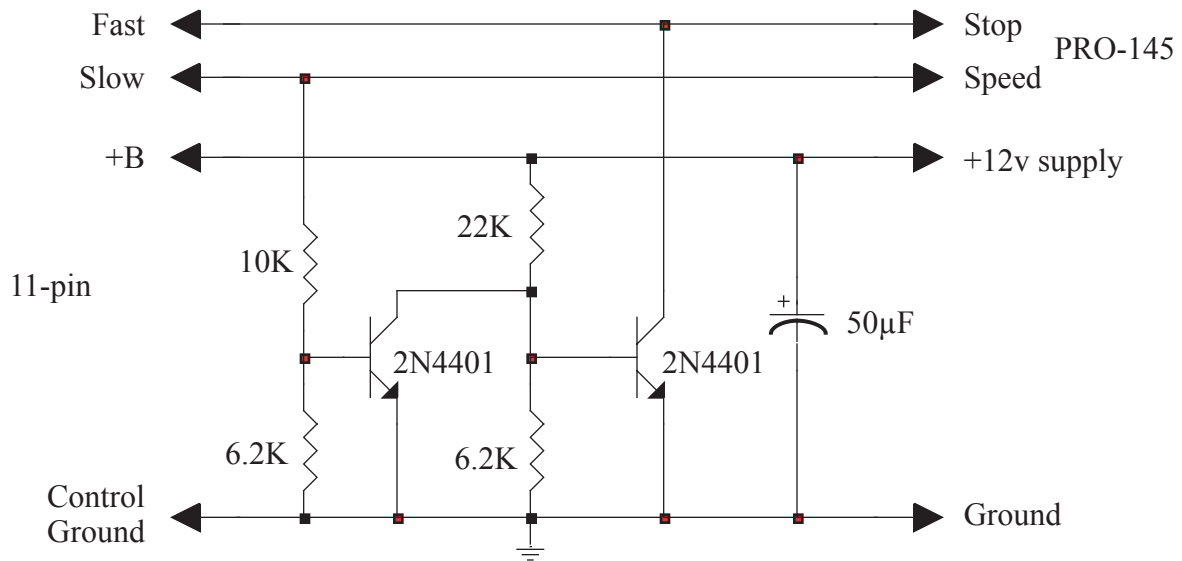


XK-3 Leslie-11 pin connection to Motion Sound PRO-145 Rotary Speaker

This circuit allows the connection of an XK-3 Hammond-Suzuki keyboard to a Motion Sound PRO-145 rotary speaker. The circuit can be built into the 11-pin plug connector cap (with care) using a 12v-dc wall mounted power supply (2mA current capacity is more than enough). In order for this to work, the BRAKE switch on the keyboard must be on. The Leslie ON/OFF and the FAST/SLOW switches on the keyboard will then operate as expected. The BRAKE ON can be programmed into the keyboard settings. The audio to the PRO-145 is taken from pins 1 and 4 of the 11-pin connector (respectively rotary output and audio ground).



The truth table shows the 4 possible combinations of the Keyboard switches with the BRAKE ON, along with the state of the control transistors on the XK-3 MXH-35A board and the voltage on the PRO-145 speed control inputs (which have pull-ups to +5v).

Table 1: Truth Table

Switches			Leslie 11-pin		PRO - 145	
Brake	On	Fast	Fast	Slow	Stop	Speed
1	0	0	OFF	OFF	+5	+5
1	0	1	OFF	OFF	+5	+5
1	1	0	OFF	ON	0	0
1	1	1	ON	OFF	0	+5