

# WALKER WIRELESS

## MT. WASHINGTON PROJECT



Making the experience that much better...

In a place that should be enjoyed to its fullest, Walker Wireless creates some breathing room for you to remember why you come here. All the while knowing you're saving money, adding comfort, and keeping track of your mountain residence from afar.

SAVE FROM 40% TO 75% ON HEATING BILLS.

TURN UP THE HEAT BEFORE YOU "HEAD UP".

MONITOR YOUR MOUNTAIN HOME OVER THE INTERNET.



BUILDING INTELLIGENCE WORLDWIDE.

Walker Technologies Corporation  
3001-B Moray Ave. Courtenay, British Columbia Canada, V9N 7S7  
Phone: (250) 334-0447 Fax: (250) 334-0467

WALKERWIRELESS.CA

# GOING GREEN IS EASY

## Mt. Washington Project



It is as simple as changing your thermostats.

To install our system in your chalet or condo, all we do is replace your thermostats with our wireless thermostats. These operate “stand alone” like your regular thermostats, but also communicate back to a “head end” located in Chalet 59 to pass temperature and motion information and to receive commands. Walker monitors this system. You surf your mountain home from your PC or smart phone to check status, adjust personal setting or turn on the heat.

### Why install WALKER WIRELESS?

- Saving from 40% to 75% on heating bills gives a short return on investment while reducing your carbon footprint.
- Heat turns on when you arrive, then off once you leave, so one can forget to turn down the heat.
- Check status after guests leave.
- Smart low “unoccupied” setpoint saves you money, but automatically adjusts a little warmer as it gets colder outside to give a margin if safety.
- Automatically receive an Email if anything needs your attention.



# MOUNT WASHINGTON PROJECT

## You can...

- Set nighttime temperatures.
- Monitor pipes to prevent freezing.
- Check daily heat usage and cost.
- Check for small furry visitors.
- Turn heat up or down.
- Control your hot water tank or hot tub.

## Why is your hydro bill high?

The biggest contribution to your hydro bill is the cost of heating when your condo or chalet is unoccupied. This is because of inaccurate thermostats that can not get the heat down low enough. You are stuck in a situation where you are paying for something you don't need because you don't want your pipes to freeze. Now you can maximize savings with smart and accurate low temperature control.

## Walker Wireless solution

Walker thermostats accurately control the temperature in your chalet to within parts of a degree and down to as low as you want to go. The supervisory system also looks at outdoor temperature and adjusts the low temperature with a safety margin as it gets colder outside.

CHALET_59_HEAT_DATA			
AREA	Minutes yesterday		Heater size
Andy_and_Stewart	59_AS_Duty	0.0 Mins.	59_AS_Bsbrd 3.500 kW
Dariens	59_DA_Duty	0.0 Mins.	59_DA_Bsbrd 0.500 kW
Guest_Bathroom	59_GB_Duty	0.0 Mins.	59_GB_Bsbrd 0.375 kW
Kitchen_Livingroom	59_KL_Duty	0.0 Mins.	59_KL_Bsbrd 1.485 kW
Upper_Bathroom	59_UB_Duty	0.0 Mins.	59_UB_Bsbrd 0.375 kW
Als_Office	59_AO_Duty	0.0 Mins.	59_AO_Bsbrd 0.300 kW
Sewing_Room	59_SW_Duty	0.0 Mins.	59_SW_Bsbrd 0.300 kW
Guest_bedRoom	59_GR_Duty	0.0 Mins.	59_GR_Bsbrd 1.000 kW
59_KWminutes_Yesterday		0.000	59_Heat_Cost_Yesterday 0.000
59_KWhours_Yesterday		0.000 kWh	
59_Heat_this_Month		70.18 kWh	59_Heat_Cost_this_Month 7.018
59_Heat_last_Month		145.38 kWh	59_Heat_Cost_last_Month 14.538

With our flexible system, the possibilities are endless.

