KOYO DIRECT (K-Sequence)

Supported Series: KOYO DirectLogic series PLC DL05, DL06, DL105, DL205, DL305, and DL405 series

Website: http://www.automationdirect.com

HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	KOYO DIRECT (K-Sequence)		
PLC I/F	RS232	RS232, RS485	
Baud rate	9600	9600, 19200, 38400	
Data bits	8	7, 8	
Parity	Odd	Even, Odd, None	
Stop bits	1	1	
PLC sta. no.	1	1-90	

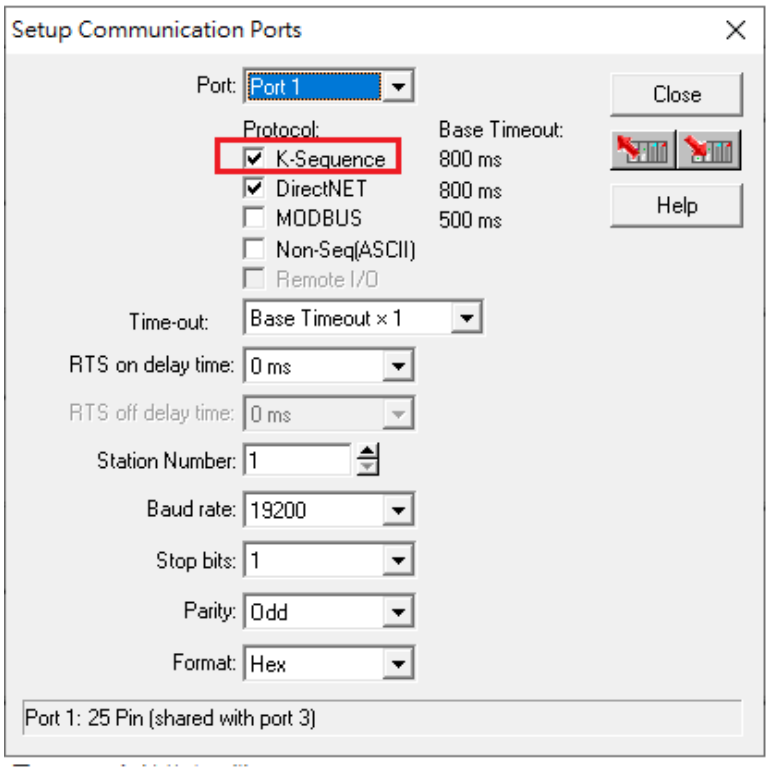
*Support communications between HMI and PLC in pass-through mode

*Set LW-9903 to 2 to enhance the speed of download/upload PLC program in pass-through mode

*When using pass-through, the driver will stop communication between HMI and PLC.

PLC Setting:

	1. The PLC must not have a password. 2. PLC must be set for Full Duplex operation. 3. PLC must be set for No Hardware Handshaking. 4. The PLC must be set to use the 'K' Sequence Protocol. 5. Set the mode switch to the TERM mode. 6. When using the D4-440 CPU, the station number must be set to 1.



Device Address:

Bit/Word	Device type	Format	Range	Memo
B	X	OOOO	0 ~ 4000	Input Bits
B	Y	OOOO	0 ~ 4000	Output Bits
B	C	OOOOO	0 ~ 10000	Control Relays
B	T	OOOO	0 ~ 1000	Timer Status Bits
B	CT	OOOO	0 ~ 1000	Counter Status Bits
B	S	OOOO	0 ~ 2000	
B	SP	OOOO	0 ~ 2000	
B	GX	OOOOO	0 ~ 10000	
B	GY	OOOOO	0 ~ 10000	
W	V	OOOOO	0 ~ 77777	V Memory
W	Timer	OOOO	0 ~ 1000	
W	Counter	OOOO	0 ~ 1000	

Wiring Diagram:

Diagram 1

RS-232 (DL05/DL06/DL105/DL230/DL240/DL250/DL350/DL450 RS232 port)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

HMI		PLC
Link		RS232 6P RJ12 Male
Rx	⟷	4
Tx	⟷	3
GND	⟷	1

Diagram 2

RS-232 (DL06/DL250 CPU Port2 RS232)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

