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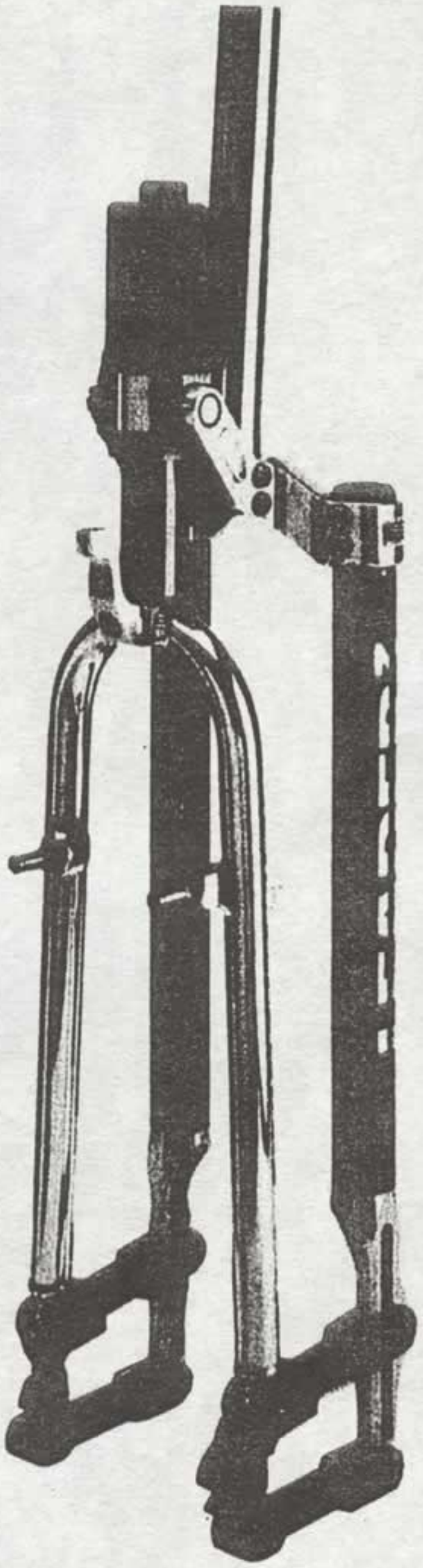
BICYCLE COMPONENTS USA



** The LAWWILL LEADER3™ **
Suspension Fork
** by Control Tech **

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Thanks for purchasing the **Lawwill Leader3™** suspension fork. **Please read this owner's manual completely and thoroughly before installing and riding with your Lawwill Leader3™**. There are many helpful hints and cautions outlined here that will make your life (and ours) with the Leader3 as long and enjoyable as possible.

We know you'll find the Leader3 to be the best performing suspension fork in the world. And to assist with the installation of your fork, to help customize the ride of the fork to your preferences and to keep the fork in top working order, we have prepared the following tips, instructions AND **cautions!!!**.

We recommend that your Lawwill Leader3 fork be installed by a qualified technician with proper tools. However, if you are going to install the fork yourself, please have the completed installation inspected by a qualified technician

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** Installation Instructions **
(Refer to Diagram A)

*Step 1

Remove the existing fork from the frame and the fork crown race from the fork (if you will use the existing headset with the Leader3). NOTE: The Leader3 can be used ONLY with AheadSet® type headsets (AheadSet® is a registered trademark of Dia Compe, U.S.A.). DO NOT cut threads into the existing steering column to use a standard, threaded headset. See a qualified technician for assistance if you are unsure about compatibility of your headset and the Leader3.

