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cowfish MIK-01 Mini Integration Kit User Manual

PREFACE AND COPYRIGHT

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Manual Revision V1.2

PACKAGE CONTENTS

Option A

This option includes a weatherproof connection point for on the outside of the caravan or motorhome. The connection point has an integrated cap and is rated IP65, meaning weatherproof and dust proof. The Star link cable requires to be cut for this option and our weatherproof plug installed on the end of the cable.

- 12V Dishy Power Supply

- Weatherproof cap

- Weatherproof plug

- Weatherproof socket

- RJ45 connectors

- 0.4 metre ethernet cable

- 1 metre or 6 metre ethernet cable

- Patch cable adapter

Option B

This option includes a specially designed Starlink adapter that removes the requirement to cut the cable. Simply connect the standard Starlink cable into the SPX to RJ45 adapter.

The adapter is not weatherproof and therefor should be installed in a media hatch or tunnel boot.

- 12V Dishy Power Supply

- SPX to RJ45 Adapter

- 0.4 metre ethernet cable

- 1 metre or 6 metre ethernet cable

INTRODUCTION

The Cowfish Starlink Integration Kit allows you to operate your Starlink Dish from your 12V battery system, ensuring reliable and consistent connectivity even in the most remote locations. The Starlink Integration Kit removes the requirement to run an inverter to power the Starlink System but instead powers the Dish directly from your caravan battery. By using the Integration Kit instead of the standard Starlink router, the power usage of the Starlink dish is significantly reduced, allowing you to stay off grid for longer. The Integration Kit links the Starlink dish to the VanConnect system and allows you to choose the best internet option for your needs, 4G/5G or Starlink, or even have both. By having both 4G/5G and Starlink, you can pause the Starlink service whilst in a good 4G/5G coverage area.

The Integration Kit is not a standalone product, but instead an Add On for the Van Connect System. A Van Connect 5G, Van Connect 4G or Van Connect Zero is required in order to use the Integration Kit.
The Van Connect 5G, Van Connect 4G and Van Connect Zero are preconfigured to accept an internet connection from Star link through our Integration Kit.
There is no additional setup or configuration required.

NOTE: Van Connect system is sold separately. Starlink Dishy not included and an active Starlink subscription is required. The Star link Integration Kit is not compatible with the round Starlink Dish (Gen1)

HARDWARE OVERVIEW

Power indicators

The unit has two power indicators. The Power In LED indicates that the unit is receiving 12V from the caravan battery. The Power Out LED indicates that the unit is sending 48V to the Starlink Dish.

Power switch

The ON/OFF switch controls the 48V output for the Starlink Dish. The Power Out LED will turn off when the switch is placed in the OFF position.

VanConnect port

The VanConnect is linked to the 12V Dishy Power Supply via this port.

Starlink Port

The Starlink Dish is linked to the 12V Dishy Power Supply via this port.
CAUTION: This port will have a live 48V power supply when the ON/OFF switch is placed in the ON position.

Mounting bracket

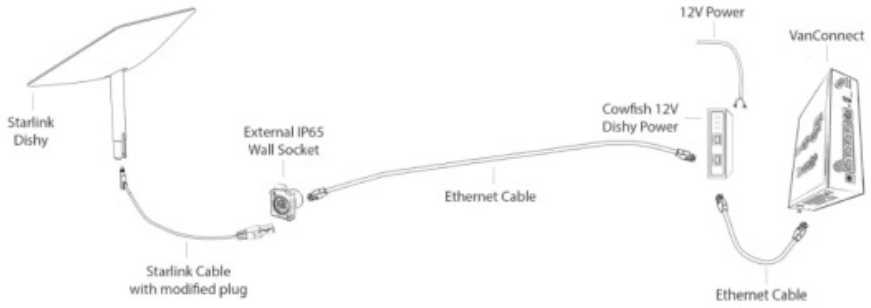
Mounting brackets are located on the top and bottom of the 12V Dishy Power Supply to mount the unit to a wall inside the caravan.

INSTALLATION – OPTION A

Option A

Option A of the Starlink Integration Kit incorporates a weatherproof connection point for

on the outside of your caravan. This specialised connector is installed on the end of your Starlink cable, providing a full weatherproof connection on the outside of your caravan. The Starlink cable is required to be cut and the Weatherproof plug installed. An RJ45 crimp tool and a solder iron are required for the installation of the Weatherproof plug.



