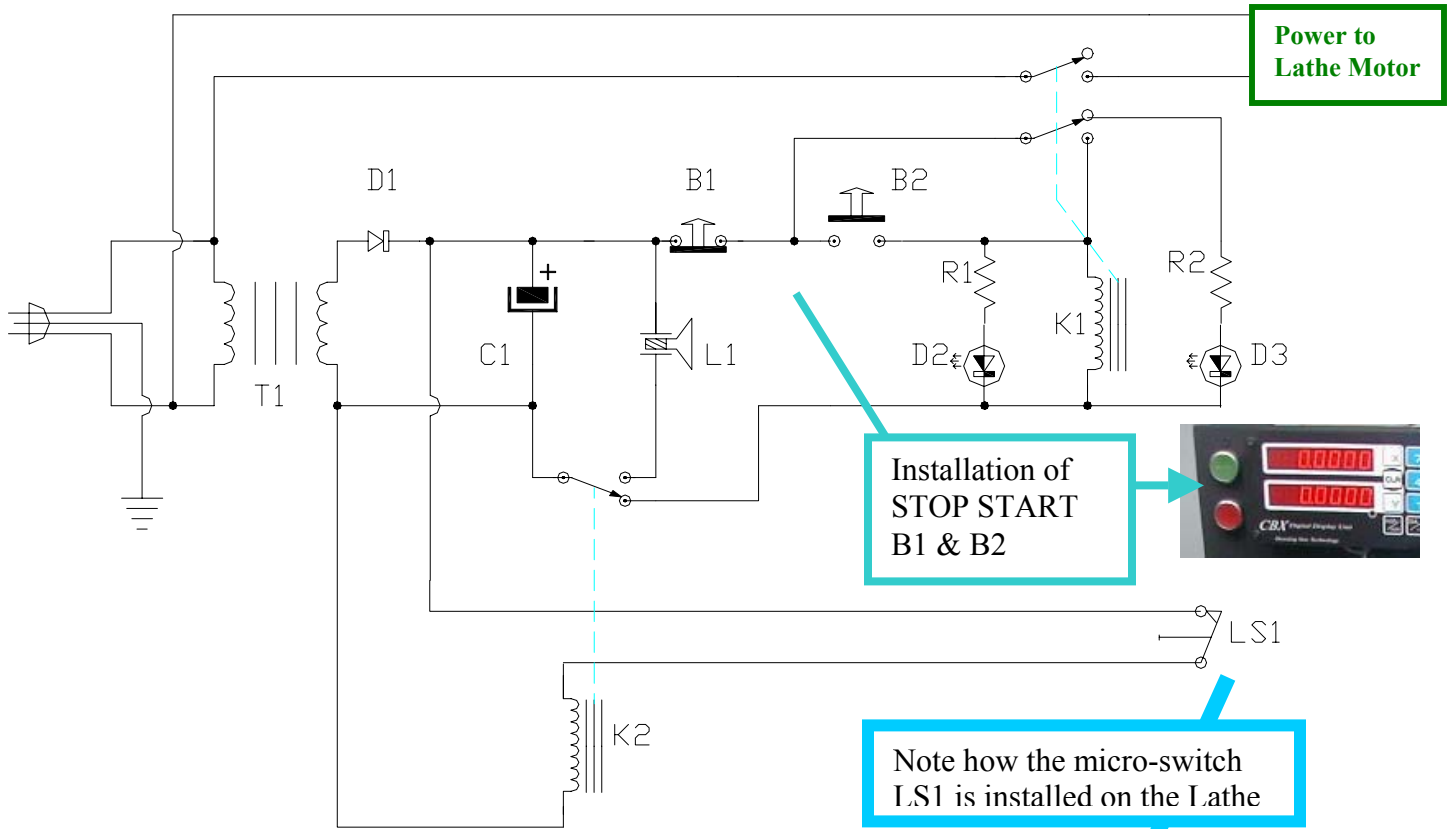


CLETUS' ELECTRONIC LATHE CLUTCH



Here is my simple solution to avoid the development of an intimate relationship between a moving tool and a rotating chuck in the 9x20 lathe.

PURPOSE:

To provide manual Emergency stop (RED BUTTON) for operator and Automatic Stop to prevent Tool/Carriage crash into Headstock/Chuck.

DESIGN CRITERIA:

1. Must electrically shut down machine when crash is eminent.
2. Easily and positively settable.
3. Visual and sonic indications.
4. Broken LS1 cable must stop machine.
5. Machine must be manually restarted by operator.
6. LS1 sensing circuit must be low voltage.
7. Emergency Stop Button for operator.

PARTS LIST:

<u>REF</u>	<u>DESCRIPTION</u>	<u>SUPPLIER</u>	<u>CAT. #</u>
B1	PUSH BUTTON NC (RED) E-STOP		
B2	PUSH BUTTON NO (GREEN) START		
C1	CAPACITOR 1000uF 35V	JAMECO	158377CA
D1	DIODE 1N4001		
D2	LED GREEN		
D3	LED RED		
K1	RELAY DPDT 12V	JAMECO	172718CA
K2	RELAY SPDT 12V	JAMECO	172937CA
L1	PIEZO BUZZER	JAMECO	206295CA
LS1	MICRO-SWITCH	JAMECO	159599CA
R1, R2	RESISTOR 1K 1/4W		
T1	TRANSFORMER	JAMECO	221401CA



Have fun and be safe!

Cletus, 9Z4CLB