



Motorola Mobility LLC
222 West Merchandise Mart Plaza
Suite 1800
Chicago, IL 60654, USA

Website: <https://motorola-global-portal.custhelp.com/app/mymotorola/portal>

STANDARD FIELD SERVICE BULLETIN

FSB Number	CHRAEFSB2018-12
Author	Tony Bryan
Date	04/02/2018
Subject	Moto G6 Play - Intermittent Mic Audio (mic diaphragm stuck)
Model Affected	XT1922-1/2/3/4/5/10 (ROW Models Only)
Level Of Repairs	Level 3

Problem:

Motorola is aware of a potential customer experience issue on the Moto G6 Play product related to Microphone Audio. Some internal users reported experiencing “no microphone audio on calls” intermittently on their Moto G6 Play device. Internal testing confirmed, on some devices, that repeatedly pressing on the primary microphone port can lead to a temporary loss of microphone audio.

Engineering Analysis of affected devices determined that the diaphragm, internal to the microphone, was getting stuck in one position as a result of the external pressure. This issue was traced to a process control issue at microphone supplier (MEMS) for particular lot codes of material.

Solution:

Short-Term: The affected microphone supplier (MEMS) has implemented process improvements to help prevent this issue lot codes. See Figure 1.0 below to identify “High-Risk” material fabricated prior to supplier process improvements.

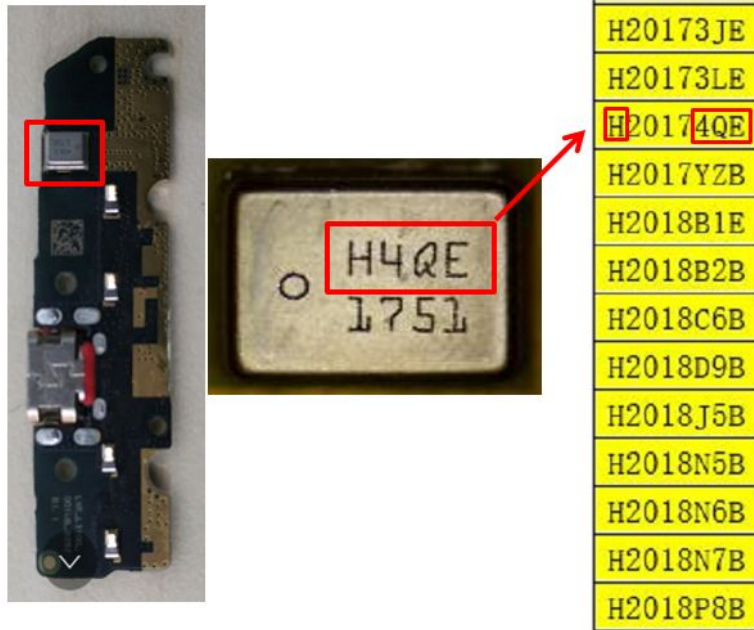
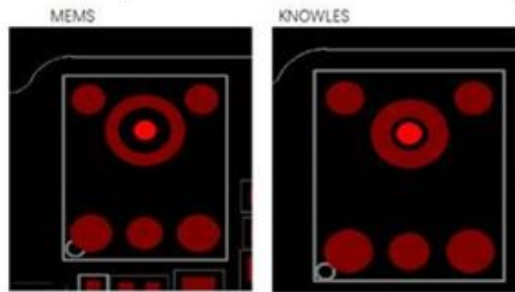


Figure 1.0 -MEMS Supplier - "High Risk" Material Identification

Long-Term: Motorola is currently qualifying a 2nd supplier (KNOWLES) for the Microphone component. Due to a solder mask difference between the two suppliers, this will require a layout change to both the Main-PCB and Sub-PCB. The part numbers printed on the Main-PCB and Sub-PCB will also be updated to reflect this change. Please see details below in Figure 2.0. This will be completed as a running change with a estimated implementation date of June 2018.





There is a difference in the solder mask between the two microphone suppliers, as shown in image above.

Main PCB and Sub PCB part numbers will change to support Mic Supplier 2 (KNOWLES) as shown below.



