OWNER'S MANUAL

RC–35

MONOBOX SUSPENSION FORK SERIES

Congratulations on purchasing the RC–35 Monobox fork. We're confident that the RC–35 will perform to the very highest of standards, even through extended or hard racing use.

The RC–35 Monobox fork is designed as a modular system. This means that not only can you choose from an extensive range of specifications for your fork so that you can make the fork exactly what you want it to be, but also add/alter the specification in the future or when conditions change.

The RC–35 Monobox is designed as a competition fork & offers significant benefits in terms of improved control, traction, braking & steering accuracy. To maintain these high standards, we would recommend the owner's manual be read in detail. Should you have any queries please contact your local Authorised Pace Dealer (for service outside the UK please contact your Authorised Distributor or Dealer).

This manual covers the full range of currently available Monobox forks & modular parts, although you will need to refer to separate manual for RC–35HC (Hydraulic Cartridge) & RC–35XCS fork.

Only the very best materials have been used in the RC–35, each fork being hand assembled & quality tested to the highest of standards.

TECHNICAL DATA: RC–35 MONOBOX & RC–30 18MCDV6.

— **Steerer:** (MXC & RC–30)– 18MCDV6 straight gauge Micro-Alloyed steel. Other models: Single butted 4130 chrome moly. 25.4, 28.6, 31.8 diameters & 130, 170, 210 & Aheadset lengths.

— **Crown:** RC–35—Precision CNC machined, gullwing, hollow section, 6082–T6 (wide & narrow bodied).
RC–30—Gullwing, 6082–T6 narrow bodied XCS model.

— **Stanchions:** Straight gauge 4130 chrome moly. Micro-crack advanced bearing surface.

— **RC–30 Fork Blades:** 18MCDV6 single butted Micro-Alloyed steel.

— **2 × 2 bridge:** Double bridge design CNC machined from 7075–T6 aluminium.

— Triple butted MMC-Carbon Sliders.

— Custom matrixed multi-condition homogeneous elastomer springs available in soft, medium & hard durometers.

— Pace multi-condition double action wiper-seal.

— PTFE, carbon-loaded multi-condition high performance bearings.

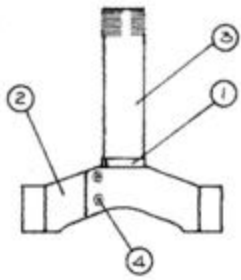
— Precision CNC machined cantilever mounts, wiper-seal housings & dropouts. 6082–T6 Aluminium.

Please Note: Specifications are subject to change for improvement without notice.

FITTING TO MACHINE

1. Push headset spacer (1) tightly up into crown (2). Check that slot in spacer is in line with corresponding slot in crown (note 31.8 steerer does not require this fitting). Pull steerer (3) fully up into crown. Tighten 2 × M5 socket head cap screws (4) to torque figure of 40 inlbs (5Nm). On 31.8 steerer push crown-race collar tightly down against crown top.

Fig. 1.



2. Tap lower headset race onto headset spacer collar.

NOTE: If steerer is not of precise correct length, cut steerer to correct length from upper end. Use original fork steerer length as a guide.

3. Clean & grease headset bearings & races (Pace RC–7 Progel recommended). Install bearings onto lower race, insert fork through headstock, then install upper bearings & race. Adjust headset, fit locknut then stem & handlebar assy. (For Aheadset type headsets: follow manufacturers instructions on headset & steerer assembly).

BRAKE FITTING & SET-UP (Brakes Mounted On-Rear).

The Modular RC–35 Monobox fork gives you a full range of brake set-up options. You might wish to read OPTIONS section before assembling brakes.

4. Grease cantilever boss itself (5) Fig. 7 & fit cantilever brakes following manufacturers instructions. Initially try fitting Spring Tang on cantilever brake arm into centre hole on cantilever boss clamp (6).

