HURST ROLL/CONTROL
INSTALLATION INSTRUCTIONS
CATALOG #174 5000

Congratulations on the purchase of your HURST Roll/Control system which features a new advanced design quality stainless steel valve assembly for resistance to corrosion, greater durability, reliability, and more precise positive action. In the event that your HURST Roll/Control should ever require service, a rebuild kit is available from your local HURST performance dealer. Order Part #567 1500.

WARNING: The HURST Roll/Control is designed primarily for high performance race cars to momentarily (maximum of 60 seconds) keep the front brakes engaged while staging for a drag race. It will not safely function as a long term brake holding device. It should only be used on domestic cars and light duty (no more than ¾ ton rated) trucks using a standard hydraulic braking system that is in a safe, operable condition. It should never be used as a temporary brake holding device in place of a parking brake or of a driver depressing the brake pedal. It is not recommended to install the HURST Roll/Control on vehicles equipped with anti-lock or split diagonal brake systems.

IMPORTANT: Carefully read and fully understand instructions before installing your HURST Roll/Control. It is important to note that these instructions contain certain cautions and warnings that must be observed in order to reduce the risk of improper installation that could render the vehicle unsafe and result in possible serious bodily injury. If you are not qualified or experienced at performing this type of installation, we strongly recommend that you have the HURST Roll/Control installed by a qualified and certified automotive mechanic.

INSTALLATION NOTES

Any job will be easier and the results more satisfactory if cleanliness is observed. This is especially important when working on your brake system. Do not allow dirt or foreign matter to contaminate your system. This may cause improper operation and failure. The HURST Roll/Control solenoid valve is installed in the front brake system for racing and in the rear brake system for momentary (maximum of 60 seconds) hill holding. The solenoid valve will not interfere with normal brake operation when properly installed in accordance with directions provided.

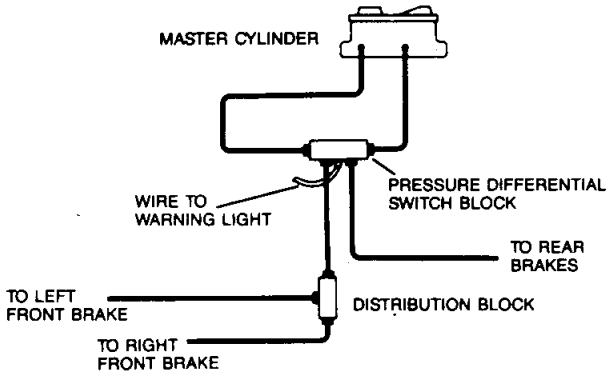
On any vehicle, the rear brake lights must operate when the brake system is under pressure. Therefore, a pressure operated switch must be installed if the Roll/Control system defeats the purpose/function of the stock rear brake light switch. (See electrical instruction figure #2)

The HURST Roll/Control solenoid valve must be firmly mounted to prevent flexing of brake lines that could cause failures; an area such as the fire wall is suggested away from headers, exhaust pipes, steering and suspension components. A line fitting wrench is recommended on all line fittings while installing the brake lines.

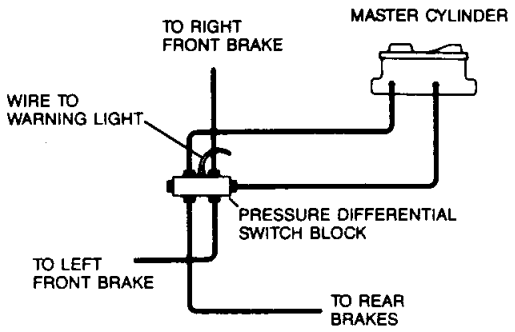
All fittings and brake lines may be purchased from your local parts store, and only SAE approved seamless steel brake lines with double flared ends should be used. DO NOT use copper tubing. Use teflon tape on threaded fittings. CAUTION: Use of excessive amount of teflon thread sealing tape can contaminate the solenoid valve or brake system. Use sparingly. Do not apply teflon tape to starter thread of fittings. Brake lines are available in a variety of lengths and come pre-assembled with tube nuts. DO NOT CUT OR ALTER TUBING. Use only brake lines that are of the correct size and length. Use the precut template gauge (supplied in kit) to determine the proper size of fittings and brake line required for installation. If bending lines is necessary, use a tube bender to avoid kinking or crushing.

