Safety Notice – powerCON TRUE 1

Date: 4th July 2018
Author: Thomas Walker
Product: Tessera XD

Issue
Neutrik have issued a safety notice for the powerCON TRUE 1 connector system, used as the power connection on the Tessera XD product.

This safety notice indicates that in certain circumstances the connector can be inserted incorrectly causing contact between live wires and the grounding contact in the plug socket. Should this occur then the consequences could be serious, resulting in both equipment malfunction and/or personal injury.

The safety notice from Neutrik is attached to this notice and can also be found at http://www.neutrik.com/en/news/safety-notice-powercon-true1.

Although the safety notice states that this condition can only occur once the connector has become severely worn or damaged – we have received reports from third-parties suggesting this problem can occur with new and undamaged connectors.

Brompton Technology recommends all customers using powerCON TRUE 1 connectors review this safety information and advise their staff and customers accordingly.

Resolution
Neutrik have issued a Product Change Notification (PCN 75-2017) showing design changes they are making to the powerCON TRUE 1 connector to prevent incorrect insertion. This PCN and an accompanying explanatory note on the safety improvement are attached to this notice.

Brompton Technology will transition to using this modified part in new product at the earliest possible date and are awaiting details from Neutrik on when this modified part will be available.

Many of the existing Tessera XD units are in rental stock where it is very likely that their powerCON TRUE 1 power connector will be inserted many times through the life of the product by a variety of users. In this usage condition Brompton Technology advises that the modified powerCON TRUE 1 power connector should be retro-fitted. Brompton Technology will work with Neutrik to provide modified parts at no charge. We can also provide instructions that would enable an experienced technician to carry out this retro-fit or we can arrange to return the product to the factory for this work. Please contact Brompton Technology at support@bromptontech.com to verify whether your Tessera XD units are affected by this safety notice and to arrange corrective action.

Both the male and female connectors need to be modified to prevent incorrect insertion – so modifying the Tessera XD would not eliminate the risk if it is used with cables that are using the unmodified powerCON TRUE 1 connectors. We therefore recommend our customers contact the appropriate suppliers for cables or other products using powerCON TRUE 1 to arrange appropriate corrective action.

Contact Details
For further information about this document please contact us.

Email: support@bromptontech.com
Telephone: +44 (0)20 7471 9444
Please regularly check the condition of your powerCON TRUE1 connector system (cable connector & chassis) for clear signs of wear and tear.

Through improper use and the excessive use of force, the encoding lugs and guide slots in the connector system can become so severely worn or damaged that it is possible to insert the cable connector the wrong way. However, when inserted the wrong way, the cable connector should not twist-lock into place.

A cable connector inserted the wrong way could, in some circumstances, lead to contact between live wires and the grounding contact in the plug socket.

To determine that the cable connector is inserted correctly, follow the use instructions and listen for the “click” when performing the twist-lock. Immediately unplug any connector that does not twist-lock correctly in place.

Note: When connecting, match the notch on the cable connector to the corresponding guide slot on the chassis.

Note: After inserting properly as in illustration A, twist the cable connector clockwise to lock.

Note: The proper twist-lock is achieved when the yellow tab is in the position shown in C and an audible «click» is heard.

SAFETY WARNING

incorrect insertion may cause electrical contact misalignment resulting in equipment malfunction and/or personal injury.
SAFETY WARNING

Incorrect insertion may cause electrical contact misalignment resulting in equipment malfunction and/or personal injury.

Note: When connecting, match the notch on the cable connector to the corresponding guide slot on the chassis.

Note: After inserting properly as in illustration A, twist the cable connector clockwise to lock.

Note: The proper twist-lock is achieved when the yellow tab is in the position shown in C and an audible «click» is heard.

SAFETY WARNING

Incorrect insertion may cause electrical contact misalignment resulting in equipment malfunction and/or personal injury.
powerCON TRUE1

Safety Improvement

With our TRUE1 safety notice we informed about possible contacting between live and earth conductor at wrong insertion of the cable connector. To exclude contacting while wrong inserted certain measures and improvements are in process which is laid down in this paper.

The following illustrations refer to the pairing of the connector NAC3FX-W and appliance inlet NAC3MPX. Similar improvements are made on the plug connector NAC3MX-W, appliance outlet NAC3FPX and appliance combination NAC3PX.

Current Version

Modified Version

Modification on appliance inlet NAC3MPX:

Enlargement of center stopper
Modification on cable connector NAC3FX-W:

additional ribs
Correct insertion:

Wrong insertion by 90°:

Effectiveness of modification
In the case of wrong insertion the additional ribs run up the stopper and prevent full insertion thus contacting is avoided.
Important to note:
The full improvement is only effective when the complete set of new versions is used, i.e. only the combination of new cable connector and new receptacle lower the risk of potential abuse. Inserting a new cable connector in an existing receptacle has no effect!

Availability:
Modified versions are available end of March 2018 ex-works NAG.

Additional actions:
We investigate the use of different plastic materials which are more resistant against wear and tear particularly of the keying.

PS:
Wrong insertion 90° clockwise or 180° twisted does not cause any wrong contacting. We also are expecting a statement of non-objection from VDE.
Product Change Notification

<table>
<thead>
<tr>
<th>Product Line:</th>
<th>powerCON true1</th>
<th>Part No:</th>
<th>NAC3*</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Piece Part:</th>
<th>housing</th>
<th>Part No:</th>
<th>-</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Engineering Change Notification:</th>
<th>75-2017</th>
<th>Date:</th>
<th>23.04.2018</th>
</tr>
</thead>
</table>

Comments: Introduction of additional ribs and enlargement of the centre stopper.

Affected products:
- NAC3FX-W
- NAC3FX-W-D

First shipment of modified product:
- L13

Affected products:
- NAC3MX-W
- NAC3MX-W-D

First shipment of modified product:
- L12

Affected products:
- NAC3FPX
- NAC3FPX-SB
- NAC3FPX-ST
- NAC3FPX-WOT

First shipment of modified product:
- L12

Affected products:
- NAC3MPX
- NAC3MPX-SB
- NAC3MPX-WOT

First shipment of modified product:
- L17

Affected products:
- NAC3PX
- NAC3PX-SB

First shipment of modified product:
- L12

Engineering Change Notice

To exclude the risk of contacting live and earth when wrongly inserting a connector improvements have been made.

Additional ribs: [Image]

Enlarged center stopper: [Image]