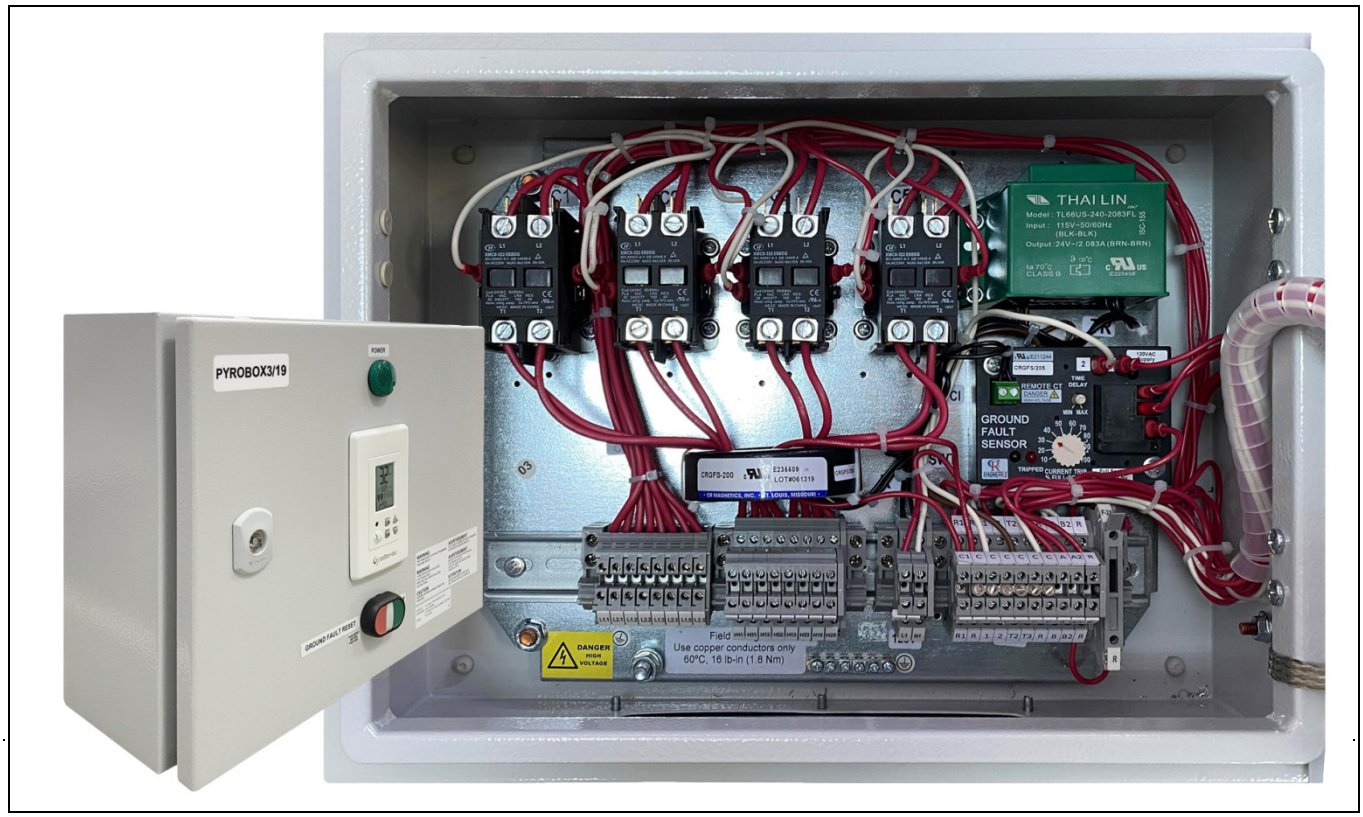
RESI-BOX / 19

SPECIFICATION SHEET

Features & Benefits

- Automatic control and power distribution for deicing and snow melting
- Integrated electronic controller with backlit LCD display
- User friendly interface
- Up to 4 zones activation
- Interface to B.M.S and Smart-Home using BACNET and MODBUS over RS485 communication wires
- Sequencing option between the zones – Allowing larger snow melting area with less vailable power on site
- Multiple snow sensors inputs – optional with Aerial, Ground, Gutter or 3rd party input.
- Master/Slave capability – connecting several RESI-BOX/19 units to work together
- Critical zones settings – these areas will be heated whenever it is snowing while other zones will stagger
- Up to 4 x 30A & 240V outputs to heaters
- Integrated adjustable Ground Fault Sensor
- Adjustable Temperature set-point, Upper and Lower Limit Temperature
- Adjustable Hold On-OFF Delay and Manual On
- Adjustable splitting time between the zones.
- Technician testing / commissioning mode for easy and fast system test all year long (even during summer or at high temperatures)
- Energy Efficient algorithm
- ETL certification



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Description

The RESI-BOX/19 is a "Plug and Play" controlled power distribution panel for frost protection, ice and snow melting applications.

It is equipped with built-in communication interface to Building Management System (B.M.S. or B.A.S.) and Smart-Home applications using RS485 connection by BACNET and MODBUS protocols.

When receiving a signal from the snow sensor/s, it activates the contactors energizing the heating elements. Based on the DIP switches configuration, the zones are activated either continuously or in customized sequencing between the zones.

The outdoor temperature set-point as well as ground upper limit temperature and ambient lower limit temperature can be easily set. The Technician Settings mode allows installer or technician to adjust the parameters for customized installations.

The RESI-BOX/19 Built-in Ground Fault interuptor allows settings for the tripping current between 0.01 – 0.1 A. The GFEP adjustable time delay provides a simple and safe protection from nuisance tripping.

DIP Switches located on the controller provide easy access to technician mode and to the system configuration settings.

The RESI-BOX/19 allows snow sensors input both from the RESI-BOX/19 Snow sensors (aerial, ground and gutter – separately or any combination between them) and also from a 3rd party sensor or input.

Installing the system is a quick and easy task. Apart of mounting the metal box to the wall, the installer needs only to connect the line in and line out wires in the marked terminals and the system is ready to work.

