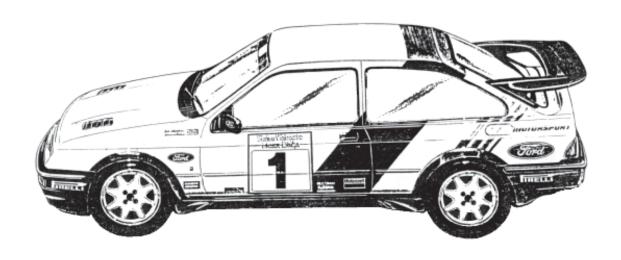
PERFORMANCE & SERVICE PARTS GUIDE

Merkur XR4ti / Sierra XR4i / Sierra RS Cosworth / Sierra RS 500 / Merkur Scorpio

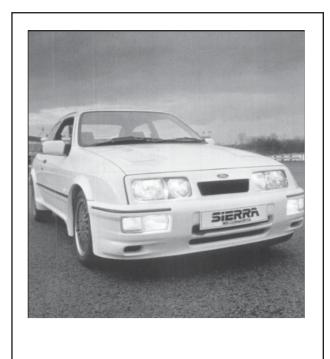




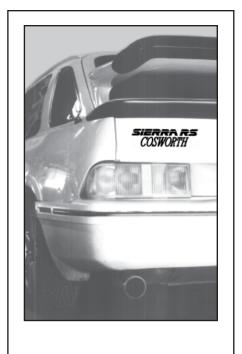
BAT Inc.

British American Transfer Inc. 7630 Matoaka Road Sarasota, FL 34243 phone (941) 355-0005 fax (941) 355-4683 www.batinc.net

BAT is pleased to be able to offer this line of components for the U.S. specification Merkur XR4ti, Scorpio, and the other European models of Sierra lineage. European Sierra's have been manufactured since 1982 and include two versions or body styles. We will concern ourselves with the Mark 1, as it is more similar to the U.S. version. The most interesting of the MK1 series are the Sierra XR4i, Cosworth Sierra and R/S 500 models. From the exterior the XR4i is most similar to our Merkur XR4Ti in overall appearance. however under the hood it is powered by a 2.8L V-6 engine, in place of the 2.3L 4 cylinder turbo. The most notable MK1 version is the Cosworth Sierra- one of the more outrageous vehicles Ford has ever offered. The Cosworth starts life as a base Sierra three door body shell, adds a high performance engine, suspension, transmission, and aerodynamics, making it one of the fastest 4 passenger road cars of it's time. Power comes from a 2.0L Cosworth Turbo YB series engine rated at 205 h.p. in its base form, and upwards of 550 h.p. in modified rally form. The R/S500 is a homologation outgrowth of the R/S Cosworth- basically a de-tuned race car in street trim.



Later Sierra MK2 versions received a sheet metal make over, but share most of the mechanicals of the MK1. Interesting MK2 Sierra's include the Sierra Sapphire Cosworth, and Sierra XR 4x4 - an advanced

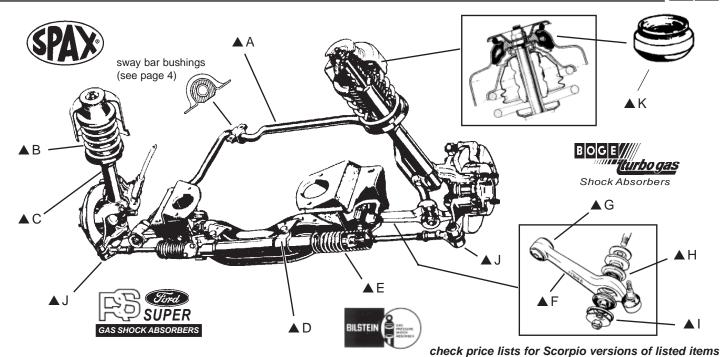


4 wheel drive 4 door sedan. What all this Sierra history means for us, is an abundance of specialized performance parts-many of which bolton to our U.S. specification Merkur. With this in mind Merkur owners can make an good vehicle even better. It is very amusing how much attention a Merkur that has been outfitted with Ford badges, Sierra logos and Cosworth grille commands, let alone a car equipped with the complete Cosworth body work!

BAT is a recognized Ford Motorsport USA and Ford Motorsport/Rallysport European dealer with over 30 years of experience of tuning European Ford automobiles. From Cortinas, Lotus Cars and Angliasduring the 60's, through the 70's- with Pinto and Capri, and into the 80's and 90's- with Fiesta, Escort and Merkur. Our expertise with building and racing 4 cylinder Ford powered cars includes Formula Ford, Formula Continental & Atlantic, SCCA Production, Showroom Stock, Auto-X, Improved Touring and Circle Track racing classes. We have a highly capable staff and you can confidently allow them to handle even your most difficult technical needs. Better still, our ability to buy in quantity, import products directly, and manufacturer speciality components assures you are getting the right parts at the right price.

Note: Many of the XR4 items will have a Scorpio alternate available; see the price list for more information.

Suspension - (front)



▲ A *Front Sway Bar* The larger Cosworth Sierra 28.5mm factory front sway bar is a direct replacement for the standard 25mm bar. (H.D. bar clamp bushings are included) M407 NOTE: see price list for sway bar clamp bushings for XR & Scorpio

▲ B **Spring Sets** see page 3 (spring section) for listings

▲ C Front Struts (see below- shocks sold as each)

Spax TA series struts now utilize pressurized krypton gas with 10 positive settings (knob type external adjustment on top) for tuning the dampening to suit individual applications. **M401A**

Spax Sport One of the most popular shocks we sell; Spax fixed rate krypton gas sport shocks are an excellent choice for upgrading the handling performance on the XR. **M401V**

<u>Bilstein</u> The *B4* series gas shocks offer renowned German made performance at a very attractive price. Bilstein shocks are now available in our suspension kits- see page 3 for details. Bilstein also make one of the few performance strut options available for the Scorpio-see price list under *G401B*. **M401B**

Rally/Sport Super Gas made to European Ford spec. by Koni of Holland. R/S shocks feature Konis twin-tube low pressure design and have adjustable settings (knob type external adjustment on top) which can be tailored to suit individual applications. M401RS

Boge Turbo Gas German manufactured twin tube high pressure gas design utilizing a unique variable valving system that insures the perfect balance between ride comfort and road holding capability. Also available for Scorpio- see price list M401S

KYB GR2 gas struts are high quality, heavy duty units at a cost effective price. Handling is improved without sacrificing ride quality. Also available for Scorpio- see price list **M401Y**

▲ D <u>Steering Rack</u> complete rack assembly w/inner tie rods, boots, and stainless steel inner sleeve. **M434SR**

▲ E <u>Rack Boot*</u> replacement steering rack boot M434RB *same boot left or right XR4 & Scorpio

▲ F <u>Front Control Arms</u> higher mileage cars exhibiting ball joint and bushing wear can benefit from our standard control arms. These arms are brand new, and include ball joints and bushings installed. Note: the outboard (sway/controlarm) bushing is an uprated "castellated" design which transmits less vibration than the original U.S. spec. bushing. (left) M428L (right) M428R

▲ G Inner Control Arm Bushing H.D. Made from increased durometer rubber, these heavy duty (GPN) bushings offer the desired firming effect while retaining a reasonable degree of shock and vibration absorption. (each) M428BH-N Optional urethane version of above bushing (set) M428BU

▲ H <u>Control Arm/Sway Bar Bushing Kit</u> This heavy duty urethane bushing set really does an excellent job limiting the amount of "jutter" felt at the steering wheel which is especially noticeable under braking. The kit includes bushing halves and center sleeves to do both sides of the car and is easy to install. (set) M428BK

▲ H <u>Control Arm/Sway Bar Bushings</u> As an option to urethane bushings we offer either the "castellated" type outer TCA bushings are available in standard rubber, or the new style (better fills the void between the bushing halves) H.D. GPN bushing kit. Both will dramatically reduce the vibration under braking common to XR's and Scorpio's. Outer TCA Bushings Standard (pair) does 1 arm M428B Outer TCA Bushing Set H.D. (set) M428BK-N

- ▲ I <u>Sway Bar Washer</u> Get the most from your new "castellated" type outer TCA bushings by using this "shallow" washer (in front behind the lock nut) for a tighter fit. **M407W**
- ▲ J <u>Tie Rod Ends</u> High quality European Ford standard replacement tie rod ends. (left) M434L (right) M434R
- ▲ K Front Strut Upper Insulator H.D. Made from increased durometer rubber, these heavy duty (GPN) Insulators offer the desired firming effect while retaining a reasonable degree of shock and vibration absorption. Steering and transitional response becomes noticeably more direct. (each) M404

04

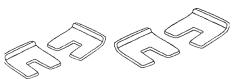
Suspension

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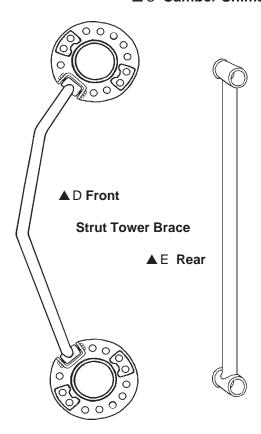
▲ A Suspension Packs



▲ B Sport Spring Sets



▲ C Camber Shims



▲ A Suspension Packages -XR4

Below is a listing of shock and spring packages available as engineered suspension packages. Fixed rate or adjustable shocks are supplied as noted. More information on the shocks that make up these kits is listed elsewhere in the front and rear suspension sections. Kits are available with either -25mm or standard ride height sport springs- your choice same price!

Spax Sport Gas Shocks & Sport Springs (-25mm or Standard) M400S * supplied with fixed rate high performance gas shocks

Bilstein Gas Shocks & Sport Springs (-25mm or Standard) M400B

* supplied with fixed rate high performance gas shocks

Spax Sport Adjust Shocks & Sport Springs (-25mm or Std.) M400A
* supplied with adjustable high performance gas shocks

▲B **Sport Spring Sets -XR4**

Our specially designed progressive rate sport springs will minimize body "roll" while cornering and reduce "dive" under hard braking. Progressive springs are designed to become stiffer as they are compressed allowing for a smooth transition between (very reasonable) straight line comfort and high performance cornering. We recommend the standard height or -25mm ride height sets for all around performance street and light competition use. Take into account when lowering your cars ride height that additional negative camber will be added to the front and rear suspension angles. This is usually not a problem on the front end, however, cars that are already experiencing noticeable wear on the inside edges of the rear tires at "standard" ride height will see this increase when lowering. This condition can be corrected if necessary by using camber shims (kit available below) at the rear spindle mount to adjust for excessive negative camber. Notes: Defining "standard" ride height is difficult on the XR4 as the springs on many cars have already "sagged" 1/2 to 3/4 of an inch since new. In this case if the front and rear tires are still wearing normally lowering the car another 1/4" or 1/2" (over what it is currently) should not adversely effect tire wear.

Sport Spring Set -25mm (front & rear) XR M414M Sport Spring Set* Standard Height (front & rear) XR M414S

▲ C Rear Camber Shim Kit -XR4

To correct rear camber angles on cars that have excessive negative camber we offer a handy rear spindle shim kit. This kit is sometimes necessary on cars with lowered sport springs, but can also be used to correct camber on cars with "sagging" stock rear springs. The components (instructions and shims) needed to space the rear bearing spindles between the brake backing plates are supplied. This camber kit will add roughly 1.5 degrees of positive camber and adjust rear toe back with in standard range as well.

M423R

▲ D Front Strut Tower Brace -XR4

The XR4 has a well built chassis structure that does not exhibit much flex under normal conditions. With the addition of high performance tires and suspension parts more stress is put on the front strut towers causing some deflection under hard cornering which will eventually weaken the structure and lead to unpredictable handling characteristics. Connecting the front strut towers by adding a upper stressbar (strut tie bar) will improve chassis stiffness and keep the suspension angles constant under hard use conditions. For this purpose we offer a lightweight aluminum front tower brace (stressbar) that incorporates a removable tubular cross brace and cast alloy turret mounts. Highly recommended for cars that are used for track events, drivers schools, auto-cross and spirited road use.

M403F

▲ E Rear Shock Mount Brace XR4

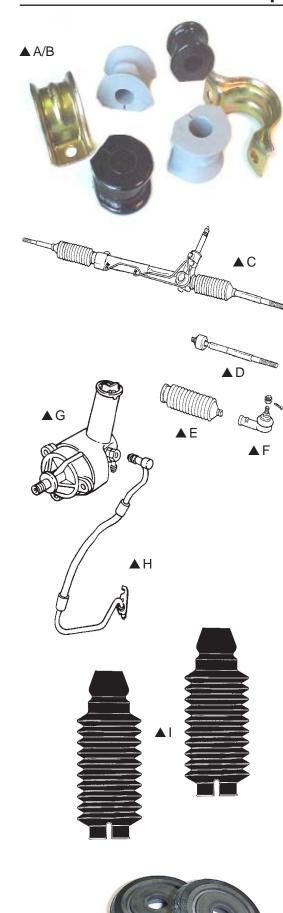
Our rear (stressbar) is a nicely finished lightweight tubular aluminum rear brace which is just the thing for linking left and right hand upper shock mounts. A slight bit of plastic trimming is required when fitting. Bars are supplied with an attractive blue finish.

M403R

(less expensive steel version of above) M403RS

Suspension & Steering





▲ A <u>Sway Bar Bushings H.D.</u> Urethane sway bar bushings in 25mm for standard XR4 and 28mm for larger Sierra Cosworth or Scorpio sway bars. Note: XR4Ti and Scorpio sway bar clamps differ slightly making the bushings non-interchangeable. XR's that require replacement bar clamps (see below) will then require Scorpio type bushings to match. (bushings sold each)

Bar Bushing H.D. 25mm- (direct fit) XR4 M407BU
Bar Bushing H.D. 28mm- (direct fit) XR4 M407BAU
Bar Bushing H.D. 28mm- (direct fit) Scorpio G407BAU

▲ B <u>Sway Bar Bushing Clamps</u> The European type sway bar bushing clamp (used on Scorpio & Cosworth) has a groove to receive a ridge back type bushing. Clamps are a direct replacement for Scorpio and can also be used to replace worn or broken clamps on XR4 with correct bushings (see above). (2) required-sold each

Sway Bar Bushing Clamp (each)- Scorpio

G407C

▲ C <u>Steering Rack</u> Complete remanufacturered rack assemblies include inner tie rods, boots.

Steering Rack Assembly- XR4 M434SR Steering Rack Assembly- Scorpio G434SR

Steering Rack Bushing Standard and H.D. (urethane) rack bushings (2) required (sold each)

Steering Rack Bushing (each)- XR4 & Scorpio M434B Steering Rack Bushing H.D (each)- XR4 & Scorpio M434BH

▲ D *Inner Tie Rod* High quality European Ford inner tie rods available for XR4 and Scorpio. (sold each)

Inner Tie Rod- XR4Ti M434TK
Inner Tie Rod- Scorpio (left & right same) G434TK

▲ E *Rack Boot* All rubber steering rack bellows (boots). Suitable for both XR4 and Scorpio. (*left & right rack boots same-sold each*)

Steering Rack Boot (each) -XR4 & Scorpio

M434RB

▲ F <u>Outer Tie Rod End</u> High quality European Ford outer tie rod ends available for XR4 and Scorpio. (each)

Tie Rod End- XR4 (left) M434L
Tie Rod End- XR4 (right) M434R
Tie Rod End- Scorpio (left & right same) G434

▲ G <u>Power Steering Pumps</u> Direct fit, replacement power steering pumps for XR4 and Scorpio applications. (core charge required)

Power Steering Pump- XR4Ti (integral reservoir type)
Power Steering Pump- XR4Ti (remote reservoir type)
Power Steering Pump- Scorpio (all)

M434PA
G434P

▲ H *P/S Pressure Hose* We have these hard to find pressure side hoses available for all model year XR4Ti's.

P/S Pressure Hose- XR4Ti (all years)

M434PH

▲ I <u>Strut Boot/Bump Stop</u> These H.D. strut boot/bump stops help reduce the chance of strut damage due to over-compression and/or strut rod/ seal damage from dirt and corrosion. A specially designed one piece bellows with integral (NBR), "nitrile butadiene", variable rate bump rubber make these especially well suited for lowered ride height suspensions. (sold each)

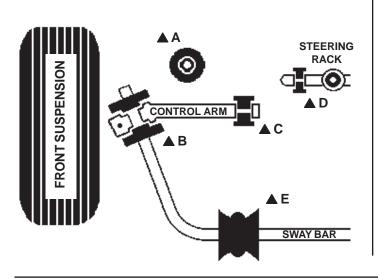
Strut Boot/Bump Stop (each) -XR4 & Scorpio

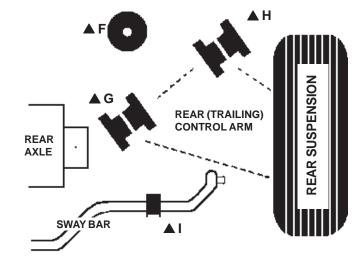
M405B

▲ J *Front Strut Rotating Bearings* New Ford Europe parts.

Upper Rotating Bearing (each) -Scorpio G403 Upper Rotating Bearing (each) -XR4 M403

Suspension Bushing Guide





F	RONI	В	JSHII	NGS XR4	11	

▲ A Bushing* H.D. Upper Strut Mount (GPN)	M404	29.00
*bushing (1) refits 1 strut- 2 required per car		
▲ R Rushings* Standard Rubber Outer TCA	M/28B	20.00

▲ B <u>Bushings* Standard Rubber Outer TCA</u> M428B 20.0 *bushings pair (2) refits 1 arm - "castelated" type bush

▲ B <u>Bushing Set* H.D. Rubber (GPN)</u> M428BK-N 49.50 *includes bushings, sleeves, washers & nuts- full car set left & right

▲ B <u>Bushing Set* H.D. Urethane Outer TCA</u> M428BK 59.50 *includes bushings & sleeves - full car set left & right

▲ C <u>Bushing* Standard Inner TCA</u>

*bushing each (1) refits 1 arm - 2 required per car

▲ C <u>Bushing* H.D. (GPN) Inner TCA</u> M428BH-N DISC *bushing each (1) refits 1 arm - 2 required per car

▲ C Bushing Set* H.D. Urethane Inner TCA M428BU 29.50
*includes bushings & sleeves- full car set left & right

▲ D <u>Bushing* Steering Rack Standard</u> M434B 15.00
*bushing each (1) refits 1 mounting point- 2 required per rack

▲ D Bushing Set* H.D. Urethane Steeing Rack M434BH 42.00 *includes bushings, sleeves- full rack set left & right

▲ E <u>Bushing* Urethane Sway Bar 25mm</u> M407BU 19.50 *bushing each (1) refits 1 mounting point- 2 required per sway bar note: these bushings are direct fit for XR4 bushing clamps

▲ E <u>Bushing* Urethane Sway Bar 28mm</u> M407BAU 19.50 *bushing each (1) refits 1 mounting point- 2 required per sway bar for use only with larger Cosworth 28mm sway bar.

note: these bushings are direct fit for XR4 bushing clamps

REAR BUSHINGS XR4Ti

▲ F <u>Bushing* H.D. (GPN) Body Beam Mount</u> M429B DISC *bushing each (1) 2 required per car

▲ F Bushing* H.D. Urethane Body Beam Mount M429BU 66.50
*bushing with sleeve each (1) 2 required per car

▲ G Bushing* H.D. Urethane Inner TCA M424BI 24.50
*bushing with sleeve each (1) refits 1 arm - 2 required per car

▲ H <u>Bushing* H.D. Urethane Outer TCA</u> M424BO 24.50 *bushing with sleeve each (1) refits 1 arm - 2 required per car

▲ I <u>Bushing* Urethane Rear Sway Bar 12MM</u> M408BU 7.50 *bushing each (1) refits 1 mounting point- 2 required per sway bar for use only with standard XR4 12mm sway bar.

