



# Voltage Controllers Electronic EL21-EL41 Installation and Maintenance Instructions

**THESE INSTRUCTIONS MUST BE READ FULLY BEFORE  
COMMENCING INSTALLATION**

Code	Supply	Max. Peak Current	H x W x Depth	IP Rating	Weight kg
149-EL21	230V/1Ph/50Hz	1.5 Amps	110 x 110 x 58mm	IP42	0.5
149-EL41	230V/1Ph/50Hz	4 Amps	110 x 110 x 58mm	IP42	0.5

## 1.0 DESCRIPTION

- 1.1 Electronic variable speed controller suitable for use with single phase fan units.

## 2.0 INSTALLATION

- 2.1 Upon receipt, the controller should be visually inspected to check for any damage
- 2.2 If there are any queries concerning the fan equipment, Elta Fans Ltd should be contacted prior to the installation.
- 2.3 The controller must be securely mounted in the desired position to suit the application.
- 2.4 The controller is only suitable for surface mounting and must not be recess mounted.
- 2.5 Install in a dry sheltered position with a minimum clearance of 150mm above and below the controller to allow for adequate ventilation.
- 2.6 Do not install in close proximity to a heat source or in areas of high humidity. The maximum ambient temperature for the controller must not exceed 40° C (104° F).
- 2.7 All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.
- 2.8 Check the details on the rating plate to ensure that the correct power supply (voltage, frequency and phase) is available. An incorrect power supply will lead to permanent damage of the unit.
- 2.9 Check that the number, size and speed of the fan(s) can safely be controlled by the controller supplied.
- 2.10 Connections are provided for one (1) fan outlet. If more than one fan is to be controlled then a correctly wired external junction box should be used.

**WARNING! The controller must be isolated from the power supply during installation and maintenance.**

- 2.11 Remove the front cover of the controller by unscrewing the cover fixing screws. This provides access to mounting holes and electrical terminals.
- 2.12 The input fuses are located adjacent to the terminal strip. They fuse ratings are EL21 – 2 Amp and EL41 – 5 Amp.
- 2.13 The controller must be connected to a suitably rated fused spur.

### 3.0 WIRING

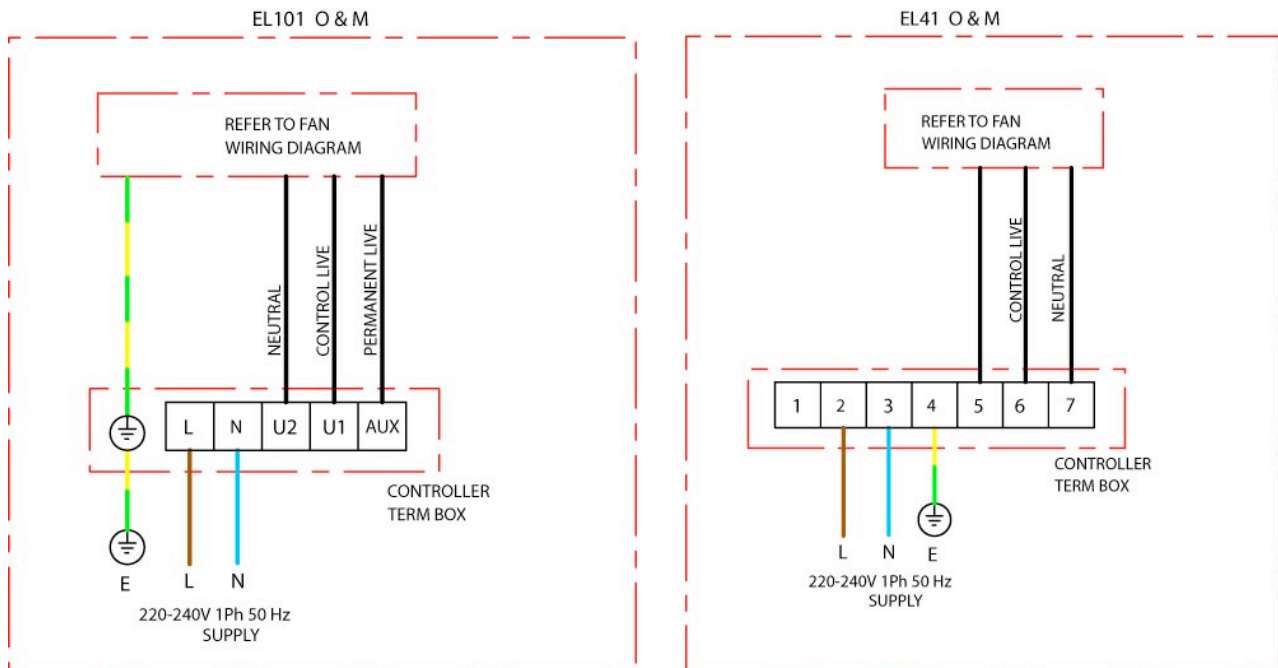
- 3.1 Select the correct wiring diagram for the fan and controller supplied. Ensure that all earth connections are made.
- 3.2 All wiring and control equipment MUST comply with the latest IEE regulations, in particular 552-01-02/03.
- 3.3 In the event that the wiring connections for the fan supplied do not correspond to diagrams shown, please refer to the fan instructions or contact ELTA FANS for further assistance.

