This circuit was designed to switch a ±2.5 volt peak, dc to 300 kHz input to an operational amplifier as controlled by a +6 (on) or -6v (off) signal.

The novel feature of this circuit is the use of the bilateral transistor Q2 which draws a saturation current of equal amplitude and opposite polarity to the saturation current of the bilateral transistor Q1. As a result, the dc bias effect is canceled at the output (input summing point of the operational amplifier). Since Q2 is switched on whenever Q1 is on, and off when Q1 is off, the operational amplifier has a true zero dc bias in both signal off and signal on conditions.

Notes:
1. This switch should be useful in a wide variety of signal switching and control circuits.

2. Inquiries concerning this switch may be directed to:
   Technology Utilization Officer
   Goddard Space Flight Center
   Greenbelt, Maryland 20771
   Reference: B67-10559

Patent status:
No patent action is contemplated by NASA.

Source: J. M. Husted of Radio Corporation of America under contract to Goddard Space Flight Center (GSFC-532)

Category 01