▲ I <u>Bushing* Urethane Rear Sway Bar 16MM</u> M408BAU 7.50 *bushing each (1) refits 1 mounting point- 2 required per sway bar for use only with larger Cosworth 16mm sway bar.

FRONT BUSHINGS SCORPIO

G404

40.50

*bushing (1) refits 1 strut- 2 required per car

▲ B Bushings* Standard Rubber Outer TCA M428B 20.00

*bushings pair (2) refits 1 arm - "castelated" type bush

▲ A Bushing* Standard Upper Strut Mount

▲ B <u>Bushing Set* H.D. Rubber (GPN)</u> M428BK-N 49.50 *includes bushings, sleeves, washers & nuts- full car set left & right

▲ B <u>Bushing Set* H.D. Urethane Outer TCA</u> M428BK 59.50
*includes bushings, sleeves & nuts- full car set left & right

▲ C <u>Bushing* Standard Inner TCA</u> G428B 12.20 *bushing each (1) refits 1 arm - 2 required per car

▲ C Bushing* H.D. (GPN) Inner TCA G428H-N 22.50
*bushing each (1) refits 1 arm - 2 required per car

▲ C Bushing Set* H.D. Urethane Inner TCA G428BU 35.00 *includes bushings & sleeves- full car set left & right

▲ D Bushing* Steering Rack Standard M434B 9.45 *bushing each (1) refits 1 mounting point- 2 required per rack

▲ D <u>Bushing Set* H.D. Urethane Steeing Rack</u> M434BH 42.00 *includes bushings, sleeves- full rack set left & right

▲ E <u>Bushing* Urethane Sway Bar 28mm</u> G407BAU 20.00 *bushing each (1) refits 1 mounting point- 2 required per sway bar note: these bushings are direct fit for Scorpio bushing clamps only

REAR BUSHINGS SCORPIO

▲ F Bushing* H.D. (GPN) Body Beam Mount M429B DISC *bushing each (1) 2 required per car

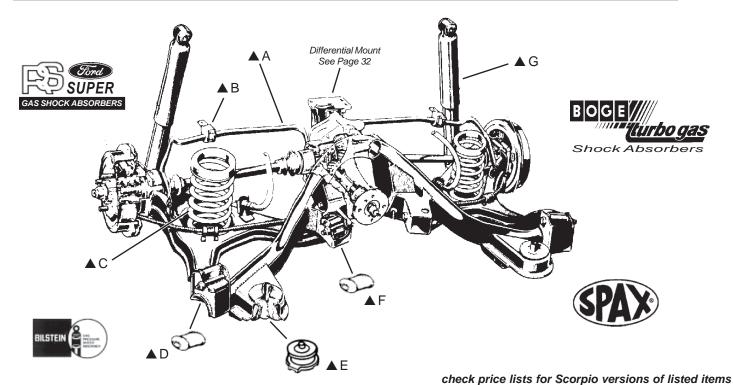
▲ G Bushing* H.D. Urethane Body Beam Mount M429BU 66.50 *bushing with sleeve each (1) 2 required per car

▲ H Bushing* H.D. Urethane Inner TCA M424BI 24.50
*bushing with sleeve each (1) refits 1 arm - 2 required per car

▲ I Bushing* H.D. Urethane Outer TCA M424BO 24.50
*bushing with sleeve each (1) refits 1 arm - 2 required per car

▲ I Bushing* Urethane Rear Sway Bar 16MM G408BU 6.50
*bushing each (1) refits 1 mounting point- 2 required per sway bar
note: these bushings are direct fit for Scorpio bushing clamps only

Standard Rubber Bushings - Stock O.E. replacement Hard Rubber (GPN) Bushings - Similar to standard bushing but made with higher durometer rubber, stock appearance. H.D. Urethane Bushings - High durometer moulded urethane product, superior quality, low noise, easy installation.



▲ A <u>Rear Sway Bar</u> The larger Cosworth Sierra 16mm rear sway bar is a direct replacement for standard U.S. spec. rear bar. (bar includes urethane bar clamp bushings) M408

Rear Sway Bar Shackle

worn sway bar end link shackles
can reduce the rollbars effectiveness and should be
inspected and replaced if needed. (each)

Rear Sway Bar Shackle for Scorpio

M408S

G408S

▲ B *Rear Bar Bushings* H.D. urethane bushings for either standard 12mm or Cosworth 16mm bars. (sold each) (12mm size) M408BU (16mm size) M408BAU

▲ C **Spring Sets** See page 4 for spring selection.

▲ D <u>Outer Rear Arm Bushing H.D.</u> Made from specalized aircraft urethane, these heavy duty bushings offer the desired firming effect while retaining a reasonable degree of shock and vibration absorption. (each- 2 halves w/sleeve) M424BO

▲ E <u>Body Beam Mount Bushing H.D.</u> This heavy duty rubber (GP N) bushing/mounts will reduce the for/aft movement at the rear axle beam mounting points and really does a great job in firming up the rear end. (each) M429B optional urethane version of above bushing M429BU Note: M429BU is specially designed for easier installation

▲ F *Inner Rear Arm Bushing H.D.* Made from specalized aircraft urethane, these heavy duty bushings offer the desired firming effect while retaining a reasonable degree of shock and vibration absorption. (each- 2 halves w/sleeve) M424BI

▲ G *Rear Shock Absorbers* (see below-sold as each)

Spax TA series shocks now feature a pressurized krypton gas design with external adjustment valve (external screw in bottom) for fine tuning the dampening to suit individual applications. Spax is England's largest and best known manufacturer of performance shock absorbers. Also available in our suspension kits- see page 3 for details. **M402A**

Spax Sport One of the most popular shocks we sell-Spax fixed rate krypton gas sport shocks are an excellent choice for upgrading the handling performance on the XR. Also available in our suspension kist-see page 3 for details. **M402V**

Bilstein New for 2004. Bilstein's new *T/C* series gas shocks offer German made performance at a very attractive price. Bilstein shocks are now available in our suspension kits- see page 3 for details. Bilstein also make one of the few performance strut options available for the Scorpio-see price list under *G402B*. **M402B**

Rally Sport Super Gas made to European Ford spec. by Koni of Holland. R/S shocks feature mono-tube high pressure design and have 4 adjustable rebound (STD., +20%, +50%, +100%) settings which can be tailored to suit individual applications.

M402RS

Boge Turbo Gas shocks are a German manufactured twin tube high pressure gas design utilizing a unique variable valving system that insures the perfect balance between ride comfort and road holding capability. Also available for Scorpiosee price list.

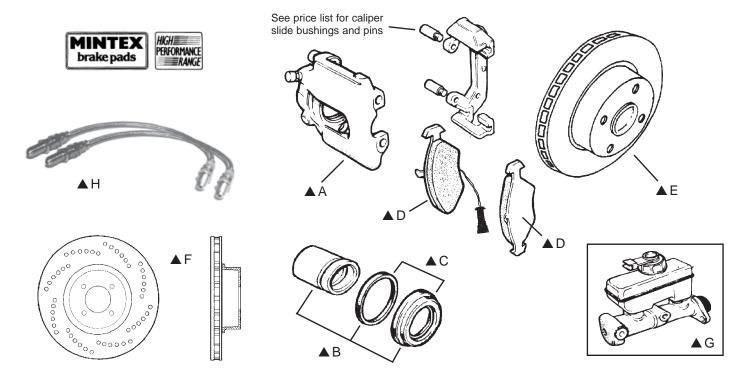
M402S

KYB Gas-Adjust shocks are well made, heavy duty dampeners that are the least expensive performance shock upgrade for the XR4. Handling is improved without sacrificing ride quality. Also available for Scorpio- see price list.

M402Y



Brake System (front)



- ▲ A <u>Front Caliper</u> We offer high quality re-manufactured front calipers which are considerably less costly than new. Calipers are handed left & right and require return core charge. (drivers- left) M420CL (passenger- right) M420CR
- ▲ B <u>Caliper Repair Kit -w/piston</u> Ford caliper repair kits are an economical way to service a leaking or "sticky" caliper. Fitting this kit, after honing the piston bore, will cure most caliper related problems. (kit does 1 caliper) **M420K4A**
- ▲ C <u>Caliper Seal Kit</u> After inspection many calipers only require new seals to put them right. (kit does 1 caliper) M420K4
- ▲ D *Performance Street Brake Pad Set* Premium Mintex A/F series brake pads will give enhanced brake perform over a wide temperature range with very little brake dusting. Mintex pads also incorporate the pad warning sensor wiring. This is the abusolute best performing street pad we have tested and for the price they are a steal. (XR4 & Scorpio) M420AF
- ▲ D *Racing Brake Pad Sets* Mintex 1144 is a rally/race pad that is perfectly at home on track or street, offering a high coefficient of drag (.44) and excellent modulation throughout a very wide operating range (up to 1200 degrees). Mintex 1144 is supplied preburnished for easy break-in and minimal fade on the first heating cycle. Both fade resistance and wear characteristics are excellent. Mintex pads are the only racing brake pads to incorporate the standard "low pad" sensor wiring. Match a set of these pads with our drilled or grooved sport rotors and Aeroquip stainless brake lines for a substantial increase in braking performance. (*XR4 & Scorpio*)

Mintex Street/Competition (M1144) M420G

▲ E <u>Standard Front Rotors</u> Lesser quality generic "white box" rotors tend to warp easily, don't even consider fitting them on your XR4 or Scorpio. BAT supplies only the highest quality European rotors at better than "bargain" rotor prices. (each)

XR4 M425 Scorpio G425 ▲ F <u>Cross Drilled Front Rotors</u> Cross-drilled brake rotors use centrifugal force to draw excess brake dust and expelled gasses from the pad surface through the drilled passages into the rotors vented cavity and out. This process also improves rotor cooling giving improved braking response and resistance to fade. The cross drilling process is handled by computer CNC milling equipment with holes arranged in a parabolic pattern giving an even sweeping effect to the pad surface ensuring maximum cooling with minimum noise and drag.

M425CD

*rotors must by purchased as (handed) pairs- priced as each

<u>Grooved Front Rotors</u> As an option we can supply slotted (grooved) pattern rotors which are manufactured to the same high standards as the above listed cross drilled versions.

M425G

*rotors must by purchased as (handed) pairs- priced as each

<u>Drilled & Slotted Front Rotors</u> As an option we can supply combination drilled & slotted (grooved) pattern rotors manufactured to the same high standards as the above listed cross drilled versions.

M425CDS

*rotors must by purchased as (handed) pairs- priced as each

- ▲ G <u>Master Cylinder</u> high quality Bendix replacement power brake master cylinder. (specify year when ordering) **M420MC**
- ▲ H Aeroquip Brake Lines One of the more effective brake modifications you can make is to replace the standard brake hoses with Aeroquip steel braided lines. These performance brake hoses incorporate a teflon interior to keep line expansion "flexing" to a minimum. This greatly reduces the "spongy" pedal feel common to the XR4 & Scorpio brake system. Our stainless lines are now DOT approved and include all factory mounting bumper/spacers.

 XR4Ti (1985-86) M419

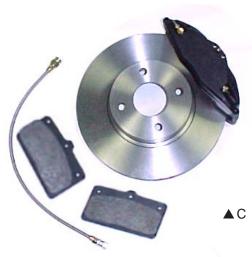
XR4Ti (1987-89) & Scorpio G419

Brake Kits & Specials











▲ A Front Brake Special 260 x 24mm

This kit is just the thing for replacing the standard size, wear related, front brake components. We supply high quality Euro specification rotors and premium Mintex brake pads for either XR4 or Scorpio and at a special price as compared to buying items separately.

Front Brake Special XR4ti Front Brake Special Scorpio M420SP G420SP

▲ B BAT R/S Front Brake Kit (283 x 24mm) XR4ti

BAT R/S Brake Kit allows larger 11.25" (283mm) Cosworth brake rotors to be fitted with standard XR calipers. Increasing rotor "swept area" in this way will greatly improve stopping power (leverage) and help to reduce high brake temperatures that can cause premature brake fade and poor pedal feel. Kits are available in 4 different component levels from as little as \$295.00, which leaves you no reason not to upgrade to larger brakes. Kits include: 285 x 24mm vented (standard or cross-drilled) rotors, Mintex brake pad set (standard or M1144), caliper mounting brackets & hardware (fitment with most 15" and larger wheels -some require modification or spacers)

Front R/S Brake Kit (283 x 24mm)

M417

includes standard rotors, standard Mintex pads, brackets & hardware

Front R/S Brake Kit (283 x 24mm)

M417A

includes X-drilled rotors, standard Mintex pads, brackets & hardware

Front R/S Brake Kit (283 x 24mm)

M418

includes standard rotors, M1144 Mintex pads, brackets & hardware

Front R/S Brake Kit (283 x 24mm)

M418A

includes X-drilled rotors, M1144 Mintex pads, brackets & hardware

▲ C BAT/Wilwood Front Brake Kit (283 x 24mm) XR4ti

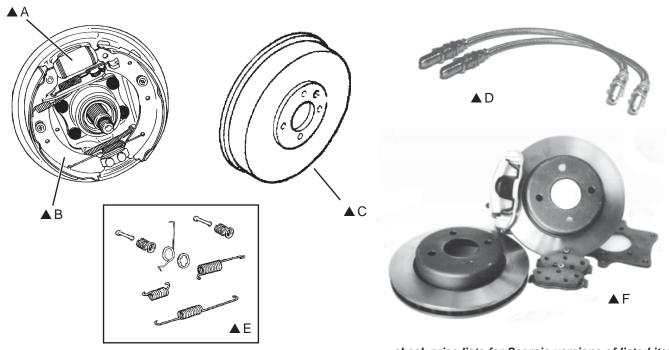
This kit combines the performance of the larger 283mm Cosworth rotor with Wilwood 4 piston Superlite 2A calipers which are extremely ridged and transfer torque directly without unwanted flex. Construction is aluminum with stainless pistons for both weight savings and maximum head dissipation. At just 5 lbs. they are also much lighter than stock calipers. This goes a long way to reducing "unsprung" weight benefiting both braking and handling performance. Kit includes: 285 x 24mm vented rotors, 4-piston alloy Wilwood Superlite IIA calipers with pads and aeroquip brake hoses (fitment with most 15" and larger wheels some require modification or spacers)

▲ D <u>Wheel Bearings</u> Genuine European Ford wheel bearing kits are complete with all required service parts to do a first class job. Each kit include bearings, races, seals and hub nuts to service one wheel.

Front Wheel Bearing Kit (specify left or right) -XR4 M560F Rear Wheel Bearing Kit (specify left or right) -XR4 M560R Front Wheel Bearing Kit (specify left or right) -Scorpio G560F Rear Wheel Bearing Kit (specify left or right) -Scorpio G560R

10

Brake System (rear)



- check price lists for Scorpio versions of listed items
- ▲ A *Rear Wheel Cylinder* Backing plates should be checked periodically for brake fluid drips or a damp spot at the bottom (a sure sign of a leaky wheel cylinder). We recommend (and sell) only new replacement wheel cylinders because of the high incidence of failure found with re-manufactured units.

 M420WC
- ▲ B *Rear Brake Shoes* Our premium quality rear brake shoes are supplied as either European Motorcraft or Mintex brand. Both are new (non re-manufactured) high quality semimetallic replacement linings, not the typical "white box specials". Note: fitting reman rear shoes can be a problem as most we have seen have thicker than standard bonded linings making it difficult, if not impossible, to reinstall the drum. M420R
- ▲ C <u>Rear Brake Drum</u> Brake drums that are warped or beyond minium specification for wear should be replaced.

 New rear brake drums are sold each.

 M420RD
- ▲ D <u>Aeroquip Rear Brake Lines</u> One of the more effective brake modifications you can make to the XR4 & Scorpio is to replace the standard brake hoses with Aeroquip steel braided lines. These performance brake hoses incorporate a teflon interior to keep line expansion "flexing" to a minimum. This greatly reduces the "spongy" pedal feel common to most brake systems. Our stainless lines are assembled from genuine Aeroquip AN-3 hose with premium metric "reusable" (not the lesser quality "swaged" type) hose ends installed.

XR4 Rear Aeroquip Brake Line Set M419R Scorpio Rear Aeroquip Brake Line Set (4 lines) G419R ▲ E Rear Brake Parts Kit This handy kit includes all of the small parts, springs and other attaching hardware for the rear drum brakes. One kit does both hand sides.

M420K5

Rear Brake Special Our rear brake special has all the items (brake shoes, wheel cylinders & small parts kit) required for a complete rear brake overhaul, and all at a very attractive price.

M420RSPL

▲ F *Rear Disk Brake Kit* Converting to rear disk brakes could not be any easier than with our ventilated rear disk conversion kit. Not only will braking performance be greatly improved but servicing the friction material (pads) becomes a much easier task than messing with the old shoes. Kit incudes: calipers & mounting plates, vented 260mm rotors, brake lines, and assorted hardware.

M420RK

Note: see price list for individual listings on service parts for above rear disk brake kit.

XR4 & Scorpio Hand Brake Cables We have replacement hand brake cable assemblies for both the XR4Ti and Scorpio. These have been recently discontinued by Ford USA.

Hand Brake Cable XR4Ti M564 Handbrake Cable Scorpio G564

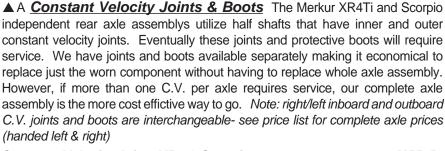
<u>Cosworth Hand Brake Cable</u> required for fitting a Cosworth rear brake conversion to the XR4 or servicing cars with existing Cosworth rear brake cables. **Z16567**

<u>Scorpio Rear Brake Components</u> BAT also stocks brake components for servicing and upgrading the rear brakes on the Merkur Scorpio.

Rear Rotor (standard) G425R
Rear Rotor (cross drilled) G425RCD
Rear Caliper (left or right) G420RL/RR
Rear Pad Set G420R

11

Driveline



Constant Velocity Joint- XR4 & Scorpio M550B
C.V. Boot Kit- XR4 & Scorpio M550BK
Complete Axle(specify left or right)- XR4 & Scorpio M550L/R

▲ B Rubber Drive Shaft Coupling The rubber "Drive Donut" or "Rotoflex Coupling" on the XR4 and Scorpio drive shaft can be a real bugger. Many owners have contacted us after being quoted up to 500.00 to totally replace the complete drive shaft assembly by the local Ford L/M dealer, as they do NOT list the rubber drive coupling as a separate service part. We import the proper replacement drive coupling and make it available at considerable savings to you. If your car exhibits a driveline shudder that increases with speed, (especially noticeable in colder weather) we recommend taking a close look at the condition of the drive coupling. Cracks in the rubber or missing pieces will require immediate replacement, loosing one of these joints at speed will be very messy! Note: BAT supplies the standard equipment XR4i drive coupling by the original supplier to Ford. This is not a lesser "fits all" component that just happens to be similar.

Rubber Drive Shaft Coupling- XR4 & Scorpio

M17A

▲ C *Drive Shaft Center Support Bearing*- Replacement driveshaft center support bearing assemblys for XR4Ti and Scorpio.