*Step 2

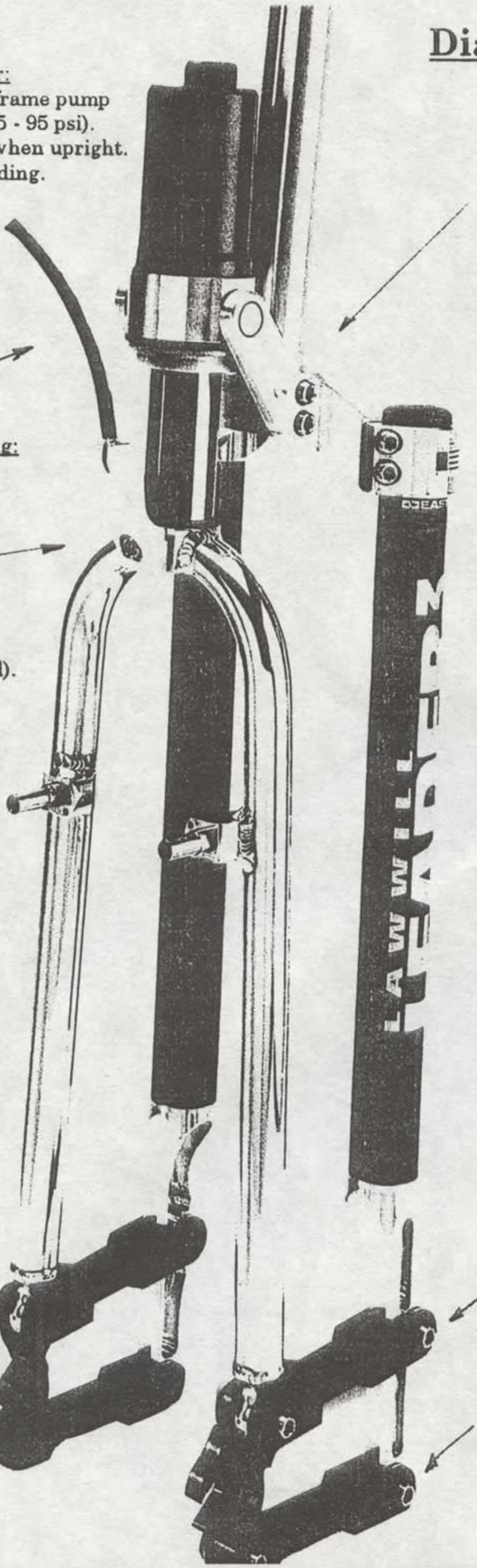
Install the crown race firmly against the top of the fork crown and the headset cups into the frame according to headset manufacturer specifications.

Diagram A

Detail 2:
Schraeder Valve Inflator:
Use a standard floor or frame pump to adjust air pressure (55 - 95 psi).
Adjust pressure ONLY when upright.
Wait 10 minutes after riding.

Detail 1:
Brake Cable and Housing:
"Direct, smooth arc. . ."

Detail 5:
Brake Cable Hanger Mounting Bolt:
6 mm thread,
(5 mm hex key, cap head).
1 bolt. ALWAYS keep this tightened to 80-100 in-lbs of torque.
USE A TORQUE WRENCH!



Detail 4:
Shock Pivot Plate Fixing Bolts:
6 mm thread
(5 mm hex key, cap head). 2 per plate.
ALWAYS keep these tightened to 80-100 in-lbs of torque.
USE A TORQUE WRENCH!

Detail 3:
Main Fork Leg Clamp Bolts:
6 mm thread,
(5 mm hex key, cap head).
2 per clamp.
ALWAYS keep these tightened to 80-100 in-lbs of torque.
USE A TORQUE WRENCH!

Detail 7:
Grease Ports:
8 places, front or rear, one per pivot point.
Inject grease sparingly but often.
Wipe excess grease clean before riding.
INJECT GREASE BEFORE YOUR FIRST RIDE!

Detail 6:
6 mm thread
4 mm hex key, button head).
1 per pivot.
ALWAYS keep these tightened to 60 in-lbs of torque.
USE A TORQUE WRENCH!

