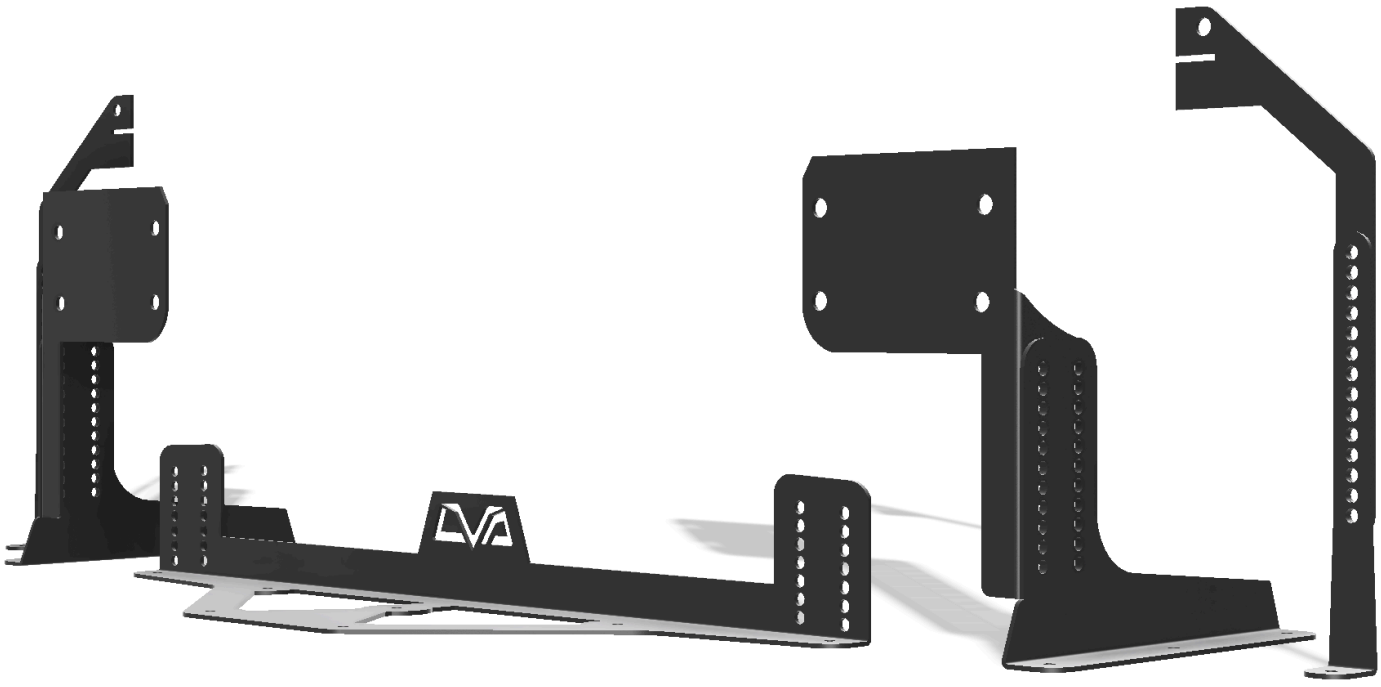
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INSTALLATION GUIDE

S550 MUSTANG CHASSIS MOUNT KIT

Turn your LVA front splitter into a true chassis-mounted setup.



FITS

2015-2023 Ford Mustang (S550)

V6 · EcoBoost · GT | not Shelby GT350/GT350R, GT500 or Mach 1

KIT

Version 3

SKU LVA-S550-CMK

DOCUMENT

Rev A

October 2026

OVERVIEW

AT A GLANCE

This kit replaces bumper-only mounting with steel brackets that bolt straight to the chassis, so your LVA splitter sits on a rigid, adjustable base that can take real load.

DIFFICULTY	INSTALL TIME	PEOPLE	BELLY PAN	DRILLING
MODERATE	**1-2 HRS**	**2**	**DELETED**	**MINIMAL**
	Experienced installer. Allow extra time for your first install.	A helper makes splitter alignment far easier	The factory undertray is removed for good	Just a few holes

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HOW TO USE THIS GUIDE

Read the whole guide once before you pick up a tool. Red tags like **#3** refer to kit pieces; black chips like **2A** refer to hardware, as listed on the *What's in the box* page. Each step lists exactly what it uses.

This guide covers Version 3 of the kit. The on-car photos, marked **PREVIOUS VERSION**, show an earlier version. Version 3 has since been improved, lightened and streamlined, but it mounts identically.

READ THIS FIRST

BEFORE YOU BEGIN

WARNING | YOUR SAFETY

Never work under a vehicle held up only by a jack. Use a lift, or rated jack stands on solid, level ground, with the wheels chocked.

Wear safety glasses when drilling. Metal chips are sharp and hot.

Disconnect any sensors, fog lights or other connectors on the bumper cover before you pull it fully away from the car.

FITMENT

✓ FITS

- 2015-2017 Mustang V6, EcoBoost, GT. Bolts to factory mounting points.
- 2018-2023 Mustang EcoBoost, GT. The outer arms under the headlights **#4** may need minor adjustment, because the headlights sit slightly lower on these cars.
- Works with all LVA S550 front splitters, at stock or lowered ride height.

