

## OPTION CHECKLIST NO. 5: AIR CONDITIONING & REFRIGERATION

<ul style="list-style-type: none"> <li>• AC doesn't get overloaded; check the fuse or circuit breaker if it doesn't operate.</li> </ul>
<ul style="list-style-type: none"> <li>• Replace or clean the filter and clean the evaporator and condenser coils regularly, for the air conditioner to cool efficiently.</li> </ul>
<ul style="list-style-type: none"> <li>• Get the thermostat cleaned regularly and replace it if necessary.</li> </ul>
<ul style="list-style-type: none"> <li>• If compressor doesn't work properly, call a service person immediately.</li> </ul>
<ul style="list-style-type: none"> <li>• Any noise that your AC makes, needs to be checked by your mechanic.</li> </ul>
<ul style="list-style-type: none"> <li>• A good air filter will extend the life of your air conditioner because the important parts, like the blower assembly, the cooling coil, and other inner parts will stay cleaner, operate more efficiently and last longer.</li> </ul>
<ul style="list-style-type: none"> <li>• Avoid frequent opening of doors/windows. A door kept open can result in doubling the power consumption of your AC.</li> </ul>
<ul style="list-style-type: none"> <li>• Ensure direct sunlight (and heat) do not enter the air-conditioned space, particularly in the afternoons.</li> </ul>
<ul style="list-style-type: none"> <li>• Most people believe that a thermostat set to a lower temperature than desired will force your air-conditioner to cool faster, not really, all it does, is make your air-conditioner operate for longer. Moreover, you will have an unnecessarily chilly room and wasted power. Every degree lower on the temperature setting results in an extra 3-4% of power consumed. Hence, once you've found yourself a comfortable temperature and set the thermostat at that level, avoid touching the thermostat thereafter.</li> </ul>
<ul style="list-style-type: none"> <li>• Once an air-conditioning system has been designed and installed avoid any major change in the heat-load on the AC. This will add to wasted power.</li> </ul>
<ul style="list-style-type: none"> <li>• A clogged drain line is usually caused by algae (the green moss-like stuff!) build-up inside the drain line. The air handler provides a cool, damp environment for development of molds and mildew and if left untreated these growths can spread into your ductwork. Get rid of these molds by using a disinfectant (consult your dealer). Make sure that the face of the cooling or evaporator coil is clean so that air can pass through freely.</li> </ul>
<ul style="list-style-type: none"> <li>• If you have an air return duct in a hot area such as an attic or garage, make sure that this duct is not broken, split, or disconnected and sucking in hot air.</li> </ul>
<ul style="list-style-type: none"> <li>• Window unit should tilt down slightly on the outside. The part that removes humidity [where water accumulates] is the front coil, which is inside your home. Normally, there is a trough and/or a drain tube that lets the water run to the rear of the unit. If the drain gets clogged, water will back up and leak inside. Ask your mechanic to clean the chassis and make sure all screws are tight.</li> </ul>
<ul style="list-style-type: none"> <li>• Heat Load can be reduced by keeping a false ceiling, like in hotels and clubs etc, helps in keeping the heat out, Providing curtains/ blinds /sun film on windows reduces heat input into the room, Insulating the ceiling, which is exposed to the sun with 50-mm thermocole drastically, reduces heat input into the room.</li> </ul>
<ul style="list-style-type: none"> <li>• Check for duct leaks and crushed ductwork. All air leaks should be sealed with a good quality duct sealant (not duct tape).</li> </ul>

<ul style="list-style-type: none"><li>• Inspect the chiller as recommended by the chiller manufacturer. Typically, this should be done at least quarterly.</li></ul>
<ul style="list-style-type: none"><li>• Routinely inspect for refrigerant leaks.</li></ul>
<ul style="list-style-type: none"><li>• Check compressor operating pressures.</li></ul>
<ul style="list-style-type: none"><li>• Check all oil levels and pressures.</li></ul>
<ul style="list-style-type: none"><li>• Examine all motor voltages and amps.</li></ul>
<ul style="list-style-type: none"><li>• Check all electrical starters, contactors, and relays.</li></ul>
<ul style="list-style-type: none"><li>• Check all hot gas and unloader operations.</li></ul>
<ul style="list-style-type: none"><li>• Use superheat and subcooling temperature readings to obtain a chiller's maximum efficiency.</li></ul>
<ul style="list-style-type: none"><li>• Take discharge line temperature readings.</li></ul>

