

Refrigerant Charging Instructions

Suitable refrigerant Type:R407C

(Application:All Electric Bus air conditioner)



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STEP ONE : Prepare necessary tools, make sure all materials and tools are prepared.

Material: R407C refrigerant. Tools: Platform scale 1 set, Manifold pressure meter 1 group, Vacuum pump 1 set.

STEP TWO : Vacuumize the whole system:

2.1: Connect the yellow soft hose of manifold to the vacuum pump, and connect the blue (low pressure) soft hose to Low pressure hose repairing valve or Low pressure repair valve on the compressor (Mark: S or SUC), then connect the red (high pressure) soft hose to high pressure hose repairing valve or High pressure repair valve on the compressor (Mark: D or DIS), Make sure all parts are well connected, turn on the manifold manual valve (both high and low pressure), and activate the vacuum pump;

2.2: Vacuum till negative pressure value on the low pressure meter reaches 99.8Kpa(The pointer on the pressure gauge indicates - 1), and keep at least 30 minutes;

2.3: Turn-off the high and low pressure manual valve, and the gauge needle at the low pressure side does not rise after 5-8 minutes;

2.4: If meet the 2.3 request, turn-off the high and low pressure manual valve first, and then fill the system with refrigerant after closing the vacuum pump. Then Charging Follow step 3

2.5: If the gauge needle rises obviously, a small amount of refrigerant can be injected from the low pressure end. When the pressure reaches 49KPa, soapy water and electronic leak detector shall be used to jointly check the leakage point and eliminate the leakage point;

2.6: If it is necessary to re-vacuum: The vacuum pumping time shall not be less than 60min, because the flow and evaporation of water require a certain time. At the end of vacuum pumping, close the high and low pressure manual valves first, and then close the vacuum pump. Charge refrigerant according to step 3

Remark :

Vacuum till negative pressure value on the low pressure meter reaches 99.8Kpa(The pointer on the pressure gauge indicates - 1), and keep at least 30 minutes;

SETP THREE : Charging refrigerant:

3.1 Before charging, confirm the refrigerant to be used is R407C

3.2 Remove the yellow hose of the pressure gauge from the vacuum pump and connect it to the refrigerant cylinder interface upside down on the scale. Confirm that the nozzle is tightly connected;

3.3 Unscrew the cylinder valve, unscrew the yellow hose nut of the pressure gauge until the refrigerant gas leaks out for about (3-5) seconds, and then tighten the nut;

3.4 Unscrew the high pressure manual valve of the pressure gauge, add liquid refrigerant into the system, close the high pressure manual valve and the refrigerant cylinder valve until the specified charging amount is reached.

3.5 When filling liquid refrigerant, do not unscrew the low pressure manual valve (to prevent liquid hammer); Do not start the air conditioner to prevent the refrigerant from pouring back into the cylinder.

Note: If the charging amount not be filled (record the difference), for refrigerant R407C, can't be fill the system with gaseous refrigerant, only allowed replenishes liquid refrigerant as per step 3.6;

3.6 R407C replenishes liquid refrigerant (upside down):

3.6.1 Open the high-pressure manual valve and charge from the high-pressure side. (If the high pressure side cannot reach the specified filling amount, please refer to 3.6.2);

3.6.2 Close the high-pressure manual valve, start the air conditioner, and then slightly open the low-pressure manual valve to allow the refrigerant to be slowly sucked into the system, so that the suction flow is maintained at $\leq 50\text{g/min}$. After the specified amount is reached, close the low-pressure manual valve, complete the refrigerant filling, and close the air conditioner.

REMARK:

1. The refrigerant is consistent with the nameplate of air conditioner and compressor.

2. Confirm that the gas in the refrigerant pipe is completely discharged before charging.

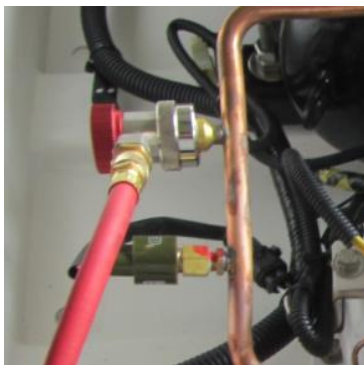
Photos Reference :



