

METERING CONTROLLER

Model 600DEA

Electronic Control System



Automated Control Electronics
Auckland New Zealand

GENERAL

The ACE Model 600DEA metering controller is designed for retrofitting to equipment where the original electronics controls are no longer functional and require replacement.

The 600DEA provides a timed output up to 999.9 seconds, activated by way of a potential free input.

Based on microprocessor design thus requiring minimal components the DEA600 should provide many years of trouble free operation.

SPECIFICATION

Operating voltage	240v~ 50 Hz
Timing	0.1 – 999.9 seconds in 0.1 second steps
Resolution	0.1 second
Memory	Preset time stored in EEPROM
Input trigger	Potential free N/O. Intermittent close to activate
Output	Potential free SP relay contact 10A/240v ~

OPERATION

Upon initial powering up the model number and software version are displayed briefly. Thereafter the actual time is displayed - 000.0

Two buttons are provided that are used to set and operate all the functions of the 600DEA.

Button A

- | | |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| First press – | Displays current pre-set value as stored in memory. In this position it is possible to adjust the HUNDREDS (left most) digit by depressing button B). |
| Second press - | Enables setting of the TENS digit by depressing button B |
| Third press - | Enables setting of the UNITS digit by depressing button B |
| Four press - | Enables setting of DECIMAL digit by depressing button B |
| Fifth press - | Returns display to ACTUAL |

Button B

Whilst display is in the ACTUAL position, button B becomes the TEST button. Pressing button B will cause the units output to activate for the preset time.

Otherwise button B is used to set the preset time as described above.

If the display is left in the SET position without any buttons being pressed for longer than about twenty seconds, the display will automatically revert back to the ACTUAL position.

Installation.

The 600DEA is compact enough to be fitted to most units requiring retrofitting of the electronic control.

This can be done either by Automated Control Electronics or by the client.

Once fitted, connect the potential free input to the required input activation switch, and the output to provide the required power to the metering units motor.

Observe all necessary safety rules and ensure that after installation the unit is both electrically and mechanically safe before operating.

All enquiries can be directed to:

Automated Control Electronics

PO Box 31-431 Milford, Auckland, New Zealand.

Telephone: ++64 9 449-1348

Facsimile: ++64 9 449-1342

EMAIL: info@electrons.co.nz

Check out our Website for F.A.Q.'s on the DEA – these will be continuously updated.

Frequently Asked Questions

Q Can I purchase install a 600DEA controller myself ?

A Yes – full instructions are supplied for this purpose.

Q Why does the display flash briefly between Actual and Settings on occasions ?

A This is part of a self calibration function in the software and is normal.

Q Can I control the motor speed with this unit ?

A No. The 600 DEA is a Variable Timed Metering controller only.

Q What will happen to a preset time I had inserted when the power is turned off ?

A The 600DEA has onboard EEPROM. This means any time setting will be retained whilst the power is off. When you turn the 600DEA back on again, your time setting will still be there.

Q Blanks appear where digits should be for preset time

A See technical discussion below

TECHNICAL DISCUSSION

Problem:

Timer will not time out and when SET time checked has digits missing.

Solution:

- 1 Press MENU/SELECT until in the SET position where digit is missing. Press SET/TEST button once.
- 2 Move to next position where digit is missing (if any). Repeat step1 above until completing all positions where digits are missing.
- 3 Remove (disconnect) mains power supply – wait five seconds.
- 4 Re-apply mains power.
- 5 Check SET values, digits should be restored. Those that were missing will now display 0 (zero).
- 6 SET required values.
- 7 Operate.

This problem might occur where mains supply is electrically noisy. The transients in the mains power can cause the microprocessor to 'hang' resulting in the problem discussed above.

