

KØTTY Teletype Idle Line Motor Control

This circuit monitors signal activity on the TTY loop. When TTY signals are detected, the motor turns on and stays on while the TTY is receiving. After a certain amount of idle MARK signal, the relay deactivates, shutting off the TTY motor.

Parts list: (refer to parts layout drawing)

Quantity	Part
	555 timer IC
	H11D1 opto-isolator
1	7805 5VDC regulator
2	100 ohm ½ watt resistor
1	560 ohm ¼ watt resistor
1	2200 ohm ¼ watt resistor
1	100K ohm ¼ watt resistor
	1000 ohm ¼ watt resistor
R1*	1 Megohm ¼ watt resistor= approx. 15 sec timeout
R2*	trimpot - 1 Megohm 15 sec. or less, adjustable
	10 ufd 50 VDC electrolytic
	1.0 ufd 10V electrolytic
	2N2222A NPN transistor
	2N4126 PNP transistor
	1N4733A 5.6V Zener diode
	1N914 diode (or 1N4148)
1	fullwave bridge rectifier 400V, 1 amp minimum (D1)
	12VDC relay, 10 amp contacts

*Use either R1 or R2 not both

NOTES:

Observe polarity of diodes, electrolytic capacitors, and IC chips (Pin 1 is square PC pad) - do not ground the loop input connections.

12VDC is required for powering the board and the relay.

Parts can be obtained from Mouser, Jameco, Electronix Express, etc.

The motor time out is determined by R1 and the 10ufd capacitor below the 555 chip. Increasing the values of R1 and the capacitor make the timeout interval longer. For example: a 20 ufd capacitor and 2.2 megohm R1 would give approximately 60 seconds of timeout.