Maintenance Check List
SPRING

- ☐ Inspect the water supply line and connections for leaks. Also inspect the control valve at the water source to be operable without leaks.
- ☐ Clean the water distribution system, including the pump screen, pump impeller and water distribution tubes. Replace any cracked tubing. Lubricate the pump impeller with SAW 20 motor oil.
- ☐ Inspect electrical wiring and switches for poor connections or worn insulation. Inspect the V-belt for cracks and wear. Replace or repair all worn parts.
- ☐ Adjust motor bolts for proper belt tension. Set the belt tension so that moderate hand pressure will depress the belt about one inch at the center.
- ☐ Install new cooler pads.
- ☐ Reconnect the water line and turn on the water supply. Check the float valve and make sure it is operating properly. If necessary, adjust the float arm by bending it.
- ☐ Switch on the cooler motor and recirculating pump, making sure the cooler pads are being evenly saturated with water. Too little water will cause dry spots and reduce the cooler's efficiency.
- ☐ Look for split seams in the casement, or rusted areas in the tray, which could cause a leak.

120414

Maintenance Check List
WINTER

- ☐ Shut off the water supply and disconnect electricity to the unit.
- ☐ Drain the water line to prevent possible rusting or wintertime freezing. Close the duct dampers.
- ☐ Remove old pads and thoroughly clean pad frames. Vinegar can be used to dissolve buildup and a wire brush to scrape away scale.
- ☐ Paint all surfaces with a cooler protecting coating.
- ☐ Drain and flush the reservoir. Gently scrape away scale and paint with a protective coating.
- ☐ To prevent freezing of the cooler's water line, disconnect the water line from the cooler and blow out the water.
- ☐ Cover your cooler to protect it and to keep cold air out of your house operating properly.

For more detail about EVAPORATIVE COOLERS AND REBATES, go to: www.fresno.gov/water

Resources:
Fresno County by the Consolidated Mosquito Abatement District: www.fresnomosquito.org/
California Energy Commission: www.energy.ca.gov/
H2ouse: www.H2ouse.org

City of Fresno Water Conservation
Call: 621-5480
Email: waterconservation@fresno.gov
Call for Spanish or Hmong translation

