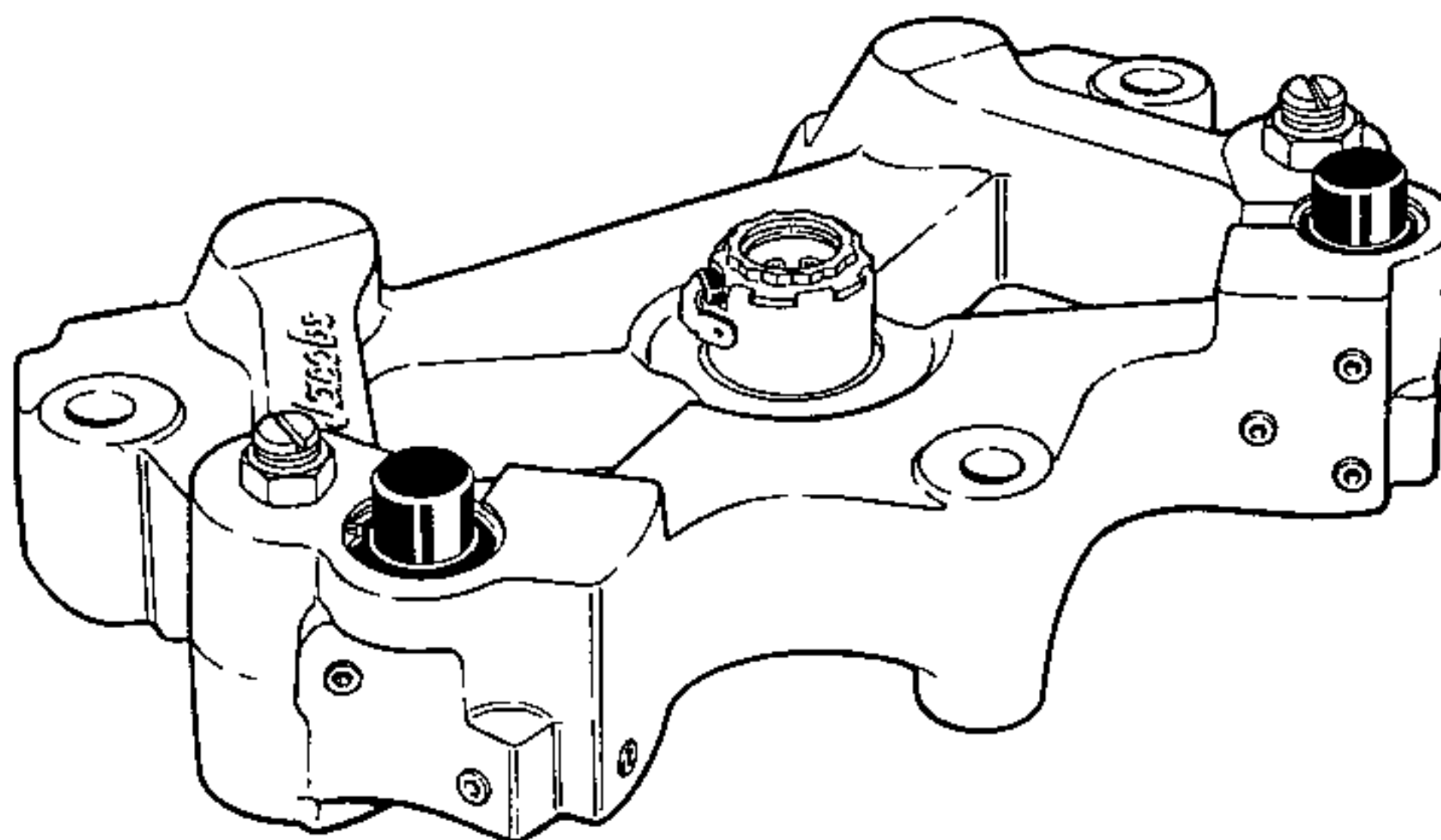




Parts Manual for Models 317B and 317C Engine Brakes



The Model 317B *Jake Brake*® is designed and approved for use on 1991 and pre-1991 model year Caterpillar 3176 engines. The Model 317C is designed for use on certain 1992 model year 3176 engine applications. See Installation manual for application and slave piston adjustment information.

