
TITLE : FUNCTIONAL SPECIFICATION FOR ECONO3 COOL**REV : 01****DATE : MARCH 13, 2001.**

1. INTRODUCTION

1.1 Scope of Document

This document describes the features and functional specifications of the ECONO3 air conditioner controller.

1.2 Features

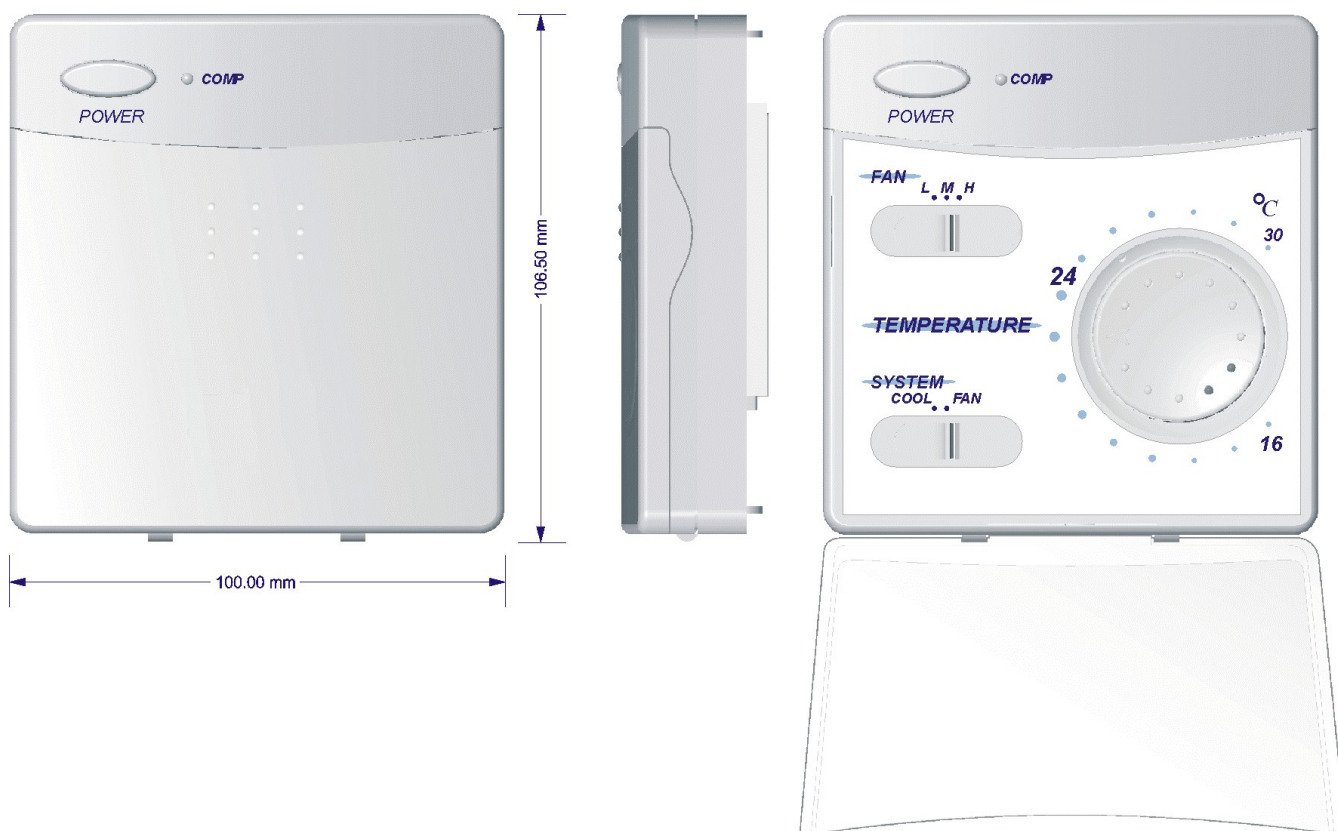
- Wired remote control.
- Mode of operation: FAN/COOL.
- Setting temperature ranges from 16° to 30°C.
- Fan Motor Speed can be set at HIGH/MEDIUM/LOW.
- Compressor recycle protection.
- Air swing (optional).
- FREEZE system protection (optional).