Drive Shaft Center Support Bearing- XR4Ti Drive Shaft Center Support Bearing- Scorpio M550SB G550SB

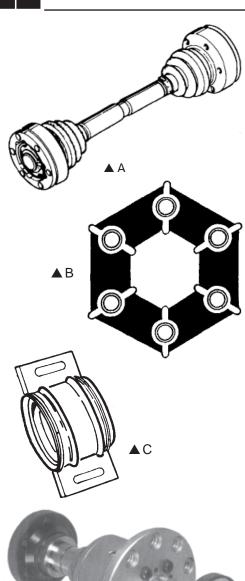
▲ D *Quaife Torque Biasing Differential* Quaife torque biasing differentials provide a constant and infinitely variable output to both rear wheels. These unique differentials utilize a series of helical gears which sense the amount of applied torque and adjust automatically for loss of traction. The Quaife limited slip design is also free of high wear items (clutches, ratchets and plates), making them stronger and more maintenance free than other types of limited slip units. Anyone who has had the pleasure of driving a vehicle equipped with a Quaife LSD will immediately comment on its smooth seamless performance, very unlike clutch/plate type LSD's which exhibit a notchy ratchet like take up through the drive line. The Quaife LSD that we offer is originally designed as a replacement upgrade for the Sierra Cosworth and are now supplied with output flanges tapped for either the large 108mm (Cosworth size) or smaller 100mm (XR4 size) C.V. joints.

Quaife Limited Slip Differential

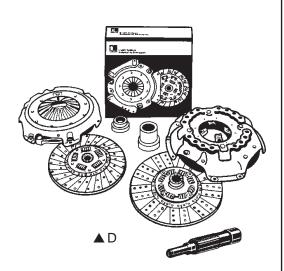
M710

▲ E Clutch Kits We have a very good selection of clutch packages that include clutch disk, pressure plate, & throw out bearing. Buying one of our engineered kits will guarantee best quality, performance, fitment (ease of installation) and price. First option is a new (not rebuilt or re-lined) O.E. quality replacement clutch kit by Sachs/Valeo. This clutch is best suited for standard or slightly modified cars being used under normal driving conditions. If your requirements are beyond the capabilities of the standard clutch we also have some heavy duty clutch kit options. Note: all kits are for standard transmission 1" 23 spline except where noted.

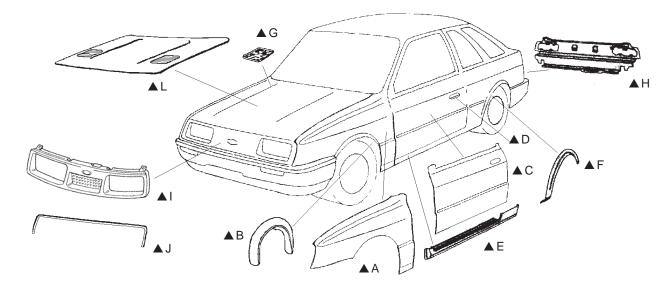
Sachs Clutch Kit XR - best quality O.E. clutch	M519K
Sachs Clutch Kit Scorpio - best quality O.E. clutch	G519K
Clutch Alignment Tool - 1" 23 spline for std. transmission	S11H
Clutch Cable- XR4Ti	M562
Clutch Cable- Scorpio	G562

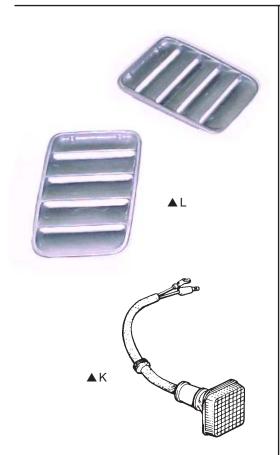


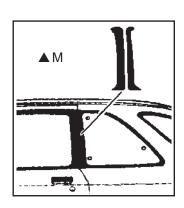




Bodywork







- ▲ A <u>Front Fenders</u> European Sierra fenders are a direct replacement for the XR4Ti and are an attractive alternative considering the high price of the American version. These fenders also include the holes required for side blinker mounting (see below). Note: specify left or right when ordering M806 L/R
- ▲ B <u>Inner Wheel Well Splash/Liners</u> Replacements for the commonly cracked, broken or missing inner fender splash on the XR4. Covers full inner wheel house area as origional USA versions. specify left or right M808L/R

▲ C Door Skin - (specify left or right)	M807 L/R
▲ D Door Handle XR4 & Scorpio - (specify left or right)	M362 L/R
▲ E Door Sill (Rocker Panel) - (specify left or right)	M803 L/R
▲ F Rear Wheel Arch - (specify left or right)	M804 L/R
▲ G Battery Tray - repair panel beneath battery/tray	M817
▲ H Rear Panel	M815

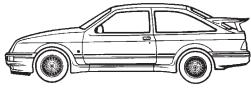
- ▲ I <u>Cosworth Front Grille</u> Nothing transforms the look of the XR4Ti quite like adding a Cosworth grille. Designed with a center opening, the Cosworth grille adds additional air flow to the radiator and A/C condenser for a cooler running engine and better air conditioning performance. An intercooler could also be fitted behind the grille opening as is done on the original Cosworth Sierra and R/S 500 models. Note: Grilles are O.E. quality (injection moulded plastic) not shoddy fiberglass replicas. Suppled (primed) un-painted- includes "Ford" emblem M320
- ▲ J <u>Grille Surround Gasket</u> This gasket will almost always need to be replaced when fitting a new grille. M320S
- ▲ K <u>European Side Blinker Lamp Kit</u> Add an extra degree of safety when signaling to turn. Side blinkers fit above European fenders without modification and can also be fitted to standard Merkur XR4Ti fenders by drilling a mounting hole. Kit includes (2) lamps, wiring and templates.

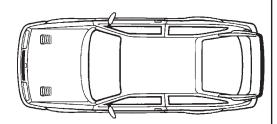
 M317
- ▲ L <u>Cosworth Hood Vents</u> Hood louvers/vents are both visually striking and functional as they help to ventilate the engine compartment. These cast aluminum vents fit the Cosworth hood, or can be installed in a standard hood by cutting holes in the proper locations. Sold as pair (2) hardware included for mounting. **M814**
- ▲ M <u>Door Post Black-Out Trim (stick-on)</u> Is it time to replace the cracked or peeling door post black-out trim located between the door and rear quarter window? We have high quality reproductions of this discontinued Ford item.

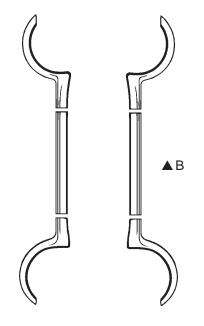
Left Side Door Post (black-out) Trim- 2 pieces M340TL Right Side Door Post (black-out) Trim- 2 pieces M340TR

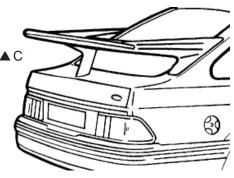
Bodywork











▲ A Replica Cosworth Body Components

Fiberglass body panels are an alternative to the more expensive, and becoming unavailable, factory Ford versions. We have searched far and wide to import only the highest quality fiberglass replica bodywork. Even so, fiberglass is more prone to incidental damage (cracking) than the more flexible ABS plastic or urethane original Ford components. Also keep in mind that fitting is totally DIY and most items will require paint prep work, fabricated brackets and other hardware. Important Note: We often hear horror stories from customers who have ordered similar fiberglass items from European mail-order suppliers only to receive broken or substandard components, and now you own it! Worse yet, the shipping costs involved importing large, bulky, items like these can far exceed the cost of the part, and what started out as a bargain now has become a expensive learning experience. Our pricing on all items, including sheet metal & body panels, includes inbound freight from Europe. Once here, some items that are too large for UPS (or other carriers) will be shipped truck freight collect, we will also extend our 25% C.F. Motor Freight discount.

Front Spoiler Bumper (R/S Cosworth type) M353F Front Spoiler Bumper (R/S 500 Type) with lower "splitters*" **M353FA** *lower chin spoiler moulded in on lower edge (See Price List) Rear Bumper (R/S Cosworth type) Rear Wing Airfoil (R/S Cosworth type) see information below M306F Rear Wing Airfoil (R/S 500 type) **M306FA** Lower Rear Wing (R/S 500 type) M306L Cosworth Wheel Arches (4) & Side Skirts (2) see information below M302F Hood Vent Louvers (2) Aluminum (functional) M814

▲ B Cosworth Sierra Arches & Skirt

Sadly the factory Ford wheel arches have recently become unavaiable. Some side skirts still remain but for the most part the R/S arches and skirts have gone the way of all the factory R/S 500 stuff "not availabe- not replaced". In place of the origionals we can offer a reasonable cost & quality fiberglass alternative wheel arch and side skirt kit. For anyone searching out new factory arches and skirts we might still have a couple odd arches & skirts available (no full sets) call for more information & pricing.

Cosworth Wheel Arches (4) & Side Skirts (2)- fiberglass M302F

▲ C Cosworth Rear Airfoil

One of the trademarks of the Cosworth Sierra is its large rear wing/airfoil. Perhaps a bit gaudy for some tastes, none the less it does a great job at keeping the rear end planted. At speeds over 100mph as much as 45 lbs. of downforce is created for added high speed stability. Anyone interested in this item had one of two choices. The factory Ford Cosworth rear wing/airfoil (still available from Ford Europe) but at over \$1800.00 who can afford it. Or the usual aftermarket fiberglass versions, although much cheaper in cost the quality suffers greatly. When we sampled most of these we were genuinely concerned that some of the replica wings might come apart, or even fly off at speed! This dilemma prompted us to undertake manufacturing a super high quality fiberglass replica that solves all the above problems. It is extremely well built, can be securely attached to the car and is attractively priced. *Note: rear wings are designed to fit smaller hatch 1985-87 cars- the mounting foot will overhang on the hatch glass molding on later cars and will have to be trimmed.*

Rear Wing Airfoil (R/S Cosworth type) see above section for larger RS500 version

M306F

Trim & Lighting

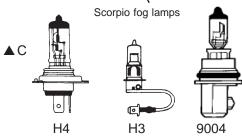






(↑ XR) ▲B (Scorpio ↓)







▲ A *European Emblems & Badges* Re-badge your XR4 with Ford ovals and Sierra emblems or put the finishing touches on that Cosworth clone. Genuine Ford European logos will distinguish your XR4 or Scorpio from the rest. Location (on car) for emblems and sticker logos are listed below. Emblems are chrome and black plastic with self stick backing. Stickers can be applied to metal or glass surfaces.

Sierra (emblem) rear hatch left	M321S
Sierra XR4i Red (sticker) rear hatch left	M352R
Sierra XR4i Anthracite/Gray (sticker) rear hatch left	M352A
Sierra R/S (emblem) rear hatch left	M321RS
Cosworth (emblem) rear hatch left under Sierra R/S emblem	M321C
Sierra R/S Cosworth (sticker) rear hatch left	M352C
R/S (emblem) side fender XR & Scorpio	M352RS
Ghia- crest (emblem) side fender XR & Scoprio	M352G
Oval "Ford" (emblem) front grille center & rear hatch right	C321
"Ghia"- script (emblem) Scorpio rear hatch	G352G
2.9i (emblem) Scorpio rear hatch	G352L
Scorpio (emblem) Scorpio rear door sail panel	G352S

▲ B **European Headlamps** The standard US spec. XR4 & Scorpio headlights were pretty poor when new, and get worse with age-especially when the lenses turn cloudy. European headlamps will provide a significant increase in light output and they look great too. These lamps utilize all glass lensing with a halogen H-4 55/60 watt bulb for high/low main beam operation, and a halogen H-3 55 watt bulb for the built-in driving lamp. Note: Lamps are supplied in righthand drive (English) specification which has a subtle different low beam flair pattern, however, this is not very noticeable. If required left hand (German) type lenses are available separately (see price list). We recommend installing the lamps first before opting to swap out the lenses as most customers do not bother.

Sierra XR4 European Headlamp Kit*

M318

*kit includes (2) lamps, rear bulk heads panels, bulbs & wiring instructions

Scorpio* European Headlamp Kit

G318

*kit includes (2) lamps, left & right lamp lamps/indicators & front grille sections, bulbs, and wiring instructions

Scorpio Fog Lamp (LH)- complete replacement assembly G349L Scorpio Fog Lamp (RH)- complete replacement assembly G349R

▲ C <u>Head Lamp Bulbs</u> Replacement and higher wattage bulbs for above European headlamps and standard XR4 & Scorpio aerolamps. Headlamps- H4 bulbs are fit eurolamps (not stock headlamps), 9004 bulbs are for use with standard XR4Ti & Scorpio aerolamps. Fog lamps- H3 bulbs are suitable for eurolamps and Scorpio, 880 bulbs fit only XR4Ti fogs. Krypton gas 9004 "Bright White" bulbs burn brighter with more luminous output than standard halogen type bulbs. "Blue Ion" bulbs project a, low glare, blue tinted beam- definitely a different look!

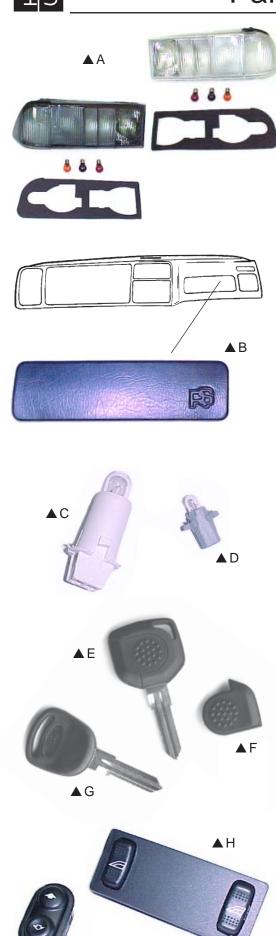
H4 55/60 watt (for high/low main beam)	ZH455/60
H4 55/100 watt (for high/low main beam)	ZH455/100
H4 80/100 watt (for high/low main beam)	ZH480/100
H3 55 watt (for fog & driving lamps)	Z H355
H3 100 watt (for fog & driving lamps)	ZH3100
880 50 watt "Blue Ion" 50 watt (for XR4Ti fog lamps)	Z 880/50B
880 50 watt "Amber" 50 watt (for XR4Ti fog lamps)	Z 893/50G
9004 "Bright White" 45/65 watt (for high/low main beam)	Z 9-45/65W
9004 55/100 watt (for high/low main beam)	Z 9-55/100
9004 80/100 watt (for high/low main beam)	Z 9-80/100
9004 "Blue Ion" 55/100 watt (for high/low main beam)	Z 9-55/100B
Relay (Hella) 12 volt- (2) required w/ 80/100 bulbs	Z Relay12

▲ D Rear Tail Lamp Seals & Lamp Sockets Puddles in the trunk or damp carpeting might be due to leaking rear tail lamp seals. Non-functioning tail lamps are usually due to corroded lamp sockets. We have new replacements for both these USA Ford unavailable parts.

Left or Right Tail Lamp <u>Seal</u>- XR4 Left or Right Tail Lamp <u>Socket</u>- XR4 M319S M319LS

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Parts & Accessories



A XR Rear Lens Kits Clear & Tinted These are all the styling rage on newer vehicles, and now you can get a set for your XR too. Available in either clear, or smoke/tint, these light kits not only look great, but are the perfect choice for worn-out stock rear lamps (which cost even more). Lamp kits are supplied with left and right rear lamps (your choice of clear or tinted lens), colored bulbs, reflector strips and rear gaskets.

Rear Lamp Kit XR (clear) M319C Rear Lamp Kit XR (smoke tint) M319T

▲ B <u>Cosworth ECU Cover</u> Fits above glove box and covers over the storage cubbie. Embossed R/S logo, grain and finish match stock dash pad. Can be painted with vinyl paint to desired color (supplied in black).

Cosworth R/S ECU Cover

M324

- ▲ C <u>Dash Instrument Panel Bulb</u> lamp with (white) socket M330L
- ▲ D <u>Dash Warning Lamp Bulb</u> lamp with (gray) socket M330WL

▲ E XR Torch Key & Battery complete Ford key blank and lamp/ battery. Torch key blanks and lamp batteries are also listed separately below. M309KL

XR Torch Key Blank replacement key blank (less lamp) Z61179

▲ F <u>Lamp & Battery</u> lamp and battery for XR4 & Scorpio keys M309KLB <u>Battery only</u> M309B

▲ G XR Standard Keys as an extra key or an alternative to the more bulky torch key, this European key blank has a molded plastic grip with wide ring slot with Ford logo.

M309K

XR Ignition Lock Assembly housing & 2 keys

XR Door Lock Assembly housing & 2 keys

XR Hatch Lock Assembly housing & 2 keys

XR Complete Lock Set all locks & 2 keys

XR Hatch Striker commonly required replacement item

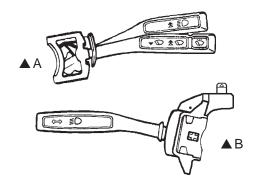
M815S

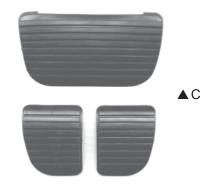
Hatch Lock Retaining Clip commonly required replacement item

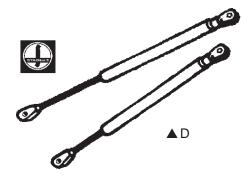
M815C

- ▲ I XR Window Switch New, Ford, electric window switch panel, includes two rocker switches, complete. M340S
- ▲ J <u>Scorpio Window Switch</u> New, Ford, electric window switch (each) fits both doors and console **G340S**

Parts & Accessories











▲ A *Windshield Wiper Headlamp Switch Stalk* We supply a new Ford of Europe replacement for this commonly required electrical item. *Note: please check associated fuses before ordering- this item is not returnable.*

Windshield Wiper Headlamp Switch/Stalk (XR4)

M304

▲ B *Turn Signal Flash/Hazard Switch Stalk* We supply a new Ford of Europe replacement for this commonly required electrical item. Cruise control version is not available. *Note: please check associated fuses before ordering- this item is not returnable.*

Turn Signal Flash/Hazard Switch Stalk (XR4)

M305

▲ C <u>Pedal Pads</u> The next time you give your cars interior a good detailing don't forget the finishing touches. New pedal pads not only improve the look of any interior, but are much safer too. Also it's not a bad idea to replace pedal pads right before entering a car show or selling a vehicle as smart buyers and judges will commonly check the pad wear as an indicator of how (hard) the car is driven.

Accelerator Pedal Pad- XR4 & Scorpio	M365A
Clutch Pedal Pad- XR4 & Scorpio	M365C
Brake Pedal Pad (manual)- XR4 & Scorpio	M365B
Brake Pedal Pad (auto)- XR4 & Scorpio	M365BA

▲ D *Rear Hatch Lift Struts* Have you resorted to using a wooden broomstick as a prop rod to hold up the rear hatch on your car? If you answered yes, you are a definite candidate for new hatch lift struts. XR4's and Scorpios have heavy rear lift gates (hatches). When one, or both, lift struts are worn, forget about having the hatch stay up, let alone raise up unassisted as when they were new. BAT has new German manufactured lift strut replacements guaranteed to keep things on the up and up.

Rear Hatch Lift Strut- XR4 (each) M308
Rear Hatch Lift Strut- Scorpio (each) G308

▲ E <u>Rear View Mirror</u> Has your rear view mirror fallen off more times than you can count? Don't mess around with nasty glues that only last a week before redepositing the mirror back on the floor. BAT has the correct Ford replacement day/night mirrors have (self-stick peel-off) adhesive backing that should keep it attached for another 10 years.

Rear View Day/Night Mirror- XR4 & Scorpio M339
Replacement "Stick-on Pad" (for stock mirror) M339S

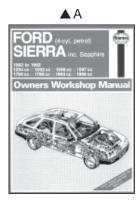
▲ F Hella Dual Air Horn Powerful and penetrating enough to get attention over any level of road noise Hella trumpet type air horns are the first choice with European drivers. Kit includes dual metal trumpets (805 hz, 885 Hz), high performance compressor w/air filter, 12v relay, and mounting bracket. Add some European flavor to your Euro Ford, and additional safety too.