The kit consists of the following components:

- 12V Dishy Power Supply
- Weatherproof wall socket
- Weatherproof cap for wall socket
- Weatherproof male plug
- Patch cable connector
- 3x Shielded RJ45 plug
- 0.4 metre ethernet cable
- 1.0 metre or 6.0 metre ethernet cable (customers choice)

Installation of the 12V Dishy Power Supply

The 12V Dishy Power Supply is to be installed next to the VanConnect system.
Mount the unit next to the VanConnect and connect the 12V Dishy Power Supply to the VanConnect with the included 0.4 metre shielded ethernet cable. On the 12V Dishy Power Supply, the ethernet cable is plugged into the port labelled “VanConnect”. On the VanConnect, the ethernet cable is plugged into the port labelled “WAN”.

In order to supply input power to the 12V Dishy Power Supply, a minimum of 14 AWG electrical wire is required. This cable is to be correctly fused and installation by a certified auto electrician is advised. The 12V Dishy Power Supply comes with a pluggable terminal block for easy wiring. Connect the 12V positive wire to the terminal labelled + and the 12V negative wire to the terminal labelled -. When correctly installed the Power In LED will turn on.

IMPORTANT: Insufficient power supply to the 12V Dishy Power unit, due to inadequate cable size, long cable runs, or piggy backing of existing power outlets instead of connecting to the power source (battery) can result in the dishy not booting up. See Troubleshooting for more information.

Installation of the Weatherproof wall socket

Determine the location where the Weatherproof wall socket is to be installed.
Ensure that there is a cable patch available from the 12V Dishy Power Supply to the nominated location for the Weatherproof wall socket and that the ethernet cable is of sufficient length.

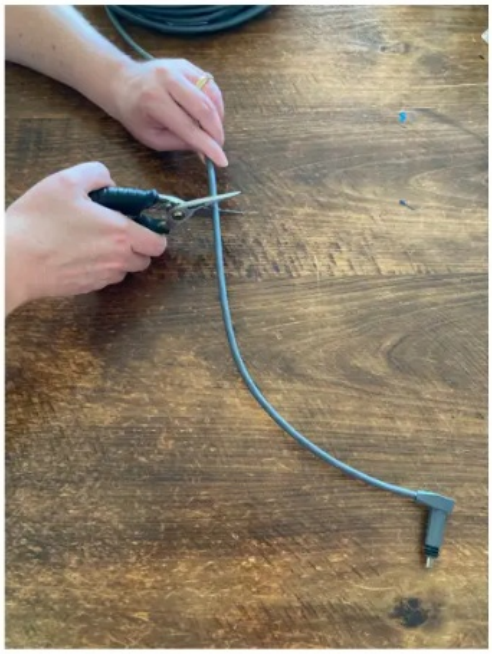
1. Run the 1 metre or 6 metre shielded ethernet cable from the 12V Dishy Power Supply to the preferred location of the Weatherproof wall socket.
2. Drill a hole with a diameter of 24 mm into the external wall of the caravan.

3. Connect the Weatherproof wall socket to the 12V Dishy Power Supply with the 1 metre or 6 metre shielded ethernet cable. On the 12V Dishy Power Supply, the ethernet cable is plugged into the port labelled “Starlink”.
4. Mount the Weatherproof wall socket to the caravan wall and ensure the seal is water tight by utilising the included rubber seal and by applying non-hardening silicone around the perimeter of the wall socket.
5. Connect the Weatherproof cap into the Weatherproof wall socket and secure the chain of the Weatherproof cap to the external wall of the caravan.

Installation of the Weatherproof plug

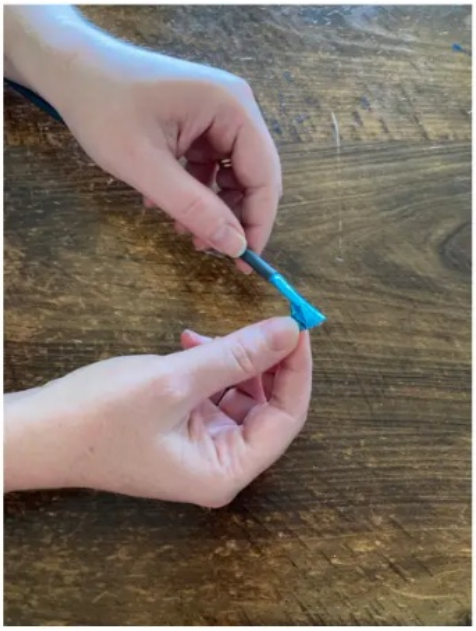
In order to connect the new Weatherproof plug onto the Starlink cable complete the following steps:

1. Cut the cable at least 300mm from the Starlink plug, so that there is sufficient cable to make a patch lead.

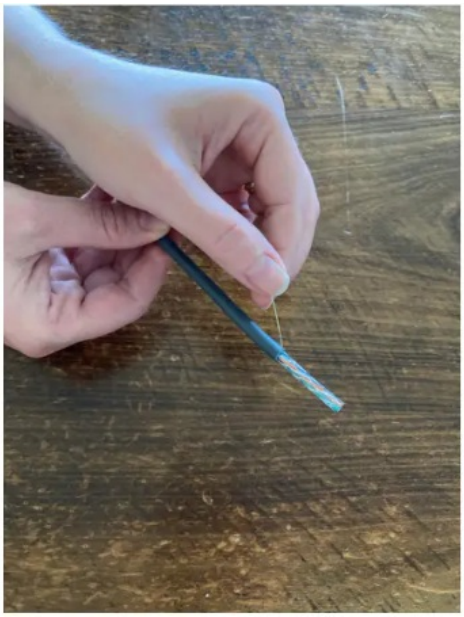


2. Unscrew the cap from the Weatherproof socket and remove the insert.
3. Slide the cap and the insert over the Starlink cable.

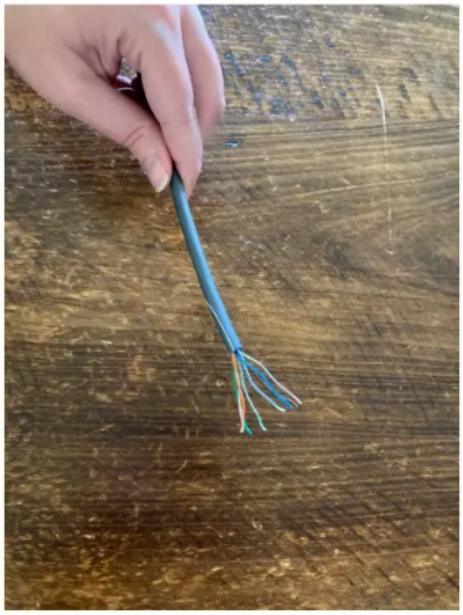
4. Strip the Starlink cable sheath back 25 mm from the end.
5. Remove the light blue aluminium foil back to the cable sheath. Take care to not remove or cut the grounding wire.



6. Fold the grounding wire back and remove the clear foil back to the cable sheath.

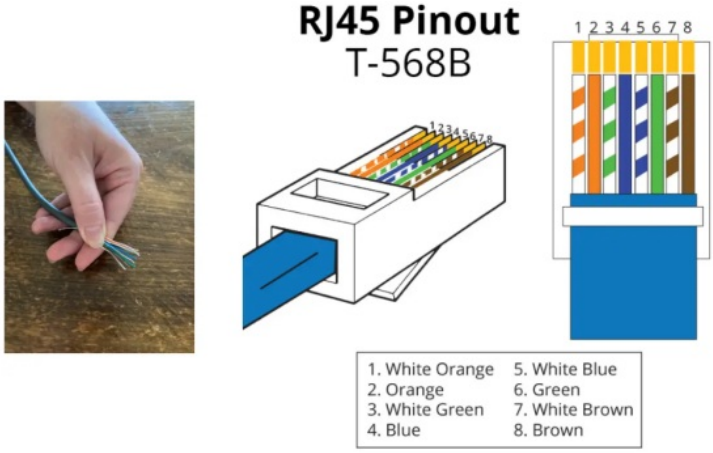


7. Untwist and straighten the wires inside of the cable.

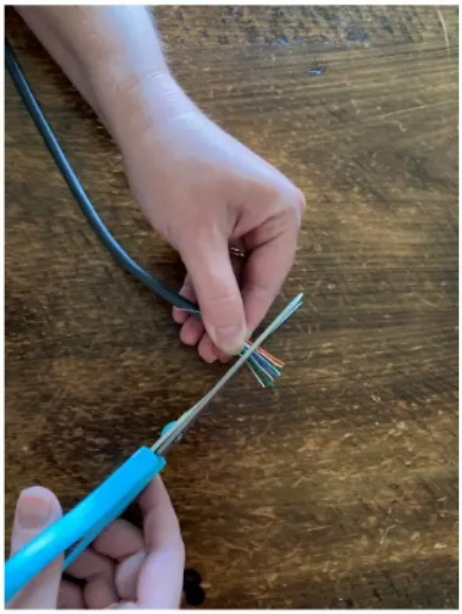


8. Arrange the wires into the correct order. The proper sequence is as follows from left to

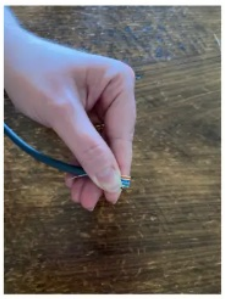
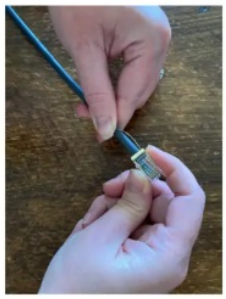
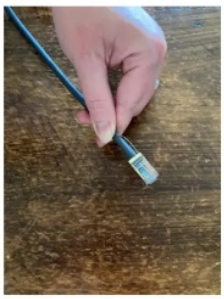
right: Orange/White, Orange, Green/White, Blue, Blue/White, Green, Brown/White, Brown. This pin layout is named T568B.



