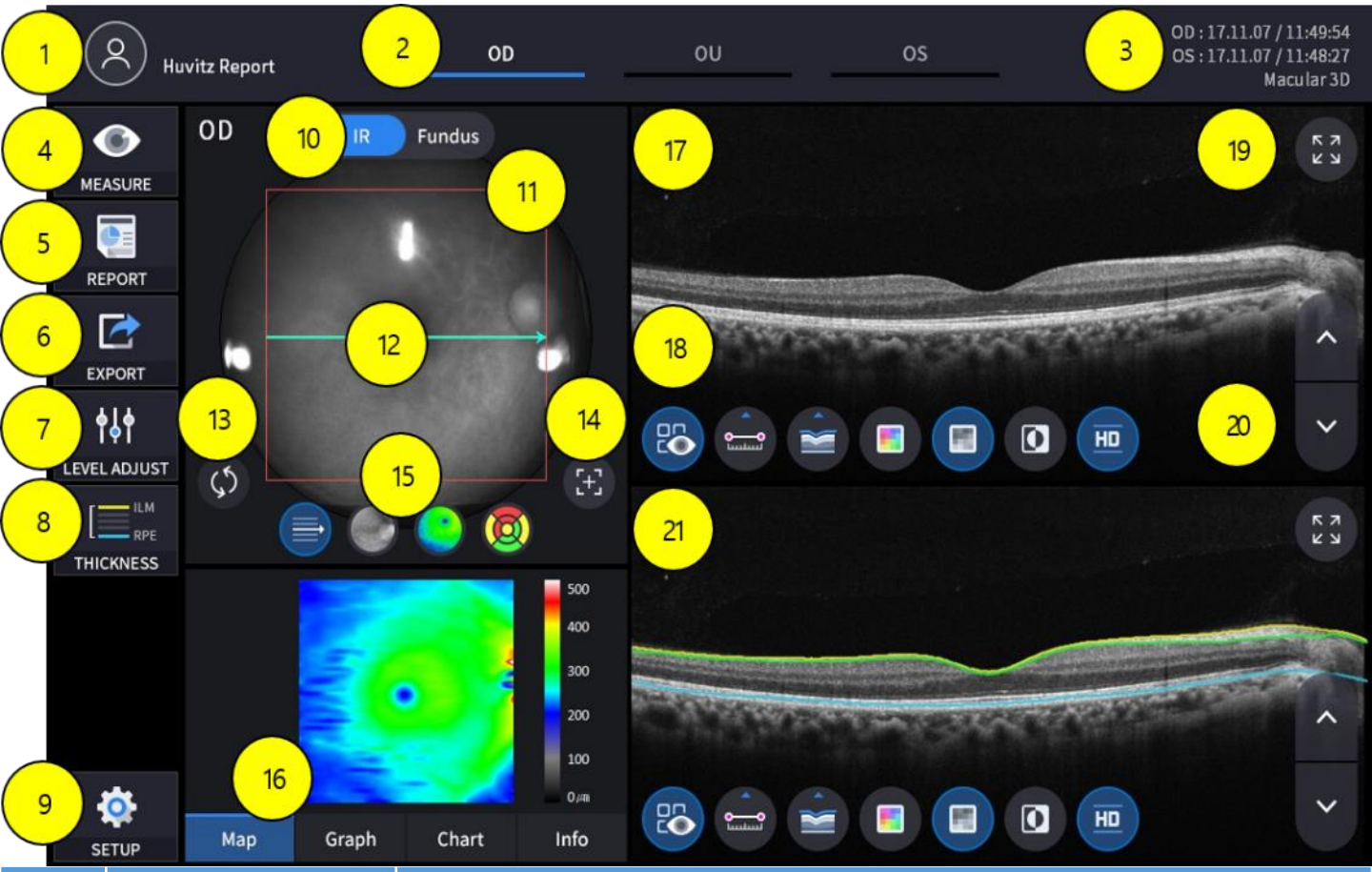
※ **A-Scan:** An axial scan for one point.
※ **B-Scan:** Multiple A-Scans. It makes a tomography.
※ **C-Scan:** Multiple B-Scans. It makes 3D image and Enface.

