UniOP Communication with Hitachi EH-150

This Technical Note contains the information and tips for successful communications between a UniOP operator interface panel and the Hitachi EH-150 PLC.

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1. Introduction

The most important piece of information in establishing communication is related to the dip-switch setting. The EH-150 PLC has 9 dip-switches that must be properly configured to allow communication with the MMI panel.

The EH-150 PLC has two communication ports: UniOP can be connected to either of the two ports. It is also possible to connect the PLC programming software to one port and the UniOP to the other port. Communication speed up to 38400 baud is possible. UniOP supports the communication task codes that do not require CPU occupation.

Note: *The EH-150 has been initially supported in the Designer in the driver file* ***UPLC24.DLL*** *version* ***5.02****.*

2. Communication Cable

Use the cable CA155 to connect a UniOP panel to either of the communication ports on the EH-150.

3. Dip-switch Setting

The Hitachi EH-150 has 9 dip-switches that need to be configured properly in order to communicate with UniOP. UniOP can be connected to either Port 1 or Port 2. Communication speed up to 38400 bauds is possible. Communication parameters are fixed to even parity, 7 data bits and 1 stop bit.

3.1. Connecting UniOP to Port 1

The table below shows the dip-switch settings required to connect UniOP to Port 1.

Switch Number/Name	Recommended setting	Notes
1	Does not matter	
2	Irrelevant if the 5th switch is ON. If the 5th is OFF UniOP cannot communicate on Port 1	Port 1 operation when the 5th switch is OFF
3	User definable	Port 1 baud rate. You must set the communication speed in the Designer according to the switch position
4	User definable	
5	Must be ON	
6	User definable	Port 2 baud rate
7	Must be OFF	System switch
8	Must be OFF	System switch
Port Mode Selection Switch	Used only when a programmer is connected to Port 2	See Hitachi documentation.

3.2. Connecting UniOP to Port 2

Switch Number/Name	Recommended setting	Notes
1	Does not matter	
2	Does not matter	
3	User definable	Port 1 baud rate
4	User definable	Port 1 baud rate
5	Does not matter	See the Hitachi documentation for switch setting if you want to connect the PLC programming software to Port 1
6	User definable	Port 2 baud rate. See Port Switch settings below in the table
7	Must be OFF	System switch
8	Must be OFF	System switch
Port Mode Selection Switch	The position of this switch together with switch 6, sets the baud rate for Port 2	

Switch 6	*Port Mode switch*	*Port 2 baud rate*
ON	ON	38400
ON	OFF	9600
OFF	ON	19200
OFF	OFF	4800

4. Pass-through Operation

Pass-through operation is possible with the EH-150. To do this, you will need the CA114 programming cable connected from your computer to the PC port on the UniOP, along with the CA155 cable connected from the PLC to the PLC port on the UniOP.