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 on the internet: www.ridetech.com

ABAR20400 60-64 Galaxie Rear AirBar

SKW8000 Rear Shockwaves

2	SKW5001SA	Smooth shocks (long)
2	SKW8114	Rear Bellows with ends crimped on
2	SKW013	Internal bumpstop
4	SKW114	ShockWave small O ring
4	SKW227	ShockWave large O ring
2	SKW047	Upper eye mount
2	SKW049	1/2" x 3/4" sleeves upper eye mount
2	SKW052	5/8" x 3/4" sleeves lower eye mount
8	SKW051	Poly bushing halves
2	FIT4201	1/4" x 1/4" swivel 90 fitting
1	SKW103	pair of AirCan's

AirBar Components

2	A710	Lower axle mount spacer
2	A629-1	Lower axle mount
1	A709-1	Upper cradle assembly
2	SKW005	Lower billet Shockwave mount
2	S0001	Lower Shockwave stud
2	A108	Axle tabs
2	A646	Axle tabs
2	BARTW10.125"	Upper bars (C-C length 12.0")
2	BARWW23.25"	Lower bars
4	ROD302	Rubber bushings pressed into bars
4	DAYM02153	Poly bushing for lower bar
2	S10007	Bushing Sleeve for lower bar
2	ROD1000	Threaded rod end

Hardware List

2	1/2" x 1 1/4" SAE Gr. 8 bolt	Billet mount to axle bracket
2	1/2" x 1 3/4" SAE Gr. 8 bolt	Billet mount to axle bracket
4	1/2" SAE Gr. 8 Nylok nut	Billet mount to axle bracket
6	5/8" x 2 3/4" SAE Gr.8 bolts	Bar ends
6	5/8" SAE Gr.8 Nyloc jam nuts	
4	S-10 U-Bolts w/ nuts & washers	Lower axle bracket
2	1/2" x 2 1/4 SAE Gr.8 Bolts	Upper Shockwave mount
2	1/2" SAE Gr.8 Nyloc jam nuts	
16	3/8" x 1" Thread forming bolts	Upper cradle assembly
16	3/8" SAE Flat washers	

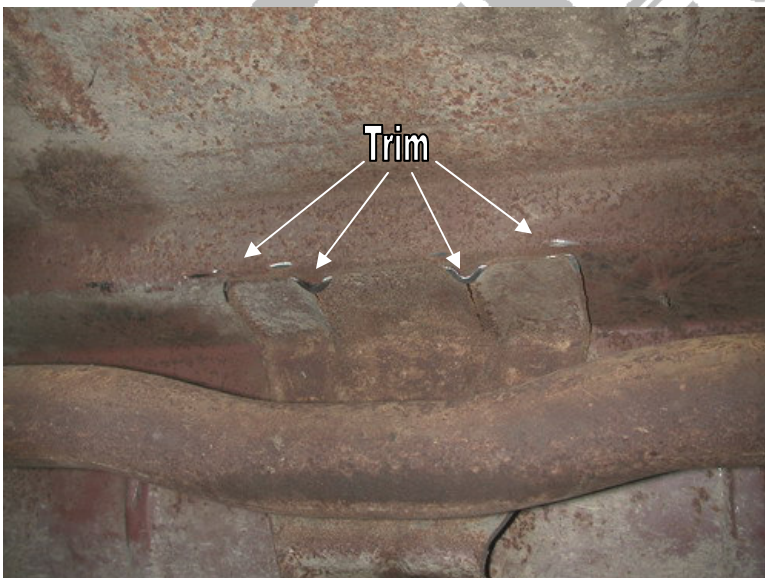
AirBAR[®]

