

CIRCUIT IDEAS

Readers' circuit ideas published here earn their authors £35 or more. The month's top idea, or ideas, see anything up to £100 – sometimes more. All we ask is that the ideas you send in should be original to the best of your knowledge. Useful enhancements to previously published circuits are considered, but please be sure to acknowledge the original circuit.

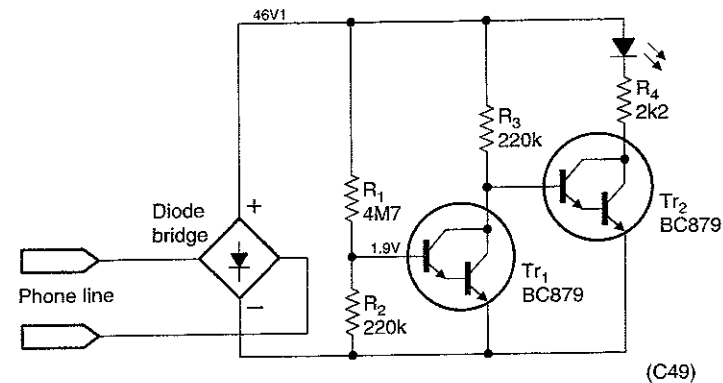
Line-powered telephone monitor

Since the state of an internal modem is sometimes a little indeterminate, this was intended to indicate whether the modem is on-line or off; it also

shows when the telephone is in use. It needs no batteries and may be fixed to the computer, possibly with Velcro. At the base of Tr_1 there should be a

voltage of 1.9V, the transistor being a 100V, 1A BC879 darlington, which therefore conducts when the modem is off-line. When on-line, the line voltage falls, Tr_1 turns off and Tr_2 conducts, activating the led, a low-current, high-brightness type.

Robert L A Trost
Duiven
Holland
C49



Line monitor indicates whether a modem is on-line or off-line and will tell you when your three-year-old has dialled the fire brigade from the bedroom.

Video muting circuit

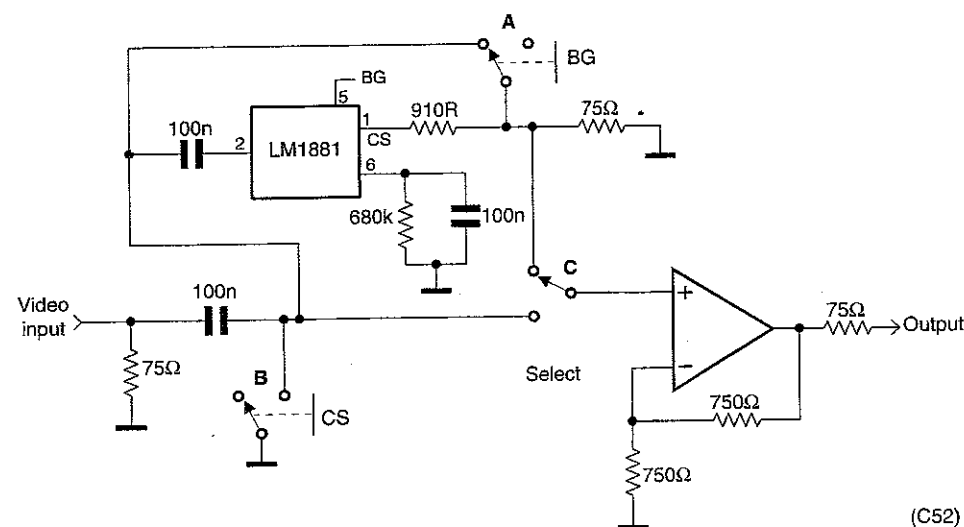
While maintaining sync. and colour burst signals so that the picture may be switched on or off as required with no effect on other equipment, this circuit switches

composite video to black, an advantage in video multiplexing. The LM1881 sync. separator provides composite sync and burst gate signals used to control 74HCT4053 cmos

switches A, B and C, shown here as mechanical types for simplicity. Composite sync. is potted down and may receive colour burst at switch A to produce a video signal synchronised to the video input, albeit without picture content. Video input is clamped to the same level at switch B and both signals are selected by switch C.

Switching is best carried out in the vertical interval of the first field, which can be done by a little logic controlled by the odd/even flag on the sync. separator.

Jim Irlam
Wraysbury
Berkshire
C52



For use during operations such as video multiplexing, this simple circuit allows the picture to be turned on or off while keeping sync. and colour burst intact.