Enabling of the "F01 technology option" (positioning and synchronization)

It is necessary that the F01 technology option has been enabled:
The F01 technology option can only be used with MASTERDRIVES MC units which have been delivered ex-works with the enabled F01 option or for which this option has been enabled retrospectively by means of a PIN number. The display parameter n978 can be used to check if the F01 is present:

n978 = 2 ==> Technology option F01 is enabled for 500 h (from V1.31)
n978 = 1 ==> F01 technology option has been permanently enabled
n978 = 0 ==> F01 technology option has been disabled

The technology function remains enabled even after a software update and does not have to be entered again after new software has been loaded into the flash EPROM.
From version V1.31 onwards, temporary enabling is indicated by the value 2 in n978.

Retrospective enabling of the "F01 technology function (involves extra costs):
Proceed as follows if you want to permanently enable the F01 technology option retrospectively
1) Determine the factory serial number of the MASTERDRIVES unit electronics. There are two ways of doing this:
   a) From parameters U976.01 and U976.02, you can read out the last 8 figures of the factory serial number which are necessary for determining the PIN number.
       (Example: U976.01 = 3032, U976.02 = 4198   ==>   Factory serial number = ... 30324198)
   b) The serial number can also, if necessary, be obtained from a MASTERDRIVES unit without connecting it to the supply.
      - In the case of Compact PLUS units, it is on the sheet accompanying the delivery note or on the electronics PC board in the unit (remove side cover), e.g. "RFU80982510106"
      - In the case of Compact and chassis-type units, it is on the upper connector strip on the rear of the CUMC basic electronics board, e.g. "Q6970730324198"
2) Contact your nearest Siemens branch in order to purchase the PIN number which matches your serial number. Quote the last eight figures of the serial number.
3) After you have obtained the PIN number, enter it in parameters U977.1 and U977.2.
4) Switch off the power supply to the electronics and then switch it on again.
5) The F01 technology option is now enabled. You can check this by referring to n978 (see above)
Caution: If the PIN-No. U977 is subsequently changed, enabling of the technology is reset (n978=0).

Temporary enabling of the F01 technology option (free of charge):
For all units and electronics boards, the F01 technology option can be enabled free of charge with a special PIN No.. This can be done **once** for a trial period of 500 hours. This time can be used for testing purposes or for using substitute units which have been ordered without the F01 option as long as the PIN number has not yet been received. The operating-hours counter (r825) determines when this time has expired. Only that time is counted during which the drive is on. After the 500 hours have expired and the voltage supply has been turned off, the F01 option is disabled again unless the 'normal' PIN has been entered in the meantime. The 500 hours can no longer be interrupted (e.g. by changing the PIN entries).
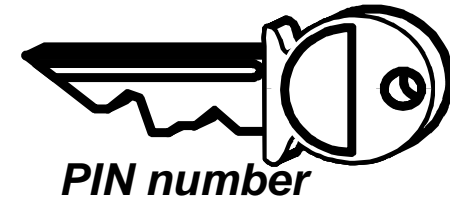**Input of the special PIN number can only be done via the PMU.** The special PIN is the same for all units and is as follows

U977.1= 0727, U977.2 = 0101

Enabling for units with software version 1.1 (free of charge):
In the case of units which have been supplied with software version V1.1, an individual serial number has not been explicitly entered. In this case, permanent enabling of the F01 technology option when your equipment is upgraded with a new software version is always possible. If you have version V1.1, the following table shows the 4 possible serial numbers and the matching PIN numbers which can be read out in U976 in order to enable the function.

FID			PIN			FID			PIN	
U976.1	U976.2		U977.1	U977.2		U976.1	U976.2		U977.1	U977.2
0000	0000	==>	9970	5525		FFFF	FFFF	==>	9978	0025
0000	FFFF	==>	6682	5525		0000	2800	==>	1970	5543

PIN number

500h

Special PIN number

1	2	3	4	5	6	7	8
Technology option				V1.6	fp_mc_850_e.vsd	Function diagram	**- 850 -**
Enabling with PIN number					08.01.02	MASTERDRIVES MC	