

OPERATION MANUAL

UC Series Universal Process Controller

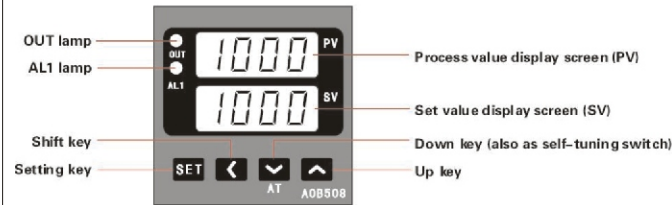
Thank You for selecting **ABUSTEK** products! before operating this instrument, please read this manual carefully and fully understand its contents. In case of any problems, please contact our sales Deptt. or distributors from whom the instrument has been supplied. The manual contents is subject to change without prior notice.

Introduction



UC508 economy is a Microprocessor based Digital Process Controller, which can be applied in high-precision measurement and control of temperature, pressure, discharge, liquid level and humidity etc... A four-digit LCD dual display shows measured value and set-value for all programming parameters. Instrument configuration is achieved from the front panel keyboard, without any hardware change. The user should read this manual thoroughly before using the instrument. It must be handled with care and should be used accordingly for best results.

Panel



OUT lamp: OUT lamp remains lit while controlling output actions.
AL1 lamp: AL1 lamp remains lit while alarming output actions.

Features

1. 2-wire, no additional power supply required, just as traditional LED display.
2. Scale easily adjustable to transmitter range.
3. Option: with backlight, can be visible in the dark environment.
4. 16-bit ADC MCU inside.
5. Large display range of -1.9.9.9. ~ 9.9.9.9. LCD digits.
6. LED can work at 3mA.
7. Two OPTO switch outputs. (Optional)
8. Low circuit voltage drop.

Specifications

Intrinsic error: $\pm 0.5\% \text{ FS} \pm 1 \text{ digit}$
Sampling period: <0.3s
Working power supply: 220V 10%/50~60Hz, power consumption<5W.

Control modes (freely changeable with keypad):
 On-off control (configurable direct/reverse action and differential gap)
 PID control (configurable direct/reverse action, manual or automatic of PID parameters)

Alarm modes (freely changeable with keypad):
 One way of programmable alarm output is provided with a number of alarm modes

PID control (configurable direct/reverse action, manual or automatic of PID parameters)

Alarm modes (freely changeable with keypad):

One way of programmable alarm output is provided with a number of alarm modes including higher limit, lower limit (Relay output).

In addition, the alarm feature can also be temporarily disabled when applying the power.

Output specifications:

Output module of relay contact switch: Normally open (absorbed by varistor), 30VDC/2A, 240VAC/2A.

Output module of solid-state relay (SSR) driving voltage: 12VDC/25mA.

Output module of single-phase thyristor zero-crossing trigger signal: 100~380VAC/50~60Hz, capable of triggering

5-500A TRIAC or 2 SCRs in inverse parallel connection or thyristor power module.

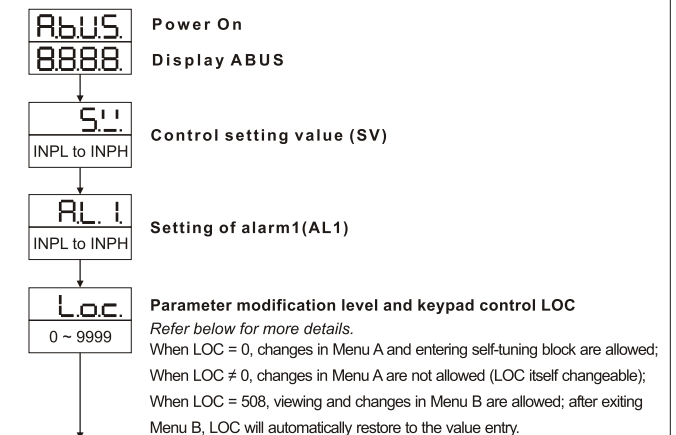
Operating Environment:

Recommended Temperature: 0~50

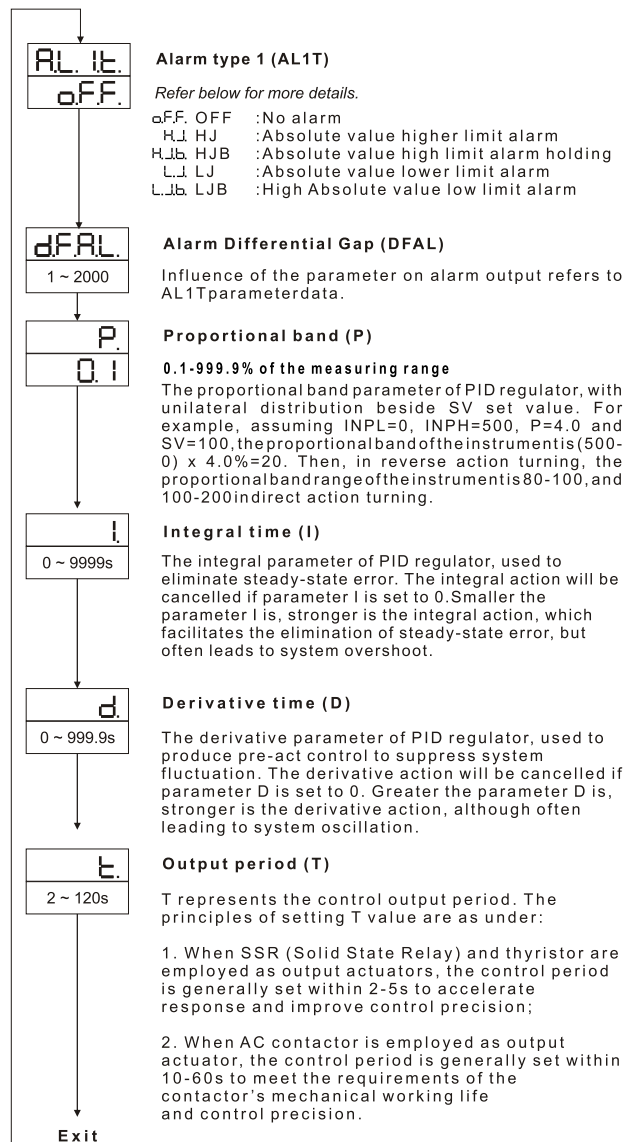
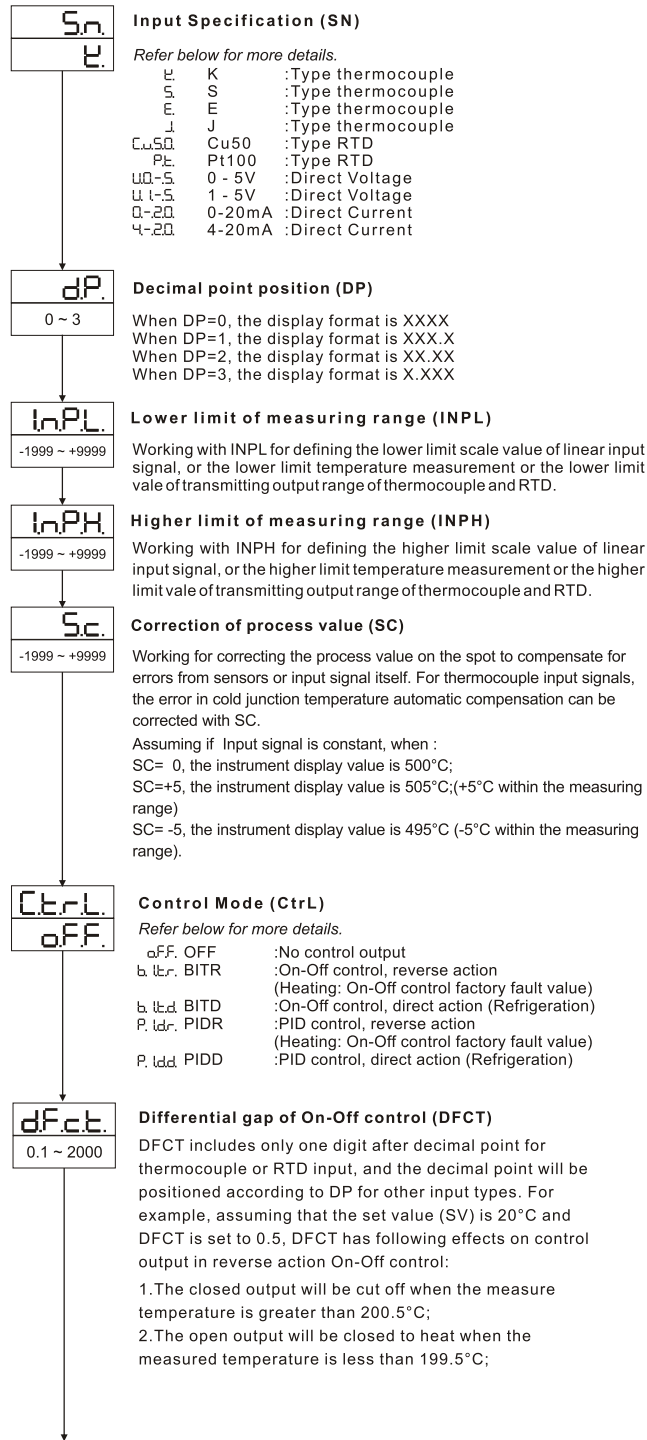
Relative Humidity: $\leq 85\% \text{RH}$

Configuration

Entering MENU A



Entering MENU B



Limited Warranty

The products are warranted to be free from defects in materials and workmanship for a period of one (1) year from the date of shipment, subject to the following terms and conditions: Without charge, they will repair, replace, or refund the purchase price at option products found to be defective in materials or workmanship within the warranty period; provided that:

- the product has not been subjected to abuse, neglect, accident, incorrect wiring not our own, improper installation or servicing, or use in violation of labels or instructions;
- the product has not been repaired or altered by anyone except us;
- the maximum ratings label and serial number or date code have not been removed, defaced, or otherwise changed;
- examination discloses, in the judgment of us, the defect in materials or workmanship developed under normal installation, use and service; and
- Our system is notified in advance of and the product is returned to us transportation prepaid before expiration of the warranty period.

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