

PROTOCOLS AND CABLE DIAGRAMS



APPENDIX

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Cables and Protocols

DirectLOGIC CPUs provide many communication port possibilities. It is helpful to know which programming cable and protocol to use.

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DirectLOGIC PLC Programming Cable and Wiring Standard Reference

CPU	Port	Cable	Standard	Jack Style	
DL05	Port 1	D2-DSCBL	RS-232	RJ12 6P6C	
	Port 2	D2-DSCBL	RS-232	RJ12 6P6C	
	D0-DCM	D2-DSCBL-1	D2-DSCBL	RS-232	HD15
				RS-422	
				RS-485	
H0-ECOM(100)		10/100 BASET	RJ45 CAT 5E		
DL06	Port 1	D2-DSCBL	RS-232	RJ12 6P6C	
	Port 2	D2-DSCBL-1	RS-232	HD15	
			RS-422		
			RS-485		
	D0-DCM	D2-DSCBL-1	D2-DSCBL	RS-232	RJ12 6P6C
				RS-232	HD15
				RS-422	
		RS-485			
H0-ECOM(100)		10/100 BASET	RJ45 CAT 5E		
D2-230	Port 1	D2-DSCBL	RS-232	RJ12 6P6C	
	D2-DCM	D3-DSCBL-2	RS-232	DB-25	
			RS-422		
D2-240	Port 1	D2-DSCBL	RS-232	RJ12 6P6C	
	Port 2	D2-DSCBL	RS-232	RJ12 6P6C	
	D2-DCM	D3-DSCBL-2	RS-232	DB-25	
			RS-422		
H2-ECOM(100)		10/100 BASET	RJ45 CAT 5E		
D2-250(-1) D2-260	Port 1	D2-DSCBL	RS-232	RJ12 6P6C	
	Port 2	D2-DSCBL-1	RS-232	HD15	
			RS-422		
			RS-485		
	D2-DCM	D3-DSCBL-2	RS-232	DB-25	
RS-422					
H2-ECOM(100)		10/100 BASET	RJ45 CAT 5E		
D3-330	D3-232-DCU	D3-DSCBL-2	RS-232	DB-25	
D3-340	Port 1	D3-DSCBL-1	RS-232	RJ14 4P4C	
	Port 2	D3-DSCBL-1	RS-232	RJ14 4P4C	
D3-350	Port 1	D2-DSCBL	RS-232	RJ12 6P6C	
	Port 2	D3-DSCBL-2	RS-232	DB-25	
			RS-422		
			RS-485		
	D3-DCM	D3-DSCBL-2	RS-232		
RS-422					

DirectLOGIC PLC Programming Cable and Wiring Standard Reference				
CPU	Port	Cable	Standard	Jack Style
D4-430 D4-440	Port 0	D4-DSCBL	RS-232	DB-15
	Port 1	D3-DSCBL-2	RS-232	DB-25
	D4-DCM	D3-DSCBL-2	RS-232	
			RS-422	
H4-ECOM(100)		10/100 BASET	RJ45 CAT 5E	
D4-450 D4-454	Port 0	D4-DSCBL	RS-232	DB-15
	Port 1	D3-DSCBL-2	RS-232	DB-25
	Port 2	D2-DSCBL	RS-232	RJ11 6P6C
	Port 3		RS-422	DB-25
	D4-DCM	D3-DSCBL-2	RS-232	
			RS-422	
H4-ECOM(100)		10/100 BASET	RJ45 CAT 5E	

Notes:

- To convert an RS-232 cable to USB, purchase part number USB-RS232.
- To connect to RS-485 with USB, purchase part number USB-485M.
- EA-MG-PGM-CBL is a USB alternative for the D2-DSCBL.
 - Do not use EA-MG-PGM-CBL with SureStep stepper drives.
- For RS-232/RS-422 use cable part number L19772-100.
- For RS-485 use cable part number L19827-100.
- For Ethernet, Category 5E cable is recommended as a minimum.

