

**Product Name :** " SPLIT AIR CONDITIONING TRAINING KIT "  
**Product Code :** " R.A.C 04 "

DEMO



[chhabrainstruments.com](http://chhabrainstruments.com)

**Description :**

## **SPLIT - TYPE AIR CONDITIONING TRAINING KIT:-**

**AIM:-**

- Especially designed for educational and training purpose.

---

## **INTRODUCTION:-**

-

A split air conditioner is a suitable alternative to wall, window, or centralized air conditioner systems. Often called mini-split, ductless split, or duct-free air conditioning, this system can adequately cool a standard-sized house without requiring extensive installation costs and efforts.

Split air conditioners are home appliances that do not require ductwork, which reduces energy expenditures. Still, many homeowners shy away from a split air conditioner system because they do not know how it works or why it is a viable option for cooling down.

### **Components**

A split air conditioner is made up of two primary parts that are very familiar: the evaporator and the compressor. Both of these elements exist in more common central air units and wall air conditioners. The difference with a mini-split system is that they are separated into two different, distant components, one being outdoors and one being indoors. The outdoor section is a compressor that initiates the cooling process, while the indoor component consists of an evaporator and fan.

The two sections are connected with a set of electrical wires and tubing, also called lines, used to transport air between the two sections. It's these lines that allow the split AC to be considered ductless, and the fact that the wires and tubing are so small and discreet compared to large ducts is where the "mini" split name comes from.

### **Function**

The compressor is controlled by an internal thermostat. As the thermostat detects warm air, it activates the outdoor compressor. The compressor circulates a refrigerant gas, increasing the pressure and temperature of the refrigerant as it compresses it through a series of pipes. The refrigerant then moves to the condenser for further processing.

In the condenser, a cooling system removes heat from the high-pressure gas and the gas changes phase and becomes a liquid. This chilled liquid is pushed through tubing indoors until it reaches the evaporator system.

Inside the home, the evaporator fan collects warm air and passes it through a chamber containing the chilled liquid refrigerant. The fan system blows this air, which has now been cooled, back into the room, lowering the overall temperature of the space. If the thermostat still detects air that is warmer than desirable, the process continues, and the refrigerant and any excess heat that remains in the system are passed back outdoors to the compressor in order to begin the cycle again.