



# Your Easytow PWC Trailer

Congratulations on purchasing an Easytow PWC Trailer. Your trailer is well known for its high quality design, manufacture and component parts. And with a little care it will provide you with years of trouble free towing.

This manual describes the operation and components of your trailer. Before using your trailer please familiarise yourself with the contents, suggestions and cautions in the manual and in particular the checklist for care and maintenance. This will help you to obtain the maximum pleasure from your boating experience and avoid endangering yourself and others.

A little care and attention at the right time will make sure your Easytow Boat Trailer remains in top condition.

Your Easytow PWC Trailer has been custom designed and manufactured. Some items may be customized so you cannot, therefore, base any claims on the data, illustrations or descriptions shown in this Owner's manual.

The Owner's Manual is part of the trailer. You should keep it and pass it on to the new owner if you sell the trailer.

Please consult an Easytow Boat Trailer dealer or contact our head office directly if you have any questions.



# Your Easytow Boat Trailer

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We wish you happy boating and trouble free towing - from Easytow Boat Trailers.



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# BOAT TRAILERS

# **Pre-Delivery**

All Easytow trailers require a certain level of pre-delivery checks and/or adjustments **prior** to their first use. Depending on your specific trailer/boat model combination, the extent of these checks and/or adjustments can vary. You should check your towing package to ensure these checks/adjustments have been completed and constantly monitor/check these areas through the trailer's life. If you think that these points have not been addressed, please bring it to the attention of your dealer.

### **Pre-Delivery Checklist**

1. PWC is fitted correctly to the trailer

This includes (but is not limited to) winch post position and height, and any adjustable rollers or adjustable timbers. Some trailers can have significant adjustable parts that must be fitted to the boat correctly to validate your warranty and to allow the trailer to operate properly.

2. Wheel nuts are tightened to 108Nm (80lbf-ft)

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# **Pre-Delivery**

<b>Pre-delivery Checklist</b>	(continued)
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- 3. PWC is securely tied to trailer √
  Check that all straps are securely fastened. The PWC should be tied down at both the rear and the front. *The winch strap is purely for launching and retrieving your boat. It is not a tie down; excessive pressure on this strap can result in damage to your winch.*4. Load is within maximum carrying capacity √
  5. Tyres are properly inflated √
- 6. All lights are working correctly

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### **Before Each Journey**

When you take delivery of your trailer and prior to each journey, you should conduct a 'Before Each Journey' safety inspection. The inspection items are shown in the 'Before Each Journey Safety Checklist'. Never tow your trailer before satisfying yourself that each item has been properly checked.

When purchasing your trailer ask your dealer or the previous owner to show you how to perform these safety checks. These simple inspections will help you avoid towing problems and possible injury to yourself and others.



### Before Each Journey Safety Checklist

- 1. Coupling and tow ball are same size  $\sqrt{}$ The cup on the coupling should fit completely over the tow ball and when fitted should not have more than 5mm play or movement between the cup and the ball.
- Coupling and safety chains are safely secured to two bar √
   Safety chains attached to the trailer should be connected to the tow bar with a rated 'D' shackle. Do not attach the safety chains to the towing vehicle with any other item.
- 3. Wheel nuts are properly tightened  $\sqrt{}$ Trailer wheel nuts have a tendency to loosen more readily than those on a car which has shock absorbers.
- 4. PWC is securely tied to trailer  $\sqrt{}$ Check that all straps are securely fastened. The winch strap is purely for launching and retrieving your boat. It is not a tie down.
- 5. Load is within maximum carrying capacity Check VIN plate for carrying capacity.
- 6. Tyres are properly inflated.  $\sqrt{}$  Check VIN plate for inflation pressure.

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### Before Each Journey Safety Checklist (continued)

7. All lights are working

Check both right and left indicator lights, tail lights and brake lights.

BOAT TRAILERS

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### **Regular Maintenance**

Your Easytow PWC Trailer has been designed and manufactured to give you trouble free towing. The component parts are high quality and conform or exceed Australian Standards requirements. To keep the trailer in top working order, simple, regular maintenance should be performed.

