Submitter:

Submitting EnOcean Alliance Member: Roto Frank AG
Membership Level: Participant

Contact Information
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Date of Submission: 2018-09-10
Start of TWG Review: 2018-09-27
Date of Approval: 2018-10-25

EEP Version: 1.5
Last Change: 2019-01-03
Status: APPROVED

Change History :

Date	Version	Author	Description
2018-09-10	1.0	Wittmann	Release
2018-09-20	1.1	Wittmann	Changes after EAC review
2018-09-27	1.2	Wittmann	Small change (Set Command)
2018-10-12	1.3	Wittmann	Changes TWG Review
2018-11-05	1.4	Wittmann	Page 4: TYPE 0x00 -> 0x10 Page 7: Offset Tilt Cycles corrected
2019-01-03	1.5	N. Metzner	Profile number modified to D2-06-20 (due to double allocation of D2-06-10)

EEP Submission

R-ORG	**D2**	VLD Telegram
FUNC	**06**	Intelligent door / window
TYPE	**20**	Electric Window Drive Controller

Description:

This EEP Profile is created for an external connection box, which controls an electric window drive. It is possible to close, tilt or stop the window.

EEP Properties:

Data exchange

Direction:	bidirectional
Timeouts:	300 ms

Teach-in

Teach-in method:	Universal teach-in (UTE) + Secure Teach-in (for secure communication)

Security

Encryption supported:	yes
Security level:	RLC, CMAC, AES

EEP Family Table :
(Only for VLD EEP families)

Command Overview
Each TYPE has to support every command that is marked in its column!

Message ID	TYPE	0x10
0x00	Set	X
0x01	Query	X
0x02	Status Message	X
0x03	Service Message	X

Telegram Definition:

Set

direction: TO
addressing: unicast (ADT)
triggers: event: Position/Timer changes on User Interface

Offset	Size	Bit-range	Data	Short-Cut	Description	Valid Range	Scale	Unit
0	8	DB3.0 - DB3.7	Message ID	MID	Message type	Enumeration: 0x00: Set		
8	8	DB2.0 - DB2.7	Window Position	WP	Sets the window position	Enumeration: 0x00: Close & Unlock		
						0x01…0x64	1…100	% tilt
						Enumeration: 0x65…0xFC: Reserved 0xFD: Do not change 0xFE: Stop 0xFF: Close & Lock		
16	16	DB0.0 - DB1.7	Aeration Timer	AT	Time the window is tilted for aeration	0x0000: Reserved		
						0x0001… 0xFD20:	1…64800	s
						0xFD21… 0xFFFD: Reserved 0xFFFE: Do not change 0xFFFF: Continuous Aeration		

Query

direction: TO
addressing: unicast (ADT)
triggers: event: Gateway/User Interface updates values

Offset	Size	Bit-range	Data	Short-Cut	Description	Valid Range	Scale	Unit
0	8	DB1.0 - DB1.7	Message ID	MID	Message type	Enumeration: 0x01: Query		
8	8	DB0.0 - DB0.7	Response Type	RT	Response type	Enumeration: 0x00: Status 0x01: Service 0x02…0xFF: Reserved		

Status Message

direction: FROM
addressing: broadcast
triggers: timed,
response to Query,
event: Position changing,
Tilt position change (5%),
Timer change (30s)

Offset	Size	Bit-range	Data	Short-Cut	Description	Valid Range	Scale	Unit
0	8	DB4.0 - DB4.7	Message ID	MID	Message type	Enumeration: 0x02: Status		
8	8	DB3.0 - DB3.7	Position Status	PS	Current position of the window drive	Enumeration: 0x00: Closed & Locked 0x01: Move unlocking 0x02: Move unlocking stopped 0x03: Move tilting 0x04: Tilt & Stopped 0x05: Move closing 0x06: Move locking 0x07: Move locking stopped 0x08: Position unknown 0x09: Position unknown stopped 0x0A…0xFF: Reserved		
16	8	DB2.0 - DB2.7	Tilt Position	TP	Response of the current tilt position.	0x00…0x64	0…100	% tilt
						0x65…0xFF: Reserved		
24	16	DB0.0 - DB1.7	Remaining Aeration Time	RAT	Feedback of the aeration timer.	0x0000… 0xFD20	0…64800	s
						0xFD21… 0xFFFE: Reserved 0xFFFF: Continuous Aeration		

