

Radio controlled tubular motor with electronic end point switch off Series TDEF



Valid for the following models:

For shaft sizes 40 mm and over:

TDEF - 10/14

For shaft sizes 60 mm and over:

TDEF - 10/13 | TDEF - 20/13 | TDEF - 30/13 | TDEF - 40/13



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- (GB) An English manual can be downloaded at <http://www.jarolift.de/en/manuals>
- (F) Vous trouverez des instructions en français sur <http://www.jarolift.de/fr/instructions>
- (I) Una guida in italiano è disponibile alla pagina <http://www.jarolift.de/it/guida>
- (E) Encontrará un manual en idioma español en <http://www.jarolift.de/es/manual>
- (NL) Een handleiding in Nederlands kan u vinden op <http://www.jarolift.de/ne/handleiding>
- (PL) Instrukcja w języku polskim znajduje się na stronie <http://www.jarolift.de/pl/instrukcje>
- (TR) Türkçe kılavuzu <http://www.jarolift.de/tr/kilavuzu> adresinde bulabilirsiniz

Roller shutter motor models TDEF 10/14, TDEF 10/13, TDEF 20/13, TDEF 30/13, TDEF 40/13, meet the requirements of the relevant European and national regulations.

2006/42/EG - Machinery regulations
2014/53/EU - Radio Equipment regulations
2014/30/EU - EMC regulations
2014/35/EU - Low voltage regulations

The products above meet the requirements of the German Product Safety Legislation (ProdSG) with regard to guaranteeing health and safety.

DIN EN 60335-1 (VDE 0700-1):2010-11; EN 60335-1:2002+A11+A1+A12+A2+A13+A14:2010; DIN EN 60335-1/A15 (VDE 0700-1/A15):2012-03;
EN 60335-1/A15:2011; DIN EN 60335-2-97 (VDE 0700-97):2010-07; EN 60335-2-97:2006+A11:2008+A2:2010; DIN EN 62233 (VDE 0700-366):2008-11;
EN 62233:2008; DIN EN 62233 Ber.1 (VDE 0700-366 Ber.1):2009-04; EN 62233 Ber.1:2008; DIN EN ISO 12100:2011-03; EN ISO 12100:2010

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Michael Mayer
Managing Director



WARNING: Important safety notice!

To ensure personal safety, it is important to follow these instructions! Please keep these instructions and pass them on to any new owners when the property changes hands!



Any work on electrical equipment carries the risk of fatal injury from electric shock.

- Connecting the tubular motor to the mains, and any work on electrical equipment, must only be carried out by an approved electrical specialist in accordance with the connection plans included in these instructions (see Page 5).
- Only carry out fitting and connection work in a voltage-free state.



Failure to follow these instructions can endanger life!

Observe the regulations regarding installation in damp areas.

In particular, observe DIN VDE 0100, section 701 and 702 when using in damp areas. These regulations contain compulsory protective measures.



Use of defective equipment can cause a hazard for persons and material damage (electric shock, short circuit).

- Never use defective or damaged units.
- Check the motor and mains cable for any damage.
- Please refer to our Service Team (see last page), if you find any damage to the equipment.



Improper use may lead to an increased risk of injury.

- Instruct all persons in the safe use of the tubular motor.
- Watch the moving awning carefully and keep people away until it has stopped moving.
- Do not allow children to play with fixed controls or the remote control.
- Keep the hand transmitter in such a way to prevent any accidental operation, e.g. by children playing.
- Disconnect the equipment from the electricity supply before cleaning the awning.
- For permanently installed devices, a cut off device must be present on the installation side for each phase in accordance with DIN VDE 0700. Cut off devices include switches with a contact opening of at least 3 mm (e.g. circuit breakers, fuses or RCD's) Check the installation regularly. Where there is any damage (e.g. signs of wear and tear, damaged cables and misplaced final position), the equipment should not be used.

- When operating the unit in extended or open mode, take care, as items may fall off, if fixings drop or are broken.

- The mains connection cable for this motor may only be replaced (by the manufacturer themselves, their customer service personnel or a similarly qualified person) by a cable of the same type, supplied by the manufacturer of the motor, in order to avoid any hazards.

- Permanently mounted control units must be fitted in a visible manner. Rated torque and rated operating time must be compatible with the properties of the unit to be powered.