? MAY FIT, WITH MODIFICATION

- Supercharged / intercooled cars. Most setups clear fine. The usual problem is intercooler piping that runs *below* the crash bar, which can interfere with a mount. Send us photos before you buy and we'll check your setup.

✕ DOES NOT FIT

- Shelby GT350 / GT350R, Shelby GT500, Mach 1

WHAT YOU'LL NEED

- [ ] M6 rivnut (nutsert) install tool | not included; widely available for $14-40. Or see the "two-nut" method in Phase 2.
- [ ] Drill with 23/64" (9 mm) and 1/4" bits (5/16" as a backup)
- [ ] Hex keys: 4 mm and 5/32" | every button-head bolt in the kit
- [ ] 10 mm and 11 mm wrenches or sockets | M6 nuts and 1/4-20 nuts
- [ ] 2 clamps | C-clamps or locking clamps, to hold the splitter while you drill
- [ ] Metric socket set & ratchet | factory bolts
- [ ] Blue (medium-strength) threadlocker
- [ ] WD-40 or anti-seize | lubricant for the stainless hardware
- [ ] Level or straightedge
- [ ] Lift, or jack + jack stands
- [ ] Trim clip tool, marker or paint pen, safety glasses
- [ ] Deburring tool & touch-up paint | optional, seals bare metal after drilling

IMPORTANT | STAINLESS HARDWARE CAN GALL

All kit hardware is marine-grade 316 stainless for maximum corrosion resistance. The trade-off: tightening stainless creates heat and friction, and without lubrication a bolt can seize and weld itself to the nut.

Use hand tools only, never an impact or power driver. Put a little WD-40 or anti-seize on each bolt (except the threadlocked rivnut bolts) and take your time. It's an extra 10 minutes, and it keeps your hardware rust-free for years.

LVA PRO TIP | SNUG, DON'T CRANK

There are no torque specs to chase: every bolt is held by a nylon lock nut or a rivnut. Tighten until snug, then stop. Use blue threadlocker only on threads without a lock nut, such as the rivnut bolts. Never lube a bolt that gets threadlocker.

INVENTORY

WHAT'S IN THE BOX

Lay everything out and check it against this page before you start. **#2** and **#3** are mirrored left/right pairs, not identical copies. **#4** and **#5** are identical, so either piece fits either side.

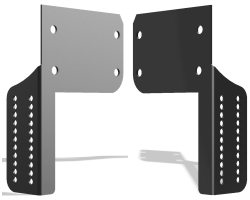
#1 QTY 1



CENTER CROSSMEMBER

Bolts under the crash bar to the lower frame rails. LVA logo faces forward.

#2 QTY 2



UPPER MOUNTING PLATES

Sandwich between the crash bar and frame rails using the factory bolts.

◆ MIRRORED L/R PAIR

#3 QTY 2

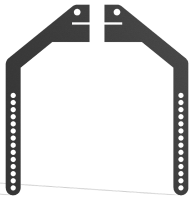


LOWER SIDE BRACKETS

The "feet". They bolt to **#2** and carry the sides of the splitter.

◆ MIRRORED L/R PAIR

#4 QTY 2

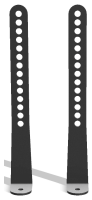


OUTER UPPER ARMS

Hook onto the small bracket under each headlight using the factory bolt.

IDENTICAL | USE EITHER SIDE

#5 QTY 2



OUTER LOWER LEGS

Thin feet that bolt to **#4** and support the splitter's outer corners.

IDENTICAL | USE EITHER SIDE

NOT INCLUDED

- LVA front splitter
- M6 rivnut install tool
- Splitter rods (sold separately, recommended)

Missing parts, or damaged in shipping? Email help@liquivinyl.com with your order number and a photo.

BAG 1 Splitter → kit

ID	QTY	PART
1A	15	1/4-20 × 1" button-head bolt (5/32" hex)
1B	30	Fender washer, 1/4" ID × 1" OD
1C	15	1/4-20 nylon lock nut (11 mm)

BAG 2 Kit → car & kit assembly

ID	QTY	PART
2A	12	M6 × 1.0 × 16 mm button-head bolt (4 mm hex)
2B	28	Fender washer, 1/4" ID × 1" OD
2C	12	M6 nylon lock nut (10 mm)
2D	4	M6 × 1.0 bronze rivnut (nutsert)
2E	4	M6 × 1.0 × 20 mm button-head bolt (4 mm hex)
2F	4	Flat washer, 6 mm ID × 12 mm OD