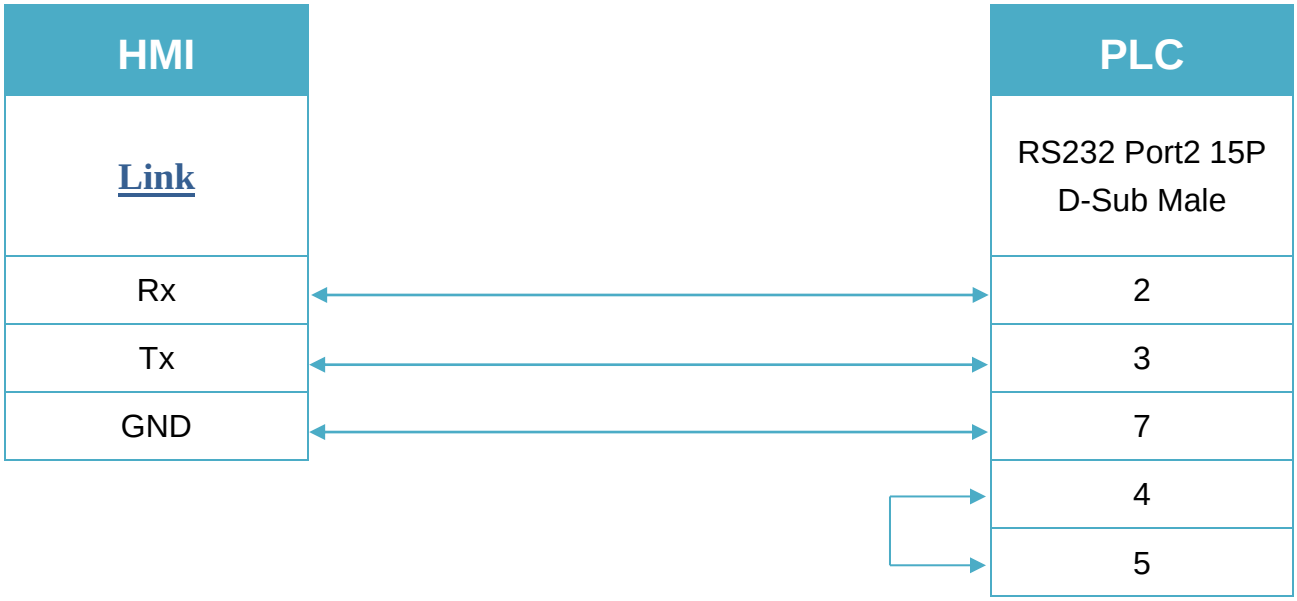
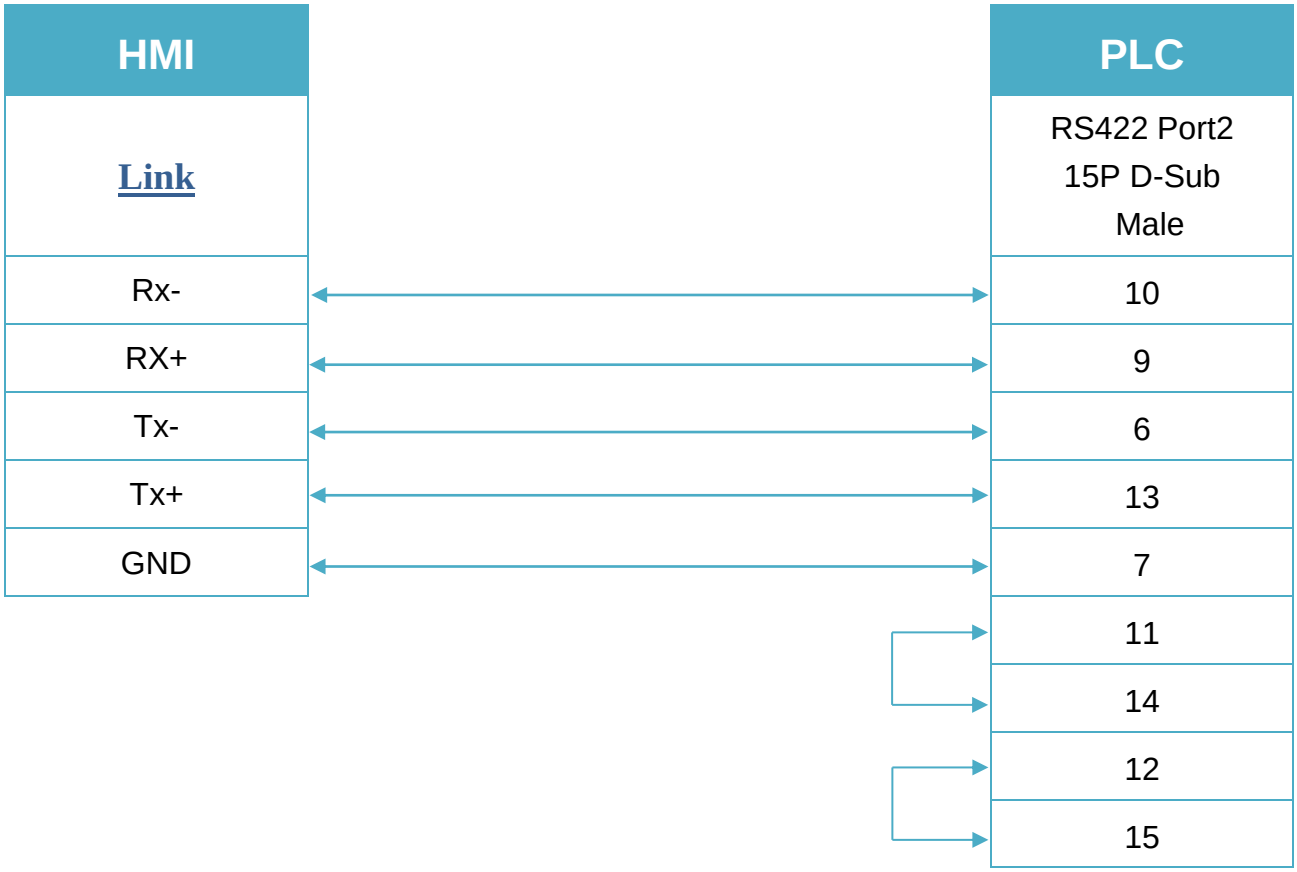


