

Equipment Needed



Measuring Wheel, Camera, Worksheets, Calculator, Yellow and Green Marker, #2 Pencil, and Red Pencil.

Heater Cap Components



Making the Appointment

- Where's the icing issues?
- Do you have available slots?
- If you don't, are you willing to pay for a sub-panel?

You need to know electrical hook-up costs up front to properly and efficiently quote the job.

- Routine Dedicated Circuit Hook-up should include:
 - EPD Breaker for 20 amp or 30 amp.
 - Minimal Conduit 20 feet or less.
 - LED Turn On Switch
 - Junction Box and Wiring
 - Hook-up to Breaker Box
- Conduit over 20 Feet per foot rate.
- Sub Panel Cost
- For interior Conduit; unfinished versus finished basement. Is there a difference in cost?

Qualifying Questions for Appointment

- How many available slots in your circuit breaker box?
- Some people will think that breakers in box aren't being used. They usually are. You need to know that there are slots without breakers in the slot.
- If they don't have available slots are they willing to pay the expense for a sub-panel?

Worksheets (Check List) are mandatory!

Heater Cap Worksheet			
JOB NAME: _____		Job # _____	
PHONE: _____		WORKCELL: _____	
ADDRESS: _____			
CITY: _____		ZIP: _____	DATE: _____
Re-Pitch Gutters: <input type="checkbox"/> Yes <input type="checkbox"/> No		Internal Downspout Hangers _____	
Termination Kit _____		Heater Cap Brackets _____	
<small>(Per each street)</small>		<small>(Per Gutter Only Mount)</small>	
HEATER CAP PANEL COLOR:		OTHER:	
BLACK <input type="checkbox"/>	DRK BRONZE <input type="checkbox"/>	TUXEDO <input type="checkbox"/>	<input type="checkbox"/>
CREAM <input type="checkbox"/>	MUSKET BRN <input type="checkbox"/>	WHITE <input type="checkbox"/>	<input type="checkbox"/>
TERRATONE <input type="checkbox"/>	ROYAL BRN <input type="checkbox"/>	LT GREY <input type="checkbox"/>	<input type="checkbox"/>
CABLE FOOTAGE: _____			
HEATER CAP PANEL FOOTAGE: _____			
GUTTER CAP FOOTAGE: _____			
WE WILL ALWAYS PROVIDE ELECTRICIAN NO EXCEPTIONS			
INSTRUCTIONS:			
<input type="checkbox"/> Wire in Gutter and Downspouts only			
<input type="checkbox"/> Wire on Gutter Cap and in Gutter and Downspouts			
<input type="checkbox"/> Wire on Roof Cap and in Gutter and Downspouts			
<input type="checkbox"/> Wire in Valleys			
How Many Valleys? _____			
How high up the Valleys? _____			
Electric Panel Manufacturers Name: _____ Open slots _____			
Other: _____			
<small>Sales Reps must take pictures of the following:</small>			
<input type="checkbox"/> Picture from outside of home of potential path to circuit breaker box.			
<input type="checkbox"/> Picture from inside of home of potential path to circuit breaker box.			
<input type="checkbox"/> Close up shot of circuit breaker box showing manufacturer name, condition of box, and available slots.			
INSTALLER		DATE STARTED	DATE FINISHED
Footage: Heater Cap		Footage: Inside Gutters & DIS	Footage: Other

Material Worksheet

- What is the condition of the box?
- Look at breaker box to determine the amount of open slots.
- Write down the make and model number of circuit breaker box.
- Where is the location of the breaker box relative to the exterior.
- Determine the path for exterior or interior conduit.

Good Pictures are mandatory!

- Take close-ups of the breaker box showing open slots and the model number.
- Pictures are needed showing route of interior or exterior conduit from treated area to breaker box.
- Pictures are needed from a perspective showing two sides of the home from the ground up to the top of the home. All sides of the home should be photographed.
- Take pictures of down spouts being treated.
- Take pictures of where the cable will exit the terminal down spout.
- Take pictures of where the electric will ultimately enter the home.

