

Cold temperatures and freeze protection

When temperatures are forecast to drop below 30°, precautions are followed to prevent pipes and equipment from freezing. In certain cases, if the temperatures dip too low, management may make the decision to delay opening or close early. In addition, safety precautions need to be followed to prevent injury to team members and our customers. Procedures can vary from site to site depending on the layout of the location and type of equipment used. The purpose of this packet is to provide all team members with some basic knowledge of how to prepare for cold temperatures and freezing conditions.

Plan Ahead

- Train team members on the contents of this packet. Include the following:
 - Proper procedure for lighting pilot lights where applicable
 - Location and use of circuit breakers used to turn on space heaters.
 - Location of hot water bib used for thawing frozen equipment.
 - How to operate the wash during freezing conditions
- Prepare the location following the specific instructions for the site.
- Have a snow plan for those team members who live close.
- Have current phone numbers for all team members.
- Keep an adequate stock of ice melt. Report any low inventory to manager.
- Make sure icy area cones are available and in good condition. Follow the site map for icy area cone placement.

Prepare Yourself

- Pack a “just in case” bag. Include food, water and extra clothing.
- Keep cell phone charged up.
- Leave early for work to allow safe driving during winter conditions.
- Think “SAFETY FIRST”.

Tunnel and Self-Serve Procedures

- Inspect tunnel cloth for ice formation. Thaw with hot water if ice is found. Report any excessive ice forming on cloth to manager or area manager for further direction.
- Inspect any foot traffic areas for ice. If ice buildup is found, treat with ice melt promptly and deploy icy area cones. Use the log sheet to document the event.
- Inspect Self-Serve bays and vacuum areas for ice buildup. Use ice melt if any ice is found, deploy icy area cones and document the event on the log sheet.
- Locations with hydraulic units, run the wash for 15 minutes to warm up the oil prior to processing vehicles.
- Locations with prep service may need to thaw hoses supplying solution to prep pans.
- Pay attention to the TEST WASH. Make sure all water functions are working properly.
- Check exterior hose bibs to be sure they are not frozen. Thaw bibs if found frozen.
- Follow site-specific instructions regarding the closing of vents and windows.
- Follow site-specific instructions of when and where to use portable space heaters. (Where applicable.)

FREEZING DAYTIME TEMPS

When temperatures are forecast to drop below 30°, keeping a watchful eye for ice forming on the lot is very important. If icy areas are found, then the following procedures need to be followed:

- Deploy icy area cones in high traffic areas per your site diagram.
- Spread ice melter, liberally, in high customer foot traffic areas to be sure areas are adequately covered. Scoop and underhand throw the ice melt to avoid clumps or piles and to broadcast it in a wide area.
- Use the De-Icing log to record ice melt usage.
- If site is closed or opens late, please document hours of closure on De-Icing log.

Ice melter and the icy area cones are used together. If the icy area cones are deployed, then we need to have ice melt in use. Conversely, if we spread ice melt, then we need to deploy icy area cones. Shaded areas will continue to freeze any water on the ground, so be mindful of this during cold conditions. Team members should inspect areas where ice melt has been used and reapply as needed. Ice melter loses effectiveness over time and will need to be refreshed. Entries need to be made on the De-icing log whenever ice melt is used.

As an extra precaution to avoid slips and falls, management may keep the vacuum areas and self-serve bays closed off until temperatures are well above freezing even though tunnel car washes have opened. Signs alerting customers that the vacuum area or self-serve area is closed due to cold temperatures need to be deployed.

CAR WASHING IN FREEZING CONDITIONS

Cold temps can affect tunnel equipment. Brushes that are wet can have ice form on the cloth. Late fall into winter, we convert to “hot water washing”. Hydrominder stations mix soaps with hot water during wintertime. Using hot water not only makes cleaning vehicles easier, but it also aids in keeping the interior of the car wash warm by creating a “sauna” type environment. When steadily washing cars, we can keep ice from forming on the cloth. If we are not steadily washing cars, the tunnel cools quickly and ice can form on the ends of the cloth or freeze the pads completely. In this case, we can lower the entrance tunnel door to help trap the heat inside the tunnel, in between cars. For safety reasons, we only close the entrance tunnel door in extreme cold temperatures during business hours. If the temperatures drop too low, management may make the decision to close the car wash and self-serve bays.

Space heaters: How and when to use

During extreme freezing overnight temperatures, precautions are taken to keep the tunnel and backrooms from freezing. Without taking these precautions, water pipes could freeze and burst or tunnel cloth may freeze completely.