Information contained in this manual was current at the time of printing and is subject to change without notice or liability. Refer to *Jacobs Service Letters* and instructional literature for specific application information.

Cat and Caterpillar are registered trademarks of Caterpillar Inc.

J, Jacobs®, *Jake Brake*® and *Auto-Last*® are registered trademarks of *Jacobs Vehicle Equipment Company*. *Jake* is a Marc. Reg. in Mexico. *Power-Lash*™ is a trademark of *Jacobs Vehicle Equipment Co.*

This product is covered by U.S. Patent Nos. 4,251,051; 4,423,712; 4,473,047. Other U.S. and foreign patents issued or applied for.

TABLE OF CONTENTS

Housing Assemblies	2
Attaching Parts Group	2
Control Groups	3, 4
Service Tools and Parts	4



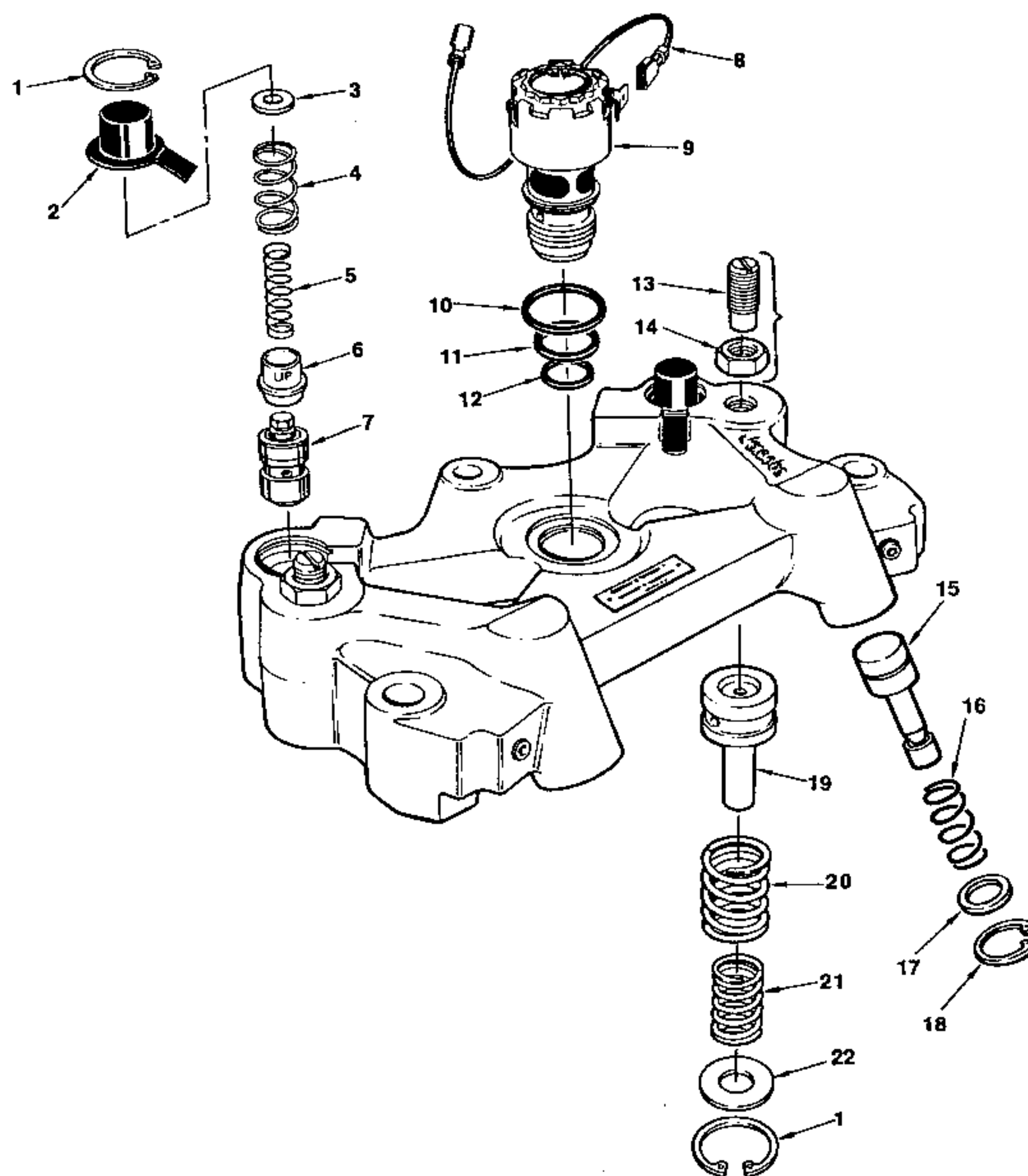
***Jacobs*® Vehicle
Equipment Company**
22 East Dudley Town Road
Bloomfield, CT 06002 U.S.A.
203-243-1441

