



Allen-Bradley

***SLC 500™ Fixed
Hardware Style***

***(Cat. No. 1747-L20, 1747-L30,
and 1747-L40 Processors)***

product icon

Installation and Operation Manual

Configuration Options

The following table provides configuration options for 20, 30, or 40 I/O points.

Catalog Number	Line Power	I/O Configuration		High-Speed Counter	User Power
		Input	Output		
1747-L20A	120/240 VAC	(12) 120 Volts AC	(8) AC/DC Relay	No	NA
1747-L30A		(18) 120 Volts AC	(12) AC/DC Relay	No	NA
1747-L40A		(24) 120 Volts AC	(16) AC/DC Relay	No	NA
1747-L20B		(12) 120 Volts AC	(8) AC Triac	No	NA
1747-L30B		(18) 120 Volts AC	(12) AC Triac	No	NA
1747-L40B		(24) 120 Volts AC	(16) AC Triac	No	NA
1747-L20C		(12) 24 Volts DC Sink	(8) AC/DC Relay	Yes	24V-200mA
1747-L30C		(18) 24 Volts DC Sink	(12) AC/DC Relay	Yes	24V-200mA
1747-L40C		(24) 24 Volts DC Sink	(16) AC/DC Relay	Yes	24V-200mA
1747-L20D		(12) 24 Volts DC Sink	(8) AC Triac	Yes	24V-200mA
1747-L30D		(18) 24 Volts DC Sink	(12) AC Triac	Yes	24V-200mA
1747-L20E		(12) 24 Volts DC Sink	(8) DC Transistor Source	Yes	24V-200mA
1747-L40E		(24) 24 Volts DC Sink	(16) DC Transistor Source	Yes	24V-200mA
1747-L20L		(12) 24 Volts DC Source	(8) DC Transistor Sink	Yes	24V-200mA
1747-L30L		(18) 24 Volts DC Source	(12) DC Transistor Sink	Yes	24V-200mA
1747-L40L		(24) 24 Volts DC Source	(16) DC Transistor Sink	Yes	24V-200mA
1747-L20R		(12) 240 Volts AC	(8) AC/DC Relay	No	NA
1747-L20P		(12) 240 Volts AC	(8) AC Triac	No	NA
1747-L30P		(18) 240 Volts AC	(12) AC Triac	No	NA
1747-L40P		(24) 240 Volts AC	(16) AC Triac	No	NA
1747-L20F	24 VDC±10%	(12) 24 Volts DC Sink	(8) AC/DC Relay	Yes	NA
1747-L40F		(24) 24 Volts DC Sink	(16) AC/DC Relay	Yes	NA
1747-L20G		(12) 24 Volts DC Sink	(8) DC Transistor Source	Yes	NA
1747-L20N		(12) 24 Volts DC Source	(8) DC Transistor Sink	Yes	NA

Appendix D

Calculating Heat Dissipation for the SLC 500 Control System

Use this Table to Calculate the Power Supply Loading

Use the table below to calculate the power supply loading for each chassis that you have (step 1 of the worksheet).