After installation, bleed all air out of the system. Bleed air at wheel cylinders starting with wheel furthest from master cylinder and ending with closest. Follow vehicle manufacturers brake bleeding procedures. Be sure to check all connections for leakage under pressure, THERE MUST BE NO LEAKAGE. Be sure to use a top quality heavy duty brake fluid that meets DOT 3 or DOT 4 specifications. Most domestic manufacturers use five (5) general types of brake systems. Diagrams of these systems are shown on pages 2 and 3. Check your brake system and locate the comparable system on the diagrams to install your HURST Roll/Control. Electrical installation is the same on all vehicles—See instructions and diagram on page 4.

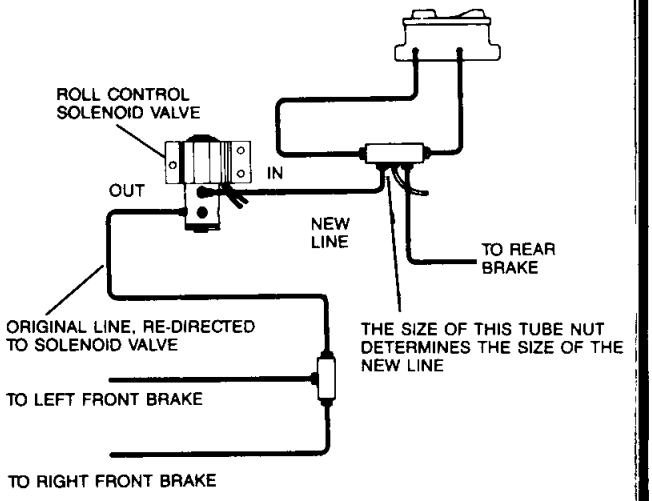
SYSTEM 1
DUAL MASTER CYLINDER



SYSTEM 2
DUAL MASTER CYLINDER



ROLL CONTROL INSTALLED FRONT BRAKES ONLY



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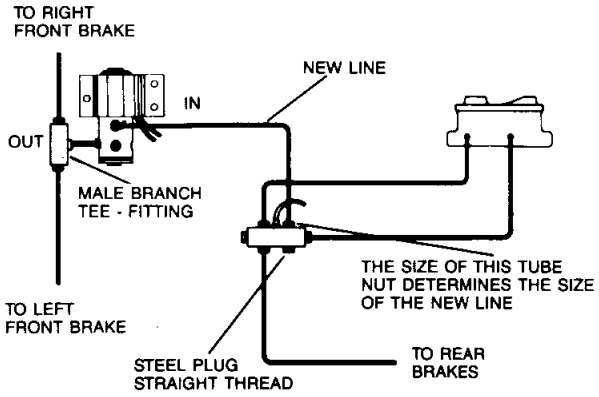
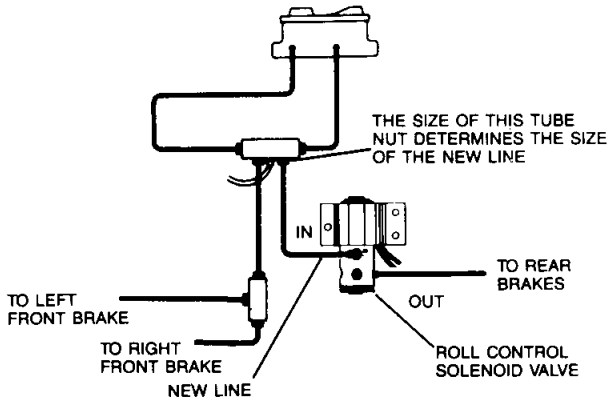
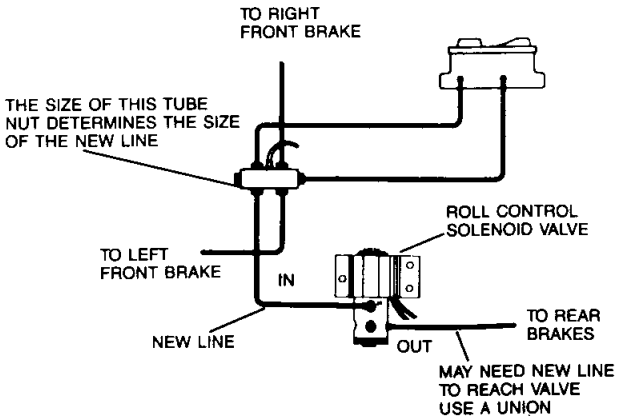


