

CTL DECISION SHEET

Standard- IEC 60950-1:2005	Subclause: 4.3.5	No. DSH 0700	Year 2008
Category: OFF		Developed by: ETF 2	
Subject: Push force for connectors	Key words: -Travel adapter; - connector misconnection	Decision approved at the 46 th CTL Plenary Meeting in 2009	
<p>Question:</p> <p>A travel adapter consists of two separable parts:</p> <ul style="list-style-type: none"> • AC/DC unit (down transformation of voltage, safety separation provided) • DC/DC unit with output cable (supply stabilization and voltage adjustment, no safety separation provided) <p>The unit can be used at AC mains (both units connected together) or DC (units separated, only DC/DC used). The AC/DC unit has a (Class II) IEC 60320-1 type appliance inlet; the DC/DC unit uses a special 2-pins input connector.</p> <p>With a small force applied (less than 30 N) an IEC 60320-1 coupler can be inserted into the input connector of the DC/DC unit and make contact.</p> <ol style="list-style-type: none"> a. Is such design acceptable if a warning label is provided on the DC/DC unit and additional remarks are provided in the user manual that state that the connector of the AC power cord shall not be pushed into the input connector of the DC/DC unit? b. How much force must be applied during the testing of the input connector (DC) and appliance coupler (AC)? <p>Decision:</p> <p>A test force of 60 N (as specified in IEC 60320-1, no safety factor considered) shall be applied when testing possible misconnection of IEC 60320 and similar connectors.</p> <p>Explanatory Notes:</p> <ul style="list-style-type: none"> • Subclause 4.3.5 of IEC 60950-1 is lacking of specific criteria (“compliance is checked by inspection”). • IEC 60320-1 defines maximum force of 60 N for the NOT-GO test. 			