



AGRI HXP EC

Installation & Maintenance

AGRI HXP EC

Installation Instructions

Installation and Maintenance Instructions.

THESE INSTRUCTIONS MUST BE READ FULLY BEFORE COMMENCING INSTALLATION.

Owner / installer: The life of this apparatus and its efficiency will be increased if its use and maintenance is carried out in accordance with these instructions and current statutory requirements. The installation and initial adjustments should be carried out by a qualified and competent technician, ensuring the correct PPE is used at all times. Elta should be consulted before substituting or fitting parts from another manufacturer. It is the responsibility of the installer to verify that the installation is in accordance with all current statutory requirements and the owner is given the current User's Manual.

Any modifications to the fan or its installation, even the smallest modification, change or elimination of security components or pieces that influence the efficiency or loss of ventilation, will result in the CE Certification and Elta's warranty being cancelled.



DANGER: This product contains motors with permanent magnets. People that have pacemakers or implantable cardioverter defibrillators (ICDs) fitted should not handle these motors. The permanent magnets can also cause disturbance or damage to other electric equipment and components during service.

Please note the following indicators used within this document:

WARNING: Hazards associated with electric current and high voltages.

IMPORTANT: Important information.

Elta's policy is one of continual improvement and the right to change a specification at any time without notice is reserved. Whilst every care has been taken to ensure that the contents of this document are correct at time of publication, Elta shall be under no liability whatsoever in respect of such contents.

Elta cannot guarantee the operation of any equipment unless all documented instructions are complied with, without variation.

1. General

WARNING: Insulation Resistance Testing. Before performing insulation resistance testing, it is crucial to disconnect all EC products from the circuit. Failure to do this can damage the sensitive electronics within these products and is not covered by warranty

- 1.1 It is important these Installation and Maintenance Instructions are fully adhered to.
- 1.2 Full details of the unit supplied are shown on the product nameplate. If in doubt about any detail contact Elta or its agents for clarification.
- 1.3 All electrical installation must be carried out by suitably qualified and competent personnel in accordance with all current statutory requirements.
- 1.4 Any declarations made by Elta about product installation and safety, are dependent on the fan equipment being used within installations which themselves meet the requirements of the relevant Standards and Directives of your region.
- 1.5 The fan is designed for use in an ambient temperature of -20°C up to a maximum of +70°C, speed controlled operating temperatures of -20°C and +50°C and up to 95% relative humidity. EC fans are designed for ambient temperatures up to +60°C. The fan is not suitable for corrosive or explosive atmospheres.
- 1.6 The installer should provide easy access to the fan to facilitate future maintenance.
- 1.7 The installer should ensure the fan is adequately supported.
- 1.8 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. Children should be supervised to ensure that they do not play with the product.

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2. Installation

WARNING: The fan must be isolated from the power supply during installation and maintenance. The fan must be earthed in accordance with the local regulations.

- 2.1 Upon receipt, the fan equipment should be visually inspected to check for any damage. Ensure that the impeller is free to rotate.
- 2.2 If there are any queries concerning the fan equipment, Elta should be contacted prior to the installation.
- 2.3 The fan must be securely mounted in the desired position to suit the application. The fan can be mounted at any angle.
- 2.4 Check the details on the motor rating plate to ensure that the correct power supply (voltage, frequency and phase) is available. An incorrect power supply will lead to permanent damage to the fan motor.
- 2.5 Refer to the appropriate wiring diagram. Ensure that all earth connections are made.
- 2.6 Means for electrical disconnection must be incorporated in the wiring installation in accordance with the relevant wiring and electrical regulations.
- 2.7 Precaution must be taken to locate the exhaust discharge terminal so as to avoid the backflow of gases into the room from the open flue of gas or other fuel burning appliances.

3. General

- 3.1 Before power is supplied to the unit, check that the wiring is correct as per the fan connection diagram.
- 3.2 At initial start-up, check that impeller rotation and airflow direction is correct.
- 3.3 Check that the motor amperage drawn does not exceed the nameplate rating.
- 3.4 Minimum interval between consecutive starts: 5 minutes.
- 3.5 Maximum 1 connection from power supply cycle per 5 minutes.