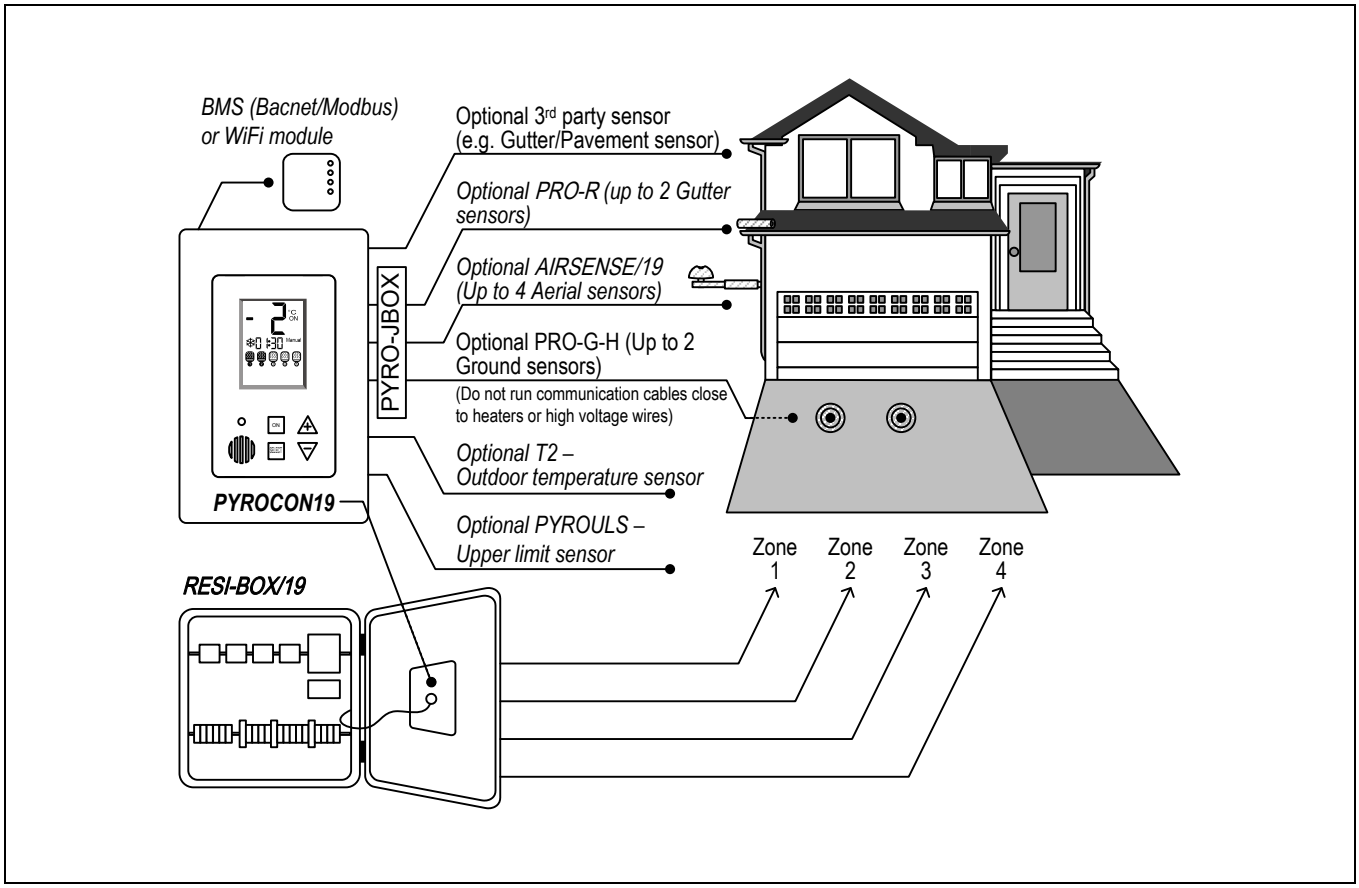
The parameters that can be modified are as follow:

- Temperature set-point
- Lower ambient temperature limit
- Slab Upper Temperature Limit to deactivate heaters for Energy Efficiency
- Time delay (Hold-on) before deactivating the heaters
- ON time for Manual mode
- Heaters cycle time / Splitting time between zones
- Number of zones and sequence of operation (Sensors and heaters control logic)
- Snow sensor RH sensitivity
- Snow detection threshold
- Number of snow sensors connected
- Critical zones setting
- Master and slave settings if more than one RESI-BOX/19 is used
- MAC Address for the MODBUS and BACNET communication

Comparison table between RESI-BOX/19 the RESI-BOX

	RESI-BOX	RESI-BOX/19
Connecting Aerial sensors	Up to 4	Up to 4
Connecting ground snow sensor	-	Up to 2
Connecting gutter snow sensor	-	Up to 2
Connecting 3rd party snow sensor	+	+
Connecting slab temp sensor	+	+
Critical zones	-	+
Master and Slave Settings	-	+
Connection to Smart-Home / BMS	-	+
ETL certification (US and Canada)	+	+
Connection to mobile App	-	+ (with Wi-Fi module)
GFEP Test button	Inside	Outside (on door)