Sample Picture of Breaker Box



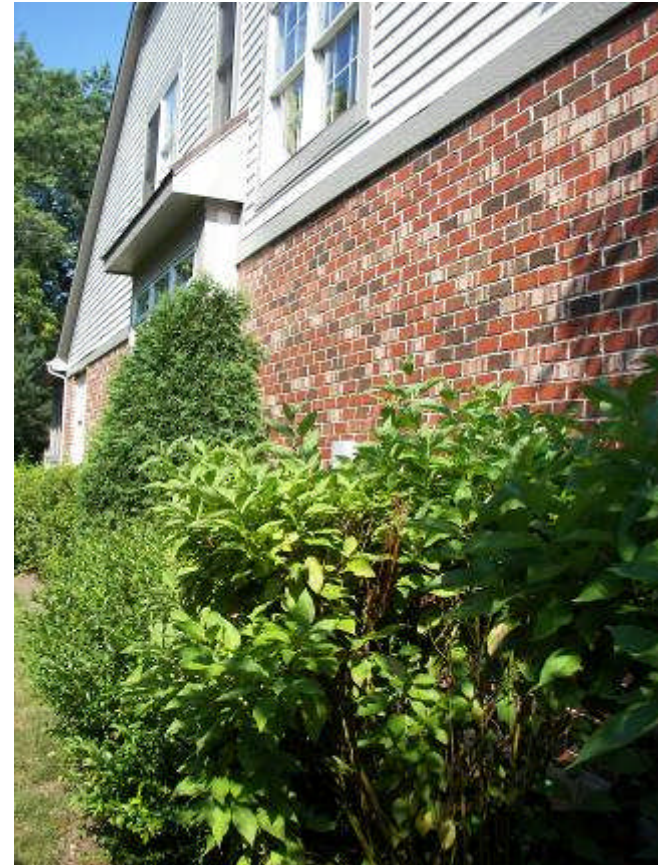
Here is a picture shot from ground up showing area to be treated and location of junction box going into home.



Sample Pictures (Area treated and terminating down spout)



Sample Pictures (Path of Exterior Conduit)



Measurement Guidelines

- Don't take shortcuts and pay careful attention to detail.
- Some homeowners will insist on whole house and freak out at the cost. Have plan "B" with walkway areas costed out. Ask homeowner to be specific in the areas with icing issues.
- If homeowner doesn't want to pay for the job to be done properly, walk away. If something goes wrong, you are the one that will be held accountable.
- Cable circuits must be continuous and you cannot splice in to another circuit. Maximum length is determined by 30 amp limitations.
- Stay within 10 feet less of length limits in case of measuring error.

The amount of slots available in the circuit breaker box will determine the coverage of the home with cable. Keep within 10' less of limits in case your measurements are inaccurate.

Item #	Voltage	Watt 50° F	Watt 32° F	20 Amp Limit	30 Amp Limit
SRF -1RG-GC	120	5W	12W	230'	270'
SRF-18RG-GC	120	8W	15-16W	180'	215'
SRF-28RG-GC	208-277	8W	15-16W	330'	420'

Find out where the electric is going into the home.



Coverage includes; gutter protection (you cannot treat screen products. They have to be removed before the winter and then the system would be a “Gutters Only” Mount.)



Gutters: If no leaf protection is needed, system can be mounted just in the gutters. If gutter protection is present, then naked cable will be laid in the gutters to prevent ice melt from refreezing.



Mounted in Gutter Only



Mounted on top of gutter protection

Roof Valleys are funnels for ice and snow.



Treated Roof Valley



Down Spouts (when looping through down spouts, they need to be 3x4 to allow proper drainage.)



3x4 versus 2x3

Drain Tiles



Layout Guidelines: In situations with one continuous circuit, if gutter protection is present, you will start on gutter protection at the terminal down spout end.