Service Message

direction: FROM
addressing: broadcast
triggers: response to Query
event: Failure occurs

Offset	Size	Bit-range	Data	Short-Cut	Description	Valid Range	Scale	Unit
0	8	DB3.0 - DB3.7	Message ID	MID	Message type	Enumeration: 0x03:	Service	
8	8	DB2.0 - DB2.7	Failure Code	FC	Indicates current failure	Enumeration: 0x00: 0x01: 0x02: 0x03: 0x04: 0x05: 0x06: 0x07…0xFF:	 No Failure Close Failure Tilt Failure Drive Connection Failure Drive Overcurrent Drive Timeout Drive Failure Reserved	
16	16	DB0.0 - DB1.7	Tilt Cycles	TC	Tilt counter. Value is incremented when window drive changes position from closed to a tilted position.	0x0000… 0xFFFF	0…65535	

Failure Codes:

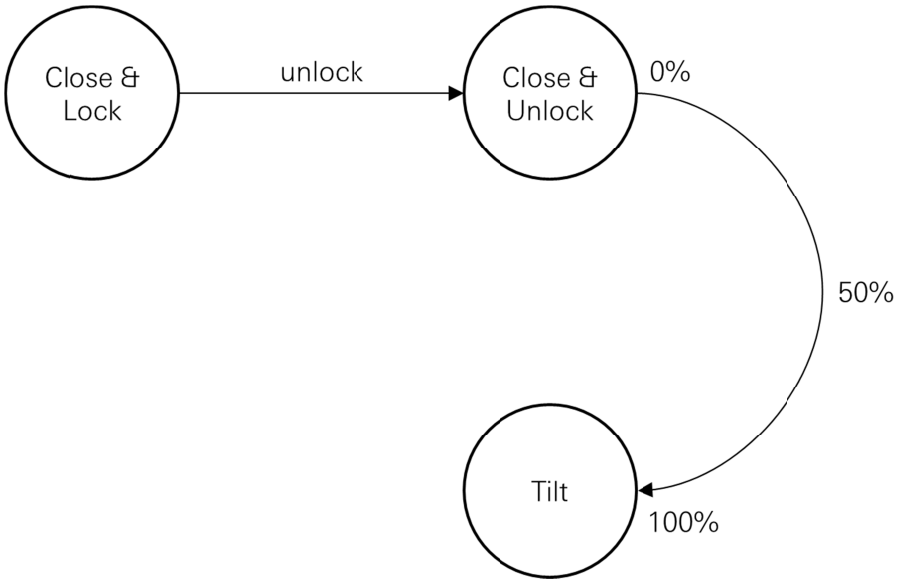
No failure	No failure detected.
Close Failure	"Close signal" cannot be send to electric window drive (e.g. connected light curtain detected an object).
Tilt Failure	Tilt signal cannot be send to electric window drive (window is opened manually).
Drive Connection Failure	Electric window drive connection failure. Please check connection cable.
Drive Overcurrent	Electric window drive overcurrent shutdown (window fitting is stiffed or blocked).
Drive Timeout	Electric window drive did not reach position during a specific time (window fitting is stiffed).
Drive Failure	Internal failure. Open window manually. Remove drive and send in for repair.

