

**Service Bulletin RU_SB024**

Author: Alexander Gaiderov, Technical Support
Date: 2004-02-03
Subject: GSM Triplets – Antenna Issue
Rating: Level 3 Authorized

Products: V300, V500, V525

Problem: Service has been made aware of an issue with some of the antennas supplied by Centurion. Problem being, when the antenna is over-torqued onto the radio, Antenna load is shifted, which results in Total Radiated Power (TRP) performance degradation. The degradation in TRP is most severe in the 850 MHz band and is less severe in the 900, 1800, and 1900 bands respectively. See chart below.

Band of Operation Approx.	Loss in TRP (dB)
850 MHz	3 dB
900 MHz	1 dB
1800/1900 MHz	Negligible Loss

The effect of the loss in TRP may cause the user to have trouble placing / receiving calls or calls may be dropped. In addition, the loss in TRP can decrease the "Talk-Time" battery performance. The Root Cause of this issue was determined to be an antenna assembly issue at Centurion. The tang of the meander is not properly in place before the connector is mounted. This causes an intermittent electrical condition that occurs when the antenna is torqued onto the phone. *Note: The antenna can not be visually inspected for this defect.*

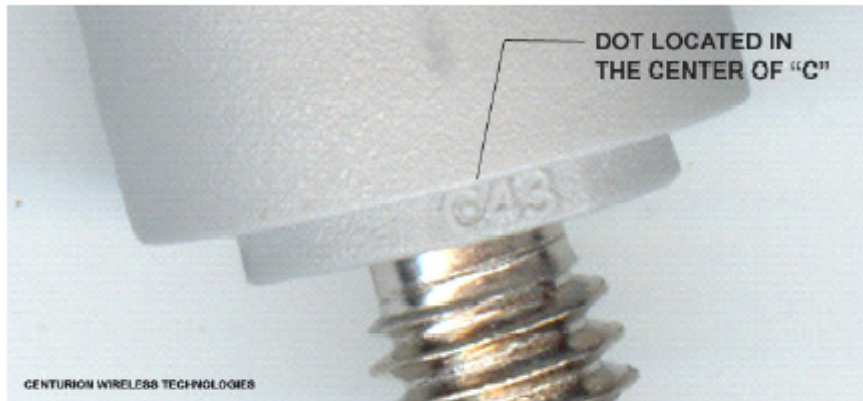
Solution: Automated fixtures have been implemented by Centurion to replace manual bending of the tang. A screening process, which includes a screening fixture to over-torque antenna, has been defined and implemented by the Quality team at Centurion in place to both fix production and identify means for sorting existing in house material. Centurion has replaced inventories with antennas processed after Nov.20th when all process improvements and screening was in place. New parts, built after Nov.20th, are uniquely marked with a "Dot" inside the "C" at base of plastic. Screened parts will be marked with a "Red Dot" at the metal tip. See Figure 1.0 below.



MOTOROLA

Customer Support Russia and CIS Region

**IDENTIFICATION METHOD FOR ALL V300 & V500
ANTENNAS MANUFACTURED STARTING NOVEMBER 20th.**



IDENTIFICATION METHOD FOR ALL SORTED V300 & V500 ANTENNAS

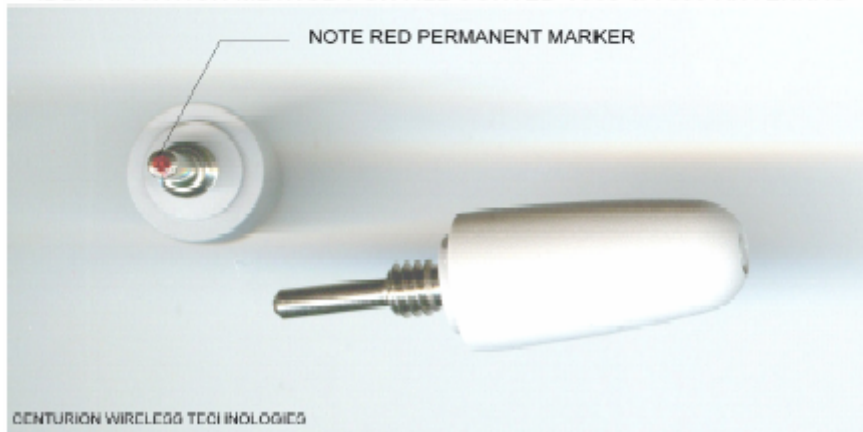


Figure 1.0 – Identification of New and Screened Parts

Action:

Customer Returns:

When servicing GSM V300 customer returns, with a MOM (Month of Manufacture) prior to December 2003, and a customer complaint relating to "Call

Performance" or "Poor Battery Life", then:

1. Replace antenna and retest through Radiated Parametric Testing to ensure Call Performance.

a. If unit is not repaired by replacing the antenna, then proceed with normal troubleshooting techniques as per the customer complaint.

When servicing GSM V500/V525 customer returns, with a MOM (Month of Manufacture) prior to December 2003, regardless of customer complaint, then:

1. Replace antenna and retest through Radiated Parametric Testing to ensure Call Performance.

2. Continue to service the unit as per the customer complaint.

Service Inventory:

Please quarantine all existing stock of the 8588912N01 V300 and 8589122N01 V500/V525 antenna and replace with new parts built after November 20, 2003.

See Figure 1.0 for identification markings on new parts.

For further information - contact
Technical Support

Phone:

Fax:

E-mail:

Alexander Gaiderov

+7 095 785 0150

+7 095 785 0181

Alexander.Gaiderov@motorola.com



MOTOROLA

Customer Support Russia and CIS Region

Service Bulletin RU_SB024

Page:3

Classification: Standard Warranty Repair. Use following codes.

Customer Complaint Code:

CPR01 – Voice Call – Can't Make

CPR02 – Voice Call – Can't Receive

CPR05 – Voice Call – Drops Calls

BAT02 – Battery – Short Life

Problem Found Code:

ANT02 – Antenna - Broken

Repair Code:

RAN06 – Replace Antenna CSB/FSB

REF Designator Code:

ANT - Antenna

Original FB No: LVCCFSB2003-130 Rev A

Parts: 8588912N01 – Antenna V300
8589122N01 – Antenna V500/V525

Comments:

For further information - contact
Technical Support
Phone:
Fax:
E-mail:

Alexander Gaiderov
+7 095 785 0150
+7 095 785 0181
Alexander.Gaiderov@motorola.com