



PRODUCT SPECIFICATIONS

MeltLogic Smart Controller

Smarter de-icing. No wasted heat.

Model MLT_SC_120_v1 | Wi-Fi | Outdoor rated | ETL Listed

15 A / 1,875 W

Rated load, resistive

IP65

Outdoor rated

2.4 GHz

Wi-Fi 802.11 b/g/n

-4 to 122°F

Operating range

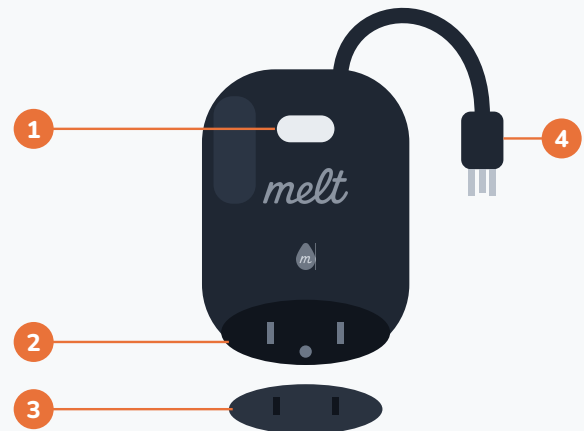
Overview

The MeltLogic Smart Controller is a Wi-Fi, outdoor-rated plug-in controller that connects rooftop heat cables to the MeltLogic app. Instead of running cables all winter or switching them on at a fixed temperature, MeltLogic watches local conditions and turns cables on only when ice-forming weather calls for it, for up to **50% - 90% savings** on heat cable energy costs.*

At a glance

- **Retrofit or build new:** works on both self-regulating and constant wattage cables with a peak power draw under 1,800 W (roughly 200 ft of cable, check your cable specifications to be sure).
- **Plug in and go:** grounded Type B plug, no hardwiring. Connect to a GFCI outlet only, installed at least 2 ft above ground.
- **Built for winter:** IP65 housing, rated -4°F to 122°F.
- **Free to start:** the Essentials plan includes remote control and temperature-based control. Upgrade to MeltLogic Intelligence for forecast-driven savings.
- **Certified:** ETL Listed (US/Canada) and FCC ID 2AQRWF96SP.

CONTROLLER ANATOMY *Illustration is representative.*



- 1 Program button + LED** (on/off, pairing)
- 2 Heat Cable Receptacle** (faces down)
- 3 Plug storage cap**
- 4 Power cord + Type B plug** (14 AWG)

Ordering information

MODEL

MLT_SC_120_v1 (hardware ver. 1.0)

UPC

8 84400 69576 5

HEAT CABLES

Sold separately

MSRP

\$79 per device

PLANS

Essentials = free, Intelligence = \$65/yr or \$395 lifetime

SHIPPING & RETURNSSee meltlogic.io for current terms

*Savings estimate applies to MeltLogic Intelligence (Annual and Lifetime) plans and is compared with a traditional always-on cable. Actual savings vary and are not guaranteed.

Hardware specifications

Model MLT_SC_120_v1 | Hardware version 1.0 | Made in Vietnam

ELECTRICAL

Rated voltage	125 V AC, 60 Hz
Rated current	15 A
Max load, resistive	1,875 W
General-purpose	5 A max
Cable load	Under 1,800 W total (about 200 ft of cable)
Connector	Plug-in, Type B (grounded)
Poles / wires	3 poles, 3 wires
Power cord	14 AWG, SJTW, 300 V, 105°C, VW-1 flame rated

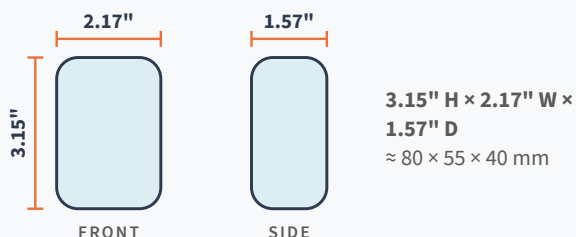
PHYSICAL

Color	Black
Housing material	Polycarbonate (PC)
Dimensions	1.57" D × 2.17" W × 3.15" H (≈ 40 × 55 × 80 mm)
Mounting	Vertical, receptacle facing down, at least 2 ft above ground
Hang points	Integrated hang tab and four mounting holes
Included	Plug storage cap (insert plug when not in use)