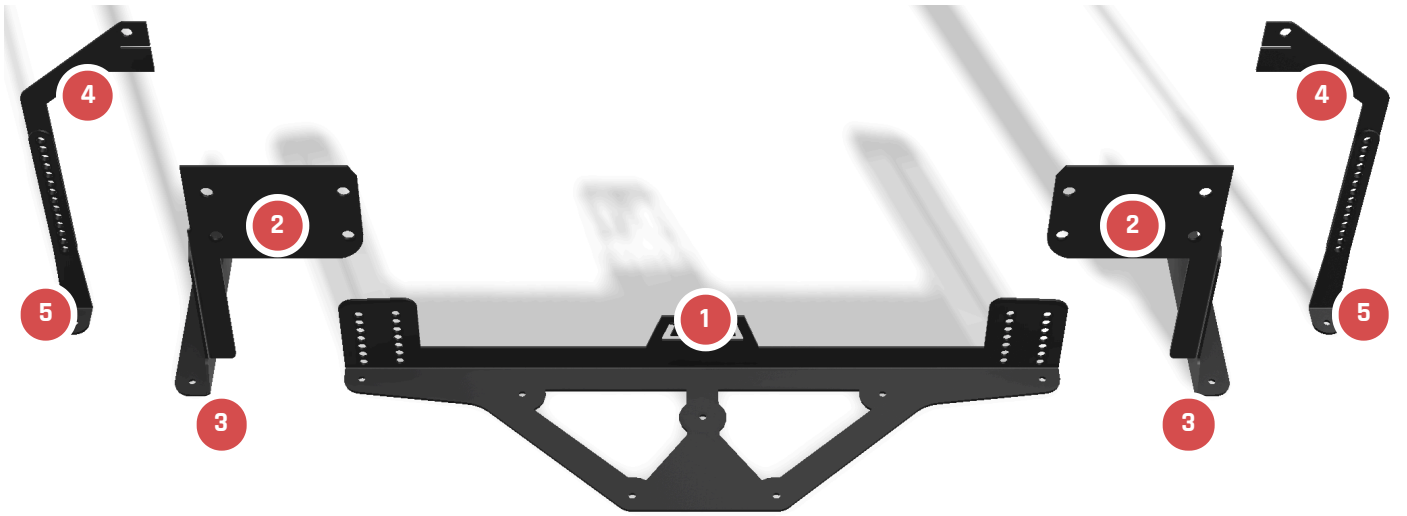
DON'T MIX UP THE THREADS

M6 hardware (Bag 2) has a finer thread than the 1/4-20 hardware (Bag 1). They look alike but won't swap. Keep the bags separate until you need them.

HOW IT ALL FITS TOGETHER

KIT OVERVIEW

Seen from the front of the car. Every piece only fits one way: if something won't line up, check it against this view. Each load path has adjustment holes, so you can set the splitter height and keep it level.



1 CENTER CROSSMEMBER
Lower frame rails, dead center under the crash bar, held by 4 rivnuts. The tab hole you pick sets the center height.

2 UPPER MOUNTING PLATES
Sandwiched between the crash bar and each frame rail by the 4 factory crash bar bolts. The 90° bend faces the rear.

3 LOWER SIDE BRACKETS
Bolt to **#2** with 4 bolts. The splitter flange faces outward, away from the center.

4 OUTER UPPER ARMS
The notch slides over a plastic tab on the small bracket under each headlight, then the factory bolt goes back in.

5 OUTER LOWER LEGS
Bolt to **#4** with 2 bolts. The foot faces forward.

S YOUR SPLITTER
15 bolts: 7 into **#1**, 3 into each **#3**, 1 into each **#5**. You drill these holes during the install.

BUILT-IN ADJUSTMENT | THOSE BIG HOLES ARE ON PURPOSE
The mounting holes are intentionally oversized. Ford's factory tolerances vary from car to car, and the extra room lets the kit fit all of them. If there's space around a bolt, that's by design: the included 1" fender washers bridge the gap and lock in a solid mount.



PREVIOUS VERSION **THE FINISHED KIT, FRONT VIEW** Splitter outlined in green.

01 PHASE 01 PREPARE THE VEHICLE

PIECES None **HARDWARE** None **TOOLS** Lift or jack stands, socket set, trim clip tool

The front bumper cover and the factory belly pan both have to come off to reach the crash bar and frame rails.

1.1 LIFT AND SUPPORT THE CAR

Raise the front of the car and support it securely on a lift or jack stands. Give yourself room to work underneath and in front of the bumper.

1.2 REMOVE ANY EXISTING SPLITTER

If an LVA splitter (or another lip) is already fitted, remove it and its support rods. Keep its hardware for now. The splitter goes back on later, mounted to the kit instead.

1.3 REMOVE THE FRONT BUMPER COVER

Remove the bumper cover the same way you would for any S550 front-end job. There are plenty of step-by-step videos on YouTube for your model year. Before you pull it fully away, disconnect any fog light, sensor or camera connectors, then set the cover aside on a soft surface.

You don't need to remove the washer fluid reservoir.

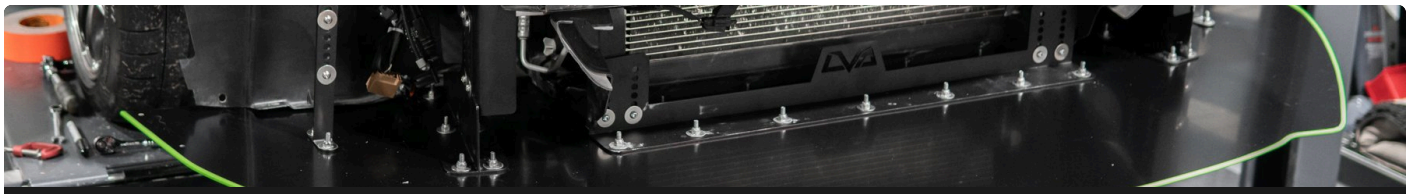
1.4 REMOVE THE FACTORY BELLY PAN

Unbolt and remove the plastic belly pan (engine undertray) from under the front of the car.

