

QUICK START GUIDE SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

TURNING ON/OFF, CHARGING THE DEVICE



On/off
button on
right side



Power
supply
connector

START MENU

Note: this screen (test options) can vary depending on your set up



AUDITORY BRAINSTEM RESPONSE (ABR) DIAGNOSTIC

Connect the electrode cable



to the white connector.



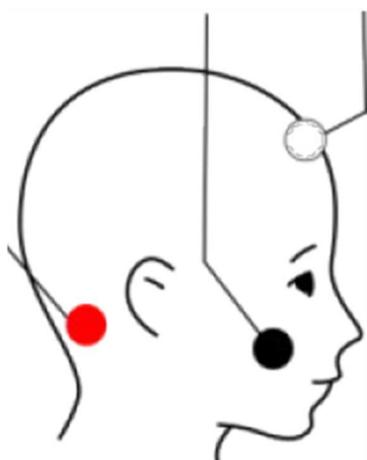
QUICK START GUIDE

SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

Connect the transducer to the appropriate connector:

- Headphones or insert earphones: blue connector
- Probe: red connector
- Second probe for binaural testing: blue connector
- Bone oscillator: red connector

Clean the patient's skin and place the electrode pads. Connect the clips to the corresponding sites. Recommended montage is:



White: high forehead

Black: cheek

Red: mastoid

For binaural testing, place red electrode on the nape.

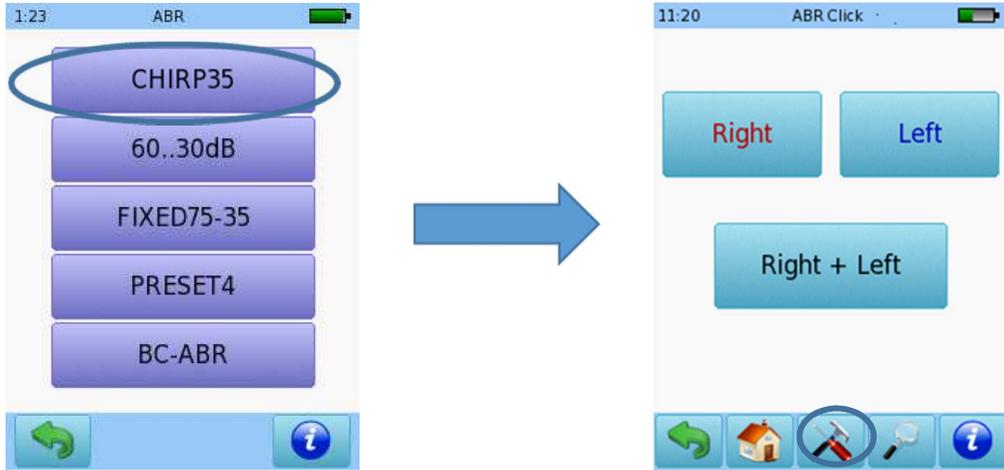
If you are using an ear probe or insert earphones, select the appropriate ear tip size and place it on the probe tip. Insert the probe in the ear making sure that the ear tip fits tightly into the ear canal.

If you are using headphones, place them over the ears.

Select ABR.

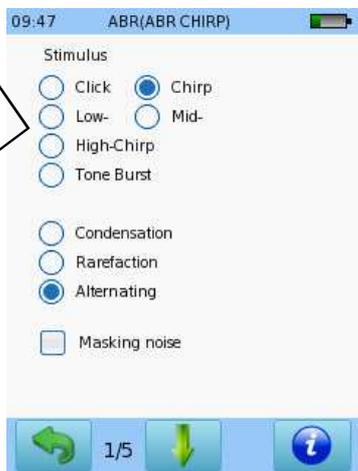
Select the protocol you would like to use. To change the parameters, select one of the presets and then the tools button at the bottom of the page:

