MARUTI SUZUKI INDIA LTD (MSIL) - VENDOR MANUAL

VENDOR: SPARK MINDA - ADVANCED DISPLAY DIV

PART: 9-INCH HD DIGITAL CLUSTER (SMARTPLAY PRO+)

MODEL: BREZZA ZXi+ / GRAND VITARA (ALL DIGITAL)

DOC NO: MSIL-WI-DIGITAL-05 | **REV:** 6.0

1.0 STATION A: LCD & TOUCH PANEL BONDING (CLEAN ROOM)

- **1.1 Environment:** Class 1000 Clean Room. Air Shower mandatory for entry.
- **1.2 Inspection:** Check the 9" TFT Glass for "Micro-Scratches" under 1000 Lux Light.
- **1.3 FPC Insertion (Main Display):**
  - Unlock the 60-Pin LVDS Connector on the Motherboard.
  - Insert the FPC (Flexible Printed Circuit) with **Gold Contacts Facing DOWN**.
  - **Lock Check:** Push the black latch. Ensure it is flush.
  - **Defect:** If the FPC is inserted crooked, the screen will show "Vertical Lines."

2.0 STATION B: HUD (HEAD-UP DISPLAY) INTERFACE

- **2.1 HUD Port:** This unit drives the external HUD.
  - Connect the 10-Pin Data Cable to Port J3.
  - Apply "Kapton Tape" (Yellow) over the connector to prevent vibration looseness.
- **2.2 Heat Sink Assembly:**
  - This digital unit generates significant heat.
  - Apply **1.5g** of Thermal Paste to the GPU (Graphics Processor).
  - Screw the Aluminum Backplate. **Torque: 0.6 Nm.**

3.0 STATION C: HOUSING & CAN BUS WAKE-UP

- **3.1 Rear Cover:** Snap-fit the plastic back cover. Ensure no wires are pinched.
- **3.2 Power-On Test (Current Draw):**
  - Supply 12V DC.
  - **Sleep Current:** Must be < 1mA (critical to prevent battery drain).
  - **Wake-Up:** Send CAN Message ID **0x100 (Ignition ON)**.
  - **Check:** Screen must boot the "Suzuki Logo" within **1.5 seconds**.

4.0 STATION D: FINAL OPTICAL & TOUCH TEST

- **4.1 Dead Pixel Check:**
  - Display "All Black" pattern. Look for stuck White/Red/Green dots.
  - **Tolerance:** 0 Dead Pixels allowed in Center Zone (Zone A).
- **4.2 Backlight Bleed:**
  - Check corners for "White Light Leakage" in a dark room.
- **4.3 Software Version:**

- Connect OBD Tool. Verify Firmware Version is **v5.4.2 (India Map Update)**.
- If version is old, mark "Re-Flash" and send to Rework Station.