

Bodybuilder's Bulletin

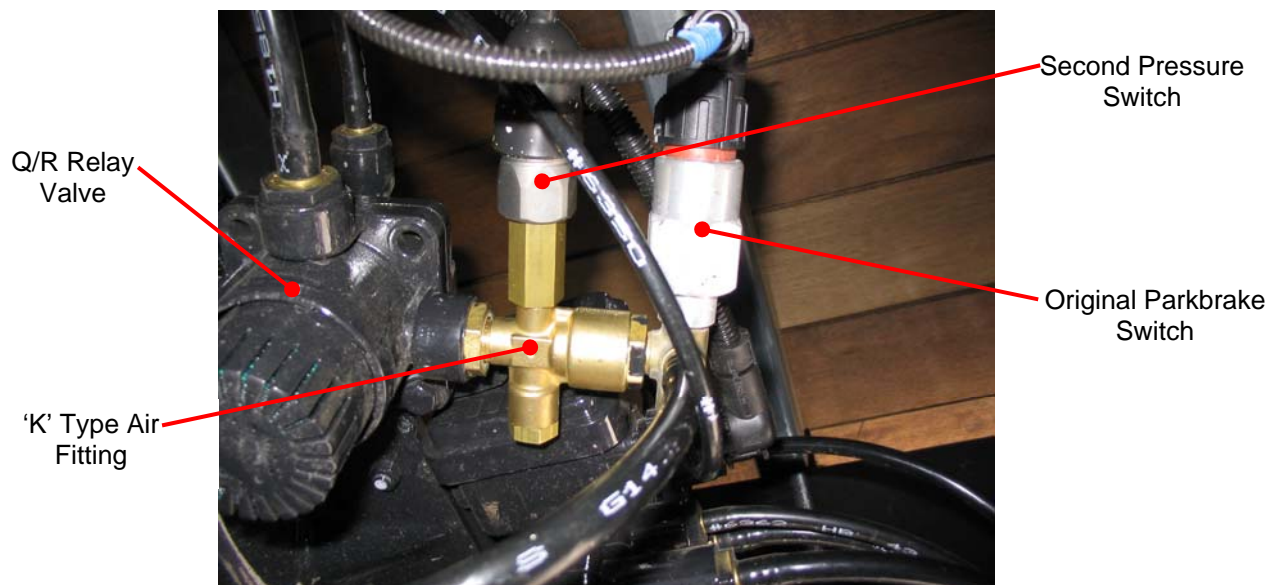
16 December 2009

Bulletin No. 102 - UPDATED (Replaces Bulletin No 082 and 102 Dated 12 May 2008)

How To Obtain a Parkbrake Signal without a KSM

MAN recommend that a KSM module should be specified to obtain a park brake signal (refer to Bodybuilder Bulletin No. 100.) However if a KSM is absent, it is possible to acquire the desired signal by installing a second pressure switch at the parkbrake quick release relay valve. It is NOT possible to use the original switch and its signal for additional equipment, as this is a current monitored circuit for use by the vehicle's CAN-bus system only.

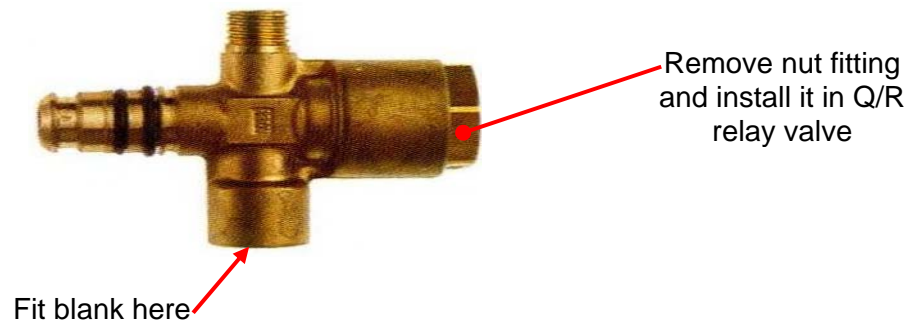
The following picture shows the finished installation:



Additional Switch Fitting Procedure

1. Remove the original switch complete with air fittings from port 2 of the Q/R relay valve.
2. Remove the threaded nut section from the "K" air fitting (see below) and then fit the nut section to port 2 of the Q/R relay valve.
3. Push the additional "K" air fitting into the nut section now in port 2 of the Q/R relay valve.
4. Fit the blanking plug to the unused port of the "K" air fitting (see below).
5. Fit the additional switch into the "K" air fitting.
6. Refit the original switch and air fitting to the spare port that has had the nut section removed on the additional "K" fitting.

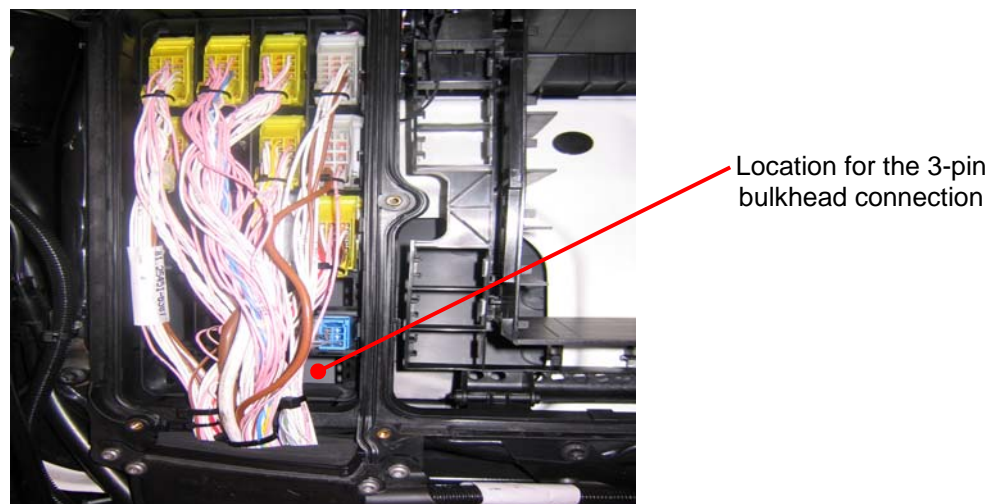
View of "K" type air fitting 81.98183.6121



Additional Wiring Practice

To maintain a certain degree of wiring parity, all additional wiring should be of the same quality as the host chassis. To ensure this, the practice of using factory bulkhead connectors, fuse holders and conduit should be adhered to. Once the connections at the switch have been made, the wiring should enter the cab area via the nearside bulkhead using MAN connectors and be fused at the Central Electrics Panel, once again using MAN parts. The wiring should be used to switch a relay, which then powers the desired equipment function.

The following picture shows the nearside front bulkhead connection location once the black panel has been removed:



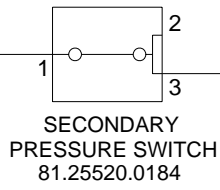
Wiring Circuit Design

A choice of two switches is available depending on whether the desired signal should be positive with the parkbrake in the on or off position.

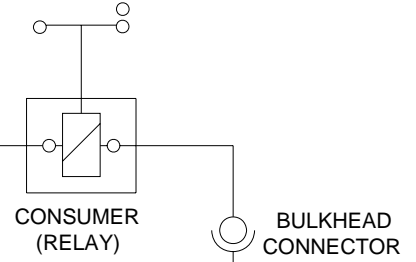
For example some truck-mounted equipment may only be permitted to operate with parkbrake on, so a positive signal with the parkbrake on would be required. Alternatively, equipment stowage devices may only need to be live when the parkbrake is off. For this a positive signal with the parkbrake off would be required.

The following diagrams show the different switch logics:

+VE (FROM PIN 94 OF CE PANEL)



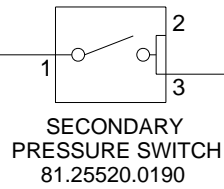
BULKHEAD CONNECTOR



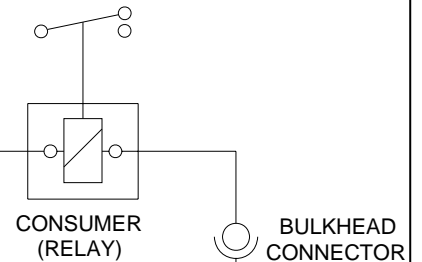
-VE (FROM PIN 92 OR 96 OF CE PANEL)

Parkbrake On = 24v From Secondary Switch (No pressure in Q/R relay valve)

+VE (FROM PIN 94 OF CE PANEL)



BULKHEAD CONNECTOR



-VE (FROM PIN 92 OR 96 OF CE PANEL)

Parkbrake On = 0v From Secondary Switch (No pressure in Q/R relay valve)

Parts Required

Parts required for fitting secondary switch:

- 1 x 81.25520.0184 switch (24v with parkbrake **ON**)
- OR**
- 1 x 81.25520.0190 switch (24v with parkbrake **OFF**)

- 1 x 81.25475.0181 Connector housing
- 1 x 81.25435.0951 Connector housing catch
- 2 x 07.91216.0155 Terminal pin XU4 1.5mm² cable
- 2 x 07.91163.0058 Terminal pin seal 1.5mm² cable
- 1 x 07.91163.0057 Connector housing blanking seal
- 1 x 81.98183.6121 Air fitting "K" type
- 1 x 06.08099.0014 Air fitting (blank)
- 1 x 06.56938.0572 Toric seal

Parts required for in cab and bulkhead electrical parts:

- 1 x 81.25435.0907 Fuse holder
- 1 x 81.25435.0690 Terminal pin lock
- 1 x Blade fuse to suit (local supply)
- 1 x 81.25475.0117 Relay Holder
- 1 x 81.25902.0473 Relay (maximum rated current 20 amps).
- 5 x 07.91201.2441 Terminal pins XF4 1.5mm² cable
- 2 x 07.91213.2110 Eyelet terminal pin XZO 1.5mm² cable
- 1 x 81.25435.0759 Bulkhead Socket 3 pin
- 1 x 81.25435.0709 Bulkhead Plug 3 pin
- 2 x 81.25435.0699 Terminal pin lock
- 3 x 07.91201.0224 Terminal pin XFO 1.5mm² cable
- 3 x 07.91202.0611 Terminal pin XDO 1.5mm² cable
- x 04.37135.9934 Cable conduit. (As required in metres)
- x 2 core cable. (As required in metres - local supply)

*Should you have any queries on the above, please contact Product Engineering
on 01793 448170 or email bodybuilder@man.co.uk.*

Please circulate and then retain in the Bodybuilder's Manual