The maintenance to be performed on each component is described in the 'Components' section of this manual. Some maintenance should be performed semi annually and some annually. It also notes which maintenance functions should be performed by qualified technicians and which functions you may consider performing yourself.

The service logs provide a maintenance checklist and can be used to record a history of the maintenance performed. The checklist provides a prompt of what items are to be maintained, when they are to be maintained and what maintenance is to be performed.



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# Components

### After Launching and Retrieving Checklist

1. Chassis is washed

Wash PWC and trailer at the ramp after salt water immersion. Ensure the water drain holes are free of blockages.

2. Carpet (where fitted) is hosed Remove sand and dust from fibres.





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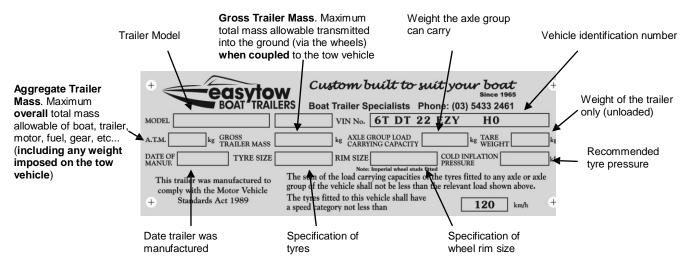
# Components





### **VIN Plate**

The VIN plate contains the trailer's vehicle identification number. It also carries information about the trailer including gross weight and wheel specifications. The VIN plate is riveted to the drawbar at the front of the trailer. It is your responsibility to familiarise yourself with the information on the VIN Plate and ensure that the total load on the trailer is within the G.T.M. and A.T.M. parameters.





Chassis

Frame

A distinctive feature of all Easytow Trailers is the high quality and strength of the trailer frame. The steel side rails are distortion free and formed to fit the contours of your PWC.

All the steel trailer frames are manufactured from high grade, custom rolled steel sourced from Australian mills and conforming to Australian standards.

The standard finish on the trailers is galvanised however paint over galvanising is also available.



### Chassis

### (i) Galvanized

Galvanising is an industrial process that covers the trailer (and parts) with a protective zinc coating. The zinc provides a 'sacrificial' protection to the metal frame. Instead of the steel rusting, the zinc is 'sacrificed' to the corrosion process first through a cathodic reaction. This process takes many years and does not require that the zinc completely cover the steel to provide protection.

The zinc, itself, will react with the environment to form a white powder. (this reaction begins within a week of the trailer being manufactured) This white powder is called calcium carbonate and it protects the zinc from the elements. It can be removed by a wire brush or washing with a dishwashing detergent but it is best left on.

As galvanising involves hanging and dipping the frame and parts in to molten zinc, the thickness of the zinc coating can vary slightly. Any large lumps and burrs are removed but the varying thickness is left otherwise the presentation of the finished trailer would appear worn.

Even though these trailers have been made for extra corrosion protection they should be stored with the front of the trailer highest so that any water can drain out the rear of the side rails.

Refer 'The Galvanising Process' in the appendix.



### Chassis

(i) Galvanized

#### Maintenance

Every launch / retrieval

Wash PWC and trailer at the ramp after salt water immersion to prolong the life of the trailer. Even salt residues dripping from the PWC onto your trailer will cause a reaction with the zinc surface whilst drying.

Dry trailer before garaging in an enclosed space. One of the biggest causes of zinc deterioration is washing your trailer and garaging it whilst still wet.

Ensure the water drain holes underneath the cross members are not blocked so the water can drain freely.



### Chassis

(ii) Painted over Galvanising

Trailers finished with paint over galvanising combine the attraction of a painted finish with the protection of galvanising.

Galvanising is an industrial process that covers the trailer (and parts) with a protective zinc coating. The zinc provides a 'sacrificial' protection to the metal frame. Instead of the steel rusting, the zinc is 'sacrificed' to the corrosion process first through a cathodic reaction. This process takes many years and does not require that the zinc completely cover the steel to provide protection.

Refer 'The Galvanising Process' in the appendix.

Once galvanised, the trailer and parts are prepared and finished with an undercoat and four (4) top coats of automotive 'two (2) pack' paint. These are applied directly to the galvanised steel.