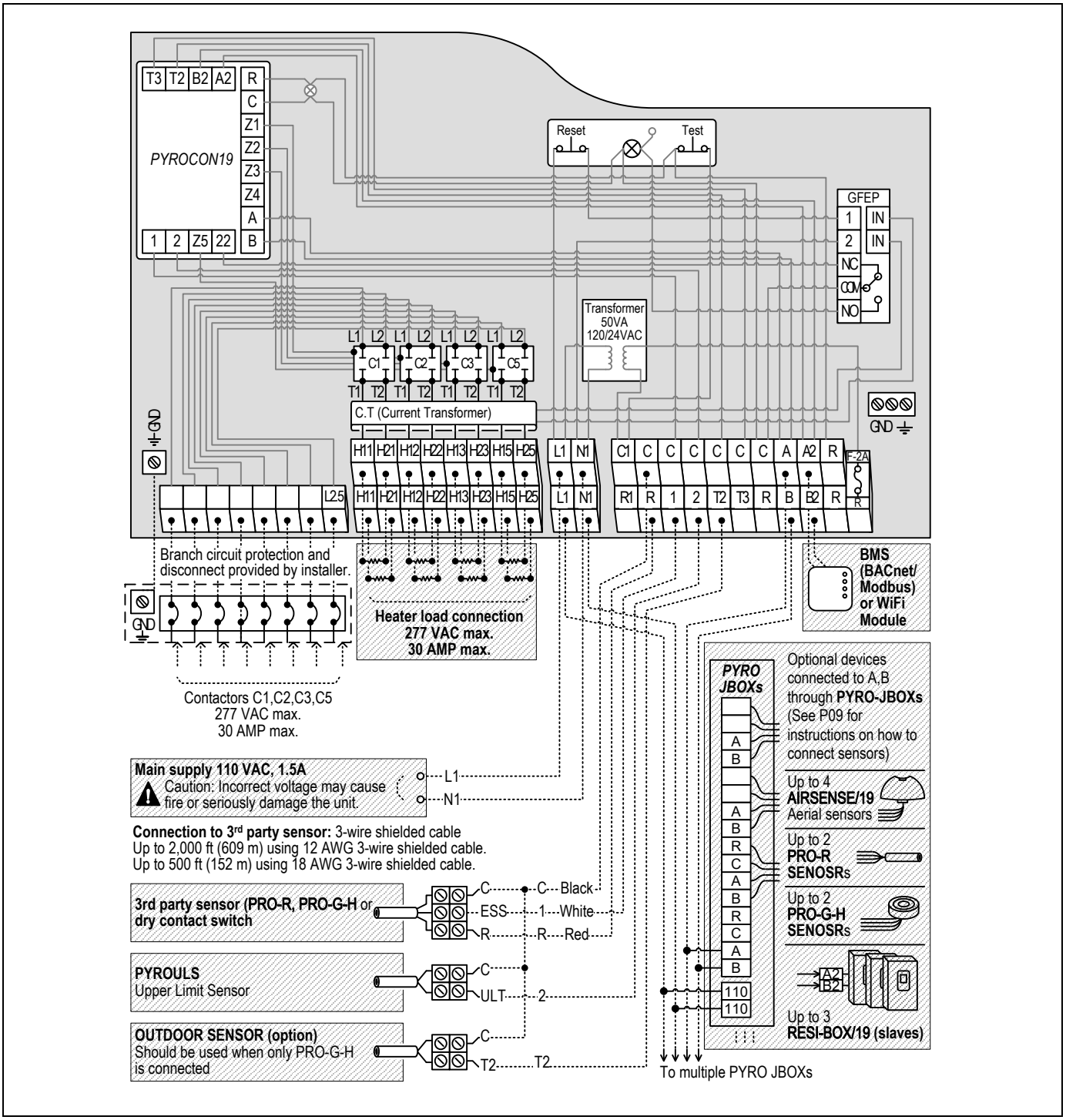
General system layout



Technical specifications

Approvals	ETL Listed CAN/CSA-C22.2 No. 14 | UL-508A	**Manual Reset GFEP**	Push button on Front Panel
Enclosure Protection	IP20, **Indoor Mounting**	**Four Satellite Contactors**	240 VACS, 30 A Max (Resistive), 50/60 Hz, 2-Poles
Dimensions	11.8x15x6.1 inch (30x38x15.5 cm)	**Terminal blocks**	6 mm^2 ,10 AWG (max)
Ground Fault Equipment Protection GFEP	Adjustable triping current 0.01-0.1 A (default 0.03A) Adjustable time delay 0.1-1 sec. (default 0.1 sec.)		

Wiring diagram



The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Warmup office or representative. Warmup shall not be liable for damages resulting from misapplication or misuse of its products.

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