2. SYSTEM

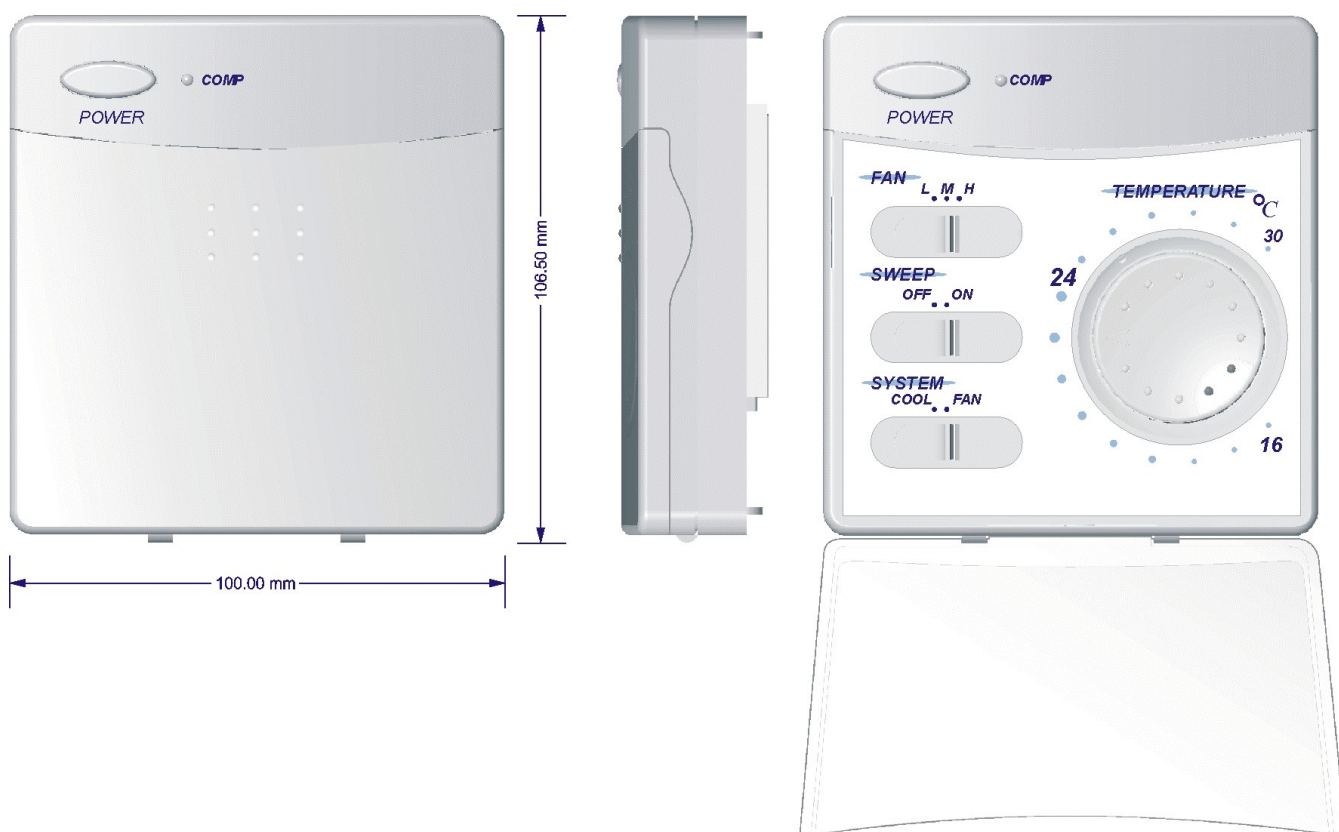
The system consists of

- Remote unit with mounting bracket
- Main Control Board
- Cable

3. REMOTE CONTROL



REMOTE



REMOTE WITH SWEEP BUTTON

3.1 POWER BUTTON

Push the POWER ON/OFF BUTTON to **Down** position to turn on the air conditioner. Push the button one more time to turn it off.

3.2 FAN BUTTON

Use the FAN BUTTON to select the required fan speed:

LOW ➡ MEDIUM ➡ HIGH

3.3 TEMPERATURE SETTING KNOB

Rotate the TEMPERATURE SETTING KNOB to set the required temperature.

3.4 MODE BUTTON

Use the MODE BUTTON to select between COOL and FAN modes. In the fan mode the compressor will not operate, the air conditioner will blow breeze for air circulation only.

3.5 SWEEP BUTTON (OPTIONAL)

Use the SWEEP BUTTON to turn on or off the sweep motor.

3.6 COMPRESSOR STATUS

This COMPRESSOR indicator is on when the compressor is operating.

