

Cinegration White Paper WP 022

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Control of Snowmelt on tekmar systems (654)

Description:

Tekmar TN4 systems support snow melting controls. [The tekmar 654 available here](#) is used for this purpose. This thermostat type is NOT a standard thermostat and so does not use the standard thermostat driver for control. The API from tekmar only supports enabling the 'ability' for snow melt control and turning on/off storm mode. A customer or dealer CANNOT adjust the temp of the snowmelt activation from the AP, only turning snowmelt on and off via a relay binding.

How Snowmelt works:

Every tekmar snow melt will have at least one snow detector. This detector reports to the 654 the temp of the slab to be melted AND the presence of water (snow). Both the temperature and water detection must be active for snow melt to start. Adjustment of the melting temperature is only done directly on the 654 unit.

Storm mode:

tekmar snow melt supports a program called storm mode. This program is designed to 'pre-activate' the boiler or increase the snow melt mixture so when the storm comes, the snow can be melted faster. Remember, snow melting can only happen once snow is detected AND the temp is at the trigger level. For more information on snowmelt and storm mode visit tekmar's website: <http://www.tekmarcontrols.com/support/tekmar glossary/33-support/glossary/213-snow-melting-setpoint.html>

To use storm mode, bind a relay driver to output 12 (storm mode) on the main tekmar gateway driver.

Integration:

To integrate snowmelt into Control4, the dealer will need to have already set up snow melt groups (1-11) on the 654 (simply assign a group ID to the unit). Once this is done, dealers will use a standard relay binding for control (toggle control). Dealer can then use standard Control4 when/then programming for turning on/off snowmelt.

Name	Type	Connection	Input/Output	Connected to
Control Inputs				
Serial RS-232	Control	RS_232	Input	EA-1->SERIAL 1
Control Outputs				
TekMar Control Link	Control	TEKMAR_PR_THERM...	Output	tekmar thermostat->TekMar Thermostat Control
Relay Output - Melt Mode	Control	RELAY	Output	Snowmelt->Relay
Relay Output - 2	Control	RELAY	Output	
Relay Output - 3	Control	RELAY	Output	
Relay Output - 4	Control	RELAY	Output	
Relay Output - 5	Control	RELAY	Output	
Relay Output - 6	Control	RELAY	Output	
Relay Output - 7	Control	RELAY	Output	
Relay Output - 8	Control	RELAY	Output	

Device	Name	Location	Connections