



**Jacobs Vehicle Systems®**

# Jacobs Parts Manual

For Cummins 404, 404B, 404BG, & 404C

The Model 404 Jake Brake® retarder is designed and approved for use on Cummins L10 engines including 49 state, "Carb" (Calif.) and 88L10 engines. The Model 404 is not approved for use on 91L10 engines

The Model 404 was superseded by the Model 404B

The Model 404B engine application is the same as the Model 404 which is: All L10 engines except the 91L10.

The Model 404BG kit contains guideless exhaust valve crossheads and replaces the Model 404B. Engine application is the same as the Models 404 and 404B.

The Model 404C is designed and approved for use on 91L10 engines both CELECT™ and STC, injection timing control.

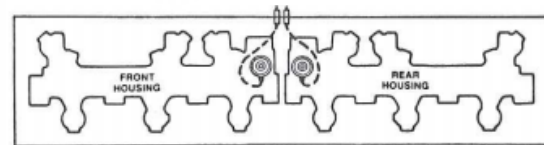
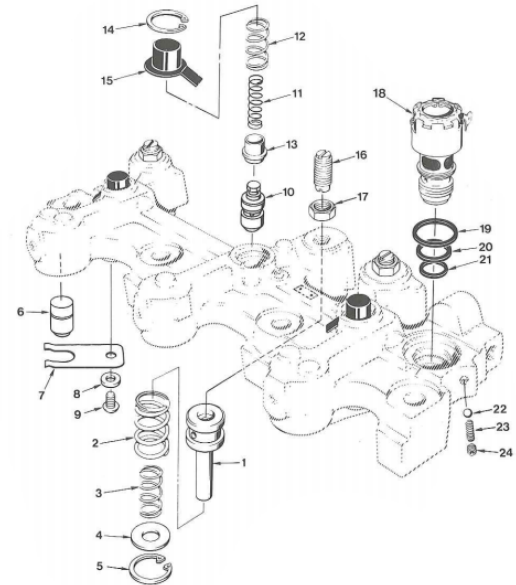
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CELECT™ is a trademark of the Cummins Engine Company.

## COMPONENT PARTS

Model	P/N Hsg. Assy. Front-pkgd.	P/N Hsg Assy. Rear-pkgd.	Description
404	011900	011901	12VDC, Single Lead*
404DL	011975	011976	24VDC, Dual Lead*
404BG	017285	017287	12VDC, Single Lead

Illus. No.	Jacobs P/N	Part Name	404	404B	404BG	404C
1	011377	Piston - Slave	3	3		
1	016774	Piston - Slave			3	3
2	009433	Spring - Outer Slave Piston	3	3	3	3
3	009432	Spring - Inner Slave Piston	3	3	3	3
4**	013500	Retainer - Spring	3	3	3	3
5**	011284	Ring - Retaining	3	3	3	3
6	016773	Piston - Master 7/8 Dia.		3	3	
6	016772	Piston - Master 11/16 Dia.				3
6	001017	Piston - Master 7/8 Dia.	3			
7	011841	Spring - Flat	3			
7	016810	Spring - Flat		3	3	3
8	011545	Washer - Plain	3	3	3	3
9	011544	Screw - Button Hd	3	3	3	3
10	039025	Control Valve	3	3	3	3
11	007500	Spring - Control Valve (Orange)				3
11	011823	Spring - Control Valve - Inner (Red)	3	3	3	
12	011253	Spring - Control Valve - Outer	3	3	3	3
13	011251	Collar - Control Valve	3	3	3	3
14	011284	Ring - Retaining	3	3	3	3
15	011252	Cover - Control Valve	3	3	3	3
16	016914	Screw - Reset Assy.	3	3	3	3
17	011395	Nut - Hex Jam	3	3	3	3
18	024613	Valve - Solenoid	1	1	1	1
18	024617	Valve - Solenoid (Dual Lead)	1	1	1	1
19	020229	Seal Ring - Upper	1	1	1	1
20	001082	Seal Ring - Center	1	1	1	1
21	001083	Seal Ring - Lower	1	1	1	1
22	001021	Ball	1	1	1	1
23	001720	Spring - Ball Check	1	1	1	1
24	028317	Plug - Pipe	1	1	1	1



The exploded view shown is of the front housing. The rear housing is a mirror image of the front housing and contains the same components.



	404C	404B-BG	404
<b>P/N</b>	016772	016773	001017
<b>Dia.</b>	11/16 in.	7/8 in.	7/8 in.
<b>Length</b>	1 7/32 in.	1 7/32 in.	1 1/16 in.