◆ Anterior Setup Menu



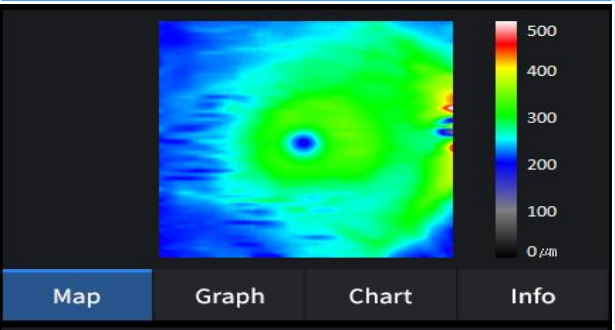
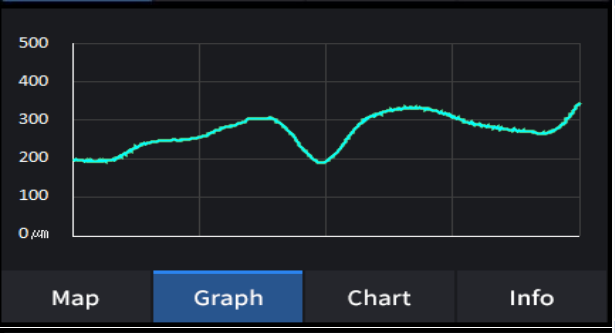
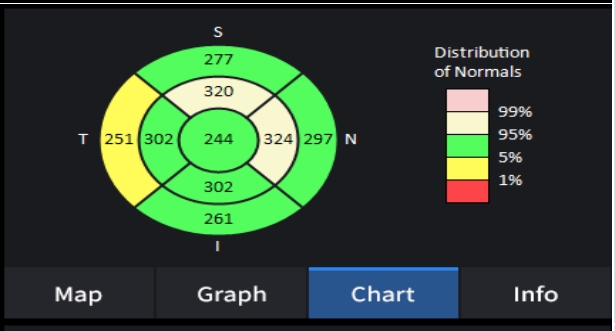
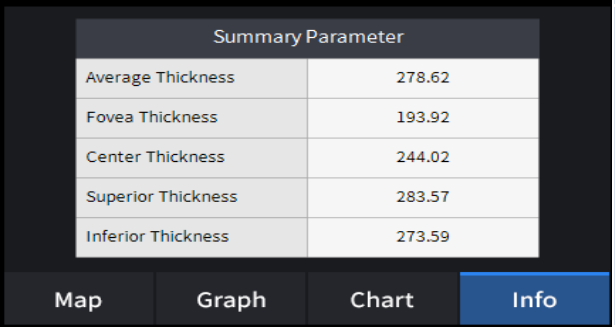
No	Name	Function
1	OK	Choose ‘Save’, ‘Retry’, ‘Analysis’ - OK: Save - RETRY: Retry
2	Analyze	Save and Go into ‘Analysis Window’.
3	Scan Range	Show ‘Scan range’.
4	Scan Position	Show a scan position that correspond to the left B-scan.
5	Movement of B-scan	Move to previous or next B-scan.
6	Continuous movement Of B-scan	Show B-scan continuously.
7	Enface image	Show Enface image.
8	OCT image	Show B-scan image.
9	Anterior image	Show an anterior image.

