



# TIMBER

**Sprinter 144 Van Kit**

**Installation Guide**



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## ⚠ IMPORTANT SAFETY WARNING

Before proceeding with the installation of your van kits, please read and understand the following safety instructions. Failure to follow these guidelines may result in personal injury, property damage, or other hazards. By installing this kit, you acknowledge and accept all associated risks.

1. This installation is intended to be completed with two people, or with the use of third-arm tools. Before starting the installation, ensure that the van is parked on a level surface.
2. Use the correct tools and equipment as specified in the instruction manual. Failure to use the proper tools may result in damage to the wood or van.
3. Ensure that the installation is properly secured to the van's interior structure. Failure to do so may result in instability and potential falling/tipping hazards while driving.

Disclaimer: This manual provides general guidelines for van installation. However, individual van configurations may vary. It is your responsibility to assess your specific situation and make informed decisions. Timber Van Kits and its affiliates cannot be held liable for any accidents, injuries, or damages resulting from improper installation, misuse, or neglect.

## OVERVIEW

### Thank You for Choosing Us!

We'd like to thank you again for choosing Timber to help you build out your new van. The Timber Van Kit is an all in one, plug and play type kit for converting your Sprinter 144 cargo van into a liveable space. This guide is intended ONLY for Sprinter 144 models made in the year 2007 or later. The kit includes all hardware and components necessary for completing the assembly, but keep in mind you may need to pick up some extra tools and supplies as you progress.

### Before You Start

While we have tried to make this kit as easy as possible to install, completing any full van conversion requires time and a particular skill set, like basic knowledge of carpentry, electrical wiring, and plumbing. Before starting, honestly assess your capabilities and determine if you have the necessary skills to complete each portion of the installation safely and effectively. If you lack expertise, consider seeking assistance from professionals. We recommend Titan Vans service department: [www.titanvans.com/service](http://www.titanvans.com/service)

This installation can be completed at your own pace, but should be completed in the order described in this guide. It's highly recommended you complete the install with at least 2 people, not only to complete it faster, but for ease of installation, and safety. Familiarize yourself with each step and ensure you understand the sequence of tasks involved before beginning each section. If you encounter any terminology or instructions that are unclear, don't hesitate to reach out to our customer support team for clarification.



Safety should always be a top priority during the installation process. Take precautions to prevent accidents and injuries, such as using proper lifting techniques, wearing appropriate protective gear, and following safety guidelines for handling tools and equipment. By carefully considering these factors and making the necessary preparations, you'll be well-equipped to embark on your van conversion journey with confidence and peace of mind.

## TOOLS

### Required Tools for Install

Below is a list of tools that are absolutely necessary for installing the Timber Van Kit. If you don't already own any of these, we would suggest purchasing them.

- Electric Drill
- Screwdriver
- Torx Bit Set
- Rivet Tool
- Rivnut Tool
- Wrench set
- Rubber Mallet
- Caulking Gun
- Hammer/Pry-Bar
- Sandpaper
- Wood Glue
- Hole Saw
- Jig Saw

### Optional Tools for Ease of Installation

Having better tools for the job means less work for you in the end. Consider buying or even renting some of these tools that will make the installation process a little less tedious, and provide a better overall finish in the end.

- Angle Grinder
- Right Angle Drill Attachment
- Orbital Sander

## UNPACKING YOUR KIT

### Unbox and Organize Components

Most of the Timber Kit components will come shipped in the 4' x 6' box pallet. Inside you will find all the wood components, as well as hardware for cabinets and installation. Reference the included packing lists for a detailed list of everything included. There are several items that will come shipped separately, such as electrical components, the insulation kit, add-ons, and the mattress. Keep an eye out for these and make sure you have everything.



## PREPPING THE VAN

### Remove Factory Floor/Panels

Your van may or may not have a flooring and panels already installed. The Flooring is a 2-piece material that is held in with black bolts. Start by removing the steel trim at the front and back of the floor, and put this somewhere safe along with the screws, as we will reuse them later! Remove the bolts securing the floor by using a T45 Torx bit, and discard the flooring. Clean the floor area of adhesive/velcro/other leftovers. Panels are secured with big clips that can be unscrewed, and small clips that need to be popped out with a pry tool.



### Remove D-Rings

All D-Rings need to be removed from the floor area using a T45 Torx bit. Note that you may have already removed all of them in the previous step.





## Remove Foam Blocks

Remove the two overhead foam blocks at the front of the van, driver side and passenger side. These are secured with tape and can be pulled straight out with some force. There is also a small foam strip above the headliner that is secured with clips and double-sided tape that will need to be removed. Pull the headliner down to pop the clips out, and then remove the clips.



## Remove Interior Factory Lights

Interior lights need to be removed from the cargo area. Unbolt and unplug the lights above the slider door, along the driver side of the cargo area, and above the rear doors. These lights are not reused in the build. You can tuck away the cables in these locations as they will get covered anyways.