To prevent this, tunnels have space heaters installed to help keep the tunnel temperatures above freezing. There are several different space heaters in use in our facilities. The most common is a gas operated, self-lighting ceiling mounted heater. These heaters simply need the team member to flip a circuit breaker to the “ON” position and the heater will do the rest. In some cases, there is a “light switch” that is used in conjunction with a circuit breaker. Check with your manager on the use of the heater at your location. When instructed to turn on space heaters at closing, it is very important to verify the space heater turns on and is blowing warm air.

Other heaters in use at the locations are electric space heaters and gas heaters with no electronic ignition. Older gas heaters have a pilot light that needs to be manually lit should the pilot light go out. On the gas valve, the knob is turned to “pilot” and the knob is pushed in. This pushing of the knob allows gas to the pilot jet. At the same time, a flame is held near the pilot jet to ignite the gas. Once lit, the knob may need to be held in for several seconds. If the pilot stays on after releasing the knob, the valve is then turned from “PILOT” to “ON”. At this point, the heater switch can be flipped to “ON” and the heater will turn on, producing warm air. Please consult with management before attempting to light the pilot. Team members should be fully trained before attempting to manually light a pilot light.

Electric space heaters use a circuit breaker for on/off operation. Once on, the heater begins to produce warm air.

Some locations utilize portable space heaters in the backroom which are directed towards water pipes. Some sites have heat tapes wrapped around piping where it is difficult to circulate warm air. Please check with your manager for site specific heaters that may be in use.

Regardless of the type of tunnel space heater in use at your location, they all have a few things in common:

- All heaters have a wall mounted thermostat. The thermostat is preset and generally requires no user input.
- Space heaters are to be used only when instructed.
- Space heaters are to be used only when BOTH tunnel doors are closed. In general, this would be for overnight use during extremely cold temperatures. When we have delayed openings due to cold weather, both tunnel doors need to remain closed and space heaters need to be kept on. Once the location opens, space heaters are turned off.
- Breakers for tunnel and backroom space heaters should be marked as “FR” on the panels. This will make it easier for a team member to find and it also standardizes the breaker identification from one site to another should team members help at other sites

As a side note, the first time heaters are fired up for the winter season may produce a “burning leaves” type smell. This is normal. Debris from cars coming off in the air dryer area will sometimes get trapped inside of the heater. Once we light the heater, the leaves and pine needles burn off. If the smell does not go away quickly or if it doesn’t smell like burning leaves or pine needles, report it to your manager or area manager.

Common types of tunnel and backroom space heaters

Below are examples of the most common types of heaters in use at our locations.



Ceiling mounted REZNOR brand heater. It operates on natural gas and has electronic ignition. A breaker turns it on/off.



Ceiling mounted REZNOR brand heater. This is a smaller unit used in larger backrooms. It operates on natural gas and has electronic ignition. A breaker turns this unit on/off.



This is a ceiling mounted fully electric heater. Sites using this type of heater usually have two or three in use. A breaker turns this unit on/off.



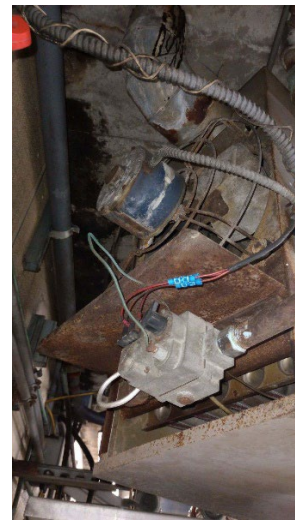
This is a smaller ceiling mounted backroom heater. This style is fully electric. A breaker controls this heater.



This is a typical thermostat used at all locations. The thermostat is preset by service and should not require any user input. Depending on where the thermostat is installed may vary the preset setting.