*Step 3

Cut the steering column to a length that is 3mm shorter than the total stack height of the stem, headset, frame head tube, and all stem height spacers. You may add extra stem height spacers (up to one extra inch) when cutting the steering column for the first time. Be sure to include all parts that will be included in the steering assembly when calculating the length of the steering column you will need. For example (and this is only an example; be sure to use measurements for the components and stem height spacers you will use when installing your Leader3): headset stack height is about 35 mm, stem height about 45 mm, choose the amount of stem height adjustment spacers you desire, say 25 mm max, subtract 3 mm to allow for compression of all headset parts when adjusted, and you will add a total of 102 mm to the measured length of your frame head tube:

(35 mm + 45 mm + 25 mm - 3 mm + frame head tube)

This is the total length of the steering column you will need from the top of the fork crown to the end of the column after cutting. You can install spacers above and below the stem to adjust the stem height.. It is better to cut the column slightly longer than desired to allow for stem height changes. As you decide on the best stem height for you, cut any extra column length at a later date, if desired. However, there is no need to remove the extra length of steering column if you don't want to.

Install and adjust the fork assembly in the frame following the headset manufacturers instructions.

*Step 4

Install the brakes, following the manufacturers instructions. There may be some cantilevers or combinations of cables and brakes that are incompatible with this fork. If your brakes, cables or cable hanger, when installed, do not have proper clearance, or do not function properly, change the transverse cable length per the brake manufacturers instructions, or use another set of cantilevers. If you are unsure about the function of your brakes with the Leader 3, see a qualified technician for assessment and assistance in correcting any problems that are found.

*NOTE: The front brake cable MUST be routed through the fork mounted cable stop (see Detail 1). The cable housing should make a direct, smooth arc from the brake lever to the fork cable stop. IMPORTANT: **Do not use a cable hanger built into your stem or headset. Use only the fork mounted cable stop.**

** Tuning and Maintenance Instructions **

(See Diagram A)

*The Shock

The Leader3 shock is equipped with 55cc of Finish Line® 10 weight fork oil and 80 psi air pressure. The air pressure is easily adjusted with a tire pump (see Detail 2) (NOTE: add air only with the shock valve in an upright position and no sooner than 10 minutes after riding. Otherwise, oil will escape, which is bad). Normal pressures range from 55 psi to 95 psi; lower pressure produces a more plush ride; higher pressure, a more firm ride.

The oil level can be increased (up to 60 cc) to produce a more progressive shock rate, or decreased (not less than 50 cc) to produce a more linear shock rate. Changing the shock oil level should only be done by a qualified technician with the proper tools. Changes in oil level may effect the total travel possible in the shock. Higher oil levels may limit shock travel slightly (at 60 cc of oil the travel is reduced by approximately 1/4"). Lower oil levels may allow the shock to bottom out too quickly or easily. Heavier or more aggressive riders may prefer the performance of the fork with a higher oil level and slightly less travel. Lighter weight or recreational riders may find lower oil levels acceptable.

Oil weight will effect the compression and rebound control; lighter weight oil (5 or 7 weight) will allow for more rapid compression and rebound, heavier oil (10 or 12 weight) will slow compression and rebound.

*The Bolts

There are four 6 mm thread (5 mm hex key) bolts that secure the main fork legs into the crown (two per clamp - Detail 3), four that secure the shock pivot plates to the crown (two per plate - Detail 4) and one that secures the brake cable stop to the fork (Detail 5). These bolts have been lubricated with grease and assembled with 80-100 inch-pounds (in-lbs) of final torque at Control Tech and should be loosened and re-tightened as seldom as possible. These bolts must be tightened to 80-110 in-lbs. of final torque each and every time they are loosened for any reason. Use an accurate torque wrench to confirm that these bolts are tightened to 80-100 in-lbs of final torque. Always use a torque wrench to insure that the force being exerted by these bolts on the clamps of the crown is adequate to maintain the position of the fork legs in the crown. If the bolts are ever removed for any reason, they must be cleaned, lubricated with grease and installed using 80-100 in-lbs of final torque, as confirmed with an accurate torque wrench.

NOTE: Check tightness of all bolts every time you ride.

When tightening the fork crown clamp bolts, alternate between the two bolts on one clamp, increasing torque gradually on each bolt until the specified 80-100 in-lbs of final torque has been reached on both bolts on that clamp. It may take as many as 4-6 adjustments or more per bolt before specified final torque is reached. Do each clamp separately. (NOTE: Consult a qualified technician to confirm torque levels on bolts if you do not have access to an accurate torque wrench. Always use an accurate torque wrench to confirm final torque on all bolts.)

