

ControlLogix 5570 Controllers

Catalog Numbers 1756-ESMCAP, 1756-ESMCAPK, 1756-ESMCAPXT, 1756-ESMNRM, 1756-ESMNRMK, 1756-ESMNRMXT, 1756-ESMNSE, 1756-ESMNSEK, 1756-ESMNSEXT, 1756-L71, 1756-L71K, 1756-L72, 1756-L72K, 1756-L73, 1756-L73K, 1756-L73XT, 1756-L74, 1756-L74K, 1756-L75, 1756-L75K

Topic	Page
Summary of Changes	1
Insert the Controller Into the Chassis	5
Insert the Key	5
Install the SD Card	5
Install the ESM	6
Specifications	7
Additional Resources	8

ControlLogix® 5570 Controllers provide a common control engine with a common development environment for all control disciplines.

- Supports Integrated Motion on EtherNet/IP™, integrated Sercos motion, and analog motion
- Supports full controller redundancy and Removal and Insertion Under Power (RIUP)
- Communicates via EtherNet/IP, ControlNet®, DeviceNet®, Data Highway Plus™, Remote I/O, SynchLink™, and third-party process and device networks
- Controllers with a 'K' in the catalog are conformal coated for extended protection in harsh, corrosive environments.
- ControlLogix-XT™ controllers are designed for temperature extremes.
- Offers chassis with up to 17 slots in standard, conformal coated, and extreme temperature versions

Summary of Changes

This manual contains new and updated information as indicated in the following table.

Topic	Page
Updated Energy Storage Module Information	5
Updated Specifications Information	7



ATTENTION: Read this document and the documents listed in the Additional Resources section about installation, configuration and operation of this equipment before you install, configure, operate or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

注意：在安装、配置、操作和维护本产品前，请阅读本文档以及“其他资源”部分列出的有关设备安装、配置和操作的相应文档。除了所有适用规范、法律和标准的相关要求之外，用户还必须熟悉安装和接线说明。

安装、调整、投运、使用、组装、拆卸和维护等各项操作必须由经过适当训练的专业人员按照适用的操作规范实施。

如果未按照制造商指定的方式使用该设备，则可能会损害设备提供的保护。

ATENCIÓN: Antes de instalar, configurar, poner en funcionamiento o realizar el mantenimiento de este producto, lea este documento y los documentos listados en la sección Recursos adicionales acerca de la instalación, configuración y operación de este equipo. Los usuarios deben familiarizarse con las instrucciones de instalación y cableado y con los requisitos de todos los códigos, leyes y estándares vigentes.

El personal debidamente capacitado debe realizar las actividades relacionadas a la instalación, ajustes, puesta en servicio, uso, ensamblaje, desensamblaje y mantenimiento de conformidad con el código de práctica aplicable. Si este equipo se usa de una manera no especificada por el fabricante, la protección provista por el equipo puede resultar afectada.

ATENÇÃO: Leia este e os demais documentos sobre instalação, configuração e operação do equipamento que estão na seção Recursos adicionais antes de instalar, configurar, operar ou manter este produto. Os usuários devem se familiarizar com as instruções de instalação e fiação além das especificações para todos os códigos, leis e normas aplicáveis.

É necessário que as atividades, incluindo instalação, ajustes, colocação em serviço, utilização, montagem, desmontagem e manutenção sejam realizadas por pessoal qualificado e especializado, de acordo com o código de prática aplicável.

Caso este equipamento seja utilizado de maneira não estabelecida pelo fabricante, a proteção fornecida pelo equipamento pode ficar prejudicada.

ВНИМАНИЕ: Перед тем как устанавливать, настраивать, эксплуатировать или обслуживать данное оборудование, прочитайте этот документ и документы, перечисленные в разделе «Дополнительные ресурсы». В этих документах изложены сведения об установке, настройке и эксплуатации данного оборудования. Пользователи обязаны ознакомиться с инструкциями по установке и прокладке соединений, а также с требованиями всех применимых норм, законов и стандартов.

