

# 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.



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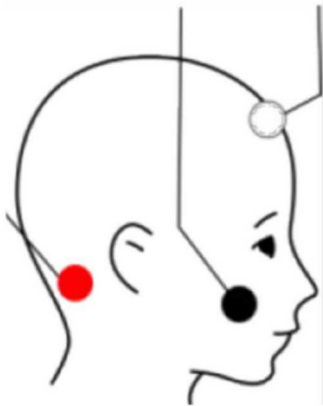
### (GOLD LABEL)

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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.

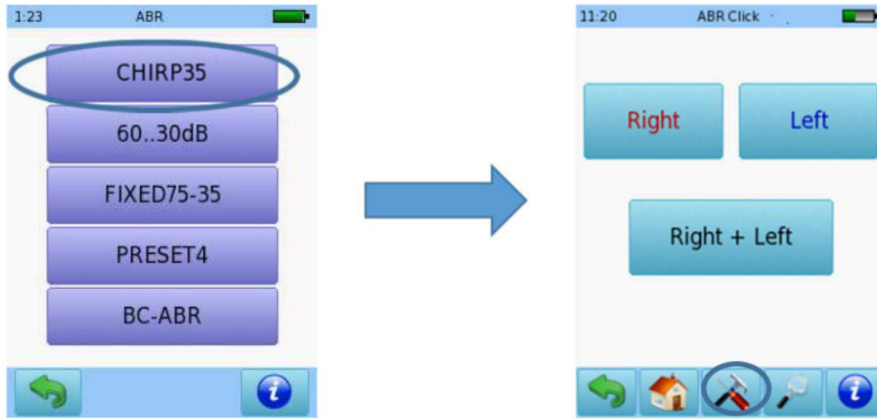
If you are using headphones, place them over the ears.

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:

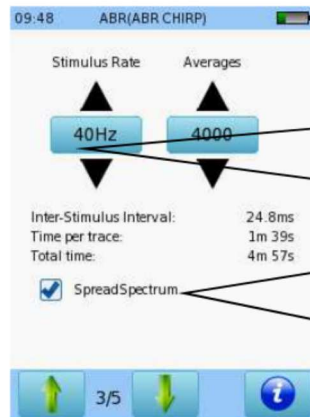
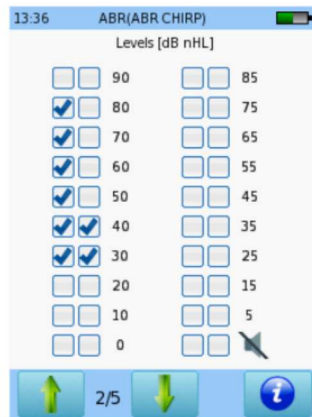
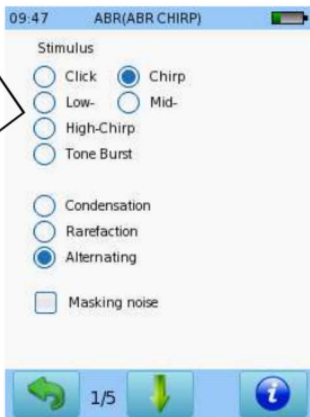
# QUICK START GUIDE

## 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.



A lower stimulus rate will provide better wave morphology.

Spread Spectrum reduces sensitivity to electrical interference.

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.

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



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## SENTIERO ADVANCED DIAGNOSTIC ABR (GOLD LABEL)

09:49 ABR(ABR CHIRP)

Recording parameters

- Automated J5 detection
- Auto Proceed
- Auto Stop

Noise Stop Criterion: **10nV**

Minimum J5 amplitude: **20nVpp**

4/5

09:50 ABR(ABR CHIRP)

Age group (for normative latencies):

- Newborn
- 2 months
- 6 months
- 12 months
- Adult
- Don't show normatives
- Ask before test

Edit Preset Name

5/5 **OK**

Select recording parameters

Select latency normative data

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

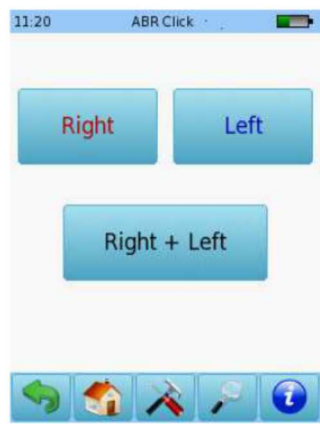
Test will be automatically stopped if no response was recorded for two consecutive traces

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 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.

