

# Advanced

RACING SUSPENSIONS



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Indianapolis, IN 46214  
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*pavement late model catalog*

# SHOCKS

## 2000 SERIES

### Large Body Twin-Tube

The 2000 Series Large Body Twin Tube shock has a large anodized aluminum body designed for 2 ½" ID springs. The entire body of the shock is machined with a coarse thread so each rotation of the adjusting nut moves the spring perch 1/8" of ride height. The 2000 Series shock is a great choice for race series that don't allow the 4000 or 4200 series Mono-Tube shocks.

This shock will accept 2 ½" ID Springs and is available in 5", 6", 7", 8" or 9" stroke shafts.



## 2200 SERIES

### Large Steel Body Twin-Tube

The 2200 Series Shock is the steel version of the 2000 series shock. This shock was designed to fit the rule of "steel body shock" that saves the racer money.

The smooth body will accept a coil-over kit to slide over the body. This shock is a great choice for series that do not allow the steel body mono-tube shocks.

This shock will accept 2 ½" ID or 5" OD springs and is available in 6", 7", 8" and 9" stroke shafts.



## 3200 SERIES

### Small Body Mono-Tube With or Without Canister

The 3200 Series shock is the ideal shock to provide the forward bite needed with the current late model setups. This small body shock will accept any coil-over spring and perform with the lowest gas pressure of any rear shock. It is built with a special piston for the rear of asphalt late models that is configured to handle the irregularity of the race track without losing forward bite. The 5 degree adjustment needle allows the tuner to adjust the rebound to generate maximum traction. This shock also utilizes a base valve that is installed between the floating piston and the valving piston. This minimizes the gas pressure required and reduces the rod pressure.

The Canister option allows for more oil capacity and less pressure build up which creates maximum grip. The floating piston is located in the remote canister. This allows for substantial reduction of rod pressure.

The banjo swivel hose connected to the remote canister allows for easy mounting of the canister. Quick release canister clamps are available in many sizes located on our Hardware page.



**\*\*All Shocks are available in adjustable or non-adjustable, and standard straight valvings or split valvings.\*\***



# 4000 SERIES

## Large Body Mono-Tube Non-Base Valve Double Adjustable

The 4000 Series Double Adjustable shock dramatically reduces your shock inventory. The double adjustable shock allows you to create many different valving combinations in one shock.

The compression adjustable canister utilizes a tapered needle to control the low speed compression dampening. The high speed compression is controlled through the two stage by-pass in the remote canister. The 8 position compression adjuster is located in the remote reservoir with the schrader valve for fine tuning of the gas pressure.



# 4200 SERIES

## Large Body Mono-Tube

The 4200 Series shock is very similar to our 3200 series shock. The biggest difference is that the 4200 series shock is a large body. This creates more room for the oil capacity creating maximum cooling efficiency. The base valve is installed between the floating piston and the valving piston to isolate the pressure which minimizes the pressure required and also reduces rod pressure.



# 7200 SERIES

## Steel Body Mono-Tube

The 7200 Series Steel Body Mono-Tube shock is designed for the racers that are required to use a steel body. This shock contains the latest base valve technology to provide the lowest rod pressure of any large body mono-tube shocks.

Maximum traction is developed with the use of low rod pressure. The base valve installed between the floating piston and the valving piston isolates the pressure, therefore allowing for substantial reduction in rod pressure.

This shock comes standard with a schrader valve to fine tune the gas pressure in the shock. If the series you race with does not allow schrader valves, the shock is available with the pressure pre-set and a cap installed in the port hole to make it legal in certain series.

The smooth shock body will accept a coil-over kit to slide over the body. They are designed to use 2 1/2" ID or 5" OD Springs. It comes in 6", 7", 8", 9" or 10" stroke shafts.