◆ OCT Macular Analysis Window

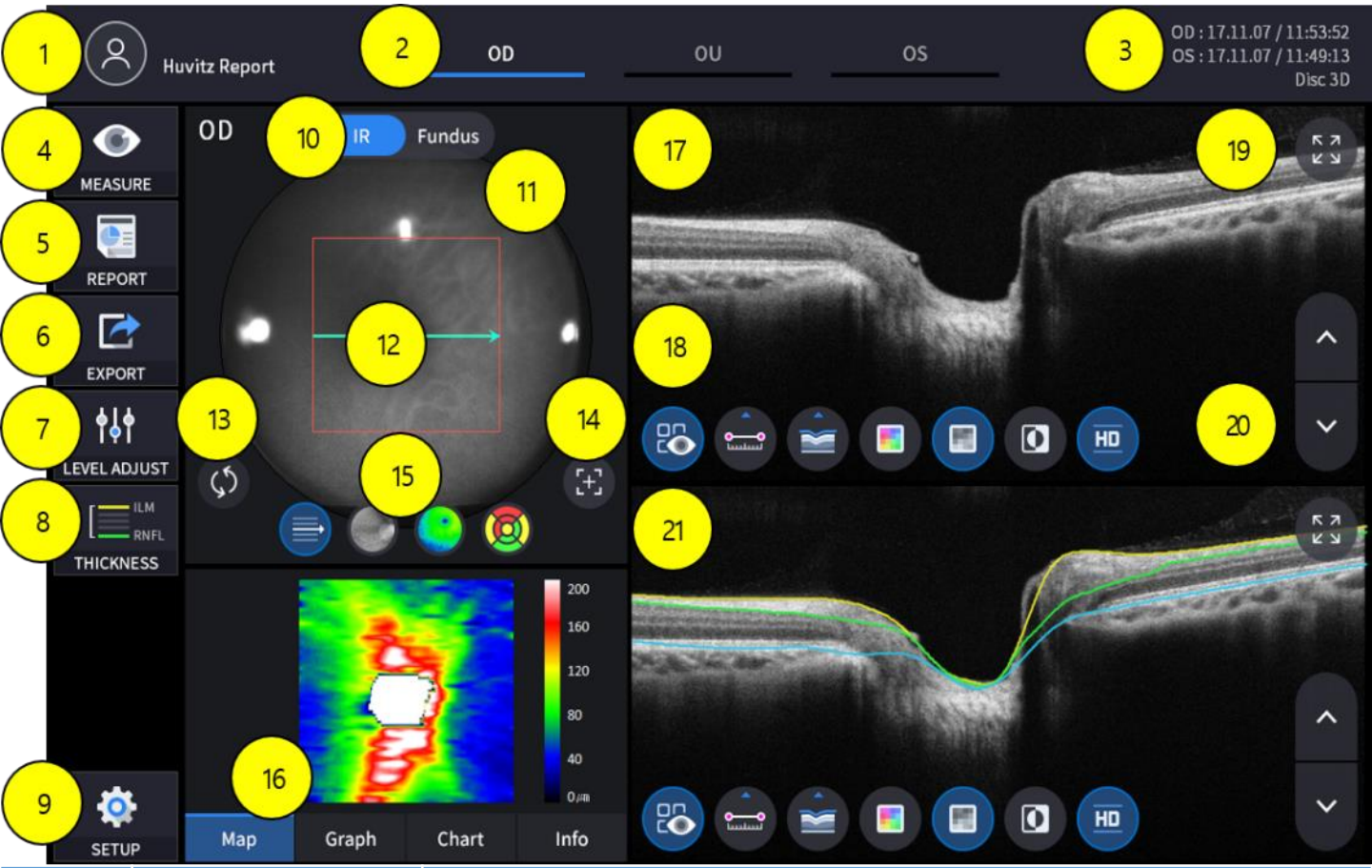


No	Name	Function
1	Patient information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	OD / OU / OS	Display Side : OD(Right side), OU(Both side), OS(Left side)
3	Measurement Date	Measurement Date
4	MEASURE	Move into Measurement Window
5	REPORT	Move into Report Window
6	EXPORT	Save a current screen
7	LEVEL ADJUST	Adjust a contrast of a Bscan
8	THICKNESS	Choose the type of a thickness Which are ILM <-> GCL or ILM <-> RPE
9	SETUP	Go into 'User Setup Window'
10	IR / Fundus	Choose one of IR-Fundus or Color-Fundus
11	Scan Range	Show a scan range
12	Scan Range	Show the position of a selected B-scan
13	Pattern Center	Reset the center of ETDRS
14	Auto Position	Move ETDRS to the center of fovea automatically.
15	Overlay Control	Turn on or off : Scan Line, Enface, Thickness Map, ETDRS Chart
16	Analyze Control	Tab of Thickness Map, Graph, ETDRS Chart, Information
17	Bscan-1	B-scan (I)
18	Bscan Tool	Tools to analyze B-scan
19	Full Screen	Go into a full screen mode with B-scan
20	Move another B-scan	Move to previous or next B-scan
21	Bscan-2	B-scan (II)

