Reliable® controls

RELIABLE CONTROLS
BUILDING SUSTAINABILITY™

Custom lighting control panels

People and technology you can rely on™

Reliable® controls

Reliable Controls is a UL 508A—certified custom lighting control panel manufacturer.

Reliable Controls launched the MACH-ProLight™ in early 2019. With the release of this advanced lighting controller, we began building custom lighting control panels to simplify installations for technicians, and we quickly became a UL 508A—certified panel manufacturing shop.

Authorized Dealers can order a MACH-ProLight controller as part of a customized, factory-wired lighting control panel—a complete assembly of controls and switching relays wired and ready for installation. Panels are built to order and allow a mix of dimming and switching circuits specific to your lighting control strategy. Select your preferred MACH-ProLight controller model, relay quantity, optional accessories, and wiring details during the order process. Your custom-built panel will arrive ready for Class 1 and field terminations.

Panels come with printed wiring details affixed to the door. Electrical conduit knockouts are positioned for high- and low-voltage wire entry, and you can use a low-voltage breakout panel for terminating field devices. Choose a flat-surface or hinged panel door, or simplify your installation by removing the backplate and wiring assembly from the enclosure.

Each panel we build is installed in a NEMA 1 enclosure with full separation of Class 1 circuitry, providing protection to both the installer and the equipment. We assemble lighting control panels in a dedicated UL 508A—certified shop at our manufacturing facility in Victoria, Canada.

Available in four models

Reliable Controls lighting control panels are available in four models: with room for up to eight relays, up to 32 relays, or up to 64 relays. Panels include a 24 VAC transformer that can accept 120/240/277 VAC or 120/347 VAC inputs.

Small Lighting Control Panel for up to eight relays
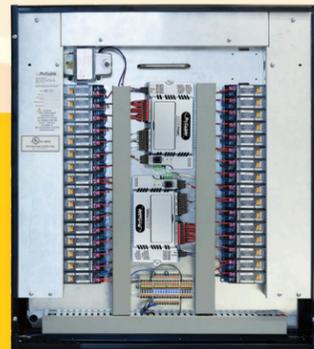
24 VAC transformer
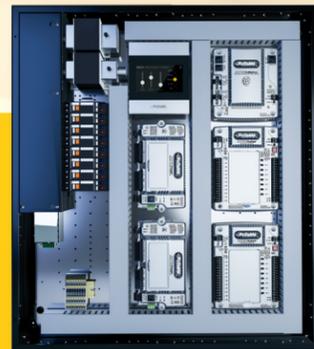
Medium Lighting Control Panel for up to 32 relays