ENVIRONMENTAL & PROTECTION

Ingress protection	IP65, rated for outdoor use
Operating temp.	−4°F to 122°F (−20°C to 50°C)
Outlet requirement	GFCI-protected outlet only

DIMENSIONS



WIRELESS & CONNECTIVITY

Frequency	2.4 GHz
Standard	IEEE 802.11 b/g/n
Pairing	Press and hold the button for 10 s; LED blinks for 180 s
Control	MeltLogic app (iOS and Android)

CONTROLS & INDICATORS

Button, press 1×	Manual on / off
Button, hold 10 s	Wi-Fi pairing mode
LED, solid white	Device on
LED, off	Device off
LED, blinking	Pairing mode (blinks for 180 s)

COMPLIANCE & IDENTIFICATION

Safety listing	ETL Listed, US and Canada (Intertek control no. 5030071)
Radio	FCC ID 2AQRWF96SP
Model	MLT_SC_120_v1 (module WF96SP)
Hardware version	1.0
UPC	8 84400 69576 5
Country of origin	Vietnam

INSTALLATION NOTES

- Mount vertically with the receptacle facing down and at least 2 ft off the ground.
- Keep total heat-cable load under 1,800 W per controller.
- Use UL-listed heat cables and a licensed electrician where code requires.
- Specifications are subject to change without notice.

MELTLOGIC INTELLIGENCE

How it works & key features

Forecast-aware control for rooftop heat cables, managed from one app

1 Monitors

Tracks temperature, precipitation, solar irradiance and the forecast for your local area, around the clock.

2 Detects

Intelligent algorithms identify the conditions that lead to ice dams, using factors like roof exposure direction.

3 Activates

Turns heat cables on only during real ice risk, dramatically reducing unnecessary energy use.

System features

Forecast & system monitoring

Continuous weather monitoring watches for ice-forming conditions and switches cables on only when needed.

Savings tracking

Seasonal and lifetime savings from your utility rate and cable setup. Most systems pay for themselves in 1 to 2 seasons.

Carbon avoidance

See the carbon dioxide you have avoided producing compared with a traditional always-on or thermostat system.

Multi-property, multi-device

Manage up to 5 properties and 10 devices per property in one app.

System controls

Choose how often duty cycles run and see the estimated cost of each setting before you commit.

Scheduling & manual runs

Shift runs to off-peak utility hours or solar production, or start a manual duty cycle to clear built-up ice.

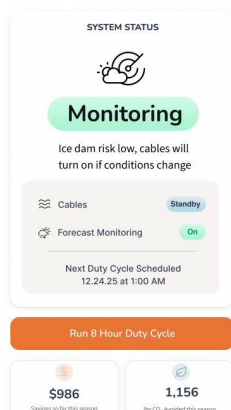
In-rush protection

Circuits stagger start times across devices to reduce the risk of tripping breakers.

On-device back-up

Keeps your cables on a protective routine even during a Wi-Fi outage.

THE MELTLOGIC APP



CABLE COMPATIBILITY

- Supports runs under 1,800 W total (about 200 ft of cable).
- Retrofit existing cable, or purchase with Heat Tape Pro. Compatible with self-regulating or constant-wattage cables.
- Size a cable run at RadiantSolutionsCompany.com.

BEFORE YOU INSTALL

- Use a GFCI outlet only. Mount vertically, receptacle down, 2 ft or more above ground.
- A 2.4 GHz Wi-Fi signal must reach the install location.
- Use UL-listed heat cables, and a licensed electrician where NEC or local code requires.
- MeltLogic does not install or inspect systems.