Hella Dual Air Horn Set

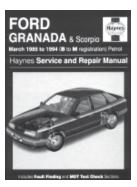
M312

Books & Manuals

▲B









▲ C



- ▲ A <u>Workshop Manual- Sierra 1982-1992</u> by Haynes. Covers the European Sierra & Sapphire 4 cylinder models (except Cosworth). Lots of good information covering repair procedures (light-years ahead of Chiltons). Most sections, with the exception of the engine, are the same or similar to the US cars. An inexpensive alternative or addition to the American Merkur Manual. Hard bound 8 1/2" x 11 ", 250 pages M204
- ▲ B *Workshop Manual- Sierra XR4i (V6)* by Haynes. Similar to above, covers the XR4i & XR4x4 V6 equipped models. *Hard bound* 8 1/2" x 11 ", 250 pages M204A
- ▲ C *Workshop Manual- Scorpio (V6)* by Haynes Covers the European Scorpio/Granada V6 models- very similar to our US spec cars. A handy manual to have. *Hard bound 8 1/2" x 11 ", 250 pages* **G204**
- ▲ D <u>Book- The Complete 2.3 EEC-IV Handbook</u>- by Allan Slocum. A comprehensive view of the engineering, performance characteristics, and troubleshooting for each component of the EEC-IV engine control system. Updated 2003 issue with even more content than before!

The Complete 2.3 EEC-IV Handbook

M209

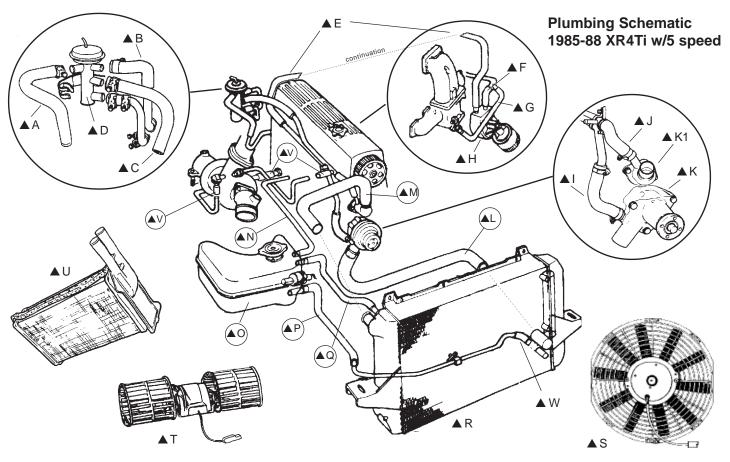
▲ E Merkur Shop Manual on CD- get a complete digital version of the actual factory service manual -used by repair shops and dealerships- to assist in maintaining and repairing your Merkur. Features procedures and specifications corresponding to every facet of the Merkur XR4Ti and Scorpio. Easy to use "clickable index" jumps to the section you need quickly. Zoom in on any page for viewing small, intricate diagrams. Print out single pages, groups of pages, or entire sections of pages to bring out to the garage. Never worry about dropping a giant, expensive loose-leaf paper manual in an oil slick again! Note: 2010 new expanded edition includes: complete XR4Ti and Scorpio manuals with wiring and vacuum supplements. Additionally European Sierra and Escort Cosworth manuals, Borg Warner T-5, and Sierra Rally Prep are included at no additional charge. Close to 10,000 total pages and at a lower price!

Merkur Shop Manual CD

M204CD

Cooling System (XR)





The cooling system on the XR4Ti is fairly unique. If there is another car with more individual hoses in the cooling system, we have yet to see it. Compound this with the changes throughout the model run and it gets even more complex. We have a good inventory of the hoses and other cooling related components that fit 1985-87 XR4Ti and some (where similar or noted) for 88-1989 cars.

▲ A *Hose*-heater valve to pipe (leads to oil cooler) M421HC

M421H ▲ B *Hose*- heater valve to heater core (note: \triangle B interchanges with \triangle J)

▲ C Hose-heater valve to pipe along valve cover (upper) at rear (note: \triangle C interchanges with \triangle F) M421HB

▲ D *Heater Valve*-heater control valve XR & Scorpio M421V

▲ E Hose- water pipe (lower) to oil cooler M421HE

▲ F Hose- oil cooler to water pipe (from heat valve) M421HB (note: \triangle F interchanges with \triangle C)

▲ G Hose- oil cooler to intake manifold M421HD

▲ H Oil Cooler- replacement water to oil heat exchanger AWC1

▲ I Hose- pipe along valve cover (lower) @ front to water pump. This one is a common problem. **M421HA**

▲ J Hose-pipe along valve cover (upper) @ front to thermostat housing (heater supply). Don't hit the road without an extra one of these! (note: $\triangle J$ interchanges with $\triangle B$) M421H

L6A ▲ K Water Pump- quality replacement pump

▲ K1 *Thermostat Housing*- H.D. cast Iron version

▲ L Hose- radiator (lower) 1985-88 (MT & AT) M421BH

▲ L *Hose*- radiator (lower) 1989 (auto & manual) **M421BH9**

▲ M *Hose*- radiator (upper) 1985-88 (MT & AT) ▲ M Hose- radiator (upper) 1989 (MT & AT)

M421TH M421TH9

▲ N *Hose*- expansion tank (top fitting) to valve cover pipe (note: shape of hose not accurate in drawing) M421TT

▲ O Expansion Tank-Thread-on cap (similar to Scorpio) Ford tanks, some with, or without, the fluid level sensor port. Tank caps, fluid level sensors, and sensor mounting parts are also available. (see price list for complete listing)

Tank 1985-88 M421E Tank 1989 w/o sensor M421E9

▲ P Hose- expansion tank (lower fitting) to radiator drain line M421TL

▲ Q *Hose*- expansion tank (middle fitting) to radiator (upper) M421TM

▲ R *Radiator*- O.E. type replacement radiators for 1985-89 manual or 1985-88 auto transmission XR4Ti's.

(1985-88 manual) M421R (1985-88 auto) M421RA (1989 manual) M421R9 (1989 auto) M421R9A

Mount/Bushing- @ radiator top mounting location M421RM

▲ S *Electric Fan*- An altermative to the sometimes troublesome dual cooling fans on the XR4Ti, this highly efficent (1100 cfm) 16" electric "puller" fan does the work of both. Wire directly or use our (optional) adjustable 165-215 degree thermostat/relay pack.

(16" puller fan) (thermo/relay) A16F-PL

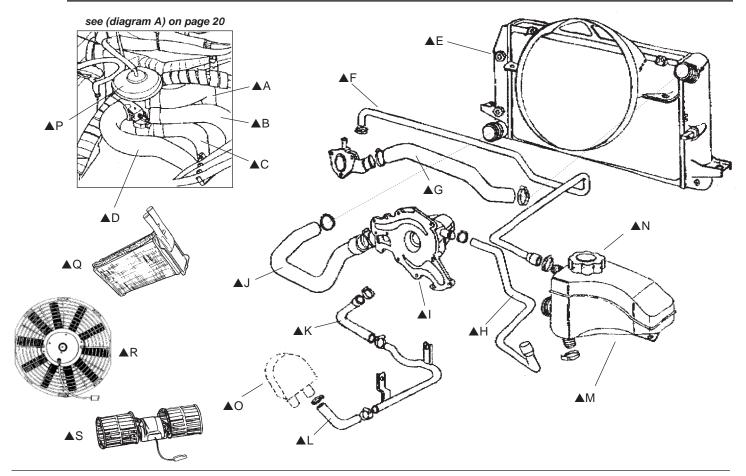
▲ T Blower Motor & Fan A/C & Heater -for heater and A/C, check fuse & relay first before ordering. M470A

▲ U *Heater Core*- New O.E. Ford heater cores. M471

▲ V <u>Turbo Water Hose</u>-high temperature CPE silicone hose for turbo (water) inlet/outlet pipes. (1 foot makes 3 hoses) M421WT

▲ W *Hose*- Lower drain pipe @ radiator lower M421HF

Cooling System (Scorpio)



In addition to our stock of cooling system components for the XR4Ti we have added the various Scorpio related items to our inventory. The Scorpio's cooling system is only slightly less complicated than hose running to overflow tank @ lower bung the XR4Ti's, it's only saving grace is the parts do not vary all that much from year to year. Again, as with the XR4, components that we offer are from the O.E. supplier or Ford originals.

▲ A <u>Hose*</u> -heater valve (outlet) to heater core	G421HA
▲ B <i>Hose*</i> - heater valve to engine/inlet mfld.	G421HB
▲ C <i>Hose</i> *- heater valve (inlet) to heater core	G421HC
▲ D <i>Hose*</i> - heater valve to pipe	G421HD
*for additional info see (diagram A) on page 20	

▲ E *Radiator*- new original equipment Ford radiators at a very attractive prices. Don't be mislead into buying substandard fabricated or fits-all radiators when we can supply new Ford ones for less. (for automatic trans) **G421RA** G421R (for manual trans.)

▲ F Hose- coolant tank to thermostat housing **G421HF**

▲ G *Hose*- top radiator hose (88-89) **G421TH**

▲ G *Hose**-top radiator hose (89 late) has vent air bleed in line (includes bleed screw). G421TH-9

*for additional info see (diagram B) on page 20

G421HH ▲ H Hose-tank (lower) to water pump ▲ I *Water Pump*- new Ford water pump

▲ I Water Pump- high quality reconditioned water pump on Ford core. G421A

G421HP

Hose*- bypass from water pump to inlet mfld. *for additional info see (diagram A) on page 23 ▲ J Hose- lower radiator hose 88-89 **G421BH**

▲ J Hose*- lower radiator hose (89 late) has additional tee off G421BH-9 *for additional info see (diagram B) on page 20

G421HK ▲ K *Hose**- to oil cooler pipe **G421HL** ▲ L <u>Hose*</u>- oil cooler pipe to oil cooler

*for additional info see (diagram A) on page 20

▲ M Coolant Tank- Cracked and leaking overflow tanks are a common problem on the Scorpio. Tank pictured above is for early (1988) type cars. See page 20 for late style tanks. G421TE

▲ N Radiator Cap- cap for Scorpio and XR4's with threadon coolant tank

▲ O <u>Oil Cooler-</u> replacement water to oil heat exchanger. If water is showing up in your oil it would most likely be either a head gasket or one of these. AD1000

▲ P Heater Control Valve- heater control valve, same on XR4 & Scorpio M421V

▲ Q Heater Core- Quality Ford O.E. heater cores. G471

▲ R Mechanical Fan Clutch- Quality Ford O.E. G422

▲ R Electric Fan- An altermative to the Scorpio mechanical clutch fan. This highly efficent (1150 cfm) 16" electric "puller" fan moves more air and frees up a few HP to boot. Wire directly or use our (optional) adjustable 165-215 degree thermostat/relay wiring kit. (16" electric fan) A16F-PL

(thermo/relay wiring kit) AFTR1

▲ S Heater A/C Blower Motor- New Ford heater blower motor for Scorpio with 8 wire harness/plug. M470A

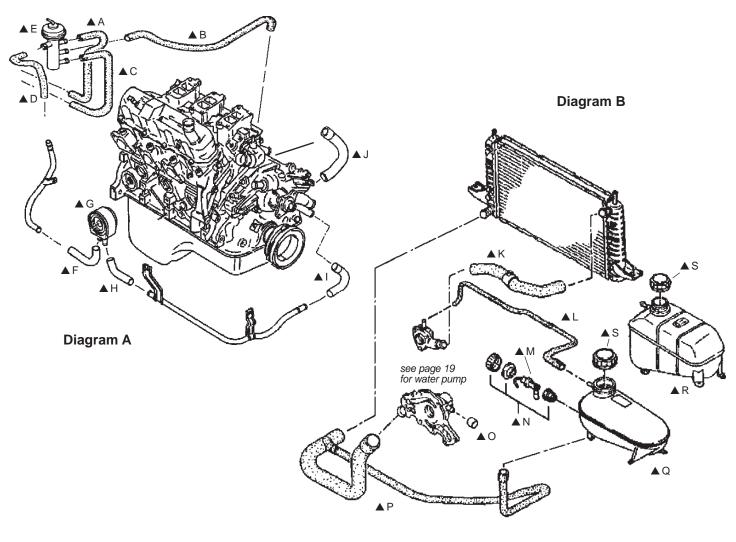


Diagram A - heater and oil cooling water system Scorpio 1988-89 (all)

▲ A *Hose**- heater valve (outlet) to heater core **G421HA**

▲ B *Hose*- heater valve to engine/inlet mfld. **G421HB**

▲ C <u>Hose*</u>- heater valve (inlet) to heater core **G421HC**

▲ D <u>Hose*</u>- heater valve to oil cooler pipe G421HD

▲ E <u>Heater Control Valve*</u>-heater control valve, same on XR4 & Scorpio M421V

▲ F <u>Hose</u>-connects coolant pipe from heater control valve to oil cooler. **G421HL**

▲ G <u>Oil Cooler*</u>- replacement water to oil heat exchanger. If water is showing up in your oil it would most likely be either a head gasket or one of these. **AWC1**

▲ H *Hose*-* oil cooler to coolant pipe. **G421HM**

▲ I <u>Hose*</u>- connects coolant pipe from oil cooler to water pump. G421HK

▲ J <u>Hose</u>- bypass from water pump to inlet mfld. **G421HP** *these items are also shown on page 19 diagram

Diagram B- Components unique to late 89 Scorpio Scorpio 89 (late)

▲ K <u>Hose*</u>- top radiator hose G421TH
*hose with vent is no longer avalable

▲ L <u>Hose</u>- coolant tank to thermostat housing **G421HF-9**

▲ M <u>Tank Level Sender</u>- sender/float assembly. Fits all Scorpio & XR4 over flow tanks. **M421LS**

▲ N <u>Sender Install Kit</u>- the 3 components (threaded collar, spacer ring, rubber gromett) required to stop a leaking sensor bung. Also a good idea when servicing the tank level sensor (see above part).

M421SK

▲ O *Cap/Plug-* small rubber cap for plugging off the unused waterpump port . **G421P**

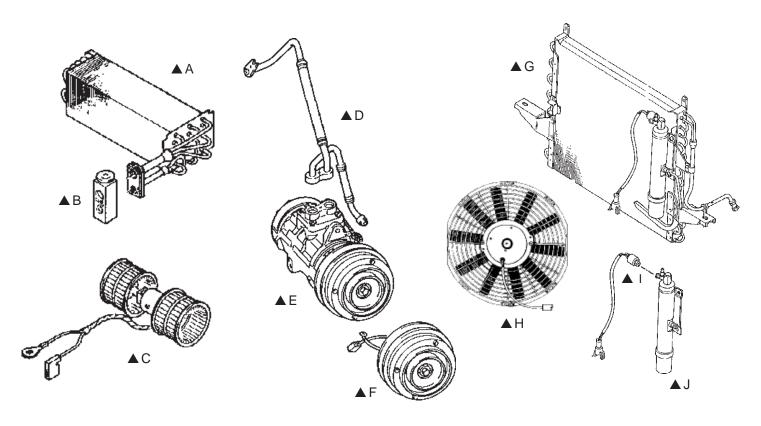
▲ P <u>Hose</u>-lower radiator hose (89 late) has additional tee off hose running to overflow tank @ lower bung G421BH-9

▲ Q <u>Coolant Tank</u>- oval type tank (use G421TL below)

▲ R <u>Coolant Tank</u>- late style (1990-92) coolant tank. Rectangular (larger volume) tank is a direct fit upgrade to the oval version listed above. **G421TL**

▲ S *Radiator Cap*- cap for Scorpio and XR4's with threadon coolant tank **G421C**

Air Conditioning System



Automotive air conditioning components seem to be difficult to source and expensive to boot. The XR4 and Scorpio are no exception to the rule. Reason being, a functioning A/C system is considered a "must have" and some will pay almost any price for cold air on a hot day. BAT understands that comfort is paramount, but on the other hand it should not require a second mortgage to repair your A/C system. You will find we have a selection of high quality, economically priced A/C parts too help keep you cool without breaking the bank. Most A/C Components for XR4 & Scorpio are interchangeable except where noted.

- ▲ A <u>Evaporator</u>-The evaporator (alloy fin/tube design) works ▲ F <u>Clutch Assembly*</u>- Replacement magnetic clutch as a heat exchanger. Air flowing through the core is cooled, cleaned, and dried. It is also one of the major cost portions of the A/C system, with the Ford original costing around \$550.00. Check out our aftermarket alternative for considerably less! M470E
- ▲ B **Expansion Valve** Meters the volume of refrigerant to the evaporator. Expansion valve assembly should be replaced with evaporator or if found faulty.
- ▲ C Blower Motor-HVAC system blower motor includes motor and fan wheel. (Scorpio) G470A (XR4) M470A
- ▲ D *Refrigerant Hoses**-The complete refrigerant hose manifold assembly. These are specially re-manufactured units that have the hose running to the fire wall extended so it can be routed further away from the turbo's excessive heat. This is a very common failure item. (XR4ti) extended hose M470H (Scorpio) standard length hose **G470H**

*additional \$100.00 core charge on this item-refundable on return

▲ E <u>A/C Compressor-</u> The compressor is one of the major cost portions of the A/C system, with the Ford original costing upwards of \$850.00. Check out our brand new Nippondenso A/C compressor units that are complete including the clutch assembly. M470C

- assembly. Available separately from compressor . If a clutch is all you need we have it. **M470CL**
- *additional \$25.00 core charge on this item-refundable on return
- ▲ G <u>Condenser-</u> The A/C condenser (alloy tube/fin core) is located ahead of the water radiator. Designed to cool the compressed refrigerants air passes over the cooling fins extracting heat to change hot gasses back to liquid refrigerant as it cools. Again, one of the major cost portions of the A/C system, with the Ford original costing upwards of \$600.00. Check out our aftermarket alternative for considerable cost savings! for XR4 M470D for Scorpio **G470D**
- ▲ H Electric Fan- An alternative to the expensive original condenser fan (\$450.00). This highly efficient (1200 cfm) 16" electric "pusher" fan moves more air for le\$\$. A16F-PU
- ▲ I Pressure Switch- The triple pressure switch assembly engages the condenser fan and switches off the compressor clutch with high/low pressure. Also a common failure item. M470S
- ▲ J Receiver/Dryer- Works as a storage/expansion tank for refrigerant as well as a system dehumidifier. It is common to replace the dryer when changing over to newer types refrigerants or whenever the A/C system has been open to atmosphere as M470R the dryer is easily contaminated.



- ▲ A <u>Standard Wastegate Actuator</u> Since the stock XR wastegate is no longer available new, we supply a high quality re manufactured unit. Internal components (diaphragm) are replaced and exterior is zinc plated.) M521WR
- ▲ B <u>Turbochargers</u> We offer both re manufactured stock specification and modified high performance turbos for the XR. High quality re manufactured turbos include; new center cartridge compressor/turbine wheel assembly with reconditioned outer compressor/turbine housings, new bearings, seals and O-rings and fasteners. Our high performance turbo adds a few extra tweeks. A GNX compressor wheel machined into the stock comp housing for an additional 30% airflow and a 360 degree thrust bearing is fitted for added durability. Turbos are fully dressed and include wastegate actuator, base & drain gaskets and sold on a exchange "core" basisoutright purchase will add an additional \$100.00 to the cost.

Standard Reman. Turbocharger M522TR
High Performance Turbocharger M522TM

▲ C *Intercooler Kit* If you are looking for a large high flow intercooler kit this is the one to have. Intercooler core mounts ahead of the steering rack in front of the engine facing the ground. Air is ducted up and through the core. Plumbing is kept short and allows for a larger core than what can usually be fitted in the bumper/grille area. Kit is complete with intercooler core (8" x 20" x 3.5"), mounting brackets, inlet plumbing pipes & connectors, clamps, turbo output elbow, bypass valve and additional hardware and instructions.

M522IC

- ▲ D *Adjustable Boost Valve Kit* Replace the troublesome stock boost control solenoid with this easy to adjust under hood boost valve. This kit uses a check valve to accurately control the boost level which allows for faster turbo spool-up (reduced lag) over typical adjustable "bleed-off" valves. This is a low cost modification and should be a "must have" for all XR's.

