

# COSMO

## User Manual and Installation Guide



cowfish

Caravan and Camping Technologies

[cowfish.com.au](http://cowfish.com.au)



# COSMO

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# COSMO

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# COSMO

## PACKAGE CONTENTS

### Base package



COSMO  
power supply

50cm power lead  
10AWG with XT60 connector

### Premium package



External receptacle



External plug



Internal receptacle



6 metre Ethernet cable



0.8 metre Ethernet cable



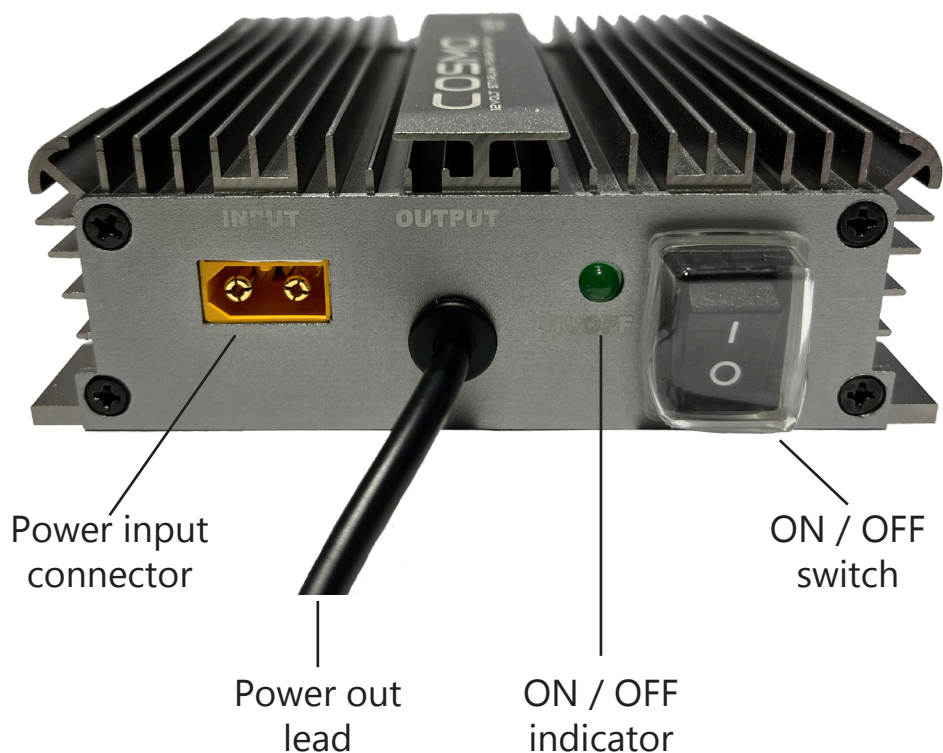
# COSMO

## INTRODUCTION

COSMO is unique a solution, allowing the user to operate the complete Starlink Gen 3 System off 12 volt. This removes the requirement to run an inverter to power the Starlink system, but instead powers the system directly from the caravan battery.

Through COSMO, the user retains the ability to control the full Starlink system through the Starlink app.

