BILBOX · FREE SIMPLIFIED VERSION

Sleeping platform for Subaru Forester SJ

Part sizes and how it goes together, no CNC needed



Deployed platform: box, two extender panels and T-support (model render)

Compatibility: Subaru Forester 4th generation (SJ), 2013-2018
(in North America sold as model years 2014-2018)

15 mm plywood | 1 sheet | 11 parts | BILBOX Free 1.1.4 EN | 9 November 2026

1. What it is

A flat sleeping surface in the cargo area, made from one sheet of plywood: a box, two removable extender panels over the folded rear seats and a T-support under them. All parts are simple, and a plywood supplier can cut them to size. The joints are glued and screwed. No CNC needed.

COMPATIBILITY

The sizes come from the author's prototype, used in his 2017 Subaru Forester (SJ). Before cutting, be sure to measure your own car: the width between the side trim panels, which must take the 1000 mm (39.4 in) wide box; the depth to the folded rear seats, 740 mm (29.1 in); the sleeping length, about 1832 mm (72.1 in); and where the tie-down points are. Trim levels, interior trim panels and carpets can differ.

FREE VERSION

This PDF is free: part sizes and the assembly principle, without step-by-step instructions, files for a CNC shop or personal support. The design is simplified: the box has no bottom panel, and the joints are glued and screwed into the panel edges. You buy the plywood, cutting, glue, screws, hinge and car tie-downs yourself; they are paid separately. This is a digital document with no physical parts.

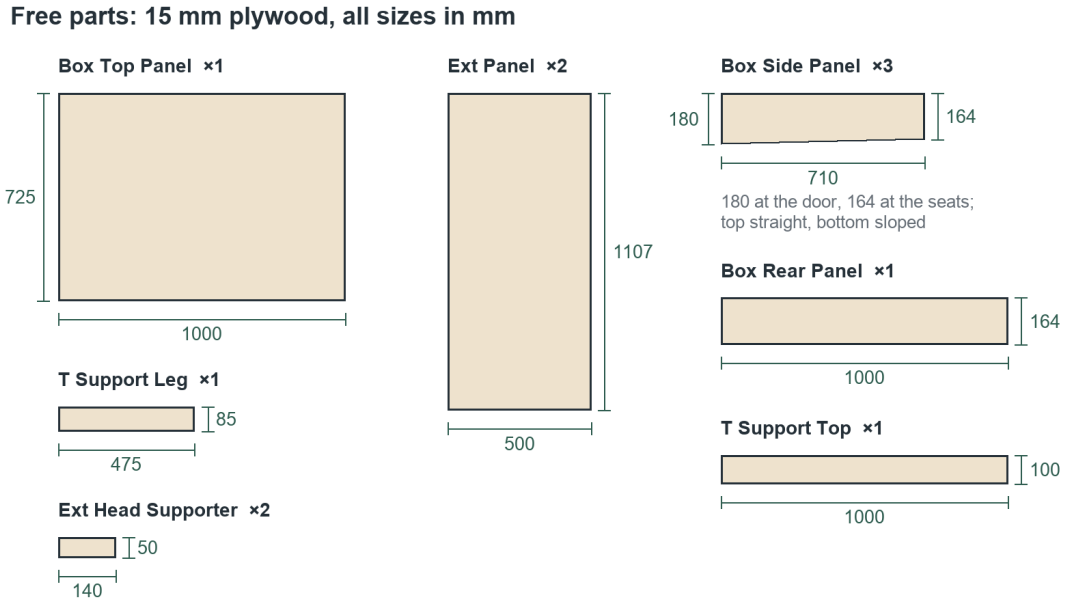
NEED STEP-BY-STEP INSTRUCTIONS OR DRAWERS?

