

## EMERGENCY STOP SYSTEM FOR RADIAL DRILLING MACHINES

For Installation on all Radial Arm Drilling Machines

### APPLICATION

For automatic emergency stopping using the principle of timed DC Injection braking.

This system can be retro-fitted to existing machines bringing them in line with modern safety precautions.



### DESIGN

In accordance with factory inspectorates recommendations 'Safety Precautions at Radial Drilling Machines', the system is designed to prevent entanglement and reduce the risk of injury to the operator.

The unit is designed for **EMERGENCY USE ONLY**, with the transformer and rectifier being rated to supply the DC for a controlled maximum period of two seconds. To prevent the trip bar being used as a normal stop switch the reset button should be arranged out of immediate reach of the workstation.

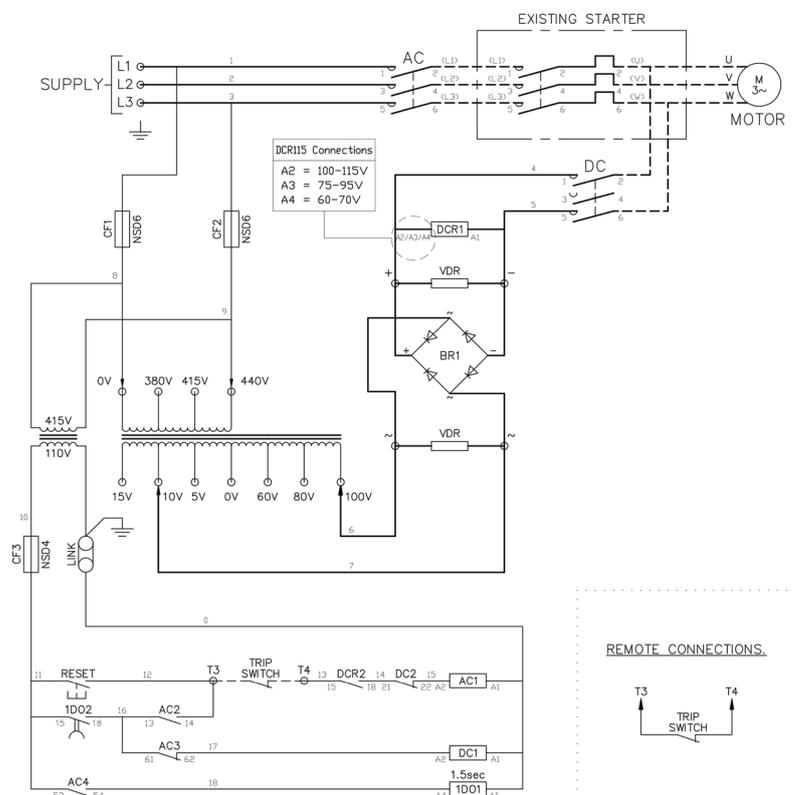
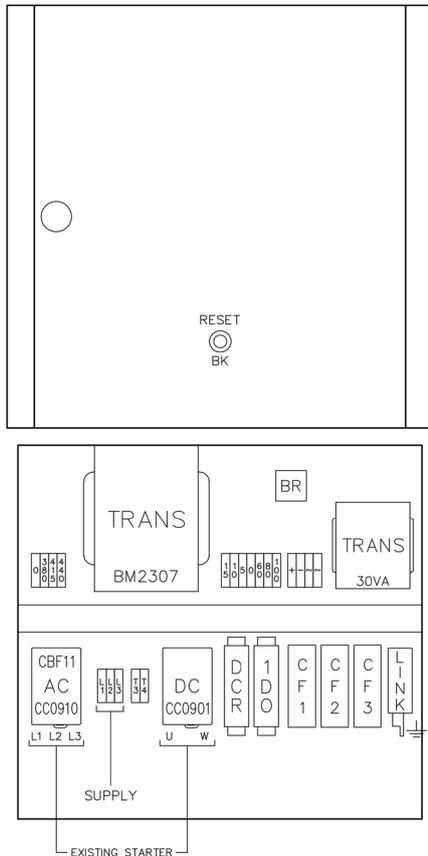
A built in transformer provides a safety low-voltage (110V) for the fused control circuitry and also a variety of taps to allow the correct DC voltage to be applied to the motor stator. The circuit is fail-safe and the reset push-button circuit prevents accidental restarting in the event of a 'trip'.

### OPERATION

The telescopic trip-bar suspends from the saddle of the drill, approximately 150mm from the spindle. When the trip-bar is pivoted a few degrees from the vertical, in any direction, the safety circuit is initiated, the AC supply to the motor is cut-off and simultaneously a DC current is injected into the stator windings. This results in a powerful braking action that rapidly brings the motor to rest without any danger of overrun or reversal of rotation.

### SPECIFICATION

This unit simply 'Retro Fits' into the existing DOL starting circuit of the radial arm drill. The machine operator will continue to use the conventional Start/Stop pushbutton controls for day-to-day operation of the drill, powered through the 'Spingard' unit, keeping installation time to a minimum.



## D.C. Injection Brake Units 'SPINGARD'

Including Trip Arm and Reset for Button Emergency Stopping of Spindle Drives

| Motor Rating | Reference | List Price £ | Motor Rating | Reference | List Price £ | Motor Rating | Reference | List Price £ |
|--------------|-----------|--------------|--------------|-----------|--------------|--------------|-----------|--------------|
| 4kW (5.5hp)  | 3SG1S     | POA          | 7.5kW (10hp) | 3SG2S     | POA          | 11kW (15hp)  | 3SG3S     | POA          |