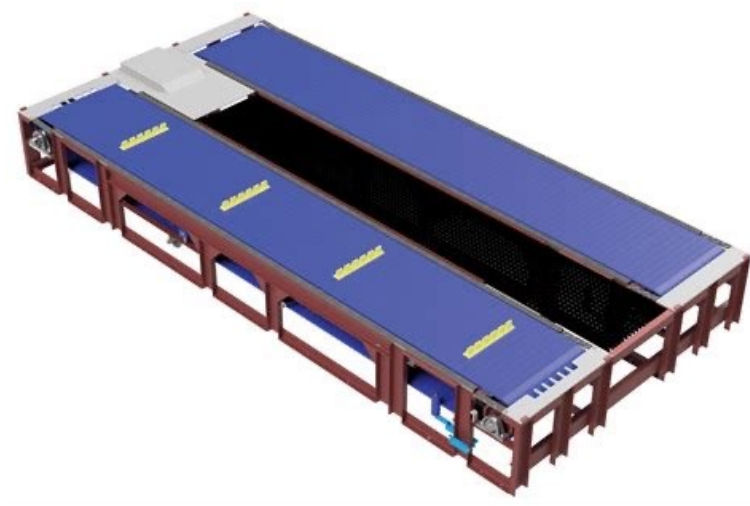


This is a ceiling mounted natural gas heater. This heater has a manual pilot light. Before the heater will work, the pilot must be on or lit. In most cases, the pilot will stay lit, but due to the proximity to the air dryers, sometimes it will go out. Once on, a light switch along with a breaker will control this heater. Proper training is required for lighting the pilot light.



CONVEYOR BELT PRECAUTIONS

-FREEZING CONDITIONS-

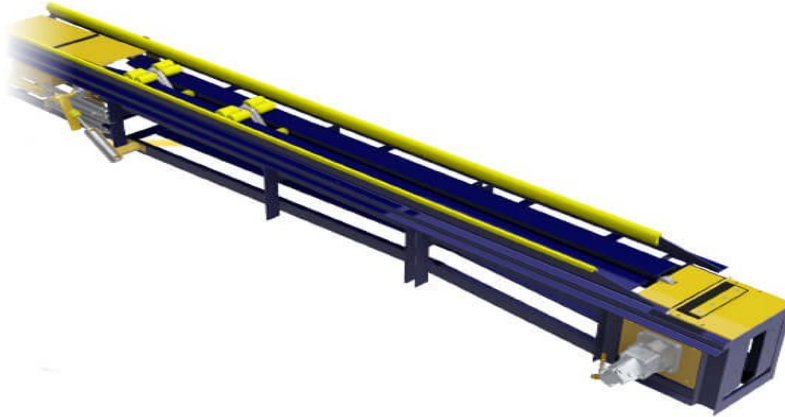


In freezing conditions, locations with conveyor belts need to be aware of the belts freezing overnight. Sections of belt that are outside of the tunnel, entrance end or exit end, are susceptible to freezing. The belt will freeze to the metal glide plates that it travels along. Water that is trapped between these two components freezes during sub-30-degree outside temps. If the team member attempts to start the car wash while the belt is frozen to the glide plates, the belt, belt sprockets or belt pockets can experience damage. Team members need to prepare the belt for overnight. When all rinsing of the car wash is completed, the belt needs to be run for 10 minutes to empty all pockets of water. This procedure is done with the tunnel doors open. Once the doors are closed, a canvas blanket is used to cover the belt section outside of the tunnel doors. A tarp is then placed over the canvas. Exterior side pits are covered with thick mats. This is all held in place with weighted pylons. The canvas and tarp should cover all exposed belt and side pits.

On mornings where the belts are found frozen in place, hot water is used to thaw the area. The hot water flows over the frozen sections and helps to melt the ice that has developed on the underside of the belt, at the hinge points, as well as melting the ice bond between the plastic belt and the glide plates. After saturating the affected area with hot water for at least 15 minutes, the car wash can be started to advance the belt just enough to verify that the belt moves freely. If it does not, turn off the car wash immediately and continue with the hot water treatment. When the belt finally does move freely, allow the belt to advance until the undersection of belt is positioned on the top section to receive the same hot water treatment. Once the belt is thawed, it is important to keep it moving to prevent it from refreezing.

OVER-UNDER CONVEYOR PRECAUTIONS

-FREEZING CONDITIONS-



In extreme freezing conditions, over-under conveyors can experience freezing of moving parts. Many locations have the guide-on area outside of the tunnel. This exposes the rotating take-up drum, chain and other moving parts to extreme cold temperatures. Water can freeze these moving parts in place and prevent the conveyor from moving. If the wash is started and the conveyor fails to move, shut the car wash off immediately. Run hot water over the take-up drum and any surrounding chain that appears to be frozen. After several minutes of flowing hot water over these areas, try starting the car wash to check if the conveyor advances. If not, repeat these steps until the conveyor moves freely. Once the conveyor is moving, allow the car wash to run for 15 minutes to warm up the hydraulic oil.