BILBOX Base, $29: a lower platform with tab-and-slot joints, a step-by-step manual in English and a picture manual, DXF files for CNC, a ready sheet layout, a cut list and support by e-mail. BILBOX Plus, $49: two drawers on slides and a table top, a step-by-step manual in English, CNC files and support; the author tested the Plus prototype on his trips. The English kits are sold through Paddle.com, our online reseller, which shows the final price with any VAT or sales tax for your country at checkout.

Base and Plus in English

2. Parts and cutting

Part	Size, mm	Size, in	Qty	Note
Box Top Panel	1000 × 725	39 3/8 × 28 9/16	1	rectangle
Box Rear Panel	1000 × 164	39 3/8 × 6 7/16	1	rectangle
Box Side Panel	710 × 180	27 15/16 × 7 1/16	3	order as a rectangle; cut the slope to 164 mm yourself
Ext Panel	1107 × 500	43 9/16 × 19 11/16	2	rectangle
T Support Top	1000 × 100	39 3/8 × 3 15/16	1	rectangle
T Support Leg	475 × 85	18 11/16 × 3 3/8	1	rectangle
Ext Head Supporter	140 × 50	5 1/2 × 1 15/16	2	glued into a T-shaped support



Part sizes, 15 mm plywood

- Take this table to a plywood supplier that cuts to size: all 11 parts fit on one 1250 × 2500 mm sheet or one 4 × 8 ft (1220 × 2440 mm) sheet.
- On a 4 × 8 ft sheet the fit is tight. A cutting order that works with a 4 mm saw kerf and trimmed sheet edges: 1) cut a 1107 mm piece across the sheet for both Ext Panels plus a strip with one Box Side Panel and both Ext Head Supporters; 2) a 725 mm piece for the Box Top Panel plus a strip with the second Box Side Panel; 3) from the rest, strips of 164, 100 and 180 mm for the Box Rear Panel, the T Support Top, and the third Box Side Panel with the T Support Leg.
- Order the side panels as 710 × 180 mm rectangles. Cut the slope yourself: on one end, measure 164 mm down from the top edge, draw a line from this point to the bottom corner of the opposite end and saw along the line with a jigsaw or circular saw.
- Stack the three side panels and check that the slopes match. Mark the taller end (180 mm) of each panel with the word DOOR.

3. Materials and tools

What	Spec	Used for
Plywood	15 mm moisture-resistant birch plywood (for example Baltic birch), 1 sheet 1250 × 2500 mm or 4 × 8 ft	no waves, voids or delamination; for a car interior, low-emission E1 / CARB2 is preferable
Wood screws	3.5 × 40 mm (about #6 × 1-1/2 in), 17 pcs plus spares	15 for the box, 2 for the head support
Glue	water-resistant wood glue, for example Titebond III	all joints of the box and the head support
Hinge	door hinge 50-75 mm (2-3 in), 1 pc	T-support: the leg folds along T Support Top
Hinge screws	12 mm (about 1/2 in), one for each hinge hole	T-support; longer ones can come through the plywood
Car tie-down	screw-on tie-down loops about 25 × 30 mm on the side walls and DIN 1480 hook-hook turnbuckles 8 × 110 mm	at least two symmetric points

- Jigsaw or circular saw (only for the slope on the side panels).
- Drill/driver, 2.5 and 4 mm drill bits (about 3/32 and 5/32 in), countersink.
- Clamps, square, tape measure, pencil, P120 sandpaper.
- Safety glasses and gloves.

4. Assembly principle

The box has three side panels, a rear panel and a top panel, and no bottom panel. Every joint is glued and fastened with 3.5 × 40 mm screws driven into the edges of the side panels through pilot holes.

- The side panels stand with the taller end (180 mm) toward the tailgate; the middle one goes in the center.
- Box Rear Panel is fixed to the lower ends of the side panels (164 mm, the seat side), edges flush.
- Box Top Panel rests on the side panels: on the seat side its edge is flush with the ends of the side panels, and at the tailgate it overhangs by 15 mm. The top edge of the rear panel stays open: the extender panels rest on it.
- T-support: T Support Leg is joined to the middle of T Support Top with a door hinge on 12 mm screws, so the leg can fold.
- Ext Head Supporter: the two 140 × 50 mm pieces are glued into a T shape and screwed together with 2 screws.