Models 317B and 317C Housing Assemblies

Engine Brake Model	Pkgd. Hsg. P/N	Description
317B	18175	Housing Assy. - 12 VDC (pkgd.)
317C	18432	Housing Assy. - 12 VDC (pkgd.)

Ill. No.	Part No.	Part Name	Qty/Hsg.
1	11284	Retaining ring	4
2	11252	Cover, control valve	2
3	16579	Cover insert, control valve	2
4	11253	Stop spring, control valve	2
5	18179	Inner spring, control valve	2
6	11251	Collar, control valve	2
7	18434	Control valve	2
8	18346	Harness assy., solenoid	1
9	16440	Solenoid valve assy.	1
10	1081	Seal ring, upper	1
11	1082	Seal ring, center	1
12	1083	Seal ring, lower	1
13	18168	*Power-Lash assy. - 317B	2
13	18422	*Power-Lash assy. - 317C	2
14	11395	Hex jam nut	2
15	18169	Master piston assy.	2
16	18145	Spring, master piston	2
17	18144	Washer, master piston retainer	2
18	12991	Ring, master piston retainer	2
19	14664	Slave piston	2
20	14716	Outer spring, slave piston	2
21	14715	Inner spring, slave piston	2
22	13500	Spring retainer	2

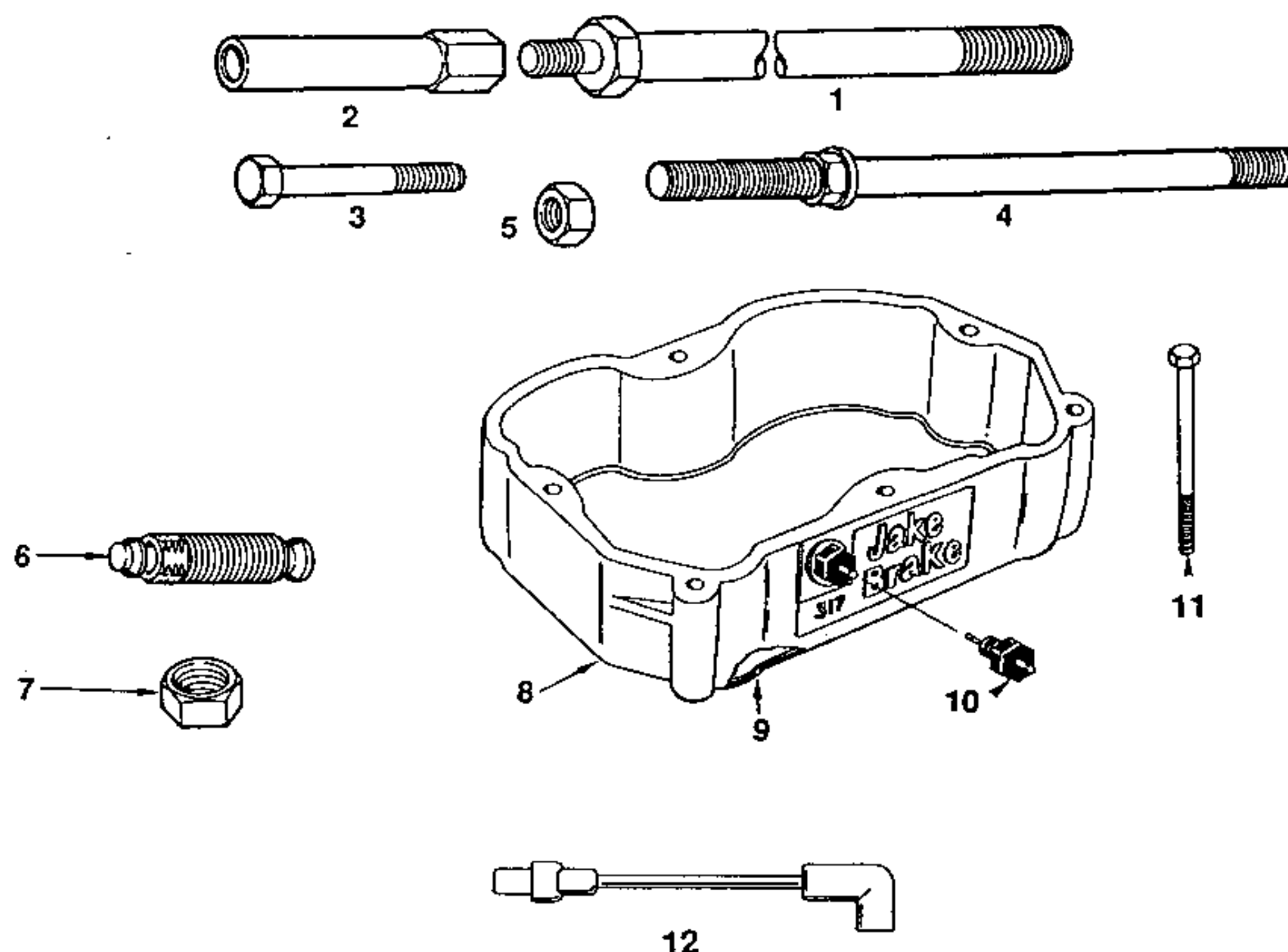
*P/Ns 18168 and 18422 include P/N 11395 Nut.



Attaching Parts Group

Ill. No.	Part No.	Part Name	Qty/Eng.
	16994	Housing Attch. Parts Group	1
1	14677	Cylinder head bolt	3
2	14678	Spacer	3
3	14801	Bolt, 10 mm x 70 mm	3
4	16941	Stud assy., brake mounting	6
5	16553	Hex nut, M-12 x 1.75	6

Ill. No.	Part No.	Part Name	Qty/Eng.
	15847	Adjusting Screw Group	1
6	14676	• Screw and pin assy.	6
7	14721	• Hex jam nut, M-10 x 1.5	6
	18177	Spacer Group	1
8	18167	• Spacer assy.	3
9	15906	• Seal (1/grp.)	3
10	17366	• Electrical connector (1/grp.)	3
11	14799	• Capscrew, 6 mm x 100 mm	18
12	18105	• Harness, adaptor-male blade	3