Use flat spring P/N 011841 with master piston P/N 001017.

Use flat spring P/N 016810 with master pistons P/N 016772 and 016773.

\*Housing for threaded oil connectors. All others have push-in style tubes

\*\*Use 009435 retainer and 009645 ring for the slave piston Model 404 brakes with Serial No. less than B200204

# MODEL 404C

## 016926 Engine Attaching Parts Group

Illus. No.	Jacobs P/N	Part Name	Qty.
1	018929	Screw Rkr Adj.	6
2	017134	Nut-Hex Jam	6
3	017302	Crosshead Assy.	6
4	002299	Term Assy.	2
5	013154	Tube-Oil Supply	1
6	013155	O-Ring	2
7	014619	Harness Solenoid*	2
8	016980	Bulk Adapter	1
9	002848	Clamp	1
10	016894	Adapter 90 Degrees	1
11	016963	Seal - Comp.	1
12	014807	Adapter	1

## 016989 Housing Attaching Parts Group

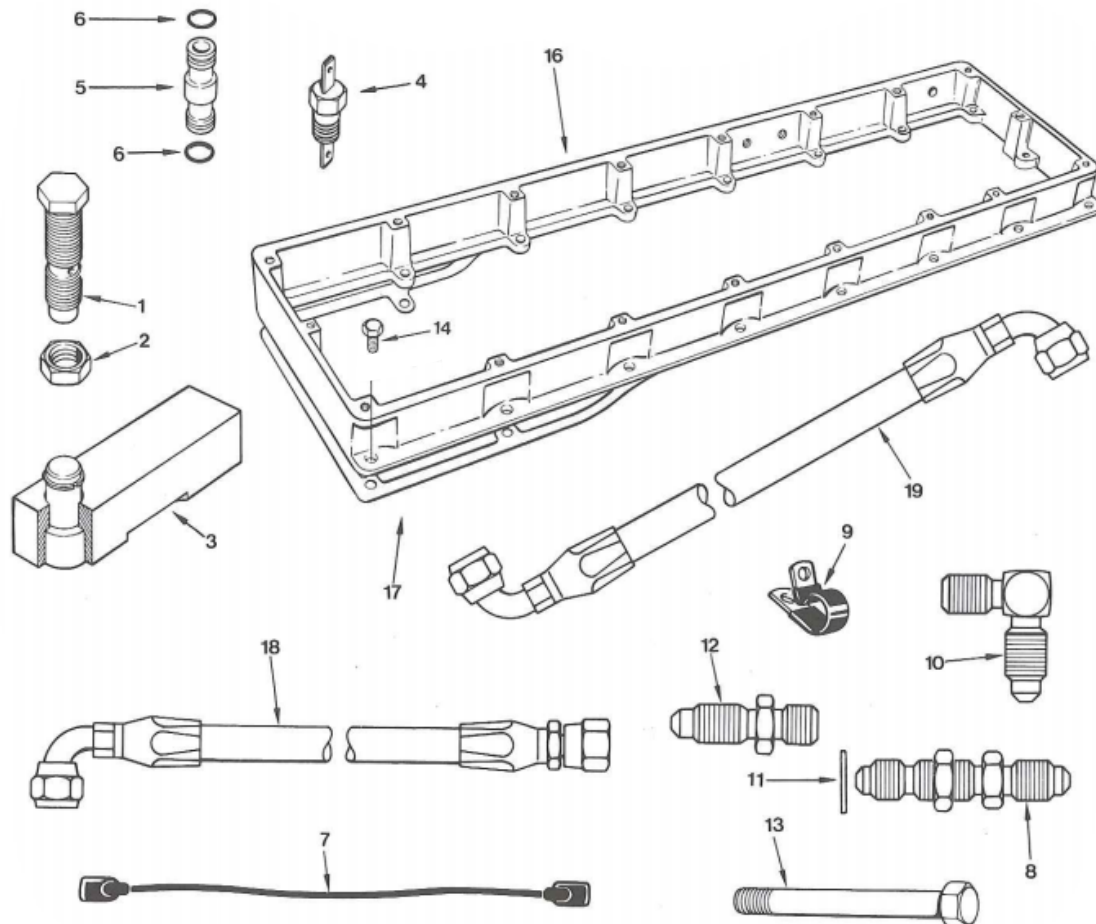
Illus. No.	Jacobs P/N	Part Name	Qty.
13	018511	Bolt-Hex hd M14x200 Lg	8

## 016927 Spacer Attaching Parts Group

Illus. No.	Jacobs P/N	Part Name	Qty.
14	019346	Flange Head Bolt	14

Illus. No.	Jacobs P/N	Part Name	Qty.
16	016686	Spacer	1
17	016723	Gasket	1
18	016960	Hose Assy-Oil Supply Int.	1
19	016961	Hose Assy-Oil Supply Ext.	1

\*Four required for dual lead applications.



