



## **WORRY FREE SERVICE PLAN - FURNACES**

Annual Tune-ups are very important, as your furnace starts and stops approximately **25,000 times per year**. It is equally important that an extensive safety inspection be completed annually. Tune-ups reduce the number of emergency call by revealing problems that can be corrected inexpensively before causing major repair bills. **Tune-ups reduce fuel consumption** by keeping the equipment running at peak efficiency. **You will have lower energy bills, more comfort, and your systems will last much longer.**

### **The Worry Free Service Plan includes:**

1. **Check all Air Filters** – A dirty air filter in your air conditioning can reduce the airflow over the evaporator coil resulting in inadequate cooling of your home and high energy bills. A dirty air filter in your heating system can reduce heating efficiency, increase costly energy usage, and affect the reliability of the equipment.
2. **Check and Recalibrate Thermostat** - An improperly calibrated thermostat will call more or less heating and cooling than desired, costing you both money and comfort.
3. **Check Heat Anticipator** – Located in the thermostat, it insures that the furnace will supply the heat when necessary.
4. **Check Batteries in Thermostat (programmable)** – change if required. Weak batteries can cause the thermostat to malfunction and loose its program. Most programmable thermostats require annual battery replacement.
5. **Check and Adjust Air Flow for Proper Temperature Rise** – By checking the actual degrees of temperature rise throughout your system, our technician can pinpoint whether or not your system is actually heating your home properly.
6. **Check Amperage on Blower Motor** – Improper voltage and amperage can significantly reduce the life of the blower, and ventor motors.
7. **Check Amperage draw on Ventor Motor** – Improper voltage and amperage can significantly reduce the life of the blower, and ventor motors.
8. **Check Blower Wheel and its Components** – Proper adjustment and cleanliness of the blower and its components are necessary for adequate airflow. This saves you money on fuel, increases your comfort, and extends the life of your system.
9. **Check and Clean Condensate Drain** – A clogged condensate drain can cause severe water damage to the furnace as well as affect indoor humidity levels and cause intermittent furnace operation.
10. **Check Burner Operation** – To insure smooth ignition, the pilot light and burners are observed and cleaned to insure proper burning.

11. **Check Heat Exchanger** – To assure proper fuel combustion and avoid the possibility of creating carbon monoxide in the house.
12. **Check High Limit Control** – The high limit control is an important safety temperature control, which shuts the furnace off in the event that the fan motor should fail or insufficient air is delivered through the furnace.
13. **Check Fan Control** – To assure the fan comes on and goes off at predetermined temperatures in order to deliver the proper temperature of air into the house. This is an important factor in the level of comfort within the home.
14. **Check Flue** – Necessary to assure proper fuel draft and also to prevent flue obstructions.
15. **Check Manifold Gas Pressure** – Proper pressure is required to control fuel input to the furnace burners.
16. **Check Incoming Gas Pressure Drop** – insures proper gas pressure to furnace to prevent intermittent furnace operation, sooting and gas meter and regulator problems and efficiency losses.
17. **Check Starting Capabilities** – Assures system will start and operate when needed, saving you money on utility costs and extending the life of your system.
18. **Check All Safety Controls** – Essential for proper protection of your systems. Assures safety of the unit and you.
19. **Check All Electrical Connections** – Loose connections cause improper voltage to various components, making them either inoperative or causing eventual failures. This extends the life of the system and assures your safety.
20. **Lubricate All Moving Parts Where Necessary** – Poor lubrication causes drag in the motor and drive shaft, thereby requiring more electricity to overcome resistance. A lack of lubrication can ruin the bearings and burn out the motor.
21. **Carbon Monoxide Test** – It is important to know that your system is safe; any amount of carbon monoxide can become fatal.
22. **Disinfect and Deodorize the furnace** – This will help stop the growth of germs and bacteria.
23. **Check Flame Sensor** – If the flame sensor doesn't produce the proper signal, the furnace can experience intermittent start-up and shut down.
24. **Check Thermocouple** - If the thermocouple doesn't produce the proper signal, the furnace can experience intermittent start-up and shut down
25. **Check Humidifier Operation & Filter** – insures proper humidity levels are attained in home to control bacteria and mold growth and comfort levels.
26. **Check Electronic Air Cleaner Operation** - it is recommended that they are cleaned once per month to ensure a properly working system for air filtration, dust, pollen, bacteria, etc.
27. **Check Condensate Pump Operation & Condition** – this ensures proper furnace operation (possible furnace stoppage due to non-operating pump) and prevents basement flooding problems.
28. **Check Other Accessories, eg., UV Light** are working to manufacturer's specifications.
29. **Check Igniter Resistance** - Should the resistance become weak, the igniter will fail eventually – Replacement can be done immediately, eliminating furnace failure
30. **Check Polarity and Ground to Furnace** – Improper polarity or ground can cause the furnace to experience intermittent shut down and start up.

