**This Prefunctional Checklist should be completed as part of startup and initial checkout of the equipment in preparation for Functional Performance testing.**

|  |  |
| --- | --- |
| PC: | **23 81 26** |
| **ITEM:** | **Split System Air Conditioners** |
| **ID:** |  |
| **AREA SERVED:** |  |

Form Filled Out By:

|  |  |  |
| --- | --- | --- |
|  | Name & Company | Date |
| GC |  |  |
| MC |  |  |
| EC |  |  |
| BC |  |  |
| CC |  |  |
| OR |  |  |
| A/E |  |  |
| CA |  |  |

GC = General Contractor; MC = Mechanical Contractor; EC = Electrical Contractor; RMCS = Refrigerant Management Control System Contractor, OR = Owner Representative; A/E = Architect/Engineer; CA = Commissioning Agent

XX = No Initials Required

# DOCUMENTATION VERIFICATION

Check if OK. Enter note number if deficient.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | **GC** | **MC** | **EC** | **RMCS** | **OR** | **A/E** | **CA** |
| Product information submitted |  |  |  |  |  |  |  |
| Shop drawings submitted |  |  |  |  |  |  |  |
| Manufacturer’s installation instructions submitted |  |  |  |  |  |  |  |

# MODEL VERIFICATION

Fill in requested information.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Specified | **Submitted**  | **Installed** |
| Manufacturer |  |  |  |
| Model Number |  |  |  |
| Mark No |  |  |  |
| Design CFM |  |  |  |
| Volts |  |  |  |
| Amps |  |  |  |
| MAX FUSE AMPS (MFA) OR CIRCUIT BREAKER SIZE |  |  |  |
| Refrigerant Type |  |  |  |

# INSTALLATION VERIFICATION

This checklist does not take the place of the manufacturer’s recommended checkout and startup procedures or report**.**

Check if OK. Enter Outstanding Item Note number if deficient.

| **No** | **Checks** | **GC** | **MC** | **EC** | **RMCS** | **OR** | **A/E** | **CA** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | casing is in good condition: no dents, scratches, etc |  |  |  |  |  |  |  |
| 2 | Unit is securely mounted. Use suspension bolts, anchors, etc to make sure the unit is well supported. (*Units shall be supported from structure NOT lay in ceilings*) |  |  |  |  |  |  |  |
| 3 | Maintenance access acceptable for unit and components. adequate access is present for routine maintenance ( motor, fan and filter replacement) |  |  |  |  |  |  |  |
| 4 | **Make sure the Unit is mounted level at all four corners.** (*do not install the unit tilted. The indoor unit is equipped with a built-in drain pump and float switch. If the unit is installed tilted against condensate flow, the float switch may malfunction and cause water to drip)* |  |  |  |  |  |  |  |
| 5 | **Verify that flux is not used when brazing refrigerant piping. Use the phosphor copper brazing filter metal (BCuP) which does not require flux.** (*Flux has an extremely negative effect on refrigerant piping systems. Chlorine based flux will cause pipe corrosion and flux that contains fluorine will damage refrigerant oil)* |  |  |  |  |  |  |  |
| 6 | Use copper alloy seamless pipes (ISO 1337) for refrigerant piping work. |  |  |  |  |  |  |  |
| 7 | Verify the flare shape and dimension is correct for the size piping being used. Refer to table in IOM if unsure. |  |  |  |  |  |  |  |
| 8 | Fittings should be flared and tighten using a torque wrench and spanner tool. |  |  |  |  |  |  |  |
| 9 | Be sure nitrogen is used while brazing fittings and refrigerant piping. Nitrogen pressure should be 2.9 psi while inserting nitrogen into the piping. |  |  |  |  |  |  |  |
| 10 | Check for leaks at all brazed connection and at all service valves. Verify there are no leaks. |  |  |  |  |  |  |  |
| 11 | Insulate and tape - piping all the way to the piping inside the unit. Make sure there is no exposed piping. *(Exposed piping could produce condensation or cause burns if touched.)* |  |  |  |  |  |  |  |
| 12 | Condensate from indoor unit is properly drained and vented |  |  |  |  |  |  |  |
| 13 | Drain Piping - Keep piping as short as possible and slope it downwards so that air cannot get trapped inside the pipe. |  |  |  |  |  |  |  |
| 14 | Drain Piping - Make sure drain hose inside the building is insulated |  |  |  |  |  |  |  |
| 15 | Does the power supply voltage correspond to that shown on the name plate? |  |  |  |  |  |  |  |
| 16 | Make sure only copper wire is used with ring-type crimp style terminals |  |  |  |  |  |  |  |
| 17 | Verify a circuit breaker capable of shutting down power supply to the entire system is installed. |  |  |  |  |  |  |  |
| 18 | Make sure unit is properly grounded |  |  |  |  |  |  |  |
| 19 | Verify the power supply wiring of each unit is equipped with a switch and a fuse  |  |  |  |  |  |  |  |
| 20 | Make sure the **remote controller wiring** and **transmission wiring** between units and other electrical wiring do no pass through the same location outside the unit. Separate these wirings by **at least 5.0 inches** otherwise electrical noise could cause incorrect operations or damage |  |  |  |  |  |  |  |
| 21 | Field Settings have been entered for unit. Mode Number, First Field Code Number, and Second Code Numbers have all been programmed? |  |  |  |  |  |  |  |
| 22 | Thermostat is installed out of direct sunlight |  |  |  |  |  |  |  |

# OUTSTANDING ITEMS

Note outstanding items in table below. Use numbers referenced above.

|  |  |  |
| --- | --- | --- |
| Resolved(Initial / Date) | **Note** | Description |
|  | **1.** |  |
|  | **2.** |  |
|  | **3.** |  |
|  | **4.** |  |
|  | **5.** |  |
|  | **6.** |  |
|  | **7.** |  |
|  | **8.** |  |
|  | **9.** |  |
|  | **10.** |  |

# FIELD NOTES

Fill in as appropriate.

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

# SIGN OFF

System / Equipment has been installed in accordance with the Contract Documents and is ready for Functional Testing.

|  |  |  |
| --- | --- | --- |
|  | **Signature** | **Date** |
| **Contractor’s Representative** |  |  |
| **A /E Representative** |  |  |
| **Commissioning Agent** |  |  |
| **Owner’s Representative** |  |  |

##### END OF CHECKLIST