

**Model 21-40P - Specifications****INDEX**

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## OPERATIONAL SPECIFICATION

1. Signal processing and control logic shall be micro-controller based.
2. Standard Programmable Features
  1. Requires Access Code
  2. Access code protects features listed in this section from unauthorized changes.
  3. Access code is controlled by transformer manufacturer
    1. Code is normally defined by Cimco
    2. Customer may select code using any combination of five numbers
  4. Change all "On" set-points
  5. Change all Dead-Bands (Move "Off" set-points up and down)
  6. Fan Exerciser
    1. Turn Fan Exerciser on and off (associates with 1's decimal point on digital display)
    2. Select times from one minute to two hours
  7. Monitor temperature trends and Relay "On" time
    1. Up to 25,000 hours with reset or automatic roll-over
    2. Fans On
    3. Alarm On
    4. Trip On
3. Temperature sensor choices shall be
  1. Non-magnetic Type E thermocouple or
4. Relay set-point choices shall be
  1. Fan power on (fail-safe)
  2. Alarm on (fail-safe)
  3. Trip on
5. Relay set-point adjustments
  1. Programmable from front panel
  2. Access code
  3. Program ON temperature
  4. Program OFF (dead-band) temperature
6. Temperature display (physical)
  1. Three digit red LED
  2. Range 0-250 °C
  3. Accuracy +/- 1°C
  4. 0.625" high
7. Temperature display (features)
  1. Indicate input temperature
  2. Indicate maximum temperature memory of input since last reset or erase
9. Local alarm: 90 db standard
10. System test to verify:
  1. Ambient temperature
  2. All status lights
  3. Set-point on and off temperatures
  4. All relay operations except trip relay
11. Maximum temperature memory
  1. Store on EE Prom
  2. Non-volatile
  3. One temperature sensor
12. Status display
  1. Power on - green LED
  2. Fans on - amber LED
  3. Alarm on - red LED
  4. Trip on - red LED
  5. Fan mode: auto or manual on - amber LED
13. Display controls
  1. Display maximum temperature memory
  2. Reset maximum temperature memory
14. Fail-safe features for
  1. Loss of power to instrument
  2. Open sensor
  3. Micro-controller
  4. Set-point ranges
  5. EE Prom
  6. More details in *Field Diagnostics* document (pages 5 and 6)
15. Input voltage range for Cimco instruments is 85 – 264 VAC, 50 or 60 Hz

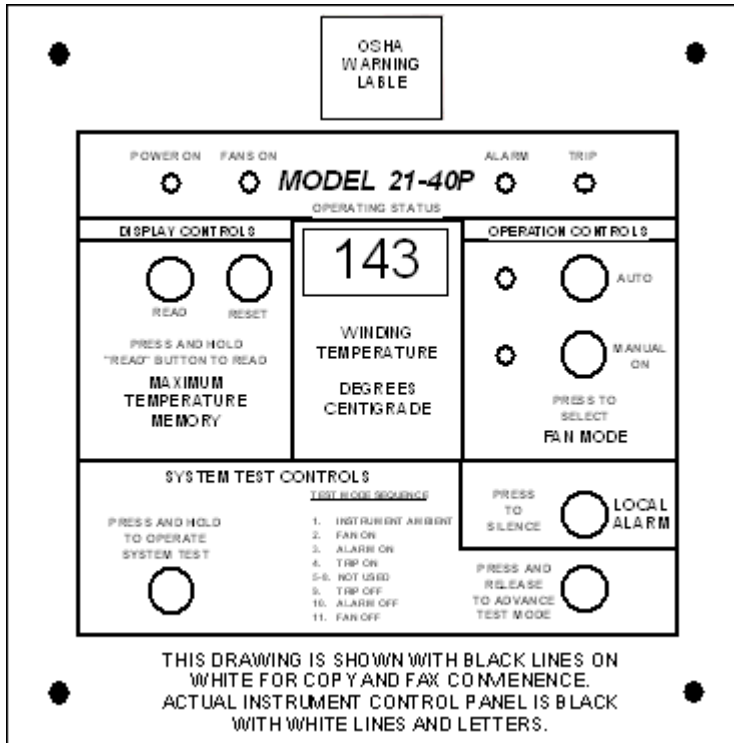
## HARDWARE SPECIFICATIONS

### Relays

1. Fan power relays
  1. Fail-safe
  2. Form B (Normally Closed)
  3. One Relay
  4. Horse power
    1. One horse power at 120 vac
    2. Two horse power at 240 vac
  5. Current rating
    1. 15 amps at 120 vac
  6. Fan fuse rating
    1. Maximum total current - 15 amps
    2. As shipped - 15 amps fast blow
2. Alarm relay
  1. Fail-safe
  2. Form C (Normally Closed / Normally Open)
  3. One relay
    1. Horse power
      1. One horse power at 120 vac
      2. Two horse power at 240 vac
    2. Current rating
      1. Normally open - 15 amps
      2. Normally closed - 15 amps
3. Trip relay
  1. Form C
  2. One relay
    1. Horse power
      1. One horse power at 120 vac
      2. Two horse power at 240 vac
    2. Current rating
      1. Normally open - 15 amps
      2. Normally closed - 15 amps
4. DC current for all relays
  1. Resistive load
    1. Normally open contacts
    2. 15 amps at 28 vdc
  2. Resistive load
    1. Normally closed contacts
    2. 15 amps at 28 vdc

### Other Hardware

1. Fuse protection for instrument
  3. Shipped with 1.0 amp fuse
  4. Fast acting
  5. Helps protect against over-voltage
2. Alarms
  1. 90 db
  2. Measured two feet from front of instrument.
  3. Alarm mounted on front of instrument.
3. Overlay on front of instrument
  1. LEXAN
  2. Your LOGO - optional
  3. One piece
  4. Water resistant
  5. UV resistant
  6. Smooth face-plate
  7. Includes OSHA warning label.



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## REFERENCE NOTES

1. OPERATING INSTRUCTIONS:  
 Reference documents
  1. *Operator Instruction Manual*
  2. *Programming Instruction Manual*
  3. *Field Diagnostics*
2. INSTALLATION AND CONNECTION INSTRUCTIONS ARE INCLUDED WITH EACH INSTRUMENT. SEE *Field Installation Manual*, page 2.
3. CONTACT CIMCO FOR COMPLETE LITERATURE AND DETAILED DRAWINGS.
4. OVERLAY IS BLACK LEXAN WITH WHITE LETTERS AND TRIM LINES. THIS DRAWING IS SHOWN WITH BLACK LINES ON WHITE FOR COPY CONVENIENCE.
5. PANEL IS STEEL; PRIMED, BLACK 0.04" THICK
6. OSHA LABEL IS INCLUDED IN THE OVERLAY AND IS OSHA STANDARD RED, BLACK AND WHITE.
7. OVERALL SIZE IS 7.5" X 7.5"
8. MOUNTING HOLES ARE CENTERED ON 6.5" SQUARE
9. REFERENCE *Field Installation Manual*, page 2, FOR MAGNETIC FIELD SHIELDING INSTRUCTIONS.