> ⚠ **THE BELLY PAN DOES NOT GO BACK ON**
> This kit **deletes the factory belly pan**. The splitter mounts to the chassis in its place. You can still reach the oil drain plug, which sits just behind the splitter.

1.5 FIND YOUR MOUNTING POINTS

With everything off, find: the crash bar and its 4 bolts on each side; the lower frame rails under the crash bar and their existing holes; and the small bracket under each headlight. The photo below shows where the finished kit sits.



PREVIOUS VERSION **WHERE IT ALL GOES** Outer arm under the headlight, side bracket against the crash bar, crossmember in the center.

02 PHASE 02 INSTALL THE CENTER CROSSMEMBER

PIECES #1 **HARDWARE** 2D · 2E · 2B or 2F **TOOLS** Drill, 23/64" bit, rivnut tool, 4 mm hex, threadlocker

The crossmember is the center of the kit. It mounts to the lower frame rails with four M6 rivnuts, two per side.

2.1 ORIENT THE CROSSMEMBER

Hold #1 under the crash bar with the extended portion facing forward, so the LVA logo reads correctly through the lower grille. The end tabs, each with two columns of holes, sit against the lower frame rails.



#1 from the front of the car. The logo reads correctly.

2.2 DRILL THE FRAME RAILS & INSTALL THE RIVNUTS

Find the existing holes in the lower frame rails that line up with the crossmember tabs, two per side. Drill them out to 23/64" (9 mm), then deburr them and dab touch-up paint on the bare metal. Install one rivnut in each hole with your rivnut tool. Each one should sit flush and not spin.

2D	×4 M6 bronze rivnut

NO RIVNUT TOOL? USE THE "TWO-NUT" METHOD

Thread a spare nut and washer onto an M6 bolt, then thread the rivnut onto the end and push it into the hole. Hold the bolt head still and turn the nut down against the washer. This crushes the rivnut in place. Then unthread the bolt.



PREVIOUS VERSION **CROSSMEMBER INSTALLED** Centered between the lower frame rails, with the LVA logo facing forward.

02 SET THE HEIGHT & BOLT IT IN

2.3 CHOOSE YOUR HEIGHT & BOLT IT IN

The hole you use in each tab sets the height of the center of the kit. Use the same hole on both sides. Put blue threadlocker on each bolt and thread it through the tab into the rivnut. Tighten until snug.