- If the tubular motor is controlled by a switch with an OFF pre-setting, then this switch must be mounted in sight of the tubular motor, away from moving parts, at least 1.5 m high.

- For motors which were delivered without an associated unit, the rated torque and rated operating time must be compatible with the properties of the unit to be powered.

- Proper operation of the unit can only be guaranteed if it is correctly installed and fitted, and where there is adequate electricity supply and maintenance. The equipment must be protected against unauthorised use. Take safety precautions to make sure the equipment cannot be turned on accidentally.

- Disconnect all connection cables from the electricity supply before working on the equipment. All cables not required should be removed and all fittings not required for activation with the motor should be made inoperative.



Disconnect the equipment from the mains and do not operate when work (e.g. window cleaning) is being carried out nearby.

- The activation element of a manual release unit (emergency hand crank) should be mounted at a height below 1.8 m.
- When changing operating direction, the changeover time must be at least 0.5 seconds. The switches used must not carry out simultaneous UP / DOWN commands. The motor must only be used for the purposes described in the instructions.

Correct use / operating conditions

Use the tubular motor only to open and close roller shutters and awnings.

IMPORTANT!

- The motor cable must be laid in an empty conduit as far as the junction box, in accordance with local electrical regulations. Ensure the motor cable does not come into contact with the roller shutter shield.

Conditions for use

- For electrical connection, the installation site must have a constant 230 V / 50 Hz electricity supply, with a main circuit disconnect device (fuse) on site.
- Only use the manufacturer's original components and accessories.



Important fitting instructions



IMPORTANT!

Before assembly, compare the voltage / frequency information on the type label with that of the local electricity network.

- Before installing the tubular motor, remove or decommission any cables or units not needed for operation.
- Any moving parts of motors which are operated under a height of 2.5 m from the ground must be protected.
- The roller shaft must be mounted horizontally! Any winding of the roller shutter if this is not horizontal may lead to damage to the motor or the awning.
- The roller shutter housing inspection cover must be easily removable and accessible, and should not be wallpapered over or plastered over.

After unpacking, compare the following:

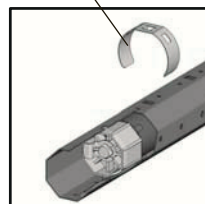
- contents of package and the delivery information in these instructions
- the type of motor and the corresponding information on the type label



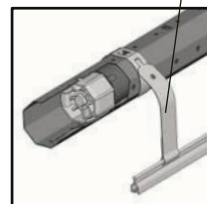
If you drive screws into the roller shutter shaft in order to hang the shutters, then please make sure these are so short they do not touch the motor under any circumstances!

With roller shutter motors type TDEF-10/14, we recommend use of suspension clamps for the retaining springs. You can get these from our partner www.jalousiescout.de or in well-stocked specialist retailers. The clamps make sure the roller shutter motors are not damaged by the dovetails on the retaining springs during installation in the 40 or 50 8 sided steel shaft.

Suspension clamps



Retaining spring



Caution! In principle, when motors with an electronic automatic shut off are used, the roller shutter must be connected using steel strip hangers, also known as retaining springs. Caution! When installing the motor in a D=40 mm shaft, please make sure the shaft does not cause any abrasion marks on the motor. This may happen depending on the construction of the shaft! If this is the case, you must install an appropriate shaft! You can get these from our partner www.jalousiescout.de or in well-stocked specialist retailers. Please ask for a 40 mm eight-sided shaft with external flange!

i Technical data

Motor type:	Voltage:	Frequency:	Rotation speed:	Power consumption:	Power output:	Operating time:	Torque:	Noise emission:
TDEF-10/14	230 Volt	50 Hz	14 rpm.	0.49 A	116 W	4 min.	10 Nm	<70dB
TDEF-10/13	230 Volt	50 Hz	13 rpm.	0.68 A	155 W	4 min.	10 Nm	<70dB
TDEF-20/13	230 Volt	50 Hz	13 rpm.	0.72 A	174 W	4 min.	20 Nm	<70dB
TDEF-30/13	230 Volt	50 Hz	13 rpm.	0.95 A	226 W	4 min.	30 Nm	<70dB
TDEF-40/13	230 Volt	50 Hz	13 rpm.	0.95 A	226 W	4 min.	40 Nm	<70dB

