

Prepared Jonas Hemming	Date 2017-12-22	Version A	No 15/TREP-600:00 00227
---------------------------	--------------------	--------------	----------------------------

Position recovery description,
control unit 500:01 137 for Oden Control.

Prepared Jonas Hemming	Date 2017-12-22	Version A	No 15/TREP-600:00 00227
---------------------------	--------------------	--------------	----------------------------

1 Generic.....3

 1.1 Document history.....3

 1.2 Definitions.....3

 1.3 Abbreviations.....3

 1.4 References.....3

2 Power loss behaviour.....4

 2.1 Tracking position recovery.....4

 2.2 Recovery after long time power loss (RaLTPL) setting.....4

 2.3 Auto init after long time power loss (AiaLTPL) setting.....4

 2.4 Auto init once (AIO) setting.....4

Prepared Jonas Hemming	Date 2017-12-22	Version A	No 15/TREP-600:00 00227
---------------------------	--------------------	--------------	----------------------------

1 Generic

1.1 Document history

Version	Date	Comment	Sign
A	2017-12-22	Initial release	JH

1.2 Definitions

Initiation	This is performed when the absolute position is unknown by searching for the home position, not to be confused with Calibration.
Calibration	This is performed when the actuators load (the valve stroke) is changed by searching for both the home and the opposite position, followed by storing the stroke data.

1.3 Abbreviations

GUI	Graphical User Interface.
NA	Not applicable.
TBD	"To Be Defined". Specification not yet definierad.
TBC	"To Be Confirmed". Specification not yet confirmed.

1.4 References

Prepared Jonas Hemming	Date 2017-12-22	Version A	No 15/TREP-600:00 00227
---------------------------	--------------------	--------------	----------------------------

2 Power loss behaviour

Functionality for recovery of position after power-off is controlled by three GUI settings:

1. Recovery after long time power loss (RaLTPL).
2. Auto init after long time power loss (AIaLTPL).
3. Auto init once (AIO).

2.1 Tracking position recovery

The power loss behaviour is also heavily dependent on the “Tracking position recovery” function. This function tracks and maintains any actuator movement at power-off conditions by using an internal super capacitor. The function will be active for approximately 2 – 6 weeks, depending on environmental conditions.

Hence, in this context “Long time power loss” means a power loss long enough for the tracking recovery function to run out of power.

This function is always active

2.2 Recovery after long time power loss (RaLTPL) setting

This controls how the actuator initiates its position after a long power-off. There are two different ways:

1. If RaLTPL is activated, the actuator will assume no movement has been done since last power down, hence the position register is initiated to the position at last power down.
2. If RaLTPL is deactivated, the actuator will issue an error, stating that an Initiation is necessary (INIT_REQ_ERROR, 0x00000080).

Note that AIaLTPL (section 2.3) has to be deactivated, otherwise it will override the RaLTPL.

2.3 Auto init after long time power loss (AIaLTPL) setting

This controls if an autonomous Initiation is performed at power up after a long time power loss. There are two different ways:

1. If AIaLTPL is activated, the actuator will autonomously perform an Initiation, i.e. search for a home condition according to the corresponding settings.
2. If AIaLTPL is deactivated, the RaLTPL will control the behaviour after a long time power-off.

2.4 Auto init once (AIO) setting

This controls if an autonomous Initiation will be performed at the first subsequent power-on. This setting will automatically be deactivated after a successful Initiation.

Prepared Jonas Hemming	Date 2017-12-22	Version A	No 15/TREP-600:00 00227
---------------------------	--------------------	--------------	----------------------------

1. If AIO is activated, an Initiation will be performed at the first subsequent power-on. This will be done regardless of the charge state of the power source for the Tracking position recovery function, i.e if power-off tracking is active or not.
2. If AIO is deactivated, no AIO will be performed.