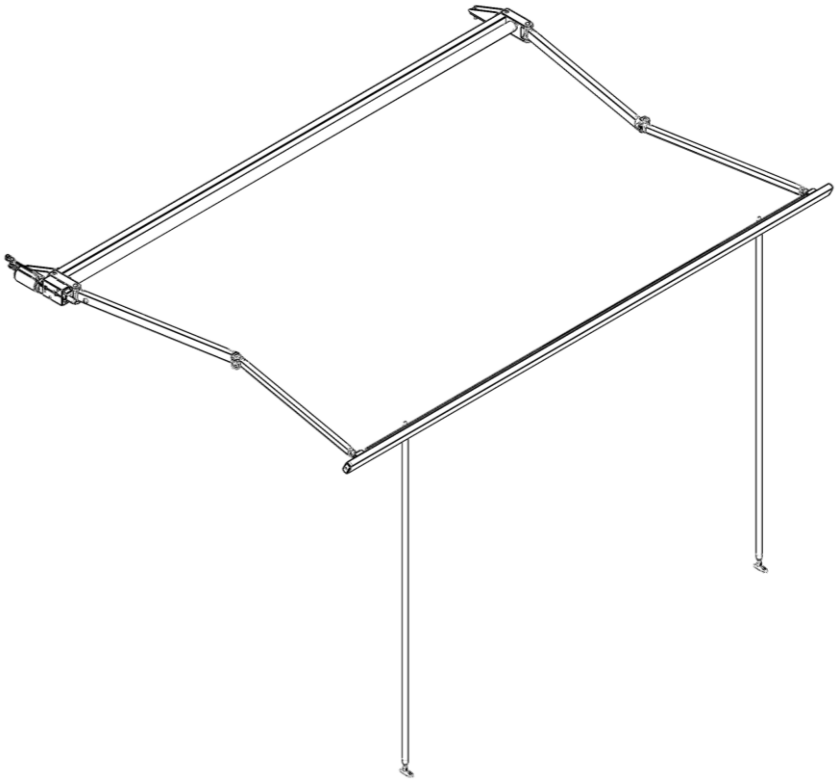
MAKEFAST

GROUP

Awning Owners Manual

Installation and User manual



Legal note:

Installation and repair of MAKEFAST Ltd sunroofs and canopies must only be undertaken by MAKEFAST authorised engineers, using approved technical information, tools, and spares. MAKEFAST installations and service instructions must always be referenced during repairs and maintenance. MAKEFAST does not accept any liabilities for defect or damages caused by maintenance or repair by un-authorised parties.

VERSION 00

CONTENTS

SAFETY

DO NOT USE THE EQUIPMENT ABOVE +50°C (+122°F)

DO NOT USE THE EQUIPMENT BELOW -15°C (+5°F)

