AuDX

Troubleshooting the Probe

580-OAESM1, 580-OAESM2, 580-OAESM3

Troubleshooting should be conducted whenever you get excessive artifact during testing, obtain refer results for all patients and/or get the following error messages; “Occluded probe? Refit and retry” or “Probe in ear? Refit and retry”.

STEP 1 Checking the probe cable connection

- Disconnect the probe cable from the AuDX box.
- Inspect the round metal connector on the probe cable.
  - There should be 1 black plastic center piece surrounded by seven metal pins of approximately equivalent length. The black plastic piece should be approximately as long as the pins.
  - Inspect all of them, checking for broken or bent pins.
  - If a bent pin is found, gently push the pin back into place.
  - If the pin(s) and or black connector are damaged, the probe cable, 580-OAESM1, 580-OAESM2, or 580-OAESM3, will need to be repaired and/or replaced.
  - If the round connector on the AuDX box is damaged, you will need to either repair or replace the AuDX box.
- To reconnect the probe to the AuDX box, line up the probe cable connector (checking the pin alignment) properly with the round connector on the AuDX box.
- Firmly reconnect the probe to the AuDX box.
- Connect the AuDX box to a working wall outlet, using power supply (520-PS12D2 or 520-PS12D3)
- Diminished battery output can cause probe errors.
- Check the small green LED on the front of the AuDX box to make sure it is illuminated.
- If a problem was found with the probe connection, that has now been resolved, perform a test, referencing *Performing a test using the plastic cavity (instructions at back of guide).
- If the probe cable connection is good and the error messages "Occluded probe? refit and retry" or "Probe in ear? refit and retry" are still present or the initial problem was excessive artifact during testing or refer results for all patients, proceed to STEP 2.

STEP 2 Checking the probe body and flexible tubing

- Inspect the probe body. All three metal tubes should be straight and have no significant gaps.
- If a problem is found with the probe body, replace part # 580-OAEPB1.
- Inspect the clear flexible tubing for debris or holes.
  - If debris and/or holes are present, replace the tubing (part # 203905).
  - Do not cut the tubing as this could interfere with proper sound transmission.
  - Make sure the clear flexible tubing is connected well to speaker A and B on the speaker module and the two metal tubes of the probe body.
- If a problem was found with the tubing, that has now been resolved, perform a test, referencing *Performing a test using the plastic cavity (instructions at back of guide).
- If the error messages "Occluded probe? Refit and retry" or "Probe in ear? refit and retry" are still present or the initial problem was excessive artifact during testing or refer results for all patients, proceed to STEP 3.

STEP 3 Cleaning the probe

Improper cleaning can result in damage to the microphone

- The probe should be cleaned using the Bio-logic probe cleaners, part # 203001.
  - Remove the disposable probe tip from the probe.
  - Disconnect the microphone assembly from the probe body.
  - Remove the clear flexible tubing from the metal sound delivery tubes on the probe body.
  - Thread the Bio-logic cleaning tool, part #203001, through all three metal sound delivery tubes on probe body until tubes are clear of debris. It is important to insert the cleaning tool from the back of the probe body to prevent debris from being pushed inward.
  - Reassemble the probe.
- Perform a test, referencing *Performing a test using the plastic cavity (instructions at back of guide).
- If the error messages "Occluded probe? refit and retry" or "Probe in ear? refit and retry" are still present or the initial problem was excessive artifact during testing or refer results for all patients, proceed to STEP 4.

STEP 4 Checking the speaker module

- Disconnect clear flexible tubing from the metal sound delivery tube labeled A on speaker module.
- Hold the metal sound delivery tube A close to your ear. Perform a test. Listen for a sound.
  - If no sound is heard, repair or replace probe cable, part # 580-OAESM1, 580-OAESM2, or 580-OAESM3.
- If a sound is audible from the metal sound delivery tube A, reconnect the clear flexible tubing to the metal sound delivery tube A.
- Disconnect the clear flexible tubing from the metal sound delivery tube labeled B on the speaker module.

- Hold the metal sound delivery tube B close to your ear. Perform a test. Listen for a sound.
  - If no sound is heard, repair or replace the probe cable, part # 580-OAESM1, 580-OAESM2 or 580-OAESM3.
- If the error messages "Occluded probe? Refit and retry" or "Probe in ear? Refit and retry" are still present or the initial problem was excessive artifact during testing or refer results for all patients, proceed to STEP 5.

STEP 5 Checking the microphone

- Repeat STEP 3, Cleaning the probe. It is important to repeat this step as a small amount of debris lodged in one of the metal sound conducting tubes can cause a failure on this test.
- After recleaning the probe, perform a test, referencing *Performing a test using the plastic cavity (instructions at back of guide).
- Watch the LED display on the AuDX box. A message "check fit in progress…" should appear on the screen".
- If the error message "probe in ear? refit and retry" occurs immediately following the "check fit in progress…" message, do the following:
- Reconnect the clear flexible tubing to the metal sound delivery tubes. Refit the OAE probe into the plastic cavity and repeat the test.
- If the error message "Probe in ear? Refit and retry" occurs again immediately following the check fit in progress" message, disconnect the clear flexible tubing from the metal sound delivery tube for speaker A on the probe body and reconnect it to the metal sound delivery tube for speaker B on the probe body. Alternately, disconnect the clear flexible tubing from the metal sound delivery tube for speaker B on the probe body and reconnect it to the metal sound delivery tube for speaker A on the probe body.
- Repeat the test.
- If the error message "Probe in ear? Refit and retry" is still present, replace the microphone, part #580-OAEMP3, 580-OAEMP4, 580-OAEMP4-1.
- If the AuDX box passes the check fit stage properly, it will automatically begin calibration and continue through the testing process, giving an overall REFER result. If the inital problem was excessive artifact during testing and/or refer results for all patients, proceed to STEP 6.

STEP 6 Performing a biologic check

- Select a subject with known good hearing who has previously gotten a pass result on the AuDX.
- Place an appropriate adult size ear tip in the subject's ear.
- Perform a test.
- If you have completed steps 1 through 5 and are still getting excessive artifact and/or all patients give refer results, replace the microphone, part #580-OAEMP3, 580-OAEMP4 or 580-OAEMP4-1.

***Performing a test using the plastic test cavity**

Place a probe tip on the end of the probe.

- Make sure the probe is connected securely to the box.
- Insert probe snugly into the plastic test cavity, part #203000.
- Perform a test.
  - Observe the LCD display on the AuDX box. You will see the AuDX perform a check fit and calibration.
  - The overall result should be a REFER. However, it would not be unusual to get a pass result at one of the individual frequencies.
  - A REFER result would be consistent with a probe in good working condition.

BIO-LOGIC PART NUMBERS

Speaker Module	#580-OAESM1, 580-OAESM2, 580-OAESM3
Replacement tubing	#203905
Microphone	#580-OAEMP3, 580-OAEMP4, 580-OAEMP4-1 (a spare microphone is included with all new systems)
Power supply	#520-PS12D3
Plastic test cavity	#203000
Probe cleaners	#203001
Probe body	#580-OAEPB1

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If at any time during the troubleshooting process you require additional assistance, please contact the Audiology and Hearing Technical Support Department at (800) 323-8326