# **WORRY FREE SERVICE PLAN**

## **AIR CONDITIONERS**

Annual Tune-ups are very important, as your air-conditioner starts and stops approximately **25,000 times per year**. It is equally important that an extensive safety inspection be completed annually. Tune-ups reduce the number of emergency call by revealing problems that can be corrected inexpensively before causing major repair bills. **Tune-ups reduce fuel consumption** by keeping the equipment running at peak efficiency. **You will have lower energy bills, more comfort, and your systems will last much longer.**

### **The Worry Free Service Plan includes:**

1. **Check all Air Filters** – A dirty air filter in your air conditioning can reduce the airflow over the evaporator coil resulting in inadequate cooling of your home and high energy bills. A dirty air filter in your heating system can reduce heating efficiency, increase costly energy usage, and affect the reliability of the equipment.
2. **Check and Recalibrate Thermostat** - An improperly calibrated thermostat will call more or less heating and cooling than desired, costing you both money and comfort.
3. **Check Heat Anticipator** – Located in the thermostat, it insures that the furnace will supply the heat when necessary.
4. **Check Batteries in Thermostat (programmable)** – change if required. Weak batteries can cause the thermostat to malfunction and loose its program. Most programmable thermostats require annual battery replacement.
5. **Check and Adjust Air Flow for Proper Temperature Drop** – By checking the actual degrees of temperature rise throughout your system, our technician can pinpoint whether or not your system is actually cooling your home properly.
6. **Check Amperage on Blower Motor** – Improper voltage and amperage can significantly reduce the life of the blower, and ventor motors.
7. **Close Humidifier By-Pass** – Closing this damper ensures complete air flow across evaporator coil. No efficiency losses due to air-flow by-passing cooling coil.
8. **Check Blower Wheel and its Components** – Proper adjustment and cleanliness of the blower and its components are necessary for adequate airflow. This saves you money on fuel, increases your comfort, and extends the life of your system.
9. **Check and Clean Condensate Drain** – A clogged condensate drain can cause severe water damage to the furnace as well as affect indoor humidity levels and cause intermittent furnace operation.
10. **Visual Inspection of Refrigerant Tubing & Insulation** – checking for indication of leaks or damage or pinched tubing accounting for losses in efficiency or refrigerant leaks.
11. **Check for air leakage in plenum** – Excess air leakage around plenum results in efficiency losses due to air loss.
12. **Adjust Plenum Dampers if Necessary** – Ensures proper air distribution to areas throughout the home for better comfort levels.

13. **Check Fuse/Breaker and Mark Panel if Required** – Ensures proper sizing of breaker for system and for safety concerns.
14. **Check Starting Capabilities** – Assures system will start and operate when needed, saving you money on utility costs and extending the life of your system.
15. **Check All Electrical Connections** – Loose connections cause improper voltage to various components, making them either inoperative or causing eventual failures. This extends the life of the system and assures your safety.
16. **Lubricate All Moving Parts Where Necessary** – Poor lubrication causes drag in the motor and drive shaft, thereby requiring more electricity to overcome resistance. A lack of lubrication can ruin the bearings and burn out the motor.
17. **Disinfect and Deodorize the furnace** – This will help stop the growth of germs and bacteria.
18. **Check Electronic Air Cleaner Operation** - it is recommended that they are cleaned once per month to ensure a properly working system for air filtration, dust, pollen, bacteria, etc
19. **Check Condensate Pump Operation & Condition** – this ensures proper furnace operation (possible furnace stoppage due to non-operating pump) and prevents basement flooding problems.
20. **Check Outdoor Unit is Level** – This ensures proper oil levels in compressor for added compressor life and durability.
21. **Ensure Proper Clearance Around Outdoor Unit** – Proper airflow around unit ensures maximum efficiency of unit.
22. **Clean Unit of Dirt & Debris** – Proper airflow through unit keeps efficiency high and ensures against overheating and compressor failure.
23. **Check Fan Blade For Cracks & Fatigue** – Possible failure of blade damages unit and/or personal injury.
24. **Check Condenser Fan Motor Bearings** – Noisy or rusted bearings cause over-amping of motor and eventual failure of motor.
25. **Test Run Unit and Check for Unusual Noises** – Preventative checks for possible failure of unit.
26. **Check Compressor Current Draw** – High current draw results in dramatic efficiency losses.
27. **Check Units Contactor** – Bad or worn contactors will result in unit failure and efficiency losses.
28. **Sub-Cooling Temperature** – This reading records proper refrigerant levels in unit for efficiency losses and overheating of unit.
29. **Superheat Temperature** – This reading is an indication of efficiency and evaporator performance.
30. **Wet Bulb Temperature** – This reading is for humidity levels in the home – helps to determine efficiency, testing of unit and comfort levels.
31. **Low & High-side Pressures** – records actual pressures inside system – helps to measure efficiencies.
32. **Condenser Fan Current Draw** – High current draw could mean future motor failure and efficiency loss.
33. **Outside Ambient Temperature** – Used in calculation efficiency and compressor head pressure