RISK OF ELECTRIC SHOCK

SOME PARTS CAN BE RECYCLED

INSTALLATION/USER MANUAL, READ BEFORE OPERATING THE EQUIPMENT

SPECIAL WARNING, READ CAREFULLY

ICONS

VISUAL INSPECTION REQUIRED

DRILLING REQUIRED

SCREWDRIVER REQUIRED

SILICONE SEALANT REQUIRED

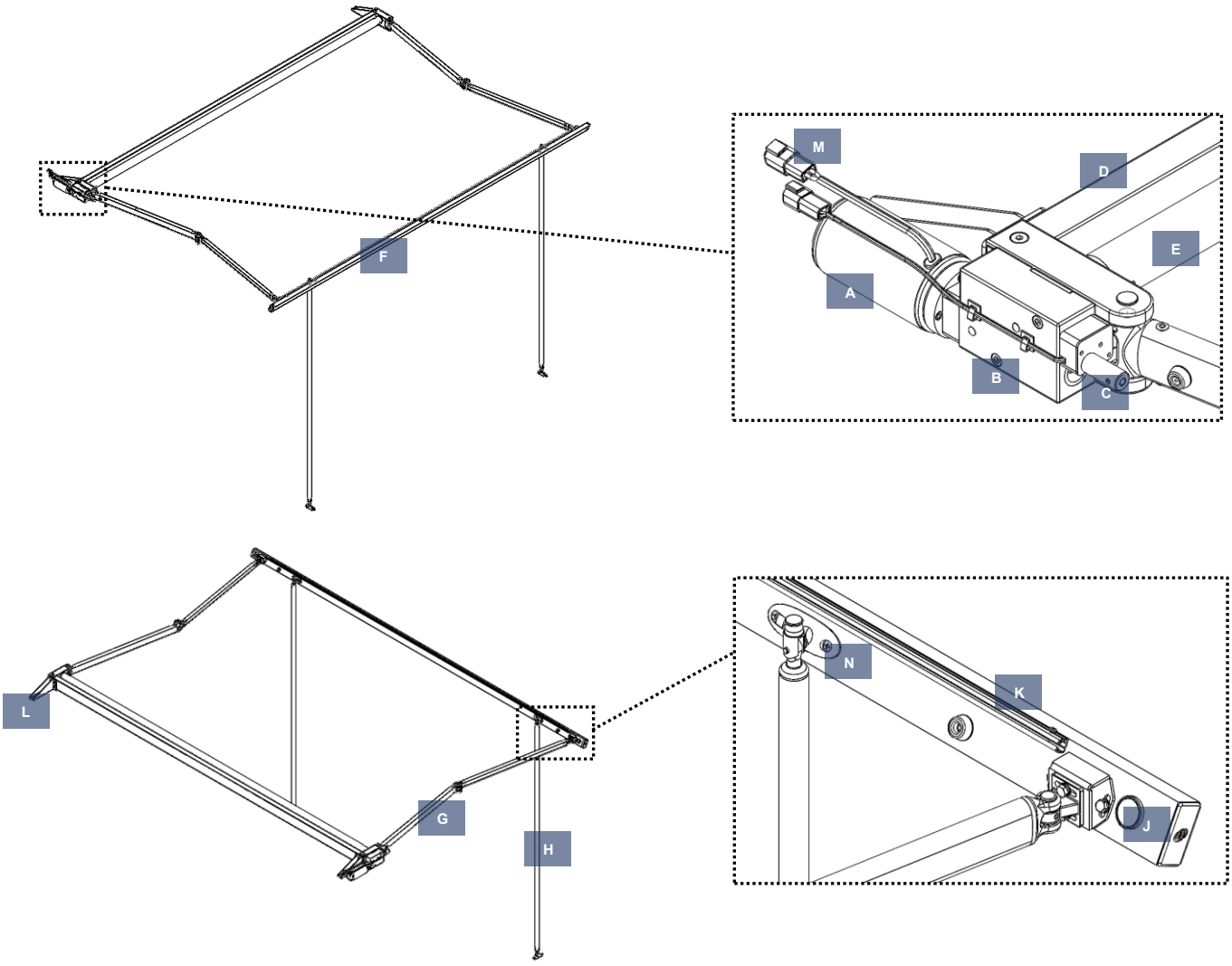
ALLAN KEY REQUIRED

MEASUREMENT REQUIRED

MARK WITH PENCIL

TAP THREAD

POWERED AWNING OVERVIEW



A	Motor Unit	H	Support Arm
B	Drive unit	J	Sensor Magnet
C	Sensor	K	Canvas Securing Track
D	Back Beam	L	Mounting Bracket
E	Canvas Roller	M	Connectors
F	Valance Assembly	N	Quick release Fitting
G	Extension Arm (Port/Stbd)		

TOOLS REQUIREMENTS FOR TYPICAL INSTALLATION

ELECTRIC DRILL

DRILL BITS Ø: 8.5, 10.3MM

SCREWDRIVER: POZI DRIVE

ALLEN KEY: 4MM

SPANNERS: 8MM, 10MM, ADJUSTABLE

M10 OR M12 THREAD TAP (DEPENDING ON MOUNTING BRACKET TYPE)

TAPE-MEASURE

SILICON SEALANT

PENCIL

UNPACKING THE BOX

Remove the sun awning from the box, taking care not to damage polished surfaces or dirty the canvas.

WHAT'S INSIDE (TYPICAL)

- Sun Awning Assembly
- Stanchion Support Arms (if Applicable)
- Control Box
- PVC Sleeving
- Bracket plate Clamp
- Packing Plate
- Installation and User Manual

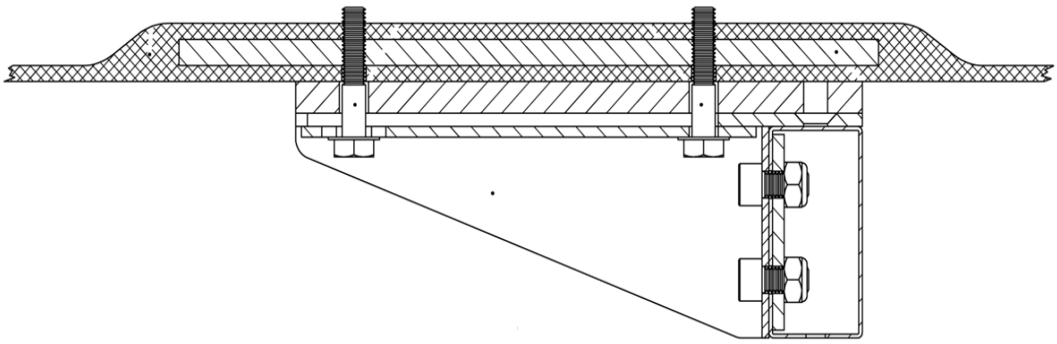
PRODUCT CAPABILITIES

- The sun awning is designed to provide shading only, it is not designed to be a shelter from rain showers, the material will fail to provide this protection.
- During high winds (40knots) the awning must be retracted.
- The awning may be deployed during navigation is stanchion supports are in place.

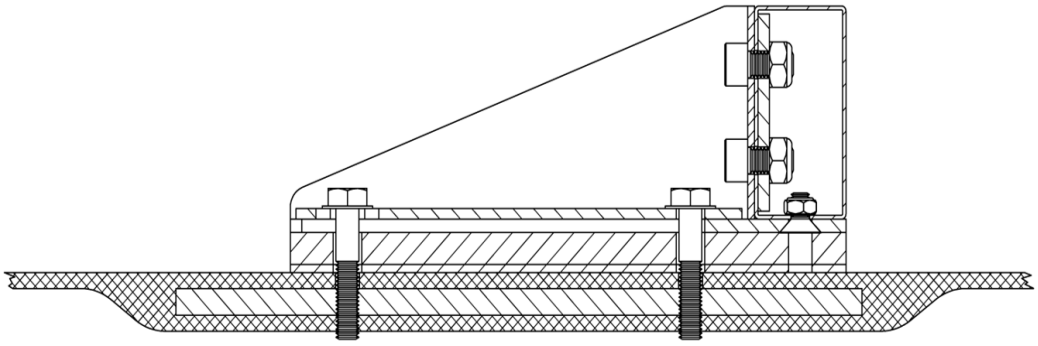
MOUNTING CONFIGURATIONS

Makefast sun awnings can be fitted suspended from above, or supported from below, this depends on the individual design. Installation is very similar for both mounting configurations.

The areas where the awning is to be fixed to the GRP or boat structure must have reinforcing steel inserts to bear the weight of the awning, at least 10mm thick and suspended with M12 A4-70 bolts as the static load on the bolt is around 120Kgm force.