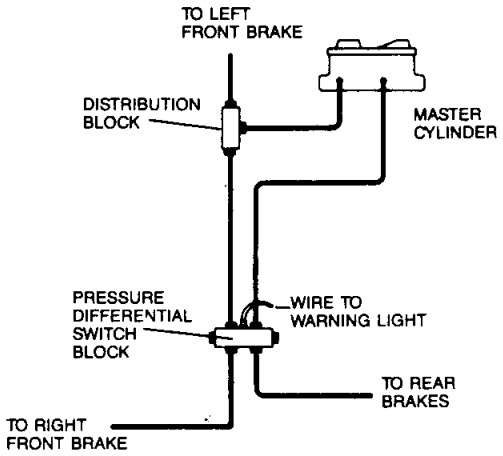
ROLL CONTROL INSTALLED REAR BRAKES ONLY



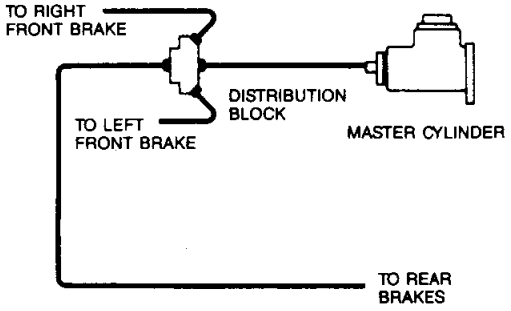
ROLL CONTROLL INSTALLED REAR BRAKES ONLY



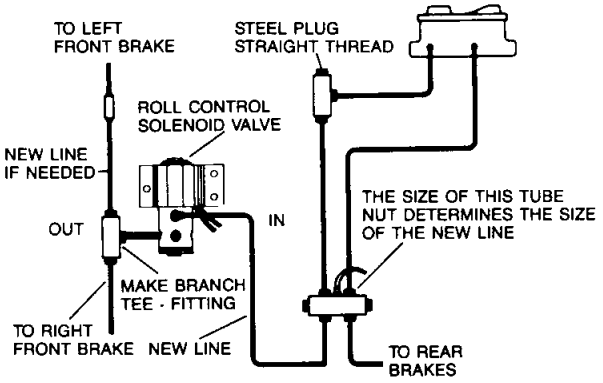
SYSTEM 3
DUAL MASTER CYLINDER



SYSTEM 4
SINGLE MASTER CYLINDER



ROLL CONTROL INSTALLED
FRONT BRAKES ONLY



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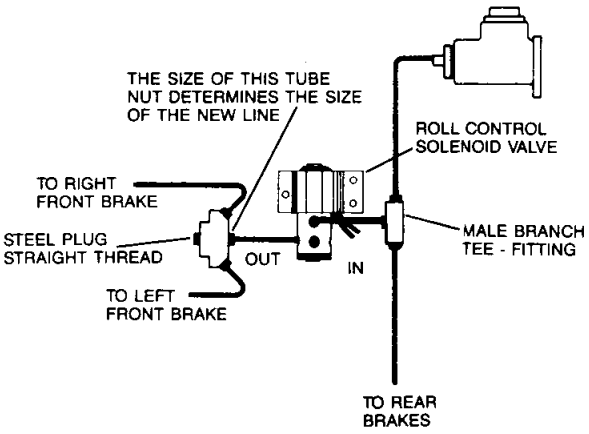
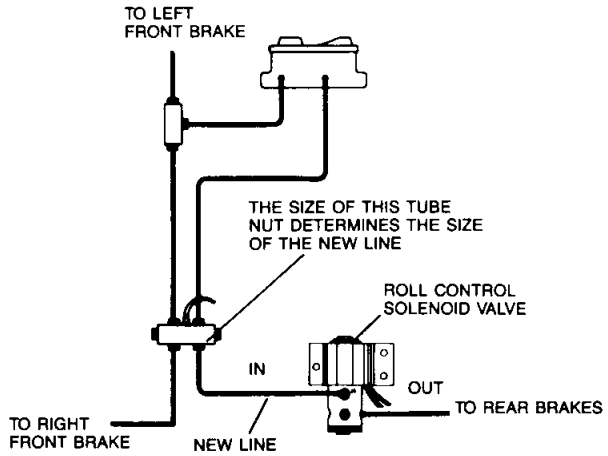
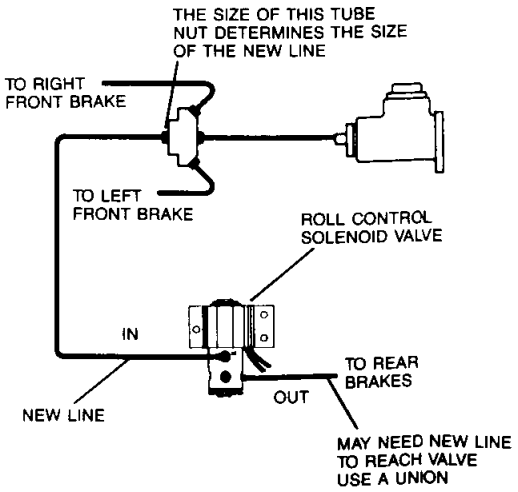


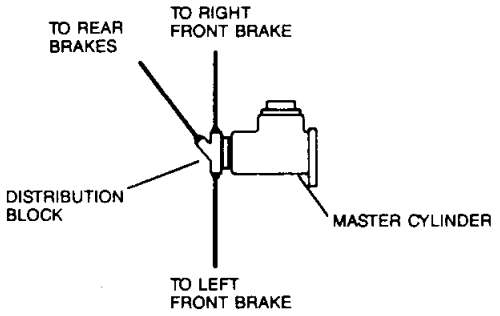
ROLL CONTROL INSTALLED
REAR BRAKES ONLY



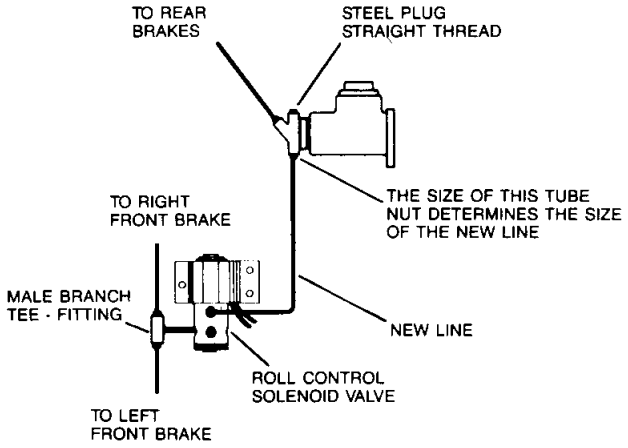
ROLL CONTROL INSTALLED
REAR BRAKES ONLY



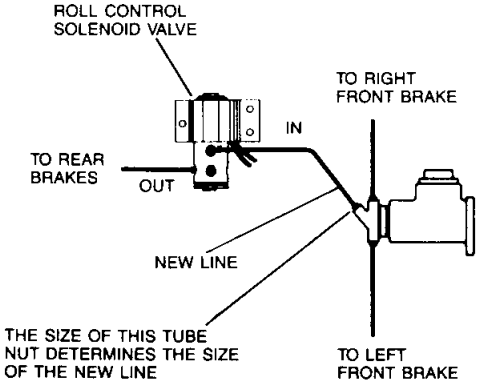
SYSTEM 5
SINGLE MASTER CYLINDER



ROLL CONTROL INSTALLED FRONT BRAKES ONLY



ROLL CONTROL INSTALLED REAR BRAKES ONLY



INSTALLATION INSTRUCTIONS

1. From the diagram selected on Page 5 or 6, determine the fittings that will have to be measured. Use the pre-cut template gauge to check size. This tube nut thread determines the size of the female thread in the male fittings that must be purchased. This will also indicate the size of tubing required, if necessary. Note: For your reference, a chart is provided on Page 4 showing standard Weatherhead part numbers for fittings that may be required.