## MODELS 404, 404B, 404BG

### 017304 Engine Attaching Parts Group

Illus. No.	Jacobs P/N	Part Name	Qty.
1	003678	Screw - Inj. Adj.	6
2	017302	Crosshead Assy.	6
3	002299	Terminal Assy.	2
4	013154	Tube - Oil Supply	1
5	013155	O-Ring	2
6	014619	Harness - Solenoid	2**

\*\*Four required for dual lead applications.

### 011898 Housing Attaching Parts Group

Illus. No.	Jacobs P/N	Part Name	Qty.
7	011556	Bolt-Hex Head	8

Illus. No.	Jacobs P/N	Part Name	Qty.
17	01-011393	Gasket	1
18	011445	Spacer	1
NI	011908	Spacer Dual	1
19*	014407	Screw & Pin Assy.	6

\*For models 404 & 404B only

### 014809 Oil Supply Attaching Parts Group

Illus. No.	Jacobs P/N	Part Name	Qty.
8	011544	Screw - Button Hd.	3
9	014807	Adapter (w/ O-Ring) 1/2-20X9/16-18	1
10	011748	Gasket	1
11	016869	Hose Clamp	1

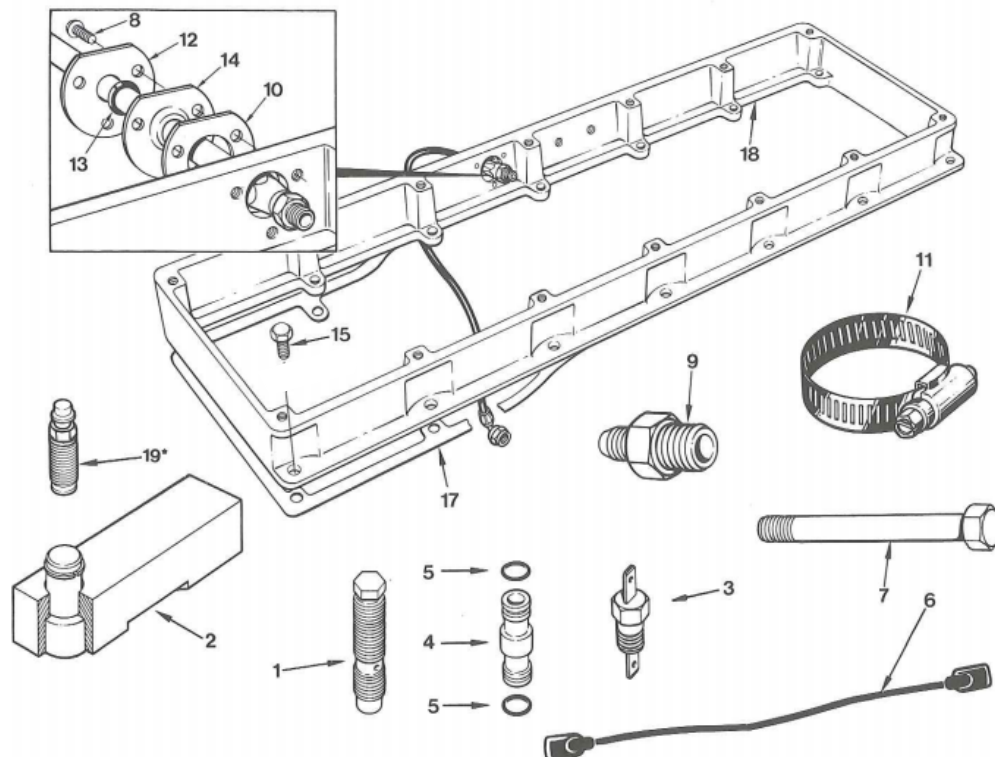
### 016955 Oil Supply Hose Assy.\*\*\*

Illus. No.	Jacobs P/N	Part Name	Qty.
12	011540	Plate - Oil Supply Hose	1
13	011553	O-Ring	1
14	011539	Dish	1

\*\*\*Hose is not sold separately - For replacement order 016955 assy.