# SHOCKS

# COIL-OVER KITS



**ARS #20100**  
(2 1/2" ID)  
Cone Spring  
Seat W/ Pinch  
Clamp  
Adjusting Nut



**ARS #20101**  
(2 1/2" ID)  
Flat Spring  
Seat W/ Pinch  
Clamp  
Adjusting Nut



**ARS #22101**  
(5" OD)  
Cone Spring  
Seat W/ Pinch  
Clamp Adjusting  
Nut for 6" & 7"  
stroke shocks



**ARS #22103**  
(5" OD)  
Cone Spring Seat  
W/ Pinch Clamp  
Adjusting Nut for  
8" & 9" stroke  
shocks



**ARS #30104**  
(2 1/2" ID)  
Cone Spring Seat  
W/ Pinch Clamp  
Adjusting Nut



**ARS #301045**  
(2 1/2" ID)  
Cone Spring Seat  
W/ Pinch Clamp  
Adjusting Nut



**ARS #30105**  
(2 1/2" ID)  
Flat Spring Seat  
W/ Pinch Clamp  
Adjusting Nut

**NEW  
REDESIGNED  
ADJUSTING  
NUTS**  
With more clamping  
strength for small  
body rear shocks



**ARS #40100T**  
(2 1/2" ID)  
Cone Spring  
Seat W/  
Tapered  
Pinch Clamp  
Adjusting Nut



**ARS #40101T**  
(2 1/2" ID)  
Flat Spring  
Seat W/  
Tapered  
Pinch Clamp  
Adjusting Nut



Top view Bottom view

**ARS #40104**  
(2 1/2" ID)  
Special Spring Seat Designed  
for Bump Springs W/ Pinch  
Clamp Adjusting Nut  
(Sinks bump spring down  
in cup 5/16")



**ARS #72101**  
(5" OD)  
Cone Spring Seat W/ Pinch  
Clamp Adjusting Nut and  
Threaded Sleeve for 6" & 7"  
stroke shocks

**ARS #72103**  
(5" OD)  
Cone Spring Seat W/ Pinch  
Clamp Adjusting Nut and  
Threaded Sleeve for 8" & 9"  
stroke shocks





**BUMP SPRINGS** Complete Inventory 500 lbs to 5,000 lbs Spring Rate



ARS # 600560  
End Caps for  
Hyperco and Swift  
Bump Springs



ARS # 600563  
End Caps for Bump Springs  
that Sink Down in Spring Seat  
(5/16" more travel)

**BUMP RUBBERS** Square Edged Urethane Bump Rubbers 3/4" Tall x 2" OD



ARS #600541  
Durometer: 20



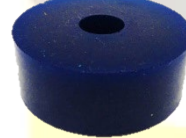
ARS #600542  
30



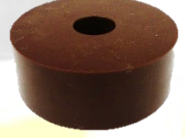
ARS #600544  
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ARS #600546  
50



ARS #600547  
60



ARS #600548  
70

**BUMP RUBBERS W/ BONDED WASHERS**

Square Edged Urethane Bump Rubbers W/ Bonded Washers 2 1/2" OD (must be used in UHT or Barrel Spring)



ARS # 600531  
Durometer: 30  
ARS #600532

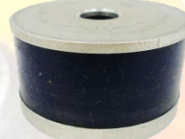


(2) 1/8" Washers Bonded to Bump Rubber

ARS #600533  
40  
ARS #600534



ARS #600537  
50  
ARS #600538



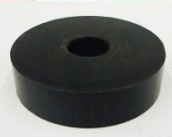
ARS #600539  
60  
ARS #600540



ARS#60048  
1/8" Split Spacer  
ARS#60049  
1/8" Split Spacer  
(10 Pack)

ARS#60047  
1/16" Split Spacer  
ARS#600471  
1/16" Split Spacer  
(10 Pack)

1/8" and 1/4" Washer Bonded to Bump Rubber



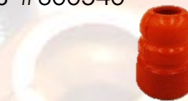
ARS # 600564  
1/2" Acetal  
Spacer



ARS # 600566  
1" Acetal  
Spacer



ARS # 60057  
1/2" Aluminum  
Spacer



ARS # 600421/ 200-219 @1"  
ARS # 600423/ 220-239 @1"  
ARS # 600425/ 240-259 @1"  
Red Ribbed  
Bump Rubber



ARS # 600441/ 300-319 @1"  
ARS # 600443/ 320-339 @1"  
ARS # 600445/ 340-359 @1"  
Black Ribbed  
Bump Rubber



ARS # 60050  
1.625" OD x .125"  
Thick Steel Washer



ARS #600504  
2.45" OD x .125"  
Thick Aluminum Washer



ARS # 600420  
1 5/8" Red Ribbed  
Bump Rubber



ARS # 600429  
1 1/8" Red Ribbed  
Bump Rubber

ARS # 600417  
2.125" OD x .125" Thick  
Aluminum Washer

ARS #600503  
2.45" OD x .25"  
Thick Aluminum Washer

**BUMP RUBBERS AND  
BUMP SPRINGS**

# HARDWARE

ARS #40195 Schrader Valve

ARS #60012 High Angularity Steel Spacers (1/2" ID)

ARS #60002 Bearings (1/2" Bearing w/ injected Liner)

ARS #40887 Gas Gauge (100 PSI)  
ARS #40882 (200 PSI)

ARS #20040 1" Spacer for 2 1/2" Spring

1" Shaft Extension ARS #20057

2" Shaft Extension ARS #20058

ARS #600571 Movement Indicator

ARS #20050 Large Body Spanner Wrench (for 2 1/2" or 3" ID Springs)  
ARS #72050 (for 5" OD Springs)

ARS #6X000 Take Up Spring

ARS #20044 Large Body  
ARS #10047 Small Body Floating Washer for Take Up Spring

ARS #40120 Shock Oil (1 Gal.)