Contact us for your free wireless assessment today!  
[sales@walkesys.com](mailto:sales@walkesys.com)

# ENERGY SAVINGS POTENTIAL

## When you turn down your heat ...

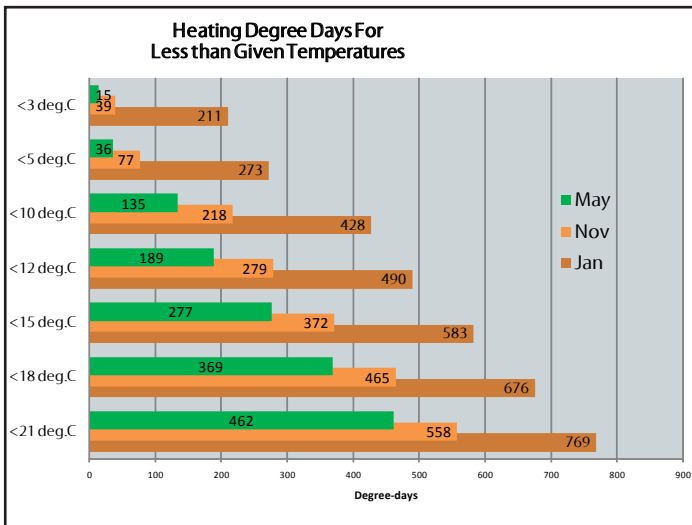
Most mechanical thermostats do not turn down as low as you might think. When you turn them down "all the way" they do not necessarily go down to 10 Deg.. As well, they also have a controlling offset -- heat "ON" at 10 Deg., heat "OFF" at 12 or 13 Deg. Walker has measured the temperature in many chalets where the thermostats have been turned down all the way. Typically the temperature in these chalets is more in the order of 12 to 15 deg. with one exception where the temperature was 18 deg. This is a direct but avoidable cost.

## Savings projections can be verified.

By calculations using Degree-Day data for an area, it is possible to calculate projected saving given any heating strategy. Degree day information is calculated from temperature data for various locations and is available from: "www.degree-days.net".

## Degree-days defined.

A degree-day is a measure of the proportional amount of heat you will need to heat your chalet to a given temperature for any time period. We use the term "Degree-Day less than a certain temperature". The table below shows degree-day data for Mount Washington.



For January above, 428 degree-days less than 10 has the same heat effect as 42.8 days at 0 deg or 21.4 days at -10.



## Degree-day calculation examples.

From the graph, January, has 769 degree days less than 21 deg. and 490 degree days less than 12 deg. The ratio of these  $769/490 = 1.6$  give the relative cost of heating to 21 deg in January as compared to 12 deg. For unoccupied, heating to 12 deg is  $490/211 = 2.3$  times more expensive that heating to 3 deg.

For November comparing unoccupied low temperatures of 12 deg and 3 deg gives the ratio of  $279/39$  or 7.2. On Nov 2 with a setpoint of 12 deg chalet 48 spent \$3.00 for the day on heat while chalet 59, with a setpoint of 3 deg. spent \$0 (it was warmer out than 3 deg.). Over the month of November we would expect that chalet 48 would spend around  $\$30 \times 3 = \$90$  on heat while chalet 59 would spend  $\$90/7.2$  or about \$12.

## Examples of yearly savings.

The following table shows savings based on degree days. It shows yearly savings for a chalet or condo using a smart low temperature of 3 Deg. instead of the original low chalet temperatures that were measured.

Original unoccupied average low temperature	POTENTIAL SAVINGS with WALKER (low SP of 3 Deg.C)			
	Occupied days per week Dec to Apr			
	0 days	2 days	4 days	7 days
18 deg.C	83%	76%	72%	50%
15 deg.C	79%	72%	67%	44%
12 deg.C	72%	65%	61%	36%
10 deg.C	65%	52%	42%	31%
5 deg.C	38%	36%	34%	19%
3 deg.C	0%	0%	0%	15%

Measured unoccupied temperatures and heat cost at an outdoor temperature of 5 deg.C.

Chalet	Deg.C inside	Set point	Day Cost	Heat type	Control
59	12	3	\$0	Sun	Walker
73	6	3	\$0	Sun	Walker
69	5	3	\$0	Sun	Walker
46	8	3	\$0	Sun	Walker
48	12	12	\$4	Elect.	Walker
"X"	18	12	\$7	Elect.	None
"Y"	15	10	\$5	Elect.	None

Walker controlled chalets had heat measured Chalet "X" and "Y" heat cost was estimated

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