#1	Crossmember	2E	×4	M6 × 20 mm bolt	2B	×4	1" fender washer

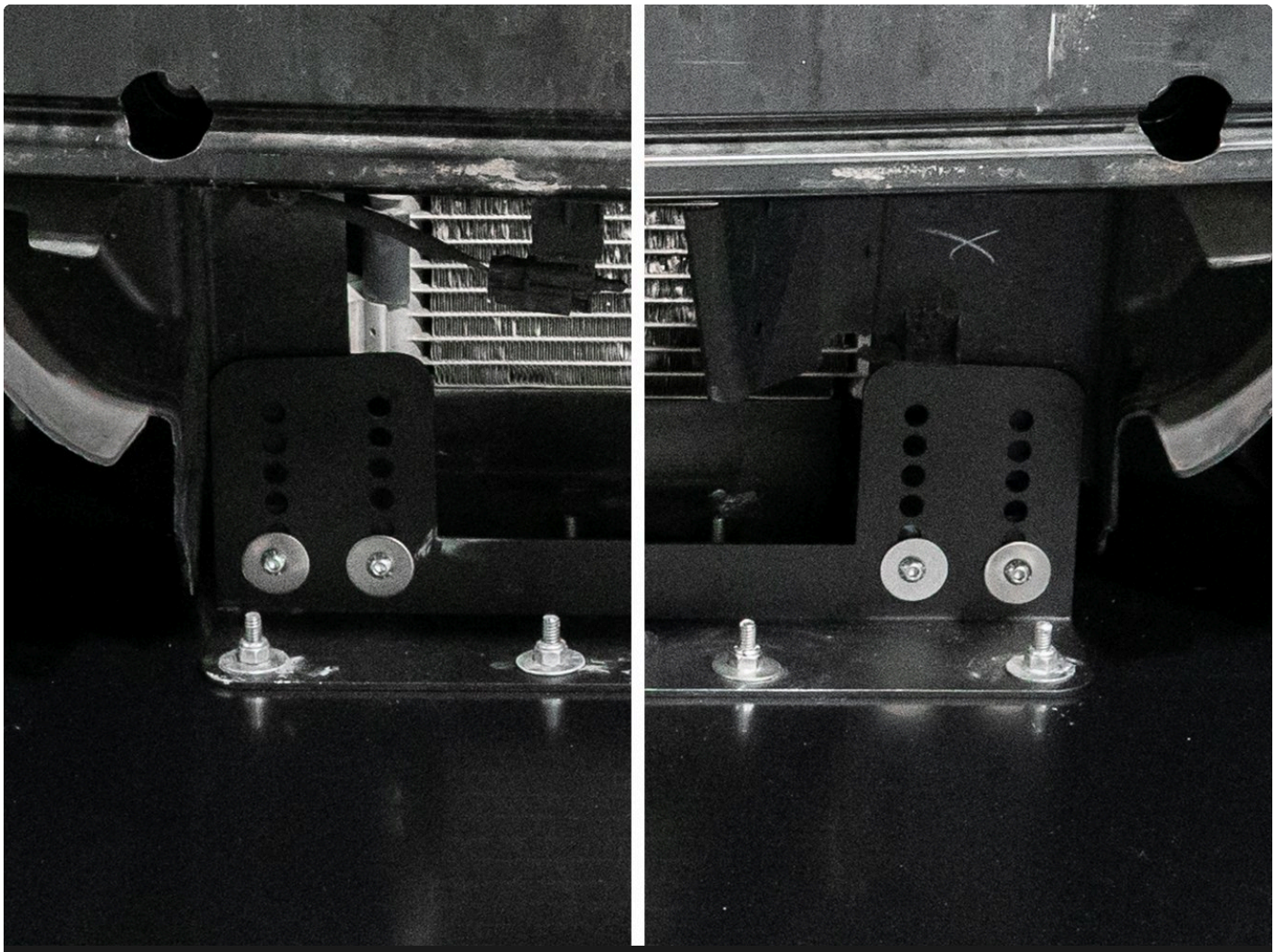
2F ×4 12 mm washer | bottom hole only

LVA PRO TIP | WHICH WASHER?

In any hole except the bottom one, use the 1" fender washers **2B** . In the bottom hole there isn't room for a 1" washer next to the bend, so use the smaller 12 mm washers **2F** . That's why the kit includes both.

CAUTION | DON'T OVER-TIGHTEN

Too much force can make a rivnut spin in its hole, which is very hard to fix. Snug them up, let the threadlocker do the work, and stop.



PREVIOUS VERSION **LEFT & RIGHT TABS BOLTED TO THE RIVNUTS** Two bolts per side, each with a fender washer under the head.

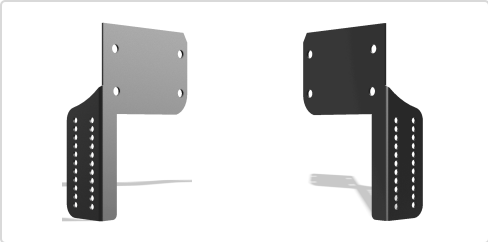
03 PHASE 03 INSTALL THE UPPER MOUNTING PLATES

PIECES #2 L & R **HARDWARE** Factory crash bar bolts (reused) **TOOLS** Socket set

Each upper plate is sandwiched between the crash bar and a frame rail and held by the factory bolts. Do one side at a time so the crash bar stays located on the car.

3.1 IDENTIFY LEFT AND RIGHT

The two #2 plates are mirror images, and each one only fits one way. Hold it with its 90° bend facing the rear of the car and its long leg hanging down. The four large holes line up with that side's crash bar bolts. If they don't, you have the other side's plate.



#2 left & right. Mirror images. The bend faces the rear.

3.2 RELEASE ONE SIDE OF THE CRASH BAR

On one side, remove the 4 bolts that hold the crash bar to the frame rail. Let the crash bar drop down *slightly*, just enough to open a gap. Support it so it doesn't hang on the other side.

3.3 SLIDE THE PLATE IN & REINSTALL THE FACTORY BOLTS

Slide #2 into the gap between the crash bar and the frame rail. Reinstall the 4 factory bolts through the crash bar, through the plate, and into the frame's factory threads. Tighten them securely. Then repeat on the other side with the other #2, and check that both plates hang straight down with their bends facing the rear.

#2	Upper plate (this side)
OEM	×4 Factory crash bar bolts



PREVIOUS VERSION **PLATE SANDWICHED AT THE CRASH BAR** The factory bolts pass through the crash bar and the plate into the frame rail.

04 PHASE 04 ATTACH THE LOWER SIDE BRACKETS

PIECES #3 L & R **HARDWARE** 2A · 2B · 2C **TOOLS** 4 mm hex, 10 mm wrench

The "feet" bolt to the legs of the upper plates you just installed. Matching hole columns on both pieces let you set the height.

4.1 MATCH EACH FOOT TO ITS SIDE

#3 is a mirrored pair. Offer each one up to the leg of the #2 on the same side, with the bottom splitter flange facing outward, away from the center of the car. Like #2, each one only fits one way.



#3 pair. The flanges point outward. Check against the kit overview.