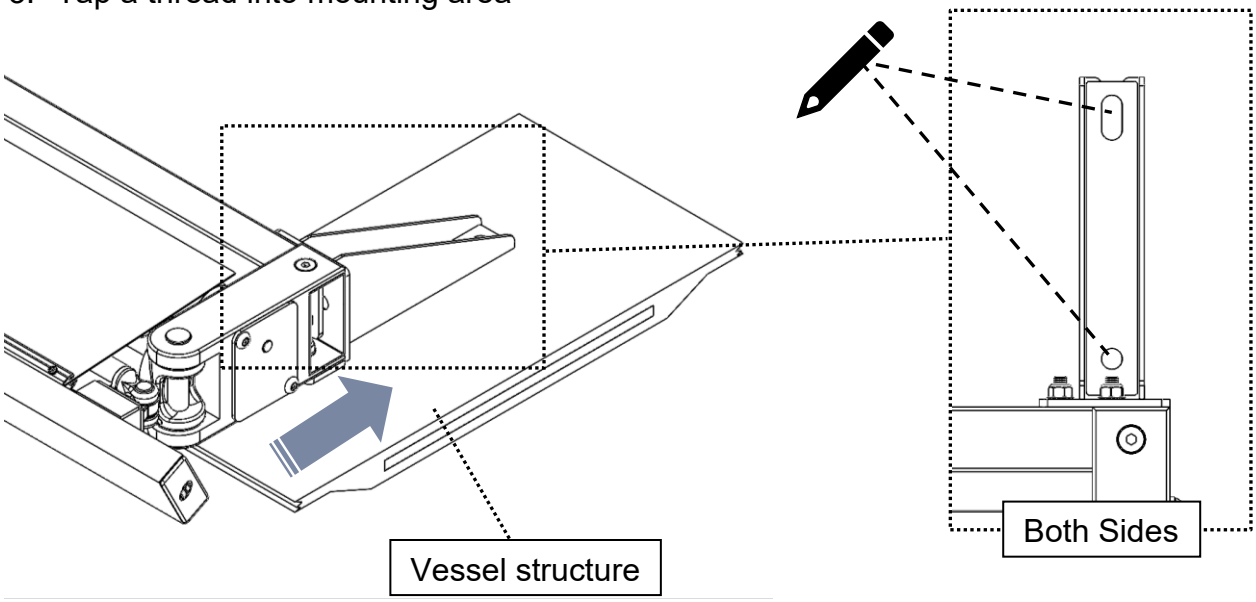
Suspended Mounting

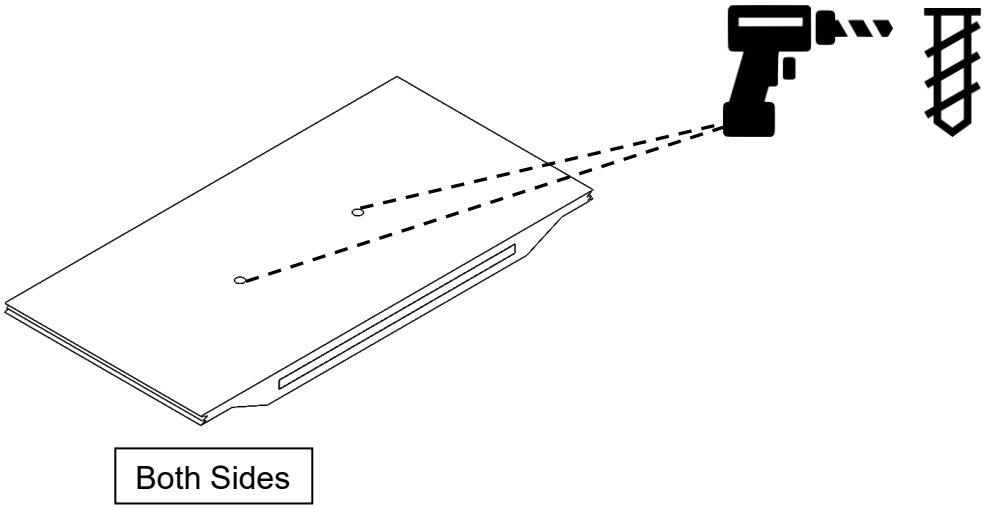


Supported Mounting

INSTALLATION STAGE 1

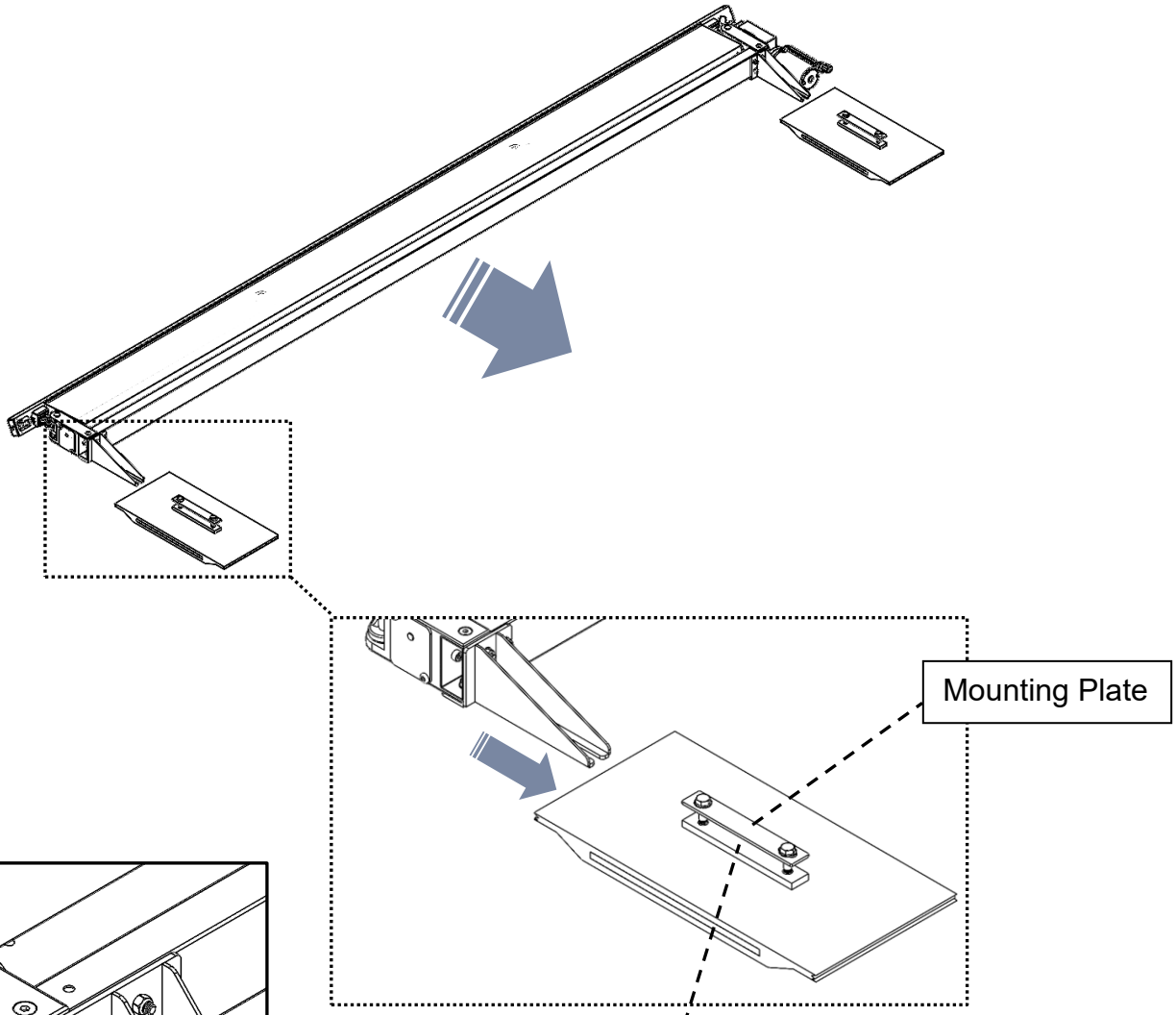
1. Offer up the awning to the Mounting Position and mark the hole positions on the GRP
2. Drill Through holes positions (this may be 4 or 8 holes depending on awning mounting bracket type) with the appropriate size drill bit, 8.5 for M10 and 10.3 for M12.
3. Tap a thread into mounting area

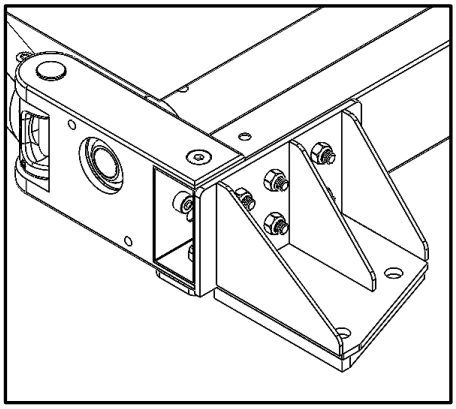




INSTALLATION STAGE 2

1. Partially screw the 4 M12 bolts (some designs may use 8 see ‘alternate design’ image), with the washers, packers and mounting plate in the orientation show below.
2. Slide the awing in between the packers (if required) and the mounting plates and tighten the mounting bolts. Note, bolt torque value will be dependent on boat struct materials and geometry.