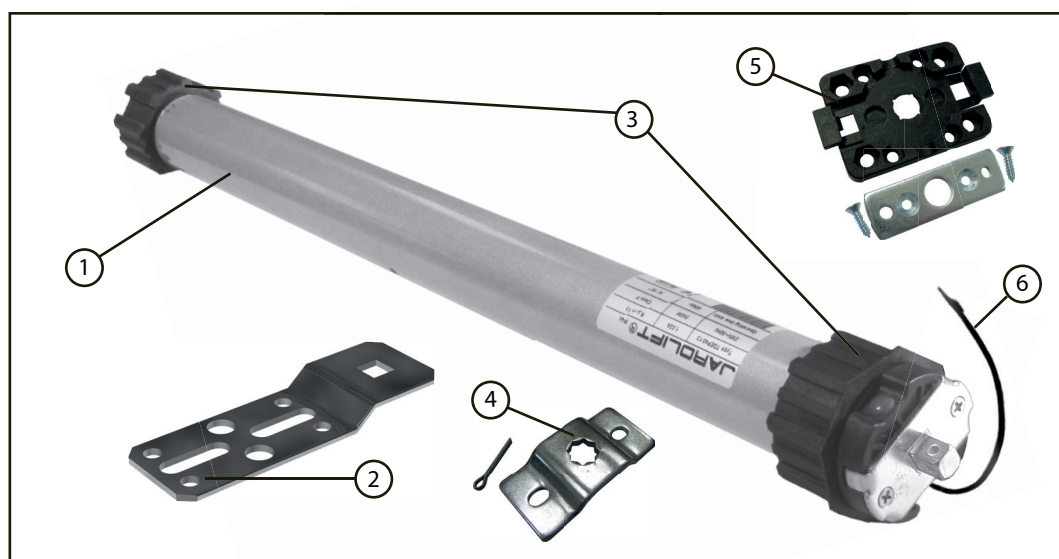
Compatible with all TDRC transmitters produced after 03/2010.

i Included in delivery

After unpacking, compare the following:

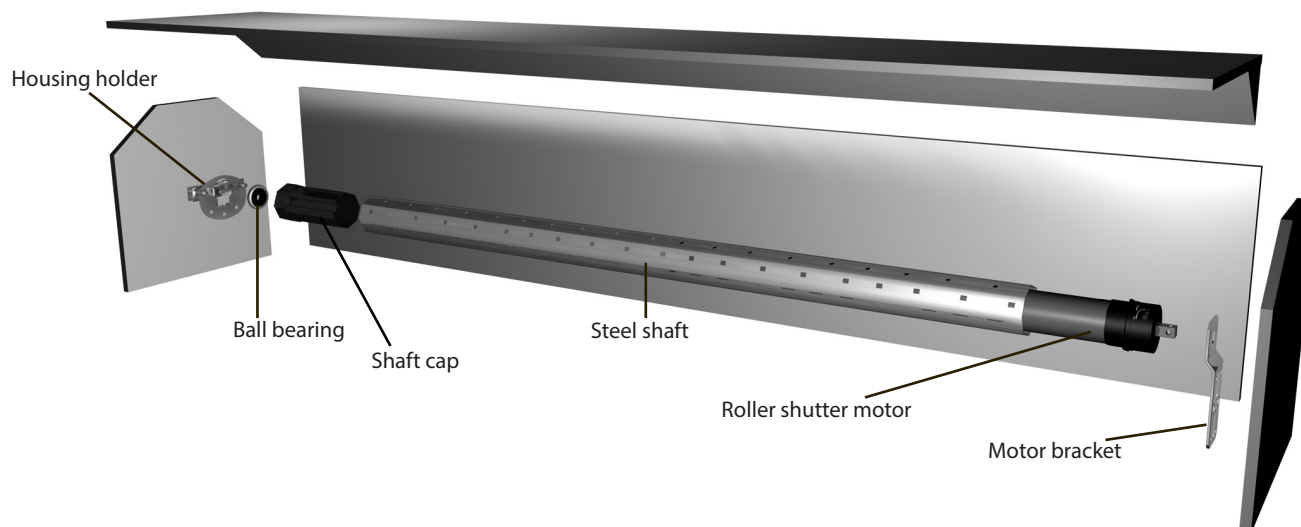
- contents of package and the delivery information in these instructions
- the type of motor and the corresponding information on the type label