2. Install male fittings in the valve inlet port (stamped "M" next to port) and in selected outlet ports of the solenoid valve. Elbow fittings may be used where necessary. Non-used outlet ports must be sealed with 1/8″ N.P.T. plugs.

CAUTION: Do not clamp Roll/Control valve in vise. Do not overtighten fittings.

3. Mount solenoid valve close to the brake lines (away from headers, exhaust pipes, steering and suspension components) which you will be using for connecting the HURST Roll/Control system. Valve may be mounted in any position (vertical-horizontal, etc.). Using a #13 drill bit (.185 dia.), drill holes for mounting and fasten with 1/4″ sheet metal screws or drill 1/4″ holes and fasten with 1/4″ bolts and lock nuts if preferred. The black ground wire must be secured under one of the mounting screws. Use a solderless terminal connector on this wire. If this is not a good electrical ground, run an auxiliary wire to the engine block or negative (—) terminal of the battery.

4. Install new steel brake lines if necessary (determine size by using pre-cut template gauge).

5. Additional brake lines may be connected to existing lines by using appropriate size inverted flare union fittings. Any one of the outlet ports on the Roll/Control valve can be used for installing a pressure gauge if so desired. It is recommended that this be done at this time.

6. On some installations, it may be necessary to remove one line from the pressure differential switch. If so, be sure to plug opening with the proper size SAE thread plug designed for inverted flare fittings.

CAUTION: Use an SAE thread plug only. An N.P.T. pipe plug will strip the threads causing leakage, malfunction, and improper operation.

ELECTRICAL INSTALLATION

The HURST Roll/Control Solenoid Valve is designed for 12-volt DC operation only.

To assure good electrical connections use #18 gauge standard insulated automotive wire and join all splices by twisting ends of each lead together. Solder each splice after a good connection has been made and wrap each splice/connection with a good grade of electrical tape.

Wiring should be as neat and direct as possible. DO NOT connect wiring in such a fashion as to apply stress or stretch to wires.

1. Disconnect negative (—) cable from battery. On floor shift installations, remove old shifter knob or "T" Handle. Slide switch retention sleeve over shifter stick to desired position. Attach cable to stick using chrome tape if desired—lowest taped area must be above shifter boot. NOTE: For more precise control, we recommend using the T-command shift handle with built in Roll Control switch, Part #153 0003 for 3/8-16 thread or #153 0006 for 3/8-24 thread shifter sticks, or the Competition Shifter Knob with built-in switch, Part #163 0049 for 3/8-16 thread or #163 0050 for 7/16-20 thread shifter sticks.

2. Slide protective sleeve over wires. Form a generous loop of wire below the floor and be sure to allow protective sleeve to cover wires where they go through the hole in the floor. Be sure to keep wires away from sharp edges/corners and hot engine and exhaust components.

3. Mount indicator lamp in convenient location under dash, or drill an 11/16″ diameter hole in instrument panel if so desired for in-dash mounting. Use caution when drilling. Check for obstructions behind instrument panel before drilling any holes. Mount indicator lamp and splice lamp wire to end of Roll/Control switch wire #2. See figure No. 3. Be sure that indicator lamp bracket is grounded.

4. A three (3) way splice must now be made using the wire from the lamp, #2 wire from the Roll/Control switch, and #4 wire from solenoid valve. See figure No. 3.

5. Using a length of #18 gauge wire, splice one end to the #3 wire of the Roll/Control switch and connect the other end to a switched positive terminal so that the Roll/Control is only operable with the ignition turned on. A snap-lok fuse holder with 4-amp fuse is provided and should be incorporated into this wire. The fuse will protect your electrical system in the event of a short circuit.