Even though these trailers have been made for extra corrosion protection they should be stored with the front of the trailer highest so that any water can drain out the rear of the side rails.



### Chassis

(ii) Painted over Galvanising

#### Maintenance

Every launch / retrieval

Wash PWC and trailer at the ramp after salt water immersion to prolong the life of the trailer.

Ensure the water drain holes underneath the cross members are not blocked so the water can drain freely.

#### Warning

Special attention should be given to your PWC's fuel level especially on hot days. As fuel expands with heat, overfilling your tank can result in fuel expelling out your fuel breather.

Fuel left unattended constantly dripping and drying on a painted over galvanized trailer is dangerous and can have a negative effect on the finish of the trailer (and PWC decals). Trailers parked on excessive angles can have the same consequence as an overfilled tank.

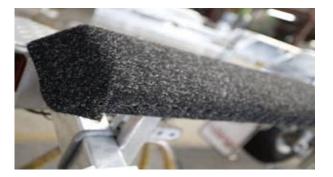


Chassis

Carpet

On some trailers marine carpet is used to cover the support timbers.

**Carpet Timber Support** 





Chassis

Carpet

#### Maintenance

Every four / five (4/5) launches

Hose down the carpet to remove sand and dust from the fibres.

#### Warning

Do not winch your PWC over dry carpet as dust and sand particles can scratch the hull, and/or burn the carpet. Damage caused by winching over carpet or burnt carpet is not covered by any warranty.



### Chassis

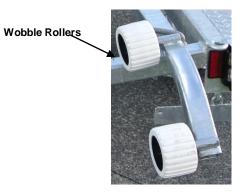
Wobble Rollers

Your PWC trailer may be supplied with wobble rollers to support the hull.

Maintenance

Every six months

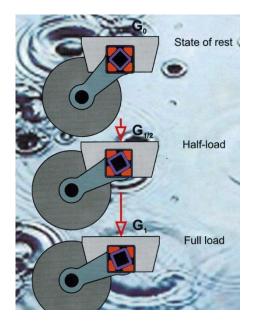
Check that split pins are securely fastened and in good order and the rollers roll freely.



### Axles

### **Torsion Axles**





BOAT TRAILERS



Axles

**Torsion Axles** 

Your Easytow PWC trailer comes fitted with rubber torsion axles. They work different to traditional leaf springs as both sides of the axle work independently from each other. The rubber inside the axle helps provide a smoother, quieter ride by absorbing shock from the road.

#### Maintenance

Every six (6) months

Tighten the u-bolts which connect the axles to the trailer side frame. If you have been towing off-road or over unsealed roads, the tightness of the u-bolts should be checked more regularly.



### Wheels

Easytow PWC Trailers are generally fitted with five stud ford rims.

Check the VIN plate for your trailer's wheel identification.

#### Maintenance

Before Taking Delivery; At first 200 km; At each wheel change; After every 1000 km

Tighten wheel nuts to 108 Nm (80lbf-ft)



### **Bearings and Seals**

### **Bearings and Seals**

The bearings on your PWC trailer are located inside a waterproof hub protected by 8 waterproof seals.





### **Bearings and Seals**

It is a good practice to carry a spare hub for easy emergency replacement; these are available from Easytow Boat Trailers are your local Easytow dealer.

### **Bearing Protectors**

Given the special seal and bearing design of these hubs, bearing buddies are not required nor will they fit the Hub.



### **Bearings and Seals**

#### Maintenance

Every six (6) months

Inspect wheel bearings. Jack up the wheel and give it a wobble from side to side. If there is slack in the bearing tighten the axle hexagonal nut. Spin the wheel and if noisy replace the hub.

Every 2 years

The bearings in your PWC trailer are unable to be removed. A complete hub replacement is required. This is a much easier process at a fraction more of the cost of a good set of bearings. This replacement should be done by a qualified tradesman.



### Tyres

Inflate tyres to recommended pressure on your VIN plate or consult your dealer. Under inflation can cause uneven tyre wear.

#### Maintenance

Every year

Rotate tyres.

#### Warning

Excessive tyre wear on the inside of the tyres occurs if the trailer is overloaded.