ARS #20120 Diaper Pin (2 1/4", 2 1/2", 3" Springs)  
ARS #72120 (5" Springs)

ARS #20130 Travel Indicator Kit

ARS #61041 E-Model Eye Adjustable

ARS #61045 E-Model 1" Extended  
ARS #610415 E-Model 1/2" Extended  
ARS #61047 E-Model 2" Extended

Non Adjustable Eye 1/2" Shaft ARS #10052  
9/16" Shaft ARS #20052  
Steel Eye ARS #20072

Non-Adjustable 1" Extended Eye 1/2" Shaft ARS #10053  
9/16" Shaft ARS #20054

ARS #20118 Thrust Bearing for 2 1/2" Spring

ARS #610429 Adjusting Tool

ARS #610426 17 Positions

ARS #610425 9 Positions

ARS #20046 3.10" Tall Lined Spring Floater

ARS #40044 Lock Out Nut With Set Screw

ARS #200461 2.10" Tall Lined Spring Floater

**The Stainless Adjusting Wheel allows you to remove and install the shock eye without changing the adjustment. This uses the same shock eye without set screws and detent balls. This makes it easier to change bump stops without changing your shock adjustment.**

### Replacement Parts for Original E-Model Eyes:

Set Screw for Pin Wheel	ARS# 61190
Set Screw for Detent Ball	ARS# 61192
Spring for Detent Ball	ARS# 61194
Detent Ball	ARS# 61196
Pin Wheel (9 Position)	ARS# 61042
Pin Wheel (17 Position)	ARS# 61043
O-Shit Kit	ARS# 61198



# ASPHALT LATE MODEL CHASSIS TUNE SHEET

## Options to correct a front end push condition (Understeer)

### Shock Adjustments

#### Tight on Corner Entry:

- Increase Reb. in LR shock
- Increase Comp. in LF shock
- Reduce Comp. in RF shock

#### Tight in Middle of Corner:

- Increase Reb. in LR shock
- Increase Reb. in RF shock
- Increase Comp. in LF shock
- Reduce Comp. in RF shock
- Increase Comp. in RR shock
- Decrease Reb. in LF shock

#### Tight on Corner Exit:

- Increase Reb. in RF shock
- Decrease Reb. in RR shock
- Reduce Reb. in LR shock
- Reduce Comp. in LR shock
- Increase Comp. in RR shock
- Decrease rebound in LF shock

### Chassis Adjustments

#### Tight on Corner Entry:

- Reduce front brake bias
- Reduce front sway bar rate
- Reduce RF spring rate
- Reduce rear panhard bar split
- Increase RR spring rate

#### Tight in Middle of Corner:

- Adjust front tire camber
- Adjust camber gain
- Reduce front sway bar rate
- Decrease LR spring
- Reduce cross weight in chassis
- Change front toe-out
- Raise rear panhard bar (both ends)
- Increase RR spring rate
- Decrease LR spring

#### Tight on Corner Exit:

- Reduce panhard bar split
- Increase RR spring rate
- Increase rear tire stagger
- Reduce cross weight in chassis
- Front toe-out
- Raise rear panhard bar
- Reduce RF spring rate
- Reduce angle on rear end top link

## Options to correct a loose rear end condition (Oversteer)

### Shock Adjustments

#### Loose on Corner Entry:

- Increase Comp. in RF shock
- Reduce Reb. in LR shock
- Softer LF Comp. Valving

#### Loose in Middle of Corner:

- Increase Comp. on RF shock
- Reduce Reb. in LR shock
- Softer LF Comp. valving

#### Loose on Corner Exit:

- Increase Reb. in RR shock
- Reduce Reb. in RF shock
- Increase Reb. in LF shock
- Reduce Comp. in RR shock
- Increase Comp. in LR shock

### Chassis Adjustments

#### Loose on Corner Entry:

- Decrease camber gain in RF
- Reduce rear brake bias
- Increase RF spring rate
- Increase front sway bar rate
- Reduce top link angle on rear end
- Increase cross weight in chassis
- Reduce rear tire stagger
- Reduce rear spring rate

#### Loose in Middle of Corner:

- Lower rear panhard bar
- Increase RF spring rate
- Reduce rear tire stagger
- Increase front sway bar rate
- Increase cross weight in chassis
- Reduce rear weight

#### Loose on Corner Exit:

- Split rear panhard bar
- Lower rear panhard bar
- Increase angle on rear end top link
- Increase cross weight in chassis
- Reduce rear tire stagger
- Soften LR spring (flat track)
- Stiffen LR spring (banked track)
- Increase LR trailing bar angl

## TRAILING LINK



The right rear trailing link is designed to generate forward bite by allowing the right rear tire to drive forward and shorten the wheel base under acceleration. These units also permit the chassis tuner to extend the baseline wheelbase on the right rear which allows the race car to rotate in the middle of the corner. Then the trailing link compresses on acceleration creating forward bite.

