

TECH TIP # 7



One of a series of dealer contractor technical advisories prepared by HARDI wholesalers as a customer service.

AFTER THE SALE INSTRUCTIONS

When a dealer or contractor sells a central air conditioning system, he should take the time to familiarize the owner with details on the operating characteristics and general maintenance requirements of the equipment. The following are a few suggestions on what to tell and do for the new owner.

- Provide Start-up and Check-out

After the system has been installed, a qualified person who is familiar with the operation of the system should place the equipment under all modes of operation to insure that it is functioning correctly. The owner should be shown the location of the fuse or disconnect switch and the thermostat, be instructed in how to start, operate and stop units and adjust temperature settings. The manufacturer's installation and operating instructions should then be **delivered** to the owner and **reviewed** with them.

All related component installation and service instructions could be placed in an attractive binder with your company's logo, name, address and phone number placed on the cover. A brief letter of welcome in the case of a new building purchase, reference to your guarantee or other similar introductory statement on quality of materials, workmanship, etc., -- or some of the recommendations made in this Tech Tip -- could be included.

- Explain How to Get Best Performance

The owner should be told that, unlike a heating system, excess capacity is not usually provided in residential and light commercial cooling systems, in order to keep equipment size -- and initial cost -- at a minimum. Such accurate sizing also insures more frequent operation cycles to help maintain better humidity control at partial load conditions. However, with little or no reserve capacity, owner operating habits can influence the cooling system performance considerably.

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www.hardinet.org

Starting and stopping times are critical. Walls, roofs and furnishings store heat from early morning solar heat gains and release this heat at a later hour -- possibly when outdoor temperatures are the highest. This storage effect, coupled with the close sizing of a system's cooling capacity to the calculated heat gain, dictates that the air conditioner must be in operation prior to the peak heat gain in order to keep pace with the increasing load and for some time afterwards.

Most manufacturers recommend 24 hour operation; nonetheless, many owners prefer to shut off the equipment in late evening hours to avail themselves of any cool night air for comfort. Under these conditions, however, the cooling equipment must be started very early the next day, even before outdoor temperatures become uncomfortable, in anticipation of the peak heat gain to occur in the later hours of the day.

Owner should be instructed that outdoor equipment can be covered in the winter, and painted surfaces can be waxed for protection in a manner similar to an automobiles exterior finish. Coils can be washed with a garden hose by directing a fine water stream from the inside to the outside of the unit, but care must be taken to avoid bending the fins on the condenser coil and electric power must be **OFF** during cleaning. Also point out that shrubs or plants should not be placed near the intake or discharge ends of the unit.

Filters should be inspected every 10 days, and where the owner is expected to maintain the filters, he should also receive instructions on their inspection and changing. Sizes and ordering instructions should also be given. For lubrication, point out manufacturer recommendations in the manuals provided by each company and left in the owners hands. Be sure to explain equipment and labor guarantees.

As with all automatic and mechanical devices, central air conditioning requires periodic servicing by competent personnel. **Service contracts** should be offered to the owner. Point out that regular maintenance inspections will produce longer equipment life and reduce the frequency of emergency service calls -- all of which results in lower owning and operating costs.

- **Caution Against Unnecessary and Costly Service Calls**

Whether or not a service contract is written, or if the equipment is under warranty, the owner should obtain the dealer's name and service department telephone number. A copy should also be permanently placed on the unit.

To avoid unnecessary calls and extensive interruption in cooling operation, it is often convenient to provide a checklist in case of a cooling failure. Things to do **before** calling the service personnel might include: check for blown fuses or open circuit breakers, dirty filters, broken fan belt, check reset button, dampers that are open, check to see if thermostat is set too high, etc. Both the owner and the contractor benefit from such a simple check-out routine.