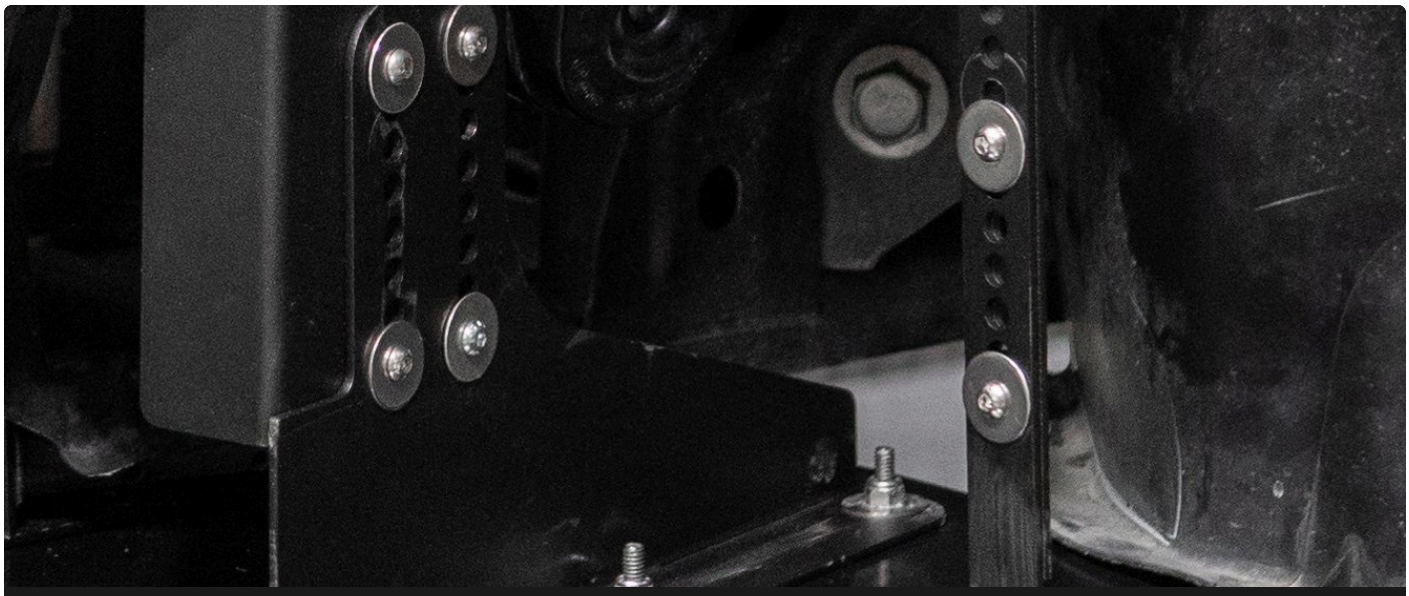
4.2 SET THE HEIGHT LEVEL WITH THE CROSSMEMBER

Choose the holes that put the bottom flange of each #3 level with the bottom flange of #1. Lay a level or straightedge across all three flanges to check.

4.3 BOLT IT TOGETHER

On each side, fit 4 bolts with a 1" washer on both sides and a lock nut on the back. Put a little lube on each bolt and tighten by hand until snug.

#3	→ #2	2A	×8	M6 × 16 mm bolt (4/side)	2B	×16	1" fender washer	2C	×8	M6 lock nut



PREVIOUS VERSION **SIDE BRACKET BOLTED UP** Four bolts with washers on both faces. The splitter flange sits at the bottom.

05 PHASE 05 INSTALL THE OUTER ARMS & LEGS

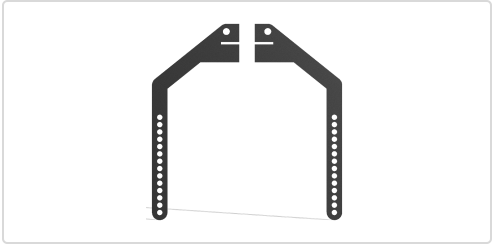
PIECES #4 ×2, #5 ×2 **HARDWARE** Factory bolt · 2A · 2B · 2C **TOOLS** Socket set, 4 mm hex, 10 mm wrench

The outer arms pick up a small factory bracket under each headlight and support the splitter's outer corners. Both arms are identical, and so are both legs.

5.1 HOOK THE ARM ON UNDER THE HEADLIGHT

Under each headlight is a small bracket held by a bolt that threads in toward the front of the car. Its head is behind the headlight. Remove the bolt. A small plastic tab sticks out at this spot. Slide the notch in the top of #4 over the tab, line up the hole, and reinstall the factory bolt to lock it in place.

#4	Outer arm	OEM	×1 Factory bolt, per side



#4. The notch slides over the plastic tab.

5.2 ATTACH THE OUTER LEGS

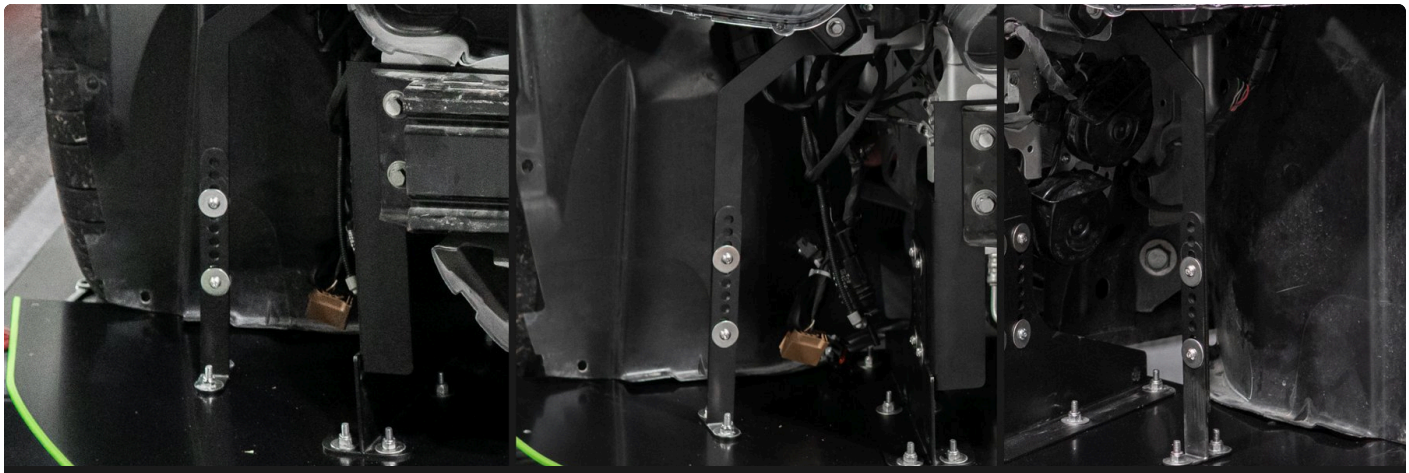
Bolt #5 to the hole column on #4 with its foot at the bottom, facing forward. Choose the holes that put the foot level with the flanges of #1 and #3. Use 2 bolts per side, with a 1" washer on both sides and a lock nut. Lube the bolts and tighten by hand until snug.

