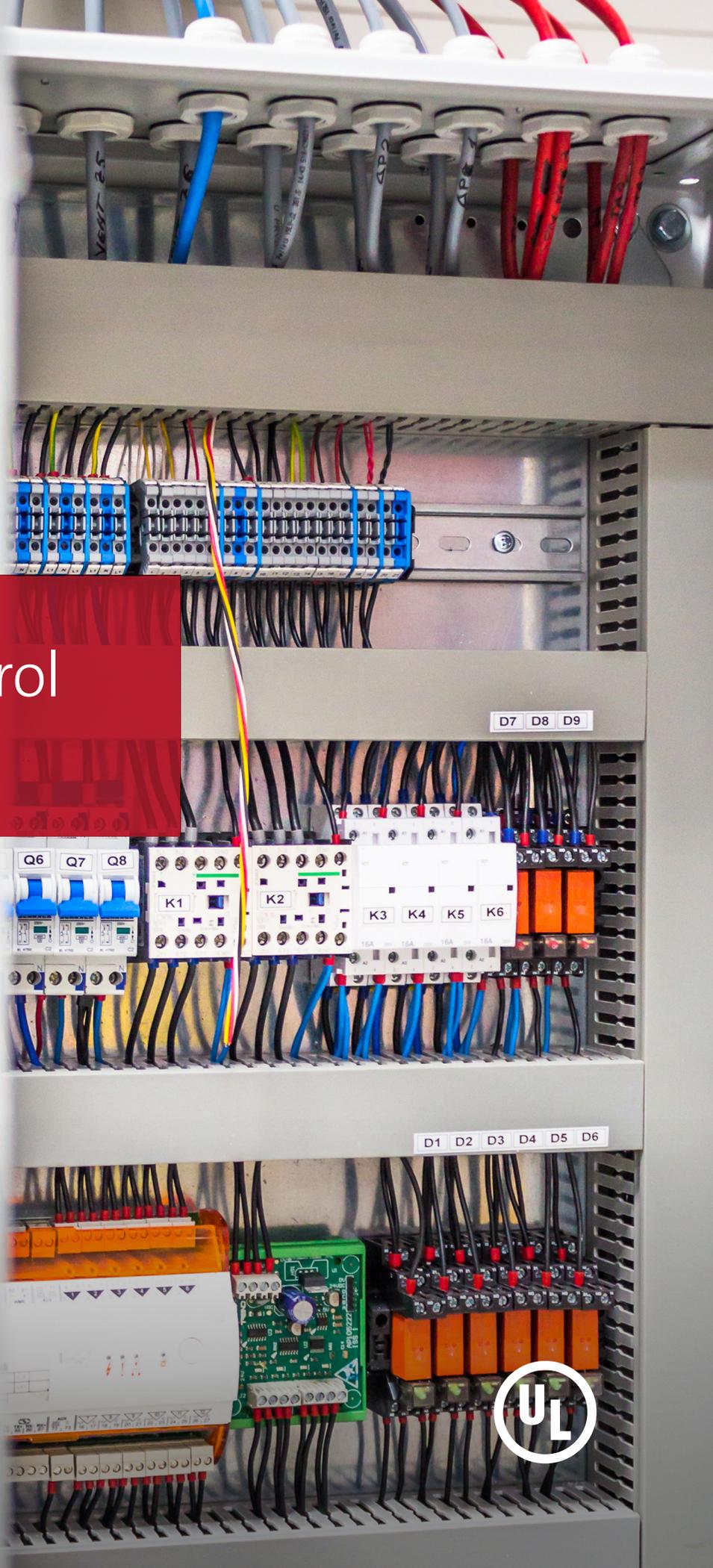


# Industrial Control Panels FAQs



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Below is a list of Frequently Asked Questions about UL's Industrial Control Panel Program.

## What is the official UL definition of an industrial control panel?

UL 508A, the Standard for Industrial Control Panels, covers control panels intended for general industrial use, operating from a supply voltage of 1,000 volts or less. This equipment is intended for installation in ordinary locations, in accordance with the National Electrical Code®, ANSI/NFPA 70, where the ambient temperature does not exceed 40° Celsius (104° Fahrenheit) maximum unless otherwise marked on the panel.

## What documents are helpful to review before initiating a panel investigation?

Review of the material contained in UL 508A Standard will help to determine whether an industrial control panel complies with the construction and marking requirements. Copies can be obtained from ShopULStandards.com. Customers can download the UL 508A Standard for free using myUL® Client Portal. More documents and resources for free can be found on our website [UL.com](https://www.ul.com), including various on-demand webinars, an e-book about common challenges, and much more.

## Is training required for a UL Mark?

Yes. The flexibility of the program mandates the need for training to understand the requirements of UL 508A and other standards involved. Since training is an essential part of the program, authorization to apply the UL Mark comes after the training. The training is typically a one-day program, and can occur at a UL office, manufactures facility or virtually. Visit [UL Knowledge Solutions](https://www.ul.com/knowledge-solutions) webpage to obtain a list of available training.