## HARDWARE OVERVIEW



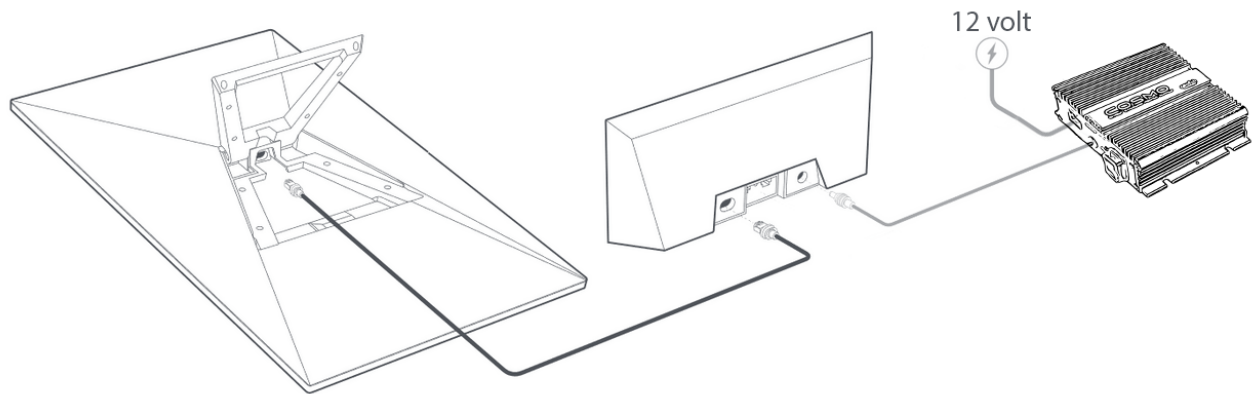


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## INSTALLATION

### Installation of the COSMO power supply

COSMO is to be installed next to the Starlink router. Mount the unit next to the router and connect the power supply cable into the power point on the Starlink router.



Connect COSMO to the caravans power supply. In order to supply adequate input power to COSMO, a minimum of 10 AWG (6.0 mm<sup>2</sup>) electrical wire is required. This cable is to be correctly fused. Installation by a certified auto electrician is advised. COSMO comes with a 50cm lead for easy wiring.

*IMPORTANT: Insufficient power supply to the COSMO power unit, due to inadequate cable size, long cable runs, or piggy backing of existing power outlets instead of connecting directly to the power source (battery) can result in the Starlink system not booting up. See Troubleshooting for more information.*



## **Optional premium package**

The Premium package incorporates a weatherproof connection point for on the outside of your caravan. A specialised connector is installed on the end of the Starlink cable, providing a full weatherproof connection on the outside of the caravan.

## **Installing the internal receptacle, external weatherproof receptacle and cabling**

Determine the location where the weatherproof external receptacle is to be installed. Ensure that there is a cable path available from the Starlink router to the nominated location for the weatherproof receptacle and that the ethernet cable is of sufficient length.

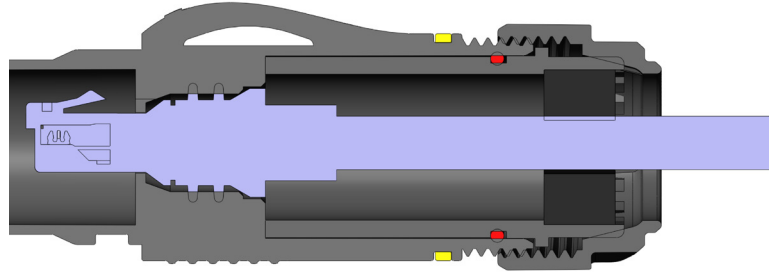
1. Drill a hole with a diameter of 24 mm into the external wall of the caravan for the external weatherproof receptacle.
2. Drill a hole with a diameter of 24 mm into the internal wall of the caravan for the internal receptacle.
3. Run the shielded ethernet cable from the internal receptacle to the location of the weatherproof external receptacle and connect the cable to the back of both receptacles.
4. Screw the internal receptacle to the wall.
5. Connect the second ethernet cable from the internal receptacle to the Starlink router.
6. Mount the weatherproof receptacle to the outside wall and ensure a water tight seal is achieved by utilising the included rubber seal and by applying non-hardening silicone around the perimeter of the receptacle.
7. Connect the weatherproof cap into the weatherproof receptacle and secure the chain of the weatherproof cap to the external wall of the caravan.



