



# CONTROLLER

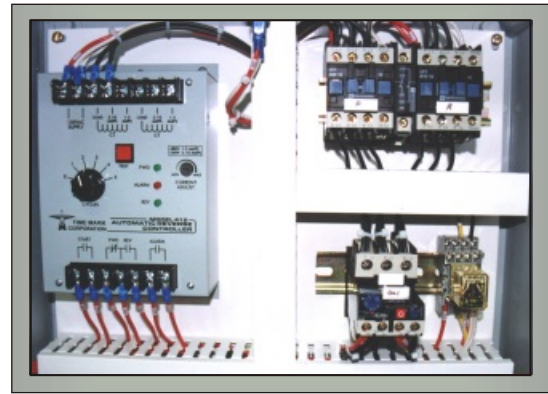
## FUNCTION

The control shall be designed to control a motor driving the drum of a comminutor. On start-up, the drum shall rotate in the forward direction. When a “**JAM**” or “**OVERLOAD**” occurs, the drum shall reverse for a predetermined time then resume normal operation.

The control shall be provided with time delay relays to allow the drum to coast to full stop before any reversal of rotation takes place.

The control shall provide overload current protection, a full voltage reversing starter and a NEMA 4X Enclosure.

The control shall be provided with Selector Switches and Pilot Lights:



S1	-	HAND-OFF-AUTO	Amber Light	:Forward
S2	-	FWD-OFF-REV	Blue Light	:Reverse
S3	-	Overload Reset	Red Light	:Overload
			White Light	:Moisture (Optional)

## OPERATION



### AUTOMATIC “AUTO”:

- “Set Switch S1 to AUTO - Drum rotates in FORWARD direction until a “JAM” occurs.
- “S1 is inoperative.
- “**JAM Occurrence:** Drum will “coast” to standstill, pause and resume Forward rotation. This sequence will persist until the obstruction is cleared or the cycle limit (5) is exceeded, tripping the starter overload relay. Motor shutdown will be indicated by the enclosure mounted alarm light.

### “OFF”:

- “S1 in “OFF” position prevents motor operation.

### MANUAL “HAND”:

- “Set Switch S1 to “HAND” (“JAM” protection feature displayed).
- “S2 selects desired rotation.
- “Coast timers will delay changes of direction.

# CONTROLLER cont'd...



## TESTING

Time Mark 412 - RED TEST BUTTON

### “Stall” Simulation

Press and release while in AUTO mode on H-O-A Selector Switch - motor will reverse (2 seconds) and return to forward rotation.

### Overload “Attempts” Simulation

Press and hold while in AUTO mode on H-O-A Selection Switch - motor will trip out on over current, indicating the unit has reached the set count of stalled conditions.

## ALARMS

Two alarms are built into the control panel - each will activate the alarm light on top of the enclosure.

### “Overload Attempts”

When set limit reached and obstruction cleared, push “CYCLE RESET” on enclosure to restore operation.

### “Over current”

Overload relay will sense a high current condition activating the alarm light. Allow motor to cool and restore operation using “OVERLOAD RESET” button.

## CURRENT SENSOR (MODEL 412) SETTINGS

- “ Cycle Selector: (0-5) Counts jam frequency prior to alarm activation
- “ Current Adjust Pot: 0 - 5 amps @480 Volt  
0 - 10 amps @ 240 Volt  
Set at FLA rating of motor