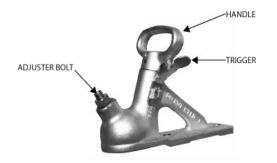
Excessive tyre wear on both the inside and outside of the tyre will occur if the tyre is under inflated.



### Coupling

All Easytow couplings are made to Australian Standards AS 4177.3. Your PWC trailer will be supplied with a non-brake coupling as pictured in the below diagram.

It is important that the coupling size matches that of the tow ball for safe towing (there should not be any more than 5mm play when the coupling is fitted over the ball).



#### Non Brake Coupling fitting



### Coupling

To connect the coupling to the tow ball place the coupling directly over the tow ball, pull up the coupling handle and then let the coupling slide down over the ball.

The coupling handle has provision for a safety locking clip or can be fitted with a padlock for security.

#### Maintenance

#### Warning

Ensure that the safety locking clip does not get caught in the handle and hold the handle plunger extended. The coupling and ball will detach in transit causing damage to towing vehicle and trailer and possible injury.



### Coupling Jockey wheel

Jockey wheels are provided to assist in lifting the trailer on and off the tow ball and for a small amount of maneuvering sometimes required to position the coupling and tow ball.

If maneuvering the trailer; lower the jockey wheel as far as possible to reduce stress on the shaft. The jockey wheel fitted is generally matched to your trailer size. On a PWC trailer a 6" swing up jockey wheel is standard fitment however upgrades can always be ordered or purchased through your dealer or our spare parts department.





Jockey Wheel

Maintenance

Every six (6) months

Lubricate jockey wheel by removing the handle and sliding out the inner tube to expose a thrust bearing and washer. Grease with a water repellant grease.



### Winch

The winch on your trailer has been calculated to match your PWC size. The winch has a webbing strap which is used to load the boat on the trailer.





Winch

Maintenance

Every year

Grease winch shaft

#### Warning

Winches are not legally allowed to hold your boat on whilst travelling. A chain and shackle must be used.



# Components

## Lights

LED lights are fitted standard to all trailers. For trailers over 2.1 meters wide or 4.0M in length, LED clearance lights are also fitted.



LED style may vary depending on your PWC trailer model.



# **Weight Distribution**

Easytow recommends between 5% - 10% of the complete towing package weight should be on your tow bar, i.e., if your complete towing package weighs 1,000 kg there should be between 50 and 100 kg weight on your tow ball. Always check manufacturers max load recommendations stamped on your vehicle tow bar before towing.





In conjunction with the industry '5-10%' standard, you must ensure that your towing package is on relatively level longitudinal terms – this generally relates to the tow ball height, or suspension attributes of the towing vehicle. Excessive draw bar weight; or conversely not enough weight can cause serious car, and trailer structural and safety issues.

An incorrect towing set up can void your warranty.



# Towing Guide and Tow Vehicle Set Up

To ensure safe driving conditions and optimum towing performance, it is important to correctly set up your PWC and trailer package.

It is with the trailer's owner that the responsibility rests to ensure that the appropriate towing set up, load distribution, and tow vehicle are used for safe and legal towing.

There are numerous factors that need to be considered in the relation to the tow vehicle and tow set up including (but not limited to):

- Complying with the Gross Trailer Mass
- Complying with the Aggregate Trailer Mass
- Complying with the tow vehicle's Towing Capacity
- Complying with the tow vehicle's Tow Bar Capacity
- Complying with the tow vehicle's Tongue Weight Capacity
- Ensuring Tongue Weight is at the correct %
- Ensuring the Tow Ball height is correct (which greatly effects points 1, 4, 5 & 6)
- The amount of, and where you position gear/stowage in the boat

Please refer to our website <u>www.easytow.com.au</u> for the complete Towing Guide. This can be used as a reference to ensure you are set up to optimize safe towing. If you are unsure or need any vehicle modifications, you should seek advice from a towing/suspension specialist.



## **Spare Parts**

Easytow Boat Trailers has a dedicated Spare Parts department to provide backup and support for the years to come. The Spares section on our website <u>http://www.easytow.com.au/spares.php?id=1</u> provides a list of the spare parts available, and also images of the most commonly purchased items. If you have any questions about Easytow Spares, speak to your dealer, or contact us via our contact page.





