



INSTALLATION INSTRUCTIONS

64 1/2 - 70 SUPERRIDE II

INDEPENDENT FRONT SUSPENSION

BX-350

FOR COYOTE AND MOD ENGINES

Please read these instructions *completely*
before starting your installation.

Assemble suspension on vehicle before powder-coating to ensure proper fitment, and to make modifications if necessary.

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- 1) Start by supporting the car on 4 jack stands. Place the front jack stands under the frame rails at the firewall, as the front frame will be cut open and will be temporarily very weak. It may bend and not support the car. The car should be sitting at approximately the same angle as it does when not raised with the rocker parallel to the ground. Remove all the old front suspension components. The shock towers will also be removed. See **Figure 1** which shows the cut lines used to remove them. Draw the cut lines around the shock towers with a soap-stone or other marker and cut them out. A plasma cutter works great here, but a torch or saber saw can be used. Cut them loose from the frame rails, also. Remove the lower control arm mounts. When you are done, you should have clean, bare frame rails, ready for the next step.

- 2) Trimming and boxing the rails is next. **Figure 2** shows the notches for coil springs that need to be cut in the rails, along with removing the lower outer flange in the boxing plate area. Measure back 24-1/4" from the front surface of the front crossmember and scribe a centerline around the rails. This will be your spindle centerline. Next scribe the spring reliefs onto the rails. You can use the formed boxing plates as templates for the scribed lines the inner plates have holes that will line up with current mounting points on the frame rails. It is recommended you bolt in the boxing plates to and verify all measurements. The spring relief radius is centered on the 24-1/4" scribe line. Just remember to cut enough material away to provide clearance for the radius in the outer boxing plates. **Figure 2** shows how the boxing plates will completely enclose and strengthen the frame in this area. Grind or otherwise clean any rust from the rails, as the boxing plates should be welded to clean metal. The upper/inner formed boxing plates are placed on the rails and clamped securely. Tack weld them to the rails. Next clamp in place the outer boxing plates and tack weld them to the upper plates and to the frame. Lastly, clamp in place the lower plates. Tack weld them to the others. Remove the clamps and
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weld them to each other and to the frame. Weld short sections at a time in alternating locations to minimize warpage. You may grind the welds smooth when done.

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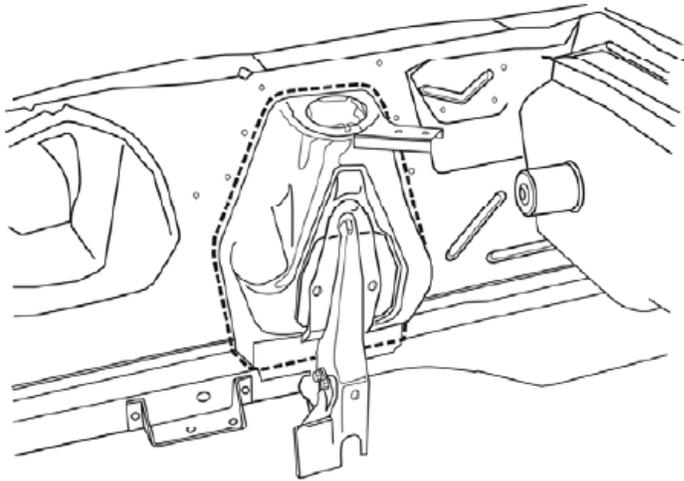