The internal dampening allows the spring to extend slowly on corner entry and not upset the chassis. A baseline valving has been established, but this can easily be revalved for special applications.

Spring pre-load is easily adjusted to regulate the amount of traction generated to balance the chassis. Spring travel is established by a travel limiter on the shaft that can be easily adjusted. The travel indicator allows the chassis tuner the ability to fine tune the spring pre-load.

Designed with a steel stud on the end cap makes the unit more durable than earlier designs. The 16 1/2" length from the center of the rod end to the jam nut allows for installing the rod to fit any chassis.

Available with 800, 950, 1000 and 1200 springs.

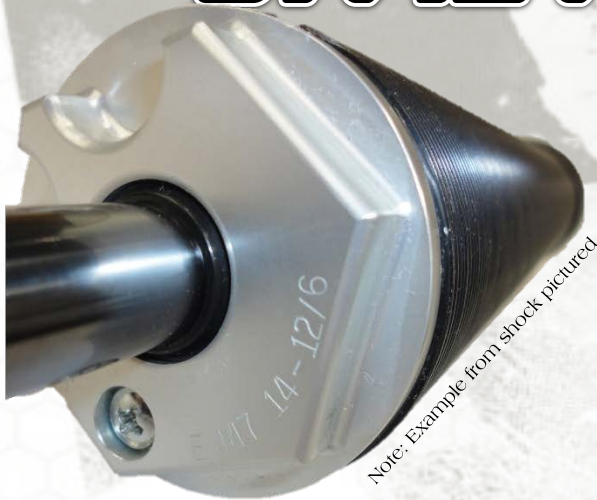
# TRAILING LINK TUNE SHEET



# Advanced

## RACING SUSPENSIONS

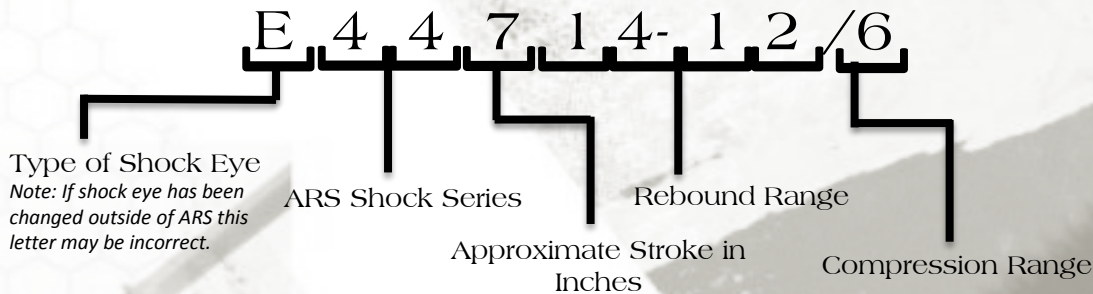
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Note: Example from shock pictured

**Please Note:**

- Older shocks may have different numbers that are not explained
- On a Non-Adjustable Split Valve Shock, the Reb. Dampening is always before the "/", the Comp. dampening is always after.
- Only Split Valve Shocks have a "/"



**Type of Shock Eyes:**

E/C Double Adjustable shock that uses E-Model to adjust Reb. & remote canister to adjust Comp.  
 E E-Model

**Shock Series:**

- 20 2000 Large Body Twin Tube
- 22 2200 Large Steel Body Twin Tube
- 32 3200 Small Body Mono Tube
- 40 4000 Large Body Double Adjustable
- 41 4100 Large Body Double Adjustable
- 42 4200 Large Body Mono Tube
- 44 4400 Large Body Mono Tube
- 45 4500 Large Body Mono Tube
- 72 7200 Large Steel Body Mono Tube

**Approximate Stroke:**

- 4 4" Stroke
- 5 5" Stroke
- 6 6" Stroke
- 7 7" Stroke
- 8 8" Stroke
- 9 9" Stroke
- 10 10" Stroke

**Rebound Range & Compression Range**

Numbers will vary depending on your shock valving.

Visit our website for more examples!

**WWW.ADVANCEDRACINGSUSPENSIONS.COM**