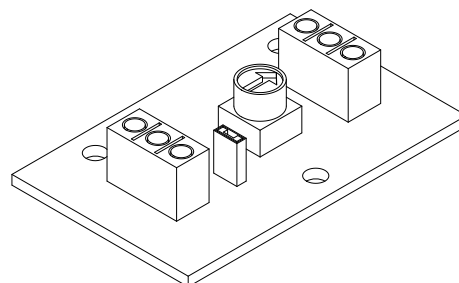
4. Fan Maintenance

- 4.1 Inspection of the fan at least once every 3 months is recommended to ensure that the motor, fan blades, and supporting guards, are clean. Any build-up of dust and deposits on the blades or guards should be removed using a non-abrasive cleaner.
- 4.2 All fastenings including electrical should be checked for tightness. In addition, all rotating items should be checked.
- 4.3 Bearings are of the 'sealed for life' type and will not need a detailed inspection.

WARNING: The EC fan has internal electronic overload protection. Once the motor cools down the fan may start unexpectedly. Only a suitably qualified and competent person may carry out maintenance after the electrical supply has been isolated

5. Commissioning Device

Product Code	X - Wall Aperture
10	10 (Ω)
9	9 (Ω)
8	8 (Ω)
7	7 (Ω)
6	6 (Ω)
5	5 (Ω)
4	4 (Ω)
3	3 (Ω)
2	1.5 (Ω)
1	500 (Ω)
0	1 (Ω)



149-CD-POT

Please note: This is an estimated adjustment guide

- 5.1 The 149-CD-POT is a commissioning device designed to be used with our EC range of fans.
- 5.2 The device will allow the installer to set the maximum operating speed of the fan that it is connected to.
- 5.3 The installer or commissioning engineer can adjust the fan speed using the potentiometer built onto the 149-CD-POT board.
- 5.5 This potentiometer can either be used for single speed adjustment or to set a maximum speed for the fan to operate at when an external control source is used. If external speed control is required, the jumper connection next to the potentiometer on the board would need to be removed, the installer can then connect to ST1 (using the diagram provided). When an external speed control is fitted, the maximum speed setting available to the external control is limited by the potentiometer setting of the commissioning device.

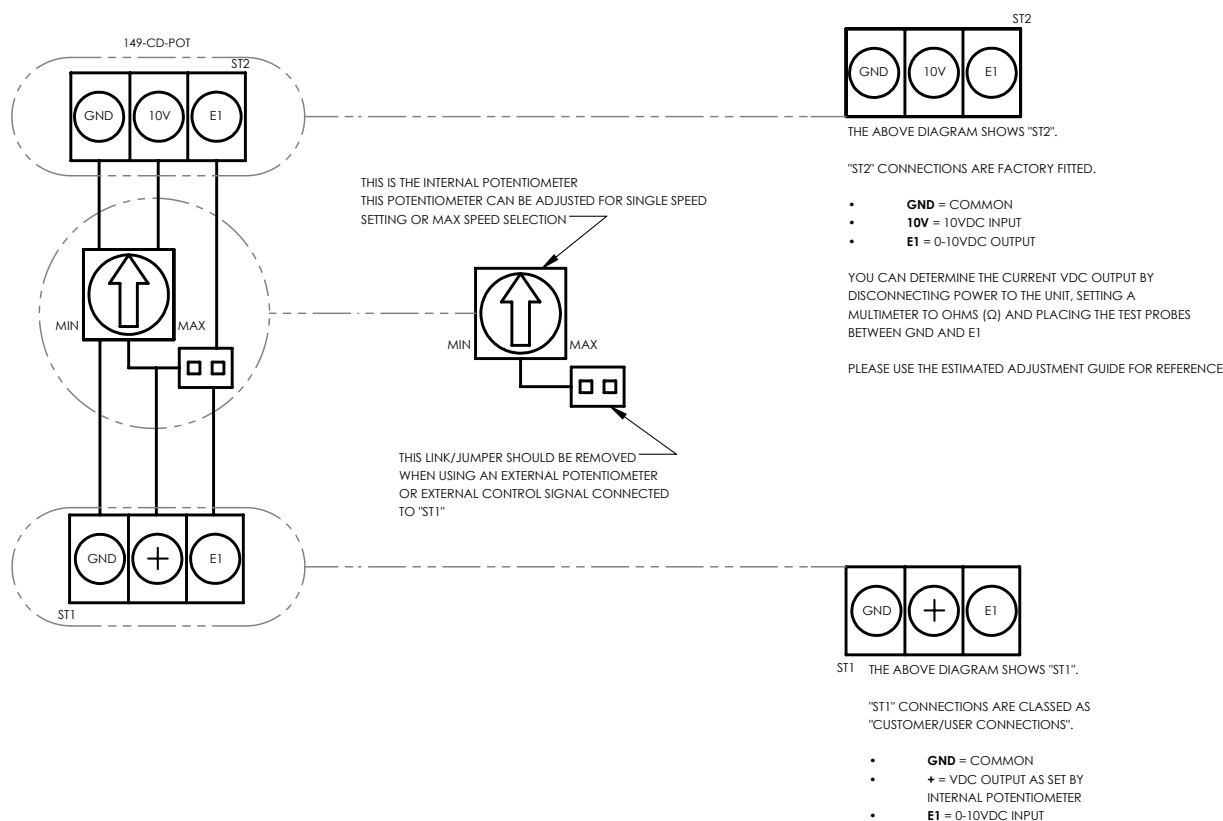
All wiring and control equipment must comply to the latest IEE regulations, in particular part BS 7671:2018+A2:2022, Regulations 552.1.2 and 552.1.3.