1. Yellow hose to vacuum pump



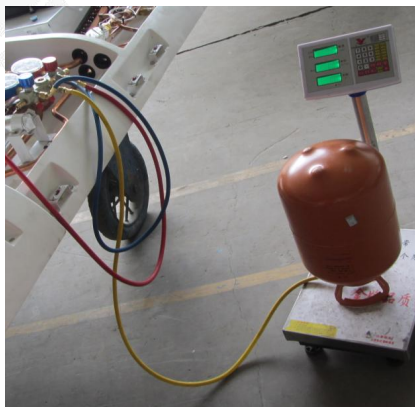
2. LP blue hose to LP valve



3. HP red hose to HP valve



4. Indicates - 1



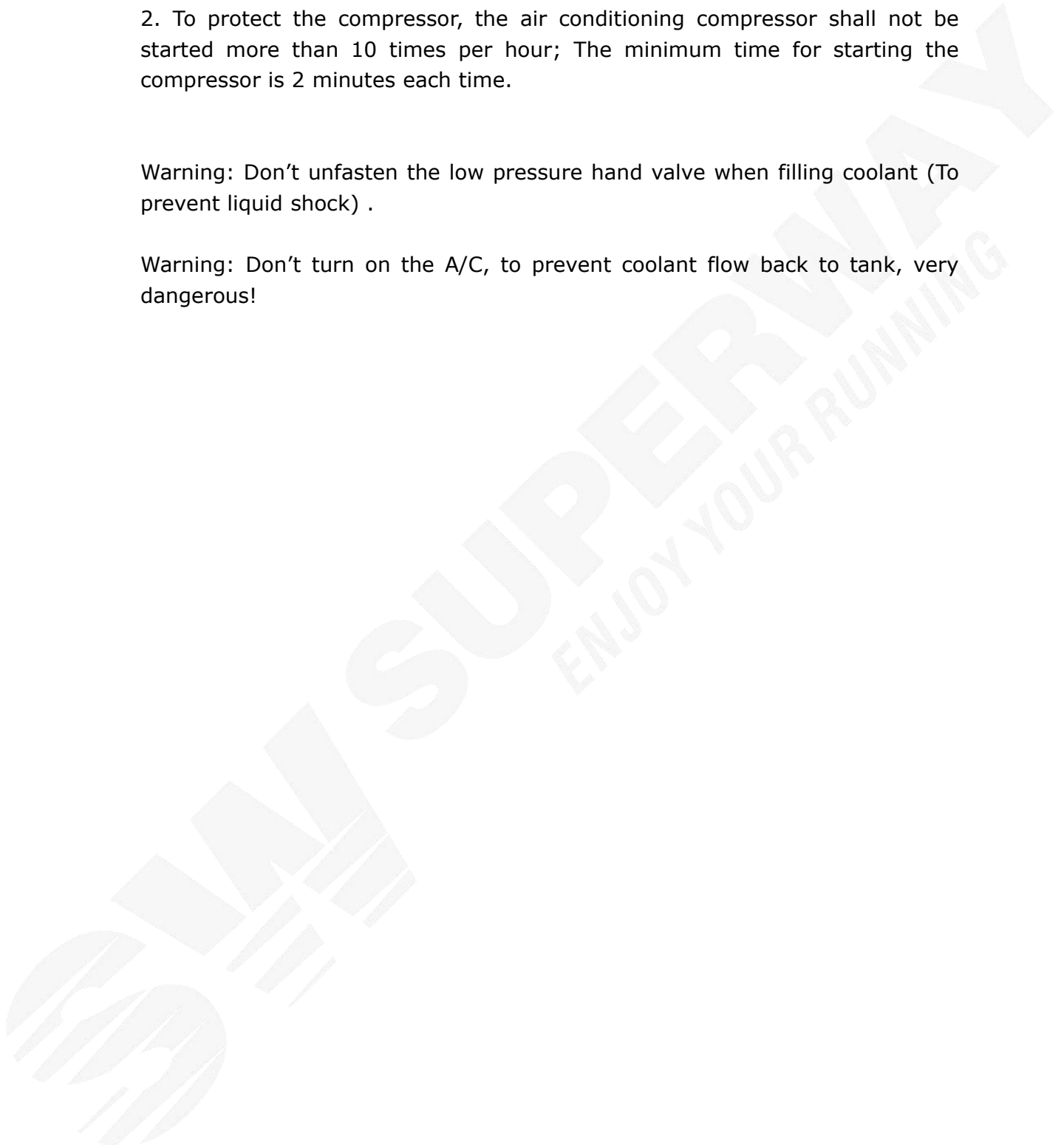
5. R407C liquid coolant. (coolant tank up side down)
R407C can only be filled with liquid refrigerant according to the filling amount
not with gaseous refrigerant.



1. Before filling the air conditioning system with refrigerant, make sure to exhaust the air in the hose;
2. To protect the compressor, the air conditioning compressor shall not be started more than 10 times per hour; The minimum time for starting the compressor is 2 minutes each time.

Warning: Don't unfasten the low pressure hand valve when filling coolant (To prevent liquid shock) .

Warning: Don't turn on the A/C, to prevent coolant flow back to tank, very dangerous!



A decorative graphic consisting of two overlapping squares. The top-left square is a dark olive green, and the bottom-right square is a lighter, lime green. They overlap in the middle, creating a darker shade of green.

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