9. Cut the wires into an even line 13 mm from the sheathing. Hold the wires with your thumb and index finger to keep them in order. Then, use the cutting section of the crimping tool to cut them into an even line. The wires must be in an even line to be crimped into the RJ45 connector properly.



10. Insert the wires into the RJ45 connector. Hold the RJ45 connector so the clip is on the underside and the small metal pins are facing up. Insert the cable into the connector so that each of the small wires fits into the small grooves in the connector. The sheathing of the cable should fit just inside of the connector so it’s past the base. If any of the small wires bend or don’t fit into a groove correctly, take the cable out and straighten the wires with your fingers before trying again. The wires must be inserted in the correct order and each wire must fit into a groove before you crimp the connector.

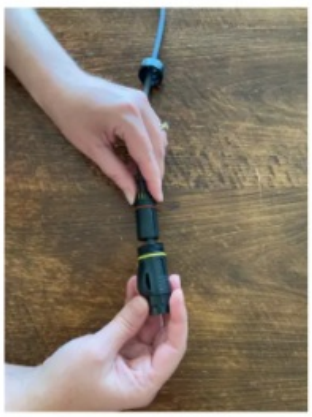
11. Insert the connector into the crimping tool. Squeeze the handles to crimp the connector and secure the wires. The crimping tool pushes small pins in the grooves down onto the wires to hold and connect them to the RJ45 connector.


12. Remove the cable from the tool and check that all of the pins are down. If any of the pins aren’t pushed down, put the wire back into the crimping tool and crimp it again.
13. Solder the grounding wire onto the metal shield of the RJ45 plug.


14. Insert the cable with the newly attached RJ45 plug into the Weatherproof plug and push the plug until it clicks in place.
15. Push the insert into the Weatherproof plug and secure the cap back on the

Weatherproof plug. The insert has a groove that is required to line up on the inside on the plug.

Your Weatherproof plug is now ready.



Your Weatherproof plug is now ready.

Optional step; create a patch lead

To reconnect the Dish to the Starlink router after cutting the cable, a patch lead is required.

A patch lead is a a length of cable with the original Starlink connector on one end and a RJ45 connector on the other end. With the Patch cable adapter we can attach the patch lead to the modified cable with the Weatherproof plug and reconnect to the Starlink router if required

In order to create the patch cable, complete the following steps:

1. Strip the Starlink cable sheath back 25 mm from the cut end.
2. Remove the light blue aluminium foil back to the cable sheath. Take care to not remove or cut the grounding wire.
3. Fold the grounding wire back and remove the clear foil back to the cable sheath.
4. Untwist and straighten the wires inside of the cable.
5. Arrange the wires into the correct order. The proper sequence is as follows from left to right: Orange/White, Orange, Green/White, Blue, Blue/White, Green, Brown/White,

Brown.

6. Cut the wires into an even line 13 mm from the sheathing. Hold the wires with your thumb and index finger to keep them in order. Then, use the cutting section of the crimping tool to cut them into an even line. The wires must be in an even line to be crimped into the RJ45 connector properly.
7. Insert the wires into the RJ45 connector. Hold the RJ45 connector so the clip is on the underside and the small metal pins are facing up. Insert the cable into the connector so that each of the small wires fits into the small grooves in the connector. The sheathing of the cable should fit just inside of the connector so it's past the base. If any of the small wires bend or don't fit into a groove correctly, take the cable out and straighten the wires with your fingers before trying again. The wires must be inserted in the correct order and each wire must fit into a groove before you crimp the connector.
8. Insert the connector into the crimping tool. Squeeze the handles to crimp the connector and secure the wires. The crimping tool pushes small pins in the grooves down onto the wires to hold and connect them to the RJ45 connector.
12. Remove the cable from the tool and check that all of the pins are down. If any of the pins aren't pushed down, put the wire back into the crimping tool and crimp it again. Solder the grounding wire onto the metal shield of the RJ45 plug.
13. Solder the grounding wire onto the metal shield of the RJ45 plug.
14. Use the Patch cable adapter to connect the two lengths of Starlink cable together

	cowfish MIK-01 Mini Integration Kit [pdf] User Manual Cosmo Mini, MIK-01 Mini Integration Kit, MIK-01, Mini Integration Kit, Integration Kit, Kit

References

- User Manual

cowfish COSMO MINI, cowfish, Integration Kit, Kit, MIK-01, MIK-01 Mini Integration Kit, Mini Integration Kit

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