Medium General Control Panel for up to eight relays
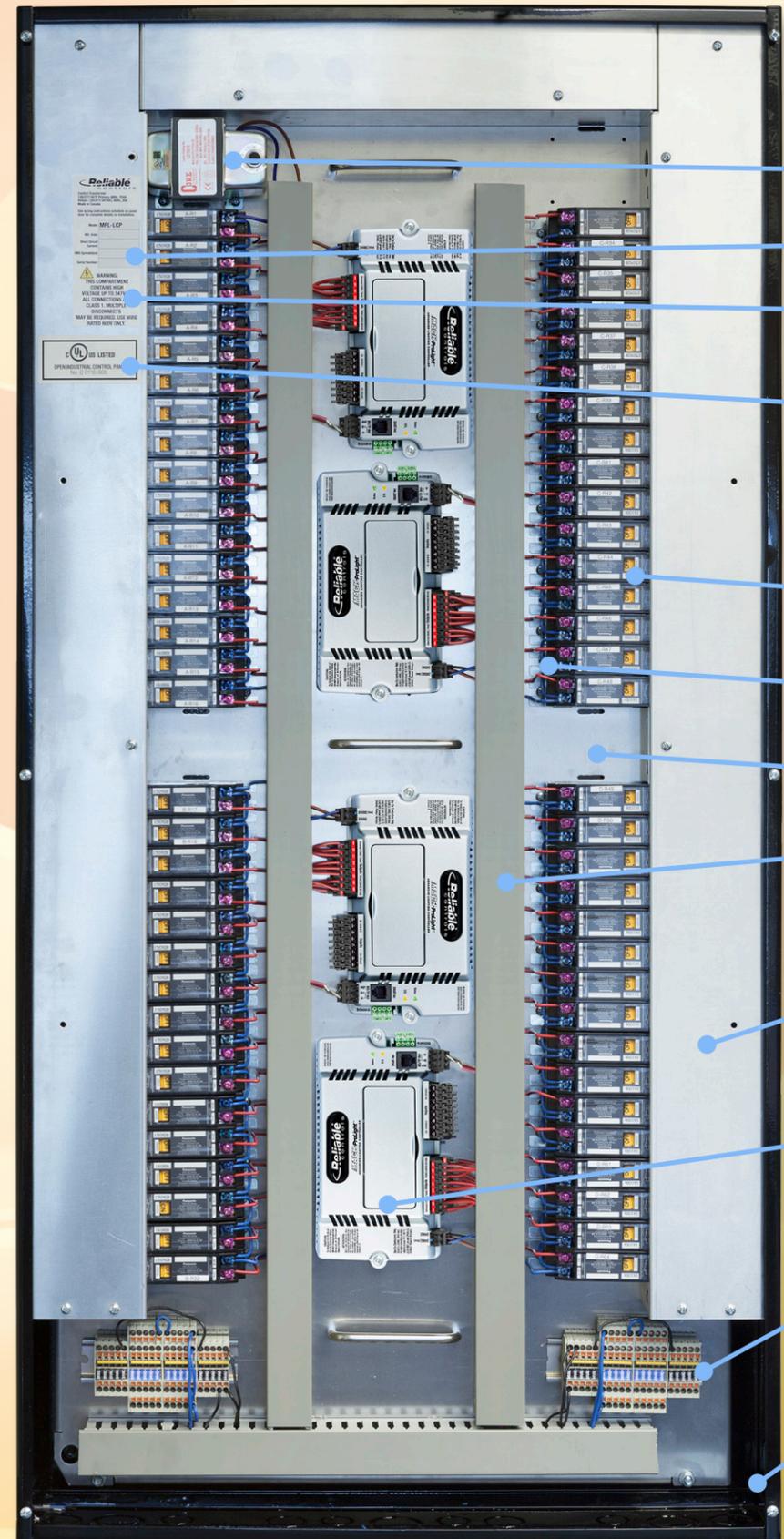
Large Lighting Control Panel for up to 64 relays.

24 VAC transformer

Name and serial number decal

Caution decal

UL decal

Relays

Jumpers

Backplate

Wire duct, covered once wiring is complete

Class 1 high-voltage wiring compartments (left, right, and top)

MACH-ProLight controller

Terminal connector blocks attached to DIN rail

Painted steel enclosure

Better by design™

Choose any MACH-ProLight controller for any panel size. The MACH-ProLight is a freely programmable and scalable BACnet Building Controller (B-BC) that provides 0–10 V continuous dimming and BACnet Binary Lighting Output object support and is compatible with standard lighting-control relays, low-voltage peripherals, EnOcean wireless products, and Reliable Controls SPACE-Sensor and SMART-Net products.

Relays

During assembly, our highly skilled technicians carefully select, wire, and label all components before functional testing begins to ensure the high quality Reliable Controls is known for. The team connects the power supply wiring and MACH-ProLight inputs to terminal blocks and cuts the output wiring to specific lengths for relay connection. The black metal enclosure used for our lighting control panels is robust and durable for the long term.

Final Assembly Process Lead Prashant Pednekar assembles a lighting control panel.