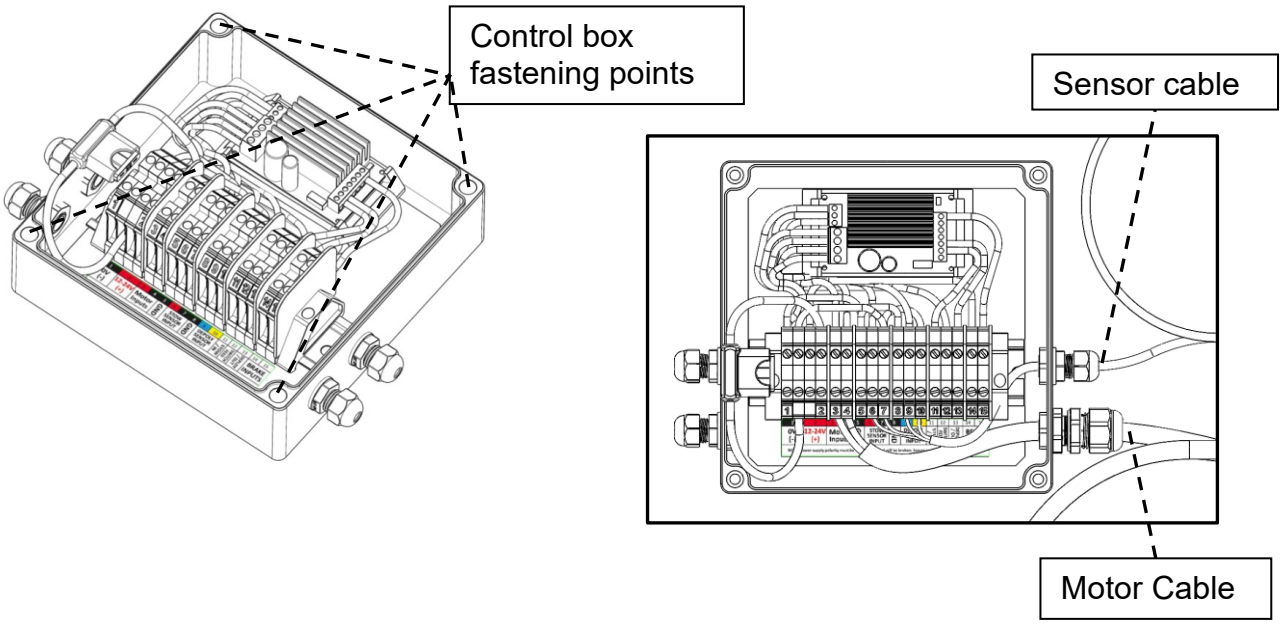


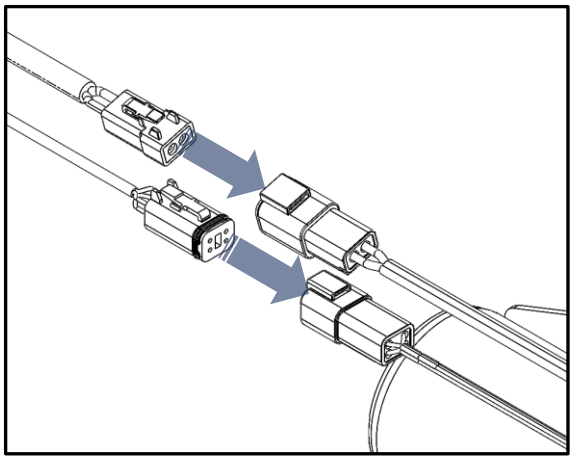
Alternate Design

INSTALLATION STAGE 3

NOTE: Control box should be mounted as close to the roof system as possible within the boat structure

1. Remove control box and cables from packaging.
2. Remove Control box lid and position the control box in its mounting position.
3. Screw the box using four number 8 screws thought the holes shown below.
4. Route the Motor and Sensor Cables to the back of the Awning.
5. Plug the cables together , they will only go one way around





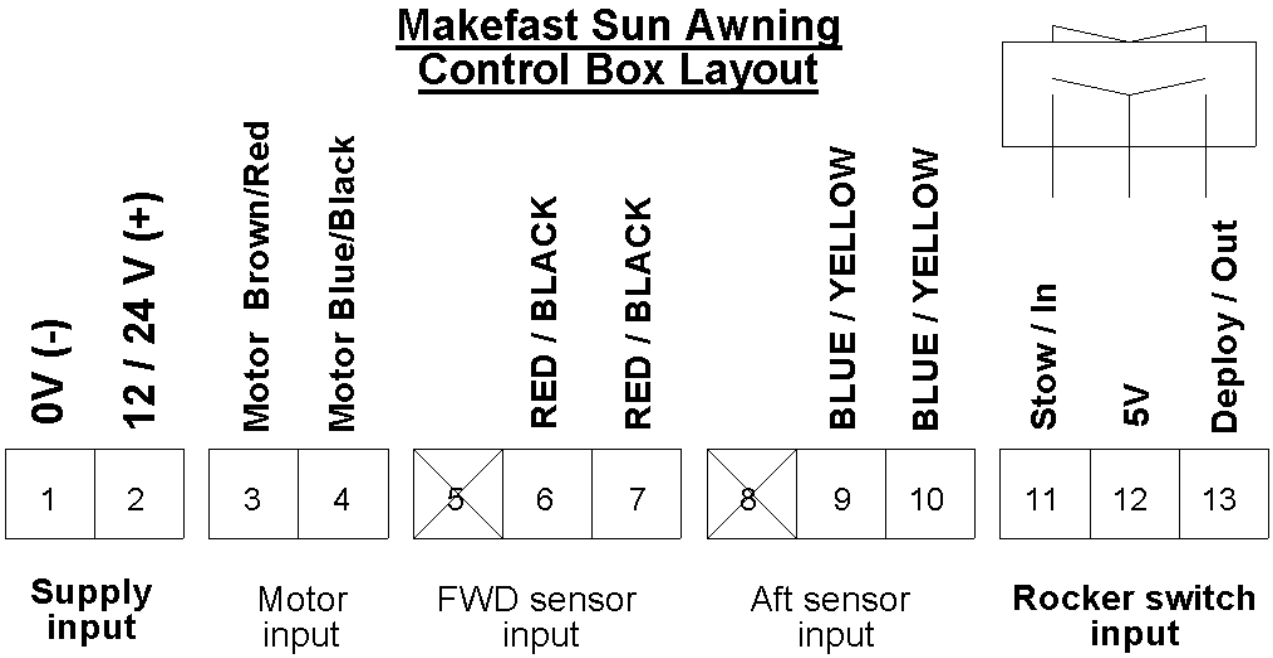
INSTALLATION STAGE 4

NOTE: Special attention must be given to the polarity of the power cables connecting to the control box, incorrect connection will cause irreparable damage to the control box.

NOTE: If extensions are made to the supplied components, please ensure all connection are made securely.

NOTE: This diagram can be found inside the lid of the control box.

