

# tekmar® - User Brochure

Snow Detector & Melting Control 667

**U 667**

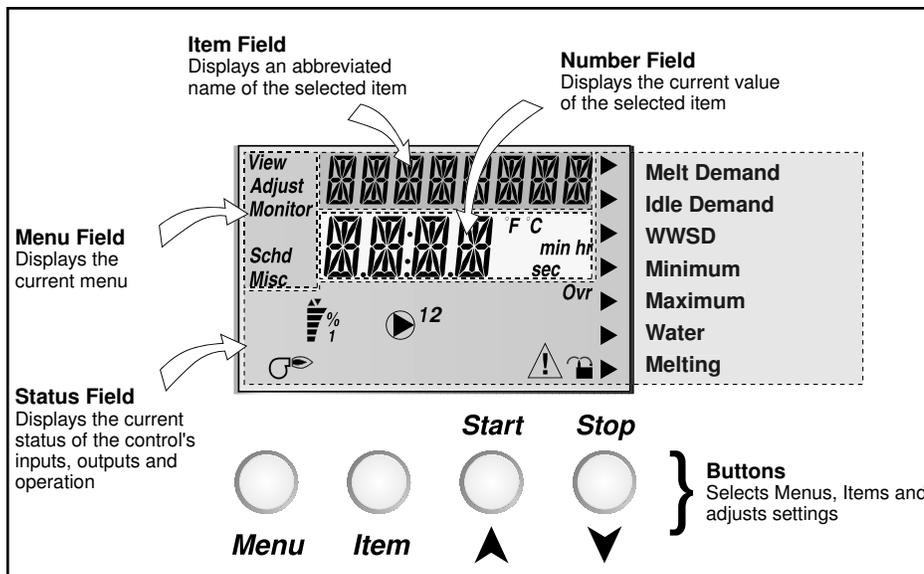
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The Snow Detector & Melting Control 667 is designed to control a single zone snow melting system. The control automatically adjusts the mixed supply water to the snow melting system by controlling a single boiler and a variable speed injection pump. The snow melting system may be started manually or automatically through the use of a Snow/Ice Sensor 090. Standard features include pump exercising, slab and boiler protection, and many other useful items.

## User Interface

**User Access Level(s)** The tekmar Snow Detector and Melting Control 667 has four access levels which are **LTD** (limited), **USER**, **INST** (installer), and **ADV** (advanced). This brochure only covers the **LTD** (limited) and **USER** levels. Only qualified service people should make adjustments in the **INST** (installer) and **ADV** (advanced) access levels.



The tekmar Snow Detector & Melting Control 667 has a Liquid Crystal Display (LCD) and four push buttons (Menu, Item, ▲, ▼) which are used to view and adjust the settings.

### Menu

All of the items displayed by the control are organized into various menus. These menus are listed on the left hand side of the display (Menu Field). To select a menu, use the **Menu** button. By pressing and releasing the **Menu** button, the display will advance to the next available menu. Once a menu is selected, there will be a group of items that can be viewed within that menu.

### Item

The abbreviated name of the selected item will be displayed in the item field of the display. To view the next available item, press and release the **Item** button. Once you have reached the last available item in a menu, pressing and releasing the **Item** button will return the display to the first item in the selected menu.

### Adjust

To make an adjustment to a setting in the control, begin by selecting the appropriate menu using the **Menu** button. Then select the desired item using the **Item** button. Finally, use the ▲ and / or ▼ button to make the adjustment.

Additional information can be gained by observing the Status field of the LCD. The status field will indicate which of the control's outputs are currently active. Most symbols in the status field are only visible when the View menu is selected.