Highly skilled technicians construct lighting panels according to your custom specifications. During this time, all of the components are selected, wired, and labeled before heading to functional testing.
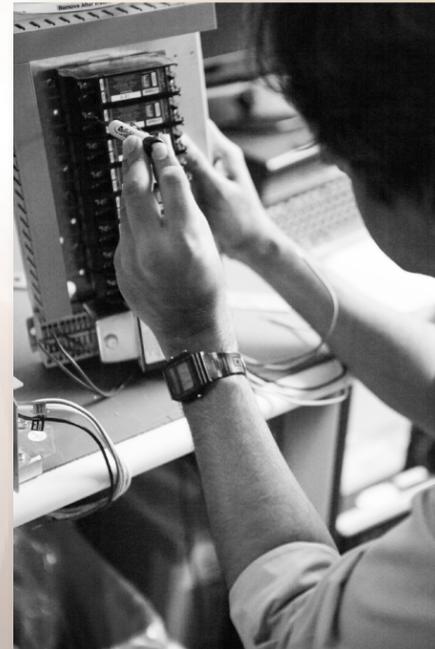
No detail is overlooked. Every panel is inspected at various stages to ensure the high quality Reliable Controls is known for.

Every lighting control panel undergoes rigorous testing with a range of Reliable Controls products and software.

The Reliable Controls system has the flexibility to keep clients connected to the latest technologies and the resilience to be effective for the life of the equipment controlled.

Every controller manufactured by Reliable Controls contains a BACnet communication stack on board and is BACnet Testing Laboratory listed for quality assurance. Reliable Controls provides and industry-leading, 5-year warranty on all programmable controllers.

Application diagram for eight-relay panel

Switch

SMART-Sensor EPD

SMART-Net

RC-Studio

MS/TP

Separate power supply

Digital switch (SST3-UD/W)

120V Power supply

MACH-ProView LCD

Input 1

GND

GND
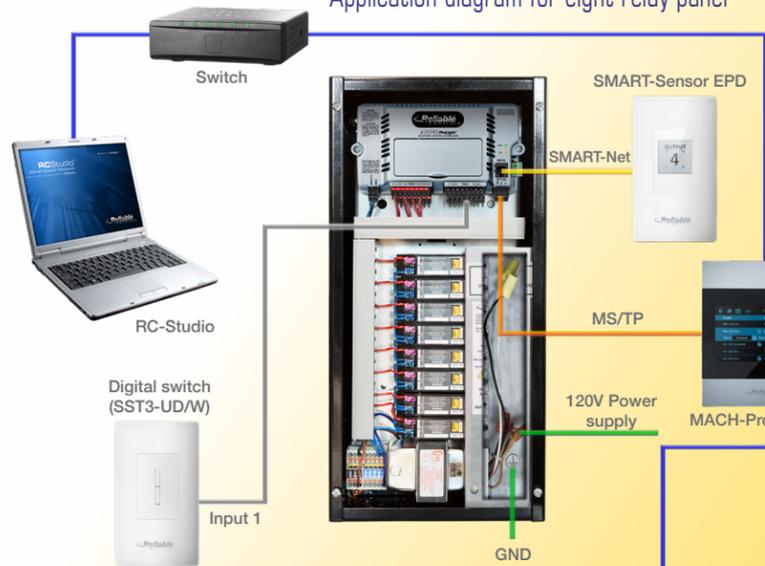
We test every lighting control panel with a MACH-ProView™ LCD controller connected via MS/TP.

Application diagram for 32-relay panel

Switch

GND

120V Power supply

Separate power supply

MS/TP

MACH-ProView LCD

SMART-Sensor EPD

SMART-Net

RC-Studio

Input 1

Digital switch (SST3-UD/W)

Application diagram for 64-relay panel

Switch

GND

120V Power supply

Separate power supply

MS/TP

RC-Studio

MACH-ProView LCD

SMART-Sensor EPD

Input 1

Digital switch with dimming and occupancy sensing (SST3-O-OC-S/W)