◆ OCT Analysis Window

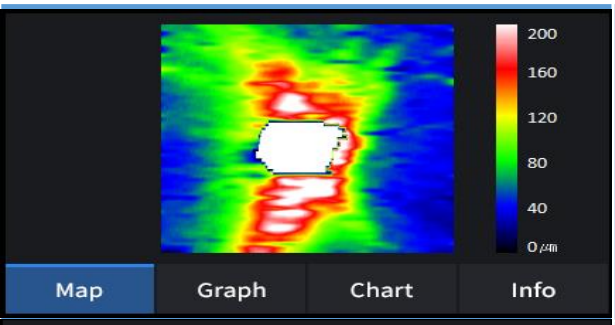
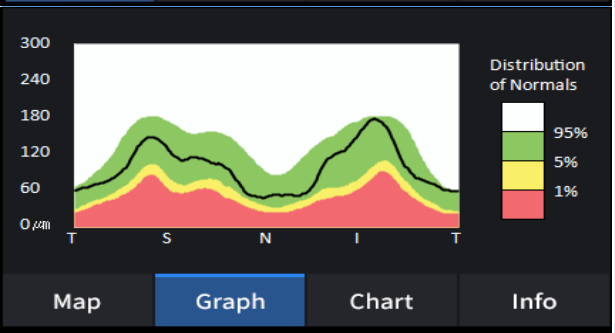
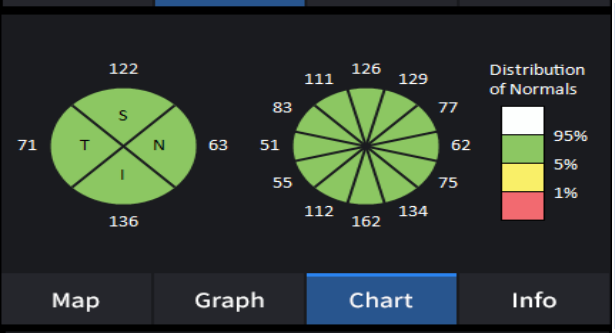
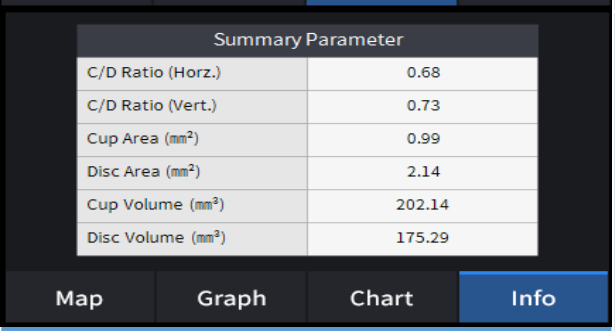
Analysis Window	Function
	−. Thickness map
	−. Thickness graph for a selected B-scan
	−. ETDRS Chart
	−. Average Thickness −. Fovea Thickness −. Center Thickness −. Superior Thickness −. Inferior Thickness