QUICK START GUIDE SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

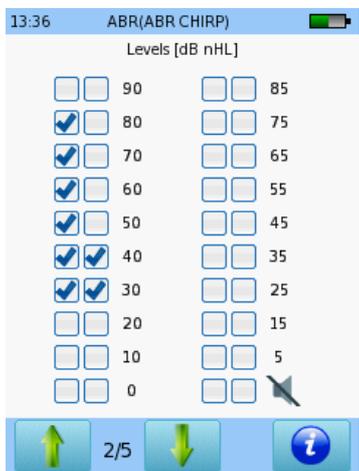


CONFIGURABLE TEST PARAMETERS

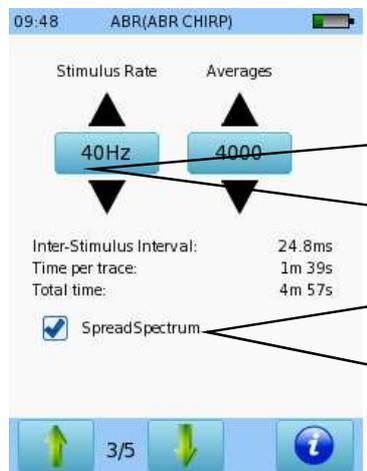
Click will provide better overall morphology. Chirp will provide better wave V amplitude. Select tone burst or frequency specific chirp for frequency specific testing.



Select type of stimulus and polarity. Masking noise is available only for monaural testing.



Select up to 8 testing intensities. Repeat a level to confirm response repeatability.



A lower stimulus rate will provide better wave morphology.

Spread Spectrum reduces sensitivity to electrical interference.

Select stimulus rate, maximum number of averages and whether to use Spread Spectrum (recommended).



QUICK START GUIDE

SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

Statistical evaluation is used to automatically mark wave V. This can be confirmed manually.

Test will be automatically stopped if no response was recorded for two consecutive traces

The current trace will be stopped if the residual noise is lower than this value

Proceed automatically to the next trace when significance is reached for the current trace

Minimum peak to peak amplitude required for wave V to be marked as valid (green)

Select recording parameters

Select latency normative data

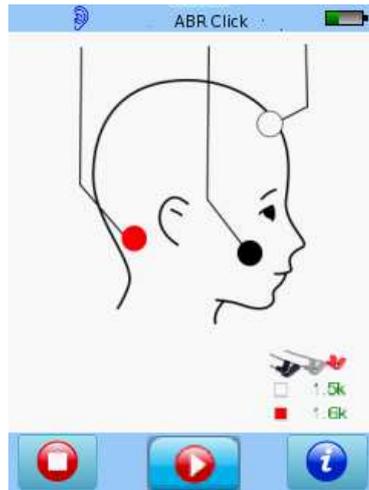
Select the test ear by pressing either the Right or Left button, or Right + Left for binaural testing. Binaural testing is available when headphones, insert phones or two ear probes are connected.



QUICK START GUIDE

SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

An impedance check will be performed prior to measurement. If impedance is below 6 k ohm, the start button will become available. You can configure the settings for the test to *autostart* if the impedance is lower than 4 k ohm. If impedance is higher than 6 k ohm but below 12 k ohm, a skip button will become available. An impedance below 6 k ohm is recommended for best test results.



If you are using an ear probe, a calibration will be performed together with the impedance check. You can select the simple calibration or the expert calibration mode in the device set up.



Simple calibration mode



Expert calibration mode

QUICK START GUIDE SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

ABR DIAGNOSTIC TEST SCREEN

Bars indicate significance level of response

Modify the table of levels to test

Overall EEG. Value should remain in the lower third. Press to enable raw EEG view

Test progress

Stop test

Restart test for current level

Pause / resume

Skip current test level

Red (right ear) and blue (left ear) dots indicate wave V detected automatically

Increase test time. This will increase the maximum number of stimuli

Enter peak edit mode

Impedance monitor

INTERACTIVE PARAMETERS CHANGES AVAILABLE DURING TEST

<input type="checkbox"/>	90	<input type="checkbox"/>	85
<input type="checkbox"/>	80	<input type="checkbox"/>	75
<input checked="" type="checkbox"/>	70	<input type="checkbox"/>	65
<input type="checkbox"/>	60	<input type="checkbox"/>	55
<input checked="" type="checkbox"/>	50	<input type="checkbox"/>	45
<input type="checkbox"/>	40	<input type="checkbox"/>	35
<input checked="" type="checkbox"/>	30	<input type="checkbox"/>	25
<input type="checkbox"/>	20	<input type="checkbox"/>	15
<input type="checkbox"/>	10	<input type="checkbox"/>	5
<input type="checkbox"/>	0	<input type="checkbox"/>	