### 4.0 OPERATION

- 4.1 Switch on the controller by operating the ON/OFF rocker switch. Rotating the Control Knob clockwise will increase the speed of the fan(s) from minimum to full speed (with infinitely variable speeds in between).
- 4.2 This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.
- 4.3 Children should be supervised to ensure that they do not play with the product.

**WARNING – The fan must be isolated from the power supply during installation and maintenance. Only a suitably qualified and competent person may carry out maintenance after the electrical supply has been isolated.**

### WIRING



### GUARANTEE

Elta Fans Ltd will, free of charge, within a period of 1 year from the date of despatch from their works, repair or at its option replace any goods which are proved to have defects as a result of defective materials or workmanship. The goods MUST be returned to Elta Fans Ltd carriage paid for examination.

## **Elta Fans Ltd**

17 Barnes Wallis Road  
Segensworth East Industrial Estate  
Fareham, Hampshire, PO15 5ST, United Kingdom

**Visit:** [eltafans.com](http://eltafans.com)

**e-mail:** [mailbox@eltafans.co.uk](mailto:mailbox@eltafans.co.uk)

**Applied Technology:** **Tel:** +44(0) 1489 566500

**Fax:** +44(0) 1489 566555

**Building Services:** **Tel:** +44(0) 1384 275800

**Fax:** +44(0) 1384 275810

**Export:** **Tel:** +44(0) 1489 566500

**Fax:** +44(0) 1489 566555

EL21-41 Inst Issue 1: 19-10-07



# Voltage Controllers Electronic EL31(TK)-EL61(T) Installation and Maintenance Instructions

**THESE INSTRUCTIONS MUST BE READ FULLY BEFORE  
COMMENCING INSTALLATION**

Code	Supply	Max. Peak Current	H x W x Depth	IP Rating	Weight kg
149-EL31	230V/1Ph/50Hz	3 Amps	265 x 200 x 120mm	IP40	0.35
149-EL31TK	230V/1Ph/50Hz	3 Amps	265 x 200 x 120mm	IP40	0.35
149-EL61	230V/1Ph/50Hz	6 Amps	310 x 230 x 160mm	IP40	0.4
149-EL61T	230V/1Ph/50Hz	6 Amps	310 x 230 x 160mm	IP40	0.4

## 1.0 DESCRIPTION

- 1.1 Electronic variable speed controller suitable for use with single phase fan units.