# Service Log

Service not required ==>



# Appendix 1

## **Australian Design Rules**

## Braking

Trailer up to 750 kg Gross Trailer Mass – no brakes required (i.e. boat on your trailer fully loaded).

Trailers 750 kg up to 2,000 kg GTM – brakes on at least one axle. "Efficient" over-run brakes acceptable.

Trailers 2,000 kg up to 4,500 kg GTM – brakes on all wheels, independent brakes (electric/power assisted brakes with control from the driver whilst in driver's seat) with breakaway system to automatically apply trailer brakes fully for at least 15 minutes.

## Lighting

All lights must comply with ADR requirements and provide an ECE approval mark on each lamp. (All lights used by Easytow Boat Trailers have this).

## Safety Chain

The safety chain must comply with Australian Standard 1872 – 1976.



## Coupling

The coupling must comply with Australian Standard D18 – 1968.

More information can be found from the Commonwealth Department of Transport and Regional Services.



# Appendix 2

## Galvanising

Galvanising is an industrial process that bonds zinc to the trailer and its parts. It is achieved by hanging the trailer frame and parts from wires, chemically treating them and then lowering them into a bath of molten zinc.

The process is designed to cover 100% of the trailer with a 55-70 micron coating of zinc inside and out. The thickness of the coating relates to the gauge of the material.

Galvanizing is an industrial finish and although Easytow Boat Trailers strive for the best finish possible it is not as clean and smooth as a painted trailer. Currently all Easytow Boat Trailer trailers are single dipped in the deepest and most modern galvanizing plant in Victoria.

Once the trailer is dipped it starts to age, evidence of this is a white powder forming on the trailer. This powder is called calcium carbonate and it protects the zinc from the elements. It can be removed by a wire brush or washing with a dishwashing detergent but it is best left on.

Trailers are galvanized to Australian Standards and these standards state the sum total of any uncoated area shall not exceed .5% of the total surface area or 250 sq cm, whichever is the lesser and no individual uncoated area shall not exceed 40 sq cm. It is quite common for blind spots to be left uncoated. This is normal and still meets Australian Standards. Usually these spots are not seen as they are mostly underneath the trailer and painted with a zinc rich paint so unnoticeable. Zinc is self-sacrificial which means if a hole is drilled through the trailer the surrounding zinc will cathodically protect the uncoated area.



# Appendix 2

### Galvanising

It is recommended that you wash your boat and trailer at the ramp after salt water immersion to prolong the life of the trailer. Even salt residues dripping from your boat onto trailer causes a reaction with the zinc surface whilst drying. One of the biggest causes of zinc deteriorations is washing your trailer and garaging it whilst still wet, your trailer needs to be fully dry before storing your boat in an enclosed space.

More information can be found at the Galvanising Association of Australia's website: www.gaa.com.au.



## Warranty (& Extended Warranty if purchased)

From time to time issues can arise, whether it be 'purchased in' items or items fabricated at our factory. To deal with this Easytow has a set warranty procedure that is in place to manage any warranty issues efficiently. Please contact your Easytow dealer that you trailer was purchased from in order to trigger your warranty request.

If you have purchased an **extended warranty**, your dealer should have provided you with information on your additional coverage. If you have not purchased an Extended warranty and the trailer is within 4 months from the date of sale you **can still purchase the extended warranty**.

### 1. 12 Month Warranty

Subject to clause 3 and 4, Easytow warrants new Easytow boat trailers and their components to be free from material defects for 12 months from the earlier of: the date of purchase by end user from the distributor, or 12 months of the invoice date from Easytow to the distributor. For the avoidance of doubt, the commencement of all warranty related periods in this statement will be calculated in accordance with this clause.

- (a) Easytow will at its discretion repair or replace trailers if they fail to function properly during the warranty period. Warranty service will include all labour as well as any necessary adjustments and/or replacement of faulty parts as Easytow considers necessary.
- (b) Easytow must be notified of any defect before repair work is undertaken. All trailers requiring servicing must be (at Easytow's discretion) returned to Easytow or to an authorised dealer at the cost of the purchaser. Proof of the date of purchase will be required with any request for warranty repair.