OK

Modify intensity levels during test

20µV

59.8Hz

3.2k

3.1k

View raw EEG during test

Wave V @ 70 dB

Confirm marker position

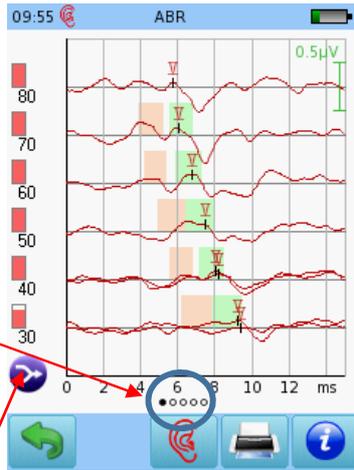
Mark waves during test

QUICK START GUIDE SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

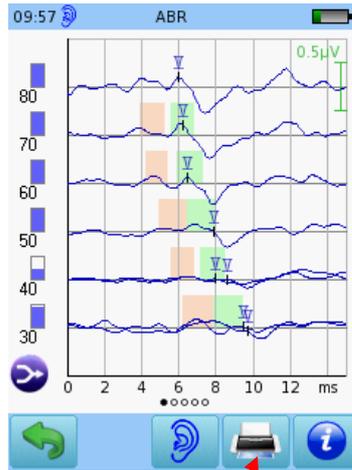
ABR DIAGNOSTIC TEST RESULTS

Bar graphs indicate the significance of the response. A full bar indicates valid response.

Note: These circles indicate that other screens are available to view. Swipe your finger right or left to get other views.



Single ear view



Binaural view

Print results to a label or to a pdf file

Press for additional options:

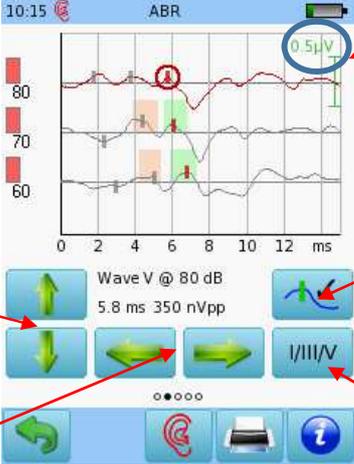
-  Show traces in test order
-  Show traces sorted by level
-  Overlay traces of same levels
-  Show summed traces for same levels

QUICK START GUIDE

SENTIERO ADVANCED DIAGNOSTIC ABR

(GOLD LABEL)

INTERACTIVE OPTIONS AVAILABLE AFTER TEST



10:15 ABR

Wave V @ 80 dB
5.8 ms 350 nVpp

0.5µV

80
70
60

0 2 4 6 8 10 12 ms

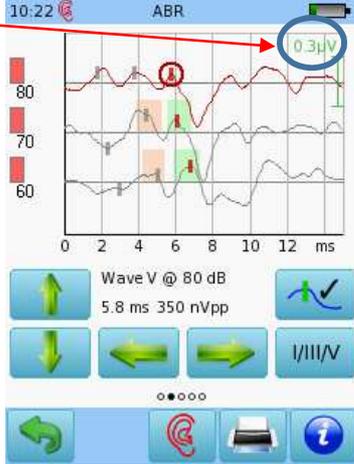
Select trace

Move wave marker

Wipe up or down inside the graph area to modify the scale

Confirm marker position. Marker symbol changes to the corresponding Roman numeral.