## 2.0 INSTALLATION

- 2.1 Upon receipt, the controller should be visually inspected to check for any damage
- 2.2 If there are any queries concerning the fan equipment, Elta Fans Ltd should be contacted prior to the installation.
- 2.3 The controller must be securely mounted in the desired position to suit the application.
- 2.4 The controller is only suitable for surface mounting and must not be recess mounted.
- 2.5 Install in a dry sheltered position with a minimum clearance of 150mm above and below the controller to allow for adequate ventilation.
- 2.6 Do not install in close proximity to a heat source or in areas of high humidity. The maximum ambient temperature for the controller must not exceed 40° C (104° F).
- 2.7 All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.
- 2.8 Check the details on the rating plate to ensure that the correct power supply (voltage, frequency and phase) is available. An incorrect power supply will lead to permanent damage of the unit.
- 2.9 Check that the number, size and speed of the fan(s) can safely be controlled by the controller supplied.
- 2.10 Connections are provided for one (1) fan outlet. If more than one fan is to be controlled then a correctly wired external junction box should be used.

**WARNING! The controller must be isolated from the power supply during installation and maintenance.**

- 2.11 Remove the front cover of the controller by unscrewing the cover fixing screws. This provides access to mounting holes and electrical terminals.
- 2.12 The input fuses, which are ceramic quick acting high blow fuse type, are located adjacent to the terminal strip. They are, EL31 & EL31T – 6.3 Amp rating, EL61 & EL61T – 10 Amp rating.
- 2.13 The controller must be connected to a suitably rated fused spur.

### 3.0 WIRING

- 3.1 Select the correct wiring diagram for the fan and controller supplied. Ensure that all earth connections are made.
- 3.2 All wiring and control equipment MUST comply with the latest IEE regulations, in particular 552-01-02/03.
- 3.3 In the event that the wiring connections for the fan supplied do not correspond to diagrams shown, please refer to the fan instructions or contact ELTA FANS for further assistance.

### 4.0 OPERATION

- 4.1 Switch on the controller by operating the ON/OFF rocker switch (plus the Reset button for 'T' Versions). Rotating the Control Knob clockwise will increase the speed of the fan(s) from a pre-set minimum (see below) to full speed (with infinitely variable speeds in between).
- 4.2 This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.
- 4.3 Children should be supervised to ensure that they do not play with the product.

**WARNING! Only a suitably qualified and competent person may carry out adjustment of the pre-set min and max speed control settings after the electrical supply has been isolated.**