149-CD-POT Issue A: 10.07.2018

Check the individual product accessories table for fan controller compatibility.

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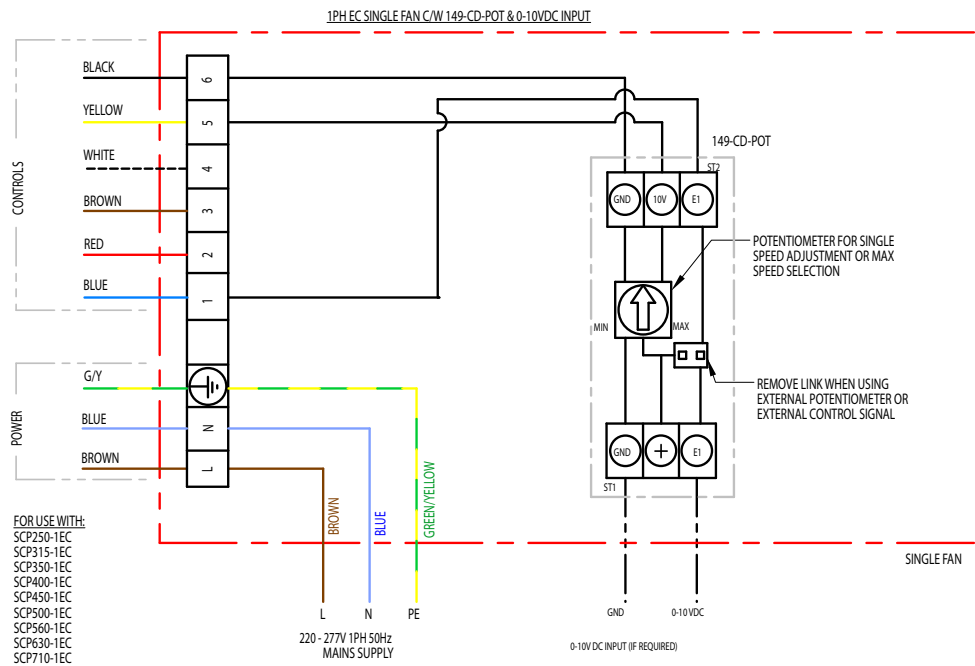
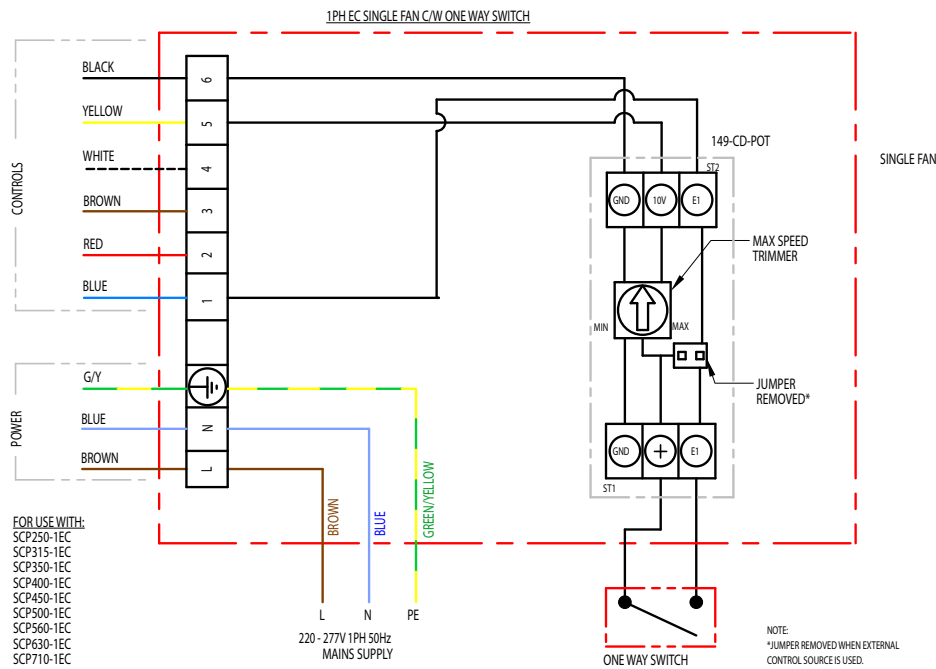
All wiring and control equipment must comply to the latest IEE regulations, in particular part BS 7671:2018+A2:2022, Regulations 552.1.2 and 552.1.3.