Все действия, включая установку, наладку, ввод в эксплуатацию, использование, сборку, разборку и техническое обслуживание, должны выполняться обученным персоналом в соответствии с применимыми нормами и правилами.

Если оборудование используется не предусмотренным производителем образом, защита оборудования может быть нарушена.

注意：本製品を設置、構成、稼働または保守する前に、本書および本機器の設置、設定、操作についての参考資料の該当箇所に記載されている文書に目を通してください。ユーザは、すべての該当する条例、法律、規格の要件に加えて、設置および配線の手順に習熟している必要があります。

設置調整、運転の開始、使用、組立て、解体、保守を含む諸作業は、該当する実施規則に従って訓練を受けた適切な作業員が実行する必要があります。

本機器が製造メーカーにより指定されていない方法で使用されている場合、機器により提供されている保護が損なわれる恐れがあります。

ACHTUNG: Lesen Sie dieses Dokument und die im Abschnitt „Weitere Informationen“ aufgeführten Dokumente, die Informationen zu Installation, Konfiguration und Bedienung dieses Produkts enthalten, bevor Sie dieses Produkt installieren, konfigurieren, bedienen oder warten. Anwender müssen sich neben den Bestimmungen aller anwendbaren Vorschriften, Gesetze und Normen zusätzlich mit den Installations- und Verdrahtungsanweisungen vertraut machen.

Arbeiten im Rahmen der Installation, Anpassung, Inbetriebnahme, Verwendung, Montage, Demontage oder Instandhaltung dürfen nur durch ausreichend geschulte Mitarbeiter und in Übereinstimmung mit den anwendbaren Ausführungsvorschriften vorgenommen werden.

Wenn das Gerät in einer Weise verwendet wird, die vom Hersteller nicht vorgesehen ist, kann die Schutzfunktion beeinträchtigt sein.

ATTENTION: Lisez ce document et les documents listés dans la section Ressources complémentaires relatifs à l'installation, la configuration et le fonctionnement de cet équipement avant d'installer, configurer, utiliser ou entretenir ce produit. Les utilisateurs doivent se familiariser avec les instructions d'installation et de câblage en plus des exigences relatives aux codes, lois et normes en vigueur.

Les activités relatives à l'installation, le réglage, la mise en service, l'utilisation, l'assemblage, le démontage et l'entretien doivent être réalisées par des personnes formées selon le code de pratique en vigueur.

Si cet équipement est utilisé d'une façon qui n'a pas été définie par le fabricant, la protection fournie par l'équipement peut être compromise.

주의: 본 제품 설치, 설정, 작동 또는 유지 보수하기 전에 본 문서를 포함하여 설치, 설정 및 작동에 관한 참고 자료 섹션의 문서들을 반드시 읽고 숙지하십시오. 사용자는 모든 관련 규정, 법규 및 표준에서 요구하는 사항에 대해 반드시 설치 및 배선 지침을 숙지해야 합니다.

설치, 조정, 가동, 사용, 조립, 분해, 유지보수 등 모든 작업은 관련 규정에 따라 적절한 교육을 받은 사용자를 통해서만 수행해야 합니다.

본 장비를 제조사가 명시하지 않은 방법으로 사용하면 장비의 보호 기능이 손상될 수 있습니다.

ATTENZIONE: Prima di installare, configurare ed utilizzare il prodotto, o effettuare interventi di manutenzione su di esso, leggere il presente documento ed i documenti elencati nella sezione "Altre risorse", riguardanti l'installazione, la configurazione ed il funzionamento dell'apparecchiatura. Gli utenti devono leggere e comprendere le istruzioni di installazione e cablaggio, oltre ai requisiti previsti dalle leggi, codici e standard applicabili.

Le attività come installazione, regolazioni, utilizzo, assemblaggio, disassemblaggio e manutenzione devono essere svolte da personale adeguatamente addestrato, nel rispetto delle procedure previste.