Hardware Component	Catalog Numbers	Watts per Point	Minimum Watts	Maximum Watts
Fixed Controllers	1747-L20A	0.27	10.5	15.0
	1747-L30A	0.27	12.7	19.2
	1747-L40A	0.27	14.3	23.0
	1747-L20B	0.27	9.9	17.0
	1747-L30B	0.27	11.6	22.0
	1747-L40B	0.27	13.0	27.0
	1747-L20C	0.20	17.4	21.0
	1747-L30C	0.20	18.7	24.0
	1747-L40C	0.20	19.9	27.0
	1747-L20D	0.20	12.4	19.0
	1747-L30D	0.20	13.9	23.0
	1747-L20E	0.20	12.6	18.0
	1747-L40E	0.20	16.0	27.0
	1747-L20F	0.20	5.0	9.0
	1747-L40F	0.20	7.4	15.0
	1747-L20G	0.20	4.4	10.0
	1747-L20L	0.20	12.1	18.0
	1747-L30L	0.20	14.0	23.0
	1747-L40L	0.20	16.0	27.0
	1747-L20N	0.20	4.4	10.0
	1747-L20P	0.35	8.8	17.0
	1747-L30P	0.35	10.5	23.0
	1747-L40P	0.35	11.6	28.0
	1747-L20R	0.35	10.5	16.0
Input Modules	1746-IA4	0.27	0.175	1.30
	1746-IA8	0.27	0.250	2.40
	1746-IA16	0.27	0.425	4.80
	1746-IM4	0.35	0.175	1.60
	1746-IM8	0.35	0.250	3.10
	1746-IM16	0.35	0.425	6.00
	1746-IB8	0.20	0.250	1.90
	1746-IB16	0.20	0.425	3.60
	1746-IB32	0.20	0.530	6.90
	1746-IV8	0.20	0.250	1.90
	1746-IV16	0.20	0.425	3.60
	1746-IV32	0.20	0.530	6.90
	1746-IG16	0.020	0.700	1.00
	1746-IN16	0.35	0.425	6.00
Output Modules	1746-OA8	1.00	0.925	9.00
	1746-OA16	0.462	1.85	9.30
	1746-OB8	0.775	0.675	6.90
	1746-OB16	0.338	1.40	7.60
	1746-OB32	0.078	2.26	4.80
	1746-OV8	0.775	0.675	6.90

Appendix E

Wiring and Circuit Diagrams and Voltage Ranges
for Your Fixed Controller

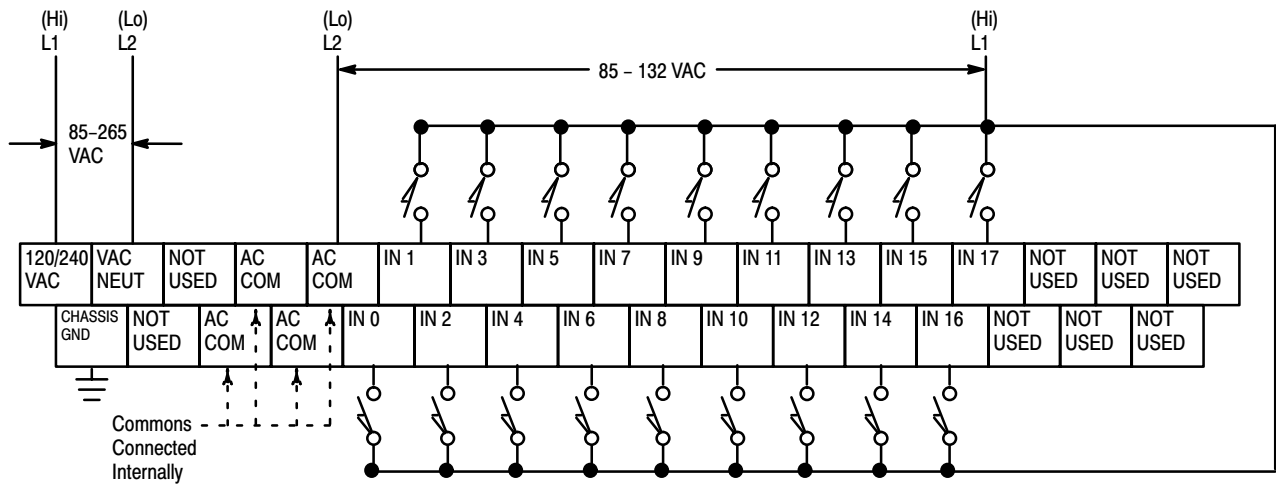
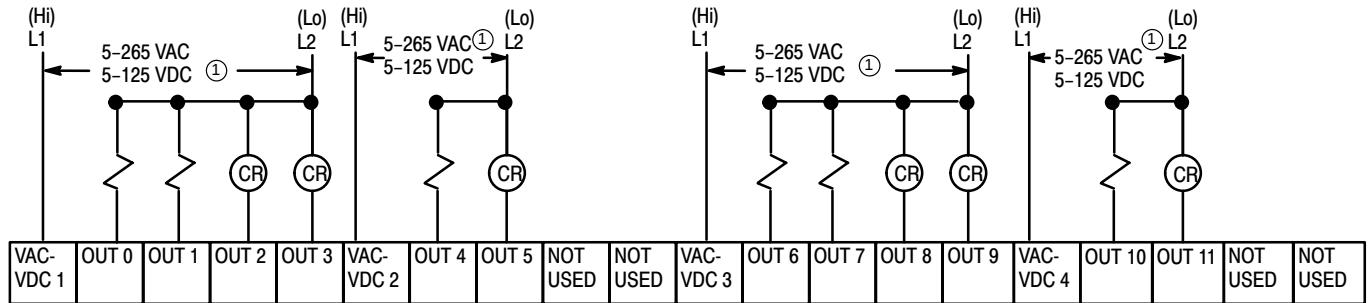
Wiring and Circuit Diagrams and Voltage Range Locations