◆ OCT Optic Disk Analysis Window

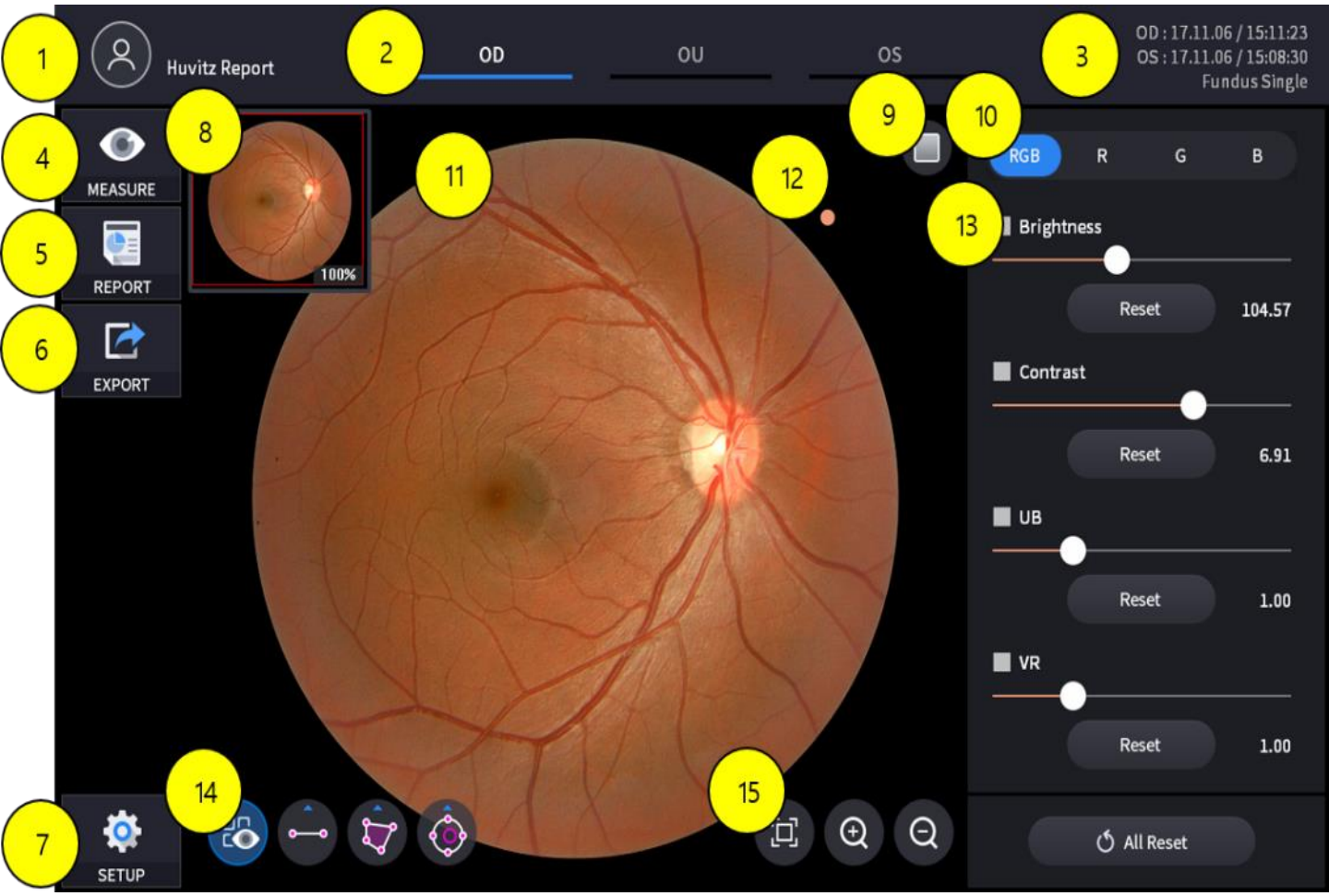


No	Name	Function
1	Patient information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	OD / OU / OS	Display Side : OD(Right side), OU(Both side), OS(Left side)
3	Measurement Date	Measurement Date
4	MEASURE	Move into Measurement Window
5	REPORT	Move into Report Window
6	EXPORT	Save a current screen
7	LEVEL ADJUST	Adjust a contrast of a Bscan
8	THICKNESS	Choose the type of a thickness Which are ILM <-> GCL or ILM <-> RPE
9	SETUP	Go into 'User Setup Window'
10	IR / Fundus	Choose one of IR-Fundus or Color-Fundus
11	Scan Range	Show a scan range
12	Turn on/off Scan Range	Show the position of a selected B-scan
13	Pattern Center	Reset the center of ETDRS
14	Auto Position	Move ETDRS to the center of fovea automatically.
15	Overlay Control	Turn on or off : Scan Line, Enface, Thickness Map, ETDRS Chart
16	Analyze Control	Tab of Thickness Map, Graph, ETDRS Chart, Information
17	Bscan-1	B-scan (I)
18	Bscan Tool	Tools to analyze B-scan
19	Full Screen	Go into a full screen mode with B-scan
20	Move another B-	Move to previous or next B-scan