Qualora l'apparecchio venga utilizzato con modalità diverse da quanto previsto dal produttore, la sua funzione di protezione potrebbe venire compromessa.

DİKKAT: Bu ürünün kurulumu, yapılandırılması, işletilmesi veya bakımı öncesinde bu dokümanı ve bu ekipmanın kurulumu, yapılandırılması ve işletimi ile ilgili ilave Kaynaklar bölümünde yer listelenmiş dokümanları okuyun. Kullanıcılar yürürlükteki tüm yönetmelikler, yasalar ve standartların gereksinimlerine ek olarak kurulum ve kablolama talimatlarını da öğrenmek zorundadır. Kurulum, ayarlama, hizmete alma, kullanma, parçaları birleştirme, parçaları sökme ve bakım gibi aktiviteler sadece uygun eğitimleri almış kişiler tarafından yürürlükteki uygulamaya yönetmeliklerine uygun şekilde yapılabilir.

Bu ekipman üretici tarafından belirlenmiş amacın dışında kullanılırsa, ekipman tarafından sağlanan koruma bozulabilir.

注意事項：在安装、設定、操作或維護本產品前，請先閱讀此文件以及列於「其他資源」章節中有關安裝、設定與操作此設備的文件。使用者必須熟悉安裝和配線指示，並符合所有法規、法律和標準要求。

包括安裝、調整、交付使用、使用、組裝、拆卸和維護等動作都必須交由已經過適當訓練的人員進行，以符合適用的實作法規。

如果將設備用於非製造商指定的用途時，可能會造成設備所提供的保護功能受損。

POZOR: Než začnete instalovat, konfigurovat či provozovat tento výrobek nebo provádět jeho údržbu, přečtěte si tento dokument a dokumenty uvedené v části Dodatečné zdroje ohledně instalace, konfigurační a provozu tohoto zařízení. Uživatelé se musejí vedle požadavků všech relevantních vyhlášek, zákonů a norem nutně seznámit také s pokyny pro instalaci a elektrické zapojení.

Činnosti zahrnující instalaci, nastavení, uvedení do provozu, užívání, montáž, demontáž a údržbu musí vykonávat vhodně proškolený personál v souladu s příslušnými prováděcími předpisy. Pokud se toto zařízení používá způsobem neodpovídajícím specifikaci výrobce, může být narušena ochrana, kterou toto zařízení poskytuje.

UWAGA: Przed instalacją, konfiguracją, użytkowaniem lub konserwacją tego produktu należy przeczytać niniejszy dokument oraz wszystkie dokumenty wymienione w sekcji Dodatkowe źródła omawiające instalację, konfigurację i procedury użytkowania tego urządzenia. Użytkownicy mają obowiązek zapoznać się z instrukcjami dotyczącymi instalacji oraz oprzewodowania, jak również z obowiązującymi kodeksami, prawem i normami.

Działania obejmujące instalację, regulację, przekazanie do użytkowania, użytkowanie, montaż, demontaż oraz konserwację muszą być wykonywane przez odpowiednio przeszkolony personel zgodnie z obowiązującym kodeksem postępowania.

Jeśli urządzenie jest użytkowane w sposób inny niż określony przez producenta, zabezpieczenie zapewniane przez urządzenie może zostać ograniczone.

Obs! Läs detta dokument samt dokumentet, som står listat i avsnittet Övriga resurser, om installation, konfigurering och drift av denna utrustning innan du installerar, konfigurerar eller börjar använda eller utföra underhållsarbete på produkten. Användare måste bekanta sig med instruktioner för installation och kabeldragning, förutom krav enligt gällande koder, lagar och standarder.

Åtgärder som installation, justering, service, användning, montering, demontering och underhållsarbete måste utföras av personal med lämplig utbildning enligt lämpligt bruk.

Om denna utrustning används på ett sätt som inte anges av tillverkaren kan det hända att utrustningens skyddsanordningar försätts ur funktion.