 M521BV
- ▲ E *Dual Port Wastegate Actuator* These are new actuators which feature an adjustable length rod (set boost & pre load) and dual vacuum ports. The dual port feature permits use of a remote mounted boost valve (see below), but can also be used as a replacement for stock actuator.

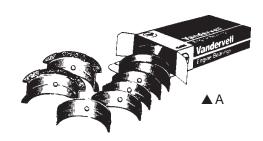
 M521WA2
- ▲ F <u>Cockpit Mounted Boost Valve</u> Remote cockpit mounted adjustable boost valve for use with dual port wastegate actuators (see above). Vacuum signal is regulated by the in car mounted valve and recirculated to the dual port actuator for precise adjustment.

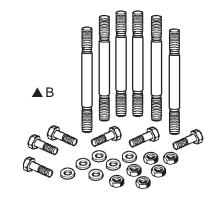
 M521TB
- ▲ G <u>Turbo Oil Feed Pipe</u> is prone to cracking/leaking and should always be replaced when a new turbo is fitted to assure proper oil flow. Just look inside an old one and you will see what we mean.

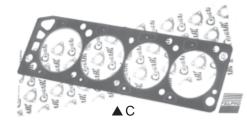
 M522P
- ▲ H <u>Turbo Inlet Hose</u> we have a version of this (discontinued by Ford) hose that links the turbo outlet pipe to the throttle body. Ours is high specification 4-ply Silicone (blue) rated to over 600 degrees, 190 psi burst pressure- better & cheaper than the original!
- alve and ▲ I <u>Stainless Base Gasket</u> replacement for between the turbo base and exhaust manifold. L521GT

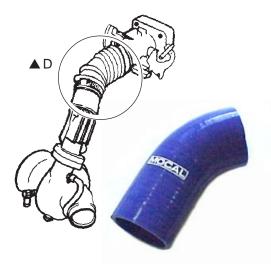


Engine & Related Items









A <u>Performance Engine Bearings2.3L</u> At engine rebuild time one item not to skimp on are engine bearings. We supply only the finest ACL/Vandervell heavy duty lead-indium type bearings. All bearings are not alike, regardless of who's name is on the box. Lead-indium bearings, not lesser reticular tinaluminum, are the only type you will find in quality performance engines.

Main Bearing Set- ACL/Vandervell (standard)	L16A
Main Bearing Set- ACL/Vandervell (+.010" over)	L16B10
Main Bearing Set- ACL/Vandervell (+.020" over)	L16B20
Main Bearing Set- ACL/Vandervell (+.030" over)	L16B30
Rod Bearing Set- ACL/Vandervell (standard)	L16H
Rod Bearing Set- ACL/Vandervell (+.010")	L16110
Rod Bearing Set- ACL/Vandervell (+.020")	L16120
Rod Bearing Set- ACL/Vandervell (+.030")	L16130
Cam Bearing Set- ACL/Vandervell	L16M
Cam Bearing Set- ACL/Vandervell (360 degree O.D. groove)	L16MA
Auxiliary Shaft Bearing	L5DC

▲ B <u>Performance Engine Fasteners</u> As with engine bearings, skimping on fasteners is false economy. As a minimum install a set of H.D. rod bolts and nuts for an added degree of reliability.

Con Rod Bolt Set (H.D. SPS type) for standard 2.3 rod	L4FS
Con Rod Bolt Set (H.D. SPS type) for 5.7 Chevy I-6 rods	L4FSC
Head Stud Set (H.D. SPS type)	L2DS
Main Cap Stud Set (H.D. SPS type)	L2KS

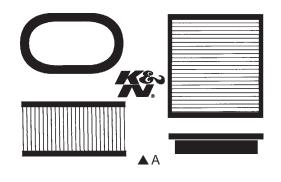
▲ C <u>Engine Gaskets (2.3L Turbo)</u> We have a wide range of performance and speciality gaskets available for the 2.3L turbo engine from full sets to individual pieces.

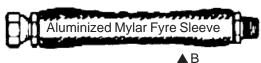
Water Outlet Gasket (thermostat housing) Water Pump Gasket (pump to block) Crankshaft Rear Seal Camshaft Seal Auxiliary Shaft Seal	L15AA L15BA L15CA L15CP L15DA L15DF L15DR L15EA L15E L15EA L15F L521GT L15N L15P L15R L15R
Crankshaft Front Seal	L15T

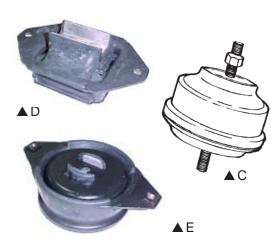
▲ D **2.3 Turbo Inlet Hose** We have a version of this (recently discontinued by Ford) hose that links the turbo outlet pipe to the throttle body on XR4Ti, T-Bird & SVO. Ours is higher specification 4-ply Silicone (blue) rated to over 600 degrees, 190 psi burst pressure- better & cheaper than the original! **M22H**

Engine & Related Items

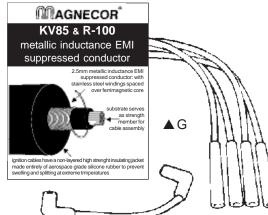












▲ A *Performance Air Filters* A quick and easy performance modification is to replace the standard air filter with a direct fit KN high performance air filter.

Merkur XR4Ti (2.3L Turbo) **M22P** Merkur Scorpio (2.9L V-6) G22P

▲ B *High Temp Fyre Sleeve* Under hood temperatures on the XR4Ti can be quite severe. Slipping a length of fyre sleeve over critical wiring or hoses (water & A/C) will add an extra degree of protection. Fyre Sleeve provides radiant heat protection up to 800 degrees. Sleeve is sold per foot and sized by internal diameter. Hoses or wiring can be disconnected at one, or both ends, then slipped through fyre sleeve. Optionally sleeve can be unstitched at the seam and wire tied in place.

Mylar Fyre Foil Sleeve -10 (7/8" I.D.) per foot	320510
Mylar Fyre Foil Sleeve -12 (1" I.D.) per foot	320512
Mylar Fyre Foil Sleeve -16 (1 1/4" I.D.) per foot	320516
Mylar Fyre Foil Sleeve -20 (1 1/2" I.D.) per foot	320520

▲ C Engine Mount Insulators We have an alternative for the discontinued standard Ford XR4Ti motor mount/insulator. Simply remove the old motor mount assemblies, discard the worn-out rubber portion, reuse the top and bottom metal plates with our replacement insulators. Note: slight modification requires 10mm holes in plates to be increased to 12mm. Scorpio version is direct fit Ford manufacture

Engine Mount Insulator (left & right same) XR4Ti M433 Engine Mount Insulator (left & right same) Scorpio- new Ford G433

▲ D Scorpio Transmission Mount /Insulator Original equipment rear transmission mount/insulators are a direct fit replacement for automatic & manual Scorpio. The heavy duty version from the Cosworth can be used if you require something slightly firmer.

Transmission Mount Insulator- (automatic & manual) G433T Transmission Mount Insulator H.D.- (automatic & manual) **G433TA**

▲ E XR4Ti Transmission Mount /Insulator Original type rear transmission mount/insulator for automatic & manual XR4Ti. This newly manufactured, direct fit, "round mount" is the perfect replacement for this long since discontinued Ford part.

Transmission Mount Insulator XR4Ti- (automatic & manual) M433T

▲ F **Engine Belts** Our search for the ultimate heavy duty engine accessory v-belts lead us to the top cog "Gold Series" by Dayco. Top cog v-belts are built to last up to 20% longer than conventional belts. A unique cogged design increases flexibility and airflow around the belt for reduced friction and heat. Laminated design with high temperature rated polyester cords provide maximum tension holding (reduced slip) over the life of the belt.

Belt- XR4Ti (1985-89) W. Pump, Alt, P. Steering (2 required)	M6G
Belt- XR4Ti (1986-89) A/C Compressor	M6H
Belt- XR4Ti (1985) A/C Compressor	M6HA
Belt- Scorpio (1988-89) Fan & Power Steering (2 required)	G6G
Belt- Scorpio (1988-89) Alternator	G6GA
Belt- Scorpio (1988-89) A/C Compressor	G6H

▲ G Performance Ignition Wire Sets We have tried a number of different ignition wire options on the 2.3 Turbo and 2.9L V6 engines and have found the Magnecor brand to offer superior quality, performance, and durability. Cables are red in color with 8mm, 8.5mm and 10mm cable diameters.

Merkur XR4Ti (2.3L Turbo)

Ignition Wire Set- (8mm w/silicone jacket and boots) L9HT Ignition Wire Set- (8.5mm KV85 wire w/silicone jacket and boots) M9HT Ignition Wire Set- (10mm R-100 wire w/silicone jacket and boots) M9HTR

Merkur Scorpio (2.9L V6)

Ignition Wire Set- (8mm w/silicone jacket and boots) **G9HT** G9HT9

Ignition Wire Set- (8.5mm KV85 wire w/silicone jacket and boots)



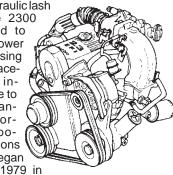
Engine Components

2300 Turbo Engine Components

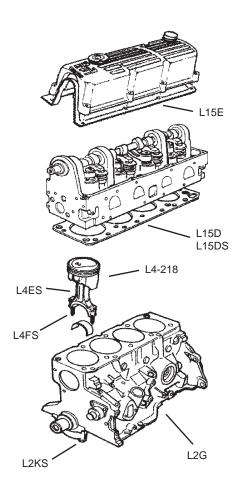
Core Plug Set -Brass	L2FP	9.00
Main Cap Stud Set (H.D. ARP)	L2KS	115.50
Full Gasket Set (Felpro) 1985 engine	L15AA	95.00
Full Gasket Set (Felpro) 1986-89 engine	L15AB	134.50
Top End Gasket Set (Felpro) specify year when ordering	L15BA	74.10
Top End Gasket Set (Felpro) with hi-temp valve cover set	L15BB	84.45
Bottom End Gasket Set (Felpro) 1985 engine (cork pan)	L15CA	44.10
Bottom End Gasket Set (Felpro) 1986-89 engine (rubber pan)	L15CB	82.25
Oil Pan Gasket (1 piece rubber) 1986-89	L15CP	49.85
Head Gasket (Felpro)	L15DA	21.50
Competition Head Gasket (Felpro #1035) steel wire ring type	L15DF	63.60
Valve Cover Gasket- Cork	L15E	6.79
Valve Cover Gasket H.D. (1 piece rubber) includes upper manifold	L15EA	33.00
Intake Manifold Gasket Set	L15FA	11.40
Exhaust Manifold to Cylinder Head	L15GA	7.50
Turbo Charger to Exhaust Manifold (stainless)	L521GT	8.75
Water Outlet Gasket	L15N	CALL
Water Pump Gasket	L15P	CALL
Camshaft Seal	L15R	11.65
Auxiliary Shaft Seal	L15S	11.95
Crankshaft Front Seal	L15T	17.70
Oil Pump (standard) Melling	L2P	82.35
Oil Pump- (high pressure/ high volume)	L2HP	150.00
Water Pump (new)	L6A	73.10
Water Pump (recon)	L6AA	39.00
Fuel Pump- Electric XR4Ti (in line)	M10A	165.00
Fuel Pump- Electric XR4Ti (in tank)	M10AT	125.00
Performance Piston- Power Forged #250F (std, +.020", +.030", +		
exact replacement for standard 2.3 turbo piston, light weigh		•
design, 1.589" comperssion height for 8.0:1 compression, 2r		
ring land, supplied with wrist pins and locks.	L4-250F	93.50
Ring Set- Moly type 1/16", 1/16", 3/16" (std, .020", .030", .040)", .060")	
*for above "performance pistons" - specify size	L4R	99.50
Ring Set*- Gapless Moly type 1/16", 1/16", 3/16" (std, .020", .0	30", .040"	', .060")
*for above "performance pistons" - specify size	L4TF	149.00
Ring Set*- Gapless Moly type 1/16", 1/16", 3/16" (std, .025", .03	35"045".	.065")
*for above "performance pistons" - file fit top ring	L4T1	179.00
Ring Set*- Gapless Moly type 2mm, 2mm, 4.75mm (std, .020", .03	30" 040"	060")
*for standard OE type pistons - specify size	L4TFA	149.00
Main Bearing Set- ACL/Vandervell (std, .010", .020", .030")	L16A	52.25
Connecting Rod Each (recon) Ford	L4E	30.00
Connecting Rod Set- (4) Forged H-beam 5.20" length Connecting Rod Set- (4) Forged I-beam 5.20" length	L4ES L4ESB	549.00 398.00
Connecting Rod Set- (4) Forged H-beam 5.70" length	L4ESA	549.00
Rod Bearing Set- ACL/Vandervell (std, .010", .020", .030")	L16H	26.95
Con Rod Bolt Set- ARP H.D. (for standard 2.3L rod)	L4FS	52.50
Head Stud Set- ARP H.D.	L2DS	138.00
Cam Bearing Set- ACL/Vandervell	L16M	19.50
Cam Bearing Set- ACL/Vandervell (360 degree O.D. groove)	L16MA	22.50
Carri Dearing Cet 7.027 variatives (600 degree 6.b. groove)	L I OIVI/ (

Utilizing a design similar to the earlier German 2000 OHC "Pinto" engine the 2300 "Lima" engine eventually replaced the 2000 OHC in most North American Ford 4 cylinder vehicles from 1974 on. Built for lower maintenance with the

addition of hydraulic lash adjusters the 2300 was designed to operate in a lower RPM range using its larger displacement and increased torque to its best advantage. Performance turbocharged versions of the 2300 began



to appear in 1979 in the Mustang/Capri and continued through the 80's in a more refined and powerfull EFI turbo version. A reduced bore 2000 displacement "Ranger" truck engine (from 1983-87) was also produced. Some late production "Lima" engines are equipped with hydraulic roller cam and valve train, and other versions use dual spark plug cylinder heads. The 2300 is a fairly rugged engine in its stock form, however some components will require up-rating with performance components if high RPM duty is required. The "Lima" series turbo and normally aspirated engines respond quite well with a bit of performance tuning and though lacking in refinement do give quite a bit of bang for the buck.



Engine Components

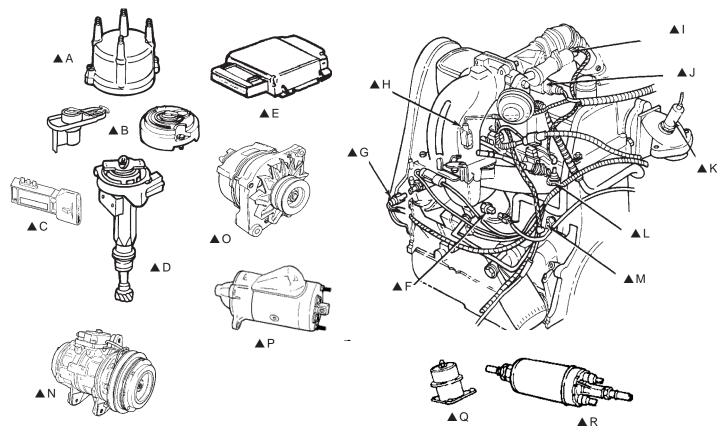
Camshafts- see chart below

Grind# Pricing \$	Description	Power Band	Cam Lift inlet/exhst.	Valve Lift inlet/exhst.	Duration inlet/exh	Timing Figures	Timing Inlet @ Full Lift	Valve Clearance inlet/exhst.	Comments
2300 Turbo Camshafts (Hyd			ıulic) *dur	ations qu	oted gro	ss & .050'	' - timing	g events ar	e @.050"
H260	Hydraulic	2500-6000	.252"/.252"	.416"/.416"	272/272 220/220	0/40 40/0	110	0/0	smooth idle, strong low and mid performance, turbo suitable, auto & manual trans.
H283	Hydraulic	3500-6500	.274"/.274"	.453"/.453"	276/276 224/224	2/42 42/2	110	0/0	good idle, strong low and mid performance, turbo suitable, manual transmission only

Aux. Shaft Bearing	L5DC	20.25
Cam Follower- (standard O.E. type) each	L5B	7.50
Cam Follower- (roller type) each	L5BR	30.00
Hydraulic Lash Adjuster Set	L5BA	43.00
Intake Valve- (standard O.E. type)	L3H	12.50
Intake Valve- 1.740" (oversized stainless steel hi-flow) each	L3HA	19.50
Intake Valve- 1.890" (oversized stainless steel hi-flow) each	L3HB	19.50
Exhaust Valve- (standard O.E. type) each	L31	25.75
Exhaust Valve- 1.510" (oversized stainless steel hi-flow) each	L31A	19.50
Exhaust Valve- 1.590" (oversized stainless steel hi-flow) each	L31B	19.50
Valve Spring Set- (sport spring set for hydro cams to .480" lift)	L3F	73.75
Electric Fan Switch -XR	M450FS	35.15
Knock Sensor-XR	M450KS	63.50
Engine Coolant Temp Sensor (ECT)-XR	M450EC	33.25
EGR Valve	M450EGR	149.00
Idle Speed (Air Bypass Valve) XR/Scorpio	M450IS	99.00
Throttle Position Sensor (TPS)-XR	M450TP	59.00
Oxygen Sensor (OS)-XR	M450OS	60.50
Oil Pressure Switch-XR	M450P	6.40
Water Temp Gauge Sender- XR (purple band)	M450F	19.00
Adjustable Cam Sprocket (key way type)	L5F	DISC
Adjustable Cam Sprocket (vernier type)	L5FA	95.75
Cam Belt	L5GA	19.95
Cam Belt Tensioner -Ford	L2J	49.50
Intake Hose- Turbo Outlet to Throttle Body (Hi-Temp 4-Ply Silicone "Blue") XR4Ti, T-Bird & SVO	M22H	44.50
Distributor- 2.3L Turbo (reman) w/o cap, rotor, module (35.00 core)	L9AB	119.00
Distributor Cap H.D. (hi-temp epoxy w/brass terminals)	L9B	16.98
Distributor Rotor H.D. (hi-temp epoxy) 85-86 screw down type	L9F	7.50
Distributor Rotor H.D. (hi-temp epoxy) 87-89 push-on type	L9FA	8.90
Ignition Module TFI (on distributor)	L9M	80.75
Ignition Wire Set- (8mm custom length w/silicone jacket and boots)	L9HT	47.50
Ignition Wire Set- (8.5mm custom length w/silicone jacket and boots)	M9HT	74.50
Ignition Wire Set- (10mm custom length w/silicone jacket and boots)	M9HTR	85.50
Performance Air Filter KN (2.3L Turbo) XR4Ti	M22P	39.90



Engine & Related Components



M450EC

G450M

G450P

G450S

G450TP

G450OS

M450EGR

	<i>Distribut</i> ss terminals	or Cap 2	.3L	Heavy	duty	epoxy/re	esin cap L9B
▲ B	<u>Distribute</u>	<u>or Rotor 2</u>	<u>2.3L</u>	Heavy	duty	epoxy/re	sin rotor
(screv	w down type	1985-86).					L9F
▲B	<u>Distribute</u>	or Rotor 2	2.3L	Heavy	duty	epoxy/re	sin rotor
(push	- on type 19	87-89).					L9FA
▲ C	TFI Modu	ıle 2.3L					L9M
▲ D	<u>Distribu</u>	tor 2.3L	exc	ludes	сар,	rotor,	module
(35.0)	0 core) <i>re ma</i>	anufactured					L9AB
▲ D	<u>Distribu</u>	tor 2.9L	exc	ludes	сар,	rotor,	module
(55.00)	0 core) <i>rema</i>	anufactured					G9AB
▲E	Engine	<u>Managem</u>	<u>ent</u>	XR4Ti	and	Scorpio	engine
mana	gement com	puters. (75.	.00 cd	ore) <i>ren</i>	nanufa	ctured	
XR4	TI (specify	auto or ma	nua	trans)		M9C

	0
management computers. (75.00 core) remanufactured	
XR4TI (specify auto or manual trans)	M9C
2.3L Turbo Engine Sensors & Switches	
▲ F Electric Fan Switch -XR	M450FS
▲ G Knock Sensor-XR	M450KS
▲ H Engine Coolant Temp Sensor (ECT)-XR	M450EC
▲ I Idle Speed (Air Bypass Valve) XR/Scorpio	M450IS
▲ J Throttle Position Sensor (TPS)-XR	M450TP
▲ K Oxygen Sensor (OS)-XR	M450OS
▲ L Oil Pressure Switch-XR	M450P
▲ M Water Temp Gauge Sender- XR (purple band)	M450F
Sensors & Switches (other)	
Air Charge Temp, Sensor (ACT) Scorpio	G450A

Coolant Temp. Sensor (ECT)- Scorpio

EGR Valve- XR4Ti

MAP Sensor -Scorpio

Oxygen Sensor- Scorpio

Oil Pressure Switch- Scorpio

Vehicle Speed Sensor- Scorpio

Throttle Position Sensor- Scorpio

▲ N <u>A/C Compressor</u> XR4/Scorpio Nippondenso A/C compressor units, includes clutch. *remanufactured* **M470C**

▲ O *Alternator* Bosch (90 amp) alternators available for XR & Scorpio. (10.00 core) *remanufactured*.