Figure 1- Remove Shock Towers

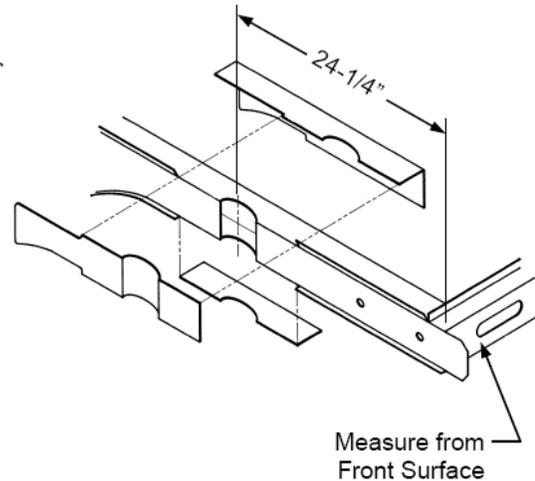


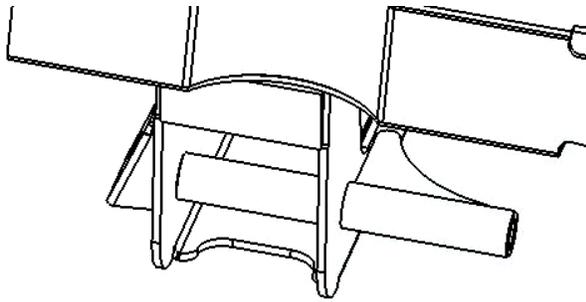
Figure 2- Trim & Box the

Rails

- 3) This kit is designed to use only Superride lower A-Arms and there are two supplied gussets that will be welded in back of the crossmember to reinforce the control arm tubes. Weld the gussets to the control arm tubes and Crossmember. See **Figure 3**
- 4) Now it is time to start fitting and installing the new crossmember. Slip the crossmember up into the frame and center it on the scribed axle center line. See **Figure 4**. If it does not fit, grind the sides of the crossmember until you can get the crossmember in place, as shown. Make sure the crossmember is fully seated on the underside of the actual lower boxing plate and your lower A-arm tube is parallel to the ground. Tack weld the crossmember, check the location and measurements, then weld in place all around both ends, top, sides, and bottom.
- 5) Next are the upper arm mounts/shock mounts. They sit on top of the frame rails, and drop on crossmember as shown in **Figure 5**. They are higher in front, which is the anti-dive angle and have a locator tab to help with positioning. Before you weld please make sure the upper A-Arm tubes and the lower A-arm tubes line up as shown in **Figure 6** and all measurements are correct. Clamp in place and weld all around.

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3- Install gussets as shown

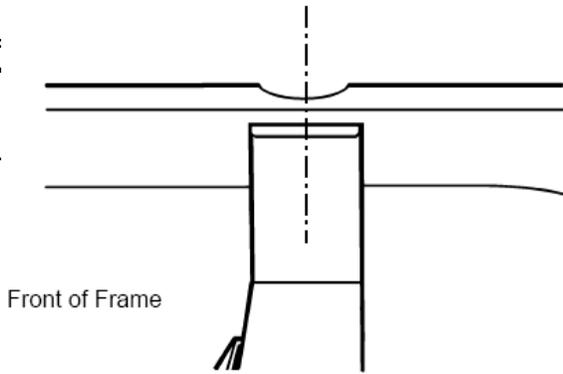


Figure 4- Crossmember Install

Figure

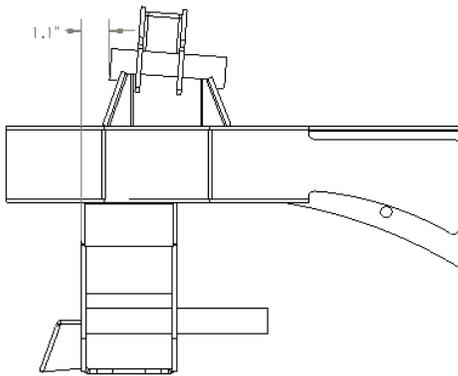


Figure 5- upper arm/shock mount Install

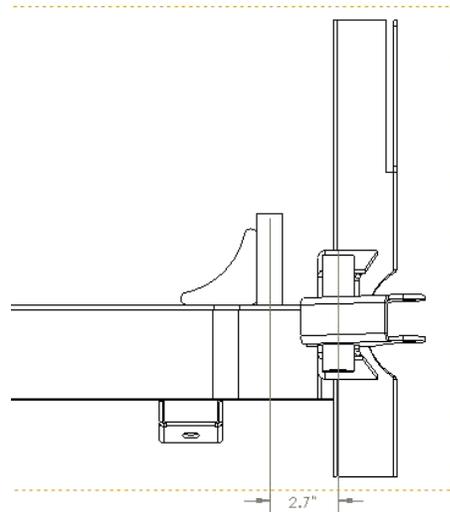


Figure 6

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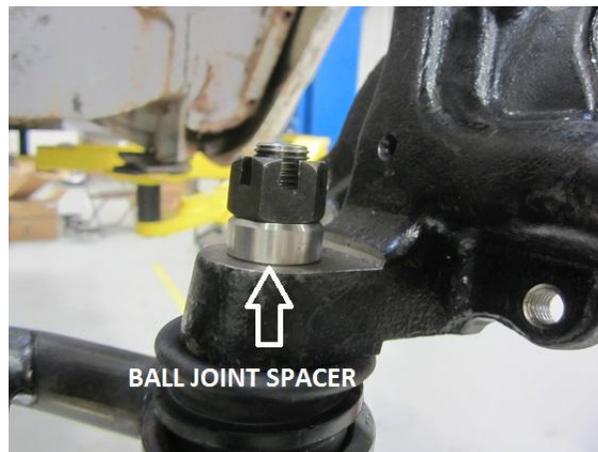


6) After the boxing plates, crossmember and arm/shock mounts are fully welded, the rest of the front end can be installed. Start with the lower control arms Bolt the arm to the front crossmember using 5/8-11 x 13"bolts, washers and 5/8-11 nylock nuts.

7) Install the upper control arms using the two 5/8-11x8.5 bolts, washers, and lock nuts from the control arm hardware kit. Ball Joint grease fittings may be also installed at this point

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8) Install the spindles onto the lower ball joints. Use the stainless steel ball joint spacer in the hardware kit and nut as shown in **Figure 1**



9) Once the spindles, upper, and lower control arms are properly installed you can move on to the coil overs. Begin by assembling the coil overs. Remove the top shock mount and spring hat. Coat the threads on the shock body with anti seize, install the spring collar and thread it down all the way. Next install the spring , hat and top shock mount and tighten the jam nut. You can now adjust the spring collar up until there is no slack between the spring and the top hat. The coil overs can now be installed. Thread the 7/16-14" bolt through the lower shock mounts and use the spacers to correctly locate the shock. You will set final adjustment once the suspension is complete and the car can be lowered.