## Remove Rear Tail Lights for Wire Access

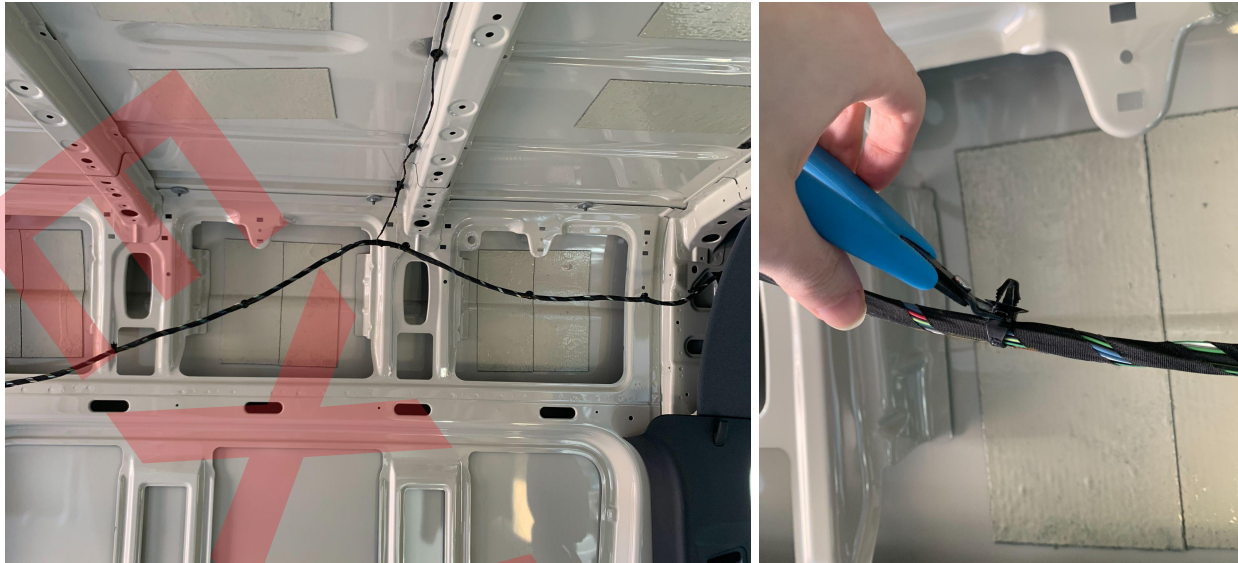
To make re-running the factory harness easier, we need to temporarily remove the rear tail lights to access the connectors. With the rear doors completely open, unscrew the two screws holding the light in place (put these in a safe place), then close the rear door almost all the way. You should now be able to pop the light off with a little force by pulling it towards the side of the van. Repeat for the other side. Remove the wire connectors and put the tail lights in a safe spot until completion of rerouting the factory wire harness.



## Remove the Factory Wiring Harness

The factory harness runs along the driver side of the van all the way to the rear. Remove the black circular covers by pinching and pulling. Then, using a small pry bar, pull the small black clips that anchor the wiring harness to the van metal. These clips then should be snipped with cutters at the base to completely remove them from the harness. You can unscrew the factory ground at the rear of the van as we will re-route this later. There are several electrical connectors that need to be temporarily disconnected at the rear of the van. Disconnect the brown and white wires in the cavity above the rear doors, and both rear door connectors in the cavities the left and right of the rear doors. Note that you may have additional wires that need disconnecting based on your van. Completely pull all these wires out of the back cavities so they can be rerouted.





## Setting Up New Ground Connections

The ground connection for the sprinter factory wire harness needs to be moved so that it will be above the ceiling panels. Locate this 0.25" hole circled in red near the original ground connection. Drill this hole out using a 17/32" Drill bit, and scuff the surface around the hole to expose bare metal. Install a 5/16-18 rivnut in this hole. Place the two ground connectors of the factory wire harness with a washer and secure using a 5/16-18, 3/4" long bolt to create the new ground connection.



Next, we will need to set up a ground connection near where the battery will sit for when we set up alternator charging later. Drill a hole out using the same 17/32" Drill bit, and scuff the surface around the hole to expose bare metal. Install another 5/16-18 rivnut in this new hole. Secure using another 5/16-18, 3/4" long bolt and lock washer to create the new ground



connection for the Yeti alternator charging cable. Connect the cable now so it can be fed through the wall panel later (it's the green and black wire with a metal ring terminal on the end in the goal zero vehicle integration kit.)