4. SYSTEM PROTECTION

4.1 COMPRESSOR DELAY PROTECTION

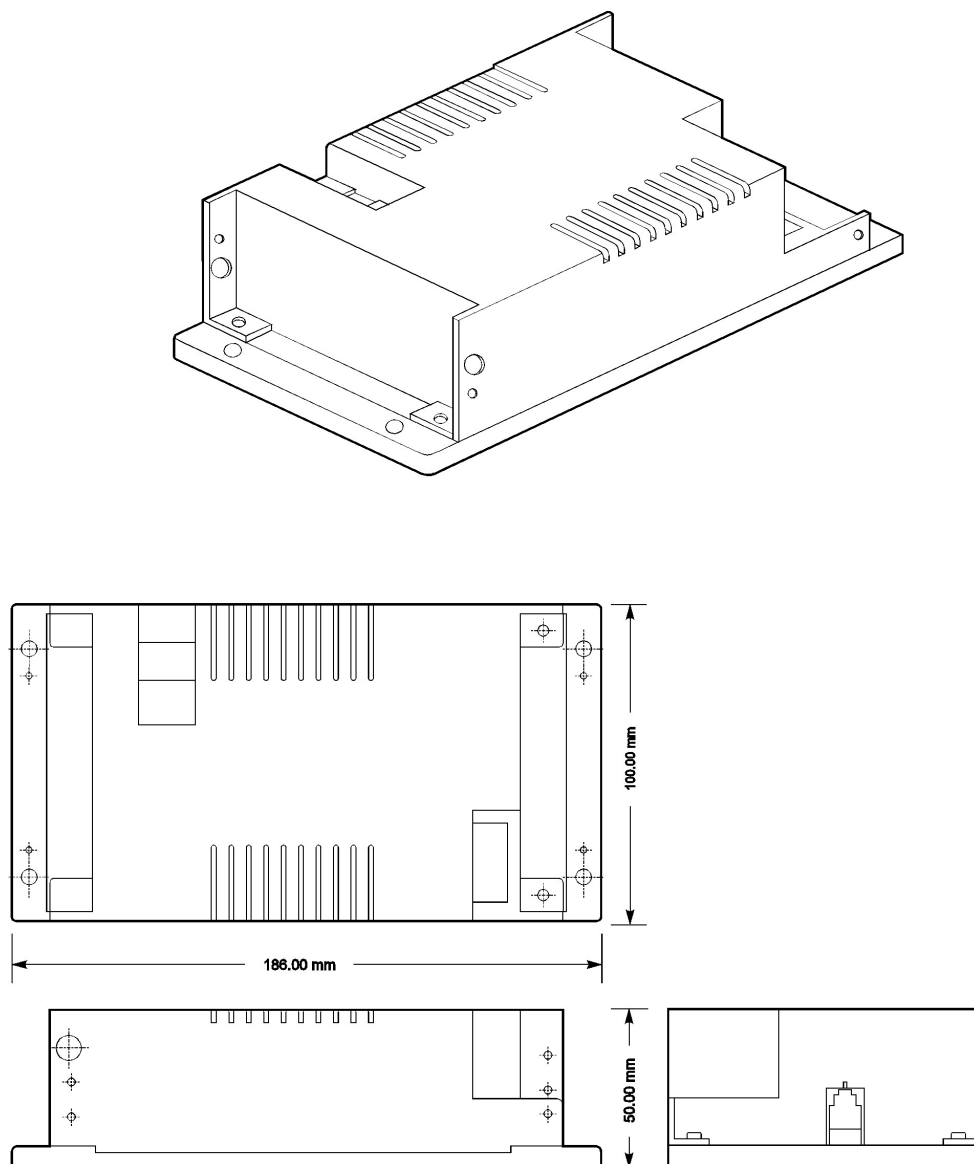
Each time the compressor is off, there will always be a minimum of 3-minute delay before the compressor can restart.

4.2 FREEZE PROTECTION (OPTION)

The compressor will turn off when the indoor coil temperature is less than 0°C and will turn on again when the indoor coil temperature exceeds 10°C.

5. MAIN CONTROL BOARD

The main control board is where the power supply, control logic and relays are located. The board is normally supplied with a black plastic box as shown in the figure below.