	<b>Mixing Device Output Scale</b> Shows output of injection pump. Arrows show whether the output is increasing or decreasing.
	<b>Pump</b> Displays when the system pumps are operating.
	<b>Override</b> Displays when the control is in override mode.
	<b>Warning</b> Displays when an error exists or when a limit has been reached.
	<b>Lock / Unlock</b> Displays whether the access levels are locked or unlocked.
	<b>Burner</b> Displays when the Boiler relay is turned on.
	<b>Pointer</b> Displays the control operation as indicated by the text.
	<b>°F °C</b> <b>min hr</b> <b>sec</b> °F, °C, sec, min, hr Units of measurement.

Note: Depending on the settings the installer makes in the control, certain items may not appear.

Item	Ltd	User	667 View Menu	Range
OUT DOOR	●	●	Current outdoor air temperature as measured by the outdoor sensor.	-67 to 149°F (-55 to 65°C)
SLAB		●	Current slab sensor temperature.	-58 to 167°F (-50 to 75°C)
STATUS	●	●	Operating status of the system.	STRT, STOP, IDLE, EXT, 0:00 to 23:59 hr, ---, INF, WWSD, CWCO, DET
MIX SUP		●	Current mixed supply water temperature as measured by the mixing supply sensor.	-31 to 266°F (-35 to 130°C)
MIX RET		●	Current mixed return water temperature as measured by the mixing return sensor.	-58 to 167°F (-50 to 75°C)
Boil SUP		●	Current boiler supply water temperature as measured by the boiler sensor.	-31 to 266°F (-35 to 130°C)
Boil RET	●	●	Current boiler return water temperature as measured by the boiler sensor.	-31 to 266°F (-35 to 130°C)

Item	Ltd	User	667 Adjust Menu	Range
RUN TIME	●	●	The time for which the system is operated once it has reached its melting temperature. This item cannot be viewed if a Remote Start/ Stop Module 039 has been connected.	0:30 to 17:00 hr, INF (Infinity) Default = 4:00 hr
SENSVTY		●	Sensitivity of water detection of the Snow/Ice Sensor 090. <b>Sensor 090 is present</b>	AUTO, 20 to 80% Default = AUTO
MELTING		●	The desired slab surface temperature while in the Melting Mode.	32 to 95°F (0 to 35°C) Default = 36°F (2°C)

Item	Ltd	User	667 Monitor Menu	Range
OUT HI	●	●	The highest recorded outdoor air temperature since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons.	-67 to 149°F (-55 to 65°C)
OUT LO	●	●	The lowest recorded outdoor air temperature since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons.	-67 to 149°F (-55 to 65°C)
SLAB HI		●	The highest recorded temperature at the slab sensor since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons.	-58 to 167°F (-50 to 75°C)
SLAB LO		●	The lowest recorded temperature at the slab sensor since this item was last cleared. To clear this item, press and hold the ▲ and ▼ buttons.	-58 to 167°F (-50 to 75°C)

Note: Depending on the settings the installer makes in the control, certain items may not appear.

Item	Ltd	User	667 Schd (Schedule) Menu	Range
OVERRIIE	•	•	The setback override that is in effect for the snow melting system.	NONE, AWAY (Ovr)
<p><b>None</b> — No override. <b>AWAY</b> — The snowmelting system is shut down.</p>				

Item	Ltd	User	667 Misc (Miscellaneous) Menu	Range
UNITS	•		The units of measure that all of the temperatures are to be displayed in by the control.	°F, °C
BACKLITE	•		The operating mode for the back lighting on the LCD as well as time of keypad inactivity until the control automatically returns to the default display.	OFF, 30 sec, ON
ACCESS	•	•	The access level that is to be used by the control. <b>DIP Switch</b> =  (Only qualified service people should adjust items in the <b>ADV</b> (Advance) and <b>INST</b> (Installer) access levels)	ADV, INST, USER, LTD

**REMOTE DISPLAY MODULE (RDM) 040**

An optional Remote Display Module can be connected to the 667 if the Remote Start / Stop Module is not used. Adjustments can be made from the Remote Display Module. This module is connected to the control through two wires.





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