Use the table below to locate the appropriate wiring and circuit diagrams and voltage ranges.

Catalog Numbers	Description ^①	Wiring Diagram	Input Circuit Diagram	On/Off State Voltage	Output Circuit Diagram	Operating Voltage Range
1747-L20A	(12) 120 VAC Inputs and (8) Relay Outputs	E-4	E-5	E-5	E-5	E-5
1747-L20B	(12) 120 VAC Inputs and (8) Triac Outputs	E-6	E-7	E-7	E-7	E-7
1747-L20C	(12) 24 VDC Sinking Inputs, High-Speed Counter Input and (8) Relay Outputs	E-8	E-9	E-9	E-10	E-10
1747-L20D	(12) 24 VDC Sinking Inputs, High-Speed Counter Input and (8) Triac Outputs	E-11	E-12	E-12	E-13	E-13
1747-L20E	(12) 24 VDC Sinking Inputs, High-Speed Counter Input and (8) Transistor Sourcing Outputs	E-14	E-15	E-15	E-16	E-16
1747-L20F	(12) 24 VDC Sinking Inputs, High-Speed Counter Input and (8) Relay Outputs	E-17	E-18	E-18	E-19	E-19
1747-L20G	(12) 24 VDC Sinking Inputs, High-Speed Counter Input and (8) Transistor Sourcing Outputs	E-20	E-21	E-21	E-22	E-22
1747-L20L	(12) 24 VDC Sourcing Inputs, High-Speed Counter Input and (8) Transistor Sinking Outputs	E-23	E-24	E-24	E-25	E-25
1747-L20N	(12) 24 VDC Sourcing Inputs, High-Speed Counter Input and (8) Transistor Sinking Outputs	E-26	E-27	E-27	E-28	E-28
1747-L20P	(12) 240 VAC Inputs and (8) Triac Outputs	E-29	E-30	E-30	E-30	E-30
1747-L20R	(12) 240 VAC Inputs and (8) Relay Outputs	E-31	E-32	E-32	E-32	E-32
1747-L30A	(18) 120 VAC Inputs and (12) Relay Outputs	E-33	E-34	E-34	E-34	E-34
1747-L30B	(18) 120 VAC Inputs and (12) Triac Outputs	E-35	E-36	E-36	E-36	E-36
1747-L30C	(18) 24 VDC Sinking Inputs, High-Speed Counter Input and (12) Relay Outputs	E-37	E-38	E-38	E-39	E-39
1747-L30D	(18) 24 VDC Sinking Inputs, High-Speed Counter Input and (12) Triac Outputs	E-40	E-41	E-41	E-42	E-42
1747-L30L	(18) 24 VDC Sourcing Inputs, High-Speed Counter Input and (12) Transistor Sinking Outputs	E-43	E-44	E-44	E-45	E-45
1747-L30P	(18) 240 VAC Inputs and (12) Triac Outputs	E-46	E-47	E-47	E-47	E-47
1747-L40A	(24) 120 VAC Inputs and (16) Relay Outputs	E-48	E-49	E-49	E-49	E-49

Catalog Number 1747-L30A
(18) 120 VAC Inputs & (12)
Relay Outputs

Wiring Diagram



① These outputs are isolated in groups as shown. Therefore, different voltages can be applied to each group as the specific application requires.