#### 2. Coverage

Subject to clause 4 this warranty is extended to the original purchaser only and does not extend to any other persons to whom the trailer may be transferred. This warranty covers the trailer only and is not extended to items such as boats, motors or towing vehicles even if caused by a defect in the trailer.

#### 3. Exclusions



Subject to clause 4:

- (a) To the extent permitted by law including the ACL, Easytow makes no express or implied warranties as to merchantability and fitness for a particular purpose, or that the trailer will meet the purchaser's requirements. The trailer is provided to the purchaser by description and in accordance with specifications agreed between Easytow and the relevant dealer.
- (b) Easytow's warranty under 1(a), including any warranty made by Easytow for a period of more or less than 12 months with regard to specific trailer components, does not apply and Easytow will have no liability to the extent that the malfunction or defect is caused by:
  - (i) use or operation of the trailer other than in accordance with the User's Guide;
  - (ii) use of the trailer in a manner or for a purpose not contemplated by Easytow;
  - (iii) modification, alteration, repair or overloading of the trailer in a manner not contemplated by Easytow;
  - (iv) damages, failures or corrosion from environmental conditions,
  - (v) fair wear and tear;
  - (vi) lack of, or incorrect pre-delivery checks/adjustments;
  - (vii) continual use when an area of fault has been identified; or
  - (viii) or for any indirect or consequential loss arising due to such malfunction or defect.
- (c) Easytow warrants steel trailer frames and its fabricated steel components to be free of structural or welding defects for a period of 3 years.
- (d) Easytow warrants the trailer coupling to be free from defects for a period of 2 years.
- (e) Easytow warrants the following components to be free from defect for a period of 12 months:
  - (i) brakes;
  - (ii) carpet, excluding burning and its general wear and tear;
  - (iii) galvanizing for protection against red rust, and excluding the cosmetic appearance of the galvanized surface;
  - (iv) paint work, unless painted trailers are taken in or near salt water without being painted over galvanizing in which case no warranty applies;
  - (v) rollers;
  - (vi) springs, with the labour costs of replacement excluded from warranty;
  - (vii) timber bearers;
  - (viii) wheels; and
  - (ix) winch, excluding the reverse catch.
- (f) The following components are provided on 12 month warranty but only on the terms of their relevant manufacturer's warranty which is available on request from Easytow:
  - (i) axles;
  - (ii) hubs;



- (iii) jockey wheels;
- (iv) Dexter and Brakesafe, with the warranty not extending to defects if immersed in water;
- (v) tyres, for faulty tyres only;
- (g) Easytow warrants the following components to be free from defect for a period of 6 months:
  - (i) bearings;
  - (ii) brake away battery; and
  - (iii) lights.
  - Where lights are defective they will be replaced only, and labour costs for fitting will not be paid.
- (h) Easytow warrants the following to be delivered free from manufacturing defects:
  - (i) winch reverse catch.

If the components named in this part (h) are defective on delivery, they will be re-supplied and fitted free of charge provided Easytow is notified of the defect within 7 days of delivery of the trailer by the purchaser to the authorised dealer.

- (i) Any representation, warranty, condition or undertaking that would be implied in this warranty statement by legislation, common law, equity, trade, custom or usage is excluded to the maximum extent permitted by law (including the ACL).
- (j) Nothing in this warranty statement excludes, restricts or modifies any condition, warranty, right or remedy conferred on the purchaser by the Australian Consumer Law, Schedule 2 of the *Competition and Consumer Act* 2010 (*Cth*) (**ACL**) or any other applicable law that cannot be excluded, restricted or modified by agreement.
- (k) Except where we fail to meet a consumer guarantee under the ACL and notwithstanding any other provision of these Terms we are not liable to you for indirect, incidental, special or consequential damages including any loss of profit. These Terms set out the entire agreement between you and us. To the extent permitted by the ACL and other applicable law, all implied terms (not including any consumer guarantees) are excluded

### 4. Australian Consumer Laws Warranties

Our goods come with guarantees that cannot be excluded under the ACL. To the extent provided for by the ACL, you are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.