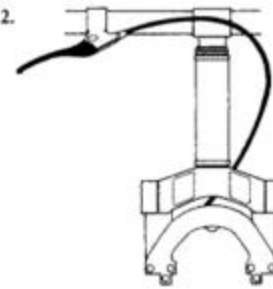
NOTE: When fitting brakes onto rear mounted position, this is a simple procedure carried out exactly as if fitting to rear stays of machine.
Fit wheel & securely tighten QR.

WARNING: The RC–35 is a competition fork & is therefore not equipped with "safety" or "double" dropouts.

Cantilever brake should swing freely, & shoe should contact rim squarely & evenly.

NOTE: Shoes are more accurately aligned if tyre is removed from rim during brake set-up.

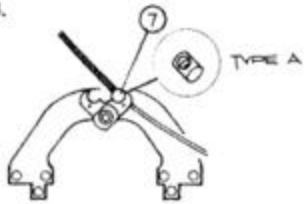
Fig. 2.



Cut length of outer cable, keeping reasonably short. Fit to machine looping cable around front of machine, then guide behind fork.

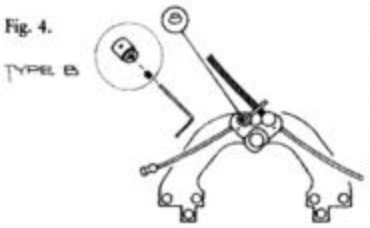
Fit cable into brass barrel (7). Use brass barrel type (A). Grease barrel, then fit into recess in same side of rocker as brake lever. Fit inner brake wire & clamp into top of cantilever arm.

Fig. 3.



Now pass straddle wire through brass barrel (8). Use brass barrel type (B). Pull cable through to approx. length, tighten grub-screw with socket head wrench & fit straddle onto cantilever arm.

Fig. 4.

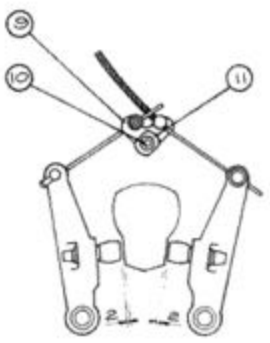


For added security, a small piece of wire can be fitted to either arm on brake rocker. This is particularly useful in retaining straddle wire onto rocker arm, but also gives added security to brake cables, particularly when racing. Insert wire through small hole beneath where brass barrel fits (see Figs. 4 & 5) & tie into knot using a set of pliers.

Brakes are now ready to set-up. Look at position of cable-rocker. Pull sufficient brake & straddle cable through so that brake pads are 1.5 to 2mm away from rim, & so that brake-rocker arms (9) should be approximately level.

With all fittings tightened, try brake lever. If both cantilevers do not swing in & out equally adjust brake rocker spring tension. This is easily achieved by loosening bolt (10) & gradually turning spring adjuster (11) with a 15mm spanner.

Fig. 5.



NOTE: If one cantilever arm is still slow in returning, spring tension in cantilever arms should be adjusted (by repositioning tang in different hole in cantilever clamp).

Cantilever brakes should swing in & out smoothly, with the brake shoes coming into full contact with rim. Brake should not feel spongy.

NOTE: Apply grease to all working surfaces. Pace RC-7 Progel recommended. Lightly oil brake wires.

SUSPENSION SET-UP (ELASTOMER SPECIFICATION ONLY)

General

The RC–35 Monobox Series of forks is the only range in the world that offers you total flexibility in specification & performance.

Please note: Differing riding conditions & specification will of course alter the set-up procedure.

This Set-Up Section deals purely with the RC–35 as an elastomer fork. Please refer to "Fork Set-Up" section in RC–35HC manual when running RC-35 with hydraulic cartridge.

Note that the RC–35 is a precision instrument manufactured to very high tolerances. A settling in period is necessary before the fork provides its correct action (approx. two-three weeks, dependant upon usage).

As a general guide, the fork is performing correctly when it is responding to all obstacles from large to small, yet does not "bottom out" (a point when fork reaches maximum travel).