6. Reconnect battery and turn ignition switch on. Depress Roll/Control switch several times and check fuse. If fuse is burned, check all electrical connections for a short.

7. Turn ignition switch on. Apply the brakes and depress the Roll/Control switch button. Release brake pedal while holding Roll/Control switch and have someone check for proper operation of rear brake lights. Your brake lights must operate when the hydraulic system is under pressure and Roll/Control solenoid valve is engaged. If not, connect a hydraulic brake light switch to one of the outlet ports of the solenoid valve. See figure No. 3. (Suggested switch — Wagner Electric FC 5106.) Electrical hook-up should be a parallel hook-up to existing pedal brake switch wiring.

OPERATING INSTRUCTIONS

To actuate your new HURST Roll/Control system: with Ignition Switch in the ON Position, fully depress brake pedal to firmly engage brakes, then depress the Roll/Control switch button. Roll/Control indicator lamp should light up when switch button is depressed indicating that the solenoid valve is actuated. **Warning: while vehicle is in motion, never depress switch button when applying brakes.** Hold the button and firmly depress brake pedal again. The operation of the HURST Roll/Control will now allow you to release the brake pedal and maintain an engaged front brake system for racing applications. This will allow you to preload the drive train without roll out. The holding power of your HURST Roll/Control will depend upon the brake system pressure. It is suggested that a dash-mounted gauge (0-1000 p.s.i.) be used for more consistent braking results. To disengage the HURST Roll/Control, release the switch button.

CAUTION: Before driving vehicle, completely check the brake system for proper operation. Check all connections under pressure for leaks and be sure that you have a good solid brake pedal. Test the Roll/Control system several times to be sure that it operates correctly. Be sure that the proper two wheels have the brakes engaged when the Roll/Control is actuated and that all four wheels are free when the Roll/Control switch is released.

CONTENTS OF ROLL/CONTROL KIT

DESCRIPTION	PART NO.
1. SOLENOID VALVE	566-7550
2. STAGE LOCK BUTTON	558-0015
3. INDICATOR LIGHT	
4. FUSE ASSEMBLY	
5. TEMPLATE GAUGE	

Repair Kit #567-1500

LIMITED WARRANTY

Your Hurst product is warranted for twelve months (EXCEPT AS NOTED BELOW) from date of purchase against defects in material and workmanship. During this period, such defects will be repaired, or the product will be exchanged at Hurst's option without charge. This warranty does not cover damage caused by misuse, alteration or negligence. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE LIMITED IN DURATION TO A PERIOD ENDING WITH THE PERIOD OF THE CORRESPONDING EXPRESS LIMITED WARRANTY. AS SET FORTH BELOW, UNDER NO CIRCUMSTANCES WILL HURST BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OR IN CONNECTION WITH THE INSTALLATION OR USE OF ANY HURST PRODUCT.

Some states do not allow limitations on how long an implied warranty lasts or do not allow for the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

HURST WARRANTY PERIODS

HURST PRODUCTS	
Accessories	90 Days

PRODUCTS CATALOGED FOR "STREET" USE ARE NOT COVERED BY THE WARRANTY IF USED FOR RACING.

SEND THE PRODUCT POSTAGE PREPAID TO:

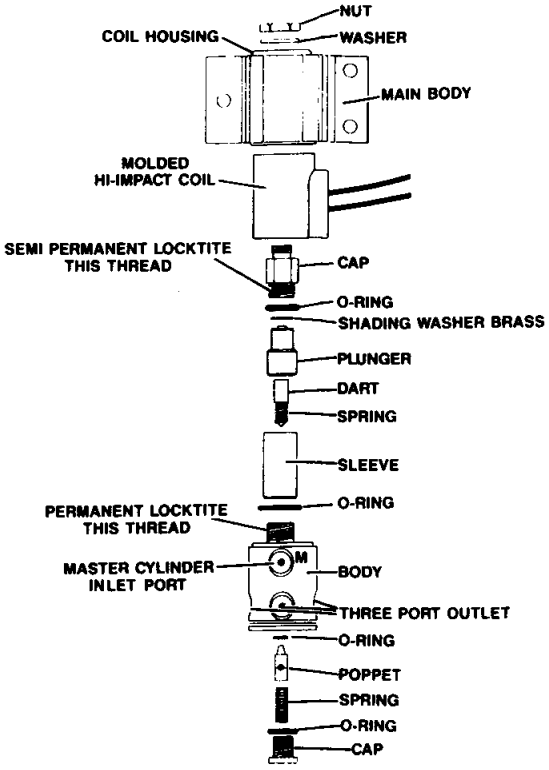
HURST PERFORMANCE, INC.
8700 BROOKPARK ROAD
CLEVELAND, OHIO 44129-6899

ATTENTION: CUSTOMER SERVICE DEPT.

When you send your product, please write a letter explaining the nature of your difficulty. In the event you have any questions concerning the use and care of the product or concerning service, please write: HURST PERFORMANCE, INC. at the above address.

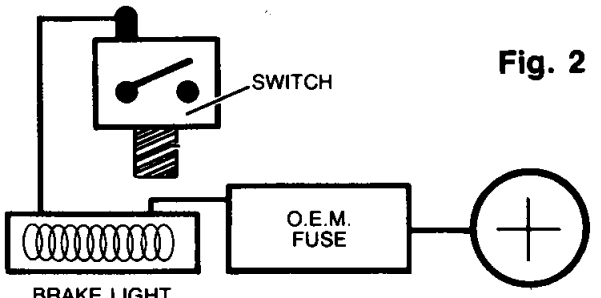
HOW TO GET QUICK SERVICE

1. Pack your Hurst product carefully in a good carton with plenty of newspapers or excelsior padding all around it, and seal securely. Damage in transit is not covered by the warranty.
2. Carefully print on the carton the name and address of HURST above. Don't forget your return address.
3. Put a letter showing service desired in an envelope addressed to HURST as above. In your letter please be sure to give your full name and address and the service or repairs desired.
4. PASTE ENVELOPE TO PACKAGE.
5. Ship by way of U.S. Mail, UPS, or Federal Express. The shipper will inform you of correct shipping charges and will insure if package is lost in transit.