1. Motor
 2. Motor flat bracket
(only with SW60 tubular motors)
 3. Adapter and carrier
 4. Motor star bracket
 - 5 Click bracket adapter & click bracket
(only with SW40 tubular motors)
- + Instructions



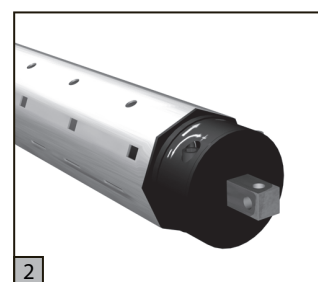
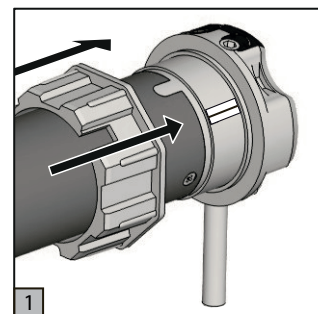
Before your begin assembly:

1. Please read the instructions fully and carefully before beginning the installation.
2. Ensure the roller shutter is not damaged, and that it can be opened and closed smoothly. If necessary, replace damaged parts.
3. Roll the roller shutter out fully and determine whether the motor should be installed on the left or right of the roller shutter casing. Always choose the shortest route to the next junction box, as cables may not be laid in the roller shutter casing.
4. The end position is determined when the plastic ring is fully pushed on. Always ensure the motor can be pushed into the shaft until it stops.



Fitting the tubular motor

1. First, lay the connection cable as far as the junction box in an empty conduit in accordance with local building and electrical regulations.
2. Roll the roller shutter fully out and loosen the shaft connection.
3. Dismantle the roller shutter shaft.
4. Fit the motor bracket supplied on the side where you would like to fit the motor. The motor can be fitted on the left or the right.
5. Push the bearing ring adapter over the bearing ring on the motor head until it clicks into position. Please make sure the groove is correctly positioned in the adapter. (Fig. 1)
6. Now push the motor into the roller shutter shaft, until it is fully inserted in the shaft with the bearing ring. (Fig 2). Do not use a hammer for this under any circumstances! Under certain circumstances, the adapter and carrier may not be easy to push in, but the motor should not be struck.
7. Now check whether the shaft with the motor built in can be easily fitted in the housing or if you may need to shorten the shaft. Now place the shaft in the housing and secure the square motor head pin using the locking pin supplied with the housing.



IMPORTANT!

Do not drill or screw into the motor!

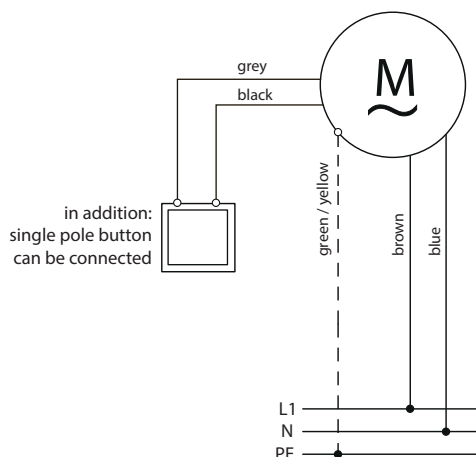
When installed, the unrolled shutter must run vertically in the window guide rails.

Please make sure the housing is installed horizontally. A roller shutter which is not horizontal may block and damage the motor.

Please make sure the motor is installed in such a way that the motor end point setting screws remain accessible!

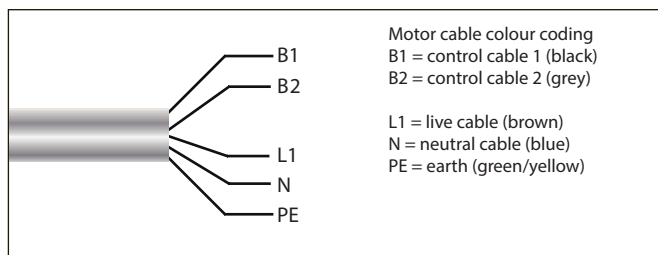


Electrical connection



Alternatively, you can also operate our TDEF radio motors with a button. For this, only use a single pole, single phase button. You can get these from our partner www.jalousiescout.de or in well-stocked specialist retailers.