You might find that seasonal changes demand different fork set-ups. In winter when the ground conditions are often softer, machine speeds are reduced, a softer elastomer could therefore be fitted which gives you more fork compliance & travel. In summer, speeds are generally higher & the fork has to absorb harder obstacles at higher speed. A harder set-up would therefore be better.
Note that all types of elastomer can be affected by extremes of temperature & can become softer in summer & harder in winter. Pace multi-condition elastomers as fitted to your fork are far less susceptible to temperature variation, however in extreme cases fit appropriate elastomers if riding/racing in these conditions over extended periods.

NOTE: Check that there is sufficient clearance in between tyre & fork crown.
MXC: 50mm
MXCD: 65mm
MD: 80mm.
Your choice of tyre profile will affect this clearance.

A fork which is set up so as not to work except at high speed or when downhilling may not work to its best potential when riding cross-country at lower speeds. There are proven benefits in terms of control & energy saving to be had when fork is set-up softer than you might think is correct.

A cable tie on one leg will show the amount of travel being offered.

Dual-Stage Tuning

To fine tune a standard elastomer stack so that you have a more predictable & linear response from the fork, you might wish to replace the top elastomer in the stack with a harder grade, & the lower elastomer with a softer grade.
This dual-staged approach will only be necessary if you find initial travel is too soft, or final part of travel is too hard.

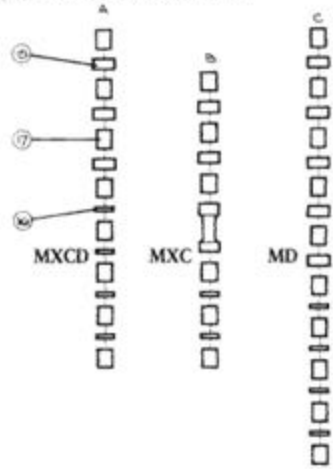
Standard Set-Up (Medium). *See note opposite**

As standard the Monobox fork is set-up with NATURAL COLOURED elastomers, i.e. medium set-up.
Elastomers per leg:
MXC: 6.
MXCD: 8.
MD: 10.

This set-up is referred to as medium. The "spring-rate" of this combination will best support a rider of average weight (63–69kg—10 to 11 stone) or under. The fork should settle approx. 10mm when machine is rolling. This is referred to as Fork Sag & is important in the overall set-up of the fork. An aggressive rider of this weight may require a harder set-up.

Under average use the fork travel should be approx.:
MXC: 40mm
MXCD: 50mm
MD: 65mm.

Fig. 8. Elastomer stack variations



Under full use fork travel will be:
MXC: 45mm
MXCD: 60mm
MD: 75mm.

Alternative Set-Ups

After the initial settling in period you might choose to alter the standard elastomer set-up in your fork to take account of your riding style, preference or local conditions (see note on seasonal changes).

It is a simple operation to alter the spring-rate in your RC–35 fork (see Periodic Maintenance & Adjustment section). You can replace any number of elastomers within the elastomer stack, & mix any grade of elastomer together (note details in Dual-Stage section however).
Elastomers are available from your Pace Dealer either as an individual component or as a kit.

Elastomers are available in four grades:
YELLOW—Soft.
NATURAL—Medium (Standard).
BLUE—Hard.

If you find the fork is slightly too soft or hard after the settling in period (noting Dual-Stage section) then replacing one or two elastomers in the stack with an appropriate grade may be sufficient to fine-tune spring rate.
If you find the fork is far too hard or soft, then replacing half of the elastomer stack should be a good starting point.
Always fit the harder elastomers at the top of the stack, & bear in mind notes on the settling in period, seasonal conditions, average fork travel, fork sag & Dual-Staging.