LET OP: Lees dit document en de documenten die genoemd worden in de paragraaf Aanvullende informatie over de installatie, configuratie en bediening van deze apparatuur voordat u dit product installeert, configureert, bediend of onderhoudt. Gebruikers moeten zich vertrouwd maken met de installatie en de bedradingsinstructies, naast de vereisten van alle toepasselijke regels, wetten en normen.

Activiteiten zoals het installeren, afstellen, in gebruik stellen, gebruiken, monteren, demonteren en het uitvoeren van onderhoud mogen uitsluitend worden uitgevoerd door hiervoor opgeleid personeel en in overeenstemming met de geldende praktijkregels.

Indien de apparatuur wordt gebruikt op een wijze die niet is gespecificeerd door de fabrikant, dan bestaat het gevaar dat de beveiliging van de apparatuur niet goed werkt.

**ATTENTION:**

- Before installing, configuring, operating, or maintaining this product, read this document and the documents that are listed in the additional resources section for installing, configuring, or operating equipment. Users must familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.
- Installation, adjustments, putting into service, use, assembly, disassembly, and maintenance shall be carried out by suitably trained personnel in accordance with applicable code of practice. In case of malfunction or damage, no attempts at repair must be made. The module must be returned to the manufacturer for repair. Do not dismantle the module.
- If this equipment is used in a manner that is not specified by the manufacturer, the protection that is provided by the equipment can be impaired.
- This equipment is certified for use only within the surrounding air temperature range of 0...60 °C (32...140 °F) [1756-L71, 1756-L72, 1756-L73, 1756-L74, 1756-L75, 1756-L71K, 1756-L72K, 1756-L73K, 1756-L74K, 1756-L75K, 1756-ESMCAP, 1756-ESMNSE, and 1756-ESMNRM modules] or -25...+70 °C (-13...+158 °F) [1756-L73XT, 1756-ESMCAPXT, 1756-ESMNRMXT, and 1756-ESMNSEXT modules]. The equipment must not be used outside of this range.
- Use only a soft dry anti-static cloth to wipe down equipment. Do not use any cleaning agents.
- The USB port is intended for temporary local programming purposes only and not intended for permanent connection.
- The USB cable is not to exceed 3.0 m (9.84 ft) and must not contain hubs.

Environment and Enclosure**ATTENTION:**

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in EN/IEC 60664-1), at altitudes up to 2000 m (6562 ft) without derating.

This equipment is not intended for use in residential environments and may not provide adequate protection to radio communication services in such environments.

This equipment is supplied as open-type equipment for indoor use. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts.

The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of 5VA or be approved for the application if nonmetallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#), for additional installation requirements.
- NEMA Standard 250 and EN/IEC 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosures.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations.	Informations sur l'utilisation de cet équipement en environnements dangereux.
Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.	Les produits marqués "CL I, DIV 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.
 WARNING: Explosion Hazard – • Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. • Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. • Substitution of components may impair suitability for Class I, Division 2. • If this product contains batteries, they must only be changed in an area known to be nonhazardous.	 AVERTISSEMENT: Risque d'Explosion – • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement. • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit. • La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2. • S'assurer que l'environnement est classé non dangereux avant de changer les piles.

UK and European Hazardous Location Approval

The following applies to products marked , II 3 G. Such modules:

- Are Equipment Group II, Equipment Category 3, and comply with the Essential Health and Safety Requirements relating to the design and construction of such equipment given in Annex II to EU Directive 2014/34/EU and Schedule 1 of the UKEX Regulation 2016 No. 1107. See the UKEX and EU Declaration of Conformity at [rok.auto/certifications](#) for details.
- The type of protection is <Ex ec IIC T4 Gc> Equipment protection by increased safety "e".
- Equipment protection by increased safety "e", reference certificate number UL22ATEX2817X and UL22UKEX2601X.
- Are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification according to UKEX Regulation 2016 No. 1107 and ATEX directive 2014/34/EU.

IEC Hazardous Location Approval

The following applies to products with IECEx certification.