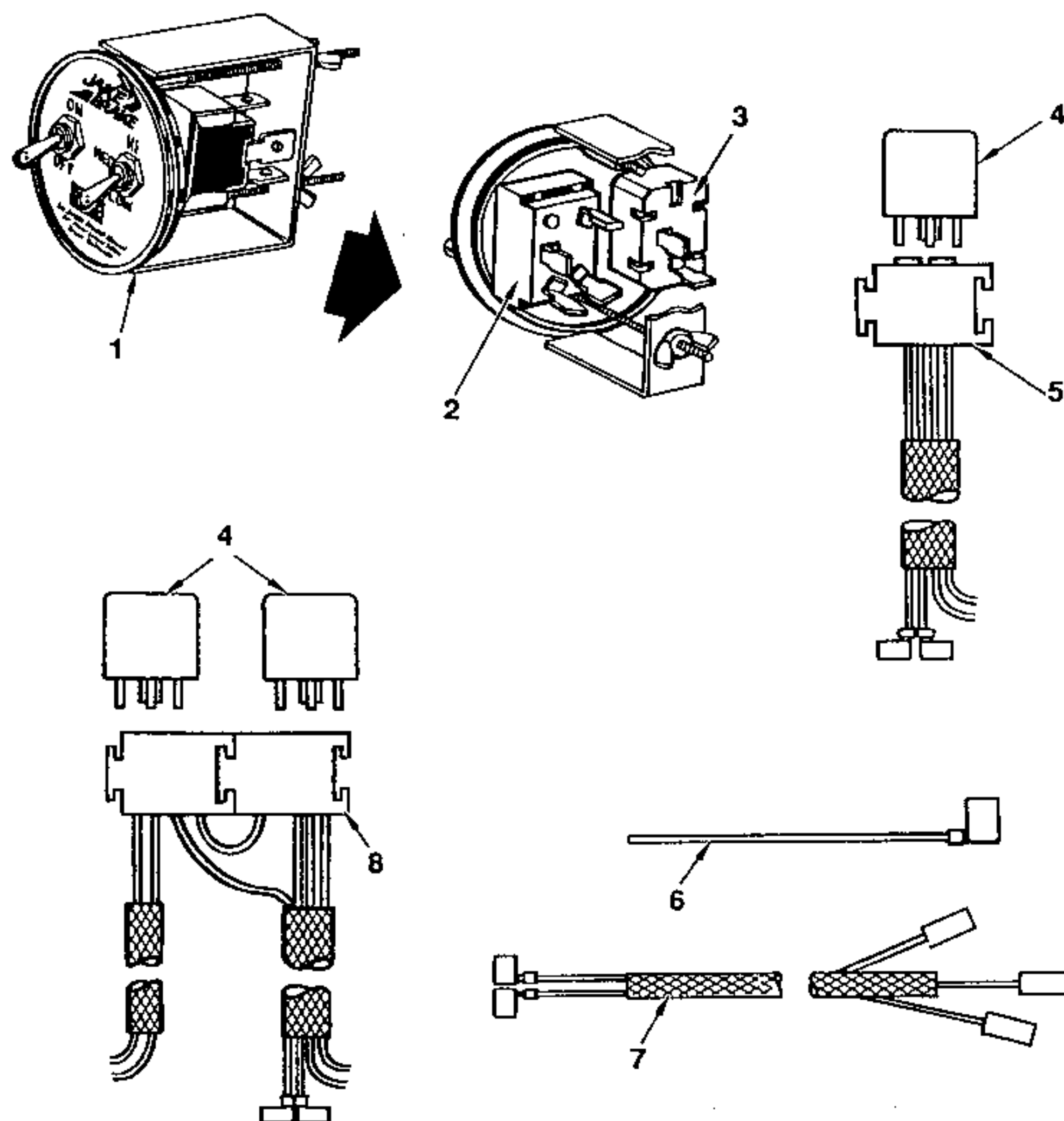


Control Groups

NOTE:

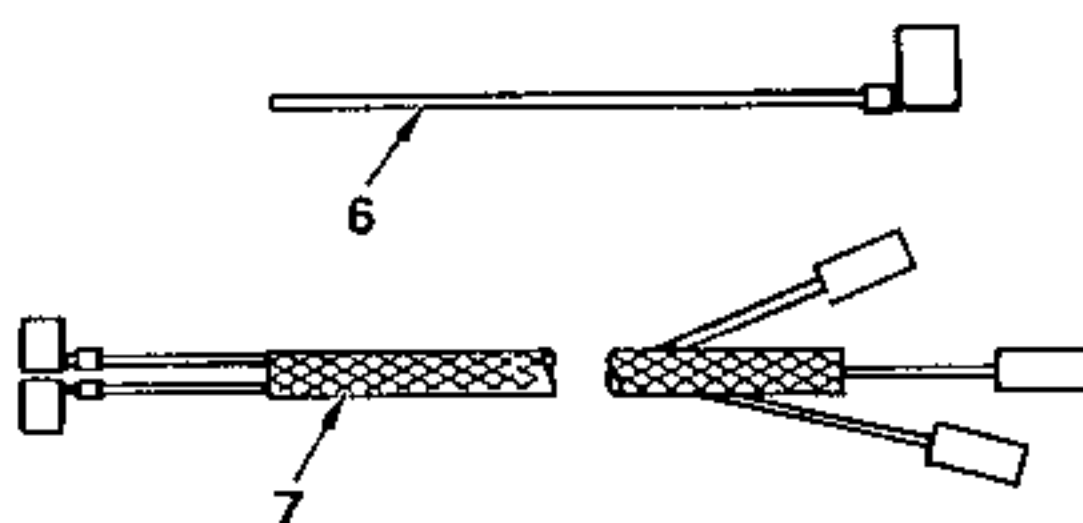
Controls Installed by vehicle OEMs may be different than controls supplied by Jacobs.

18428 Relay Group (w/o ABS) - 91/92 Mod.Yr. Eng.



Ill. No.	Part No.	Part Name	Qty.
1	17328	3 Mode Switch Group	1
2	2957	Toggle switch, on/off	1
3	1304	Toggle switch, 3 position	1
4	16933	Relay	1
5	17593	Relay base, hi active, prewired	1
6	17594	Harness, power lead	1
7	18355	Wire harness, eng. to select switch	1
NI	15850	Customer info group	1