***NOTE: Certain countries are supplied with a different set-up to standard. For details please refer to your Distributor.**

MAINTENANCE

All RC–35 forks feature "GREASEPORT", a simple lubrication system to maintain the quality action of the fork. If you purchased your RC–35 fork as a separate component it will be supplied with its own greasegun filled with RC–7 Progel suspension formula grease. If bought as original equipment fitted to your bicycle the greasegun will not be included, but is available as a spare part (Part No. RC–007) from your Pace Dealer.

The Greaseport system means the RC–35 is the easiest fork to maintain in the world. Regular lubrication via the greaseport will maintain the superior action of your RC–35 over a longer period.

Make sure gun is full. Hold fork firmly, then push pointed nozzle of gun into grease point. Angle gun during use so that grease does not leak out from around gun nozzle.
Greasepoints are located in seal housing just beneath bridge.

NOTE: The lefthand greaseport is located behind fork leg in the seal housing just beneath bridge, whilst the righthand is located in front.

Two or three full strokes of gun should be sufficient to lubricate each leg, & this should be done after each race/long ride.

NOTE: Do not use grease other than Genuine Pace RC–7 Progel Suspension Formula Grease. This multi-condition gel has been specifically formulated to be compatible with the carbon composites, bonding system, bearings & seals used in RC–35 Forks. NOTE: The wiper-seal is designed to bleed a small amount of grease which will be visible on the stanchion during use. This is to keep the seal purged.

Keep fork clean by washing off with warm soapy water. Do not direct powerful water sprays such as a powerwasher directly at fork seals. Gently clean fork seal area after each ride.

Fork Boots/Gaitors. We do not recommend the use of this type of product. Unless they are 100% sealed, mud & water is trapped inside & collected around the fork seal, causing problems over a period of time.

ADJUSTMENT & PERIODIC MAINTENANCE

Occasionally we would recommend that the fork is stripped down & internal surfaces cleaned. This will remove contaminated grease etc. & will maintain the quality action of the fork (should you continually use the fork in very poor conditions you might need to service more often).

Should you want to adjust or alter elastomer spring rate the fork will need to be stripped down. Note that should you have an RC–35HC Cartridge fitted, this does not require maintenance & will not need to be disturbed.

Fork Disassembly

Do not loosen or remove stanchion itself from crown when RC–35HC Cartridge is fitted, as this might disturb sealing of cartridge.

Complete fork does not need to be removed from machine.

Disconnect brake cable from lever along with any computer wire attached to fork blade. Remove wheel.

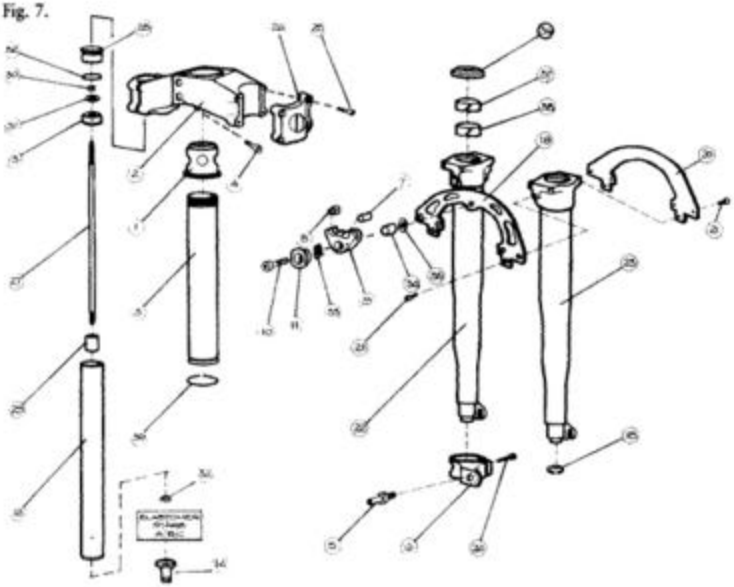
Using a small flat blade screwdriver prise off circlips (18) from bottom of fork blade & carefully draw off complete lower fork assembly (refer to Fig. 7).