City of FRESNO

EVAPORATIVE COOLERS

Window Mounted Portable Re-circulating

Operation, Maintenance and Water-Saving Tips

For $ REBATES

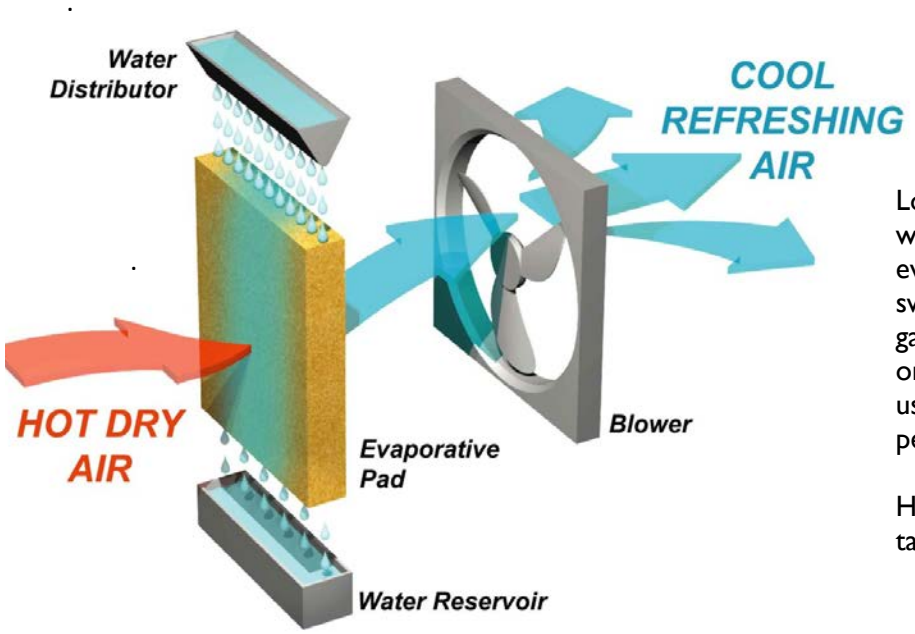
Call 621-5480 for details

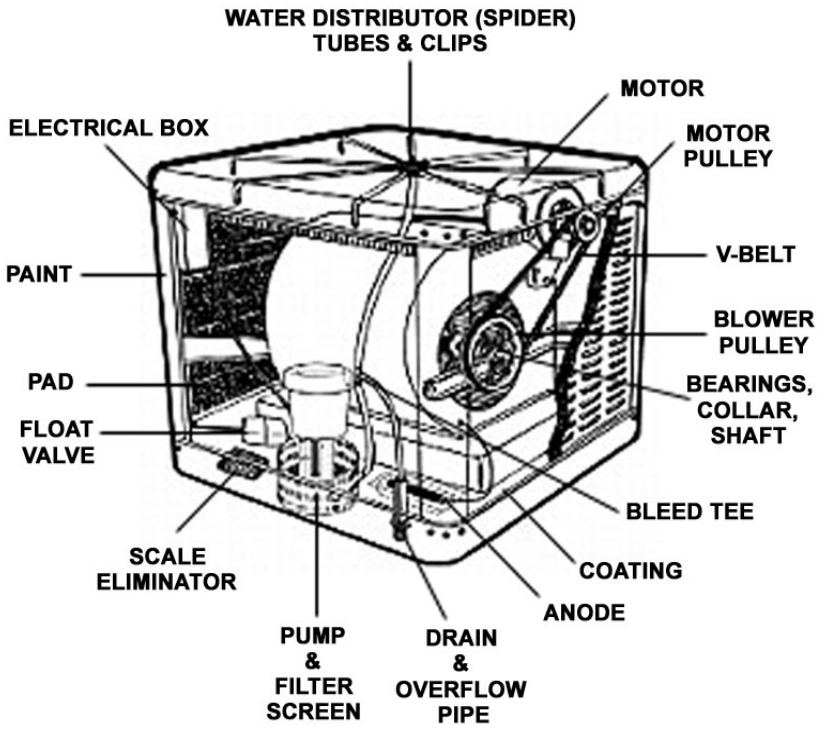
HOW EVAPORATIVE COOLING WORKS

Evaporative coolers, also known as *swamp coolers*, work by pulling in the exterior air over moist filter pads and circulating it into the home. The coolers perform best during hot dry times. While simple in design, they must be properly maintained and correctly operated to prevent excessive water usage and overflow causing potential damage to your home. Coolers should be inspected at least twice annually to ensure they are in proper working order.

Most evaporative coolers consist of the following components:

Blower fan – This high volume fan circulates the outside air through the pad and into the home.
Motor – Power source for turning the fan.
V-belt – Attached to the motor to turn the fan by the motor and blower pulleys.
Water trough – This is the reservoir at the bottom where the water collects. Water is drawn from this reservoir by the pump.
Float valve – This float valve refills the water trough and shuts it off when it gets to the proper level. This adjustment is similar to that of the toilet flush valve.
Pump – The pump pulls water from the trough in the bottom and pumps it to the top of the pads where it distributes it through a drip, spray bar or nozzles for moistening.
Pads – The pads get moistened from the pump discharging water onto the top. As the water soaks down, it moistens the entire pad. Cooler pads come in many different shapes, sizes and types for various brands of evaporative coolers.





STEPS TO REDUCE COOLER WATER USE

Look for water leaks in your cooler. Since water is continually lost through evaporation, under normal conditions, a swamp cooler can use between 3 to 15 gallons of water a day. If there is an ongoing water leak, the additional water usage could be up to 500 gallons of water per day for as long as the unit is running.

Here are some additional steps you can take to help you save water:

- Install a thermostat and timer on your cooler so it only operates when necessary.
- Use a two-speed blow motor. Operating at low-speed uses less water and is more energy efficient.
- Inspect your cooler monthly and perform maintenance as necessary to be sure that your cooler is operating efficiently.
- Turn on the water pump a few minutes before turning on the fan. This saturates the pads first, making your cooler more efficient.
- On cool evenings, you can operate your cooler fan without the water pump. The fan will bring cool air into your house without using any water.
- Use alternative methods of cooling, including ceiling fans, oscillating fans or an air conditioner if you have one. (*Do not pre-cool air using an evaporative cooler before turning on an air conditioner. This causes the air conditioner to use more energy).*