### 011899 Spacer Attaching Parts

Illus. No.	Jacobs P/N	Part Name	Qty.
15	019346	Flange Head Bolt	14



## CONTROL GROUPS

### 404 Series Controls

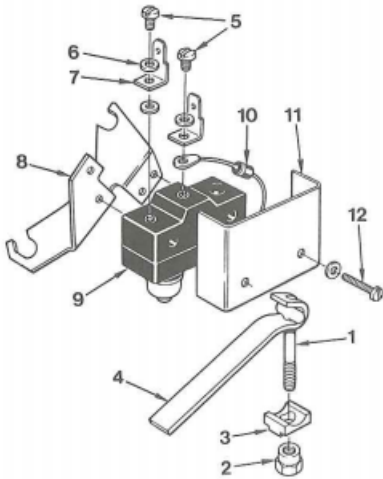
Engine	Brake Model	Controls
88L10 (pre 91L10)	404-404B-404BG	3975 Cab Control + 14070 Eng. Control
Pre88L10 (pre 91L10)	404-404B-404BG	3975 Cab Control + 14070 Eng. Control
91L10 STC	404C	3975 Cab Control + 14070 Eng. Control
91L10 CELECT	404C	VOEM Cab Control + Harness

**NOTE:**

Controls installed by vehicle OEM's may be different then controls supplied by Jacobs.

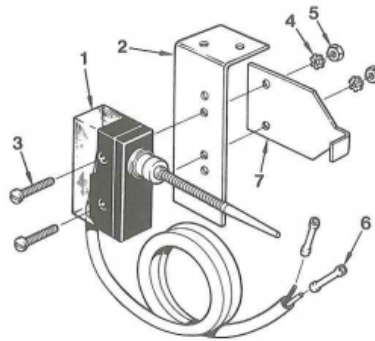
**Optional:**

PACE/CELECT	404-404B-404BG-404C	17256 Harness
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**014070 Engine Control Group**  
**014072 Engine Control Group (Dual Lead)**

Illus. No.	Jacobs P/N	Part Name	Qty.
1	014028	Tee Bolt	1
2	014030	Tee Bolt Nut	1
3	003768	Tee Bolt Guide	1
4	014027	Switch Actuating Lever	1
	007671	Switch Assy. (neg grnd)	1
5	001558	Screw-Binder Head	2
6	001559	Washer-Lock	3
7	001512	Tab - Quick Disconnect	2
8	006796	Bracket-Switch Mount	1
9	018188	Switch	1
10	001534	Diode	1
11	001180	Cover - Switch	1
12	001244	Screw - Tapping	2
NI	003708	Tube - Shrink	2
NI	002014	Receptacle	2
NI	003881	Harness	2
NI	003839	Harness - Dual Lead	2
NI	003778	Loom - Auto	1
NI	013997	Instruction Sheet	1



**003975 Cab Control Group**

Illus. No.	Jacobs P/N	Part Name	Qty.
	<b>012261</b>	<b>Switch Assy. - Clutch</b>	<b>1</b>
1	012246	Clutch Switch	1
2	012269	Switch Mount Bracket	1
3	005377	Pan Head Screw	2
4	005378	Lockwasher	2
5	003306	Hex Nut	2
6	013078	Butt Splice	2
7*	012262	Overtravel Bracket	1
NI	013674	Instruction Sheet	
	<b>003776</b>	<b>Switch Group-Dash</b>	<b>1</b>
8	003586	Switch-Toggle	1
9	003777	Plate-Dash	1
10	003707	Shrink Tube	4
11	003278	Receptacle	3
NI	003781	Harness-Ign. to Clutch Sw.	1
NI	015758	Wire - 96 in. Long	1
NI	006833	Tie-Cable	12
NI	016556	Diagram-Wiring	1

\*Optional item not included in group

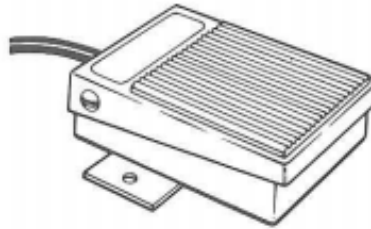
## CONTROL SYSTEM OPTIONS

### 015644 Low Engine Speed Retarder Cut-Off Group

Jacobs P/N	Part Name	Qty.
015645	Control Module	1
016175	Wiring Harness	1
016177	Wiring Harness	1



Jacobs P/N	Part Name
012260	Foot Switch Group



## SERVICE PARTS

Model	Jacobs Tune-Up Kit P/N
404	017723
404B	017723
404BG	020131