Problem	Symptoms	Cause(S)	Solution	Rank
MCU				
1. Cassettes fail to index				
1.1 Motor not getting signal to run		1. Safety loop open 2. PDB problem	Diagnose safety loop	
1.2 Motor running, but no movement		1. Shear pin broken 2. Flexible coupling broken 3. Drive belt broken 4. Drive nut stripped 5. Drive pulley loose on jackscrew 6. Motor/screw jammed 7. Cassettes jammed 7.1.1 Foreign object in MCU 7.1.2 Plate guides overhanging cassette 7.1.3 Chariot hitting cassette 7.1.4 Cassette not latched in	Replace (**P. written)** Replace Replace **(P. written)** Replace Tighten Find and eliminate cause Find and eliminate cause Remove Reposition Reposition Push into latch	
1.3 Motor controller broken (electrical)			Replace	
1.4 Faulty electrical wiring (electrical)			Diagnose wiring	

1.5 Motor controller program changed (electrical)			Reload default program settings	
Cassette latches				
2. Fork latches not unlocking		1. No air to cylinder 1.1 No air to VLF-TS 1.2 Airline to cyl not connected 1.3 Valve broken 1.4 Valve not getting a signal 2. Latch pin plates bent	 Re-connect Replace Diagnose wiring repair or replace	
3. Fork latches not locking at all		1. Air to cylinder still on 2. Latch broken 3. Latch pin plates bent	Diagnose wiring or F/W Replace Repair or replace	
4. Fork latches not locking to second position		1. Cassette obstructed 2. Cassette shock absorbers loose or out of adjustment 3. Latch pin plates bent	Clear obstruction Adjust/tighten Repair or replace	
5. Fork latches not providing signal to firmware		1. Not reaching second latch position 2. Switch broken 3. Switch arm bent 4. Loose wire	Push harder Replace Replace switch Diagnose wiring	

6. Chariot latch not unlocking		1. No air to cylinder 1.1 No air to VLF-TS 1.2 Airline to cyl not connected 1.3 Valve broken 1.4 Valve not getting a signal 2. Latch pin plates bent	 Diagnose air supply Connect Replace Diagnose wiring or F/W Repair or replace	
7. Chariot latch not locking at all		1. Air to cylinder still on 2. Latch broken 3. Latch pin plates bent	Diagnose wiring or F/W Replace Repair or replace	
8. Chariot latch not locking to second position		1. Cassette obstructed 2. Cassette shock absorbers loose or out of adjustment 3. Latch pin plates bent	Clear obstruction Adjust/tighten Repair or replace	
9. Chariot latch not providing signal to firmware		1. Not reaching second latch position 2. Switch broken 3. Switch arm bent 4. Loose wire	Push harder Replace Replace switch Diagnose wiring	

Chariot				
10. Chariot position sensors not working		1. Sensors broken (diminished range) 2. Sensor out of adjustment 3. Faulty wiring 4. Chariot obstructed	Replace Adjust **(P. written?)** Diagnose wiring Clear obstruction	
11. Chariot locks not working		1. No air to cylinder 1.1 No air to VLF-TS 1.2 Airline to cyl not connected 1.3 Valve broken 1.4 Valve not getting a signal 2. Chariot obstructed 3. Latch blocks 3.1 Latch blocks broken 3.2 Latch blocks full of debris 3.3 Latch blocks loose 4. Locking cylinder broken	 Diagnose air supply Connect Replace Diagnose wiring or F/W Clear obstruction Replace Remove debris Tighten Replace	
12. Chariot indicator lights not working		1. Loose connector at display 2. Loose connector at chariot cable track 3. Broken wire 4. Broken display board	Diagnose wiring Diagnose wiring Diagnose wiring Replace	
13. Chariot binding and sticking		1. Height not adjusted correctly	Adjust	

sticking		correctly 2. Debris stuck to wheels 3. Debris in mainframe legs 4. Side guide wheels not adjusted correctly 5. Chariot opening, safety flap binding 6. Cassette height not adjusted correctly 7. Broken cassette roller	 Clean Remove debris Adjust Adjust or replace Adjust **(P. written)** Replace	