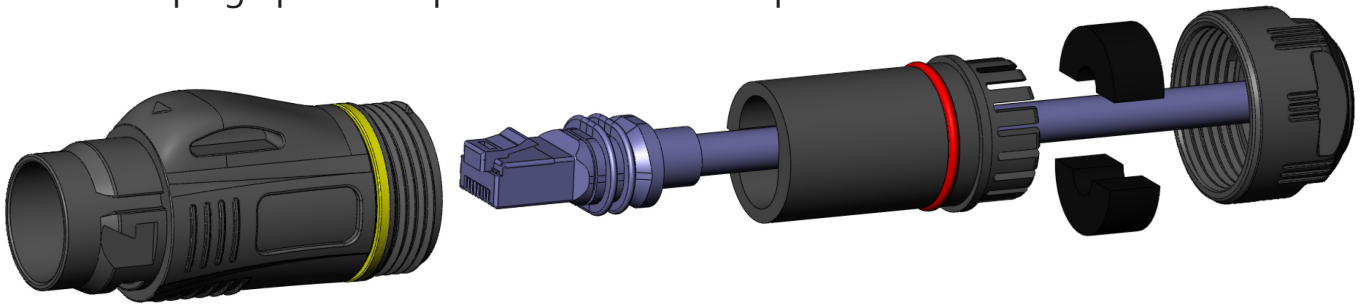


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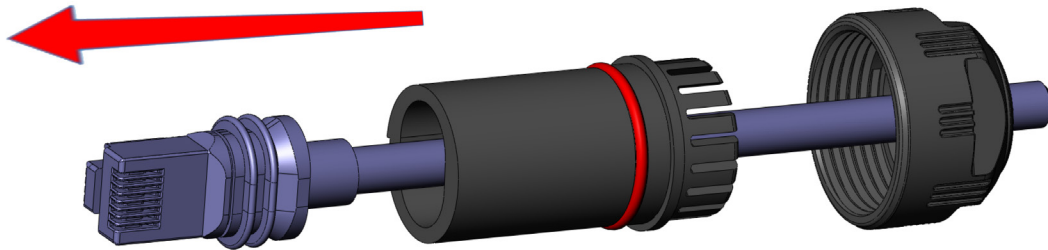
## Installing the weatherproof plug



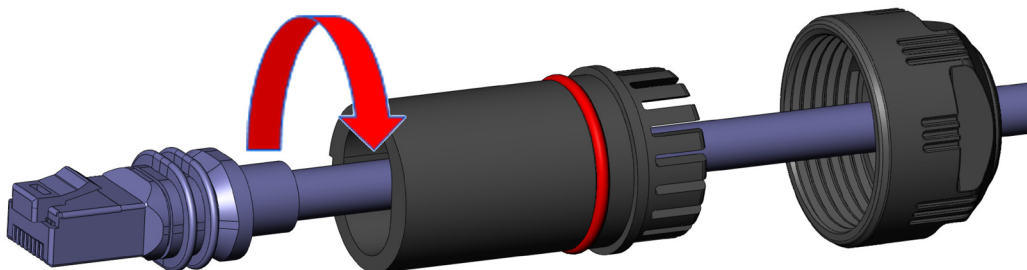
Step 1:  
Pull the plug apart to separate all of the components.



Step2:  
Feed the starlink cable through the screw cap and the internal housing.



Step 2:  
Rotate the starlink cable 90 degrees.

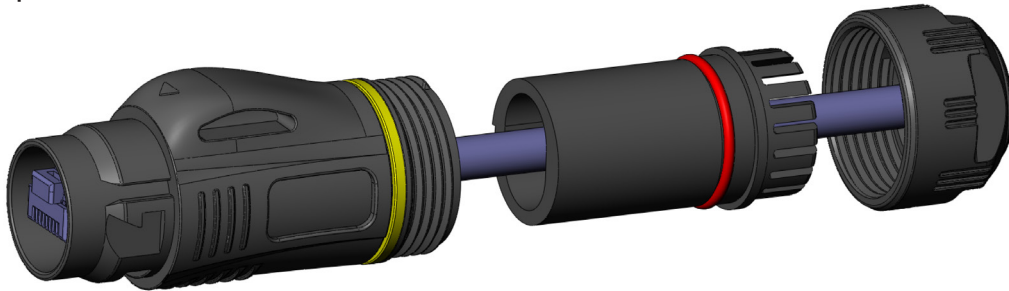




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## Step 3:

Feed the Starlink cable into the external housing and push the plug until it clicks in place.

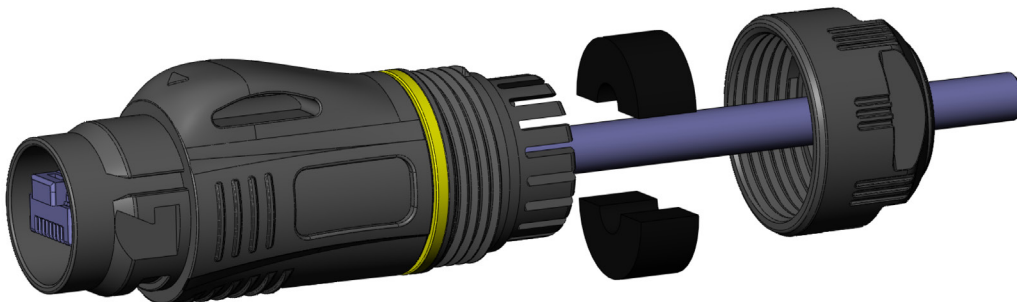


## Step 4:

Insert the internal housing into the external housing. Ensure that the slot on the internal housing aligns with the pin in the external housing.