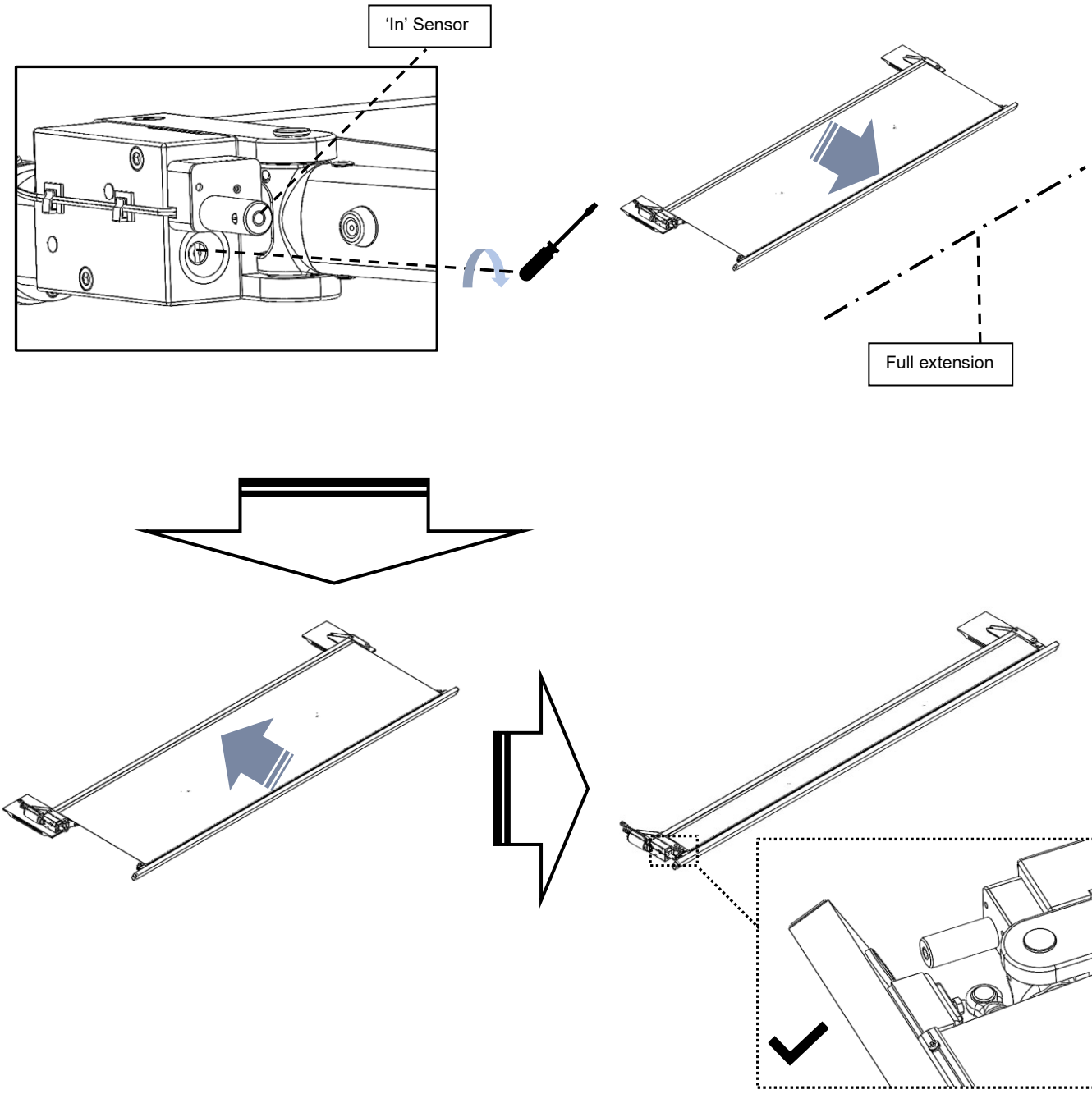
1. Wire In 12/24V and ground into the control box as shown.



INSTALLATION STAGE 5 - SETUP

1. Move the awning to the half open position. This can be done using the motor or use the ¼ drive socket on the front of the gearbox to operate manually.
2. Drive the Awning inwards, the system should stop close to the inbound sensor.

   NOTE: If it does not stop at the sensor and binds up the canvas, the control box will trip the circuit. The small LED on the control board will flash repeatedly if this happens. See ‘Installation stage 5 – ‘Adjustments’.



INSTALLATION STAGE 5 – ADJUSTMENTS

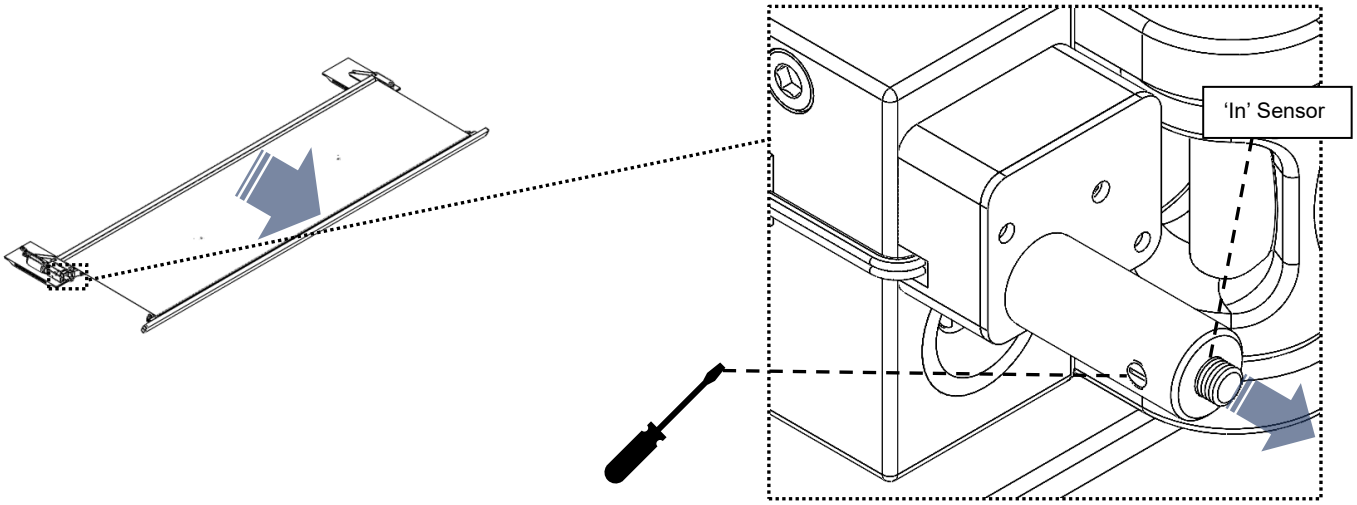
‘In’ position Sensor adjustment

1. Drive the awning out to half open position. NOTE: This will reset any errors from previous stage.
2. Make all checks from the testing section ‘Limit Switches’.

NOTE: If limit switches are correctly operating the position of the ‘in sensor’ may need adjusting.

3. Using a screwdriver loosen the grub screw on the ‘In Sensor’.
4. Gently pull the sensor out by a small increment.
5. Tighten the grub screw.

