## Programming for DirectLOGIC PLCs

### Programming versions

With DirectSOFT6 Programming Software, selecting which software package you need is a snap! You can select the fully loaded package at its great low price, or you may choose the FREE package. It has all of the same programming functions as the full package. However, it will only download a program up to 100 words long

The fully-loaded version (PC-DSOFT6) will program all of our *Direct*LOGIC PLCs, some GE Series One Plus PLCs, and TI305/405 SIMATIC PLCs. Refer to the chart below to verify compatibility.

The FREE *DirectSOFT6* package (PC-DS100) was designed to provide a more streamlined choice. You can see from the table below that the FREE version has the same support and same great features, but will only allow you to open or download a program up to 100 words long.

Also, you cannot open an offline project larger than 100 words. You can create a project as large as you want and save it to disk, but you cannot reopen or download it to a PLC without purchasing the full version (PC-DSOFT6).

### PLC compatibility

If you're using our *Direct*LOGIC products, then compatibility is not an issue. The *Direct*SOFT6 package supports all *Direct*LOGIC CPUs. Our software also supports many compatible products that were offered by previous vendors of the JTEKT-designed PLCs. If you're buying the software to program a compatible CPU, check the following table to make sure your CPU is supported. (Sorry, but if your CPU is not shown, then it is not supported.)

Family	СРИ	DirectSOFT6 (full version) PC-DSOFT6	DirectSOFT6 (free version) PC-DS100*	CPU Firmware Version Needed to Use IBox Instructions
DL05	All	✓	✓	✓ CPU v5.10 or Later
DL06	All	✓	✓	✓ CPU v2.10 or Later
DL105 (retired)	All	✓	✓	
, ,	D2-230 (retired)	✓	✓	
	D2-240 (retired)	✓	✓	
DI 005	D2-250 (retired)	✓	✓	
DL205	D2-250-1 (retired)	✓	✓	✓ CPU v4.60 or Later
	D2-260 (retired)	✓	✓	✓ CPU v2.40 or Later
	D2-262	✓	✓	
DL305 (retired)	D3-340	✓	✓	
	D3-350	✓	✓	
	D4-430 (retired)	✓	✓	
	D4-440 (retired)	<b>√</b>	✓	
DL405	D4-450 (retired)	<b>√</b>	✓	✓ CPU v3.30 or Later
	D4-454	<b>√</b>	✓	01 0 10.00 01 20.01
- @ -	IC610CPU105**	<b>√</b>	✓	
GE <sup>®</sup> Series 1 PLUS	IC610CPU106**	<b>✓</b>	✓	
	325-07**, PPX:325-07**	<b>√</b>	✓	
<b>a</b>	330-37**, PPX:330-37**	<b>✓</b>	<b>√</b>	
TI305™/ SIMATIC <sup>®</sup> TI305™	325S-07** (or 325 with Stage Kit)	<b>✓</b>	✓	
11305''''	330S-37**, PPX:330S-37**	<b>√</b>	✓	
	335-37, PPX:335-37	<b>✓</b>	✓	
TI405™/ SIMATIC® TI405™	425-CPU, PPX:425-CPU	<b>✓</b>	<b>√</b>	
	PPX:430-CPU	<b>√</b>	✓	
	435-CPU, PPX:435-CPU	<b>√</b>	✓	
Kostac S-Series	PZ1	<b>√</b>	✓	
	PZ2	<b>√</b>	✓	
	PZ3	<b>✓</b>	✓	
	SC-4X	<b>√</b>	✓	
	SG-8/8B	<b>✓</b>	✓	
	SL-4	<b>✓</b>	<b>√</b>	
	SU-5/5E/5M	· ✓		
	SU-6/6B/6H/6M	· /		
	SZ-3	· /		
	SZ-4/4M	· ·		
	TJ-435/435-AS	· ·	<u> </u>	

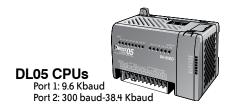
<sup>\*</sup> PC-DS100 is only available by download from our Website. This FREE, full-featured software package will download a program limited to 100 words.

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<sup>\*\*</sup> Requires Data Communications Unit (D3-232-DCU (retired)).

