

#### Commands Unchanged from TCM2-20 or TCM2-50

ax Warm reboot
c? Compass Update
i? Inclinometer Update
m? Magnetometer Update
s? Single Update Output Word

t? Temperature Update cc Clear Calibration Data mpcal= Multipoint Calibration

sleep Sleep Mode (improved sleep mode over TCM2) wake Wake Mode (requires separate program and

connection of RTS pin)

damping= Enable Filter for damping of output
ec= Enable Compass Data for Output Word
em= Enable Magnetometer Data for Output Word

ep= Enable Pitch Data for Output Word er= Enable Roll Data for Output Word

et= Enable Temperature Data for Output Word

ma= Select Magnetometer Output Option

mag\_dec= Set Declination Angle

sn= Select Magnetic o r True North

uc= Set Compass Units
ui= Set Inclinometer Units
ut= Set Temperature Units



#### Commands Changed from TCM2-20/TCM2-50

b= Set Baud rate

- Changes value upon ENTER
  - 1 = 300
  - 2 = 1200
  - 3 = 2400
  - 4 = 4800
  - 5 = 9600 (default)
  - 6 = 19200
  - 7 = 38400
  - 8 = 11500 (new value)

timeconst=

Set the value for filtering (damping) of outputs. Values will be rounded up to one of 4 discrete values:

- 1 4 will be set to 4
- 5 8 will be set to 8
- 9 16 will be set to 16
- 17-32 will be set to 32

sdo=

The new TCM units use an ASIC instead of discrete components. As a result the raw data is no longer available in the same way.

- 'sdo = t' Standard TCM output string
- 'sdo = n' NMEA 0183 output string
- 'sdo = r' Obsolete

factory

Factor Settings (some of the defaults have changed

b =5 halt=d cc ma=u

damping=d mag dec=0.0 mpcal=d ec=e ed=e sdo=t sn=m em=d ер=е uc=d er=e ui=d et=d ut=c timeconst=8 sp=8

sp=

Set sampling period divisor implementation has changed

- sp = Hz
- clock command / sp = Hz is no longer needed



#### Commands Changed from TCM2-20/TCM2-50 (cont.)

halt= Enable Single Character Halt has changed slightly. TCM2.5 and TCM2.6 implementation

h=

- Stops the unit
- Performs a save
- Reports action complete

Instead of TCM2-20 and TCM2-50

h=

- Stops the unit
- Reports action complete (though not necessarily complete)
- Performs a save

go Go mode has changed

 When cycling power in go mode, the first 1-2 readings will be erroneous

lc? Query Last Calibration Score

- TCM2.5 and TCM2.6: Cal score is accessible only after multipoint calibration is disabled (mpcal=d)
- TCM2-20 and TCM2-50: Cal score is accessible during and after multipoint calibration



#### Commands Removed

To keep the software compatible with existing systems, when any of the commands below are sent, the unit will respond with the ":" as if it had accepted the command. Querying the command will result in an error code, since the command is obsolete and not being used.

autocal Autocalibration (not used)

%skip= Skip measurements (new filtering is superior, no longer needed)

cclip= Set Clip Value

clock= Set Clock rate (no longer needed)

ed= Enable Magnetic Distortion Alarm (caused confusion; new method

is superior

fast= Enable Fast Sampling (no longer needed)

sao= Select Analog Output Option (no analog output available)

save Unit automatically saves any changed settings (no longer needed)

seriallp= Lower Power Serial Consumption (specific to older chip)

cal3 Three Point Calibration (not used) [Responds with E010]