

Installation Instructions

ControlLogix Controller and Memory Board

Catalog Numbers 1756-L1, 1756-L1M1, 1756-L1M2, 1756-L1M3, 1756-L55, 1756-L55M12, 1756-L55M13, 1756-L55M14, 1756-L55M16, 1756-L55M22, 1756-L55M23, 1756-L55M24, 1756-L61, 1756-L62, 1756-L63, 1756-L64, 1756-L65, 1756-M1, 1756-M2, 1756-M3, 1756-M12, 1756-M13, 1756-M14, 1756-M16, 1756-M22, 1756-M23, 1756-M24, 1784-CF64, 1784-CF128

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12 ControlLogix Controller and Memory Board

Required System Components

These components ship with the controller.

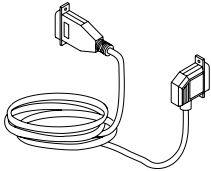
Component	Description
	Series A controllers: 1756-BA1 battery
	Series B controllers: 1756-BA2 battery
	Key

You can use these components with the controller.

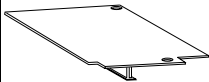
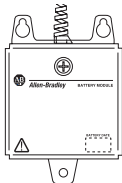
IMPORTANT

To maintain memory longer than is available with the battery, this option maintains memory only while the controller is in the chassis.

Optional Components

Description	Controller	Component
Connect a device to the serial port of the controller (for example, connect a computer to the controller)		1756-CP3 serial cable. 
Increase the memory of the controller	ControlLogix5550 ControlLogix5555	Memory board. 
	ControlLogix5561 ControlLogix5562 ControlLogix5563 ControlLogix5564 ControlLogix5565	Not available for this controller.

Optional Components

Description	Controller	Component
Add nonvolatile memory	ControlLogix5550	Not available for this controller.
	ControlLogix5555	Memory board. 
	ControlLogix5561 ControlLogix5562 ControlLogix5563 ControlLogix5564 ControlLogix5565	1784-CF64 Industrial CompactFlash Card.  31376-M
Maintain memory longer than is available with the battery	ControlLogix5550	Not available for this controller.
	ControlLogix5555 ControlLogix5561 Series A ControlLogix5562 Series A ControlLogix5563 Series A	1756-BATM ControlLogix battery module.  31298
	ControlLogix5561 Series B ControlLogix5562 Series B ControlLogix5563 Series B ControlLogix5564 Series B ControlLogix5565 Series B	Not available for this controller ⁽¹⁾ .

⁽¹⁾ Series B controllers use the battery differently than previous controllers. Battery life depends on chassis temperature, project size, and how often you cycle power. Battery life **no longer** depends on whether or not the controller has power.

Connecting a Battery

WARNING



When you connect or disconnect the battery an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. For Safety information on the handling of lithium batteries, including handling and disposal of leaking batteries, see Guidelines for Handling Lithium Batteries, publication [AG-5-4-NOV04](#).

ATTENTION



To prevent possible battery leakage, even if the BAT status indicator is off, replace a 1756-BA1 or 1756-BA2 battery according to the following schedule.

If the temperature 1 in. below the chassis is	Replace the battery within
0...35 °C (32...95 °F)	No required replacement.
36...40 °C (96.8...104 °F)	3 years.
41...45 °C (105.8...113 °F)	2 years.
46...50 °C (114.8...122 °F)	16 months.
51...55 °C (123.8...131 °F)	11 months.
56...60 °C (132.8...140 °F)	8 months.

ATTENTION



Store batteries in a cool, dry environment. We recommend 25 °C (77 °F) with 40...60% relative humidity. You may store batteries for up to 30 days between -45...85 °C (-49...185 °F), such as during transportation. To avoid leakage or other hazards, **do not** store batteries above 60 °C (140 °F) for more than 30 days.

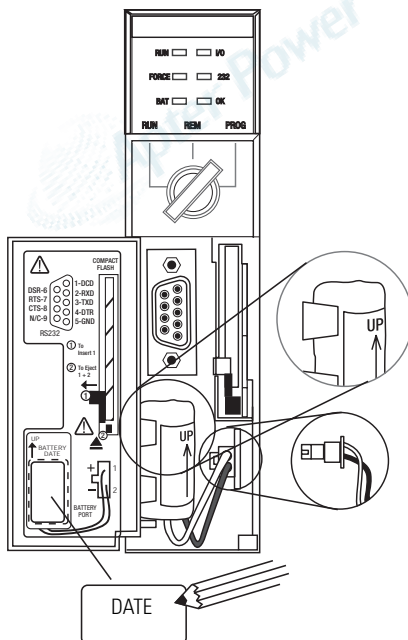
Install a Battery in a Series B Controller

ATTENTION



For a series B controller, connect only a 1756-BA2 battery. Other batteries may damage the controller.

1. Insert the battery with the arrow pointing up as shown.
2. Connect the battery: **+ Red, - Black.**
3. Write the date on the battery label.
4. Attach the label to the inside of the controller door.



ControlLogix Controller Common Specifications - 1756-L1, 1756-L1M1, 1756-L1M2, 1756-L1M3, 1756-L55, 1756-L55M12, 1756-L55M13, 1756-L55M14, 1756-L55M16, 1756-L55M22, 1756-L55M23, 1756-L55M24, 1756-L61, 1756-L62, 1756-L63, 1756-L64, and 1756-L65

Attribute	Value
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz...80 MHz
Enclosure type rating	None, open style
Isolation voltage	30V (continuous), Basic Insulation Type, RS232 to system Controllers type tested to withstand 707V DC for 60 s
Wiring category ⁽¹⁾	2 - on communications ports
Programming cable	1756-CP3 or 1747-CP3 serial cable
North American temperature code	T4A
IEC temperature code	T4
Intrinsically safe	No
Replacement battery	1756-L1, 1756-L1M1, 1756-L1M2, 1756-L1M3: 1756-BA1 (0.59 g lithium) 1756-L55, 1756-L55M12, 1756-L55M13, 1756-L55M14, 1756-L55M16, 1756-L55M22, 1756-L55M23, 1756-L55M24: 1756-BA1 (0.59 g lithium) 1756-L61/A, 1756-L62/A, 1756-L63/A: 1756-BA1 (0.59 g lithium) 1756-L61/B, 1756-L62/B, 1756-L63/B, 1756-L64/B, 1756-L65/B: 1756-BA2(0.50 g lithium) 1756-BATM battery module: 1756-BATA (10 g lithium)

⁽¹⁾ Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).