- Such products are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification.
- The type of protection is <Ex ec IIC T4 Gc>.
- IECEx certificate number IECEx UL 22.0062X.

Special Conditions for Safe Use



WARNING:

- This equipment is not resistant to sunlight or other sources of UV radiation.
- This equipment shall be mounted in an UKEX/ATEX/IECEx Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (in accordance with EN/IEC 60079-0) and used in an environment of not more than Pollution Degree 2 (as defined in EN/IEC 60664-1) when applied in Zone 2 environments. The enclosure must be accessible only by the use of a tool.
- This equipment shall be used within its specified ratings defined by Rockwell Automation.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage at the supply terminals to the equipment.
- The instructions in the user manual shall be observed.
- This equipment must be used only with UKEX/ATEX/IECEx certified Rockwell Automation backplanes.
- Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- The USB port is intended for temporary local programming purposes only and not intended for permanent connection. Do not use the USB port in hazardous locations.

Prevent Electrostatic Discharge



ATTENTION: This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.
- Wear an approved grounding wriststrap.
- Do not touch connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- Use a static-safe workstation, if available.
- Store the equipment in appropriate static-safe packaging when not in use.



WARNING: When you connect or disconnect the battery, an electric 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](#).

Removal and Insertion Under Power (RIUP)



WARNING: When you insert or remove the energy storage module while backplane power is on, an electric 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. Repeated electric arcing causes excessive wear to contacts on both the module and its mating connector.

IMPORTANT

Any illustrations, charts, sample programs, and layout examples that are shown in this publication are intended solely for the purposes of example. Since there are many variables and requirements that are associated with any particular installation, Rockwell Automation does not assume responsibility or liability for actual use, based on the examples that are shown in this publication.

Energy Storage Module

This product may contain an Energy Storage Module (ESM).



WARNING: If your application requires an ESM to deplete its residual stored energy to 40 μ J or less before you add or remove it from the application, use the 1756-ESMNSE(XT) module as the primary controller and the 1756-SPESMNSE(XT) module as the safety partner, and complete these steps before moving the ESM:

1. Turn off power to the chassis.
The OK status indicator on the chassis transitions from green to steady red to OFF.
2. Wait at least 20 minutes for the residual stored energy to decrease to 40 μ J or less before you move the ESM.
There's no visual indication of when the 20 minutes have passed. You must track the time.

IMPORTANT

The ESM begins charging when one of these actions occurs:

- The controller and ESM are installed into a powered chassis.
- Power is applied to the chassis that contains a controller with the ESM installed.
- An ESM is installed into a powered controller.
- After power is applied, the ESM charges for up to 2 minutes as indicated by CHRGE or ESM Charging on the status display.

Insert the Controller Into the Chassis



ATTENTION: The ControlLogix 5570 controllers that are listed on [page 1](#) of this document that end with a 'K' or 'XT' are shipped with port protection plugs installed to provide a layer of protection from corrosive atmospheres. Port plugs must remain installed in unused ports during storage and operation for the product to meet its corrosive atmosphere rating. If temporary access is required, plugs can be removed, then reinserted after temporary access is complete.

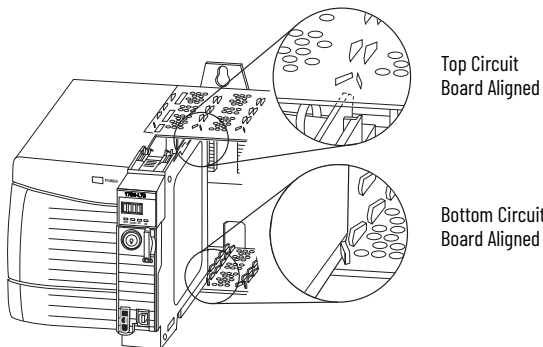
When installing a ControlLogix® controller, you can do the following:

- Place the controller in any slot.
- Use multiple controllers in the same chassis.

You can install or remove a ControlLogix controller while chassis power is on and the system is operating.

