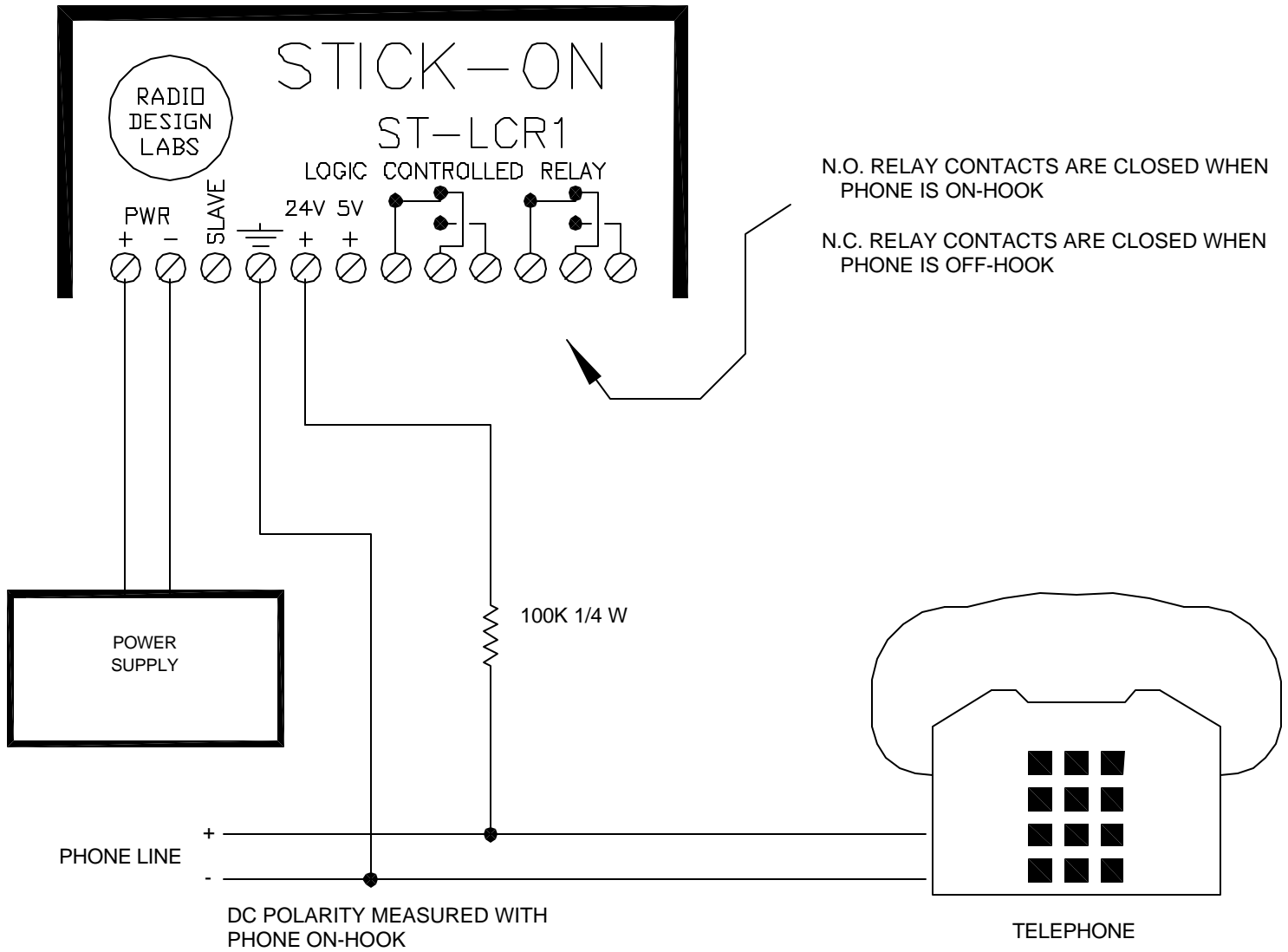


PHONE ON/OFF-HOOK CONTACTS



This circuit provides relay activation when the phone is placed on-hook or off-hook. The relay in the ST-LCR1 is a DPDT unit so either a contact closure or opening may be used. The relay is normally activated when the phone is on-hook.

The circuit operates by monitoring the DC voltage on the phone line. When the phone is on-hook, the voltage is about 45 volts (the voltage may be higher if you are located close to the telephone company switching office in which case the 100K resistor should be increased in value). This voltage will cause the ST-LCR1 to be active, as indicated by the unit's LED being illuminated. When the phone is off-hook, the line voltage drops to about 5 volts, causing the ST-LCR1 to deactivate (LED extinguished).

This circuit **MUST** be powered by an isolated 24VDC power supply (such as RDL PS-24A, K or E), since the (-) side of the supply is connected directly to the phone line through the ST-LCR1 ground terminal. (The use of a ground-referenced supply would short circuit one side of the phone line.)

This circuit works with any conventional phone instrument. Radio Design Labs does not suggest or recommend that this circuit be connected directly to a telephone company provided line without approved protection and interface equipment in place and operating. It is the user's responsibility to determine the acceptability of this application in the particular locale or country.