◆ OCT Analysis Window

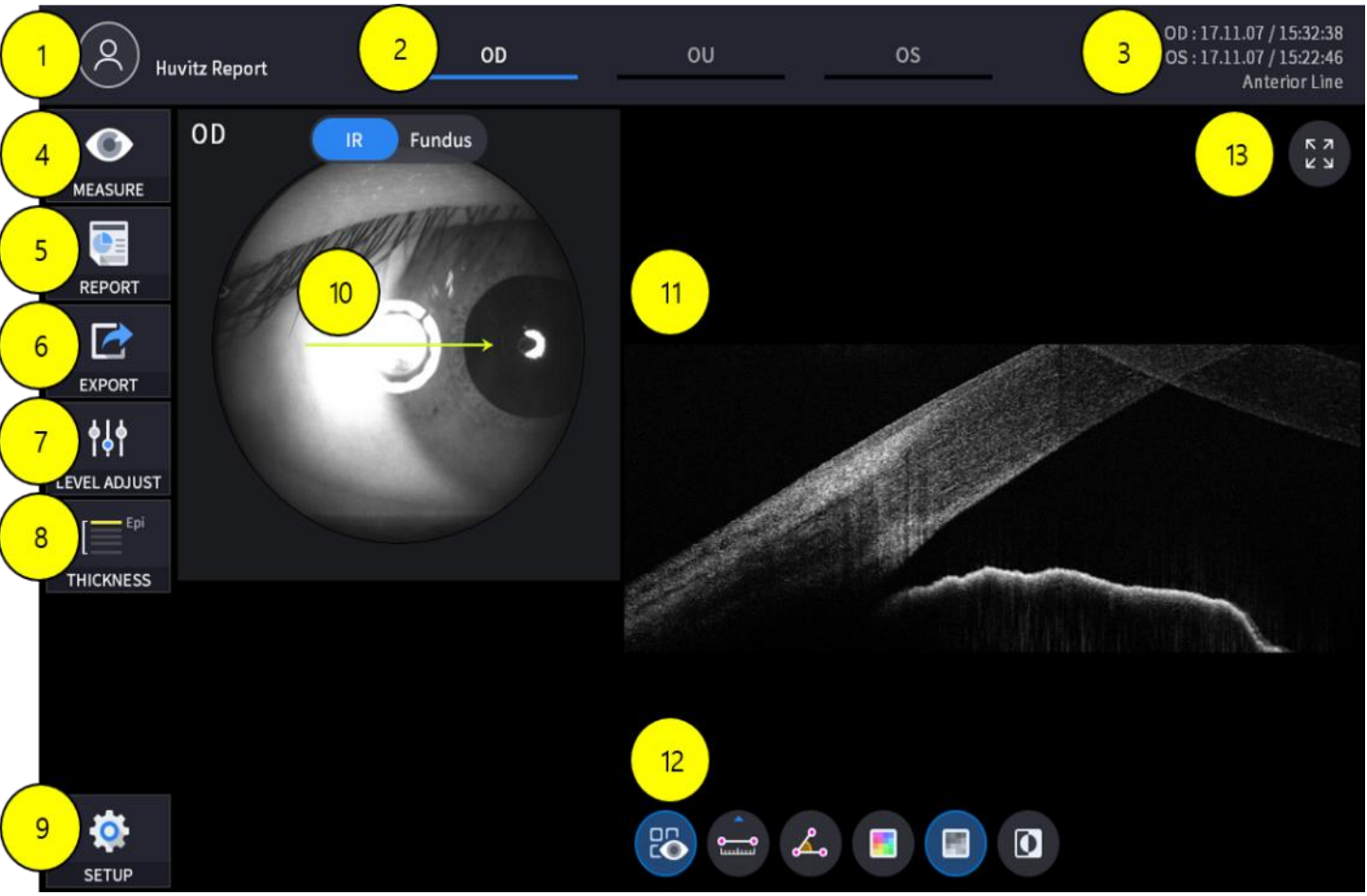
Analysis Window	Function
	−. Thickness map in pseudo color
	−. TSNIT Graph
	−. RNFL Thickness Chart
	−. C/D Ration (Horz.) −. C/D Ratio (Vert.) −. Cup Area −. Disc Area −. Cup Volume −. Disc Volume

◆ FUNDUS Analysis Window



No	Name	Function
1	Patient information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	OD / OU / OS	Display Side : OD(Right side), OU(Both side), OS(Left side)
3	Measurement Date	Measurement Date
4	MEASURE	Move into Measurement Window
5	REPORT	Move into Report Window
6	EXPORT	Save a current screen as an image file.
7	SETUP	Go into 'User Setup Menu'
8	Navigation Window	Show a size and a position of an image which is shown in (11).
9	Red Free	Convert (11) image into a red-free image.
10	RGB Channel	Choose one of RGB Channels.
11	Fundus Image	fundus image
12	Side marker	Side marker
13	Adjustment Control	Adjust Brightness, Contrast, UB, VR.
14	Measurement Tool	Measuring Tools for a length, an area, cup to disk, etc.
15	Magnification tool	Magnification Tool.

◆ Anterior Analysis Window



No	Name	Title
1	Patient information	Show an identity number and a name of the patient being measured. If clicked, go into 'Patient Detailed Window'.
2	OD / OU / OS	Display Side : OD(Right side), OU(Both side), OS(Left side)
3	Measurement Date	Measurement Date
4	MEASURE	Move into Measurement Window
5	REPORT	Move into Report Window
6	EXPORT	Save a current screen
7	LEVEL ADJUST	Adjust a contrast of a B-scan
8	THICKNESS	Epi / Epi <->Endo
9	SETUP	Go into 'User Setup Window'
10	Scan Range	Show the position of a selected B-scan
11	Bscan-1	B-scan
12	Bscan Tool	Tools to analyze B-scan
13	Full Screen	Go into a full screen window for B-scan.