## Step 5:

Place the two rubber half moons around the cable and gently push them into the back of the housing.



## Step 6:

Screw on the cap to complete the installation.



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## OPERATION

To use COSMO, follow the following steps:

1. Find an area to place the Starlink dish with a clear view of the sky.
2. For the optional premium package, plug the Starlink cable into the weatherproof receptacle.
3. Turn on Starlink by placing the ON/OFF switch on COSMO in the ON position.
4. Starlink will power on and after a few minutes Starlink will make an initial connection to the Starlink constellation.
5. Follow the prompts on the Starlink app.

The Starlink app is available for iOS and Android devices. If you haven't already, visit your app store and search for "Starlink".

On the main screen of the app, you will find the status of your Starlink connection. You've successfully installed Starlink if your status is listed as Online.

To turn off the Starlink system simply turn off COSMO by placing the ON/OFF switch in the OFF position. You can now safely disconnect the Starlink cable.

*CAUTION: The cabling between the Starlink Dish and the Starlink Router must not be disconnected or unplugged whilst Starlink is powered on (the On/Off switch on COSMO in the ON position). Disconnecting the cable between the Dish and the Router whilst the Starlink Dish is powered can result in permanent damage to the Starlink Dish.*





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## FREQUENTLY ASKED QUESTIONS

### **Do I need to run an inverter to power the Starlink system?**

No, you will not need to run an inverter or have access to mains power (240V). COSMO operates off your caravan 12V system, so that you can use it off grid, anywhere, anytime.

### **How much power does COSMO use in comparison to the original Starlink hardware through an inverter?**

Normal gen 3 Starlink power consumption averages at 75-100W. On top of this you also have inverter losses that range between 8-10% of the load for a high quality inverter. This means that the total Starlink power consumption for caravan use is between 80-110W.

COSMO reduces this total power consumption to an average of 65-90W.

### **Do I need to modify the Starlink hardware?**

No, there is no requirement to modify any of the Starlink components.

### **Can I still use the Starlink App when using COSMO?**

Yes, the easiest way to access the Starlink administration dashboard is through the Starlink app and this doesn't change when using COSMO. The Starlink app is available for iOS and Android devices.



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## TROUBLESHOOTING

### **The power LED does not light up.**

If the power LED does not light up when the power switch is in the ON position, it means that there is no power coming to COSMO. Please check the power cables and ensure that they are connected properly. Check if the power cables are fused, and if the fuse is still in working condition.

### **The Starlink router is not powering on.**

Confirm that the Power LED is on.

Confirm that the power cable is properly connected to the Starlink router.

Ensure that the electrical cable size is adequate for the cable length and that the power is supplied directly from the 12V battery system, not from an existing power point in the caravan. Cigarette socket power points can have long cable runs, smaller electrical cabling, or wired in series, resulting in a power drop.

### **The Starlink dish is not powering on.**

Confirm that the Power LED is on.

Confirm that the Starlink router is turning on.

Ensure that the electrical cable size is adequate for the cable length and that the power is supplied directly from the 12V battery system, not from an existing power point in the caravan. Cigarette socket power points can have long cable runs, smaller electrical cabling, or wired in series, resulting in a power drop.

Confirm that all ethernet connections are securely connected.





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## TECHNICAL SPECIFICATIONS

Input power	DC12V / DC24V at max 34A
Output power	DC57V at max 7A
Max power rating	400W
Dimensions	110mm x 120mm x 40mm
Operating Temperature	-10 to 45°C
Storage Temperature	-20 to 70°C



## PRODUCT WARRANTY

At Cowfish Technologies Pty Ltd (Cowfish) we want our customers to be completely satisfied with their purchase. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for 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.

### Warranty Conditions

Cowfish offers the following warranty in relation to its goods.

The benefits of this warranty are in addition to any rights and remedies imposed by Australian State and Federal legislation that cannot be excluded. Nothing in this warranty is to be interpreted as excluding, restricting or modifying any State or Federal legislation applicable to the supply of goods and services which cannot be excluded, restricted or modified.

