Connecting UniOP to SEW Controllers

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1. Introduction

This Technical Note contains the information and tips for successful connection between a UniOP operator interface panel and the SEW Controller models: Movidrive, Movidyn and Movitrac.

If communication board is optional in SEW Controllers or if multiple boards can be built in, this fact should be highlighted here, along with the instruction which option to install in order to be able to communicate. Reference SEW User's Manual if necessary.

2. Communication Setup

This chapter describes the setup procedure for communication between UniOP and SEW Controllers.

2.1 UniOP Communication Setup

In UniOP Designer, select the 'Project/Change controller driver' dialog box and make sure that the selected communication driver is in accordance with the following table:

Controller Type	Communication Driver
Movidrive	SEW Movilink
Movidyn	SEW Eurodrive
Movitrac	SEW Eurodrive

The default communication parameters are the following:

	Movidrive	Movidyn	Movitrac
Speed	9600	9600	9600
Parity	even	none	none
Data bits	8	8	8
Stop bits	1	1	1

If any of the communication parameters are fixed on any of the Controllers and should not be modified from their default values, it should be highlighted here. Also any possible UniOP's restriction with regard to the full parameter range offered by SEW (e.g. not supporting high baud rates).

2.2 SEW Movidrive communication setup

The communication with SEW Movidrive is established through the RS-232 interface.
Vito worked only with RS-232. However:

a) in the Contents of the SEW Manual, we see chapter 2.13 "Connecting the USS21A (Serial Interface RS-232 and RS-485)"
b) In the Cables list, module USS11A is mentioned. (typo?)

This all should be checked. Also, if RS-485 interface exists and if we wish to claim to be able to connect to it, the protocol should be re-checked with RS-485 connection.

Insert here description of SEW Movidrive setup (setting communication parameters, if they are not fixed; possible selecting comm. port; possibly a procedure for enabling communication, if applicable; anything the user must do in order to be able to communicate with an external device).

2.3 SEW Movidyn Communication Setup

Here goes statement about the communication port on SEW Movidyn to which the communication cable is connected. . (In the Cables list I see the note stating 'X02 and X41'. Perhaps this difference should be highlighted here.)

Insert here description of SEW Movidyn setup (setting communication parameters, if they are not fixed; possible selecting comm. port; possibly a procedure for enabling communication, if applicable; anything the user must do in order to be able to communicate with an external device).

2.4 SEW Movitrac Communication Setup

Here goes statement about the communication port on SEW Movitrac to which the communication cable is connected. (In the Cables list I see there are 2 possibilities for communicating with Movitrac - for one of them note is missing, for the other it says 'Module UST11A'. This difference should be highlighted here.)

Insert here description of SEW Movitrac setup (setting communication parameters, if they are not fixed; possible selecting comm. port; possibly a procedure for enabling communication, if applicable; anything the user must do in order to be able to communicate with an external device).

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3. Communication Cables

The communication with SEW Controllers can be established using cables according to the following table:

Controller Type	Comm. Module	Cable
Movidrive	USS11A	CA81
Movidyn	X02 and X41	CA141
Movitrac		CA141
Movitrac	UST11A	CA160

I am not sure that the middle column should be titled 'Comm. module', but as long as we have two different cables, both applicable to Movitrac, there must be one column that will provide the distinction. Please verify.

4. Communication Error Codes

Current communication status is displayed in the System Menu of the UniOP.
The error status is described by a message and a numeric error code.
The message reports the current communication status. The number shows the code of the current communication error or, if the communication is correct, the code of the last error encountered.
When the error code 0 is shown, it means there have been no communication errors since this system start-up.

Code	Description	Notes
0	No error	There are no communication errors and there have been no errors since start-up.
4	Negative acknowledgement	The device did not accept the request – e.g. data requested from not existing address
5	Communication timeout	No response from device. May indicate that the connection is broken, communication parameters are not matching or hardware errors
6	Response error	Error in the response from the device
7	General communication error	Should never been reported. Indicates a software error.
11	Line error	Bad parity, data bits, stop bits, etc.

Vito has checked in both Eurodrive and Movilink protocol sources: the above table is correct for both of them, i.e. it applies to all supported SEW Controller models.

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