

Technical Protocol 192/193: Tape Recorder MPU Card Modifications

This modification solves the "Error: Data Lost" problem caused by occasional, faulty processor reset during the power-on routine. The modifications listed below are of prime importance with the battery-buffered cards.

For the processor cards listed in the table below (A812, A820 2-CH, A820 MR, A820 MCH and A827) a modification kit 20.050.754.12 was available.

Designation	Order no.	PCB layout
MPU Master (A812)	1.811.786.xx	1.820.754.12
MPU Tape Deck (A820 MCH, A827)	1.820.781.xx	
MPU Audio (A820 MCH)	1.820.782.xx	
MPU VU Panel/Audio Remote (A820 MCH)	1.820.783.xx	
MPU Master (A820 MCH)	1.820.784.xx	
MPU Tape Deck (A820 2-CH)	1.820.785.xx	
MPU Master (A820 2-CH)	1.820.786.xx	
MPU Parallel Channel Remote (A820 MCH)	1.820.788.xx	
MPU Tape Deck (A820 MR 1")	1.820.789.xx	
MPU Audio (A827)	1.827.782.xx	
MPU VU Panel/Audio Remote (A827)	1.827.783.xx	
MPU Master (A827)	1.827.784.xx	
MPU Parallel Channel Remote (A827)	1.827.787.xx	

For the Tape Deck MPU cards with PCB layout 1.811.774.12 (A812) a different modification kit 20.050.812.00 was available.

Note: *Capstan Processor cards do not require these modifications.*

MPU Cards with PCB Layout 1.820.754.12 (refer to the illustrations below):

- Required materials:**
- 1 x 74HC132 (50.17.1132)
 - 1 x TL7705 BCP (50.11.0157)
 - 1 x 2.2 nF / 10% / 63 V (59.06.0222)
 - 1 x wrap wire 80 mm (1.010.108.64)
 - 1 x wrap wire 90 mm (1.010.109.64)
 - var. index labels

- Procedure:**
- Replace IC14 (TL7705 ACP) by TL7705 BCP
 - Install 2.2 nF between IC14, pins 4 and 5
 - Replace IC4 (74HC00) by 74HC132
 - Connect D2, cathode, with RZ1, pin 1 (wrap wire 90 mm)
 - Connect C1, neg. (-) to IC2, pin 1 (wrap wire 80 mm)
 - Fit index label with the next number to the card's legend strip.

MPU Tape Deck w. PCB Layout 1.811.774.12 (A812 only) (refer to the illustrations below):

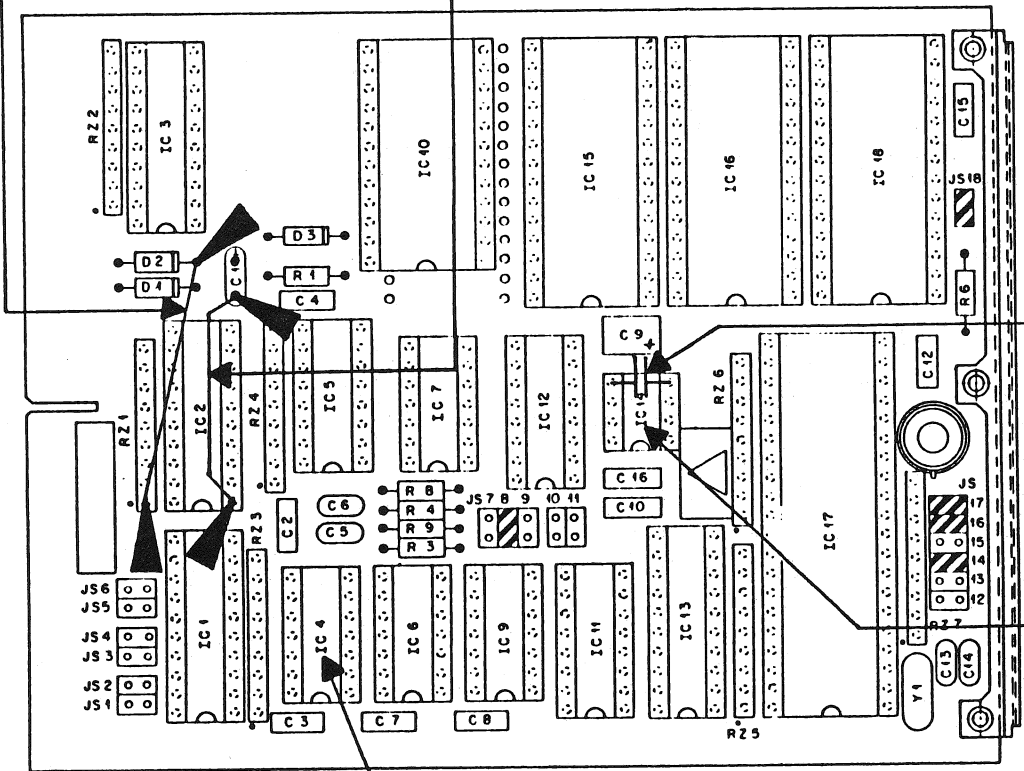
- Required materials:**
- 1 x TL7705 BCP (50.11.0157)
 - 1 x 2.2 nF / 10% / 63 V (59.06.0222)
 - 1 x wrap wire 70 mm (1.010.107.64)
 - 1 x wrap wire 90 mm (1.010.109.64)
 - 1 x wrap wire 100 mm (1.010.110.64)
 - var. index labels

- Procedure:**
- Replace IC1 (TL7705 ACP) by TL7705 BCP
 - Install 2.2 nF between IC1, pins 4 and 5
 - Connect C5, neg. (-) with JS12, shield (wrap wire 100 mm)
 - Connect IC1, pin 8 with RZ1, pin 1 (wrap wire 70 mm)
 - Connect C10, pos. (+) with IC8, pin 28 (wrap wire 90 mm)
 - Fit index label with the next number to the card's legend strip.

* on Solder Side
auf der Lötseite

1.010.109.64*
Wire Wrap 90mm

1.010.108.64*
Wire Wrap 80mm



58.06.0222 #
2,2nF, 10%, 63V

INSERTED:
JS 8, 14, 16, 17, 18

IC 14 change to TL 7705 BCP
50.11.0157

IC 4 change to 74HC132
50.17.1132

A812 Tape Deck MPU, PCB Layout 1.811.774.12