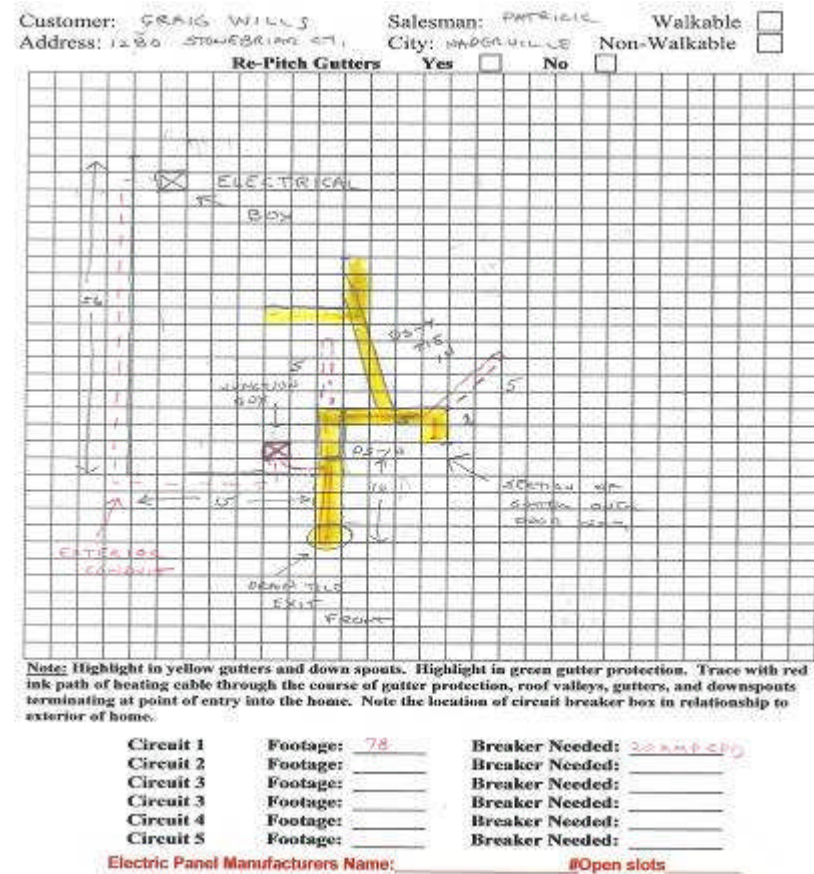
Customer: VARETT Salesman: NORWAY Walkable:
 Address: 4990 BEAUBIEN City: SCHOL Non-Walkable:
 Re-Pitch Gutters: Yes No

Note: Highlight in yellow gutters and down spouts. Highlight in green gutter protection. Trace with red ink path of heating cable through the course of gutter protection, roof valleys, gutters, and downspouts terminating at point of entry into the home. Note the location of circuit breaker box in relationship to exterior of home.

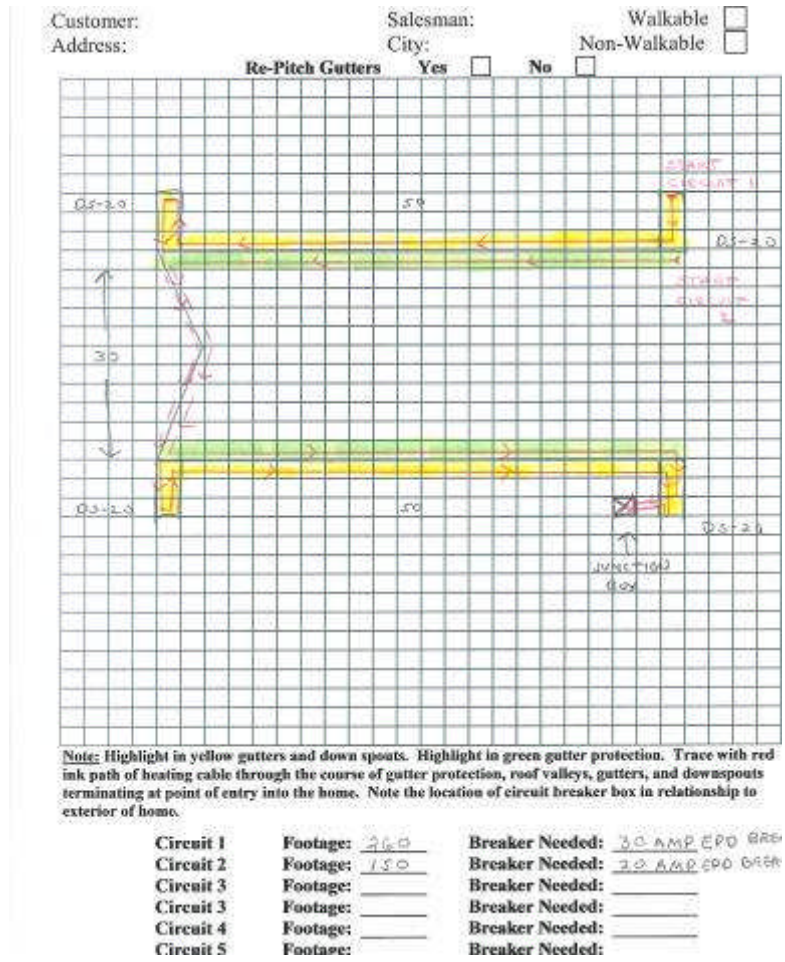
Circuit 1	Footage: 77	Breaker Needed: 20 AMP 1P
Circuit 2	Footage: _____	Breaker Needed: _____
Circuit 3	Footage: _____	Breaker Needed: _____
Circuit 4	Footage: _____	Breaker Needed: _____
Circuit 5	Footage: _____	Breaker Needed: _____

