Technical Note TN-731

Correct Method for Removing the Tait Orca Shield Sub-Assembly

29th July 2002

Applicability

This Technical Note applies to all Tait Orca and Tait Orca 5000 hand portable product (excluding the Tait Orca Radio Modem)

1. Introduction

Background

It has come to the attention of TEL that the Tait Orca & Tait Orca 5000 hand portables may not be being serviced as outlined in the service manual. This was found because a customer's radio had failed to work because of water ingress.

The radio in question was taken to the mechanical engineers at TEL for analysis. It was found that the IP54 rated sealing on the product was rendered ineffective by some bowing along the edges of the internal "cheese-grater" shield. This bowing pushed the front panel out slightly at the edges, which lets fluid in if the radio was subjected to driving rain.

Further investigation discovered that not all service technicians were aware of the correct method of removing the shield. The correct shield removal method (clearly outlined in the Tait Orca service manual in section D5) prevents damage from occurring.

This Technical Note is intended as further notification to service technicians of how to correctly remove the shield without causing bowing to the shield.

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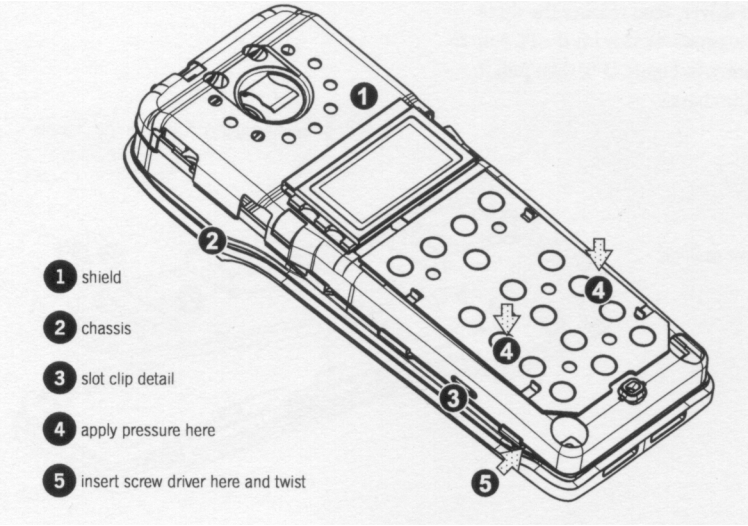
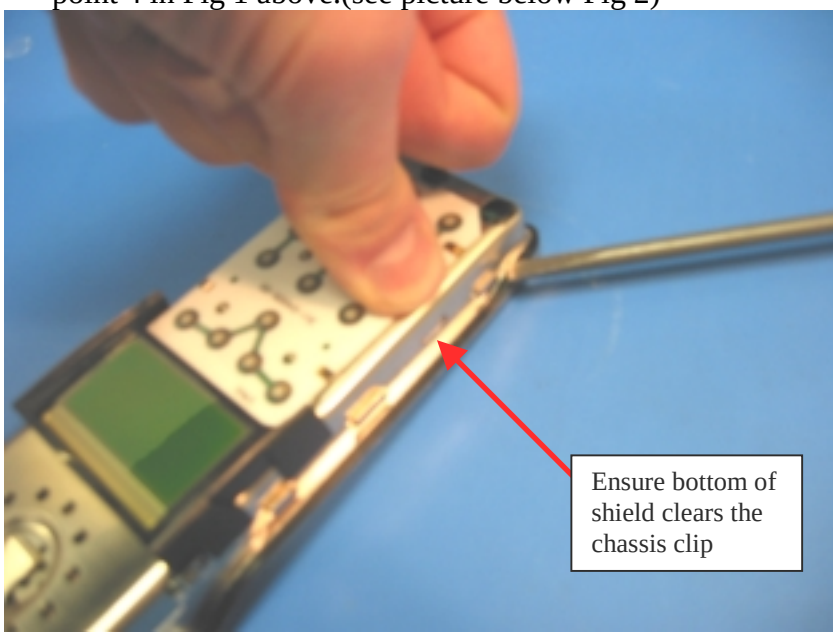
2. Servicing Instruction

Servicing Steps

1) Remove the antenna; channel knob and on/ off/ volume knob from the top of the radio. This can be done using a pair of side cutters (if glued) or fingers to pry up the knobs.
2) Remove the two chassis screws at the base of the radio chassis. (Torx 6)
3) Re-attach the battery and hold the base of the radio in one hand whilst using the battery as a lever to pull the chassis out of the front housing.
4) To remove the shield from the chassis, refer to the picture below (Fig 1.) Section D5 of the service manual.



5) Place the radio on a flat surface with the shield facing up toward you.
6) Using your finger (or thumb), press down on the shield at point 4 in Fig 1 above.(see picture below Fig 2)



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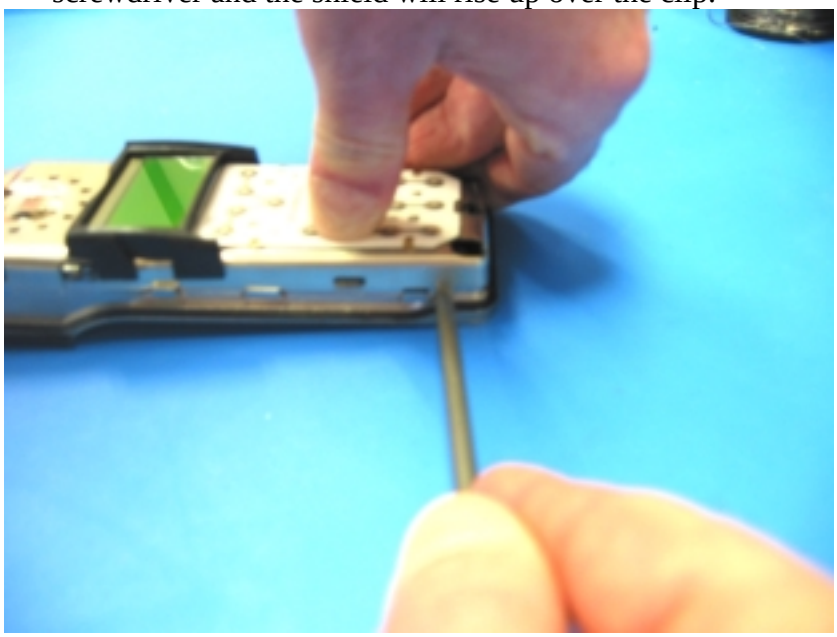
The action of pushing down on the chassis will slightly bow the shield away from the chassis where the locking / location clip is situated. This is the key point in this whole process is, if this is not done and the shield is forced off, the shield will bend (at point 3 in Fig 1) and this will potentially void the IP54 status of the radio being serviced.

7) Now, as pressure is applied to bow the shield, slide a flat bladed 4mm-head screwdriver into the gap between the shield and the chassis (position 5 in Fig 1). Twist the screwdriver and the shield will rise up over the clip.



8) Repeat the process for the opposite side of the radio.

Failure to clear the bottom of the shield from the chassis clip will cause the shield to bend around this area. The damage is not immediately noticeable. However, if radios go out into the field with this problem, the radio has the potential to let fluid get into the radio circuitry where the result will be early failure of the PCB.

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Compliance

If this procedure is not followed IP54 rating of the hand portable being serviced may be compromised.

CSO Instruction

Please ensure all service technicians are aware of this requirement and are trained accordingly. Sales staff should also be aware of this requirement.

3. Issuing authority

Name and position of issuing officer

Barry Crates
Technical Support Team Leader - Terminals.

Confidentiality

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