## What is the UL 508A Manufacturer Technical Representative Program?

This is a requirement that confirms at least one qualified employee (manufacturer technical representative (MTR)) on staff, at each physical location manufacturing industrial control panels. The MTR is expected to effectively interpret and accurately apply the requirements of UL 508A, the Standard for Industrial Control Panels. Read more about this new program on [UL.com](https://www.ul.com).

## What is covered by the UL Mark?

The UL Mark on an enclosed type industrial control panel covers the enclosure, the components installed within the enclosure, panel-mounted components and components mounted to the outside walls of the enclosure at the manufacturer's facility.

The UL Mark on an open-type industrial control panel only covers the mounting subpanel and those components that are mounted to the subpanel at the manufacturer's facility.

The UL Mark on an empty enclosure, an enclosure with no components installed inside, only covers the enclosure and nothing more. There are exceptions for enclosures provided only with environmental equipment such as fans, filters, luminaires and air-conditioners.

Please note that the UL Mark on an industrial control panel does not include coverage for the connected loads or utilization equipment, even if provided by the panel manufacturer. Also, the UL Mark does not include coverage of any components shown on the wiring diagram that are indicated as being field provided or as being mounted remotely from the industrial control panel.

## What requirements apply to a UL Certified industrial control panel?

The basic requirements for industrial control panels rated not more than 1,000 volts and for installation in ordinary locations are specified in UL 508A. For Canada, the basic requirements are contained in CSA C22.2 No. 14-2013, Industrial Control Equipment (will be migrated to CSA C22.2 No. 286-17 with effective date Jan. 6, 2022).

A procedure document (often referred to as the panel shop's UL Report or File) is written for each individual panel builder. The procedure may contain additional construction requirements and specific UL Recognized components or UL Certified assemblies that have been found acceptable as a result of an engineering investigation.

## Where do I get labels to put on my UL Certified industrial control panels?

Once it has been determined the product meets the necessary requirements, instructions for ordering standard UL Mark labels will be provided.

## What types of “complete equipment” does UL evaluate?

Control panels supplied together with the controlled equipment can be evaluated by UL. Examples include:

- **Machinery**  
Such as machine tools, plastics machinery, wood machinery, assembly machines, material-handling machines, inspection/testing machines, packaging machines, factory automation equipment, pick and place machines, industrial additive manufacturing machines, car wash systems and semiconductor equipment.
- **Packaged pumping systems**  
Equipment consisting of pumps, electric motors, frequency drives, control valves, gauges and piping mounted on a structural steel base. They are used for plumbing boosters, heat transfer, hot water heating, HVAC chilled and hot water packages, irrigation, boiler feed and condensate packages, and similar applications.
- **Heating and cooling equipment**  
Various types of heating and cooling equipment typically used for space conditioning.

## What about other special use panels?

In addition to general use panels, requirements for the following panels are contained in UL 508A:

- Crane control
- Industrial machinery, including metal-working machine tools, plastic injection molding machinery
- Service equipment use
- Elevator control
- Flame control
- Marine use
- Air conditioning and refrigeration equipment use
- Fountain control panels
- Industrial control panels for irrigation equipment
- Control panels for aquatic playgrounds
- Control panels for swimming pools and in-ground spas
- Control panels for water park rides and similar installations

## What type of panels are not covered by UL 508A

Some control panels and associated equipment are not covered by UL 508A. There are other UL Standards that cover these panels. The types of panels and associated equipment not covered by UL 508A, and the standards that cover them, are described in Clauses 1.4 through 1.23 of the Scope Section of UL 508A. UL staff will be able to assist you in determining if your control panel can be covered by UL508A.

## How long does the investigation take?

Normally the investigation will be completed within four weeks after the project has been accepted. However, if you require panels to be labeled in less than four weeks, please let us know the date you require UL certification on your quote request. We will work with you to expedite completion of the investigation.

## How do I determine if components are acceptable for use within my UL Certified industrial control panel?

The following steps shall be considered when determining suitability of components used within an industrial control panel:

1. Determine whether component is UL Certified or UL Recognized via **Product IQ™**, UL's online location for certification information.
2. If component is UL Certified or UL Recognized, note the corresponding product category (CCN) and Standard. If not UL Certified or UL Recognized, contact UL to discuss alternative options for use within your industrial control panel.
3. If component is UL Certified or UL Recognized, refer to Table 1 of **UL 508A Supplement SA** for the product type category and Standard number.
4. Once identified, refer to the associated Standard clause reference and corresponding note in Table 1. (see above)
  - Where the Notes column is blank, any component from the product category may be used in the industrial control panel.
  - Where the Notes or Standard clause give selection criteria, any component meeting the selection criteria shall be used.
  - Where the Notes indicate “Procedure Description is required,” these components will need to be described within your UL File before it can be used. Click [here](#) if you would like to request a quote.
5. If the CCN and standard is not mentioned in Table 1 (see above), it will also need to be described within your UL File before it can be used. Click [here](#) if you would like to request a quote.

## Are components that are certified by other NRTLs acceptable for use in UL Certified industrial control panels?

Before these components may be used UL has to do an investigation to determine the specific conditions under which these components are acceptable. The acceptance criteria will be noted in your UL panel shop file. Click [here](#) if you would like to request a quote.