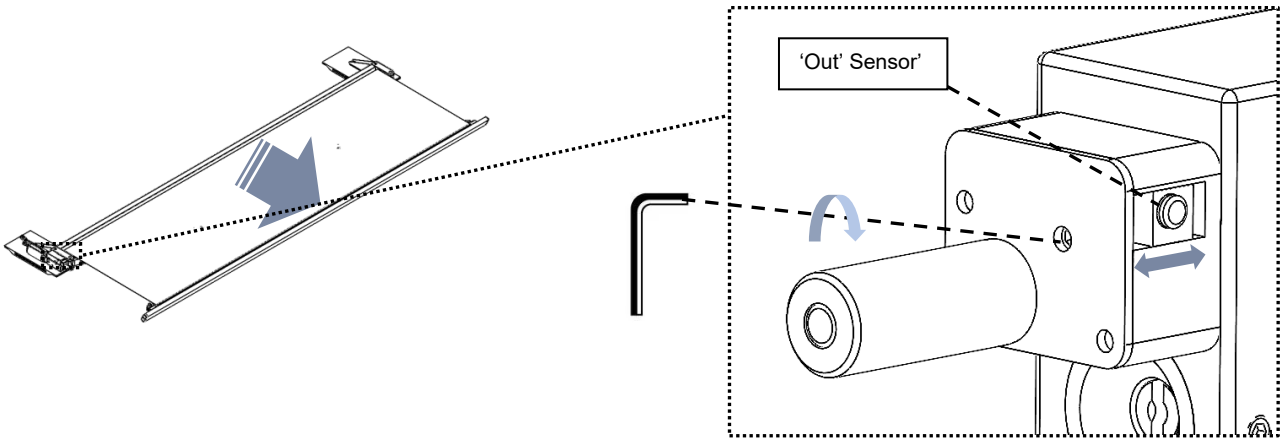
⚠ IMPORTANT: do not over tighten as this can damage the sensor



‘Out’ Position Sensor adjustments

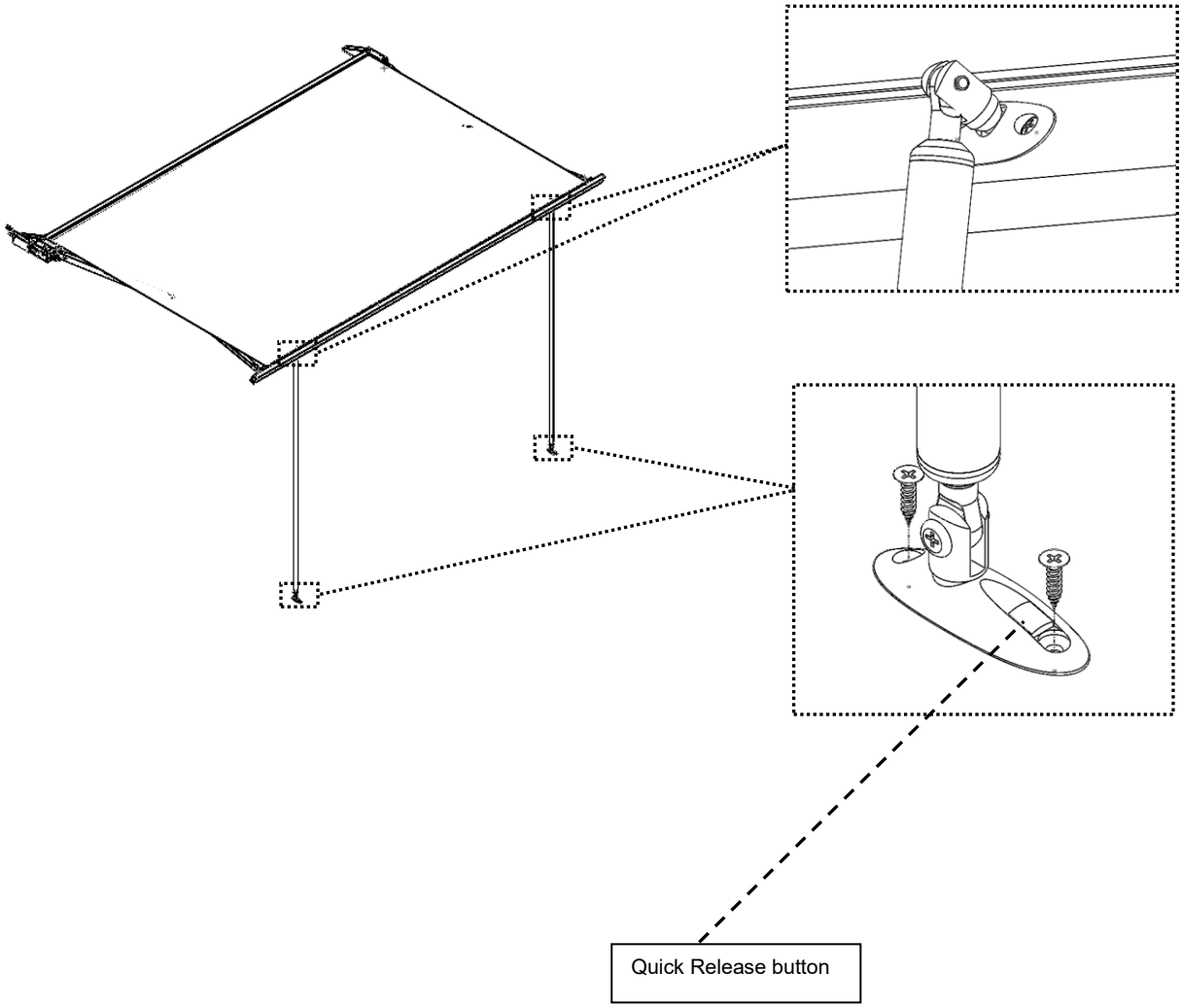
1. Drive the awning out to half open position.
2. Move the sensor Fwd or Aft as required using an Allan key to turn the grub screw.