Alternator - XR4Ti M24A
Alternator - Scorpio G24A

▲ P <u>Starter</u> XR4Ti and Scorpio starter units. (30.00 core) *re manufactured.*

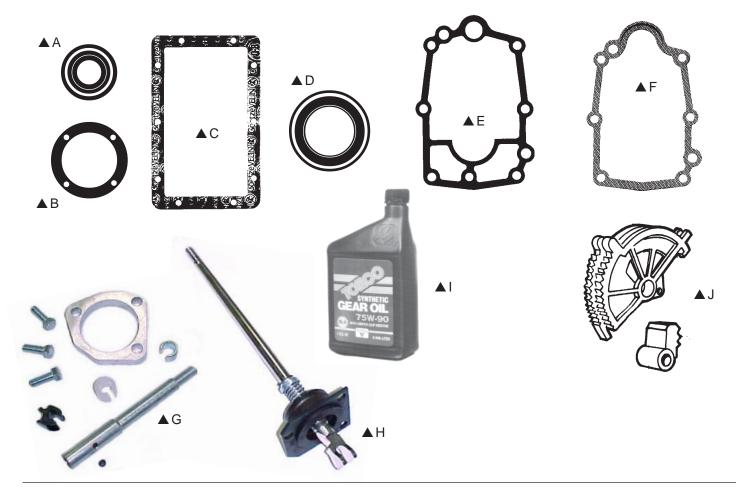
Starter -XR4Ti M23A Starter -Scorpio G23A

▲ Q *Fuel Pressure Regulator* Standard replacement regulator for XR4Ti. M7PR

▲ R *Electric Fuel Pumps* New XR4Ti (in line) high pressure and (in tank) low pressure fuel pumps

Electric Fuel Pump (in line) high pressure M10A Electric Fuel Pump (in tank) low pressure M10AT

Important note: all electrical items are pretested before shipping. Carefully check all wiring, fuses & relays before ordering. Electrical items are not returnable!



▲ A *Oil Seal-* input Shaft (front) T9 Transmission

▲ B *Gasket*-input bearing retainer to main case (front) T9 Transmission M702G

▲ C *Gasket*- top Cover T9 Transmission M716

Transmission M719

▲ E Gasket- adaptor plate (bearing carrier) to main case T9 Transmission M709

▲ F Gasket- adaptor plate (bearing carrier) to extension housing (tail shaft) T9 Transmission M708

▲ G **Short Shift Kit-** Enhance the "link" between driver and transmission with our short shift kit for 5-speed T9 transmission equipped cars. If you like the shifter "feel" on a Hurst equipped Mustang GT- this kit offers similar results. Customers often remark that this (kit) is one of the best modifications that they have made to their cars, especially considering the price, and ease of installation. Just think about how many gear changes you make in a day, let alone a week- shouldn't every shift be quick, light and precise? M715

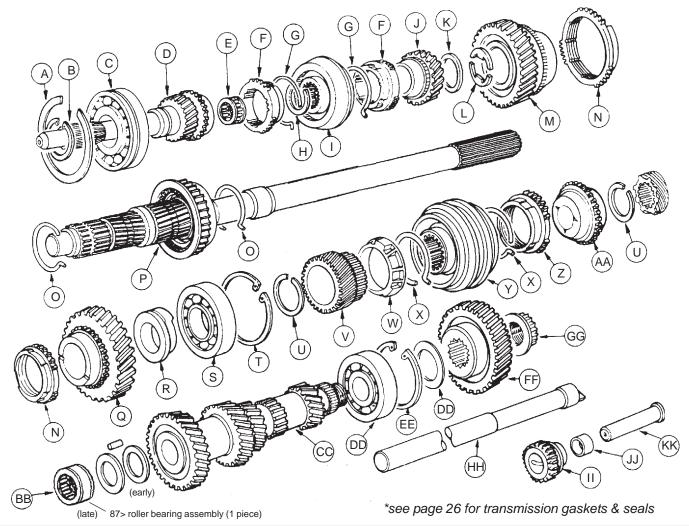
▲ H Competition Shifter- A serious short throw competition gear lever featuring a robust large diameter shaft placed within a spherical bearing. The all metal construction will transmit additional noise but this is a small penalty to pay against the strength, speed and quality of the gear change achieved. M717

▲ I Gear Oil- Torco synthetic gear oil is designed to ▲ D Oil Seal- extension housing (tail shaft) T9 withstand tremendous heat and provide extreme anti-score protection under high torque "shock loading" conditions. That is why most Indy car and drag race teams rely on Torco protection. Torco SAE 75w90 gear oil is GL-6 rated and includes limited slip additives. Great for both transmission and differential applications. Torco synthetic gear oil greatly improves the shift "feel" of T9 transmission, shifting becomes light and precise, almost like a tune-up in a bottle. Notes: transmission will require 2 quarts (2.25 to 3.34 pint capacity depending on year) and rear axle 1 quart (1.6 pint capacity) Gear oil not for T5 transmissions (use ATF type fluid). C2S

> ▲ J **Quadrant & Pawl Kit**-When the clutch pedal "ratchet adjuster" wears out it contributes to poor pedal feel and an annoying clicking noise. Renewing the quadrant and pawl with this handy kit will alleviate the problem. M368



Transmission Components



The Ford Type 9 (T9) or Hummer transmission is a 5-speed version/conversion (an overdrive portion is added in a casting extension behind the main case) of the venerable Type E 4-speed. The only problem with this transmission is the 2.3 turbo engine's torque output is near the top of T9's performance envelope. It would seem that Ford's choice of manual and automatic transmissions were both marginal at best for use in the XR4Ti. Even so the T9 can give better than average service when driven sensibly. However, they do not fair well when abused! A sure sign of problems is a "growling" input shaft bearing. The sooner this is attended to the better. When the input bearing fails it will take with it some, or all, of the gearing making for an expensive repair bill. We can supply individual T9 replacement parts from this list as requested.

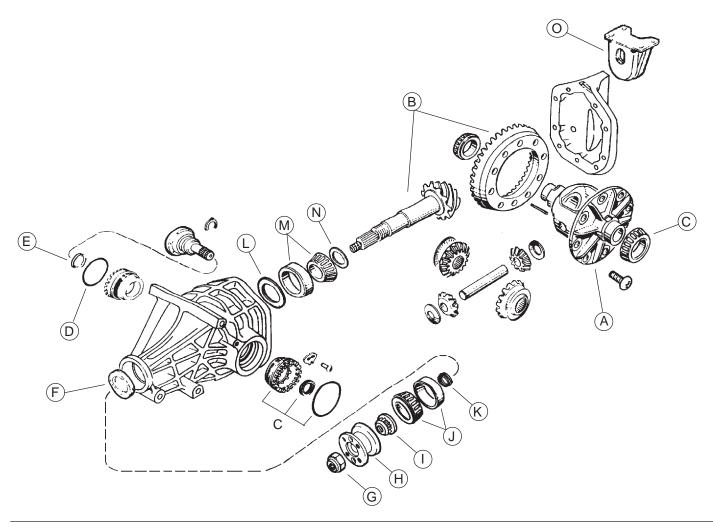
paris	from this list as requested.		
▲ A	Snap Ring- front input shaft (large)	M701	\$3.00
▲B	<u>Circlip</u> - front input shaft (small)	M701A	\$2.00
	specify size 2.16, 2.24, 2.33, 2.42, 2.5	0mm	
▲C	Bearing- input shaft roller bearing	M702	\$89.50
▲ D	Input Shaft- for XR4Ti		
	for Scorpio		
▲E	Bearing - rear input needle cage	M704	\$29.90
▲F	Syncronizer Ring- 3rd/4th gear sync	ro M712	\$98.00
▲G	Blocker Spring- syncronizer	Z60784	.35c
ΔH	Snap Ring- specify size below	M704A	\$2.00
	1.63, 1.74, 1.85mm		
▲ I	Syncronizer Assembly- 3rd/4th gear s	syncro unit	
▲ J	<i>Gear</i> - 3rd gear		
▲K	Thrust Ring- retainer 3rd gear		\$2.00
▲ L	Thrust Washer- thrust washer 1/2	Z61144	\$2.72ea.

▲ M *Gear*- 2rd gear

▲ N	Syncronizer Ring- 1st/2nd gear	M711	\$69.00
▲ O	Blocker Spring- syncronizer		
▲P	Mainshaft w/Reverse- mainshaft w/reverse	e gear	
$\triangle Q$	<i>Gear</i> - 1st gear	_	
▲R	Spacer- oil scoop ring		
▲S	Bearing- shaft roller bearing	M705	\$89.50
▲T	Circlip- specify thickness size below		
	2.42, 2.48, 2.54, 2.61, 2.67mm		
▲ U	Snap Ring- specify size below	M705A	.85c
	1.75, 1.81, 1.87, 1.93, 1.99mm		
▲ V	<i>Gear</i> - 5th driven gear		
▲ W	Spacer- oil scoop ring		
▲ X	Blocker Spring- syncronizer		
▲ Y	Syncro Hub- 5th gear syncro hub asse	mbly	
	Syncronizer Ring- 5th gear	M713	\$55.50
$\triangle AA$	Syncronizer Hub- 5th gear syncro hu	ıb	
	B Bearing roller bearing (1987 and up)		\$59.50
▲ BE	B Bearing- 19mm needle (85-87) <i>21 requ</i>	ired M70	7N \$1.89
	Spacer/Washer- (1985-87) 2 to 4 requi	ired M70	7S \$1.50
▲ CC	Gear Cluster- countershaft gear clus		
▲ DE	D <u>Bearing</u> - roller ball bearing	M706	\$133.00
▲ EE	Circlip- specify thickness size below		
	1.88, 1.95, 2.12, 2.19, 2.25mm		
▲ FF	Gear- 5th driver gear		
	Nut-countershaft nut (12 sided)	M706N	\$8.90
	Gountershaft- shaft only		
	Gear- reverse idler gear		
	Bushing- reverse idler bush		
	Idler Shaft- shaft for reverse idler g	ear	

Rear Differential Components





<u>Complete Rear Differential Assembly</u>- New assembled Ford rear differentials with limited slip (3.92:1 ratio). Remove old center section as a whole and replace. Not inexpensive, but a value when you add up the individual component costs and the labor charges on a rebuild.

▲ A *Ford LSD Unit*-as standard on some European Sierra models. For std. 7.5 ring & pinion

Quaife LSD Unit- none better for ultimate strength and smooth performance. For std. 7.5 ring & pinion- includes Cosworth size (large) drive flanges. See page 10 for more information on this item.

DISCONTINUED

▲ B Crown Wheel & Pinion-

▲ B Crown Wheel & Pinion-

▲ C <u>Bearing & Seal Repair Kit</u>- complete differential housing, bearings, oil seal, o'ring. (each) per side **M721** \$165.00

▲ D <u>O' Ring</u>- differential bearing housing o'ring

M722 \$3.00

▲ E *Oil Seal*- differential bearing housing oil seal

M720 \$17.85

▲ F <u>Oil Seal</u> - pinion oil seal	M725	\$24.25
▲G <i>Flange Nut</i>	M726	\$3.65
▲H <i>Flange Assembly</i>		
▲ <u>Pinion Nut</u>	M727	\$13.05
▲J <u>Roller Bearing</u>	M723	\$119.00
▲K <u>Crush Collar</u>	M729	\$12.70
▲L <u>Spacer</u>		
▲ M Roller Bearing	M724	DISC
▲ N Shim- specify size when ordering		
Gasket- Rear Differential XR4 & Scorpio	DISCOI	NTINUED
▲○ <u>Differential to Body Mount</u> -XR4	M430	\$212.50
▲○ <u>Differential to Body Mount</u> -Scorpio	G430	\$139.45

Note: most differential components are similar for XR4 and Scorpio.

Archive Photos



1987 Final inspection for a group of Sierra RS500's at the Aston MartinTickford Plant at Bedworth, England.



1986 Standard R/S Cosworths outside Ford's Genk plant await delivery to Aston Martin Tickford for conversion to RS500 specification.











1986 Production of the (then new) Ford RS200 Group B rally car under way at the Reliant Motor Factory in Shenstone, Staffs -England.



1986 A group of RS200 Group B rally cars receive final fitting and quality control at the Reliant Motor Factory in Shenstone, Staffs -England.



1986 Ford published Sierra R/S Cosworth new car product literature (cover).



1986 Ford Motorsport U.K. delivers R/S Cosworths for the upcoming "Sierra Challenge" road race series- England.

PAGE 3	Front Suspension & Steering		
Front Sway B	Sar- Cosworth 28mm	M407	209.00
Front Strut- S	Spax Adjustable (each) XR	M401A	174.50
Front Strut- S	Spax Sport- fixed rate- (each) XR	M401V	125.00
Front Strut- B	Bilstein-Gas- (each) XR	M401B	129.00
	Bilstein-Gas- (each) Scorpio	DISCO	NTINUED
Front Strut- R	R/S Adjustable (each) XR	DISCO	NTINUED
Front Strut- k	Koni Sport (each) Scorpio	DISCO	NTINUED
Front Strut- B	Boge Turbo-Gas (each) XR	M401S	119.00
Front Strut- E	Boge Turbo-Gas (each) Scorpio	G401S	119.50
Front Strut- K	YB GR2 (each) XR	DISCO	NTINUED
Front Strut- k	(YB GR2 (each) Scorpio	DISCO	NTINUED
Steering Rac	k Assembly* (XR)	M434SR	349.00
Steering Rac	k Assembly* Scorpio	G434SR	349.00
*this item req	uires an additional 100.00 charge refund	dable upon co	re return
Steering Rac	k Bushing H.D. (set)	M434BH	42.00
Steering Rac	k Boot (left or right) XR & Scorpio	M434RB	15.50
Control Arm*	(left) XR	M428L	82.50
Control Arm*	(left) Scorpio	G428L	99.50
Control Arm*	(right) XR	M428R	82.50
Control Arm*	(right) Scorpio	G428R	99.50
*NEW contro	l arms (ball joints and bushings are inst	alled)	
Bushing- H.D	. (GPN) Inner Control Arm (each)	DISCO	NTINUED
	(GPN) Inner Control Arm (each) Scorpio		NTINUED
Bushings- Ur	ethane Inner Control Arm (set)	M428BU	29.50
Bushings- Ur	ethane Inner Control Arm (set) Scoprio	G428BU	35.00
Bushing (star	ndard) Inner Control Arm (each) XR	C428B	9.50
•	rethane Outer Control/Sway (set)	M428BK	59.50
	.D. (GPN) Outer Control/Sway (set)	M428BK-N	49.50
	andard) Outer Control/Sway (1 arm pair)		NTINUED
	28BK & M428BK-N are all suitable for S	,	
	low)- Sway Bar / Outer TCA (each)	M407W	4.95
Tie Rod End		M434L	27.75
Tie Rod End		M434R	27.75
	(same L or R) Scorpio	G434	28.00
	tor -H.D. Upper Strut (each) XR	M404	29.00
	/lount/Insulator- Scorpio (each)	DISCO	NTINUED
	Rotating Bearing- Scorpio (each)	G403	19.50
Upper Strut F	Rotating Bearing- XR4 (each)	M403	21.50



PRICE LIST NOTES:

- (1) Scorpio versions of listed XR4 parts will generally appear below XR4 item in *italics*.
- (2) Items that apply for both XR4 & Scorpio are noted.
- (3) Fitment notes and core charge information is also *italicized*.
- (4) We make every effort to keep this price list updated and accurate, however, we reserve the right to make price changes without notice. We can confirm current prices when taking your order.