SMART-Net
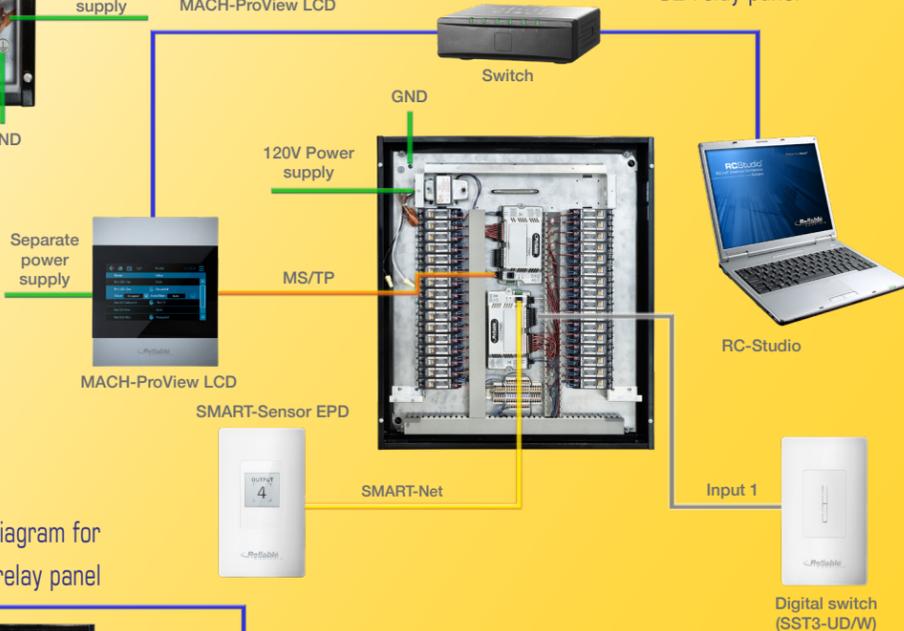
The power supply, ground connection, and relays are meticulously tested.
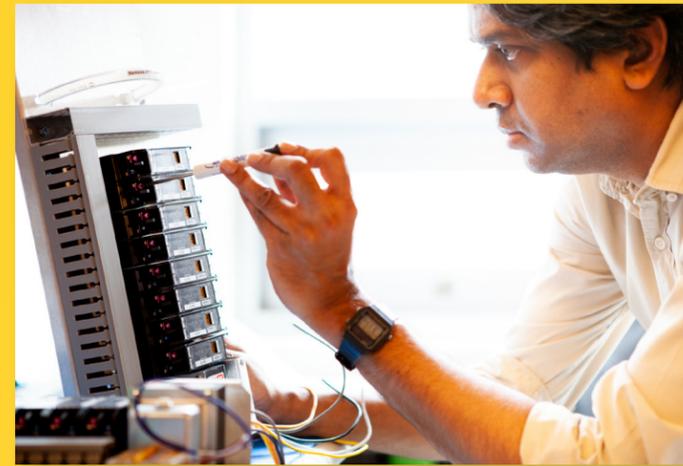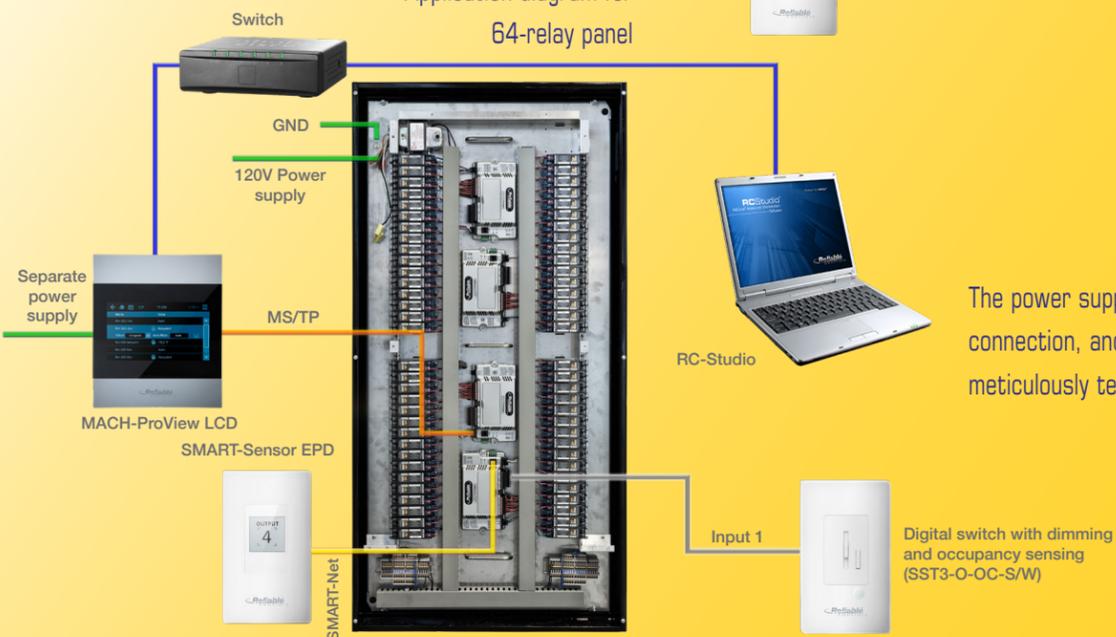
Every relay is switched on and off multiple times to verify the status indicator, and each panel is verified to be fully compatible with a range of Reliable Controls products. The power supply, ground connection, and relays are meticulously inspected.