149-CD-POT Issue A: 10.07.2018

Check the individual product accessories table for fan controller compatibility.

MK-152-711

Wiring Diagram




All wiring and control equipment must comply to the latest IEE regulations, in particular part BS 7671:2018+A2:2022, Regulations 552.1.2 and 552.1.3.

MK-152-711 Issue C: 15.01.2019

Check the individual product accessories table for fan controller compatibility.

Wiring Diagram

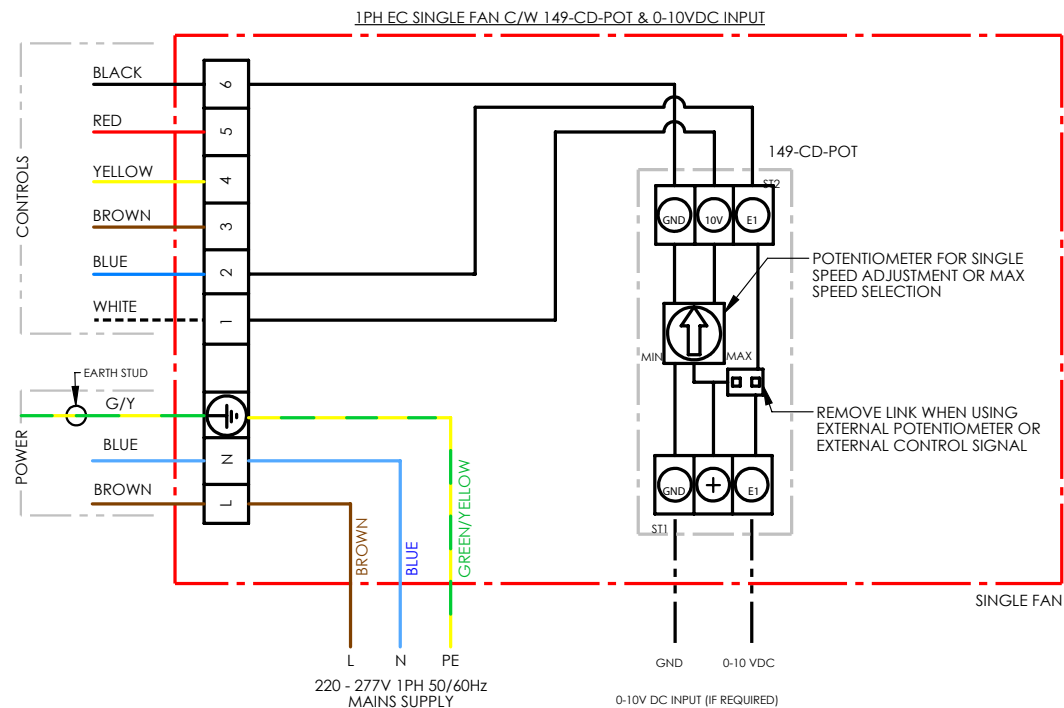
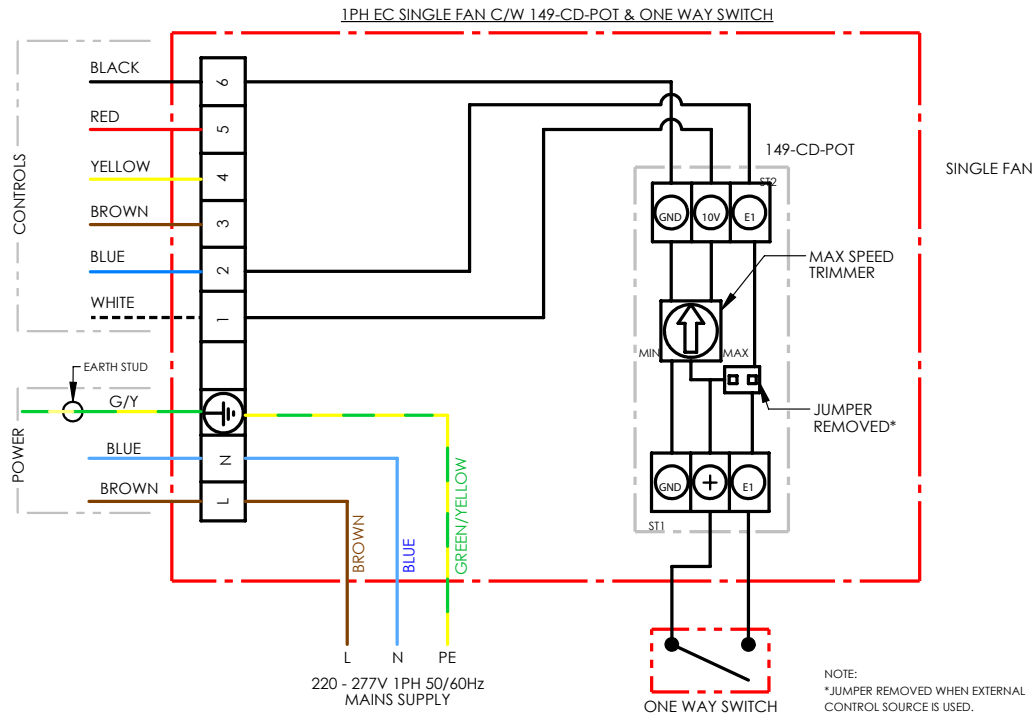


Tag	Purpose	Description
L	Live	Live power supply, 220-277V
N	Neutral	Neutral from power supply
	Permanent Earth	Permanent earth from power supply
1	DC Voltage [2-10V]	DC control voltage input (2 to 10VDC input)
2	DC Current [4-20mA]	DC control current input (4 to 20mA input)
3	Frequency [10-95%]	Frequency duty-cycle (PWM) Voltage: 10 to 24V/pk Frequency: 80Hz (10 to 95% input)
4	Speed Reference	Tacho output
5	10VDC output	10VDC source output
6	GND / Common	DC Common

Check the individual product accessories table for fan controller compatibility.