⚠ IMPORTANT: do not over tighten as this can damage the sensor



INSTALLATION STAGE 6 (IF REQUIRED)

1. The Upper quick release (QR) fitting will already be attached to the awning Valance
2. The base of the Stanchion should be mounted in place in the position shown on the boat specific drawing contained in this pack.
3. The Stanchions can now be released by pushing the quick release button at both ends.



TROUBLESHOOTING

If the awning does not move

- Test for power coming int the control box.
- Check the motor cables are plugged together.
- Make sure all wires and connections are secured and undamaged.
- Test power over the switch terminals.

If the awning does not stop on the sensors

- Make sure the sensor cables are plugged together and the cap screwed over.
- Check for any damage to the wiring.
- Check all wires are still screwed into the connection blocks in the control box.
- Test continuity of the sensors with a magnet and multimeter.

NOTE: If the awning extends past the outer sensor limit it should be stopped immediately or it will unwind all the canvas and then pull back in under the canvas roller. When retracting it again, lift the canvas edges over the arms as it will naturally hang below.

TESTING

Control Box

- Set the multimeter to DC range. Disconnect all output connections, leave power supply connected.
  NOTE: Probe board side terminals screws to ensure good connection. Check input protection fuse before proceeding.
- Supply voltage terminals 1&2 should be same as boat system voltage. Make sure that the probe colours match the terminals. If the voltage display is negative the supply is reversed, and the board is probably damaged.
- If the power supply is correct, check the voltage at the limit switch terminals (6/7 and 9/10) reads the same as the system voltage
- Check the voltage over the control switch is about 5V (terminals 12/11 and 12/13).
- If the control box passes all tests there is a very little chance that it at fault. As a final check, disconnect one of the power cables and reconnect, the small red LED on the board should flash once briefly. This LED is also used to show errors such as over voltage.

Drive Motor

- Reconnect the control switch and motor leads as per the wiring diagram. Operate the control switch and the motor should turn in both directions. If it doesn't: Check the switch circuit. Disconnect switch and use a jumper wire or a test switch connected directly to the terminals. Check the motor circuit. Unplug the motor lead at the rear of motor and probe the terminals with a meter set to resistance (Ω). Reading should be no more than a few OHMs, if it reads high or short circuit the motor is suspect. Check for continuity of the motor lead, and that the connections in the plug match. These plugs are wired and tested in the factory and only tampering can upset them. If possible, apply power to the motor leads. If the motor fails to operate it is probably damaged and requires replacing. You must disconnect the motor from the board for this test.

Limit Switches

- Both switches are normally open, so to test the switches a magnet will be required. The 'in' (FWD) switch is located in the forward extension on the drive gearbox. The 'out' (AFT) switch is located in the sensor housing facing the main pivot.
- The 'in' switch wires are always yellow and blue unless tampered with. Set the multimeter to continuity range and check the switch circuit. It should read infinite resistance (open switch). Hold a magnet to the end of the sensor, it should now read zero resistance.
- The 'out' switch wires are red and black. Repeat as above but secure the magnet over the sensor between the housing and the main pivot. Note, the is a magnet in the main pivot which triggers the sensor. You may need to push the arm to the closed position before testing so it doesn't interfere with the sensor during testing.

If either switches fail the testing:

- Check the sensor plug is connected and undamaged. Check the wires. This can only be a problem if damaged or interfered with after leaving the factory. If neither switch works this is the most likely cause. The other possibility is failure of both switches, but this is highly unlikely. If the wiring has been tampered with, try matching different colour combinations, e.g. red/yellow, blue/black etc. If this works, rewire into the control box in the working combination.

WARRANTY

Any product defect notification must be accompanied by a serial number, date of purchase, contact name, address and daytime telephone number. If this information is not provided, Makefast Ltd may be unable to process your warranty claim.

1. Makefast Ltd (We, Our, Us) warrants this Product (excluding labour, travelling and expenses) to be in free of manufacturing defects during the period of warranty. The period of warranty is 24 months and commences on the date of despatch of the Product from Makefast Ltd. Extended Warranty is available beyond the manufacturers 2-year standard Warranty. Please contact Makefast or your Boat Broker for details.

2. The Warranty consists of (at Makefast's discretion) either repair or replacement spare parts only that will be provided on an exchange basis and will either be new, equivalent to new or re-conditioned. All replaced spare parts and Products shall become the property of Makefast, and are required to be returned to Makefast for analysis, and acceptance of warranty terms.

3. Unless agreed in writing, the Warranty will not apply: (a) because you have not used, stored or fitted the Product properly; or because you are in breach of the terms of this warranty or the Contract terms, or have not followed Our instructions in the product manual, or because of damage or defect due to wilful neglect or negligence by anyone ; (b) to loss of quality, degradation of performance or actual damage that results from the use of spare parts or other replaceable items that are neither made nor recommended by Makefast; (c) to a loss of quality, degradation of performance or damage that results from the installation of, damage to, or modification to the Product by someone else other than Our representatives or because of damage that results from changes required by you or a Third Party; (d) to damage that results from your connection of other fittings or accessories to the Product which We have not approved or your connection of other equipment or software not approved by Us; (e) because of external causes outside Our control which shall include accident, fire disaster or burglary; (f) because of faults caused by shock or fall, sand, dust, dirt, damp or corrosion, leaky batteries, repair by unauthorised personnel; (g) because of any malfunction or specific requirement of any other item of hardware, which you have linked to the Product in respect of items not included in the Contract.

4. As far as the law allows, we will not be responsible for the following: (a) loss of income, profits (actual or anticipated), and contracts or for any other business-related loss; (b) indirect or consequential loss or damage howsoever caused; (c) compensation for fitting of replacement parts.

5. These conditions shall in all respect be governed and construed in accordance with English Law and subject to the exclusive jurisdiction of the English Courts.

SERVICE CONTACT

Please ring Makefast Ltd +44 1686 629010 for contact details in the highlighted areas: