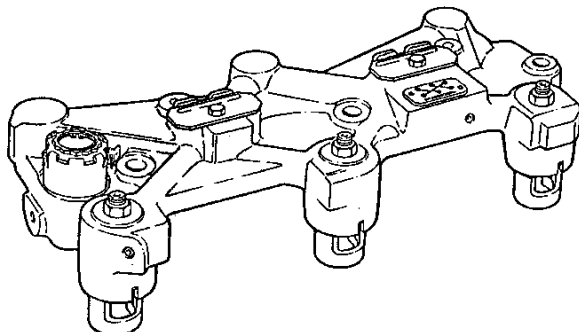


Jacobs Vehicle
Equipment Company
22 East Dudley Town Road
Bloomfield, CT 06002

V-MAC® Control Group P/N 17945
For Use On
Mack® E7 Engines
with V-MAC Controls



17945 Control Group Parts List

P/N	Description	Qty.
17346	2-mode switch group	1
18130	Harness, Engine to Cab	1
18131	Harness, Engine	1
18132	Harness, Cab	1
18138	Terminal, Butt Splice	4
18152	Wiring Diagram, Mod. 680B	1
18257	Mechanical Relay	1
07810	Terminal	2
06833	Cable Tie	12

Instructions

Installation of the 680B hardware on a V-MAC engine is identical to non-V-MAC engines. Only the control system is changed, eliminating need for the fuel pump switch or clutch switch. Also standard engine and cab control groups are not be required with a V-MAC equipped engine. Wiring for a *Jake Brake* in this application is incorporated in a pre-wired harness which is part of *all* V-MAC equipped vehicles.

Currently these chassis types are available with V-MAC: CH, RW, RD, RB. The wiring diagram on the following page illustrates the wire code for these models. The actual circuit arrangements are identical, but wire identification is different.

CH Chassis

1. Locate an area on the dash for the dash switch group and drill a 2 in. hole.
2. The two wires that connect to the ON/OFF switch are located behind the center dash panel. Discard the two black wires contained in the harness, P/N 18132, and connect these two original equipment wires to the ON/OFF switch.
3. Connect green wire to ground stud located behind dash.
4. Install the switch group, P/N 17346, with the bracket and wing nuts.
5. Remove the terminal marked #87 from the relay mounting base marked "engine brake"; use the tool supplied by Mack in the V-MAC tool kit. Cut off the terminal with 2 in. of wire attached. Run the gray wire from the P/N 18132 harness to the back of the relay base; cut gray wire to length needed. Splice to original wiring as shown in diagram on following page. Insert the terminal back into the relay base. Plug relay, P/N 18257, into brake relay socket.

6. Locate the Mack wire, code 22-D-0.8, at the rear of the fuel pump. Cut off the connector. Splice the blue wire from harness, P/N 18130, to this wire using the butt splice provided.
7. Run the yellow wire in harness, P/N 18130, up to the switch assembly. The suggested routing is up around the washer reservoir, over the top of the air cleaner and through the air line junction box into the back of the dash.
8. Connect the gray wire to the ON/OFF switch as shown in the diagram on following page.
9. Tie wrap the harnesses for security and neatness.

RW/RD/RB Chassis

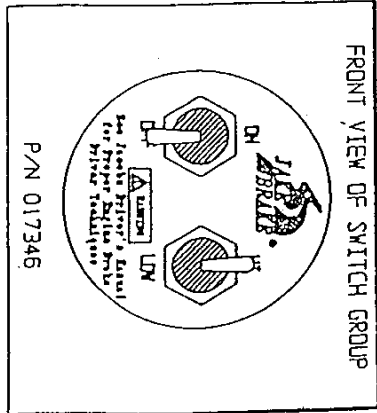
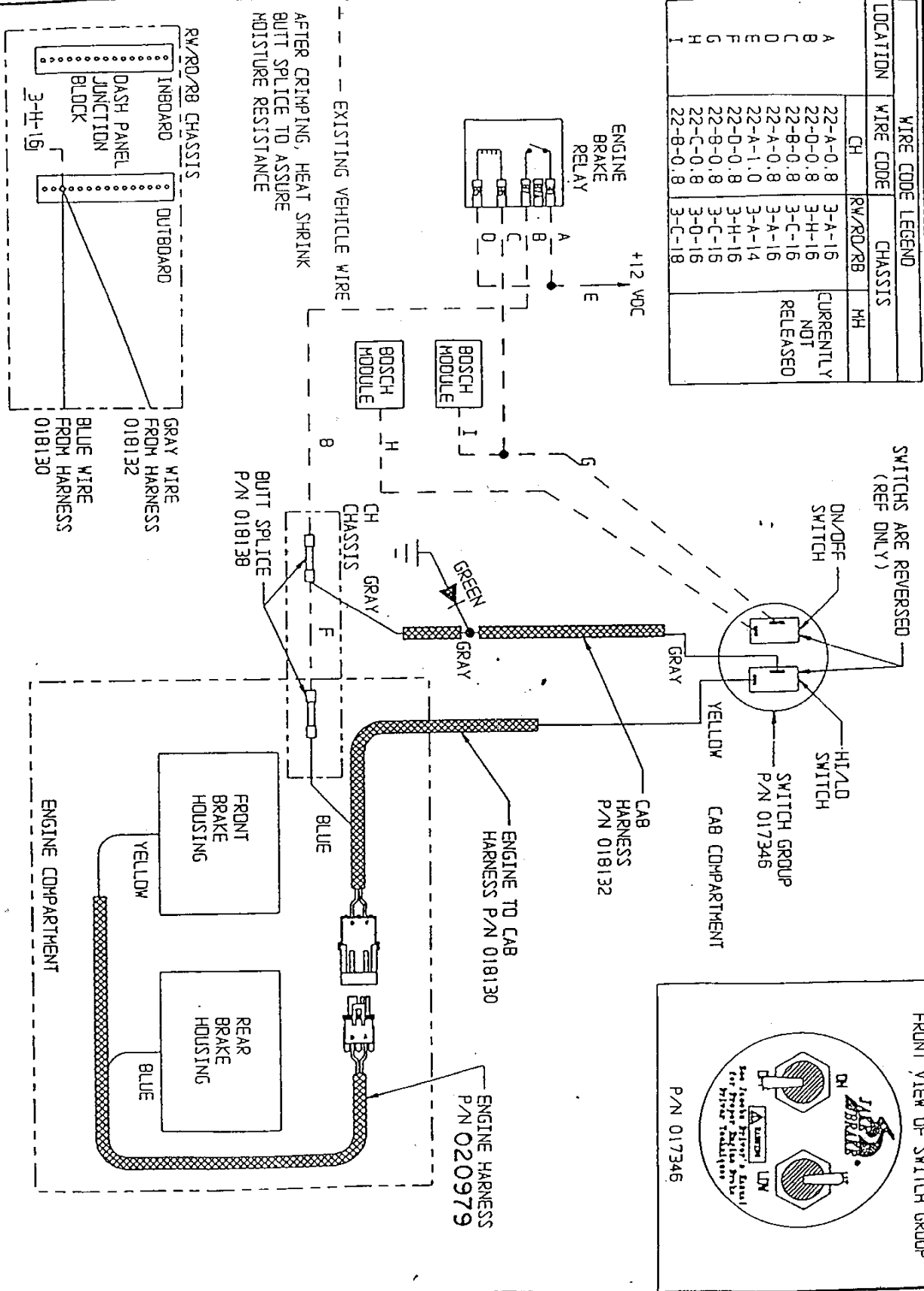
1. Follow step 1 of CH chassis instructions.
2. Follow step 2 of CH chassis instructions, *but in addition*, remove the short jumper wire from the two wires that connect to the ON/OFF switch.
3. Follow steps 3 through 4 of CH chassis instructions.
4. Locate terminal #12 on the outboard dash panel junction block. Confirm that original wiring code 3-H-16 is connected to this terminal. Run the gray wire of harness, P/N 18132, from the dash switch assembly down to terminal #12. Crimp a ring terminal to the gray wire and place on terminal #12. Crimp a ring terminal on the blue wire of harness, P/N 18130, and place on terminal #12. Run the yellow wire of harness, P/N 18130, back up to the dash switch assembly. Connect gray and yellow wires as shown in the wiring diagram on the following page.
5. Plug the connector of harness, P/N 18130, and run the engine harness, P/N 18131, to the engine brake spacer terminals. Secure the harness and terminals using the tie wraps supplied. Plug relay, P/N 18257, into brake relay socket.

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Jake is a Marc. Reg. in Mexico.

WIRE CODE LEGEND		
LOCATION	WIRE CODE	CHASSIS
A	22-A-0.8	3-A-16
B	22-0-0.8	3-H-16
C	22-8-0.8	3-C-16
D	22-A-0.8	3-A-16
E	22-A-1.0	3-A-14
F	22-0-0.8	3-H-16
G	22-8-0.8	3-C-16
H	22-C-0.8	3-0-16
I	22-B-0.8	3-C-18



TITLE: WIRING DIAGRAM FOR MACK 680B

PART NO. 00-018152

REV. A

DATE: MAY 3, 1991