MK-152-736

Wiring Diagram



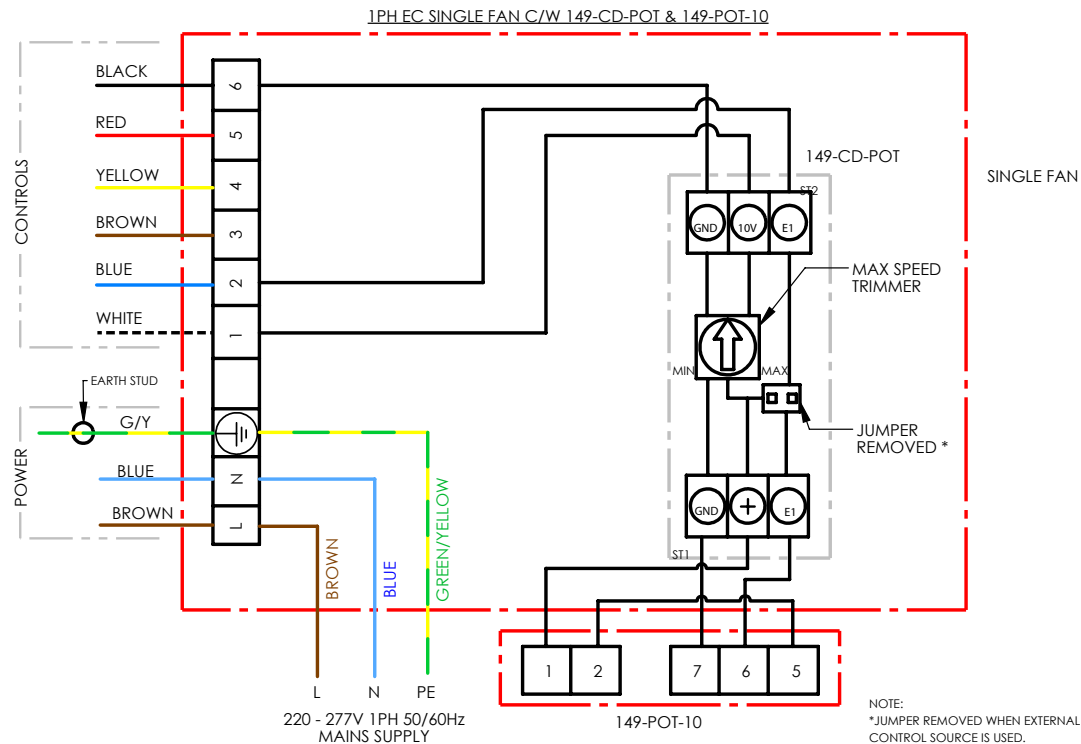
All wiring and control equipment must comply to the latest iee regulations, in particular part BS 7671:2018+A2:2022, Regulations 552.1.2 and 552.1.3.

152-736 Issue A: 04.03.2024

Check the individual product accessories table for fan controller compatibility.

MK-152-736

Wiring Diagram



CONTROL CABLE LENGTHS	
Control Type	Max. Length
VDC (voltage control)	150m
PWM (Frequency)	150m
External Controller	10m

NOTE: TAG REFERENCES RELATE TO MOTOR CONTROL WIRES, AND NOT 149-POT-10-**

Tag	Purpose	Description
L	Live	Live power supply, 220-277V
N	Neutral	Neutral from power supply
⏚	Permanent Earth	Permanent earth from power supply
1	10VDC output	10VDC source output
2	DC Voltage [2-10V]	DC control voltage input (2 to 10VDC input)
3	Frequency [10-95%]	Frequency duty-cycle (PWM) Voltage: 10 to 24Vpk Frequency: 80Hz (10 to 95% input)
4	RS485A	Modbus RS485A
5	RS485B	Modbus RS485B
6	GND / Common	DC Common

All wiring and control equipment must comply to the latest iee regulations, in particular part BS 7671:2018+A2:2022, Regulations 552.1.2 and 552.1.3.

152-736 Issue A: 04.03.2024

Check the individual product accessories table for fan controller compatibility.

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Notes

[illegible]

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Notes

[illegible]

**Guarantee**

Elta or its agents will, within a period of 1 year from the date of dispatch from their works, repair or, at its option, replace any goods, which are proven to have defects as a result of defective materials or workmanship.

The goods MUST be returned to Elta, carriage paid, for examination. An Elta Engineer or appointed person should attend to carry out any work, unless otherwise agreed. Elta will not accept accounts for workmanship by others.

Please see the Elta warranty booklet for full details on submitting a warranty claim.

Any modifications to the system or its installation, even the smallest modification, change or elimination of security components or pieces that influence the efficiency or loss of ventilation, will result in the CE Certification and Elta's warranty being cancelled.

Recycling

Elta use components, when possible, that are suitable for recycling at the end of the product's life, components can be segregated as stated below and processed in accordance with local regulations. Metallic items can be segregated and recycled; Electrical and Electronic equipment such as motors, cables and control devices can be segregated for WEEE recycling; Cardboard, wood, packaging, and plastic components can be widely recycled. Items not listed should be segregated in accordance with local authority zero waste hierarchy recommendations.

Tel **+44 (0)1725 511422**
Email **agriculture@eltauk.com**
eltauk.com/agriculture

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