Electric Panel Manufacturers Name: _____ #Open slots: _____

With one continuous circuit, “Gutters Only” mount, you will start at the opposite end of the terminal down spout.



Multiple circuits can be done by covering gutter protection and valleys with one circuit, and gutters and down spouts with a separate circuit. They can still exit the same down spout.



You can use the roof and gable to link a circuit.
 Cable can go across the roof, or be tucked under the shingles on a gable.



Customer: PALAZZO Salesman: PATRICK Walkable
 Address: 5N 759 AUTUMN CT City: ST CHARLES Non-Walkable
 Re-Pitch Gutters Yes No

Note: Highlight in yellow gutters and down spouts. Highlight in green gutter protection. Trace with red ink path of heating cable through the course of gutter protection, roof valleys, gutters, and downspouts terminating at point of entry into the home. Note the location of circuit breaker box in relationship to exterior of home.

Circuit 1	Footage: 106	Breaker Needed: 30AMP/PO
Circuit 2	Footage: _____	Breaker Needed: _____
Circuit 3	Footage: _____	Breaker Needed: _____
Circuit 4	Footage: _____	Breaker Needed: _____
Circuit 5	Footage: _____	Breaker Needed: _____

Electric Panel Manufacturers Name: _____ #Open slots _____

Naked cables will not be recommended if they have serious squirrel issues.



Create clear measured drawings on **Heater Cap worksheets** showing gutter protection, gutters, down spouts, roof valleys, and drain tiles. Note circuit starts, terminal down spouts, junction box, and where the electric ultimately goes into the home. Good drawings will help to make the installation go smoother and most importantly at the proper lengths. **If the installer has to determine the cable route, he may not come up with the same overall length.**

Customer: GOLDBERG Salesman: TONY HEARD Walkable
 Address: City: Non-Walkable
 Re-Pitch Gutters Yes No

Note: Highlight in yellow gutters and down spouts. Highlight in green gutter protection. Trace with red ink path of heating cable through the course of gutter protection, roof valleys, gutters, and downspouts terminating at point of entry into the home. Note the location of circuit breaker box in relationship in exterior of home.

Circuit 1	Footage: 220	Breaker Needed: 20 AMP SPO 325
Circuit 2	Footage: _____	Breaker Needed: _____
Circuit 3	Footage: _____	Breaker Needed: _____
Circuit 3	Footage: _____	Breaker Needed: _____
Circuit 4	Footage: _____	Breaker Needed: _____
Circuit 5	Footage: _____	Breaker Needed: _____

Electric Panel Manufacturers Name: _____ #Open slots _____

Energy Costs: You don't want to surprise your customers with an excessive electric bill. The formula is below.

$$\frac{(\text{Length of Cable}) \times (\text{Wattage at } 32^{\circ} \text{ F}) \times (\text{Hours used during season})}{1000} \times (\text{cost per kilowatt})$$

Example: 200 Feet x 12W x 2100 (Hours for 3 Months)

$$\frac{200 \times 12 \times 2100}{1000} \times .08 \text{ (Cost per Kilowatt)}$$

Answer: \$403 for season or \$134 per month electrical use.

Heater Cap Corporate Support

- We can you with the first layouts and give you a quote only if we have the complete information:
 - Measured drawing done on **Heater Cap Layout** Worksheet
 - Pictures of all sides of home taken back far enough to see the side of the home in total from the ground up.
 - Location of electric going into home (usually by the electric meter.)