

5.5.3 HORIZONTAL DEFLECTION CIRCUIT

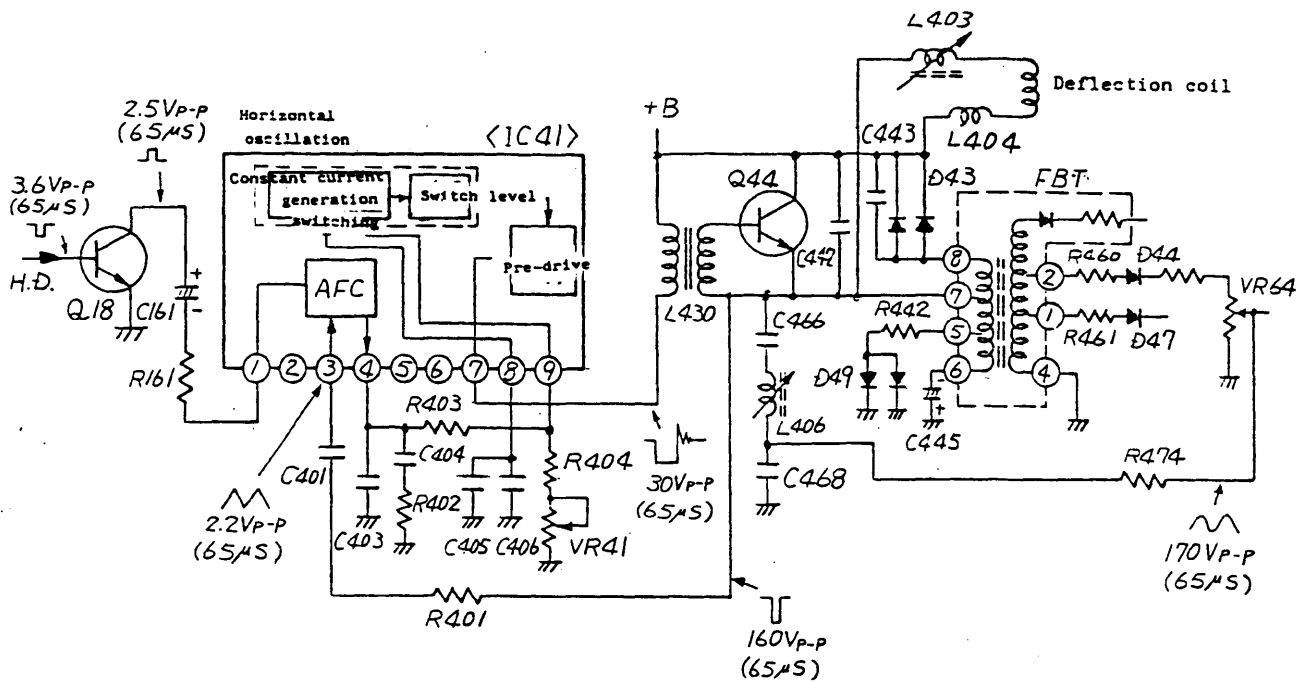


Fig. 5 - 13 HORIZONTAL DEFLECTION CIRCUIT

- (a) Q18 makes polarity conversion of horizontal synchronizing signals.
- (b) AFC circuit makes phase detection of horizontal synchronizing signals, makes phase comparison with the flyback pulses input to IC terminal 3, impresses its output 4 to IC terminal 9 and thus automatically controls the horizontal oscillation frequency.
- (c) The horizontal oscillation circuit causes oscillation in the IC by making use of charge and discharge of C405 and C406 of terminal 8. VR41 is used for varying the oscillation frequency by changing the discharge time constant of C405 and C406.
- (d) The output of the horizontal oscillation circuit is taken out as pulse waves of 15370Hz out of terminal 7, and is impressed to horizontal output TR of Q44.
- (e) Horizontal output transistor Q44 performs switching operation with pulse waves described in paragraph (d) above, supplied saw-tooth wave current to the deflection coil and thus makes horizontal deflection. L403 is the coil for controlling the horizontal amplitude. Horizontal amplitude is controlled by regulating the current supplied to the deflection coil by changing the inductance.
- (f) R442, D49 and C445 constitute the boost up circuit. The flyback pulses of negative polarity generated at FBT terminal 5 are smoothed with D49 and C445, and +B line of the horizontal output circuit is lifted by \ominus potential generated at terminal 6.
- (g) The flyback pulses generated in the horizontal flyback period with the flyback transformer are boosted and rectified, a high voltage of 14kV is generated and is impressed to the anode.
- (h) The output of terminal 2 of the flyback transformer is rectified with D44, a voltage of DC 600V is generated and is impressed to G2 of the CRT.
- (i) The output of terminal 1 of the flyback transformer is rectified with D47, and a voltage of DC 40V is taken out.
- (j) The dynamic focus voltage is generated by the resonance circuit of C466, C468 and L406. It is impressed to G4 of the CRT for controlling the peripheral focus.