Cowfish warrants to the original purchaser that, subject to the exclusions and limitations below, all parts of the manufacture and assembly of the goods carried out by Cowfish will be free from defects in materials and workmanship for a period of 24 months from the date of purchase (Warranty Period).

This warranty is not transferable to a subsequent customer if the goods are sold by the original customer during the Warranty Period.

If a defect appears in Cowfish's manufacture or assembly of the goods before the end of the Warranty Period and Cowfish finds the goods to be defective in materials or workmanship, Cowfish will, in its sole discretion, either repair or replace the goods or the defective part of the goods free of charge, or provide a credit or exchange.

Cowfish reserves the right to replace defective parts of the goods with parts and components of similar quality, grade and composition where an identical part or component is not available. Goods presented for repair may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

Where your rights under the Australian Consumer Law or this warranty do not apply, we may provide you with an indicative cost estimate to repair the goods.





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## Damaged goods

If any goods arrive damaged, please contact Cowfish as soon as possible so a Return Authority Number can be arranged for the goods to be inspected.

Goods must be returned within a reasonable time. The acceptance of the goods delivered shall be deemed for all purposes to have taken place 30 days\* from the date of delivery.

If a purchaser receives a product that is damaged in transit from Cowfish, the purchaser should: Refuse to accept delivery of the product; Direct the courier to "Return goods to sender"; and Notify the Cowfish Customer Service or Warranty Department immediately.

No goods will be accepted for return until a Return of Goods Authority Number has been supplied to you. Goods must be returned in the condition received by you with all original packaging, accessories and/ or manuals.

## Returns and repairs

Goods returned for repair or credit will be assessed and repaired or replaced within a reasonable time. Credits will normally be processed within 14 days\* of your goods being returned to Cowfish's nominated warehouse. Where goods have been assessed to be repairable under the manufacturers' warranty, you may be supplied with details of an authorised repairer. You may also be provided with an indicative repair and/ or replacement time, which may vary due to reasons beyond our control, or the repairer's reasonable control, such as part availability and incorrect fault description. Cowfish does not take any responsibility for any repairs and/ or replacements carried out without our prior written consent.

Where goods are assessed to have been damaged by misuse or accident, no credit will be issued and no further action will be entered into. Where your rights under the Australian Consumer Law or any manufacturer's warranty do not apply, we may provide you with an indicative cost estimate to repair the goods.

If a replacement item is required, Cowfish will require the location of the caravan and owners for the next 14 days to allow for pick, pack and postage. If the owners are traveling, Cowfish require next major town or city location. Otherwise, the warranty procedure as in place at present will remain.



# COSMO

## Replacement item warranty

Should a replacement item be supplied by Cowfish 'under warranty' due to damage or product failure of original item purchased, Cowfish will warrant the replacement item for the remaining warranty period only of the original item warranty.

## Warranty Claims

If a fault covered by warranty occurs, the customer must first contact the Cowfish Customer Service or Warranty Department.

Any warranty claim must be accompanied by proof of purchase, full details of the alleged defect (including clear photos), and appropriate documentation (such as historical and maintenance records).

The customer must make the goods available to Cowfish or its authorised repair agent for inspection and testing.

If such inspection and testing finds no defect in the goods, the customer must pay Cowfish's usual costs of service work and testing. The customer must bear the cost of the transport of the goods to and from Cowfish or the authorised repair agent, and all insurance of the goods.

Goods returned for repair or credit will be assessed and repaired or replaced within a reasonable time.

Credits will normally be processed within 14 days\* of your goods being returned to Cowfish's nominated warehouse. Where goods have been assessed to be repairable under this warranty, you may be supplied with details of an authorised repairer. You may also be provided with an indicative repair and/ or replacement time, which may vary due to reasons beyond our control, or the repairer's reasonable control, such as part availability and incorrect fault description. Cowfish does not take any responsibility for any repairs and/ or replacements carried out without our prior written consent.

If a replacement item is required, Cowfish will require the location of the caravan and owners for the next 14 days to allow for pick, pack and postage. If the owners are traveling, Cowfish require next major town or city location.

## Limitations

Cowfish makes no express warranties or representations other than set out in this warranty.

The repair or replacement of the goods or part of the goods is the absolute limit of Cowfish's liability under this express warranty.



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