If you do not connect a button, insulate the grey and black wires using a WAGO or lustre terminal or similar.



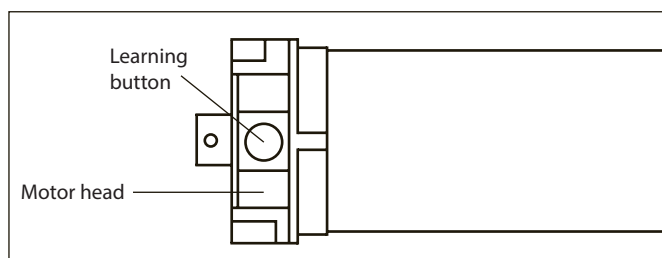
Programming the radio code

1. Connect the motor in accordance with the assembly instructions (see Page 4). Now press the learning button on the motor head. The motor will vibrate briefly, this means that the motor will now be in learning mode for 5 seconds.



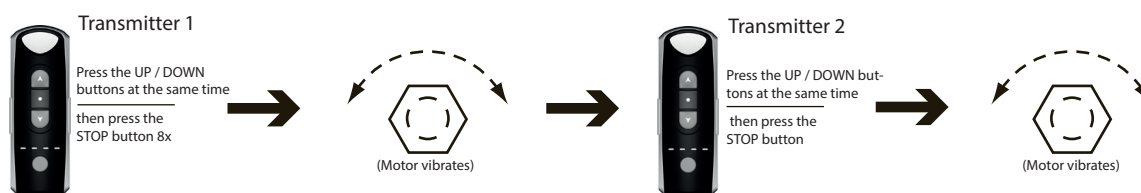
If you can't reach the learning button with your fingers, remove the motor briefly from the mains. Once reconnected, the motor will be in learning mode automatically for 5 seconds.

2. Within 5 seconds, press the UP and DOWN button on your transmitter at the same time and then press the STOP button briefly. When the code has been learned correctly, the motor will vibrate again. Now you can control the motor using the UP/STOP/DOWN buttons on your transmitter.



Copying an existing radio code (only when a transmitter has already been programmed)

1. Press the UP and DOWN buttons at the same time on the transmitter already programmed. Then press the STOP button on this transmitter eight times. The motor will vibrate briefly as confirmation.
2. Within 5 seconds, press the UP and DOWN button on your transmitter at the same time and then press the STOP button briefly on the new transmitter you want to copy the code to. The motor will vibrate briefly again as confirmation. The code has been copied to the new transmitter.





Deleting the radio code (only when a transmitter has already been programmed)

1. Press the UP and DOWN buttons on the transmitter at the same time. Then press the STOP button six times.
2. Now press the UP button inside 10 seconds. The motor will confirm the code has been deleted by vibrating briefly.



Changing the direction of rotation

Option A

Now press the learning button on the motor head for 3 seconds. The motor will confirm the direction has been changed by vibrating briefly.

Option B

1. Press the UP and DOWN buttons on the programmed transmitter at the same time. Then press the STOP button six times.
2. Now press the UP button briefly within 10 seconds. Remove the motor from the mains and then reconnect it. The motor's direction of rotation has been changed successfully.



Setting the end points

1. First set the lower end point. Press the UP and DOWN buttons on the transmitter at the same time and then press the STOP button twice. Now press the DOWN button briefly within 10 seconds. The motor will confirm the lower end point has been set by vibrating briefly.



2. Now attach the roller shutter to the roller shaft. To attach the roller shutter to the shaft please use steel strip hangers, also known as retaining springs. You can get these from our partner www.jalousiescout.de or in well-stocked specialist retailers.



If you drive screws into the roller shutter shaft in order to hang the shutters, then please make sure these are so short they do not touch the motor under any circumstances!

3. Run the roller shutter up until it reaches the desired end point. Press the UP and DOWN buttons on the transmitter at the same time and then press the STOP button twice. Now press the DOWN button briefly within 10 seconds. The end point will be established in this position. CAUTION! The roller shutter locking bar should still be visible from the outside.



4. If the roller shutter has reached the desired height, the setting process is complete.
5. Now run the roller shutter up and down fully several times to test. If the roller shutter stops at the set end points, you have completed the setting process and the roller shutter casing can be closed.