MELTLOGIC ESSENTIALS

How it works & key features

Simple, dependable control with remote access, free with every controller

1 Connects

Pair the controller in the MeltLogic app, then enter your property details, cable length and utility rate.

2 Senses

Checks the local outdoor temperature around the clock, so your cables respond to real conditions.

3 Activates

Switches cables on when temperatures fall below 37°F and off again above 50°F.

System features

Remote monitoring & control

Check status and switch your cables on or off from anywhere in the MeltLogic app.

Temperature-based control

Automatically activates cables when temperatures are below 37°F.

Automated duty cycles

Set a routine schedule for the cables to run, for extra peace of mind.

Run-time scheduling

Take advantage of off-peak hours by choosing when duty cycles run.

On-device back-up

Keeps your cables on a protective routine even during a Wi-Fi outage.

In-rush protection

Circuits stagger start times across devices to reduce the risk of tripping breakers.

Multi-property, multi-device

Manage up to 5 properties and 10 devices per property in one app.

Savings preview

See an estimate of what you would have saved with forecast-driven control.

TEMPERATURE-BASED CONTROL AT A GLANCE

BELOW 37°F

Cables switch on

ABOVE 50°F

Cables switch off

ANY TIME

Duty cycles and manual runs take precedence over temperature control

Live savings tracking requires MeltLogic Intelligence.

UPGRADE ANYTIME TO MELTLOGIC INTELLIGENCE

- Forecast Monitoring: additional savings of 50–90%/yr
- AI Runtime Optimization using roof exposure and more
- Smart Duty Cycles adjusted to the forecast
- Live savings and CO₂ tracking
- Savings Guarantee (Annual plan only)
- **\$65/yr or \$395 lifetime**, purchased in the MeltLogic app

Choose your plan

Choose MeltLogic Essentials for remote control and temperature-based operation. Choose MeltLogic Intelligence for even greater savings

ESSENTIALS

Free

Remote monitoring and control with temperature-based activation. A solid, no-subscription way to run your cables.

MELTLOGIC INTELLIGENCE

MOST SAVINGS

Forecast-driven control, AI runtime optimization and smart duty cycles, backed by a Savings Guarantee (Annual plan only). Available as Annual or Lifetime subscriptions.

ANNUAL
\$65 / year

LIFETIME
\$395 one-time

FEATURE	ESSENTIALS	MELTLOGIC INTELLIGENCE
CONTROL & MONITORING		
Remote monitoring & manual control	✓	✓
Control logic	Temperature-based, activates below 37°F	Forecast-driven weather monitoring
Forecast Monitoring (additional savings of 50–90%/yr)	—	✓
AI Runtime Optimization (roof exposure and more)	—	✓
Smart Duty Cycles (adjusted to the forecast)	—	✓
SCHEDULING & PROTECTION		
Automated duty cycles	✓	✓
Run-time scheduling (off-peak or solar hours)	✓	✓
On-device back-up during Wi-Fi outages	✓	✓
In-rush protection (staggered start times)	✓	✓
INSIGHT & SCALE		
Multi-property & multi-device (5 properties, 10 devices each)	✓	✓
Savings & CO ₂ avoided	Estimate of what you would save	Live savings and CO ₂ tracking
Savings Guarantee	—	✓ (Annual Plan Only)

Annual | \$65 per year

Full MeltLogic Intelligence, renewed yearly, including the Savings Guarantee. The lower-commitment way to start.

Lifetime | \$395 one-time

Pays for itself versus Annual in about six seasons. Covers the supported life of the hardware generation purchased; not transferable to a new owner without written consent.

IMPORTANT NOTICE

MeltLogic is an energy-optimization product, not a property-protection or safety system, and does not guarantee the prevention of ice dams, water infiltration or structural damage. Inspect your roof during winter. Savings figures are estimates, not guarantees. The Savings Guarantee refunds your Annual Subscription fee if savings do not exceed the price of the subscription; see the Terms of Service for details. Prices and features subject to change.