FINAL YEAR PROJECT REPORT

DIPLOMA IN ELECTRONICS ENGINEERING

SCHOOL OF ENGINEERING

MARA INSTITUTE OF TECHNOLOGY

SHAH ALAM, SELANGOR.

~ VIDEO WIPER ~

BY

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ABSTRACT

The 'main objective of designing the video wiper is to produce
a blanked out modulation signal of the video input signal at
the beginning of each frame and controlling it during the periods
required.

The modulation signal of the video input signal will be clipped
of the diode clipper circuit but leaves the sync. signal
intact.

The wipe effect can be obtained applying a suitable signal to
the control input of the electronic changeover switch. When the
picture is required, the direct video signal is switched through
to the output. When the lanked screen is required the clipped
signal is fed through to the utput.

Video amplifier is needed as a buffer stage before the output.
The large section in this unit is to provide a control signal.
The low pass filter with the cut-off frequency at about 5-6 kHz.
will filter out the frame sync. pulses and uses these to trigger
a pulses generator which provides the control signal. A higher
bias level then the normal mid-supply level amplifier after
low pass filter circuit will clip off the modulation signal and
provides the negative going frame sync. pulses to the trigger
circuit.

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1.0   INTRODUCTION

The most basic method of editing a home video is simply to cut straight from one scene to the next but by using some form of fader or wiper, much smoother transition from one scene to the next can be obtained.

Wipers take various forms and some units can provide a whole range of wipe effects. In our project, the best general purpose wipe effect is the top to bottom type.

Using this wiper, the screen is progressively blanked from the top downwards until it is fully blanked. At the biginning of the next scene, the screen is progressively restored from the bottom upwards.

An added feature of this wiper is that it will do an inverse of the standard wipe effect. The unit operates with a standard PAL composite video signal at 75 ohms impedance (not a U.H.F. television signal).