by Air Ride Technologies

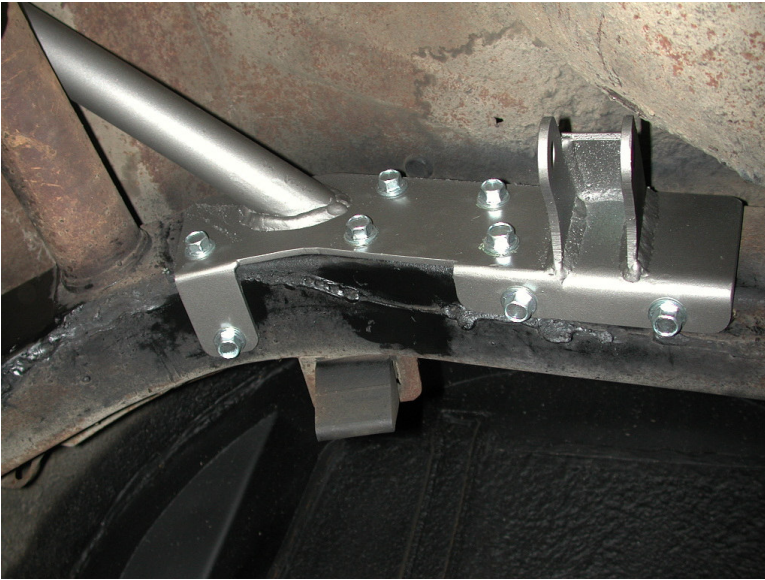
1. Raise the vehicle to a safe and comfortable working height. Use jack stands to support the vehicle with the suspension hanging freely.
2. Support the axle and remove the leaf springs, shocks, pinion snubber and tail pipes. Refer to the factory service manual for proper disassemble procedures. Keep the factory front leaf spring mounting bolts; they will be reused.



3. On the inside of the frame rail there are two tabs that must be ground smooth.



4. You must also trim these grooves in the pan at a 45 deg. angle to allow the upper cradle assemble to slide into place. They are located just in front of the axle above the crossmember.



5. Slide the cradle into place with the upper Shockwave mount toward the rear of the vehicle.

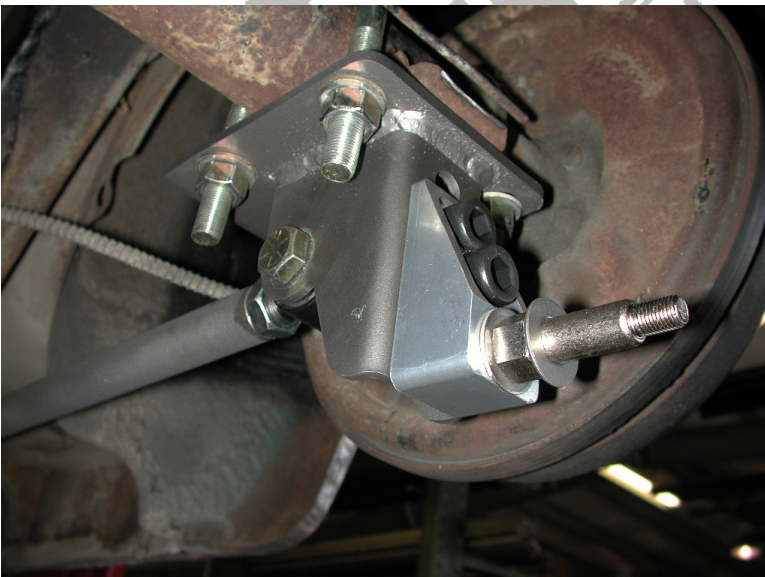
6. You may need to grind the welds smooth on the bottom of the frame to allow the cradle to sit properly.

7. The bolt hole just in front of the Shockwave mount will align with a hole in the frame to position the cradle. Drill the rest of the holes with a 5/16" bit one at a time while threading in a 3/8" x 1" self-tapping bolt. Be careful not to over tighten these bolts.



8. Bolt the large end of the lower bar (longer one) in the factory leaf spring mount using the factory bolts.

9. This bushing is polyurethane and is lubricated at the factory. Future lubrication can be done with any non-petroleum based lubricant. All other bushings are rubber and do not require lubrication.

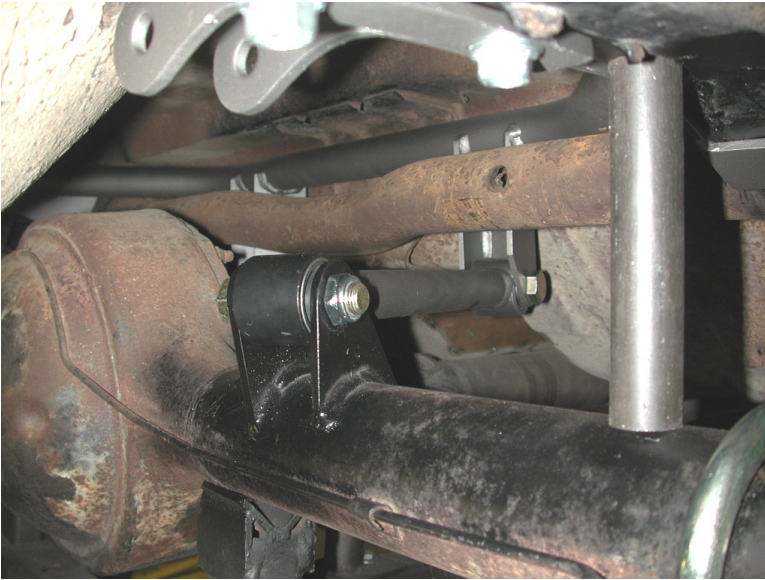


10. Secure the axle mount to the leaf spring pad using the supplied U-bolts. There is an aluminum bushing that will slide over the alignment pin.

