VOODOO EVOLUTION™ 32R ASSEMBLY GUIDELINE #5

FRONT SHOCK ABSORBER MOUNT KIT

SPECIAL NOTE
All Voodoo Hot Rods™ chassis components require fabrication and welding prior to installation. Due to the unique design of the Voodoo Evolution™ 32R Chassis, common over-the-counter suspension components may not bolt into the chassis without modification. Voodoo Hot Rods™ suspension kits are designed for the experienced chassis builder, our products do not provide a bolt-together assembly. Voodoo Evolution™ 32R Assembly Guidelines are numbered and should be implemented in sequence. Fabrication is relatively simple and provides experienced hot rodders and professional builders with the potential to incorporate their own subtle changes in chassis assembly with the convenience of a pre-designed component that can be tailored to a unique installation. As chassis and suspension components provide critical functions it is imperative that in the interests of safety the very highest quality welding be undertaken by fully qualified technicians.

STEP 1 – identify kit components
The Front Shock Absorber Mount Kit contains the following components:

1 x Left pre-fabricated Upper Front Shock Mount
1 x Right pre-fabricated Upper Front Shock Mount
2 x Lower Front Shock Mount Spacers
2 x Lower Rear Shock Mount Spacers
2 x Upper Shock Mounting Bolts, Lock-nuts, washers
2 x Lower Shock Mounting Bolts, Lock-nuts, washers

IMPORTANT NOTE
The left & right Upper Shock Mounts are supplied pre-fabricated using tack-welds and must be fully welded by a qualified technician prior to the Voodoo Evolution™ 32R being driven.

STEP 2 – ensure previous Installation Guidelines have been completed
Before installing the Front Upper Shock Mount Kit it is essential that the following Voodoo Evolution™ 32R Installation Guidelines have been completed:

#1 Chassis Setup for Engine, Transmission & Suspension Kit
#2 Engine & Transmission Mount Kit
#3 Front Axle Preparation
#4 Front Radius Rod Kit

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STEP 3 – for use with I-beam axles only

The *Front Shock Mount Kit* is designed for use with forged I-beam axles only. The kit increases ground clearance compared to bolt-on lower shock mounts, and positions the front shocks behind the front axle for improved aesthetics and weight distribution, and more vertically for greater functional efficiency.

STEP 4 – fit left front shock absorber

Slip the lower mounting eye of a QA1 STS1578PX shock absorber (or a shock providing 5-3/8” stroke) over the *Lower Shock Mounting Bolt* fitted to the front axle in #3 *Installation Guideline: Prepare Front Axle*. Use washers on the rear lower mounting bolt so the shock body does not rub on the rear of the I-beam axle. Ensure a metal sleeve is inserted in the shock's poly bushing to prevent damage from bolt threads. Fit a washer & lock-nut to secure the QA1 shock to the lower mounting bolt and tighten snugly.
STEP 5 – fit right front shock absorber
Repeat STEP 4 to fit the right front shock absorber.

STEP 6 – confirm bump stops are fitted to left & right front shock absorbers
Ensure a rubber bump stop is fitted on the shaft of both shock absorbers between the top of the shock body and the lock-nut directly under the upper hat section containing the upper shock mounting eye.

STEP 7 – setting front shock absorber length for ride height & suspension travel
Setting correct shock absorber length at ride height is important when installing the Upper front Shock Mounts. When upward suspension travel is set by the 3” Front Axle Spacer positioned between the Spring Clamp and top of the I-beam axle there must also be 3” between the top of the installed shock body and the underside of the lock-nut directly below the hat section. The QA1 shock absorber will measure 14-5/8” from the center of the lower mounting eye to the center of the top mounting eye.

IMPORTANT NOTE
If a different height Front Axle Spacer is used, ensure the distance between the top of the shock body and underside of the lock-nut below the hat section matches.

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STEP 8 – pre-fabricated Upper Shock Mounts

The left & right Upper Shock Mounts are pre-fabricated using tack-welds to make installation fast and modification easy if required.

IMPORTANT NOTE
The left & right Upper Shock Mounts must be fully welded by a qualified technician prior to the Voodoo Evolution™ 32R being driven.

STEP 9 – bolt left Upper Shock Mount to left front shock absorber

With the front suspension installed at ride height bolt the left Upper Shock Mount to the top mount of the left shock absorber and position the base of the shock mount on top of the Chassis Rails.
STEP 10 – set left Upper Shock Mount position on chassis

Use an angle finder to lean the left shock absorber inward at the top towards the chassis center-line at an angle of XX degrees. The rearward shock angle should be the same as axle caster.

Use a plumb bob ensure the center of the upper shock mount is XX inches outboard of the Upper Chassis Rail and XX" from the chassis center-line.

The lower/front face of the left Upper Shock Mount should be approximately XX" from the center of the Front Cross-member.

STEP 11 – trim base of left front Upper Shock Mount

After meeting specifications in STEP 10, trim the base of the left Upper Shock Mount until there is 3" between the top of the shock body and the underside of the lock-nut directly below the top hat section. When the left shock mount is in position tack-weld it to the top of the left inner & outer Chassis Rails.
STEP 12 – bolt right Upper Shock Mount to right front shock absorber & trim to fit Chassis Rails
Repeat the procedures described in STEPS 10 & 11 to fit and tack-weld the right Upper Shock Mount to the top of the right Chassis Rails.

STEP 13 – check left and right front shocks are installed identically
Measure and confirm the left & right Upper Front Shock Mounts are installed identically on each side of the chassis.
STEP 14 – confirm shock clearance

Ensure adequate clearance of left & right shock body to the rear of the I-beam axle.

Confirm static ride height and installed length of shock absorbers such that shock compression matches the height of the Front Axle Spacer positioned between the Spring Clamp and top of the I-beam front axle.

Use an angle-finder to confirm that left and right front shocks have matching inward and rearward mounting angles.

After Voodoo Evolution™ 32R Hood Top & Side Panels have been fitted, confirm position of the left & right top shock mounting eye - relative to the hood sides – match.

IMPORTANT NOTE
Do not undertake final welding of the Front Shock Mount Kit until the rolling chassis has been set up at intended chassis rake and ride height using the wheels and tires to be used, with all front suspension, steering, rear suspension and Chassis Rail Covers fitted and checked for function and clearance to engine, transmission, drive shaft, exhaust, chassis and other components. Also ensure the Voodoo Evolution™ 32R Body including Grill Shell, Hood Top & Sides, and Tank Trunk™ or Rolled Rear Pan have been installed and checked for functional clearance.

STEP 15 – proceed to #6 Assembly Guideline #6: Rear Watts Link Kit Installation

STEP 16 – fully weld all installation kit components

After all other chassis fabrication has been completed fully weld the following Front Shock Mount Kit components:

- **Left Upper Shock Mount** to **Left Chassis Rail**
- **Right Upper Shock Mount** to **Right Chassis Rail**
- **Fully Weld Left Upper Shock Mount Sections**
- **Fully Weld Right Upper Shock Mount Sections**