Sub PCB: LLDB310 REV. C1-6 (shown)
 Mic Supplier 1 (MEMS) = LLDB310 REV. C5-6
 Mic Supplier 2 (KNOWLES) = LLDB310 REV. C6-6



Main PCB: LLDM310 REV. B7-6 (shown)
 Mic Supplier 1 (MEMS) = LLDM310 REV. B8-6
 Mic Supplier 2 (KNOWLES) = LLDM310 REV. B9-7

Figure 2.0 - 2nd Microphone Supplier (KNOWLES) - Change Details

Field Service Action:

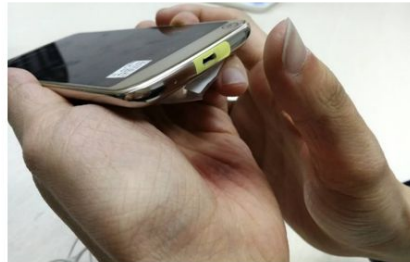
A. When servicing Moto G6 Play (ROW) devices returned with a customer complaint related to “Mic Audio”, regardless of replicating the complaint, then:

1. Following the Service Manual, carefully disassemble the device to gain access to the Sub-PCBA where the Primary Microphone (p/n: S938C29034) component is placed.
2. Inspect the part markings on the Primary Microphone (p/n: S938C29034) component to determine if it listed as ‘High Risk’ in Figure 1.0 above.
3. If the lot code shown is listed as “High-Risk”, then either replace the Primary Microphone (p/n: S938C29034) component or swap the Sub-PCBA (p/n: SP68Cxxxxx).
4. Perform standard functional testing on device to confirm customer’s original “Mic Audio” related complaint.
 - a. If an audio issue is confirmed, then follow normal troubleshooting steps to determine the problem and repair the device.

B. Service should implement the Phone-Level Test Screen method shown below, on Moto G6 Play (ROW) devices regardless of complaint, as an outgoing quality measure to catch intermittent primary microphone audio issues.

Issue Screen Method (Phone-Level)

- a) Insert the headphone into the device and have the operator to wear the headphone.
- b) Dial: ***##*#2486#*##***
- c) Enter Audio Loopback mode: CQA menu→Audio→MIC Loopback→Primary MIC
- d) Carry the phone as picture below and press with thumb to cover the MIC hole. The frequency is once per second.
- e) Judge the function by if the tester can hear the sound. If it's function then keep pressing action till 100 times. And sort out if once no sound during 100 times.



Service Inventory:

Stock the following replacement parts to support repair, per this bulletin:

- Supplier 1 (MEMS) Microphone Component (p/n: S938C29034) - To be set-up as Secondary Source
- Supplier 2 **New** (KNOWLES) Microphone Component (p/n: S938C17379) - To be setup as Primary Source
- Sub PCBA (p/n: SP68Cxxxxx)
 - Mic Supplier 1 (MEMS) = LLDB310 REV. C5-6
 - Mic Supplier 2 (KNOWLES) = LLDB310 REV. C6-6
- Main PCBA: (p/n: 5B28Cxxxxx)
 - Mic Supplier 1 (MEMS) = LLDM310 REV. B8-6
 - Mic Supplier 2 (KNOWLES) = LLDM310 REV. B9-7

Call Center Action:

When responding to customer inquiries on the Moto G6 Play product with “Mic Audio” related complaints, then:

1. Follow normal troubleshooting steps to resolve the customer’s issue.
2. If issue cannot be resolved with normal troubleshooting steps, then instruct them to return the device to Motorola Service for repair, per this bulletin.

Service Entry Code:

Global M-Claims Codes:

Customer Complaint Code: C0007 - Cannot Be Heard,Silence/Static

Problem Found Code: P0002 - Microphone

REF Designator Code: RD053 - MIC

Repair Code:

R0082 - REPL LVL 2.5 Part CSB (to be used for Microphone component replacement option)

R0013 - REPL LVL 2 Part CSB (to be used for Sub-PCBA swap option)

Note:

Only apply the designated Service Entry Codes, listed in this bulletin, if the unit fails a test or has a customer complaint that matches the issue described in the bulletin

If the unit fails a test or has a customer complaint that does not match the issue described in the bulletin, the Service Entry Codes used should accurately reflect the true problem found

If the unit passes all tests and inspections and does not have a related customer complaint, the Service Entry Code used should be NFF