11. Bolt the lower Shockwave mount to the axle mount using the 1/2" bolts.

12. Apply anti-seize to the shock stud and screw it into the lower shockwave mount.

13. Swing the lower bar up to the axle mount and insert a 5/8" x 2 3/4" bolt and nyloc. This bar should measure 23 1/4" C-C. **Do not tighten any bolts yet.**



14. Bolt the axle tabs to the upper bar using a 5/8" x 2 3/4" bolt and nyloc as shown in the picture. The upper bar should measure 12" C-C.

15. Bolt the other end into the upper cradle and let the tabs rest on top of the axle. **Do not weld yet.** You must first set pinion angle (which is explained on the next page) and center the axle.

16. Centering the axle is best done by hanging a plum off of the axle and measuring out to the axle flange.



17. This must all be set at **ride height**, which will occur with 14.5" from c-c on the Shockwave mounts. As you can see in the above picture, we have tack welded a 5" long spacer between the axle and frame to maintain ride height, axle center, and pinion angle while welding in the tabs.

18. Make sure to remove the upper bars before welding the tabs to avoid frying the bushings.

You can now tighten all of the 4 link bolts with the car at ride height.



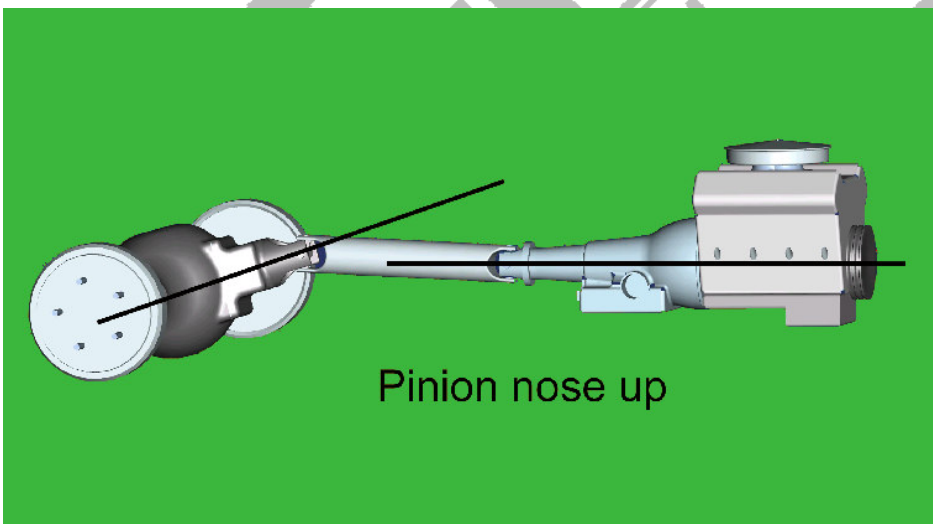
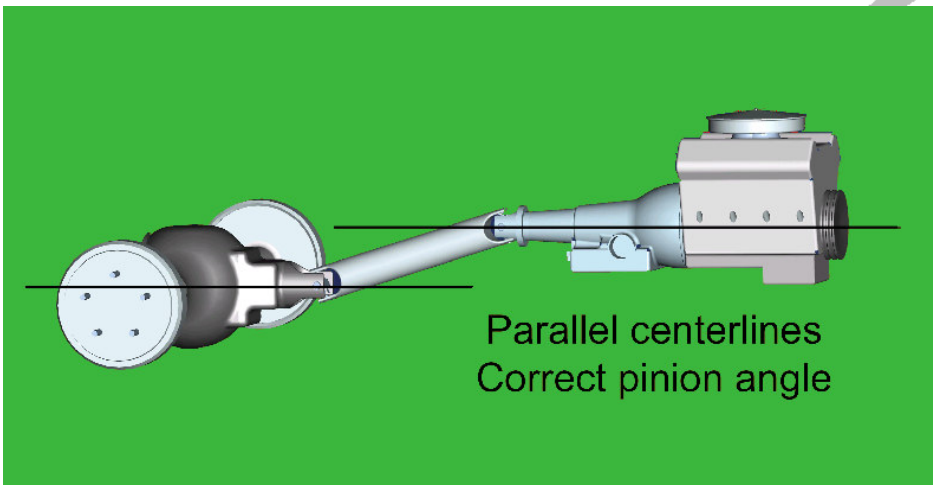
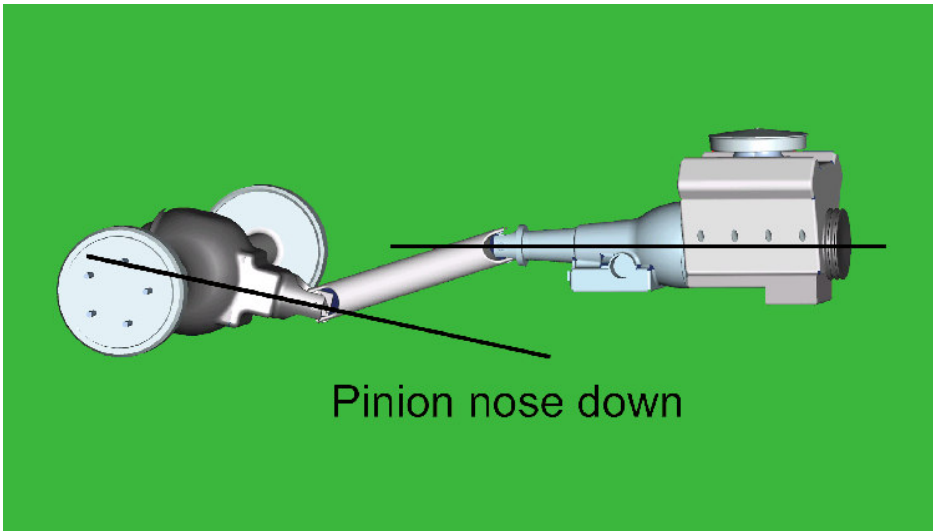
19. Apply thread sealant to the air fitting and screw it into the top of the Shockwave.