Appendix:

Roto E-Tec Drive:

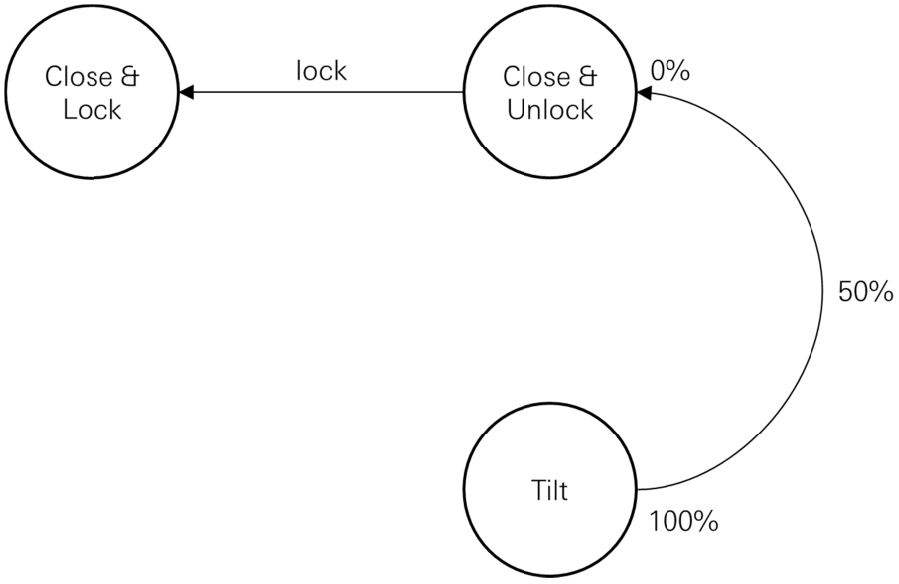
Closed -> Tilt:

1. E-Tec Drive unlocks the window fitting (tilt position 0%)
2. E-Tec Drive tilts the window to a defined position between 1%-100%



Tilt -> Closed:

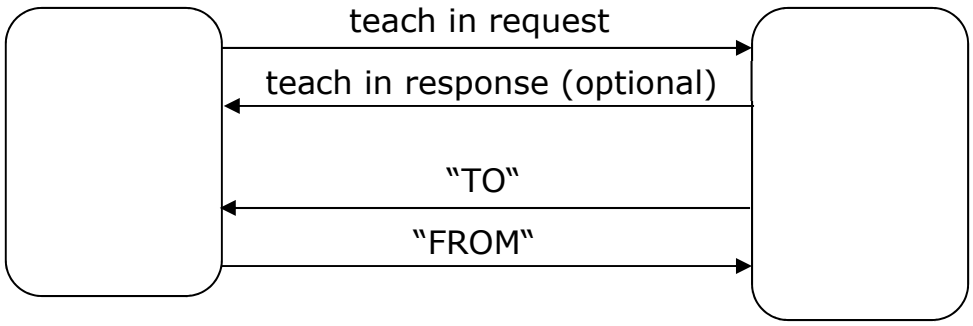
1. E-Tec Drive pulls the window to tilt position 0%
2. E-Tec Drive locks the window fitting



EEP Guidelines (Checklist)	☒
Check for latest EEP Submission template	☐
Check for equal /similar profiles to be used (within the latest EEP Specification document)	☐
Check for new, approved profiles to be used (on the EnOcean Alliance platform)	☐
Check for existing profile families to integrate a new profile	☐
Usage of UTE and VLD for bidirectional profiles	☐
Usage of UTE for every VLD profile	☐
Definition of addressing type (broadcast or unicast / addressed telegrams [ADT])	☐
Description of all data fields	☐
Description of all enumerated values	☐
Description of all binary values	☐
No optional parameters or data fields	☐
No undefined bits (every bit marked as used or 'reserved')	☐
Data byte order down from DBx.7 to DB0.0	☐
Full support of defined value ranges by the application	☐
Transmission direction referenced for all unidirectional messages within bidirectional profiles	☐
Response timeouts for bidirectional communication documented	☐
Documentation of message dependencies (e.g. request & response)	☐
Summary of all supported parameters within the EEP family table	☐
Have IP Representation of EEP Profile	☐

automatic check box → only a mouse click

Direction Definition:
For EEP commands a direction has to be specified. There are two valid directions "FROM" and "TO". This id defined by the device that sent the teach-in request.



Device on the left typically is an actor or a sensor. Device on the right typically is a Gateway

FROM: mainly used for 'response' or 'status' messages
TO: mainly used for 'set' or 'get/query' messages