To insert the controller into the chassis, complete these steps.

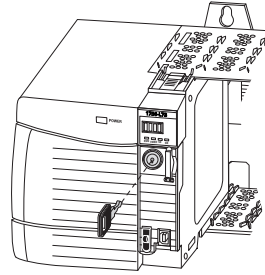
1. Align the circuit board with the top and bottom guides in the chassis.



2. Slide the module into the chassis until it snaps into place.
3. Verify that the controller is flush with the power supply or other modules.

Insert the Key

After the controller is installed, insert the key.



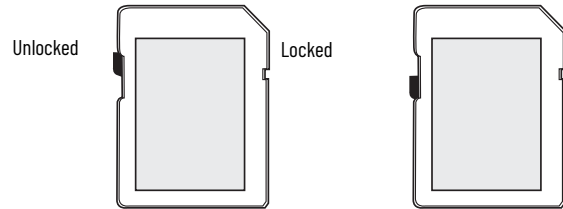
Install the SD Card

Complete these steps to install the SD card in the 1756-L7x controllers.

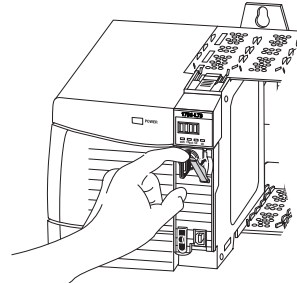


WARNING: When you insert or remove the Secure Digital (SD) memory card while power is on, an electric arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

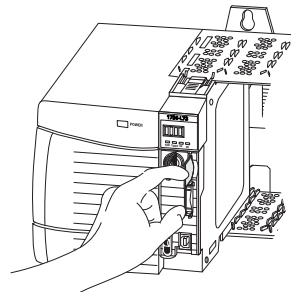
1. Verify that the SD card is locked or unlocked according to your preference.



2. Open the door for the SD card.



3. Insert the SD card into the SD card slot.
4. Gently press the card until it clicks into place.



5. Close the SD card door.

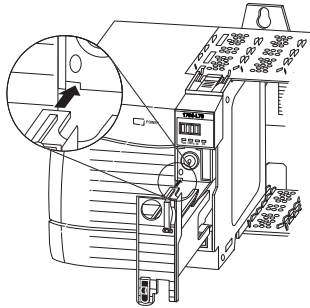
Install the ESM

To install an ESM in the 1756-L7x controller, complete these steps.



ATTENTION: To avoid potential damage to the product when inserting the ESM, align it in the track and slide forward with minimal force until the ESM snaps into place.

1. Align the tongue-and-groove slots of the ESM and controller.



2. Slide the ESM back until it snaps into place.

The ESM begins charging after installation. One of these status messages indicates charging status:

- ESM Charging
- CHRG

After you install the ESM, it can take up to 15 seconds for the charge status messages to display.



ATTENTION: Allow the ESM to finish charging before removing power from the controllers. Failure to do so can result in the loss of the application program. A type 1, code 40 major fault is logged on power-up.
To verify that the ESM is fully charged, confirm that CHRG or ESM charging messages aren't indicated on the status display.

Specifications

Attribute	1756-L71, 1756-L71K, 1756-L72, 1756-L72K, 1756-L73, 1756-L73K, 1756-L74, 1756-L74K, 1756-L75, 1756-L75K
Input and current ratings	1.2V DC: 5 mA, 5.1V DC: 800 mA
Power dissipation	2.5 W
Thermal dissipation	8.5 BTU/hr
Temperature, operating • IEC 60068-2-1 (Test Ae, Operating Cold) • IEC 60068-2-2 (Test Be, Operating Dry Heat) • IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	$0^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ ($+32^{\circ}\text{F} \leq T_a \leq +140^{\circ}\text{F}$)
Temperature, surrounding air, max	60 °C (140 °F)
Corrosive Atmosphere ⁽¹⁾ ASTM B845-97 Method H Accelerated Test (20-Day Exposure)	Severity Level G3 ⁽²⁾ per ANSI/ISA 71.04-2013, Airborne Contaminants—Gases Severity Level CX ⁽²⁾⁽³⁾ per IEC 60721-3-3:2019, Chemically Active Substances
Enclosure type rating	None (open-style)
Isolation voltage	30V (continuous), basic insulation, USB port to backplane
Temperature code	T4

(1) Only applicable to modules that end with a 'K' or 'XT'.