20. Attach the top of the Shockwave to the cradle with a 1/2" x 2 1/4" bolt and nyloc. Place the washer over the shock stud, and then slide the Shockwave over the stud. Another washer and nyloc will hold in tight.

21. Remove the spacer.

22. Double-check all clearances with parking brake cable, vent tubes, brake lines, etc.

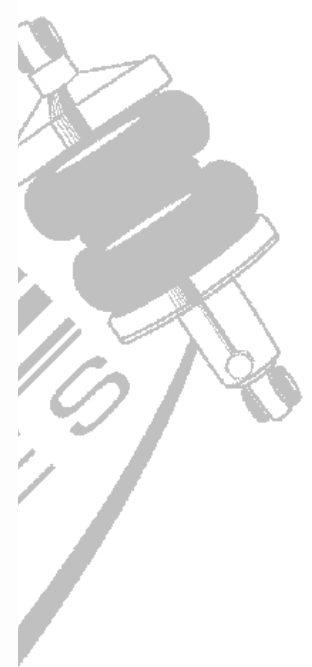
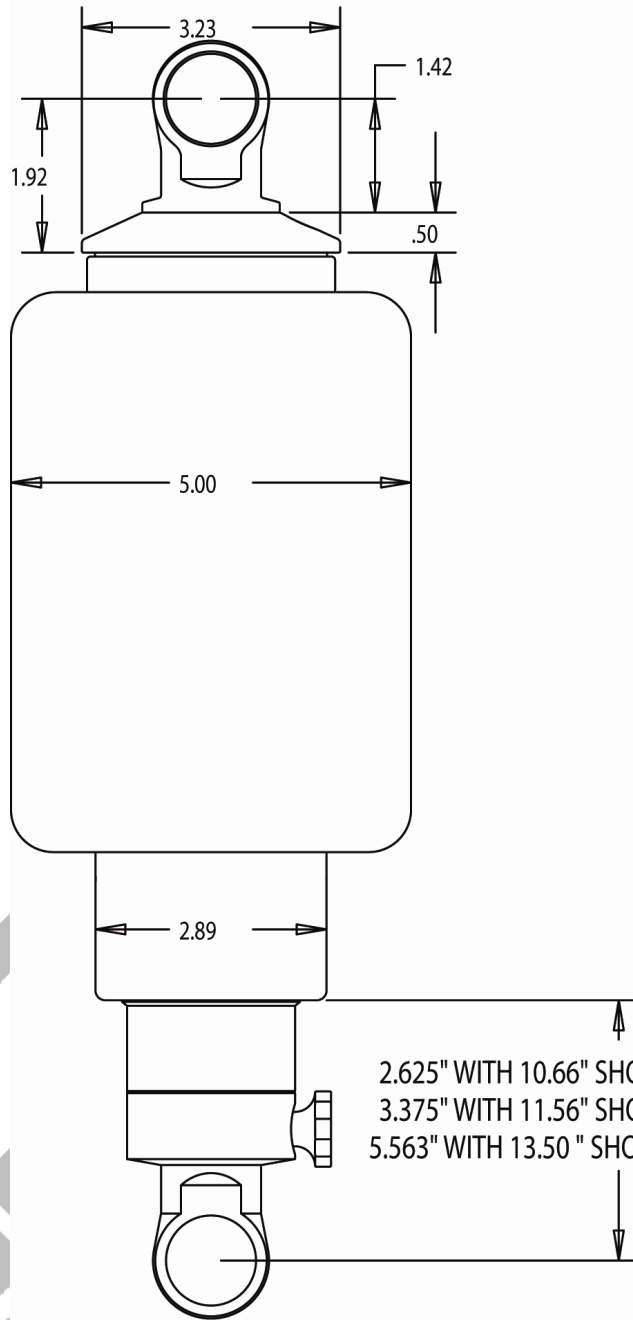
23. Ride height should be around 70psi but will vary to driver preference.