## Reroute the Factory Wiring Harness

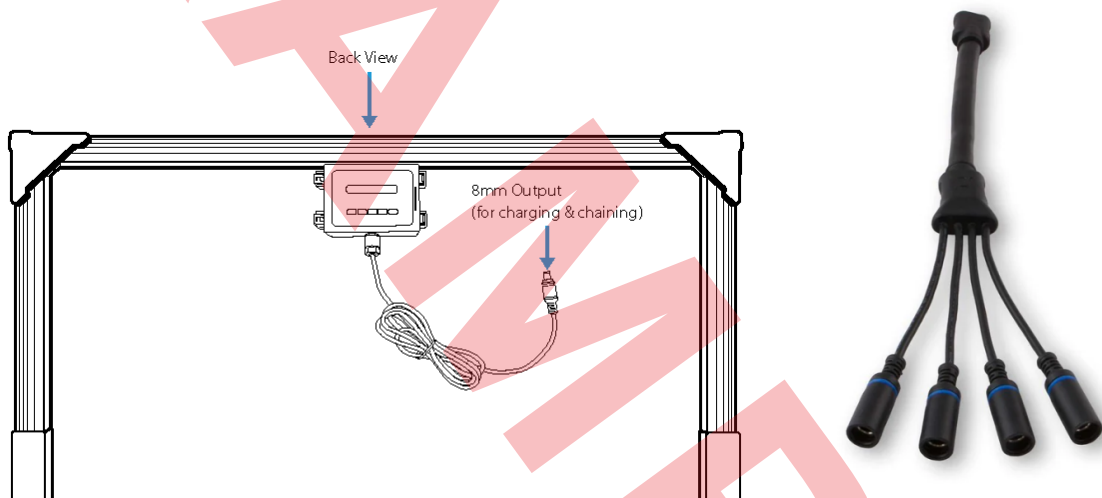
You can now rerun all the rear door and tail light connectors through the hole to the left of the new ground connection, keeping all the wires inside the inner cavities. Plug back in the brown and white cables above the rear doors, and the left and right door connectors. Plug the left and right tail lights back in and reinstall them with the same screws. If you unplugged any additional wires make sure you reconnect them.



## SOLAR PANELS

### Installing Solar Panels

200 watts of solar power will be the main power source for your battery. The two Boulder100 Solar Panels should be mounted to the roof of your van in a flat area using the provided Goal Zero mounting brackets and 4 sealing rivets per panel. You can find the bracket install guide online here: [Goal Zero Mounting Bracket Installation](#). Keep in mind any other fixtures you will need to attach to your roof when choosing a spot. Please refer to the installation instructions in the box for detailed instructions on setting up solar panels. Chain your two panels together with the 4X 8mm Female to HPP connector.





## Cut Solar Wiring Hole

Locate spot in van ceiling. Drill a specific diameter hole. Install solar wire passthrough using this guide: [Retrofit Cable Gland Installation](#). You can run the high power port cable through the van ceiling for hookup to the battery later. Caulk all openings and gaps with sikaflex 715 sealant to create a nice seal.

## CEILING FAN

### Maxxair Fan Preparation

If you opted out of the fan option you can skip this step entirely. The fan can be installed between any of the van ceiling cross beams, we recommend the second cavity from the back. Refer to the instruction pamphlet included with your fan for additional install instructions. Please note that you will have to cut a 14" x 14" hole in the van metal at the desired location and ALSO the wood ceiling panel. Use sikaflex 715 below and on top of the included black, square spacing ring to create a seal against the van metal. Then place the white fan trim in this hole and screw through both trim rings to the van metal with 1-1/2" self-tapping truss head screws. apply another generous bead of sikaflex all the way around the outside of the white trim to cover all the screw holes and gaps. Sikaflex self levels, so don't worry too much if it looks messy. The rest of this install will be completed after panels are installed.





## WINDOWS

### Rear Bunk Window Installation

You may skip this step if you opted out of the rear window add-on. Two AW1033 awning windows are installed towards the rear of the van on the driver and passenger sides. You will need to trace the window and cut the van metal using a jig saw. Refer to this video for a detailed window installation guide: [Rear Window Install](#)

If you opted in for the pre-finished add-on, you will receive two squares of the tweed fabric that need to be glued in these rear window areas now before fully installing the windows. Use the supplied contact spray adhesive, you only need to apply to the area around the window where the upper rear panels won't cover.





## Front Driver Side Window Installation

You may skip this step if you opted out of the front driver window add-on, or if your van already has a window. The FW621L awning window is installed opposite of the slider door. You will need to trace the window and cut the van metal using a jig saw. Refer to this video for a detailed installation guide: [Front Window Install](#)





## WEBASTO HEATER

### Webasto EVO40 Installation

The Webasto EVO40 taps into the van fuel supply to provide interior heating. It should be installed under the front passenger seat. Refer to this video for a detailed installation guide:

[Webasto Install](#)





## CEILING/WALL INSULATION

### Pre-cut Insulation Kit

Insulate doors walls and ceiling to prevent large temperature changes inside your van. We recommend using an adhesive to stick the ceiling insulation pieces. Refer to this installation document for precise locations of each insulation piece: [Insulation Install Diagram](#)



## STRUCTURAL

### Corner Structure Install

Corner structure helps keep your wall panels aligned properly, and will create a perfect cavity for both the factory wiring harness and the Timber wiring harness to sit in. These sheet metal pieces are installed back to front, with 10-32 rivet nuts and 1" machine screws. Refer to this guide for specific installation instructions: [Corner Structure Install Guide](#)





## Overhead Structure Install

Overhead structure runs alongside the corner structure, and is used as a backing support for mounting all of our overhead cabinetry. Since it runs along the entire van, you can place a cabinet anywhere you desire and be sure that it will always hit the structure, and never fall. Install back to front with 3/16" rivets for 0.188"-0.25" metal thickness. Refer to this guide for specific installation instructions: [Overhead Structure Install Guide](#)



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