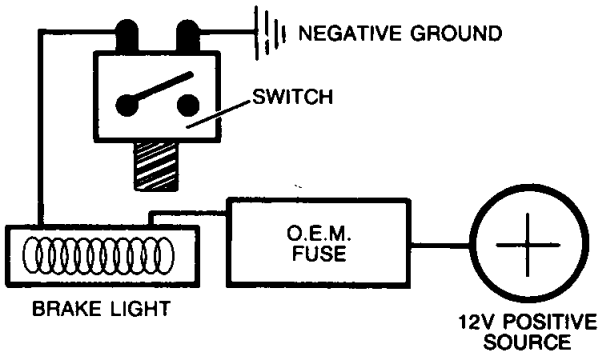


HYDRAULIC BRAKE LIGHT SWITCH
WITH SINGLE WIRE

Fig. 2



HYDRAULIC BRAKE LIGHT SWITCH

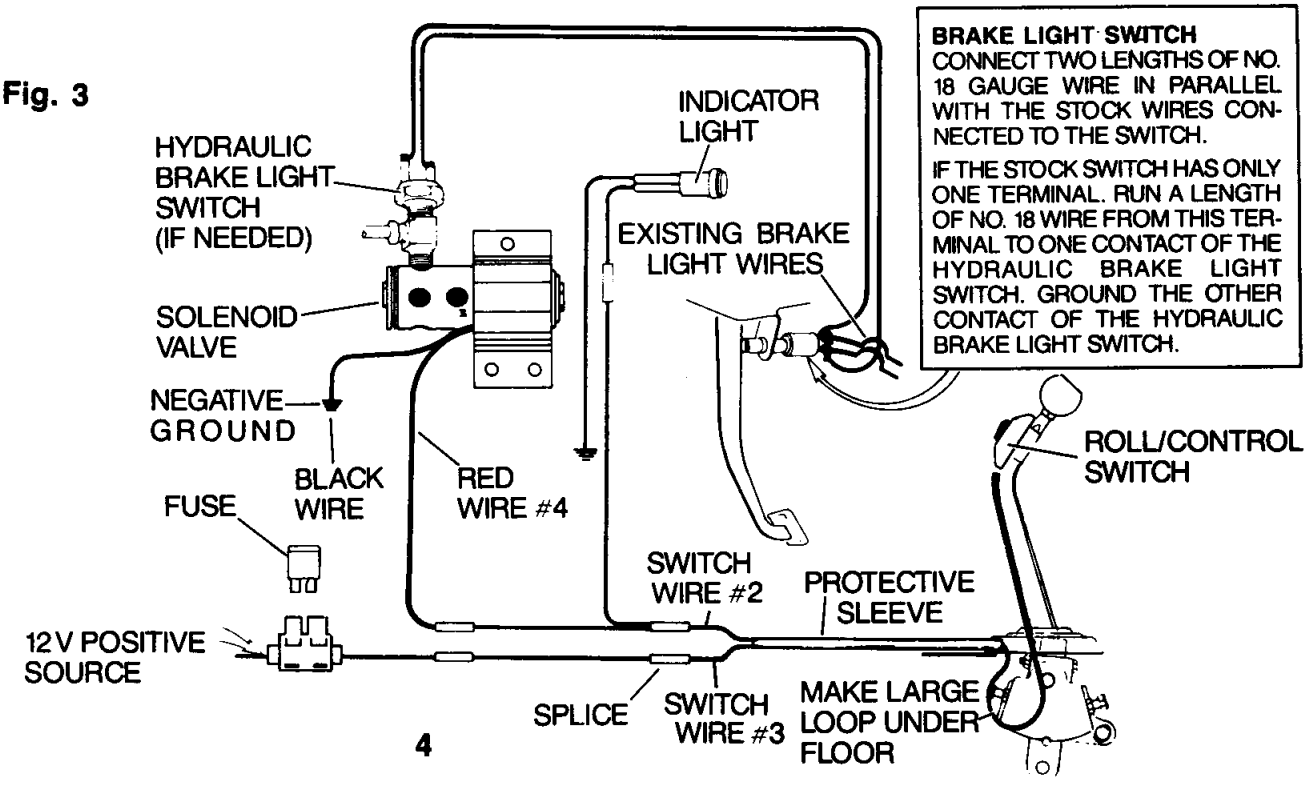


FITTING CHART

DESCRIPTION	TEE	MALE CONNECTOR	MALE CONNECTOR	STEEL PLUG	UNION	STEEL BRAKE LINES	MALE ELBOW	MALE ELBOW
ALL 3/16" LINE	WH 550x3	WH 200x3	WH 200x3	WH 131x3	WH 300x3	3/16" DIA.	WH 400x3	WH 400x3
ALL 1/4" LINE	WH 550x4	WH 200x4	WH 200x4	WH 131x4	WH 300x4	1/4" DIA.	WH 400x4	WH 400x4
1/4 LINE FROM MASTER CYLINDER TO DISTRIBUTION BLOCK — 3/16 LINE FROM BLOCK TO WHEEL CYLINDERS	WH 550x4	WH 200x3	WH 200x4	WH 131x4	WH 300x3	6 1/4" DIA. 7 3/16" DIA. 8 1/4" DIA.	WH 400x3	WH 400x4

PART NUMBERS SPECIFIED ARE WEATHERHEAD

Fig. 3



BRAKE LIGHT SWITCH
CONNECT TWO LENGTHS OF NO. 18 GAUGE WIRE IN PARALLEL WITH THE STOCK WIRES CONNECTED TO THE SWITCH.

IF THE STOCK SWITCH HAS ONLY ONE TERMINAL, RUN A LENGTH OF NO. 18 WIRE FROM THIS TERMINAL TO ONE CONTACT OF THE HYDRAULIC BRAKE LIGHT SWITCH. GROUND THE OTHER CONTACT OF THE HYDRAULIC BRAKE LIGHT SWITCH.