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| Approved by | Roy Bowen |

Title: T700 – Breaking Ribbon connector clips

Introduction

The connector on the 64 way ribbon cable that is soldered onto the ST700 Phase Driver card can come apart if the cable is stressed.

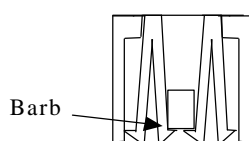
Scope

Any ST700 Phase Driver delivered before December 2001. Affected items have a Harting ribbon cable connector on the fixed end.

Related Documents

Background

Some ST700 phase driver cards have been observed with cables which have come apart. It is suspected that the connectors were assembled with insufficient force to push the ribbon cable hard down onto the connector. This places more strain on the clip which goes across the top of the connector. This clip has end clips which rely on a small barb clipping under a small central protrusion:-



End view of connector

In some instances the barbs have broken, the top of the connector has come free and the cable has started to pull free.

This situation is made worse by pulling on the cable.

Procedure

The other end of the cable must be disconnected before opening the 'biscuit tin'.

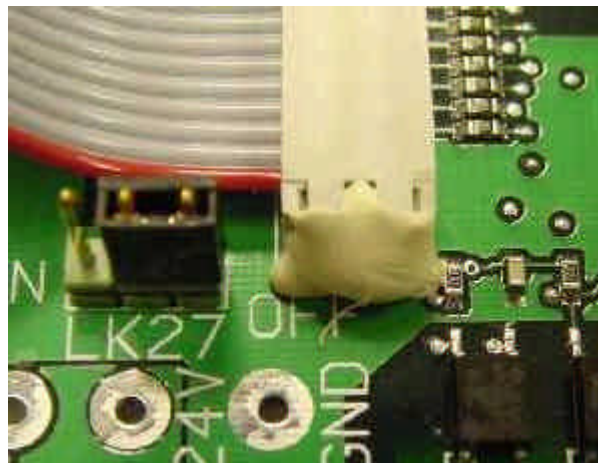
Inspect the cable. If it has come out of the connector the board should be returned to have a new cable fitted. If the ribbon cable is still in place but the clips are broken the top may be locked in place with glue on the clip part at the ends of the connector.

The top should be pushed fully home and the ends glued in place to prevent the top coming adrift.

Some ST700 boards have been modified in Production by locking the clips with hot melt adhesive. On site alternative adhesives may be used. Solvent based adhesives are not suitable as they may attack components on the board. Examples of this are contact adhesives such as EVO-Stick, Bostic etc. and cellulose cements.

'Super glue' i.e. cyanoacrylate is suitable e.g. RS Components part numbers 159-3963 (small tube) 159-3979 (20 gram bottle) or 159-3929 (20 gram bottle of Ultra fast). Alternative locally purchased 'Super glue' should also be suitable. **It is important to read the safety instructions that accompany the adhesive.**

Illustration shows a board modified in Production with hot melt adhesive:-



Other Illustrations:-

Showing connector that has come apart:-