Switch between wave markers



10:22 ABR

Wave V @ 80 dB
5.8 ms 350 nVpp

0.3µV

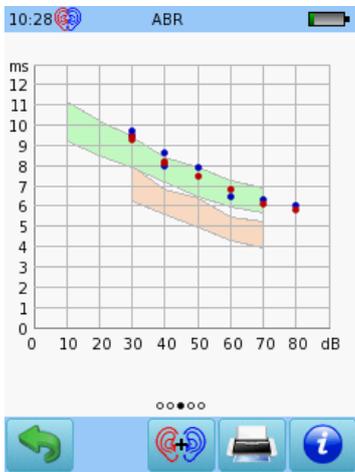
80
70
60

0 2 4 6 8 10 12 ms

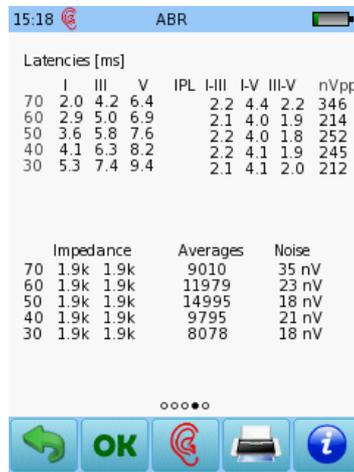
Zoom in or out

Mark waves after test is finished

Zoom in or out



Latency intensity graph



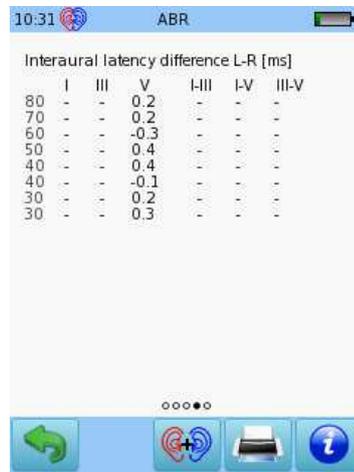
15:18 ABR

Latencies [ms]								
	I	III	V	IPL	I-III	I-V	III-V	nVpp
70	2.0	4.2	6.4	2.2	4.4	2.2	346	
60	2.9	5.0	6.9	2.1	4.0	1.9	214	
50	3.6	5.8	7.6	2.2	4.0	1.8	252	
40	4.1	6.3	8.2	2.2	4.1	1.9	245	
30	5.3	7.4	9.4	2.1	4.1	2.0	212	

Impedance			Averages		Noise	
70	1.9k	1.9k	9010	35 nV		
60	1.9k	1.9k	11979	23 nV		
50	1.9k	1.9k	14995	18 nV		
40	1.9k	1.9k	9795	21 nV		
30	1.9k	1.9k	8078	18 nV		

Numeric values shown in table format

Numeric values shown in table format

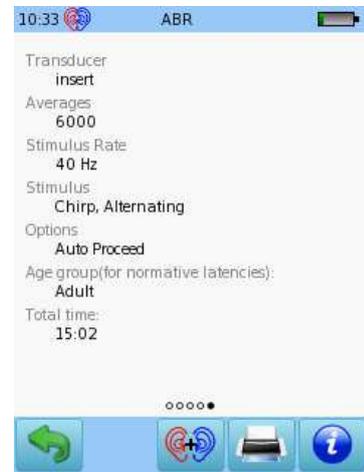


10:31 ABR

Interaural latency difference L-R [ms]						
	I	III	V	I-III	I-V	III-V
80	-	-	0.2	-	-	-
70	-	-	0.2	-	-	-
60	-	-	-0.3	-	-	-
50	-	-	0.4	-	-	-
40	-	-	0.4	-	-	-
40	-	-	-0.1	-	-	-
30	-	-	0.2	-	-	-
30	-	-	0.3	-	-	-

Interaural difference in binaural testing

Interaural difference in binaural testing



10:33 ABR

Transducer
Insert

Averages
6000

Stimulus Rate
40 Hz

Stimulus
Chirp, Alternating

Options
Auto Proceed

Age group (for normative latencies):
Adult

Total time:
15:02

Test conditions

Test conditions

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Quick Guide Information

Release date: 2017-01-12
Revision: 01
Valid from: Firmware Rev. 2.1, Mira PC Software Rev. 1.6.4
Applies to: Model: SOH100360, web descriptions SOH06, SOH07, SOH08 and SOH09

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