Vmag Preventative Maintenance Check List

LOCK ASSEMBLY

Turn CB1 circuit breaker 'OFF'

Remove the four socket head screws on front face and two 1/4" hex head bolts underneath. Slide the lock assembly out.

- ☐ Check to see if the lock plunger and solenoid manually retracts and falls freely. Clean with electrical contact cleaner or brake cleaner.
  DO NOT use WD-40 or any other lubricants that can collect dust.
- ☐ Check proximity sensors for any damage or loose mounting blocks.
- ☐ Check for spring tension on the encoder wheel.
- ☐ Clean encoder wheel with denatured alcohol. Should be a bright yellow after cleaning.
- ☐ Re-assemble the lock assembly and set the proximity *(prox)* sensor gap in the following manner:
  1. With gate in mid position, slide the 0.040 feeler gauge in between the reaction fin and the left prox sensor *(if the sensor is too close to insert the feeler gauge slowly turn adjustment screw clockwise until the feeler gauge slides in)*.
  2. Slowly turn the adjustment screw counter-clockwise until feeler gauge stays in place without holding it.
  3. Turn the adjustment screw clockwise until the feeler gauge falls out.
  4. Now turn the adjustment screw ¼ turn clockwise.

  Repeat these steps for the right prox sensor.

Reaction Fin

- ☐ Clean reaction fin with terry cloth and denatured alcohol.
- ☐ Check that the reaction fin hardware and mounting screws are secure. Apply blue Loctite to any loose screws and secure.
- ☐ Inspect reaction fin holes and file down any protrusions.
- ☐ Torque the hanger bracket hardware to 11 ft/lbs.
- ☐ Ensure the Vstops *(open and close physical stops)* shoulder bolts and set screws are secure.

Motor Assembly

Remove the four black end caps from the motor assembly *(two per motor)*.

- ☐ Verify that the four bottom cam rollers are touching the reaction fin and loose enough to turn with fingers.
- ☐ Verify that the four top side *(vertical)* cam rollers can be turned by hand.
- ☐ Inspect cam rollers for excessive or abnormal wear. Replace the four black end caps.
- ☐ Check linkage assembly & post bracket hardware to ensure proper alignment & rigidity. Ensure all ½" nuts are secure.

Operation

- ☐ Turn CB1 circuit breaker 'ON' Ensure the GREEN light on the surge filter is illuminated. If not, replace the surge filter.
  Use the 'OPERATE' push button on the programmer to open and close the gate two full cycles.
- ☐ From the programmer home page press 'NEXT' and tap the diagnostic window. Press 'NEXT' twice for 'PROX JITTER'.
  While the gate is running during the highspeed operation check the jitter value during open and close. The values should stay between 498 & 502. Record the open and close values below.
  From the programmer home page press 'NEXT' and tap the diagnostic window. Press 'NEXT'.
- ☐ Record the faults displayed in the 'FAULT CODE TABLE'. Once recorded clear the fault codes.
  From the programmer home screen tap the 'BACK' window.
- ☐ Record software version of PLC and programmer *(Display)*.
- ☐ Keep Alive Option batteries should be replaced every 2 years.
- ☐ Replace PLC clock battery every 5 years.

FAULT CODE TABLE

Location _____

Commission Date: _____

Cycles: _____

PLC Version V_____

Display Version V_____

Prox Jitter Opening _____ **Prox Jitter Closing** _____

Model

- ☐ **VM1220**
- ☐ **VM1420**

Notes:

TECH: _____ **Date:** _____