#5	→ #4	2A	×4 M6 × 16 mm (2/side)	2B	×8 1" washer
2C	×4 M6 lock nut				



#5. The foot carries 1 splitter bolt per side.

2018-2023 CARS
The headlights sit slightly lower, so the outer arms may need a minor adjustment. Everything else fits as normal.



PREVIOUS VERSION **OUTER ARM & LEG, THREE VIEWS** Two bolts join the leg to the arm. The foot sits at the bottom, facing forward.

06 PHASE 06 POSITION & CLAMP THE SPLITTER

PIECES Full kit + splitter **TOOLS** Level, 2 clamps, marker, helper

This is the step that makes the finished install look factory. You'll use the bumper cover as your guide to set the splitter's position, then clamp it to the kit so it can't move while you drill.

6.1 GET EVERY BRACKET LEVEL

Lay a level or straightedge across the bottom flanges of **#1**, both **#3** and both **#5**. All five should sit in one flat plane. If any flange is high or low, move it up or down a hole now. A few extra minutes here makes a big difference to the final fit.

6.2 REFIT THE BUMPER COVER LOOSELY

Put the bumper cover back on with just enough fasteners to hold it in its normal position. It's only there as a reference, and it comes off again shortly.

6.3 POSITION THE SPLITTER

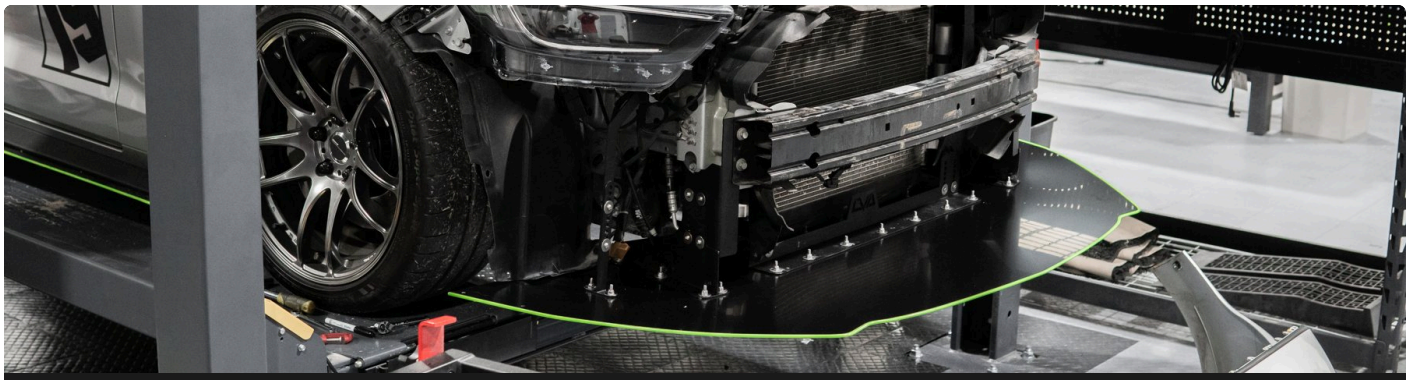
With a helper, set the splitter on the kit flanges. Line up the flat back edge of the splitter with the back of the bumper cover, where the bumper comes down at the bottom of each front wheel well. Then center it left to right.

6.4 CLAMP IT TO THE KIT

Reach in through each front wheel well and clamp the splitter to the kit on both sides to lock its position. If you can, also trace where the kit touches the splitter with a marker, or mark a couple of bolt holes. That way you can reset it if anything shifts.

6.5 REMOVE THE BUMPER COVER, LEAVE IT CLAMPED

Take the bumper cover back off. **Leave the splitter clamped in place**. It's now locked in its final position and ready to drill.



PREVIOUS VERSION **SPLITTER SET ON THE KIT** Its back edge lines up with where the bumper cover meets the bottom of the wheel well.

07 PHASE 07 DRILL & BOLT THE SPLITTER

PIECES Splitter **HARDWARE** 1A · 1B · 1C (Bag 1) **TOOLS** Drill, 1/4" bit, 5/32" hex, 11 mm wrench, level

With the splitter clamped in position, drill through every flange hole and bolt it to the kit at all 15 points.