How do you set the pinion angle? On a single-piece shaft you want to set it up where a line drawn through the center of the engine crankshaft or output shaft of the transmission and a line drawn through the center of the pinion are parallel to each other but not the same line.

A simple way to do this is to place a digital angle finder or dial level on the front face of the lower engine pulley or harmonic balancer. This will give you a reading that is 90 degrees to the crank or output shaft unless you have real problems with your balancer. At the other end, you can place the same level or angle finder against the front face of the pinion yoke that is also at 90 degrees to the centerline. If you rotate the yoke up or down so both angles match, you have perfect alignment.

Road testing will tell you if you have it right. If you accelerate and you get or increase a vibration, then the pinion yoke is too HIGH. Rotate it downward in small increments of a degree or two until the problem goes away. If you get or increase a vibration when decelerating, then the pinion yoke is too LOW. Rotate it upward to correct it.



Compressed	Ride Height	Extended
11.5"	14.5"	16.5"

SHOCKWAVETM *by Air Ride Technologies*

The care and feeding of your new ShockWaves

1. Although the ShockWave has an internal bumpstop, **DO NOT DRIVE THE VEHICLE DEFLATED RESTING ON THIS BUMPSTOP. DAMAGE WILL RESULT.** The internal bumpstop will be damaged, the shock bushings will be damaged, and the vehicle shock mounting points may be damaged to the point of failure. **This is a non warrantable situation.**
2. Do not drive the vehicle overinflated or “topped out”. Over a period of time the shock valving will be damaged, possibly to the point of failure. **This is a non warrantable situation!** If you need to raise your vehicle higher than the ShockWave allows, you will need a longer unit.
3. The ShockWave is designed to give a great ride quality and to raise and lower the vehicle. **IT IS NOT MADE TO HOP OR JUMP!** If you want to hop or jump, hydraulics are a better choice. This abuse will result in bent piston rods, broken shock mounts, and destroyed bushings. **This is a non warrantable situation.**
3. Do not let the ShockWave bellows rub on anything. Failure will result. **This is a non warrantable situation.**
4. The ShockWave product has been field tested on numerous vehicles as well as subjected to many different stress tests to ensure that there are no leakage or durability problems. Failures have been nearly nonexistent unless abused as described above. If the Shockwave units are installed properly and are not abused, they will last many, many years. **ShockWave units that are returned with broken mounts, bent piston rods, destroyed bumpstops or bushings, or abrasions on the bellows will not be warrantied.**

Adjusting shock valving

The knob on the bottom of the Shockwave will adjust the dampening characteristics of the shock absorber. There are 16 clicks total, 1 is located fully counter clockwise and being the softest setting. We recommend starting with about 3-4 clicks. This can be fine tuned to driver preference.