PAGE 4 Suspension Components

Spax Sport Kit -XR	M400S	695.00
Bilstein Sport Kit -XR	M400B	749.00
Sport Spring Set (4) front/rear (-25mm) XR	M414M	275.00
Sport Spring Set (4) front/rear (standard height) XR	M414S	285.00
Sport Spring Set (4) front/rear (-30mm) Scorpio	DISC	ONTINUED
Front Spring Scorpio - Standard O.E. Ford (each)	G414	79.50
Rear Spring Scorpio - Standard O.E. Ford (each)	DISC	ONTINUED
Rear Camber Shim Kit -XR	M423R	30.00
Front Upper Strut Brace (alloy) XR	M403F	215.00
Rear Upper Shock Brace (alloy) XR	M403R	179.00
Rear Upper Shock Brace (steel) XR	M403RS	124.50





PAGE 5 Suspensi	on Components		
Bar Bushing H.D. 25mm- XR4 w/s	tandard bar	M407BU	19.50
Bar Bushing H.D. 28mm- XR4 w/Cosv	worth bar	M407BAU	19.50
Bar Bushing H.D. 28mm- Scorpio		G407BAU	20.00
Front Sway Bar Clamp- Scorpio (e	ach)	G407C	16.50
Steering Rack Assembly* XR		M434SR	349.00
Steering Rack Assembly* Scorpio		G434SR	349.00
*this item requires an additional 100	0.00 charge refunda	able upon core re	eturn
Steering Rack Bushing (each)		M434B	15.00
Steering Rack Bushings H.D. (car	set)	M434BH	42.00
Inner Tie Rod (each)-XR4		M434TK	50.00
Inner Tie Rod (each)-Scorpio		G434TK	60.75
Steering Rack Boot (left or right) >	(R & Scorpio	M434RB	15.00
Outer Tie Rod End (left) XR		M434L	27.75
Outer Tie Rod End (right) XR		M434R	27.75
Outer Tie Rod End (same L or R)	Scorpio	G434	28.00
Power Steering Pump XR4Ti* (inte	egral reservoir)		ITINUED
Power Steering Pump XR4Ti* (ren	note reservoir)	DISCON	ITINUED
Power Steering Pump Scorpio*		DISCON	ITINUED
P/S Pressure Hose XR4Ti		M434PH	62.50
Strut Boot/Bump Stop (each) XR &	•	M405B	19.00
Upper Rotating Bearing XR4 (each	,	M403	15.45
Upper Rotating Bearing Scorpio (e	ach)	G403	15.95



PAGE 6 Suspension Bushings

Pricing is listed with part numbers on this pages

PAGE 7	Rear Suspension		
Rear Sway Bar w/bush- Co	sworth 16mm (XR4)	M408	144.50
Rear Sway Bar w/bush- 19i	mm (XR4) Race Only	M408A	195.00
Rear Bar End Shackle (eac	h) -XR	M408S	44.25
Rear Bar End Shackle (eac	h) -Scorpio	G408S	31.20
Rear Bar Bush(12mm) uret	hane (each) stock XR4	M408BU	7.50
Rear Bar Bush (16mm) ure	thane (each) Cosworth	M408BAU	7.50
Rear Bar Bush (16mm) ure	thane (each) Scorpio	G408BU	7.50
Bushing*- Urethane Outer (Control Arm (each)	M424BO	24.50
Bushing*- GPN Outer Cont	rol Arm (each)	M424BO-N	30.50
Bushing*- GPN Body Beam	Mount (each)	DISCON	TINUED
Bushing*- Urethane H.D. Be	ody Beam Mount (each)	M429BU	66.50
Bushing*- Urethane Inner C	` ,	M424BI	24.50
*above bushings also Scorp			
Rear Shock- Spax Adjustat	` ,	M402A	119.00
Rear Shock- Spax Sport- fix	, ,	M402V	99.50
Rear Shock- Bilstein- Gas (,	M402B	109.50
Rear Shock -Bilstein (each		DISCON	
Rear Shock- Koni R/S Adju	, ,	DISCON	TINUED
Rear Shock- Koni Sport (ea		DISCON	TINUED
Rear Shock- Boge Turbo-G	,	M402S	95.00
Rear Shock- Boge Turbo-G	. , ,	G402S	95.00
Rear Shock- KYB (each) XI		DISCON	
Rear Shock -KYB (each) S	Scorpio	DISCON	TINUED





PAGE 8 front brake components

12/11/12

Front Caliper* (left)- XR & Scorpio	M420CL	64.75
Front Caliper* (right)- XR & Scorpio	M420CR	64.75
M420CL/CR calipers are not supplied with slide pins of	r bushings (availal	ble below)
Front Caliper Complete* (LH) includes mount & pads		90.00
Front Caliper Complete* (RH) includes mount & pads	sM420CL-R	90.00
*this item requires an additional 75.00 charge refund	able upon core re	turn
Caliper Repair Kit w/piston- XR & Scorpio	M420K4A	88.00
Caliper Seal Kit- XR & Scorpio	M420K4	22.50
Caliper Slide Bushings (2) does 1 caliper	M420CB	14.00
Caliper Slide Pins (2) does 1 caliper	M420CP	16.25
Caliper Spring (anti-rattle) each	M420CS	6.40
Front Brake Pad Set*- Mintex A/F (Semi-Metalic)	M420AF	39.00
Front Brake Pad Set*- Mintex 1144 (street/competition)M420G	119.00
Front Brake Pad Set*- Mintex 1155 (full competition)	DISCONT	INUED
*brake pads will fit both XR4 and Scorpio		
Front Rotor (standard)- XR (each)	M425	42.50
Front Rotor (standard)- Scorpio (each)	G425	49.75
Front Rotor (x-drilled)- XR (each)	M425CD	79.50
Front Rotor (x-drilled)- Scorpio (each)	G425CD	99.00
Front Rotor (Grooved)- XR (each)	M425G	84.50
Front Rotor (x-drilled & slotted combo)- XR (each)	M425CDS	89.50
Front Rotor (x-drilled & slotted combo)- Scorpio (each)		109.00
Front Rotor Cosworth 283 x 24mm (standard)	M426	89.50
Front Rotor Cosworth 283 x 24mm (X-drilled)	M426CD	145.00
Front Rotor Cosworth 283 x 24mm (Grooved)	M426G	145.00
Master Cylinder* XR4 1985-86 (Bendix)- XR	M420MC	109.50
*this item requires an additional 20.00 charge refund	•	
Master Cylinder* XR4 1987-89 (Bendix)- XR	M420MCL	122.50
*this item requires an additional 50.00 charge refund	•	
Aeroquip Front Brake Lines (pair)- XR4 (1985-86)	M419	47.75
Front Brake Line O.E. Rubber (each)- XR4 (1985-86)	M419SF	25.75
Aeroquip Front Brake Lines (pair)- XR4 (1987-89)	G419	59.00
Aeroquip Front Brake Lines (pair)- Scorpio	G419	59.00







PAGE 9 Brake Kits & Specials

FAGE 9	Brake Kits & Specials		
Front Brake Special-	XR	M420SP	105.00
Front Brake Special-	Scorpio	G420SP	115.00
Front R/S Brake Kit 2	283x24mm (standard)	M417	329.00
Front R/S Brake Kit 2	283x24mm (w/x-drill)	M417A	389.00
Front R/S Brake Kit 2	283x24mm (standard/M1144)	M418	389.00
Front R/S Brake Kit 2	283x24mm M1144/x-drill)	M418A	495.00
BAT/Wilwood Brake	Kit 283mm	M416W	729.00
Front Wheel Bearing	ı Kit (RH)-XR	M560FR	66.95
Front Wheel Bearing	ı Kit (LH)-XR	M560FL	66.95
Wheel Bearing Seal	F or R- XR	M560S	18.45
Front Wheel Bearing	r Kit (RH) Scorpio	G560FR	89.00
Front Wheel Bearing	r Kit (LH) Scorpio	G560FL	89.00
Rear Wheel Bearing	Kit (RH)-XR	M560RR	73.50
Rear Wheel Bearing	Kit (LH)-XR	M560RL	73.50
Rear Wheel Bearing	Kit (RH) Scorpio	G560RR	89.00
Rear Wheel Bearing	Kit (LH) Scorpio	G560RL	89.00
Nut- Front Hub (LH)	blue	M550N-LF	19.25
Nut- Front Hub (RH)	yellow	M550N-RF	19.25
Nut- Rear Hub (LH)	white	M550N-LR	19.25
Nut- Rear Hub (RH)	white	M550N-RR	19.25





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Price List

PAGE 10 Rear Brake Components

Rear Wheel Cylinder- XR	M420WC	35.50
Rear Brake Shoe Set (Mintex)- XR	M420R	79.00
Rear Brake Drum- XR	M420RD	69.50
Aeroquip Rear Brake Lines (pair)- XR	M419R	49.95
Rear Brake Line O.E. Rubber (each)- XR4 (1985-89)	M419SR	<i>27.45</i>
Aeroquip Rear Brake Lines (4 line set)- Scorpio	G419R	89.50
Rear Brake Hardware Kit- XR	M420K5	43.65
Rear Brake Special- XR	M420RSPL	145.00
Rear Disk Brake Kit- XR	M420RK	895.00
Hand Brake Cable- XR	M564	119.00
Handbrake Cable- Scorpio	G564	124.25
Hand Brake Cable- Cosworth	Z16567	99.50
Rear Caliper* (specify left or right) for M420RK kit		127.50
*this item requires an additional 75.00 core charge re	efundable upon d	ore return
Rear Rotor (each) for M420RK kit		52.50
Rear Brake Pad (set) for M420RK kit		25.00
Rear Rotor (standard)- Scorpio (each)	G425R	39.75
Rear Rotor (x-drilled)- Scorpio (each)	G425RCD	92.10
Rear Caliper (left)- Scorpio (each)	G420RL	124.50
Rear Caliper (right)- Scorpio (each)	G420RR	124.50
*this item requires an additional 75.00 core charge re	efundable upon d	ore return
Rear Brake Pad Set- Scorpio (Semi-Metalic)	G420R	39.00





PAGE 11 driveline components

C.V. Joint- XR & Scorpio	M550B	92.50
C.V. Boot Kit- XR & Scorpio	M550BK	24.45
C.V. Socket Head Cap Screw (6 per joint)	M550CS	1.95ea
C.V. Locking Plate (3 per joint)	M550LP	3.45ea
Axle/Halfshaft Complete* (LH)- XR & Scorpio	M550L	169.50
Axle/Halfshaft Complete* (RH)- XR & Scorpio	M550R	169.50
*axle/halfshaft, joints (2), boots (2), assembled/	greased ready for	or installation
add 75.00 core charge for this item- refundable of	on return	
Driveshaft Coupling- XR & Scorpio	M17A	84.50
Drivesahft Center Support Bearing-XR	M550SB	159.00
Drivesahft Center Support Bearing- Scorpio	US	E M550SB
Quaife LSD	DISC	ONTINUED
Clutch Kit Sachs- XR	M519K	219.50
Clutch Kit Sachs- Scorpio	G519K	257.50
Clutch Kit Sachs- XR w/ T-5 trans	DISC	ONTINUED
Clutch Alignment Tool (1" 23 spline)	S11H	6.95
Clutch Release Bearing XR	M534	26.50
Clutch Cable- XR4Ti	M562	29.50
Clutch Cable- Scorpio	G562	85.15







PAGE 12 body work & sheet metal

Front Fender (left)	DISCO	NTINUED	
Front Fender (right)	DISCO	NTINUED	
Inner Wheel Well Splash/Liner (left)	DISCO	NTINUED	
Inner Wheel Well Splash/Liner (right)	DISCO	NTINUED	
Side Blinker Lamp Pair- Clear	M317C	29.95	
Side Blinker Lamp Pair- Tint/Smoke Grey	M317S	29.95	
Door Skin (left)	DISCO	DISCONTINUED	
Door Skin (right)	DISCO	NTINUED	

Price List



PAGE 12 bod	y work & sheet metal	(continued)
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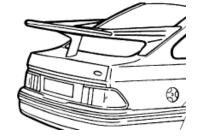
Door Handle XR/Scorpio (left)	M362L	69.25
Door Handle XR/Scorpio (right)	M362R	69.25
Door Sill- Rocker (left)	M803L	52.00
Door Sill- Rocker (right)	M803R	52.00
Rear Wheel Arch (left)	DISC	ONTINUED
Rear Wheel Arch (right)	DISC	ONTINUED
Under Battery Repair	DISC	ONTINUED
Battery Tray	M817	39.50
Rear Valance Panel	DISC	ONTINUED
Rear Hatch Lock Assembly (with 2 keys)	M815L	89.50
Cosworth Grille (with Ford emblem)	DISC	ONTINUED
Grille Surround Gasket	M320S	98.00
Cosworth Hood	DISC	ONTINUED
Cosworth Hood Vents (left & right- pair)	M814	275.00
Door Post Trim (2 pieces) Left	M340TL	29.95
Door Post Trim (2 pieces) Left	M340TR	29.95



PAGE 13 body work

F.Spoiler Bumper (R/S Cosworth) Fiberglass	DISC	ONTINUED
F.Spoiler Bumper (R/S 500) Fiberglass- w/splitters	DISC	ONTINUED
Turn Lamp- Cosworth Bumper (RH) Ford		56.50
Turn Lamp- Cosworth Bumper (LH) Ford		56.50
Clear Turn Lamps (pair) for Cosworth Bumper	M315C	79.50
Tinted Turn Lamps (pair) for Cosworth Bumper	M315S	79.50
Fog Lamp- Cosworth Bumper (RH)	Z60988	162.60
Fog Lamp- Cosworth Bumper (LH)	<i>Z</i> 60966	162.60
Rear Bumper- Fiberglass	DISC	CONTINUED
Rear Wing/Airfoil (R/S Cosworth) Fiberglass	DISC	CONTINUED
Rear Wing/Airfoil (R/S 500) Fiberglass	DISC	CONTINUED
Wheel Arches (4) &		
Side Skirts (2) (R/S Cosworth) Fiberglass	DISC	CONTINUED
Hood (R/S Cosworth) includes Vent Louvers	DISC	CONTINUED
Hood Vent Louvers (2) (functional)	M814	275.00





PAGE 14 trim & lighting

Sierra Emblem	M321S	29.50
Sierra XR4i Sticker (red)	M352R	15.10
Sierra XR4i Sticker (anthracite/gray)	M352A	5.00
Sierra R/S Emblem	DISCO	NTINUED
Cosworth Emblem	M321C	24.95
Sierra R/S Cosworth Sticker	DISCONTINUED	
R/S Emblem	M352RS	31.50
Ghia Emblem (crest)	M352G	33.75
Ghia Emblem (script) -rear deck lid on Scorpio	G352G	34.50
2.9i Emblem -rear deck lid on Scorpio	G352L	23.95
Scorpio Emblem- rear door sail panel	DISCONTINUED	



Ford Emblem	M321	24.50
Sierra Eurolamp Kit- lamps, bulkheads, bulbs	DISCON	ITINUED
Sierra Eurolamp (left) lamp only	DISCON	ITINUED
Sierra Eurolamp (right) lamp only	DISCON	ITINUED
Scorpio Euro Lamp Kit-lamps, grille, turn lamps, bulb	s DISCON	ITINUED
Fog Lamp Scorpio (left)	DISCON	ITINUED
Fog Lamp Scorpio (right)	DISCON	ITINUED
Bulb H4 55/60 watt	Z H455/60	4.00
Bulb H4 55/100 watt	Z H455/100	8.79
Bulb H4 80/100 watt	Z H480/100	15.00
Bulb H3 55 watt	Z H355	4.00
Bulb H3 100 watt	Z H3100	8.79
Bulb 880 50 watt "Blue Ion" (for XR4Ti fog lamps)	Z 880/50	8.79
Bulb 9004 "Bright White" 45/65 watt	Z 9-45/65W	11.60
Bulb 9004 55/100 watt	Z 9-55/100	10.98
Bulb 9004 80/100 watt	Z 9-80/100	12.98
Bulb 9004 "Blue Ion" 55/100 watt	Z 9-55/100B	12.98
Relay (Hella #87118) 12 volt	Relay12	14.10
Tail Lamp Seal (each)	M319S	9.95
Tail Lamp Socket (each)	M319LS	79.50



PAGE 15 parts & accessories

	_	
Rear Lamp Set (clear) XR4	M319C	199.00
Rear Lamp Set (tinted) XR4	M319T	199.00
ECU Cover R/S Cosworth	M324	89.00
Instrument Panel Bulb (each)	M330L	5.95
Warning Lamp Bulb (each)	M330WL	5.95
Torch Key & Battery XR4	DISC	ONTINUED
Torch Key Blank XR4	DISC	ONTINUED
Lamp & Battery XR4 & Scorpio	DISC	ONTINUED
Standard Key XR	M309K	9.90
Ignition Lock Assembly (w/ 2 keys) XR	M350L	85.00
Door Lock Assembly (w/ 2 keys) XR	DISC	ONTINUED
Rear Hatch Lock Assy (w/ 2 keys) XR manual	M815L	89.50
Rear Hatch Lock Assy (w/ 2 keys) XR central locking	M815LC	79.50
Complete Car Lock Set - XR	M309LS	179.00
Rear Hatch Striker	M815S	12.00
Hatch Lock Retaining Clip	M815C	3.45
Window Switches XR	M340S	97.25
Window Switch Scorpio	G340S	74.00





PAGE 16 parts & accessories

Windshield Wiper Headlamp Switch (Stalk)- XR4	DISC	ONTINUED
Turn Signal Flash/Hazard Switch (Stalk)- XR4	M305	334.05
Pedal Pad- Accelerator XR & Scorpio	DISC	ONTINUED
Pedal Pad- Clutch XR & Scorpio	M365C	19.50
Pedal Pad- Brake (manual) XR & Scorpio	M365B	18.50
Pedal Pad- Brake (automatic) XR & Scorpio	DISC	ONTINUED
Rear Hatch Lift Strut (each)- XR4	M308	30.00
Rear Hatch Lift Strut (each)- Scorpio	G308	31.50
Rear View Day/Night Mirror- XR4 & Scorpio	M339	110.00
Replacement Stick-on Pad for Rear View Mirror	M339S	3.89
Hella Horn Set	M312	45.00



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PAGE 17 books & manuals		
European Sierra Workshop Manual	M204	33.75
European Sierra XR4i 2.8L Workshop Manual	M204A	33.75
European Scorpio/Granada Workshop Manual	G204	37.40
The Complete 2.3 Turbo EEC-IV Handbook	M209	19.00
Shop Manual CD	M204CD	24.50
PAGE 18 cooling system (XR4)		
Hose- heater valve to pipe (to oil cooler)	M421HC	16.50
Hose- heater valve to heater core & pipe (front) to thermo housing	M421H	8.90
Hose- heatervalve to pipe (upper @ rear) & oil cooler to pipe	M421HB	14.95
Heater Valve- XR & Scorpio	M421V	115.50
Hose- water pipe to oil cooler-over v. cover	M421HE	29.00
Hose- oil cooler to intake mfld.	M421HD	7.95
Oil Cooler	DISC	ONTINUED
Hose- pipe @ front to water pump	M421HA	11.50
Hose- pipe @ front to thermo housing	M421H	8.90
Thermostst Housing- H.D. cast iron	L2F	43.90
Water Pump (new)	L6A	73.10
Water Pump (recon)	L6AR	39.00
Hose- radiator lower 85-88(MT & auto)	M421BH	39.00
Hose- radiator lower 1989 (MT & auto)	M421BH9	33.50
Hose- radiator upper 85-88 (MT & auto)	M421TH	22.25
Hose- radiator upper 1989 (MT & auto)		ONTINUED
Hose- expansion tank (top fitting) tovalve cover pip		11.45
Coolant Tank1985-88* (with level sensor bung)	M421E	148.75
Coolant Tank 1989* (without sensor bung)		ONTINUED
*coolant tanks require Scorpio thread-on cap use	G421C	
Coolant Tank Thread-on Cap (for above tanks)	G421C	12.45
Water Level Sensor (in radiator surge_tank) XR4	M421LS	99.50
Tank Gromet, Spacer Ring, Lock Collar (for above sen	,	ITINUED
Hose- expansion tank (middle fitting) to radiator	M421TM	11.50
Hose- expansion tank (lower fitting) to radiator drain I 29.00	ine	M421TL
Hose- expansion tank to W/Pump (automatic "Y" hos	•	44.20
Radiator XR4Ti- 85-88 (MT)		ONTINUED
Radiator XR4Ti- 1989 (MT)		ONTINUED
Radiator XR4Ti- 85-88 (Auto)		ONTINUED
Radiator XR4Ti- 1989 (Auto)		ONTINUED
Mount/Bushing (radiator top)	M421RM	16.00
Electric Fan 16" (puller)	A16FANPL	95.50
Thermostatic Fan Relay (170-210f adjustable)	AFTR1	79.00
Blower Motor & Fan- A/C & heater	M470A	389.00
Heater Core	M471	99.50
Hose- Hi-temp silicone (1 foot length- makes 3 hose: Hose- Lower drain pipe @ radiator lower (MT)	s) M421W1 M421HF	7.00 8.50
PAGE 19 cooling system (Scorpi	io)	
Hose- heater valve (out) to core	DISC	ONTINUED
, ,	G421HB	19.80
Hose- heater valve to engine		
Hose- neater valve to engine Hose- heater valve (inlet) to core	DISC	ONTINUED











PAGE 19 scorpio cooling system (continued)

Radiator (automatic)	DISCO	NTINUED
Radiator (manual)	DISCO	NTINUED
Hose- tank to thermstat housing	DISCO	NTINUED
Hose- upper radiator	G421TH	46.50
Hose- tank to water pump	G421HH	63.80
Water Pump (new)	G421	139.00
Water Pump (recon)	G421A	69.00
Hose- bypass/ water pump outlet to inlet mfld.	G421HP	40.80
Hose- lower radiator	G421BH	40.50
Hose- lower radiator (late 89) w/tee off hose	G421BH-9	72.40
Hose- to oil cooler pipe	DISCO	NTINUED
Hose- oil cooler pipe to oil cooler	G421HL	33.60
Coolant Tank (late style 6-88>2-92) rectangular shape	G421TL	119.50
Coolant Tank (early style > 6-88) curved side	DISCO	NTINUED
Coolant Tank Cap (thread-on) Scorpio & late XR4	G421C	12. 4 5
Oil Cooler	DISCO	NTINUED
Heater Control Valve- XR4 & Scorpio	M421V	115.50
Heater Core- Scorpio	M471	99.50
Mechanical Fan Clutch Assy	G422	269.00
Electric Fan 16" (puller)	A16F-PL	95.50
Thermostatic Fan Relay (170-210f adjustable)	AFTR1	79.00
Blower Motor & Fan- A/C Heater (Scorpio)	M470A	389.00





