

Alarms, Errors and Conditions

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a) Cup Jam

Theory - Failure for lift to register top of stroke in the proper amount of time

Test - SW1 in Cup extractor test mode

- Full travel sensor, connection or positioning adjustment
- Syrup contamination on cylinder
- Co2 supply
- Lift Solenoid
- J2 Bypass

b) Conveyor stall

Theory - Failure to read the conveyor advancing from known Index position to known Index position in the proper amount of time

Test – After cleaning and examining conveyor, enter test mode to verify proper orientation. (Peripheral)

- Dirty conveyor
- Poor Index orientation
- Loose conveyor cup holder
- Cup holder hitting grabber cylinder
- Conveyor condition
- Conveyor motor and gearbox

c) Empty Conveyor message

Theory – Index sensor does not read a magnet or is not aligned

Test – Conveyor test mode LOC = 1 when not reading magnet

- Index sensor is not set correctly (too loose)
- Loose screws on conveyor cup holder
- Conveyor belt out of tolerance
- Bad wire connection from Index sensor to MC board
- Bad Index sensor
- Conveyor motor and gearbox

d) Conveyor Full Clear Position A Message

Theory – Blockage of the position A sensor

Test – In conveyor test, Q full = 1, triggers Conveyor full message. Red and Green lights on Thru beam sensor receiver, when blocked Red light goes out.

- Clean emitter and receiver
- Loose screws on conveyor cup holder
- Index sensor not set properly
- Conveyor belt out of tolerance
- Wire connection at J1
- Conveyor motor and gearbox

e) Turret stall / Turret sensor fail

Theory – Interruption of turret rotation or unable to locate proper station

Test – Enter test mode for Turret, verify proper identification of each station and sensor reading as well as proper rotation CW / CCW

- Turret stall = Outside hole pattern, Turret sensor fail = Inside hole pattern
- Improperly installed lid holder or Ice maker adapter
- Debris on encoder disc

- Hard ware missing on cup tubes
- Defective motor or Gear box
- Poor or improper wire connections

f) Ice Gate Sensor fail

Theory - Failure to read close and open of Ice gate sensor in the proper time

Test – In ice unit test mode validate cylinder operation. SW = OK with gate open. Order 5 CH cups w/ regular ice. Ice variance usually indicates sluggish cylinder provided ice chute is properly filling.

Note: When replacing cylinder use caution not to over tighten air fittings

- Sluggish or leaking Ice gate cylinder
- Defective sensor or improper mounting
- Binding ice gate cylinder
- Defective Ice gate solenoid
- Improper Co2 pressure or supply

g) Grip Sensor fail

Theory - Cup sold out sensor reads closed with the lift in the down position

Test – In Cup extractor test mode SW2 = Closed with the lift in the down position

- Syrup shorting connector in E box
- Improper setting of sensor
- Defective sensor - shorted
- Defective harness – shorted

h) Extract Sensor fail

Theory – Full travel sensor reads up with the lift in the down position

Test – In Cup Extractor test mode SW1 = UP with the lift in the down position

- Syrup shorting connector in E box
- Misaligned sensor
- Defective sensor
- Defective harness

i) Motion AC Power fail

Interruption of the 120 or 230 VAC power supply

Test – If Alarm History records large numbers of Motion AC Power fail, unit is being switched off to clear alarm lock up – why?

- Crew interaction
- Power outage
- Bad wire connection
- Defective harness
- Defective MC Board

j) Sprite Sold out

Theory – Syrup pressure on line #5 has dropped below 20psi

Test – Remove one wire and test a Sprite

- Empty BIB
- Defective pressure switch
- Bad wire connection at SS board or pressure switch
- Defective BIB pump

k) Low Air / Co2 alarm

Theory – Supply pressure to ABS has dropped below 30 psi

Test – Pull one wire to create alarm, Jumper to bypass pressure switch

- Empty tank
- Debris in sensor
- Defective sensor
- Poor wire connection
- Inadequate Co2 supply or line size

l) Cup sold out

Theory – Cup sold out sensor has detected over closure of the grabber arms while trying to extract a cup

Test – In Cup Extractor test mode, SW2 reads Closed when arms are fully closed, SW2 reads open when arms are closed on a cup

- Refill cup tube
- Sold out sensor out of adjustment
- Defective sensor
- Defective harness

m) Low Ice Refill soon alarm

Theory – Ice level in bin has dropped below thermostat

Test – In Ice unit test mode Low = 0 indicates a low ice condition and will alarm every 15 drinks in Automatic mode, Low = 1 is a satisfied thermostat

- Refill ice bin

- Adjust thermostat after 5 minutes
- Defective thermostat
- Poor wire connection
- Improperly wired

n) POS COM Warning

Theory – POS communication has been terminated

Test – Cable status check and POS port check

- Problem usually related to POS
- POS Cable
- Poor connection at SS board or Computer
- Cable run over high voltage transformers / Ballasts

o) INT COM ERROR

1 OF 5 – TA1, TA2, CA1, CA2 and CS

Theory – BI board has sent a command to advance Conveyor or Turret but has not received acknowledgment that command has been fulfilled.

Test – Order several drinks in Automatic mode, vary cup sizes and flavors.

- Harness connections
- Low voltage output from Power supply (12VDC)
- Low voltage short (Thru beam sensor)
- Mechanical issue with conveyor or turret

p) Order Buffer High or Order Buffer Full

Theory – Unit has been in Manual mode for an extended period, orders have accumulated to a High level or a Full level and need to be cleared.

- In Manual mode press the up arrow to highlight orders on screen then press enter to clear.

q) Problem – unable to change syrup map programming

Theory – 1.3 or 2.3 chip conversions not completed properly

- Chip not installed properly on Store Sensor board (notch to front of unit)
- Defaults not restored after chip change
- All 8 pins not seated in socket of board

r) Unit initializes without cycling power, may also lock up communication – Possible Cycle count error

- Output from power supply board too low, should be approximately 12.9 VDC.
- Low voltage short, possibly at Position A sensor.
- Power down Moxi box or Equinox box external to ABS.
- Have store re-boot register 14.

s) Turret does not move

- Some alarms such as Extract sensor fail and Grip sensor fail will lock turret as a protection mechanism.
- In manual mode press any cup size button to rotate turret
- Refer to (g) or (h)
- Diagnose motor and gear box by rewiring to conveyor side of MC board and testing in Conveyor test mode

t) Turret advances to proper station but backs up too far the other direction.

- Check the turret motor capacitor for proper mf. All LON units and motor replacement should have 3.5 mfd capacitor