Carefully clean wiper-seals, bearings & internal "bore" of carbon leg assemblies & lubricate all parts with RC–7 Progel grease.

IMPORTANT NOTE: Make sure that the wiper-seals are fully loaded with grease, in between lower & upper lips. NOTE: When fork is new, take care during disassembly. Bearings in slider body may not be fully bedded in. Also, wiper seals can easily be damaged if not carefully assembled. Great care must be taken therefore not to disturb—particularly during re-assembly.

Carefully wipe stanchions & elastomer stack with clean cloth.

Fig. 7.



Elastomer Replacement

Should you wish to alter spring-rate of elastomer stack, first rotate elastomer stack so that the two "locking holes" in both stanchion (12) & skewer-rod piston (13) line up (see Fig. 7). Insert a small pin through both, thus locking skewer rod in position enabling you to unwind retaining cup (14). 1.5 or 2mm socket head wrench is suitable.

The white compression-cups (15) & (16) in between elastomers (17) vary in two different sizes, note their position in elastomer stack during disassembly (see Fig. 8). Slide off elastomers & compression-cups, clean, grease & reassemble in precise reverse order. If elastomers of differing spring rates are being fitted, see notes in Alternative Settings & Dual-Stage sections.

Fork Re-Assembly

With skewer-rod still locked in position tighten retaining cups by hand.

Apply a smear of grease to stanchions then carefully replace complete slider assembly over elastomer stacks, guiding stanchions through wiper-seals & bearings so as not to disturb these parts.

Base of both retaining cups should protrude out of fork blade base. Refit circlips then lubricate fork through Greaseports.

NOTE: IF SLIDER ASSEMBLY DOES NOT GLIDE SMOOTHLY HOME, REPEAT PROCEDURE UNTIL A SMOOTH RE-ASSEMBLY IS ACHIEVED. *DO NOT FORCE.*

If wiper-seals & bearings require replacement, we recommend this is carried out by your Pace Dealer.

Refit wheel & re-connect brake-cable.

Test ride fork before riding or racing at speed.

SET-UP OPTIONS

FRONT BRAKE LEVER MOUNTED ON LEFT. If you choose to run front brake lever on left-hand side of handlebar, you still have the choice to run brake in front or rear of fork.

Follow "BRAKE FITTING & SET-UP" section. Note that in either set-up (brake-lever on left or right) cable should be routed to brake rocker in a loop around front of machine, mounting into rocker-arm on same side as brake lever.

This set-up will mean that in most cases the outer cable from lever will fit into brass barrel (7) Type A, then inner wire will be clamped into brass barrel (8) Type B. This will hook into cantilever arm.

Straddle wire will clamp into opposite cantilever arm with its nipple fitted into rocker.

STANDARD OPTION 1: BRAKE FRONT/REAR MOUNTED. Fork comes assembled ready to mount brake system onto rear of fork, driven by brake-rocker assembly. Should you wish to run brake on front of fork, this can be achieved by removing both bridges (19) & (20)—you will need to remove 6 × M4 socket head cap screws (21) from each bridge, & remount bridges opposite way around. Tighten M4 bridge screws & torque to 35 lbins—4.0Nm.

NOTE: *DO NOT* OVERTIGHTEN.

With a pencil, carefully mark beneath cantilever clamp (6) & its position on carbon leg (22) & (23). Remove 2 × M4 socket head cap screws (24) from each clamp & slide clamp off leg, then refit each onto opposite leg. Align against pencil mark, rotate so cantilever boss is pointing forward, then slide clamp a further 2 to 3mm further up carbon leg. Check bosses are parallel & inline. Retighten M4 screws & torque to 15 lbins—2Nm.

NOTE: *DO NOT* OVERTIGHTEN.

Note: Cantilever clamp position may need to be adjusted to suite type & model of cantilever brake used &/or rim depth.

Follow Brake Set-Up section. Note that cable must still be routed to brake rocker in a loop, mounting into rocker arm on same side as brake-lever (see Fig. 2).