PAGE 20 scorpio cooling system

Hose- heater valve (out) to core	DISC	ONTINUED
Hose- heater valve to engine	G421HB	17.50
Hose- heater valve (inlet) to core	DISC	ONTINUED
Hose- heater valve to pipe	DISC	ONTINUED
Heater Control Valve- XR4 & Scorpio	M421V	115.50
Hose- coolant pipe to oil cooler from heat valve	G421HL	33.60
Oil Cooler- oil to water heat exchanger	DISC	ONTINUED
Hose- oil cooler to coolant pipe	G421HM	28.90
Hose- coolant pipe from oil cooler to water pump	DISC	ONTINUED
Hose- bypass/ water pump outlet to inlet mfld.	G421HP	37.10
Hose- upper radiator (late 89) w/vent	DISC	ONTINUED
Hose- coolant tank to thermo housing	G421HF-9	25.05
Tank Lever Sender	M421LS	99.50
Lever Sender Install Kit	DISC	ONTINUED
Cap/Plug- Rubber	G421P	5.00
Hose- lower radiator (late 89) w/tee off hose	G421BH-9	72.40
Coolant Tank (6/88>89) Oval Type -USE G421TL	DISC	CONTINUED
Coolant Tank (late style 6-88>2-92) rectangular shape	G421TL	119.50
Radiator Cap (thread-on) Scorpio & late XR4	G421C	12. 4 5







Evaporator- (XR4 & Scorpio)	M470E	245.75
Expansion Valve - (XR4 & Scorpio)	M470EV	46.50
Blower Motor - (XR4) O.E. Ford	M470A	347.50
Blower Motor - (Scorpio) O.E. Ford		USE M470A
Refrigerant Hoses*- (XR4Ti only)	M470H	169.00
Refrigerant Hoses*- (Scorpio)	G470H	159.00
*this item requires an additional 100.00 charge refu	undable upon	core return
Compressor- (XR4 & Scorpio) includes clutch	M470C	429.00



PAGE 21	A/C system	(continued)
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05/13/13

Clutch Assembly*- (XR4 & Scorpio)	M470CL	157.50
*this item requires an additional 25.00 charge refunda-	able upon core i	return
Condenser- (XR4)	M470D	335.00
Condenser- (Scorpio)	G470D	335.00
Electric Condenser Fan- 16" Pusher (XR4 & Scorpio)	A16FAN-PU	95.50
Fan Mounting Tie Set (for above fan)	ABKT1	9.95
3-way Pressure Switch- (XR4 & Scorpio)	DISCON	ITINUED
Receiver/Dryer- (XR4 & Scorpio)	M470R	108.00
Rotary Fan Switch HVAC- XR	M470FS	60.00



Wastegate Actuator* -Reman.	DISCO	NTINUED
*this item requires an additional 30.00 charge refund	lable upon core	return
Turbo/Reman* (specify auto or 5-speed)	DISCO	NTINUED
Performance Turbo*	DISCO	NTINUED
*this item requires an additional 100.00 charge refund	dable upon core	e return
Intercooler Kit	DISCO	NTINUED
Adjustable Boost Kit	M521BV	49.95
Wastegate Actuator (adjustable rod- dual port)	M521WA2	189.00
Cockpit Mount Adjustable Boost Kit (remote valve)	M521TB	129.50
Turbo Oil Feed Pipe	M522P	39.50
Turbo Inlet Hose (45 degree elbow)	M22H	49.50
Turbo Base Gasket	L521GT	10.40



FAGE 23 eligille & related		
Main Bearing Set (STD)	L16A	57.50
Main Bearing Set (+.010")	L16B10	57.50
Main Bearing Set (+.020")	L16B20	57.50
Main Bearing Set (+.030")	L16B30	57.50
Rod Bearing Set (STD)	L16H	26.95
Rod Bearing Set (+.010")	L16110	26.95
Rod Bearing Set (+.020")	L16120	26.95
Rod Bearing Set (+.030")	L16130	26.95
Cam Bearing Set	L16M	19.75
Cam Bearing Set- grooved	L16MA	22.50
Aux. Shaft Bearing	L5DC	20.25
Connecting Rod Bolt Set H.D. (standard 2.3 rod)	L4FS	57.75
Connecting Rod Bolt Set H.D. (5.7" Chevy rod)	DISC	ONTINUED
Head Stud Set H.D.	L2DS	139.00
Main Stud Set H.D.	L2KS	115.50
Full Gasket Set (complete engine) Felpro	L15AA	95.00
Top End Gasket Set Felpro	L15BA	74.10
Bottom End Gasket Set (block, crank & sump) Felp	ro L15CA	44.10
Pan Set- sump rails & seals (cork)	L15CP	49.85
Head Gasket H.D. (Ford Motorsport turbo style)		ONTINUED
Head Gasket H.D Felpro	L15DA	21.50
Head Gasket Competition (extreme duty racing gask		ONTINUED
Head Space Shim .020"		ONTINUED
Valve Cover Gasket (standard cork)	L15E	6.79
Valve Cover Gasket H.D. 2300 (hi-temp rubber)	L15EA	33.00
Valve Cover Gaskets H.D. 2.9L V6 (hi-temp rubber)	G15EA	19.80
Intake Manifold Gasket Set	L15FA	11.40
Intake Manifold Gasket Set 2.9L V6	G15F	43.50
Water Outlet Gasket (thermostat housing)	L15N	1.40







PAGE 23	engine & related (conti	inued)	
Water Pump Gasket (pump to block)	L15P	CALL
Crankshaft Rear Seal		L15Q	19.75
Camshaft Seal		L15R	11.65
Auxiliary Shaft Seal		L15S	11.95
Crankshaft Front Sea		L15T	17.70
Inlet Hose- Turbo to T	.Body (silicone blue)	M22H	49.50

PAGE 24 engine & related

-		
Air Filter- XR4Ti (2.3L Turbo)	M22P	42.50
Air Filter- Scorpio (2.9L V-6)	G22P	40.75
Mylar Fyre Foil Sleeve -10 (7/8" I.D.) per foot	320510	5.95
Mylar Fyre Foil Sleeve -12 (1" I.D.) per foot	320512	6.45
Mylar Fyre Foil Sleeve -16 (1 1/4" I.D.) per foot	320516	6.95
Mylar Fyre Foil Sleeve -20 (1 1/2" I.D.) per foot	320520	7.95
Motor Mount Insulator (left or right same) XR- each	DISCONTINUED	
Motor Mount Insulator (L or R same) Scorpio- each	G433	149.00
Transmission Mount/Insulator- Scorpio	G433T	89.50
Transmission Mount/Insulator H.D Scorpio	DISCONTINUED	
Transmission Mount Insulator (round) XR4	M433T	94.50
Belt- XR4Ti (1985-89) W. Pump, Alt, P. Steering	M6G	16.45
Belt- XR4Ti (1986-89) A/C Comp.	M6H	15.45
Belt- XR4Ti (1985) A/C Comp.	M6HA	13.45
Belt- Scorpio (1988-89) Fan & Power Steering	G6G	19.80
Belt- Scorpio (1988-89) Alternator	G6GA	15.50
Belt- Scorpio (1988-89) A/C Comp.	G6H	17.40
Ignition Wire Set- XR4Ti (8mm)	L9HT	47.50
Ignition Wire Set- XR4Ti (8.5mm KV85 wire)	M9HT	75.50
Ignition Wire Set- XR4Ti (10mm R-100 wire)	M9HTR	89.50
Ignition Wire Set- Scorpio (8mm)	G9HT	59.00
Ignition Wire Set- Scorpio (8.5mm KV85 wire)	G9HT9	94.50

PAGES 25-26 engine & related

Pricing is listed with part numbers on these pages

PAGE 27	engine & related
FAGL 21	ciiqiiic a icialcu

FAGE 21 eligille à l'elateu		
Distributor Cap H.D. 2.3L	L9B	19.45
Distributor Cap H.D. 2.8L V6	G9B	29.15
Distributor Rotor H.D. 2.3L (85-86 screw-down type)	L9F	7.95
Distributor Rotor H.D. 2.3L & V6 (87-89 push-on type	e)	L9FA
11.75		
TFI Module 2.3L -Motorcraft XR & Scorpio	L9M	85.50
Distributor* 2.3L	L9AB	119.00
*this item requires an additional 35.00 charge refundable upon core return		
Distributor* 2.9L V6	G9AB	124.50
*this item requires an additional 55.00 charge refunda	ble upon core	return
Computer* XR4Ti (specify auto or manual)	DISC	ONTINUED
Computer* Scorpio (specify auto or manual)	DISC	ONTINUED
Electric Fan Switch -XR	M450FS	35.15
Knock Sensor -XR	M450KS	65.00
Engine Coolant Temp. Sensor (ECT) -XR & Scorpio	M450EC	37.95
EGR Valve - XR4	M450EGR	149.00
Idle Speed Sensor (Air Bypass Valve) -XR & Scorpic	M450IS	99.00
Throttle Position Sensor (TPS) -XR (order with year)	M450TP	59.00
Oxygen Sensor -XR	M450OS	60.50









BAT Inc. ◆ 7630 Matoaka Road., Sarasota, FL. 34243 ◆ (941) 355-0005 fax (941) 355-4683

Price List



PAGE 27	engine & rela	ated (continued)

1 / CE 21 Origino & Tolatoa (Continue			
Oil Pressure Switch -XR	M450P	7.75	
Water Temp Gauge Sender (purple band) -XR	DISCO	DISCONTINUED	
PCV Valve- XR	M450V	6.00	
Air Charge Temp Sensor (ACT)- Scorpio	G450A	32.20	
Coolant Temp. Sensor (ECT)- XR & Scorpio	M450EC	37.95	
EGR Valve- XR4	M450EGR	149.00	
MAP Sensor -Scorpio	G450M	97.50	
Oil Pressure Switch -Scorpio	G450P	9.05	
Oxygen Sensor -Scorpio	G450OS	137.50	
Vehicle Speed Sensor- Scorpio	DISCONTINUED		
Throttle Position Sensor- Scorpio	DISCONTINUED		
A/C Compressor -XR & Scorpio	M470C	429.00	
Alternator* -XR	DISCO	NTINUED	
Alternator *-Scorpio	DISCO	NTINUED	
*this item requires an additional 10.00 charge refundable upon core return			
Starter* -XR	DISCO	NTINUED	
Starter* -Scorpio	DISCO	NTINUED	
*this item requires an additional 30.00 charge refundable upon core return			
Fuel Pressure Regulator -XR	DISCO	NTINUED	
Electric Fuel Pump- XR (high pressure) in line	DISCO	NTINUED	
Electric Fuel Pump- XR (low pressure) in tank	DISCO	NTINUED	



PAGE 28 transmission related

Oil Seal- input shaft (front) T9	M703	27.20
Gasket- input bearing retainer to main case T9	M702G	7.60
Gasket- top cover T9	M716	21.00
Oil Seal- extension housing (tail shaft) T9	M719	29.00
Gasket- bearing carrier to main case T9	M709	14.70
Gasket- carrier to ext. housing (tail) T9	M708	30.60
Short Shift Kit	M715	67.50
Shifter- competition gear lever (shifter) assembled	M717	139.50
Torco Gear Oil (quart)	DIS	CONTINUED
Quadrant & Pawl Kit	DIS	CONTINUED
Manual Clutch Adjuster Kit	DIS	CONTINUED



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Pricing is listed with part numbers on these pages



Merkur Related Overstocks & Specials

Updated 03/31/09



Fuel Injector Wiring Harness

Finally a replacement for the discontinued XR4ti fuel injector wiring harness; exact replacement for stock with all standard connectors. Just plug and play.

Fuel Injector Wiring Harness

M7H

\$89.50



Automatic Transmission Filter Special

These came to us in a surplus parts deal. Name brand automatic transmission filter kits at 25-50% off the usual parts counter price. Change the filter and keep your automatic transmission in top condition. *Quantities are limited.*

Transmission Filter Kit XR4Ti (C3) M740F \$11.75
Transmission Filter Kit Scorpio (A4LD) G740F \$17.50



Belt & Tensioner Special

Cam belts should be replaced every 40K. Even if the belt has been replaced numerous times, most cars still have their original tensioner in service. Here is your chance to save on new belt tensioners and belts. An \$70.00 value- **SAVE \$10.50**. Tensioners are an updated design with a (non split) belt contact surface and sealed GMB roller bearing.

Tensioner & Belt Special L5K \$59.50 Tensioner (only) new design L51 \$49.50



Hose Kits 1985-88 XR4ti

Most, if not all, XR4ti water hoses have been discontinued by Ford. We have undertaken reproduction of the standard hoses, bend for bend, for correct fit and performance. We can supply hoses as individual items (roughly 15 pieces) or as a complete hose set. Purchase a kit and get all the replacement rubber hoses for either the XR4ti 1985-88 w/5-speed or 1985-88 automatic at a reduced cost, and the convenience of ordering one part number. (save 25.00 over individual part price)

Hose Kit 1985-88 XR4ti (5 speed) M421K \$209.00 Hose Kit 1985-88 XR4ti (automatic) M421KA \$209.00



Front Lower Control Arms

Here is a popular item, in fact they are one of our best sellers. New lower control arms assembled complete with ball joint, inner & outer (castellated type) bushings. Our (already low) regular price on XR4 control arms are \$75.00 each and Scorpio arms at \$99.00 each. This deal is buy 1 arm and get the other at 1/2 off (a 25% savings).

Control Arm (pair) XR4 M428PR \$139.25 Control Arm (pair) Scorpio G428PR \$169.00



Tie rod ends should be replaced when they show wear or more commonly when replacing other front end components. Getting it all done once and only paying for one alignment does make sense. Buy one at regular price \$24.00 (XR4) \$28.00 (Scorpio) and get the other 75% off.

Tie Rod End Outer (Pair) XR4 M434PR \$35.00 Tie Rod End Outer (Pair) Scorpio G434PR \$44.50



Merkur Related Overstocks & Specials

Updated 12/28/07



Steering Rack Boots

By this point in time almost all XR's and Scorpios need to have their rack boots replaced. Rips or cracks in the boot will allow dirt and grime in and damage the steering rack. We offer a high quality rubber steering rack boot with clamps included. The regular price on boots is \$15.00 each. Save \$5.00 on the pair.

Steering Rack Boots (pair) XR & Scorpio M4

M434RP



Inner Tie Rods

Inner tie rods should be replaced when the socket end shows wear or more commonly when replacing other front end components. Getting it all done once and only paying for one alignment does make sense. We make it easy to subscribe to that way of thinking. Buy one at regular price \$50.00 (XR4) and get the other 75% off. Sorry, no Scorpio version on this deal.

Inner Tie Rods (Pair) XR4

M434TP

\$74.50

\$25.50



EGR Valves

With Ford list price (before they were recently discontinued) at \$325.00, EGR valves are not an easy item to obtain at a reasonable price. We contracted a manufacturer to do some for us, and can offer them at better than 50% off.

EGR Valve XR4Ti

M450EGR

\$149.00



Steering Column Couplings & Bush Kits NEW

Sometimes movement in the steering is not in the rack but the various column componentsbeing worn. We now have replacement heavy duty couplings for both XR4 & Scorpio and a bushing/bearing kit to repair a common ailment with the Scorpio.

Steering Column Coupling- XR4	M434SC	\$69.00
Steering Column Coupling- Scorpio	G434SC	\$72.45
Steering Column Bush/Bearing Kit- Scorpio	G434SCB	\$29.50



We now have replica "Y" coolant hoses for automatic transmission XR's. Stock fit, uses brass block at tee.

Y Coolant Hose

M421Y

\$44.20



Terms of Business

Hours of Operation

Order desk hours are Monday through Friday 9:00 a.m. until 5:00 p.m. Eastern Time. Whenever possible orders received before 12:00 noon will be processed and shipped the same day. If anyone would like to visit our location we would like to request that you please make an appointment before dropping by. We enjoy seeing our customers, discussing their cars, and showing them our latest developments, however, some days or times of day are better for us to give the attention we like to offer.

Ordering Procedure

You may place an order by telephone, fax, or by mail. Ordering by telephone will connect you to a technical-sales advisor who will help with any questions, or make ordering recommendations, if you require. Knowing your 6 digit BAT customer number, catalog part numbers, quantities, and description of order items will help minimize any possible errors in processing your order. Telephone orders may be placed during business hours as listed above. Fax orders may be placed anytime day or night.

Payment

Payment may be made by Visa, Master Card, Amex, Money Order or Personal Check. Orders which have been paid for by Personal Check will be shipped only after the check has cleared (allow up to 14 days). Orders accompanied by Personal Checks that have been bank certified will be shipped with out delay. We have no objections to shipping on a COD basis if required, however, all COD's must be paid upon delivery with money order or certified check. When ordering by mail or fax by Visa or Master Card be sure to include your card number and expiration date. Residents of countries outside the United States must prepay for their goods in U.S. currency. All prices for goods shipped outside the continental United States are quoted FOB Sarasota, FL. All shipping/duty charges must be the responsibility of the consignee at rates applicable to that particular country.

Shipping

Unless otherwise stated all orders will be shipped by United Parcel Service (UPS) surface system. Actuall UPS rates are charged based on package weight, zone (distance traveled from source) and insured value. We do **NOT** charge additional "handling" fees. We can also offer express (overnight, 2 day or 3 day) service if required, check with us for details and additional charges. Items too large or heavy for UPS service will be shipped common carrier (truck) freight collect. Optional shipping services include Surface Mail, Air Mail, and Air Freight at current rates.

Back Orders

We dislike back orders as much as you do, and although we carry a huge inventory of merchandise it is inevitable that we will sometimes run out of certain items. In this case we will hold the order open and ship the back ordered item directly when the item becomes available. We **NEVER** charge for back order items until they actually ship. If an item looks like it will be on back order for longer than 4 weeks we will try and let you know the approximate time of delivery. You will then have the opportunity to reconfirm or cancel your order.

Privacy & Security

Your personal information is used/maintained to facilitate the services you request and provide you with a smooth, efficient service. As a matter of policy, personal data is strictly used for internal purposes only. BAT treats personal data as an asset that must be protected against loss and unauthorized access. Our main computer network is **NOT** connected to any outside source and we employ many different security techniques to protect all data from unauthorized access.

Special Orders

Some items that we offer are available as special orders. This includes custom variations on catalog items and race prepared parts. All special order items require a 50% deposit at the time the order is placed with the balance due at time of shipping. You will be advised at the time of your order if any item falls into this category.

Returns

All returns must be authorized by BAT with in <u>30 days</u> of the invoice date and must be sent prepaid. Returns must have an authorized RGA number and be accompanied by a copy of the original invoice. A restocking charge of 20% may be assessed at our discretion depending on the reason for the return. Certain parts such as bearings, books, electrical items and piston rings or any part that has been modified or installed in any way are not returnable. Return items totaling less than \$20.00 can be returned for store credit only.

Warranties

All parts are covered only by the manufacturers warranties and/or guarantees. BAT Inc. can assume no responsibility or liability for use or application by the user. Claims for goods damaged in transit are the responsibility of the carrier. You should always examine the contents of your package and notify the carrier immediately if there is any sign damage.

-- Important Notice -

Some of the equipment in this catalog is intended for racing or off-highway use in the United States. BAT Inc. ships all over the world so we must make it the responsibility of the customer to check the legality of fitting any part to his/her car. There are many different State, Federal and provincial regulations governing the replacement of automotive parts and BAT assumes no responsibility or liability for their illegal use. Please check the regulations in your area before ordering.