Once the testing process is complete, the panel is prepared for shipping. Because even the smallest panel weighs more than 20 pounds (9 kgs), each one is carefully packaged to ensure it arrives in excellent condition, ready for installation.

Included in the shipment is everything needed for installation: the wiring schedule, WEEE directive, MACH-ProLight wiring instructions, assembly guide, an unboxing manual, and all hardware necessary for mounting. A serial number and date of manufacturing is included that allows us to trace each panel's manufacturing history in the event of an issue.

PANEL FEATURES

- Ability to select the appropriate MACH-ProLight model.
- Jumper-selectable universal outputs.
- Flexible mix of dimming and switching loads.
- Analog outputs to sink or source current.
- Single-wire connection to actuate the relay and read status.
- Compatible with Cristal Controls momentary pulse switches, such as the CCSW-MP.
- Accommodates multi-input relay switching.
- Arrives fully assembled with all low-voltage terminations completed.
- Accommodates all common line-voltage connections up to 347 VAC.
- Included 24 VAC transformer powers relays, controllers, and associated switching peripherals, including light switches, occupancy sensors, and light-level sensors.
- Accommodates 120/240/277/347 VAC inputs.
- Supports industry-standard single- and double-pole latching relays, which are suitable for all types of loads.
- Easy addition and removal of relays with quick-release spring-clip mounting.
- Ability to switch up to four relays with each relay driver output.
- Zero-cross switching.
- NEMA1 enclosure with standard electrical knockouts.

Small Lighting Control Panel for up to eight relays

Medium Lighting Control Panel for up to 32 relays

Medium General Control Panel for up to eight relays

Large Lighting Control Panel for up to 64 relays

Learn more about the MACH-ProLight:
reliablecontrols.com/MPL

Learn more about custom lighting control panels:
reliablecontrols.com/products/accessories/#Lighting_Control_Panels

Reliable controls

The power, flexibility, and sustainability of the Reliable Controls system is demonstrated in commercial buildings around the world.

Lighting control panels from Reliable Controls provide a complete assembly of controls and switching relays pre-wired for installation into the electrical system. Mix dimming and switching circuits and configure your specific lighting control strategy today.

"With the ability to read the status of a relay on the same output wiring, the MACH-ProLight makes lighting projects easier because I don't have to include or wire extra CTs. The panels that come pre-wired with relays cut down our installation time, saving us money and simplifying commissioning. I've been working with Reliable Controls products for about ten years now and the new products always help my projects instead of creating more work. The MACH-ProLight is no different. It is easy to install, easy to program, and makes integrating lighting control in my projects easy".

Steven Geer, Field Operations Manager, Green Building Automation