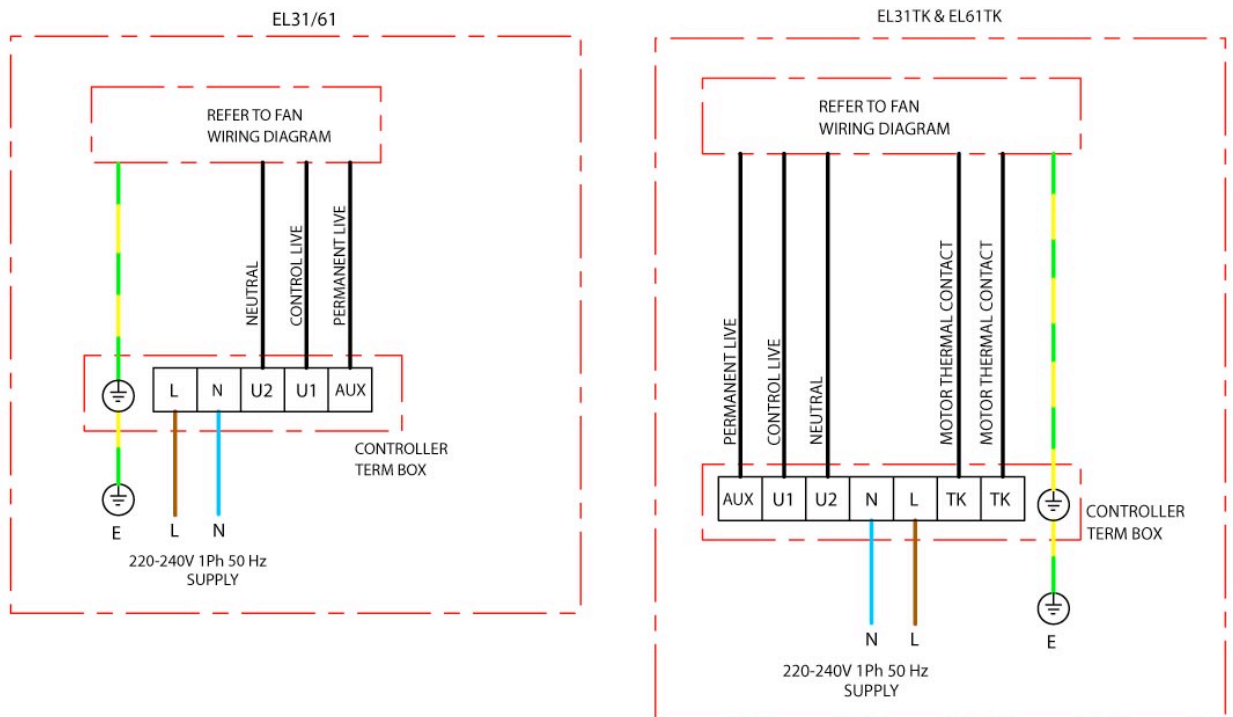
### 5.0 MINIMUM SPEED CONTROL SETTING

- 5.1 On certain fan types the factory set minimum speed might require adjustment. To adjust the minimum speed rotate the control knob on the front fully anti-clockwise. This is the current minimum speed position. Turn the minimum speed potentiometer inside the unit clockwise to increase the minimum speed setting and turn anti-clockwise to decrease the minimum speed setting. The fan will not fall below this pre-set speed during operation regardless of the front panel Control Knob setting. The minimum setting should not be less than 100V to ensure that the motor starts.

### 6.0 MAXIMUM SPEED CONTROL SETTING

- 6.1 To adjust the maximum speed rotate the control knob on the front fully clockwise. This is the current maximum speed position. Turn the maximum speed potentiometer inside the unit anti-clockwise to decrease the maximum speed setting and clockwise to increase the maximum speed setting.

### WIRING



## GUARANTEE

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**Fax:** +44(0) 1489 566555

**Building Services:** **Tel:** +44(0) 1384 275800

**Fax:** +44(0) 1384 275810

**Export:** **Tel:** +44(0) 1489 566500

**Fax:** +44(0) 1489 566555

EL31-61 Inst Issue 1: 19-10-07



# Voltage Controllers

## Electronic EL101

### Installation and Maintenance Instructions

**THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION**

Code	Supply	Max. Peak Current	H x W x Depth	IP Rating	Weight kg
149-EL101	230V/1Ph/50Hz	10 Amps	192 x 110 x 60mm	IP51	0.8

#### 1.0 DESCRIPTION

- 1.1 Electronic variable speed controller suitable for use with single phase fan units.

#### 2.0 INSTALLATION

- 2.1 Upon receipt, the controller should be visually inspected to check for any damage
- 2.2 If there are any queries concerning the fan equipment, Elta Fans Ltd should be contacted prior to the installation.
- 2.3 The controller must be securely mounted in the desired position to suit the application.
- 2.4 The controller is only suitable for surface mounting and must not be recess mounted.
- 2.5 Install in a dry sheltered position with a minimum clearance of 150mm above and below the controller to allow for adequate ventilation.
- 2.6 Do not install in close proximity to a heat source or in areas of high humidity. The maximum ambient temperature for the controller must not exceed 40° C (104° F).
- 2.7 All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.
- 2.8 Check the details on the rating plate to ensure that the correct power supply (voltage, frequency and phase) is available. An incorrect power supply will lead to permanent damage of the unit.
- 2.9 Check that the number, size and speed of the fan(s) can safely be controlled by the controller supplied.
- 2.10 Connections are provided for one (1) fan outlet. If more than one fan is to be controlled then a correctly wired external junction box should be used.

