Reference Documents:

* TA143 – Repairs Eval Routers & In-process Nonconforming Material Report
* TA156 – Repairs Eval Router & In-process Nonconforming Material Report for Systems Recal
* TA181 – PFT Repairs Eval Router & In-process Nonconforming Material Report
* TA192 – GEP Repairs Eval Router & In-process Nonconforming Material Report
* QA1044 – Records Control Policy

Instructions for Completing the Eval Router:

* General Instructions
  + Not more than 5 sensors should be referenced on each Eval Router. If less than 5 sensors are referenced, only the required number of blocks need to be filled in on the Eval Router.
  + Only one model (Base model) per router
  + Front page to be used for ALL first rounds of calibration including RAN / EVAL / FA / MOD
  + The 2nd page of the Eval Router must be completed for any rework performed or for any set up / operations required to prepare sensor for repair or for extra steps needed for FA purposes.
  + Check the RMA for any special instructions or requirements.
  + Ensure that all applicable fields are completed. Parts of the form that are not applicable must be marked “N/A” (reference QA1044).
* Eval Router Section Guidelines
  + **Inspection:**
    - All Models
      * Cosmetics
      * Turn on where applicable
      * Hermeticity Test (where applicable) – rvw router.
        + Remove insulator where applicable.
        + Note – do not perform this test if ablative and or off ground are present
      * Remove epoxy and or clean as necessary so sensor is ready for calibration
    - Pressure / Force Models
      * Check Bias – write value in box next to appropriate s/n
      * Charge units – IR test – Record IR in appropriate box next to s/n
        + Failures

Non – Hermetic – clean per TA1051 and bake out in 250 for 1 hour and retest – failures note in discrepancy area and route to engineering

Hermetic – remove insulator / brush clean per TA1061 / bake 5 min in 250 oven and retest -- failures note in discrepancy area.

* + - * ROKIDE – sensors with rokide can **NOT** be put in an ultra sonic. They must be beaker washed only and then vac baked in oven. 250 F for 8 hrs.
        + NOTE: All Rockide sensors need calibration after Rockide repair.
      * Off Ground Check (Non ablative)
        + Failures

Brush clean (diaphragm area and top of clamp nut) per TA1061, bake out 5 minutes in 250 oven and test again. If it still fails clean per TA1051, vac bake in 250 oven for 4 hrs. – failures – note in discrepancy area.

* + - * + Ablative – Remove customer ablative (if it is a non ablative sensor)

PCB models with bad and or altered ablative and passes off grd and calibration will have ablative repaired before returning to customer.

* + - * Check threads of any adaptors (visual)
        + Any thread issues have adaptor removed before calibration and note on router.
      * Remove cables from sensors (Waterproof) where possible and check both sensor and cable.
      * Water cooled Adaptors need Hermiticity Test completed before cal to check for leaks.
        + 138 with oil tube.
        + Remove tube and tip (these get replaced)
        + Inspect xtal for cracks and wiring from xtal to sensor hsg for breaks or damage
      * 137 blast probes
        + Check for turn on
        + Remove probe assembly
        + Check bias
      * 117 and 119 Series
        + Need wash and vacuum bake at 250 for 8 hours after Final Calibration.
        + Any 119B model which has epoxied connector pin on cable should not be removed. Item should have the connector removed, assemble test leads, cal and then reassemble new connector.
    - SVS / IMI / DC
      * Are test leads necessary to calibrate and route to assembly area as necessary
      * Shakers
        + Test overload shut off
        + Check switch orientation
    - GEP
      * Open unit up and inspect for damages
      * Check Calibration tag
      * Review old data in system (call up options by using MCSC program)
    - MICS
      * **377 Series Microphones (including 376 & 378 Series Microphone/ Preamp Systems)**
      * Do NOT remove grid cap from microphone
      * Do NOT remove sticker label between microphone and preamp on a mated system pair
      * Do NOT separate microphone from preamp if received as a mated system pair, unless calibration code specifies that preamp should be tested separately
      * Handle with care when transporting to avoid shocking diaphragm, especially if microphone is received without a protective case
      * Inspect connector on preamp (if included) for damage
      * **130 Series Microphones**
        + Inspect cable (if applicable) and connector for damage
  + **TEST LEADS (As Necessary):**
    - Check Test Leads box for any sensor requiring test leads to perform calibration.
  + **Pre Cal:**
    - Follow router and or BSD for proper testing to be performed.
    - Ref RMA for any special cal requests
  + **CRQC:**
    - Technician to verify what CRQC is required and that it was performed as necessary
  + **Cal Codes:**
    - Write down any extra cal codes requested on RMA and perform those calibrations
  + **Final Cal / SWEEP:**
    - Follow router for final cal process
  + **Engineering Review**
    - Engineering review is only required for Program, ATEX and ITAR models when the disposition is rework.
  + **Final Inspection**
    - Final Inspector to review per instructions in QA1067. Final Inspection signoff is not required for returns with a disposition of Scrap or Return to Customer as is.
  + **DISCREPANCY**
    - Mark the appropriate box to document discrepancy.
    - Use the “Comments” section to document “other” types of failures or other pertinent notes including recommended course of action.

**NOTE:** This is a User guide to help evaluate sensors. Not all processes for sensors are covered by this and at times Technicians will need to get support from Engineering, Production Leads and or Sales.