Diagram 3

RS-485 4W (DL06/DL250 CPU Port2 RS422)

The serial port pin assignments may vary between HMI models, please click the following link for more information.



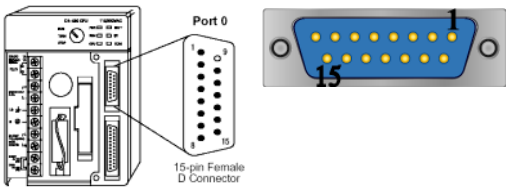
Note: DL06/DL250 CPU Port2 include RS232 and RS422

Diagram 4

RS-232 (DL430/DL440/DL450 CPU unit Port0 RS232)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

The following is the view from the soldering point of a connector.



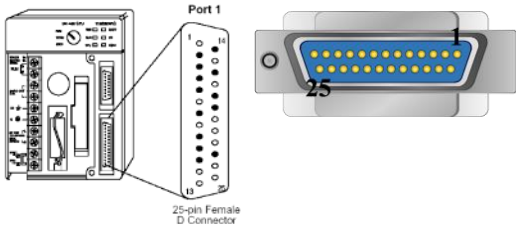
HMI		PLC
Link		RS232 Port0 15P D-Sub Male
Rx	→	2
Tx	→	3
GND	→	13
	→	1
	→	7
	→	2
	→	4
	→	14

Diagram 5

RS-232 (DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS232)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

The following is the view from the soldering point of a connector.



HMI		PLC
Link		RS232 Port1 25P D-Sub Male
Rx	⟷	2
Tx	⟷	3
GND	⟷	7
	⟷	4
	⟷	5

Diagram 6

RS-485 4W (DL430/DL440/DL450 CPU unit Port1 & DL350 CPU unit Port2 RS422)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

HMI		PLC
Link		RS422 Port 25P D-Sub Male
Rx-	↔	16
RX+	↔	14
Tx-	↔	10
Tx+	↔	9
GND	↔	7
		19
		11
		18
		23

Diagram 7

RS-485 4W (DL450 CPU unit Port3 RS422)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

HMI		PLC
Link		RS422 Port3 25P D-Sub Male
Rx-	⟷	13
RX+	⟷	15
Tx-	⟷	25
Tx+	⟷	24
GND	⟷	7

Diagram 8

RS-232 (DL205 series D2-DCM and DL405 series D4-DCM RS232)

The serial port pin assignments may vary between HMI models, please click the following link for more information.

HMI		PLC
Link		RS232 Port 25P D-Sub Male
Rx	⟷	2
Tx	⟷	3
GND	⟷	7
	↕	4
	↕	5