PLC Faults

Each event is timed, so a fault will occur if there is excess delay caused by a mis-feed or low air pressure.

If a fault occurs, PLC output Y7 is set, which pulls down Spindle Panel TB1-23 (G3 CNC) or Spindle CCA HDR108-1 & HDR104-1. This is 'soft' E-Stop: slide cannot be moved, spindle stops, all M-functions are reset and CNC drops out of Auto Mode. PLC Cabinet Reset/Initialize lamp will illuminate, as will Spindle Drive Cabinet Reset lamp, and red stack lamp; servos stay on.

Note: E-Stop or "door open" from CNC will fault PLC, but only if loader is in-cycle or pushing. X14 (door interlock OK) on PLC must be lit to allow operation.

To reset fault:
1 - Determine cause of fault.
2 - Press Reset/Initialize switch on PLC Cabinet to reset PLC and retract pusher to Home stop.
3 - Press "A" on CNC to re-enter Auto Mode.

PLC will fault as follows:

(M47)
If "Knife Down" (X2) is not lit. Immediate.
If "Home" (X3) is not lit within 3 seconds after M47.
If "Knife Up" (X1) is not lit within 2 seconds after "Home".
If "Push2" (X4) is not lit within 10 seconds after leaving "Home".
If "InPlace" (X5) doesn't light within 5 seconds after "Push2" (X4) in Part or Stop Mode.

(M11)
If "Eject" (X6) lights (no bar or no part).

(M48)
If "Eject" (X6) is not reached within 3 seconds after M48.
If "Home" (X3) is not reached within 3 seconds after "Eject" (X6).

(M56)
Force loader fault. This is useful for reinitializing the PLC.

PLC will "hang":

In rear qualify mode (M52), if "shot-pin up" sensor does not light. This can happen if clamping band of sensor is loose, and sensor slides down on the cylinder body.