Cables and Protocols (cont'd)

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DirectLOGIC PLC Protocols Supported						
CPU	Port	DirectNET	K-Sequence	MODBUS RTU	ECOM	MODBUS TCP
DL05	Port 1	•	•	•		
	Port 2	•	•	•		
	D0-DCM	•	•	•		
		•	•	•		
		•	•	•		
H0-ECOM(100)				•	H0-ECOM100	
DL06	Port 1	•	•	•		
	Port 2	•	•	•		
		•	•	•		
		•	•	•		
	D0-DCM	•	•	•		
H0-ECOM(100)				•	H0-ECOM100	
D2-230	Port 1	•	•	•		
	D2-DCM	•	•	slave only		
D2-240	Port 1	•	•	•		
	Port 2	•	•	•		
	D2-DCM	•	•	slave only		
		•	•	slave only		
H2-ECOM(100)				•	H2-ECOM100	
D2-250(-1) D2-260	Port 1	•	•	•		
	Port 2	•	•	•		
		•	•	•		
		•	•	•		
	D2-DCM	•	•	slave only		
H2-ECOM(100)	•			•	H2-ECOM100	
D3-330	D3-232-DCU	•				
D3-340	Port 1	•				
	Port 2	•		•		
D3-350	Port 1	•	•	•		
	Port 2	•	•	•		
		•	•	•		
		•	•	•		
	D3-DCM	•	•	slave only		
		•	•			

Cables and Protocols (cont'd)

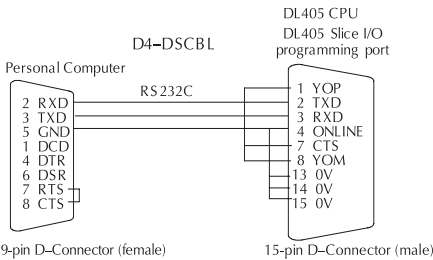
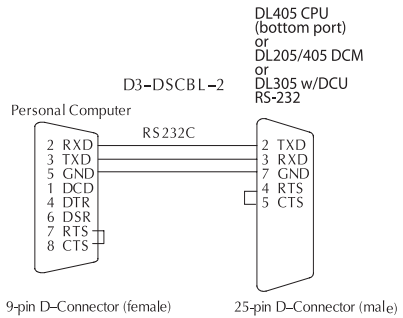
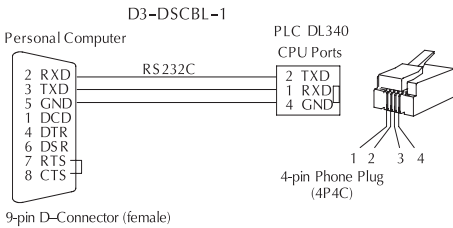
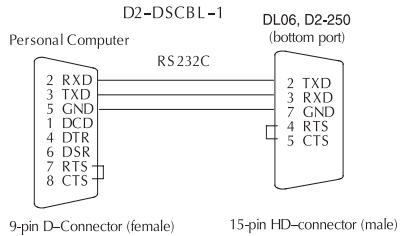
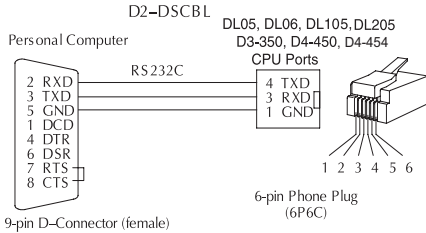
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<i>DirectLOGIC PLC Protocols Supported</i>						
CPU	Port	<i>DirectNET</i>	K-Sequence	MODBUS RTU	ECOM	MODBUS TCP
D4-430 D4-440	Port 0	•	•	•		
	Port 1	•	•	•		
	D4-DCM	•	•	slave only		
		•	•			
H4-ECOM(100)				•	H4-ECOM100	
D4-450 D4-454	Port 0	•	•	•		
	Port 1	•	•	•		
	Port 2	•	•	•		
	Port 3	•	•	•		
	D4-DCM	•	•	slave only		
		•	•			
H4-ECOM(100)				•	H4-ECOM100	

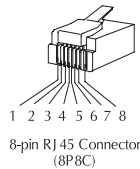
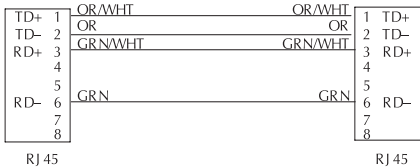
Programming Cable Diagrams

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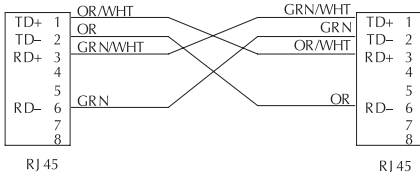
Pin labeling conforms to IBM DTE and DCE standards



Straight-through Patch Cable



Crossover Patch Cable



All Ethernet and ECOM patch cables should be Category 5, UTP Cable. The diagram illustrates the appropriate wire position in the RJ 45 connector.