**WARNING! The controller must be isolated from the power supply during installation and maintenance.**

- 2.11 Remove the front cover of the controller by unscrewing the cover fixing screws. This provides access to mounting holes and electrical terminals.
- 2.12 The 12 Amp rating input fuse, which is ceramic quick acting high blow fuse type, is located adjacent to the terminal strip.
- 2.13 The controller must be connected to a suitably rated fused spur.

#### 3.0 WIRING

- 3.1 Select the correct wiring diagram for the fan and controller supplied. Ensure that all earth connections are made.

**NOTE: the metal backing box must be earthed using the ring crimp provided.**

- 3.2 All wiring and control equipment MUST comply with the latest IEE regulations, in particular 552-01-02/03.
- 3.3 In the event that the wiring connections for the fan supplied do not correspond to diagrams shown, please refer to the fan instructions or contact ELTA FANS for further assistance.

**4.0 OPERATION**

- 4.1 Switch on the controller by operating the ON/OFF rocker switch. Rotating the Control Knob clockwise will increase the speed of the fan(s) from a pre-set minimum (see below) to full speed (with infinitely variable speeds in between).
- 4.2 This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.
- 4.3 Children should be supervised to ensure that they do not play with the product.

**WARNING! Only a suitably qualified and competent person may carry out adjustment of the pre-set min and max speed control settings after the electrical supply has been isolated.**

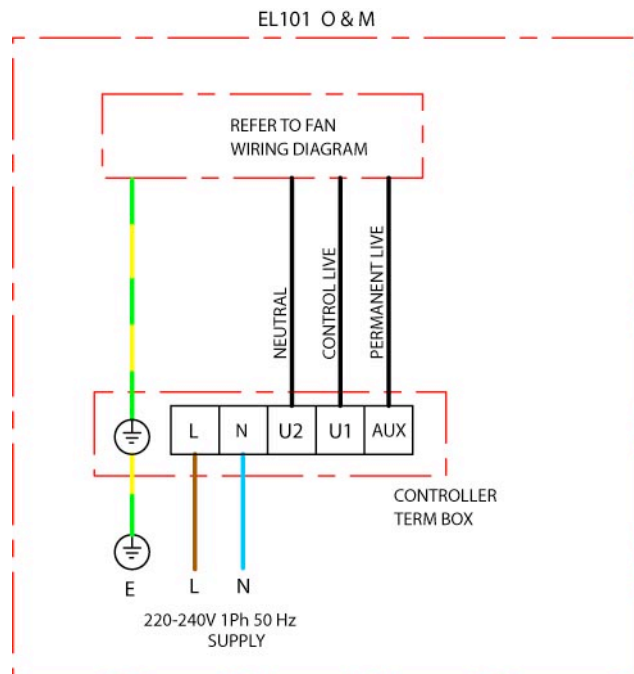
**5.0 MINIMUM SPEED CONTROL SETTING**

- 5.1 On certain fan types the factory set minimum speed might require adjustment. To adjust the minimum speed rotate the control knob on the front fully anti-clockwise. This is the current minimum speed position. Turn the minimum speed potentiometer inside the unit clockwise to increase the minimum speed setting and turn anti-clockwise to decrease the minimum speed setting. The fan will not fall below this pre-set speed during operation regardless of the front panel Control Knob setting. The minimum setting should not be less than 100V to ensure that the motor starts.

**6.0 MAXIMUM SPEED CONTROL SETTING**

- 6.1 To adjust the maximum speed rotate the control knob on the front fully clockwise. This is the current maximum speed position. Turn the maximum speed potentiometer inside the unit anti-clockwise to decrease the maximum speed setting and clockwise to increase the maximum speed setting.

**WIRING**



## GUARANTEE

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**Export:**      **Tel:** +44(0) 1489 566500      **Fax:** +44(0) 1489 566555

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