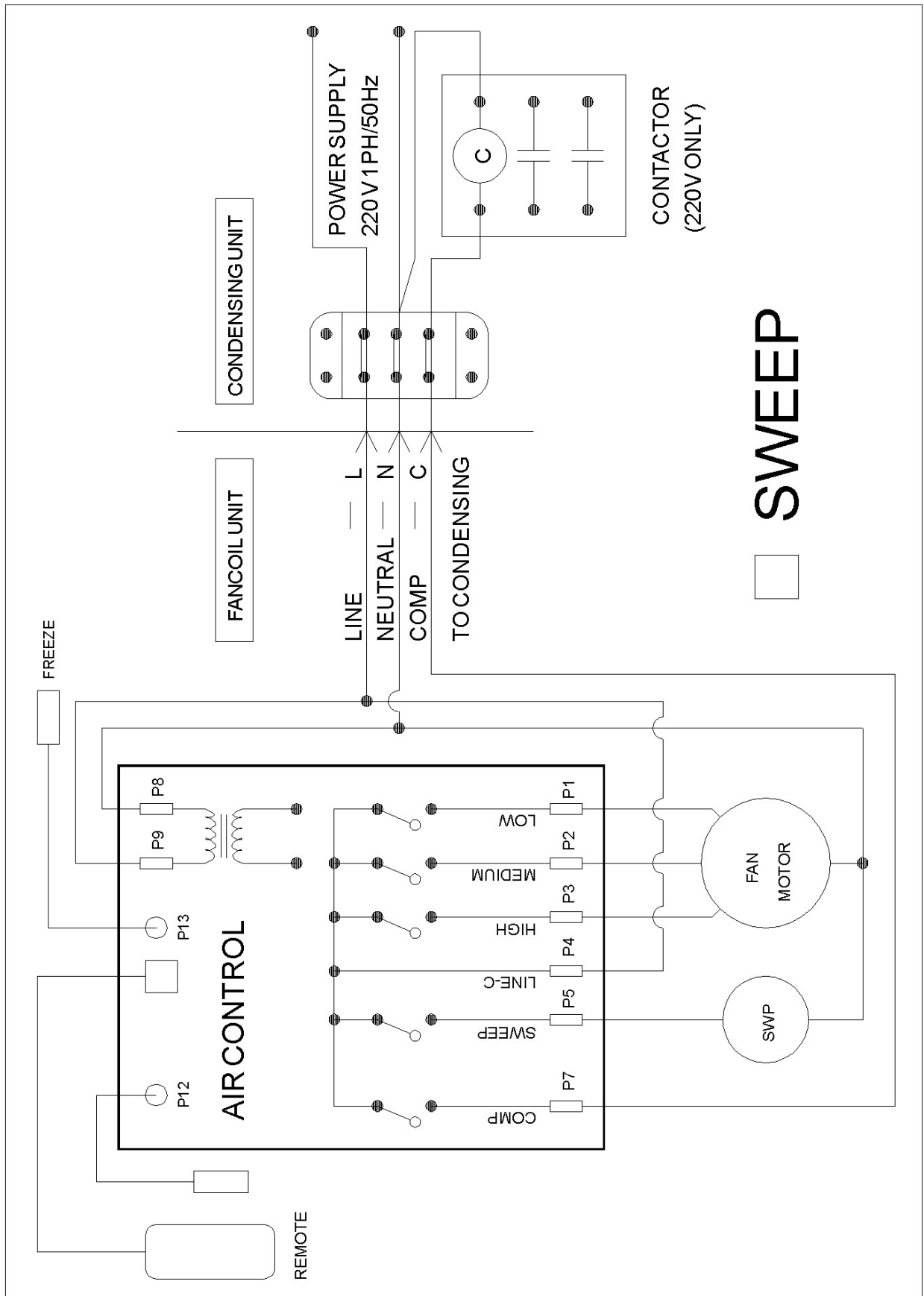


MAIN CONTROL BOARD

6. CABLE

The cable is used to connect between the Main Control and the Remote unit. It is a white 6-core cable and 4 meter long.

7. WIRING DIAGRAM



8. ELECTRICAL CHARACTERISTIC

| | |
|----------------------------------|---------------------------------|
| POWER SUPPLY | 198 - 264 Vac 50/60 Hz |
| POWER CONSUMPTION | Less than 8 VA. |
| COMPRESSOR DELAY PROTECTION | 180 ± 30 seconds |
| TEMPERATURE: | |
| Temperature accuracy | ±1°C |
| Storage temperature | 0 - 70°C |
| Ambient temperature | 10 - 50°C |
| Setting temperature range | 16 - 30°C |
| ON/OFF temperature different | 1°C |
| LOAD CONTROL RELAY: | |
| Contact material | Silver alloy |
| Rating (resistive load) | |
| · Normal switching capacity | 10 A 125 V (AC), 6 A 277 V (AC) |
| · Max. switching power | 1,250 VA |
| · Max. switching voltage | 250 V (AC), 100 V (DC) |
| · Max. switching current | 10 A (AC), 5 A (DC) |
| Initial breakdown voltage | |
| · Between open contacts | 750 Vrms for 1 min. |
| · Between contacts and coil | 1,500 Vrms for 1 min. |
| Expected life (min. operation) | |
| · Mechanical at 180 cpm | 10,000,000 |
| · Electrical | |
| LOAD POWER RELAY: (Optional) | |
| Rating (resistive load) | |
| · Normal switching capacity | 20 A 250 V (AC) |
| · Max. switching power | 5,000 VA |
| · Max. switching voltage | 250 V (AC) |
| · Max. switching current | 20 A (AC) |