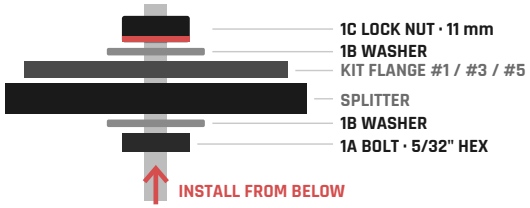
7.1 MARK & DRILL EVERY HOLE

From underneath, mark every flange hole onto the splitter. Drill each mark with a 1/4" bit. That's 7 on **#1**, 3 on each **#3**, and 1 on each **#5**.

> **LVA PRO TIP | 1/4" VS 5/16"**
> A 1/4" hole gives the strongest, tightest fit, but pushing the bolts through can be fiddly. If you're struggling, step up to 5/16". It's a little easier and still very strong.

7.2 BOLT THE SPLITTER TO THE KIT

At every hole, push a bolt up from underneath with a washer under its head. It goes through the splitter and the kit flange. Then add a washer and a lock nut on top. Put a little lube on each bolt and start all 15 by hand. Check the splitter is still where you clamped it, then tighten with hand tools until the washers seat flat. Don't crush the splitter.



Stack-up at each of the 15 points, from top to bottom.

1A	×15 1/4-20 bolt	**1B**	×30 1" washer
1C	×15 Lock nut		

7.3 FINAL LEVEL CHECK, THEN THE BUMPER GOES BACK ON

Remove the clamps. Set a level on the splitter and adjust any bracket that needs it. Then refit the bumper cover for good, reconnecting everything you unplugged. The splitter doesn't attach to the bumper cover. If you'd like an extra tie-in there, you're welcome to drill and add your own fasteners.



PREVIOUS VERSION **ALL 15 POINTS BOLTED** Nuts on top of the kit flanges, bolts up through the splitter.

08 PHASE 08 FINAL CHECKS & CARE

TIME 10 min

BEFORE YOU DRIVE

- [ ] All 4 rivnut bolts are snug with blue threadlocker, and no rivnut spins.
- [ ] All 8 factory crash bar bolts are reinstalled and tight.
- [ ] Both headlight bracket bolts are reinstalled, with **#4** seated over its tab.
- [ ] All 12 M6 bracket bolts are snug with their lock nuts fully engaged.
- [ ] All 15 splitter bolts are snug, with washers on both sides.
- [ ] The splitter is centered and level, with its back edge lined up with the bumper.
- [ ] Every connector and bumper fastener is reinstalled.
- [ ] Clamps, tools and leftover parts are off the car.

Decals go on last, once everything is bolted up and the surfaces are clean and dry.

LVA PRO TIP | ADD SPLITTER RODS

The chassis mount carries the load, but support rods add a second load path and fine height adjustment at the leading edge. They never hurt. Rods are sold separately and come with their own instructions.

RE-CHECK AFTER THE FIRST DRIVES

After your first few drives, get under the car and check that every fastener is still snug. Check again whenever the splitter takes a hit.

MIND YOUR CLEARANCE

Your splitter now sits on a rigid mount, so it won't flex out of the way of a curb or parking block. Take steep driveways at an angle and watch for speed bumps. It's not a jacking or tow point.

Side fins are optional, vary by splitter, and have their own guide.



BUILT TO TAKE REAL LOAD Yes, that's a 250 lb team member standing on it.

NEED A HAND?

WE'RE HERE TO HELP

Stuck on a step, or something doesn't look right? Send us a few photos of your install and your order number, and a real person at LVA will help you sort it out.

help@liquivinyl.com

Instagram DM **@liquivinyl** · liquivinyl.com

SHOW IT OFF

Once it's on, tag @liquivinyl on Instagram. We want to see it.

SHIPPING DAMAGE

If anything arrives damaged, keep all the packaging and email help@liquivinyl.com with your order number and photos of the parts and the box.

QUICK REFERENCE

ITEM	SIZE / TOOL	WHERE
M6 button-head bolts 2A 2E	4 mm hex	Kit assembly, crossmember to rivnuts
M6 lock nuts 2C	10 mm	#3 → #2, #5 → #4
1/4-20 button-head bolts 1A	5/32" hex	Splitter → kit, installed from below
1/4-20 lock nuts 1C	11 mm	On top of the kit flanges
Rivnut holes	23/64" (9 mm) drill	4 holes in the lower frame rails
Splitter holes	1/4" drill (5/16" if needed)	15 holes: 7 center, 3 per side, 1 per corner
Blue threadlocker	Medium strength	Only threads without a lock nut (rivnut bolts)
Power tools	Don't use them	Hand tools + a little lube (skip it where threadlocker goes)
Torque	Snug | no spec	Don't over-tighten, especially the rivnuts

Disclaimer. This product is not covered by a warranty; LVA covers damage that occurs during shipping only. Installation is performed at the installer's own risk, and professional installation is recommended if you're unsure about any step. LiquiVinyl Aerodynamics is not responsible for damage to the vehicle, property or persons arising during installation or after installation, including from improper installation, misuse, or contact with the road, curbs, debris or other obstacles. Always check that your vehicle complies with local laws and regulations.

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