10) After the coil overs are completed, the rack and pinion should be installed. Use the 5/8-11 x 3" hex bolts, flanged lock nuts and rack mount spacers to mount the rack and pinion to the

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subframe. See **Figure 2** Connect the outer tie rod ends snug to the spindle for wheel alignment later.

***** USE ANTI SEIZE ON OUTER TIE ROD THREADS***..**

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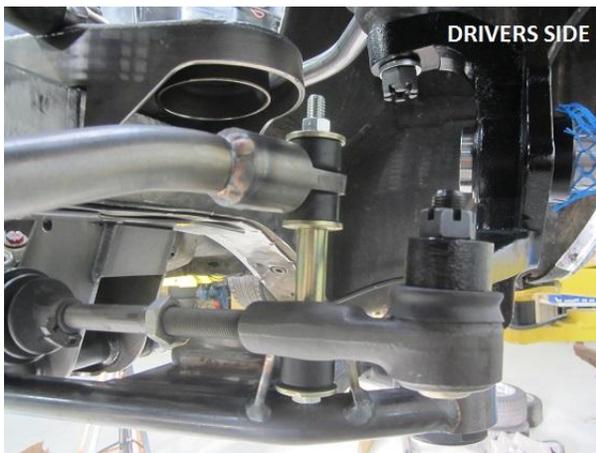




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Sway bar is optional:

11) Mount the sway bar using the end links and bushings provided in the sway bar kit. Attach the sway bar to the end links and mount the end links snug to the lower control arm mounts. Make sure the end links are straight up and down front to rear and left to right



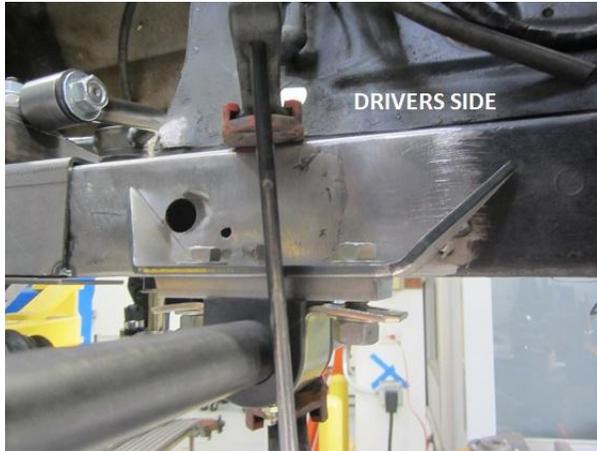
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Figure4

Figure 5

12) After the end links are snug to the lower control arms, install the sway bar bushings as shown. Use 7/16-14 x 1 1/2" grade 8 bolts, washers and nylock nuts to assemble the sway bar bushings and 3/8" spacers to the sway bar mounting brackets. Clamp the sway bar bushings and mounting bracket assembly to the factory frame. Double check the end link bushings to make sure they are straight up and down as described in step 7. Once the mounting bracket is flush with the bottom of the frame, tack weld the mounting bracket to the frame.



Figure



Figure

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13) Once the sway bar is at desired location, fully weld the sway bar mounting brackets to the frame.

*****Installing the engine and transmission is recommended prior to installing the Inner Fender Panels. This eases the placement of the engine and exhaust.*****

Inner fender panels optional:

10) With the suspension, sway bar and rack and pinion completed, the inner fender panels can be installed. The inner fender panels mount in the previous location of the factory shock towers. Use the 5/16-18 x 3/4" bolts and flange nuts to secure the inner fender panels to the inner aprons. Inner Panels may need minor trimming for better fit. There are a few holes that do not exist that need to be drilled 5/16 to complete the installation. See **Figures 44 and 45**.

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Once your brake kit is installed you are ready to set the alignment of your vehicle. Be sure to do so with the arms and shocks set at ride height (the lower control arms should be level). The caster and camber settings are done with the slots in the upper control arm mounts. Both adjusters are screwed in or out an equal amount to change the camber, and they are adjusted opposite each other to change caster. The interesting thing about the caster setting is that you can experiment with different settings and actually "tune" the characteristics of the handling of your vehicle to your driving style. 3° of caster will give a nice road feel and good low speed drive-ability. 4° or 5° will yield better high speed stability and tracking, putting a better self-centering characteristic in the steering wheel, but will tend to start to make parking slightly more difficult. Just be sure that both sides have equal caster settings, or the vehicle will tend to pull to one side.

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Alignment Specifications:

Caster: 1° to 3° Positive

Camber: 0° to - 0.5° Negative

Toe: 0.0" to - 1/16" Toe-In

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Since you are now to the point where you have a finished, running Mustang (we hope!) it is time to test drive it. After a few hundred miles, double check the ride height and the alignment. The springs may have settled, which would change the ride height and the camber setting. Readjust the ride height before changing the alignment. After this initial setting period, the springs and bushings should have pretty much taken their final set, so you should be on your way to many miles of cruising in style.

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