SPECIAL OPTION 2: CABLE HANGER. Brake can be fitted into a Cable-Hanger (Part No. 255) instead of brake-rocker if required. Note bridge with cable rocker will need to be front mounted (follow procedures in Option 1 above before fitting Cable Hanger).

Disconnect inner & outer brake-cable & remove straddle-wire. Remove rocker-assembly by unbolting M6 socket head cap-screw (10), then remove bridges (19) & (20) by unbolting 6 × M4 socket head cap-screws (21).

Slide cable hanger onto bridge & bolt hanger into position with countersunk M6 screw supplied.

NOTE: Bolt cable hanger onto face of bridge (face which has counterbores for M4 bolts).

Support bridge flat on a bench, then using a small hammer tap spring-pin through rear face of cable-hanger & into bridge. Bolt bridge back into position on fork.

Plug outer brake cable into cable hanger & cut to length.

Fit inner cable & wire up brake straddle, following brake manufacturers instructions.

Note: Straddle wire & straddle cable clamp should be correctly fitted so that with front brake full on, clamp does not hit underside cable-hanger.

Tighten all screws & fittings to correct torque settings.

SPECIAL OPTION 3: CUSTOM MAGURA BRAKE CLAMPS—Monobox RC–35 & RC–30.

These can be used to very ridgidly mount Magura Brakes close into centreline of fork, thereby maximising hydraulic brake power. Magura Brake Clamps can be front or rear mounted (rear recommended).

RC–35MXC Part No. RC–247.
RC–35MXCD & RC–35MD
Part No. RC–249. RC–30 18MCDV6
Part No. RC–248.

Remove cantilever brakes. Remove 2 × M4 socket head cap screws (24) from each cantilever clamp which will allow you to slide clamp off of legs.

Choose front or rear mounted position for your hydraulic brake, then slide Magura brake clamp into position.

Now remove the detachable section of clamp by unbolting both M4 socket head cap screws. Fit Magura slave cylinder & bolt detachable section back into place. Loosely tighten M4 screws.

Slide Magura clamp into position on leg, then rotate & slide brake slave cylinder to align brake pad according to manufacturers instructions.

Tighten M4 cantilever clamp screws to 15 inlbs (2Nm), & detachable clamp M4 screws to 10 inlbs (1.5Nm).

NOTE: *DO NOT* OVERTIGHTEN.

NOTE: Hydraulic hose may require shortening to correct length so that hose is not too long, nor hung out from side of machine.

SPECIAL OPTION 4: LONG TRAVEL KITS

You may choose to increase or decrease the travel available in all models of Monobox forks by retro-fitting one of three kits; 45mm, 65mm or 75mm travel.

The kit of parts include new stanchions, skewer rods & additional elastomers etc. If you have an RC–35HC cartridge fitted to your existing fork, this can be transferred to your kit without additional parts. Note that 75mm kit includes RC–35HC Hydraulic Cartridge.

Fitting kit

Follow Fork Disassembly details in "Adjustment & Periodic Maintenance" Section in this manual, then remove 4 × M4 socket head cap screws (25) retaining stanchion. Remove both stanchion clamps (26) & stanchions (12).
Remove skewer rod (27) & top-cap (28) by inverting stanchion. Lightly shake so that skewer-rod base taps top-cap out of stanchion, then remove completely by hand. Make sure top-out elastomer (29) is removed. Loosen M5 nut (30) on top of skewer-rod & remove nut, washer (31) & piston (13). Clean & regrease all parts.

Wind piston down new skewer-rod & fit washer. Tighten down M5 nut.

IMPORTANT NOTE: SEE FIG. 6.

Piston must be positioned very accurately on skewer-rod in accordance to chart below.

Model	Dimension A (mm)
MXC	197
MXCD	197
MD	240.5

Fig. 6.

If fitting cartridge, this must be fitted to righthand leg at this point. Follow instructions enclosed with your RC–35HC cartridge.