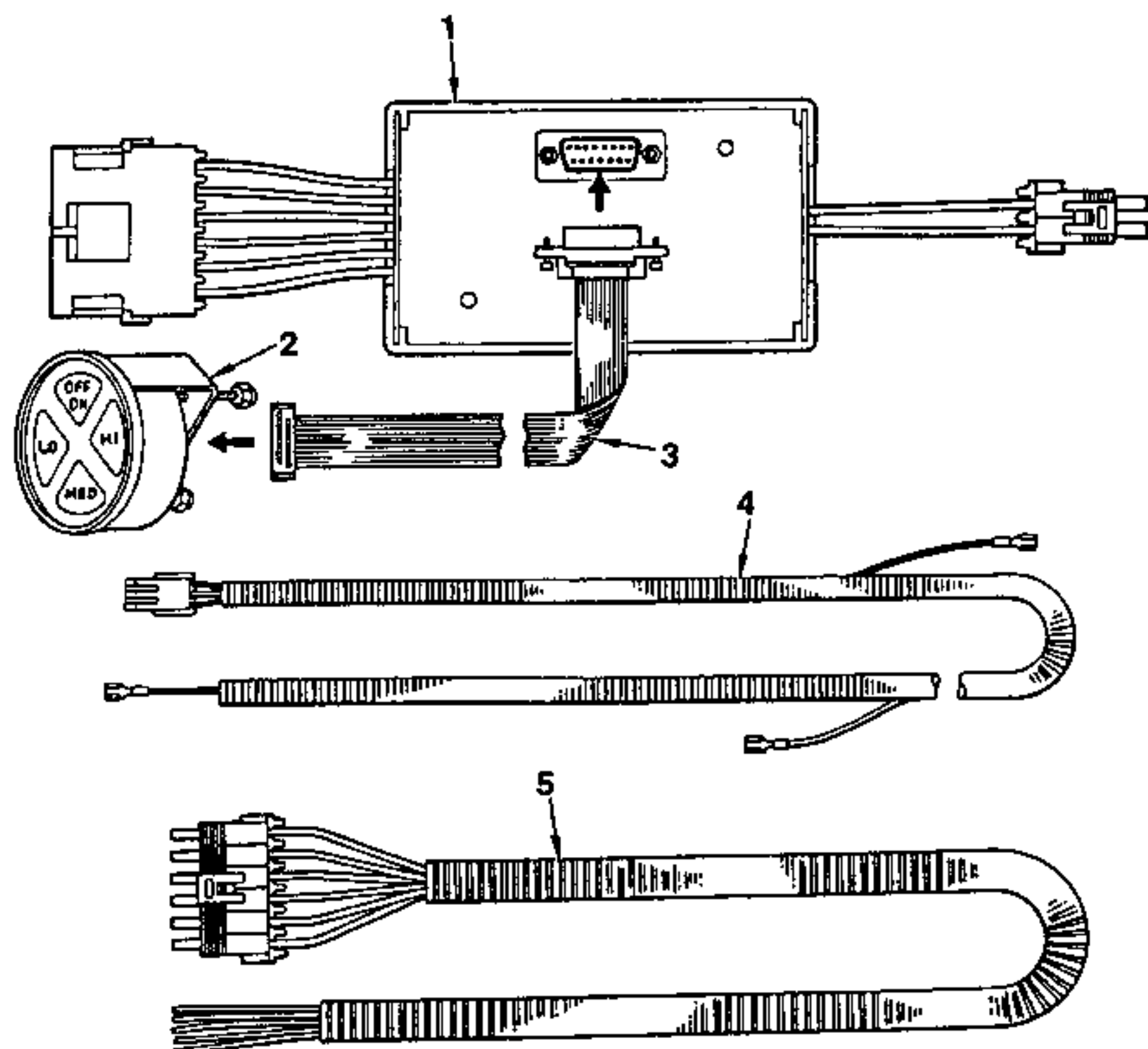
18427 Relay Group (w/ ABS) - 91/92 Mod.Yr. Eng.



Ill. No.	Part No.	Part Name	Qty.
1	17328	3 Mode Switch Group	1
2	2957	Toggle switch, on/off	1
3	1304	Toggle switch, 3 position	1
4	16933	Relay	2
6	17594	Harness, power lead	1
7	18355	Wire harness, eng. to select switch	1
8	17595	Relay base, hi active, prewired	1
NI	16944	Hex bolt	1
NI	15850	Customer info group	1

ABS = Anti-Lock Braking System

16587 PWM Electronic Control - Pre-91 Mod.Yr. Eng.



Ill. No.	Part No.	Part Name	Qty.
1	17258	Control module	1
2	15641	Dash module	1
3	16306	Wire harness	1
4	15683	Harness, retarder	1
5	15684	Harness, module	1
NI	15694	Trouble shooting guide	1