(2) Port Plugs must remain installed in unused ports at all times during storage and operation for the product to meet its corrosive atmosphere rating.

(3) Up to 9.6 microns per year, corrosion rate of copper.

Attribute	1756-L73XT
Input and current ratings	1.2V DC: 5 mA, 5.1V DC: 800 mA
Power dissipation	2.5 W
Thermal dissipation	8.5 BTU/hr
Temperature, operating IEC 60068-2-1 (Test Ae, Operating Cold) IEC 60068-2-2 (Test Be, Operating Dry Heat) IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	$-25^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$ ($-13^{\circ}\text{F} \leq T_a \leq +158^{\circ}\text{F}$)
Temperature, surrounding air, max	70 °C (158 °F)
Corrosive Atmosphere ⁽¹⁾ ASTM B845-97 Method H Accelerated Test (20-Day Exposure)	Severity Level G3 ⁽²⁾ per ANSI/ISA 71.04-2013, Airborne Contaminants—Gases Severity Level CX ⁽²⁾⁽³⁾ per IEC 60721-3-3:2019, Chemically Active Substances
Enclosure type rating	None (open-style)
Isolation voltage	30V (continuous), basic insulation, USB port to backplane
Temperature code	T4

(1) Only applicable to modules that end with a 'K' or 'XT'.

(2) Port Plugs must remain installed in unused ports at all times during storage and operation for the product to meet its corrosive atmosphere rating.

(3) Up to 9.6 microns per year, corrosion rate of copper.

Attribute	1756-ESMCAP, 1756-ESMNRM, 1756-ESMCAPK, 1756-ESMNRMK	1756-ESMNSE, 1756-ESMNSEK	1756-ESMCAPXT, 1756-ESMNRMXT	1756-ESMNSEXT
Input and current ratings	5.1V DC: 330 mA	5.1V DC: 300 mA	5.1V DC: 330 mA	5.1V DC: 300 mA
Temperature, operating IEC 60068-2-1 (Test Ae, Operating Cold) IEC 60068-2-2 (Test Be, Operating Dry Heat) IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0 °C ≤ Ta ≤ +60 °C (+32 °F ≤ Ta ≤ +140 °F)		-25°C ≤ Ta ≤ +70 °C (-13 °F≤ Ta ≤ +158 °F)	
Temperature, surrounding air, max	60 °C (140 °F)		70 °C (158 °F)	
Corrosive Atmosphere ⁽¹⁾ ASTM B845-97 Method H Accelerated Test (20-Day Exposure)	Severity Level G3 ⁽²⁾ per ANSI/ISA 71.04-2013, Airborne Contaminants—Gases Severity Level CX ⁽²⁾⁽³⁾ per IEC 60721-3-3:2019, Chemically Active Substances			
Enclosure type rating	None (open-style)			
Temperature code	T4			

(1) Only applicable to modules that end with a 'K' or 'XT'.

(2) Port Plugs must remain installed in unused ports at all times during storage and operation for the product to meet its corrosive atmosphere rating.

(3) Up to 9.6 microns per year, corrosion rate of copper.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
1756 ControlLogix Controllers Specifications Technical Data, publication 1756-TD001	Contains technical specifications, environmental specifications, and certifications for ControlLogix controllers.
1756 ControlLogix Controllers User Manual, publication 1756-UM001	Describes how to configure and use ControlLogix controllers.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at [rok.auto/literature](#).

Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at [rok.auto/pec](#).

Your comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, complete the form at [rok.auto/docfeedback](#).

For technical support, visit [rok.auto/support](#).

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