## What requirements apply to panels with components operating from a source of more than 1000 volts?

Panels operating from a source of supply greater than 1000 volts are outside the scope of UL 508A, however, alternative paths may be applicable after a review of the construction.

## Does UL offer a program for industrial control panels intended for installation into hazardous locations?

Panels intended for installation and use in hazardous locations, or for installation and use in ordinary locations with intrinsically safe circuit extensions into hazardous locations, are required to comply with the following additional requirements:

- For panels intended for installation and use in ordinary locations with UL Certified intrinsically safe circuit barrier extensions into Class I, II, and III, Division 1 and 2 hazardous locations:
  - ANSI/UL 698A, Standard for Industrial Control Panels Relating to Hazardous (Classified) Locations
- For panels intended for installation and use in Class I, Divisions 1 and 2 hazardous locations:
  - ANSI/UL 1203, Standard for Explosion Proof and Dust-Ignition Proof Electrical Equipment for Use in Hazardous (Classified) Locations
  - ANSI/NFPA 496
  - ANSI/UL 121201, Standard for Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
- For panels intended for installation and use under the IECEx System or ATEX Directive:
  - IEC/EN 60079-1
  - IEC/EN 60079-2
  - IEC/EN 60079-7
  - IEC/EN 60079-11
  - IEC/EN 60079-15
- Other types of explosion protection may be UL Certified following a special engineering investigation.

For more information about industrial control panels for hazardous locations download an [infosheet](#) and/or [HazLoc Mobile App](#).

## What kind of UL Follow-Up Services apply to industrial control panels?

Once it has been determined that the industrial control panel meets the necessary requirements, we will establish a factory UL Follow-Up Service examination program to audit the continued compliance of the panels with the specifications developed during this investigation. You will receive a UL Procedure document that contains these specifications. The product will then be eligible to bear a UL Mark.

An Initial Production Inspection (IPI) is conducted by a local UL field representative before we authorize use of the UL Mark on the panels. This IPI can accommodate your production schedule, so please inform us when the panels are scheduled for production.

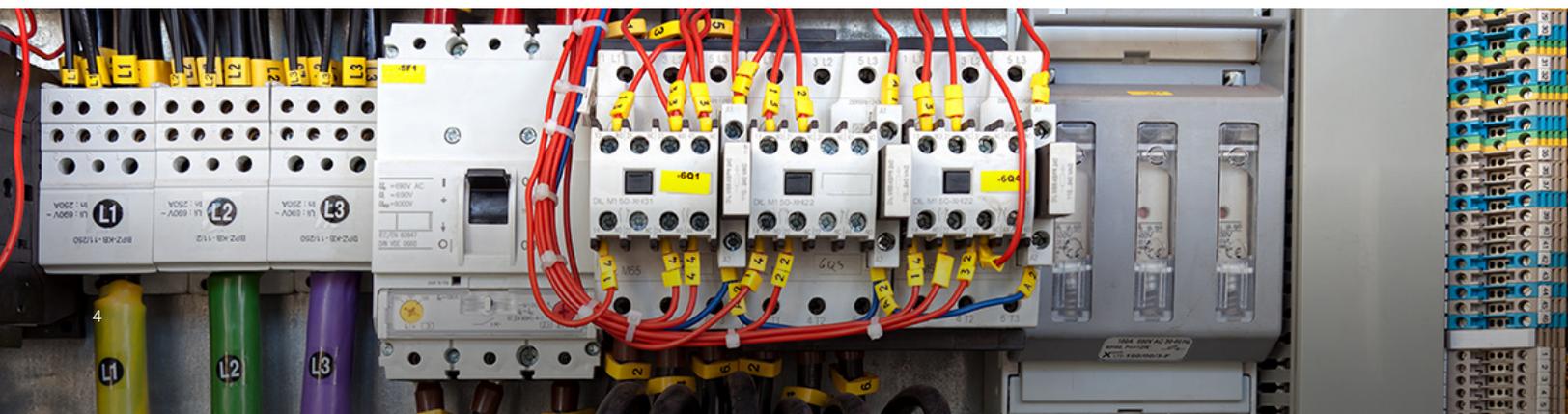
## Does UL offer services for industrial control panels that are intended for installation in Europe?

Yes, UL can provide CE marking assistance by providing the following services. See also CE marking for industrial control panels.

- Providing a technical report containing construction compliance, testing results, or both.
- Provide Draft Declaration of Conformity for the manufacturer to create and place in the manufacturer's Technical Construction File.

Click [here](#) for additional information on CE marking.

Beginning Jan. 1, 2021, the UKCA marking will replace the CE marking as a requirement for goods entering the United Kingdom (U.K.) market, including England, Scotland and Wales. However, to allow businesses time to comply with the new requirements, CE marking can still be used until Jan. 1, 2022, provided that the requirements for the EU and U.K. legislation will continue to be the same. It will be required on products subject to the U.K. equivalent legislation to all of the EU directives/regulations that required CE marking. Read [here](#) more about UKCA and how UL helps.





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