Assembled box (model render)



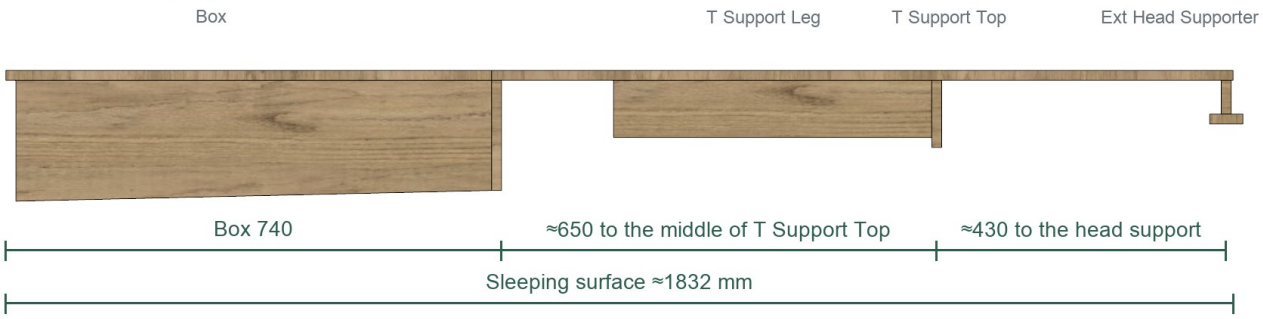
T-support and Ext Head Supporter

BEFORE GLUING

First assemble the box with a few screws and no glue and test-fit it in the car: it must not rock, press on the trim panels or get in the way of the tailgate.

5. Installing and deploying

Side view, deployed



Position of the supports when deployed (side view, sizes approximate)

- Place the box with the taller ends of the side panels toward the tailgate and the rear panel toward the seats. Fix it with the tie-down loops on the side panels and turnbuckles to the car's factory tie-down points, at two or more symmetric points.
- Fold the rear seats. Open the leg of the T-support and place the support across the car so that the middle of T Support Top is about 650 mm (25.6 in) from the rear panel, with the leg in the center pointing toward the box.
- Place the Ext Head Supporter in the center, about 430 mm (16.9 in) further on.
- Lay the two Ext Panels: the near edge on the top edge of the rear panel, the middle on T Support Top, the far edge on the Ext Head Supporter.
- Before driving, remove the panels and supports and secure them.

LONGER SLEEPING AREA

The extender can be made longer: the total sleeping length can reach about 1950 mm (76.8 in), ≈118 mm more, if you slide the front seats all the way forward together with their backrests. Measure your car in this position, lengthen both Ext Panels by the difference, check where the Ext Head Supporter then goes, and ask the supplier whether the parts still fit on one sheet. This is your own change to the design.

SAFETY

There is no certified load rating. The design is intended for static use by two adults, but its strength depends on your plywood, glue, screws and assembly. Before the first night, load it gradually in safe conditions. Do not jump on it, do not stand on the edge of the extender, do not carry people on the platform while driving, and do not fix it only to plastic trim.

6. Terms of use

- You may use this PDF to build a platform for yourself; it is for personal use only.
- Do not sell or publish this PDF. To share it, share the link bilbox.com.ua/en instead.
- You check your car's sizes, the materials, cutting, assembly and fixing yourself. The author does not control how the platform is made or used.
- The platform is not original car equipment and is not meant for carrying people while driving.

Contacts and other versions

Field	Value
Brand	BILBOX
Website	bilbox.com.ua/en
E-mail	info@bilbox.com.ua
Instagram	@andrewbil (Direct messages)
BILBOX Base, $29	lower platform with tab-and-slot joints, step-by-step manual in English and picture manual, DXF files for CNC, sheet layout, support by e-mail
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