

# A Simple Amateur Television — Part 4

Having now mastered the techniques involved in Electronic Generation of test patterns and teletype, we can now move along to our next building block — which is an electronic vision switcher. With this, we can select which of any four video signals is routed to our transmitter. Our

restore video the monitors will take a little time to settle and spoil your presentation. Using two of our video inputs in this way, there is still two spare inputs for your home video recorder, personal computer, TV camera etc.

Fig 2 shows the circuit of the

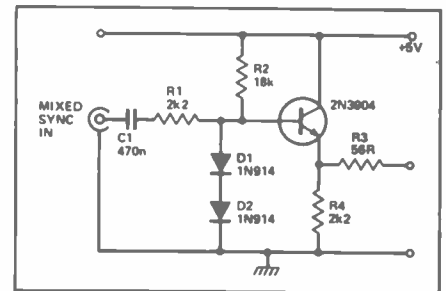


Fig.2 — Circuit of the Vision Switcher

fed to the video input. The logic 'O' states required at the emitter are supplied from our SN 74139 IC. This chip will only allow one of its outputs to assume logic 0 at any one time. The 74139 is fed with a two wire logic signal from our push button selector.

Fig 3 shows a push button selector using momentary contact push buttons. The buttons being encoded using a priority encoder the information being retained in the 7475 latch. Fig 4 shows a simpler system using the mechanical latching type of

*This month Trevor Brown, G8CJS, describes the vision switching unit and suggests a code of practice for 432MHz users.*

electronic test generator being one of the sources, Fig 1 shows how we can generate a black source very simply from one transistor. It is important to radiate black when we do not wish to display video for example when changing a caption or arranging and focusing a camera scene. If we simply cut to a spare input on the mixer and radiate no video then sync information is lost to your TX monitor-and all your viewers monitors. When you then

switcher where the four video inputs are fed to the base of four one transistor amplifiers all sharing a common 470ohm load. The transistors are switched on and off at their emitters — to switch on any one of the four transistors we simply take its emitter down to logic '0'. The video signal then present at its base will appear inverted across our common load resistor and pass to our two stage amplifier where it is inverted back and

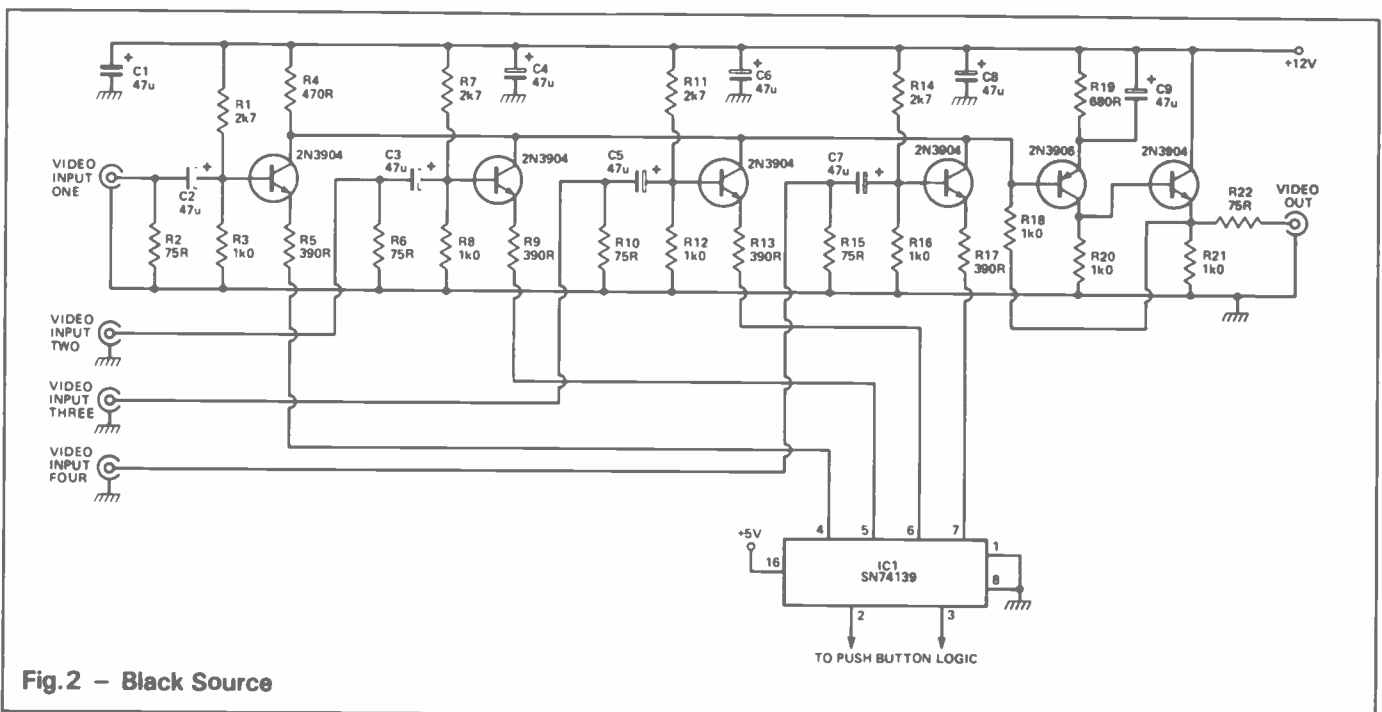


Fig.2 — Black Source