



KQ-- 371545

"W" Input		"T" Output		Delays (msec)		
Min.	Max.	Min.	Max.	Turn On	Per	Circuit
43.0	53.	2.3	10		Min.	0.30
		-0.8	-6.2	Max.	1.35	
				Turn Off	Min.	0.50
					Max.	1.65

(Levels Specified for Max. Loading Conditions)

Converter W to T Line

The KQ-- card consists of four relay-to-CTDL integrator circuits. Each circuit converts a W line (+48v) input from the normally open contacts of a relay to a CTDL T line output. The T line output normally drives into CTDL N-type logic blocks.

Circuit Description

Assume that the integrator circuit is connected as shown above. When the relay is down and the N/O contact points are open, current flow from the -20v supply plus the slight load current (I_o) through the integrator divider

network sets the output at pin A to -4.5v. When the relay is energized and the N/O contacts close, +48v is applied to pin D. Current flow from the load and the integrator network gives an output at pin A of +5.0v. C21 filters the oscillating input caused by the bouncing of the contact points when they are first made. External loading conditions affect the output voltage levels at pin A.

The integrator turn-on delays were measured from the time the relay was picked until the output of the integrator crosses the 0v reference. The turn-off delays were measured from the time the relay points opened until the output of the integrator crossed the 0v reference level.