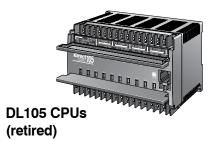
### Programming for *Direct*LOGIC PLCs

### Connecting to DirectLOGIC PLCs

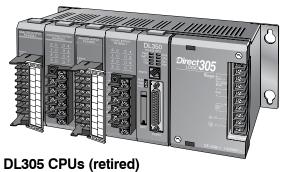








Port 1: 9.6 Kbaud



D3-340: Port 1/2: 300 baud - 38.4 Kbaud D3-350: Port 1: 9.6 Kbaud Port 2: 300 baud - 38.4 Kbaud



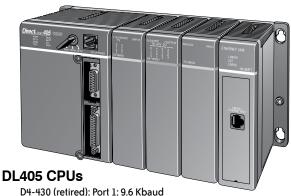
Port 2: 300 baud - 19.2 Kbaud

D2-250-1 (retired): Port 1: 9.6 Kbaud

**DL06 CPUs** Port 1: 9.6 Kbaud

D2-260 (retired): Port 2: 300 baud - 38.4 Kbaud

D2-262: Port 2: 300 baud - 38.4 Kbaud



D4-440 (retired): Port 2: 300 baud - 19.2 Kbaud

D4-450 (retired): Port 0: 9.6 Kbaud

Port 1/3: 300 baud - 38.4 Kbaud

Port 2: 300 baud - 38.4 Kbaud

D4-454: Port 0: 9.6 Kbaud

Port 1/3: 2.4 Kbaud - 38.4 Kbaud Port 2: 2.4 Kbaud - 38.4 Kbaud

Or use an Hx-ECOM100 module in the DL05, DL06, DL205 (except D2-230) or DL405 local base to program over a high-speed Ethernet link.

# DirectLOGIC PLC Programming Cables

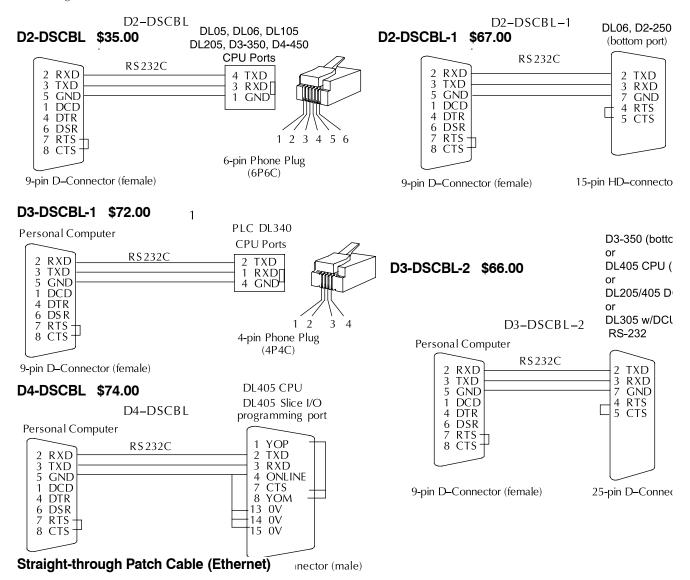
Since CPUs provide many different communication port possibilities, it is helpful to know exactly which communications cable is required. Use the table below to choose the proper cable:

