

<b>Service Note</b>		
Product	Description:	Service note no.
<b>TC2290</b>	<b>Error code list</b>	<b>706 10 T075</b>

**Error code list for TC2290 ( EPROM DD30VXX ):**

- 1 - 9 Typical user errors**
- 10 – 19 Serious user errors and warnings..**  
**ex. lost presets or errors in connection with MIDI or T.C. link.**
- 1 Wrong special number / Attempt to access a non-existing special-number.
  - 2 Wrong special value / Attempt to enter a special value which is out of the permitted range for the chosen special number.
  - 3 Preset protected / Attempt to store a setup in a preset which number is bigger or equal to the value of spec.number 8 (preset protect).
  - 4 Wrong store sequence. Press <PRESET> and wanted preset number previous to pressing <STORE>. You can omit preset number if you want to overwrite the current preset.
  - 13 All user-presets have been deleted. Factory presets restored in presets 80 to 99. All special values are reset to factory defaults. Error 13 is also shown after resetting the 2290 by setting spec.#37 to 0.
  - 16 Warning: all 15 prerecordings are in use. The next sample recorded will be without prerecording. To avoid this, delete unused samplings by recording as big areas as possible with muted input.
  - 17 Warning: Number of recorded samples is so big (>15) that the next recorded sample will overwrite a part of or the whole of the sampling which has the highest editing points. To avoid this, delete unused samplings by recording as big areas as possible with muted input.
  - 18 The last recorded sample is lost or part of it is lost because the number of samples is too high and because it was recorded within the highest editing-points.
- 20 – xx Hardware and software errors on which the user do not have any influence.**
- 20 Preset checksum error. Please try to re-store the preset, which caused the error. This error may also occur if there was an error in a MIDI load format (when receiving bulk dump).  
If reoccurring, might be due to a HW fault : Check CPU, RAM or back up battery circuit.
  - 21 EPROM checksum error. Is calculated each time the unit is switched on. The unit will still work as long as the error isn't fatal.  
Replace the EPROM.

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- 22 The processor has been running a subroutine called FERROR. This subroutine call is placed on a big number of different locations in the 2290 software. The reason for doing this subroutine call is to prevent the 2290 from executing software uncritically; software that in worst case could reset presets. After a call to FERROR the TC2290 will reset itself without damaging presets and special-parametres. The samples will on the contrary be lost. If there is an error in the restored presets or special parameters an error-loop will occur; This means that even not a reset through special.#37 or power-off will help you get rid of error #22. In this matter there is only one thing to do i.e. to shortcircuit the static RAM IC3 power-supply from pin 14 to pin 28. Unfortunately this will cause loose of all your presets and special parameters. If error #22 still occurs even after short-circuiting the RAM, something is probably wrong in the area around the CPU, RAM or the other components in the CPU-section.
- 23 Interrupt overrun. The CPU is interrupted every 2.5 mS by a fixed real-time counter in order to take care of display refresh and multitasks. Error #23 occurs if the CPU hasn't been able to complete the multitask jobs. This may happen if there is a hardware-error in the circuit. The most common error is too high frequency on the NMI-signal (CPU pin4 ) being too high. In DELAY-mode without modulation the NMI-signal must have a fixed frequency of 2 kHz./TTL level/50% dutycycle.
- 24 "Super task" hanging. Same reasons for this error as errorcode #23.
- 26 MIDI input-error or overflow in the input data-buffer. This error may occur if f.ex. there is a frame error in the MIDI-input or if the processor is too busy to run the MIDI software-routines. Reasons for this error may be the same as mentioned in error #23.
- 27 Same as error #26 but concerning the T.C. link input.

### 30 – 39 HW and SW errors related to the FastTrig (FATR) -option. (EPROM v.29.xx or 30.xx)

If special no. 100 is set to 0 :

The option is neither used nor tested. Thus, only error 30 will be possible.

Option trig functions will be aborted if error 30 to 35 occurs (with special no. 100 set to 1). The trig performance is as v.28.xx with option trig function aborted or disabled.

- 30 Next address (NMI) is not active.
- A: Without option board fitted. Meaning that option bypass doesn't work. Check IC19 or the 8pin DIL plug w/ the22nF. Check signal on IC12 pin 1.
- B: With option board fitted. Check ribbon cable (socket at IC19 + 8pin DIL plug) and option PCB J9, white 40-pole ribbon for J7. or the Option board might also be defective. NMI signal are generated by IC12 pin11 (option board).
- 31 Option not installed. Opt.state.reg. bit 2 is not read correctly. If the option is physically installed: Check IC1 pin5 (option board) = Trig capture\*. This pin must be high apart from a few mS at trig.
- 32 Option cannot execute a CPU forced trig. No reaction from opt.state.reg. bit 2 (option board IC1 pin5 = Trig capture\*). Might be due to a too low freq. On Pot.RWSEL (IC8 pin14) Strobetime for CPU forced trig is approx. 500uS at this test (normally approx. 20uS), which at this time in the power-on sequence applies to RWSEL not being higher than 125kHz (corresponding to a 500kHz bitclock).
- 33 Option cannot execute a CPU forced trig after multitasking has been started. See also error 32. The strobetime for CPU forced trig is approx. 20uS

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- 34 Opt.state.reg. bit 7 doesn't react (IC5 pin6 = NMI trig\*), but can execute a CPU force trig.
- 35 Opt.state.reg. bit 7 did react (IC5 pin6 = NMI trig\*) but either at the wrong time or the signal is remaining at low level.
- 36 Option UART echo test results in none or bad echo. Does not abort option as UART isn't used in v.29.xx. This test is sending 256bytes thru RS422 which, if OK is a failrly reliable test of the databus on the option board.
- 38 Opt.state.reg.bit 2 (IC1 pin5 = Trig capture\*) didn't react on acknowledge trig (IC1 pin4). The CPU will run the acknowledge repeatedly instead of halting here.
- 39 The NMI trig\* (IC5 pin6, option board) has reacted due to a trig, but Trig capture\* (IC1 pin5, option board) has not reacted.  
The typical reason for this error is either the 40-pole Dowty-connector or the 20-pole flatcable being broken.

**40 – 49 HW and SW errors related to the StereoLinkSampling (STSA)-option (EPROM v.30.xx)**

- 40 Occurs on Stereo Slave if this doesn't receive a correct clock from the Master at least 10 sec after power on. A correct clock means a clock corresponding to a bitrate between 800K and 1250K in minimum 500mS. The Stereo Master will always generate approx. 1Mbit in the first 5 sec after power up.
- 41 Occurs on Stereo Slave, if this, after a correct power up, looses clock from the Master or the clock is lower than corresponding to a bitrate on 400K bit/sec. A reset as at power on will be performed. Thus, if the clock is still missing, error 41 will be shown in approx. 10sec and then error 40.
- 44 Occurs if the Stereo Master or Stereo Slave cannot recognize the PAL (option board IC16). Special number 100 will be automatically set to 1 (fast trig). Please note that v30.04 use PAL labeled 'DD30'. Later version 30.05 recognizes PAL labeled 'DD30R' only.
- 99 Will be returned if 99 is entered in special number 21 (reset corresponding to re-boot).