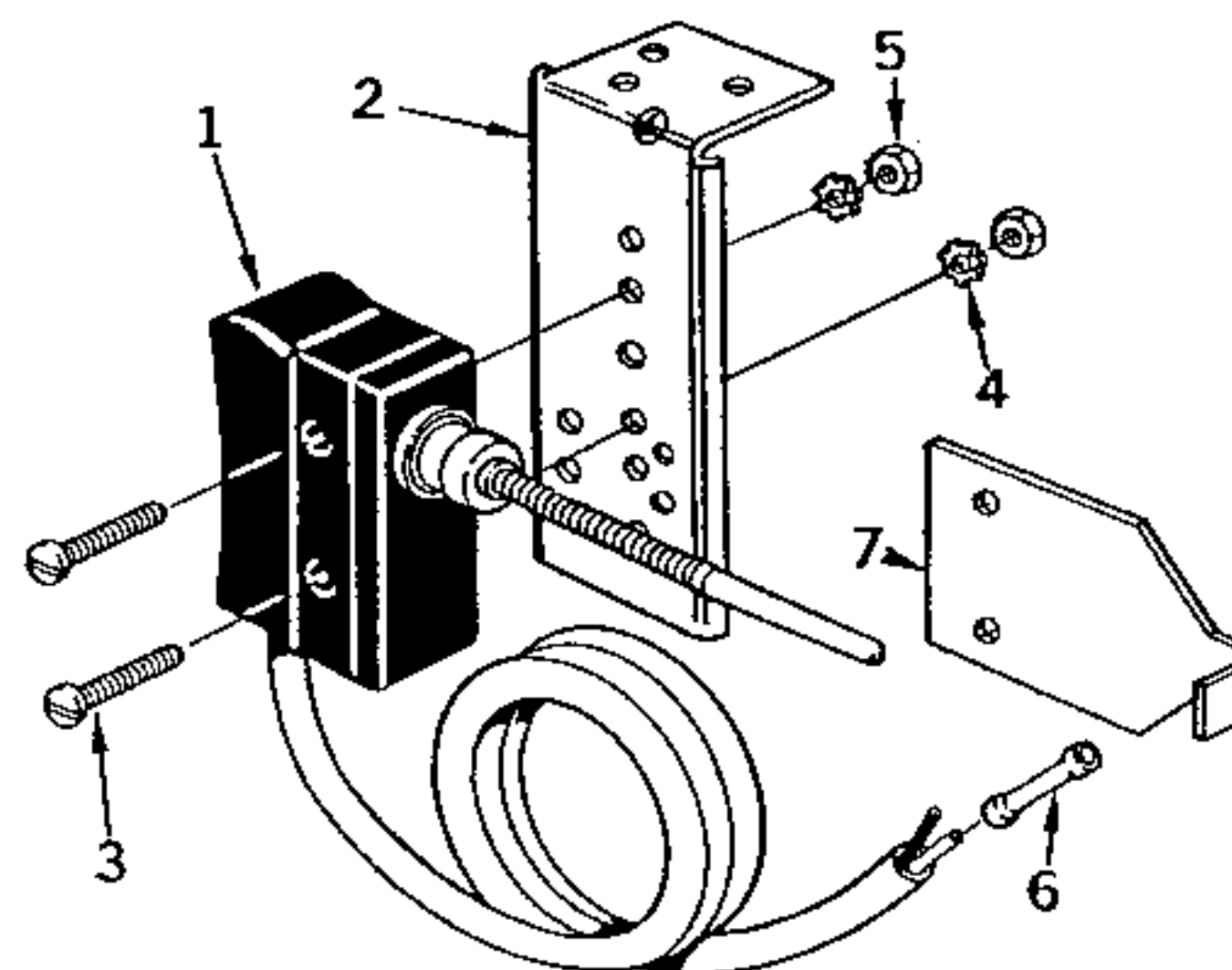
NI = Not Illustrated

Control Groups (Continued)

12261 Clutch Switch Group - Pre-91 Mod. Yr. Eng.

Ill. No.	Part No.	Part Name	Qty./Grp.
1	12246	Clutch switch	1
2	12269	Switch mount bracket	1
3	5377	Pan head screw	2
4	5378	Lockwasher	2
5	3306	Hex nut	2
6	13708	Butt splice	2
7	12262	Overtravel bracket*	1
NI	13674	Instruction sheet	1

*Optional item not included in group



Service Tools and Parts

Ill. No.	Part No.	Part Name
1	16896	Feeler gauge 0.045 in. (1.14 mm)
2	17902	Feeler gauge 0.050 in. (1.27 mm)
3	18424	Feeler gauge 0.020 in. (0.51 mm)
4	17397	Slave piston removal tool
5	1283	Solenoid screen retainer
6	1282	Solenoid screen
7	17465	Tool kit - For Jake Brake - all Caterpillar models.
7	17469	Tool kit - For all Jake Brake models