方案列表5: 空调和制冷

<ul style="list-style-type: none"> <li>• 空调器不会过载，如果它不运转，检查熔断器或者电路断路器。</li> </ul>
<ul style="list-style-type: none"> <li>• 为了保证空调有效制冷，定期更换或清理过滤网，清洗蒸发器和冷凝器盘管。</li> </ul>
<ul style="list-style-type: none"> <li>• 定期清洗自动调温装置，如有必要，则对其进行更换。</li> </ul>
<ul style="list-style-type: none"> <li>• 如果压缩机工作不正常，马上联系售后服务人员。</li> </ul>
<ul style="list-style-type: none"> <li>• 空调器发出的任何异响，都要请机械师进行检查。</li> </ul>
<ul style="list-style-type: none"> <li>• 一个好的空气过滤器能够延长空调器的寿命，因为它能使压缩机、冷却管等重要的内部部件保持清洁，运行效率更高，使用寿命更长。</li> </ul>
<ul style="list-style-type: none"> <li>• 不要频繁打开门窗。开着门会导致空调器的能耗翻倍。</li> </ul>
<ul style="list-style-type: none"> <li>• 确保有空调的区域不受阳光直射，特别是在下午。</li> </ul>
<ul style="list-style-type: none"> <li>• 大多数人认为将自动调温器温度设置低一点可以使空调整冷更快，其实不然，这样做只会使空调运行的时间更长一点。此外，您的房间温度还会不必要地低，造成能源的浪费。温度每设低一度，就会多消耗3-4%的电能。因此，只要房间的温度设置让您觉得很舒适，那您就不要再动调温器了。</li> </ul>
<ul style="list-style-type: none"> <li>• 空调系统设计和安装完毕后，要避免热负荷发生大的变化，否则会造成能源浪费。</li> </ul>
<ul style="list-style-type: none"> <li>• 排水管路堵塞通常是由于管路内藻类植物（就是那种绿色的苔藓一样的东西！）滋生造成的。空调器为植物霉菌滋生提供了一个凉爽、湿润的环境，如果不加以处理，它们就会延伸到风道中。可以用一种消毒剂除掉这些霉菌（请咨询经销商）。要保持蒸发器和冷却管路表面清洁，以确保空气能够自由通过。</li> </ul>
<ul style="list-style-type: none"> <li>• 如果在阁楼、车库等温度较高的地方有回气管，要确保管道没有破损、裂开或断开，以免吸入热空气。</li> </ul>
<ul style="list-style-type: none"> <li>• 窗式空调应该稍微向外倾斜。除湿的部分（水凝结的地方）是前端冷却管，位于室内。通常，窗式空调都有一个连通管和/或排水管将水引向空调后部。如果排水管堵塞，水就会回流、渗进室内。请让机械师清理一下机架，确保所有的螺丝都已拧紧。</li> </ul>
<ul style="list-style-type: none"> <li>• 可以做一个假平顶，就像饭店和俱乐部的那样，这样能够帮助隔热，降低热负荷。在窗户上挂上窗帘或百叶帘或遮阳膜，给天花板安装50mm厚的防晒隔热层，能够减少进入室内的热量。</li> </ul>
<ul style="list-style-type: none"> <li>• 检查管道泄漏和已彻底破损的管道。所有的空气泄漏点都要用质量好的管道密封剂（而不是管道胶带）密封。</li> </ul>
<ul style="list-style-type: none"> <li>• 根据制造商的建议，检查冷却器。通常应该每季度检查一次。</li> </ul>
<ul style="list-style-type: none"> <li>• 定期检查制冷剂泄漏。</li> </ul>
<ul style="list-style-type: none"> <li>• 检查压缩机工作压力。</li> </ul>
<ul style="list-style-type: none"> <li>• 检查所有的油位和油压。</li> </ul>
<ul style="list-style-type: none"> <li>• 检查所有电机的电压和电流。</li> </ul>
<ul style="list-style-type: none"> <li>• 检查所有电流启动器、接触器和继电器。</li> </ul>

• 检查所有热气和减荷器工作状况。
• 利用过热和低温冷却温度读数获取冷却器最大效率。
• 获取排水管道温度读数。