Slide top-out elastomer into position on skewer-rod, then slide rod into new stanchion & through bearing (32) in base of stanchion tube, align locking-holes in stanchion base & piston & insert a locking pin.

Now follow "Fork Re-Assembly" instructions in ADJUSTMENT & PERIODIC MAINTENANCE SECTION.

SPECIAL OPTION 5: RC–30 18MCDV6 FIXED BLADES

Retro-fit fixed blades—Part No. RCP–122, are available to fit RC–35MXC model only. They are available with either cantilever brake mounts or custom Magura brake mounts. Please specify when ordering.

Fitting

Disconnect brake-cable from lever & remove cantilever brake assembly. Loosen 4 × M4 socket head cap-screws (25) on both stanchion clamps (26), & slide complete suspension fork assembly out of crown (2).

Push each rigid fork leg fully home into crown until leg top comes hard against shoulder stop in crown. Loosely tighten 4 × M4 screws in stanchion clamps, fit a wheel or hub into drop-outs & tighten QR so as to align fork blades to each other.

Re-check fork blades are fully home in crown, then tighten 4 × M4 screws in each stanchion clamp to 35 inlbs (3.5Nm).

NOTE: *DO NOT* OVERTIGHTEN.

Grease cantilever bosses (5). Fit & set-up brakes following manufacturers instructions (fit cantilever brake spring tang in centre hole of cantilever clamp).

Note: If cantilever brakes need to be aligned, the 2 × M4 socket head cap-screws (24) on each cantilever clamp can be loosened so that cantilever arm can be moved up & down, or rotated in or out. Tighten M4 screws to 15 inlbs (2Nm).

NOTE: *DO NOT* OVERTIGHTEN.

LIMITED WARRANTY

The RC–35 Series of Monobox forks is warranteed for a full two years against defects in materials & workmanship.

Failure to follow & implement the servicing & maintenance details contained in this manual may affect your warranty (your consumer rights will not be affected).

Please read the limitations on your warranty, & warranty procedures below:

1. Fork must be returned to your Authorised Dealer or Distributor for warranty processing, not direct to the factory. We would recommend that the product is returned to your supplying dealer as soon as possible if it is suspected there is a problem relating to the materials & workmanship of the fork.
   To speed the processing of any warranty claim, please return the product to your dealer in a clean condition.
2. Pace Cycles Limited fork warranty does not cover carriage costs to or from Pace & your Pace Dealer.
3. Pace Cycles Limited reserve the right to repair or replace as it sees appropriate.
4. This Limited Warranty does not cover for damage caused through misuse or incorrect customer assembly or maintenance.
5. Failure to use torque figures quoted within this manual, along with Genuine Parts & Lubricants, as outlined in this manual, will affect your warranty.
6. Use of non-standard Pace parts will not be covered by this limited warranty, nor any damage so caused to the fork by their use.
7. Bearings, wiper-seals & elastomers are not covered by the two-year limited warranty.
8. If non-standard elastomers of an incorrect grade are fitted, any damage caused to the elastomer or fork will not be covered by this warranty.
9. Pace cannot process any warranty claim until the product has been returned to the factory.
10. Pace will undertake to repair or replace, at its discretion, within 48 hours of having received product at the factory.
11. Should Pace Cycles Limited decide that the damage is not covered by the Limited Warranty, any work that Pace Cycles Limited is requested to undertake will be charged for on a minimum charge plus extra time & materials basis.

WARNING

If your fork carries a code stamped on drop-out, e.g. OE, OS, etc., DO NOT PURCHASE THIS FORK unless supplied as original equipment fitted on the bicycle. Warranty & correct back-up will be affected if fork is bought separately with this coding.

PLEASE NOTE

Your fork is not supplied with a grease-gun as standard if fork is bought as original equipment fitted to your bicycle. Greasegun is available as a separate component from your nearest Pace Dealer.

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