There are eight 6 mm thread (4 mm hex key, button head - Detail 6) bolts at the main drop-out pivot points, which should be tightened to 60 in-lbs of torque. **Be sure to check the tightness of all bolts prior to each ride.**

*The Main Fork Legs

Raising or lowering the rear (main) legs in the fork crown will change the leverage on the shock. If a more linear shock rate is desired, lower the main fork legs so that the top of the leg is flush with the crown (NOTE: There is a plug inserted into the top of each main fork leg. This plug is NOT the top of the fork leg. The plug should always extend above the crown even when the top of the leg is flush with the top of the crown. The top of the main fork legs must never be lower than the top of the crown. Do not lower the top of these legs past the top of the crown).

To produce a more progressive shock rate, raise the legs above the fork crown. Most frames allow a maximum of about 1\4" of each leg to be exposed above the crown. (CAUTION: Do not raise the main fork legs in the crown to the point where they make contact with the under side of the down tube of your frame. If the main fork legs contact the down tube, the total range of movement in your steering may be limited and loss of control while riding may occur. Your frame will be damaged if the main legs make contact with the down tube).

Please note that the fork leg adjustment can and should be used in conjunction with the adjustment of the air pressure in the shock to produce the desired ride characteristics. See the section on the shock adjustment for further information.

Be sure to check the movement in the steering each and every time you make changes to the position of the main fork legs in the crown as well at the tightness of all bolts. Always be sure that steering rotates fully to the left and to the right of center before riding. Also be sure that the independent legs are in the same position in the crown to insure maximum performance and durability of the fork.

*The Pivot Points

There are eight grease ports located in the front and rear ends of the upper and lower links (see Detail 7). Use a high quality waterproof grease and inject sparingly with a small tipped grease gun. As new grease is injected, old grease will be forced out. Wipe excess from all external surfaces before riding. Frequent greasing will prolong bushing life and reduce stiction and wear.

NOTE: These pivot points are shipped with NO grease. YOU must grease all pivot locations before your first ride to insure proper lubrication, movement and durability of the pivot locations. Application of grease to these areas as described above is important, regular maintenance. The frequency of grease application will vary with use and riding conditions.

Warranty

Control Tech warrants the Lawwill Leader 3™ Suspension Fork to be free from defects in material and workmanship for a period of one year from the date of original retail purchase. This warranty is extended to the original owner for the fork as originally manufactured and specified by Control Tech. Any modifications, changes, additions or substitutions to any part or component of the Leader3 are done so at the sole risk of the user. Control Tech makes no warranty against said modifications, changes, additions or substitutions. This warranty does not cover cosmetic or structural damage arising from abuse or misuse, including but not limited to damage caused by jumping and landing, front end impact or any other collision, falls or crashes, owner neglect, improper assembly, maintenance or installation of parts and accessories, any accident, use of racks in transportation, any race participation or training for racing. Wear from normal use or exposure to environmental elements is not covered by this warranty. Control Tech makes no warranty against any incidental or consequential damage to bike or parts, or rider injury caused by defects as covered in this warranty.

Control Tech will repair or replace, at its sole discretion, any fork or part deemed defective under this warranty. "Crash" replacements are handled individually. There is no other remedy under this warranty either expressed or implied. Control Tech is not responsible for any shipping or dealer charges related to any warranty claim. whether said claim is accepted by Control Tech or not.

Warranty Claims

Claims under this warranty can be made directly to Control Tech, although most conditions needing attention on the Leader3 can be remedied more quickly at your local independent bicycle dealer. ALWAYS contact Control Tech before returning any product. We will evaluate each claim prior to authorizing return to Control Tech and outline procedures for return should that be required. Shipments received without proper authorization will be refused. Our customer service staff is available for service questions from 8 A.M. to 5 P.M. Pacific Standard Time, Monday through Friday.

Please fill out the warranty registration (your fork serial number is located under the crown) and return it to Control Tech within 15 days of the date of purchase with a copy of your proof of purchase.

ENJOY THE RIDE!!!

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