Please note that the end switches on the motor only function properly when the motor is fully and correctly incorporated into the shaft!

Please note, the motor is fitted with a thermo protection switch, and it is possible that the motor will switch off if it reaches a high temperature after a number of operations. The motor will be ready for use again after a cooling period of around 15 - 20 minutes.

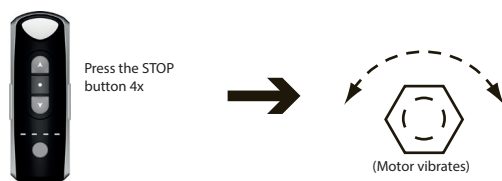
6. **Changing the end point:**
Follow the procedure in point 1 and 3.



Setting the third end point

A third point can be used to set a ventilation position, for example.

1. Move to the desired mid-point position.
2. Then press the STOP button 4x
The motor will confirm that the mid-point position has been set by vibrating briefly.



3. You can now move to the mid-point position by pressing the STOP button for 5 seconds.



Deleting the end points

Deleting the **upper** end point:

1. Stop the motor using the STOP button.
2. Press the UP and DOWN buttons on the transmitter at the same time and then press the STOP button four times.
3. Now press the UP button within 10 seconds. The motor will confirm the upper end point has been deleted by vibrating briefly.





Deleting the **lower** end point:

1. Stop the motor using the STOP button.
2. Press the UP and DOWN buttons on the transmitter at the same time and then press the STOP button four times.
3. Now press the DOWN button within 10 seconds. The motor will confirm the upper end point has been deleted by vibrating briefly.



Setting inching mode

Activating inching mode:

1. Stop the motor using the STOP button.
2. Press the UP and DOWN buttons on the transmitter at the same time and then press the STOP button six times.
3. Now press the DOWN button within 10 seconds. The motor will confirm that inching mode has been activated by vibrating briefly.



The motor will now only operate as long as you press the UP or DOWN button. In inching mode, press the UP or DOWN button for 3 seconds, so that the motor moves to the end point or until you press the STOP button.

De-activating inching mode:

1. Stop the motor using the STOP button.
2. Press the UP and DOWN buttons on the transmitter at the same time and then press the STOP button six times.
3. Now press the DOWN button within 10 seconds. The motor will confirm that inching mode has been de-activated by vibrating briefly.



The motor does not lower / raise the shutters, starts too slowly or makes loud noises.

Possible cause 1:

- The connections are not correct.

Solution 1:

- Check the connections.

Possible cause 2:

- Incorrect installation or overloading.

Solution 2:

- Check the installation and roller shutter load.

The roller shutter stops while lowering or raising!

Possible cause 1:

- You have reached the set end point.

Solution 1:

- Re-set the end points as per the instructions.

Possible cause 2:

- Operating time exceeded (4 mins.).

Solution 2:

- Allow the motor to cool for around 20 minutes.

The motor does not run!

Possible cause:

- No electricity supply.

Solution:

- Use a voltage meter to check availability of mains voltage (230 V) and check the wiring.
- Please pay special attention to the unapproved types of connection.
- Check the installation.

The motor runs in the wrong direction when a button is pressed!

Possible cause:

- The direction of rotation is wrong

Solution:

- Change the motor's direction of rotation, as described on page 6 of the instructions.

The motor does not stop independently during setting and test runs.

Possible cause 1:

- The adapter has possibly slipped from the bearing ring on the motor head.

Solution 1:

- Check that the adapter is sitting firmly in front of the motor head and is fully inserted in the shutter shaft. Push the adapter on firmly in front of the motor head and push the roller shaft fully onto the adapter. If necessary, reset the end points.

Possible cause 2:

- Roller cap not attached or roller shaft too short.

Solution 2:

- Attach roller cap or insert an appropriate roller shaft.

The motor stops between the two end points during normal operation!

Possible cause:

- The thermo protection system has cut in.

Solution:

- Allow the motor to cool for around 20 minutes.

The roller shutter stops while going up!

Possible cause:

- Iced shutters or obstruction in the guide rail.

Solution:

- Remove ice or other blockage.
- Move the roller shutter in a downwards direction.

If you experience problems with one of our products, or you have received a defective unit, please contact the following address in writing or by email:

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