<b>Family</b>	CPU (or other device)	Port	Cable
		Port 1	D2-DSCBL (EA-MG-PGM-CBL optional
	All versions	Port 2	D2-DSCBL (EA-MG-PGM-CBL optional
DirectLOGIC DL05	H0-ECOM / ECOM100 (modules)	Only one	**
		Port 1	D2-DSCBL (EA-MG-PGM-CBL optional
	D0-DCM (module)	Port 2	D2-DSCBL-1
		Port 1	D2-DSCBL (EA-MG-PGM-CBL optional
	All versions	Port 2	D2-DSCBL-1
DirectLOGIC DL06	H0-ECOM / ECOM100 (modules)	Only one	**
5.11001200110 5200		Port 1	D2-DSCBL (EA-MG-PGM-CBL optional
	D0-DCM (module)	Port 2	D2-DSCBL-1
DirectLOGIC DL105	F1-130 (all versions)		
(retired)	, ,	Only one	D2-DSCBL (EA-MG-PGM-CBL optiona
	D2-230	Only one	D2-DSCBL (EA-MG-PGM-CBL optiona
	D2-240	Top port	D2-DSCBL (EA-MG-PGM-CBL optiona
	52 2.10	Bottom port	D2-DSCBL (EA-MG-PGM-CBL optiona
	D2-250(-1)	Top port	D2-DSCBL (EA-MG-PGM-CBL optiona
	(D2-250-1 CPU is retired)	Bottom port	D2-DSCBL-1
DirectLOGIC DL205	D2-260	Top port	D2-DSCBL (EA-MG-PGM-CBL optional
	DZ-200	Bottom port	D2-DSCBL-1
	D2-262	Top port	D2-DSCBL (EA-MG-PGM-CBL optiona
	DZ-202	Bottom port	D2-DSCBL-1
	D2-DCM (module)	Only one	D3-DSCBL-2
	H2-ECOM (-F) / ECOM100	Only one	**
	D3-340	Top port	D3-DSCBL-1
Dirocti OCIC DI 205		Bottom port	D3-DSCBL-1
DirectLOGIC DL305 (retired)	D3-350	Top port	D2-DSCBL (EA-MG-PGM-CBL optiona
rourouj		Bottom port	D3-DSCBL-2
	D3-DCM (module)	Only one	D3-DSCBL-2
	D4-430/D4-440 (retired)	Top port (15-pin)	D4-DSCBL
	D 1 100/D 1 110 (10tillou)	Bottom port (25-pin)	D3-DSCBL-2
		Phone jack	D2-DSCBL (EA-MG-PGM-CBL optiona
	D4-450 (retired)	Top port (15-pin)	D4-DSCBL
		Bottom port (25-pin)	D3-DSCBL-2
DirectLOGIC DL405		Phone jack	D2-DSCBL (EA-MG-PGM-CBL optional
	D4-454	Top port (15-pin)	D4-DSCBL
		Bottom port (25-pin)	D3-DSCBL-2
	D4-DCM (module)	Only one	D3-DSCBL-2
	H4-ECOM (-F) / ECOM100	Only one	**
	Slice I/O (module)	Only one	D4-DSCBL
GE® Series 1	IC610CPU105/106	Requires DCU*	D3-DSCBL-2
	325-07, PPX:325-07	Requires DCU*	D3-DSCBL-2
	330-37, PPX:330-37	Requires DCU*	D3-DSCBL-2
TI305 <sup>™</sup> /SIMATIC® TI305 <sup>™</sup>	325S-07 (or 325 with stage kit)	Requires DCU*	D3-DSCBL-2
OUST /SIIVIATIC TISUS	330S-37, PPX:330S-37	Requires DCU*	D3-DSCBL-2
	,	Phone jack	D3-DSCBL-1
	335-37, PPX:335-37	If DCU is used*	D3-DSCBL-2
	425-CPU, PPX:425-CPU	15-pin port	D4-DSCBL
		Top port (15-pin)	D4-DSCBL
			The state of the s
TM	N/A, PPX:430-CPU		D3-DSCBL-2
TI405 <sup>™</sup> /SIMATIC <sup>®</sup> TI405 <sup>™</sup>	, ,	Bottom port (25-pin)	D3-DSCBL-2 D4-DSCBL
TI405 <sup>™</sup> /SIMATIC® TI405 <sup>™</sup>	N/A, PPX:430-CPU 435-CPU, PPX:435-CPU		D3-DSCBL-2 D4-DSCBL D3-DSCBL-2

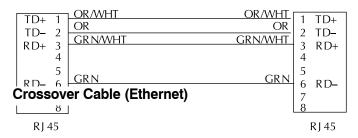
<sup>\*</sup> Requires RS232 Data Communications Unit (D3-232-DCU (retired)).
\*\*Requires standard Ethernet twisted pair cable (HX-ECOM) or standard fiber optic cable (HX-ECOM-F).
\*\*\*The GoldX USB-RS232 adapter is another option for USB communication.

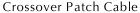
# DirectLOGIC PLC Programming Cables

Pin labeling conforms to IBM DTE and DCE standards

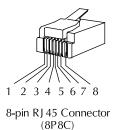


#### Straight-through Patch Cable





	OR /M/HT		GRN/WHT.		
TD+ 1	OP.		GRN	TD+	1
TD- 2	CRNAAAT	$\neg \sim \sim$	OP AM/HT	TD-	2
RD+ 3	GKIWWHI		OK/WITI	R D+	3
1 4		$\sim$		ı KD	4
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All Ethernet and ECOM patch cables should be Catego UTP Cable. The diagram illustrates the appropriate wire position in the RJ 45 connector.