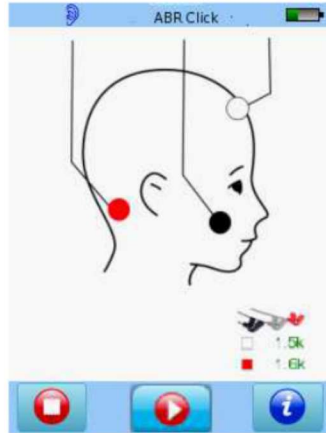


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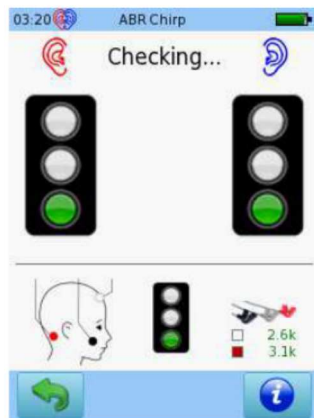
## SENTIERO ADVANCED DIAGNOSTIC ABR

### (GOLD LABEL)

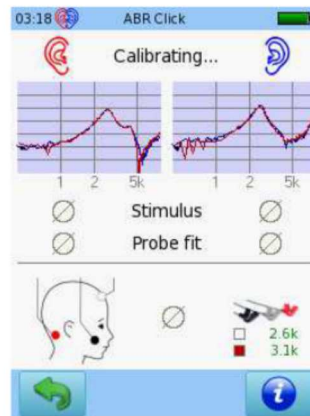
An impedance check will be performed prior to measurement. If impedance is below 6 k ohm, the start button will become available. You can configure the settings for the test to *autostart* if the impedance is lower than 4 k ohm. If impedance is higher than 6 k ohm but below 12 k ohm, a skip button will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



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## 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

Modify intensity levels during test

View raw EEG during test

Mark waves during test

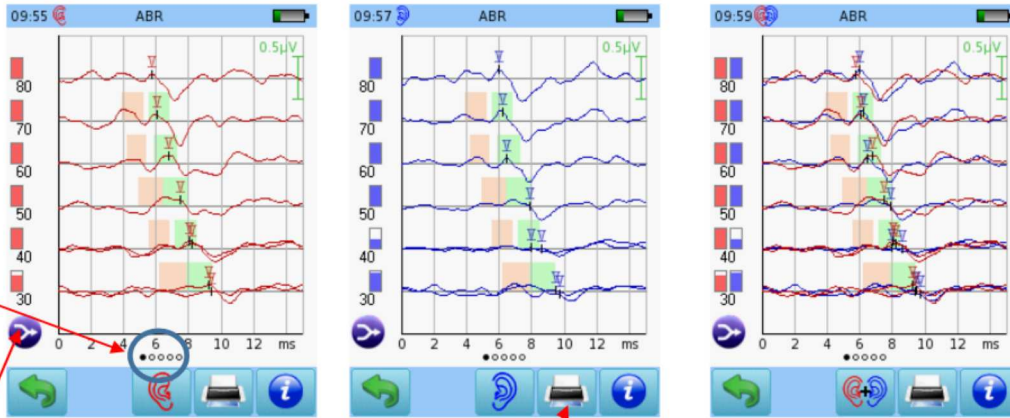
Confirm marker position

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## 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:

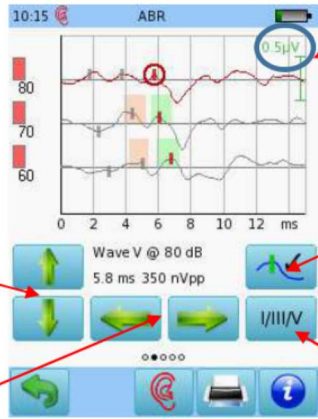
-  Show traces in test order
-  Show traces sorted by level
-  Overlay traces of same levels
-  Show summed traces for same levels

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## SENTIERO ADVANCED DIAGNOSTIC ABR

### (GOLD LABEL)

#### INTERACTIVE OPTIONS AVAILABLE AFTER TEST



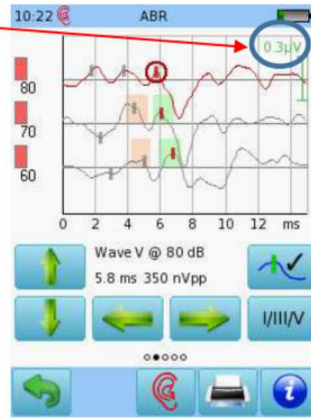
Wipe up or down inside the graph area to modify the scale

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

Select trace

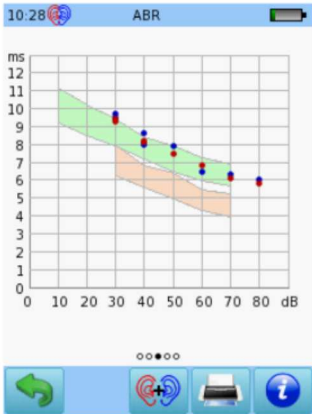
Move wave marker

Switch between wave markers



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

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	-	-	-
30	-	-	-0.1	-	-	-
30	-	-	0.2	-	-	-
30	-	-	0.3	-	-	-

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



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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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