

TROUBLESHOOTING GUIDE

FC3100

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1 – Improper clip spacing

FC3100 Model

- Improper rail recipe – review clip spacing on screen and edit as needed – see page 10 of manual
- Rail condition is bad; e.g., warped, voids, chipped, dimensions off, not square
- Rail trigger/trigger switch assembly, VC5558, may be worn, broken, or in need of adjustment. Inspect the condition of the VC5254 rail trigger for damage or wear. If this is okay with chain off and air supply unplugged, cycle the VC5254 rail trigger. If the trigger is operating correctly, the rail sensor activated light on the manual machine adjustment screen (see page 14 of the manual) should light up when the trigger is between 5% to 75% of its travel. Perform this test numerous times to ensure that there is not an intermittent issue. Trigger may also need adjustment, which can be done by loosening the socket head cap screw holding the trigger, to the knurled shaft on the switch and retightening it to the correct position.
- Front fence not adjusted properly – make sure that the fence is all the way against the rails
- Rail may be losing contact with the chain lug(s):
 - Make sure VC5709 pressure foot is not broken, is in place, tight, and that it has adequate spring pressure
 - Check to be sure the lugs are not worn; replace as necessary
- Chain is not adjusted properly (too loose) – adjust as necessary (see “Chain Tension Adjustment” procedure page 26 in manual)
- First clip spacing is controlled by the P1 Calibration. If the position of the first clip is not correct, adjust as necessary (see “P1 Calibration” procedure “Appendix F” page 27 in manual).

2 – Clip not driven properly

FC3100 Models

Clips over driven or under driven

- Check air pressure and adjust up or down depending if clip is over driven or under driven
- Check tool height adjustment to make sure it is properly set (place rail underneath tool height gauge pin and lower the tool head until the gauge pin contacts the rail)
- Check for air leaks – listen for obvious air leaks; if none are heard, with chain off and clips backed out of the tool, hold the manual clip button in and listen for leaks (the button is located on the Manual Machine Operation screen).
- Insure that VH0355 and VH0504 mufflers are clean
- Check for knots or voids in the wood
- Check to make sure the clipping time is not too short. See “Clip Tool Dwell Adjustment” page 8 in the manual

Clips askew or not tight to rail

- Front fence not adjusted properly
- Bad rail
- VC5285 pressure arm not functioning properly

3 – Clips do not feed properly

FC3100 Model

- Check air pressure – should be 70-90 P.S.I., adjust as necessary
- Check clip dispenser to make sure clips move freely
- Check to make sure clips are loose on the roll
- Check for obstructions in the track and clip chute, and repair as necessary
- Check to make sure that the clip feed cylinder is engaged and that the assembly is tight to the mounting bracket
- Is the feed pawl VC3011 engaged and are the VC3012 ball bearing spring and VC3014 pawl springs operational?
- VC5127 feed piston (clip feeder) internal spring may be broken
- VC5117 torsion spring may be missing or broken
- Is the VC3035 driver blade stuck down? If so, please follow troubleshooting procedures for “blade stuck down or tool doesn’t fire.”

4 – Will not power up/no display/erratic display

FC3100 Model

- Is machine plugged in?
- Is there power to the machine?
- Check for tripped circuit breakers in control box and reset if necessary.
- Check for faulty switch VH0907
- Check to see if the lights are flashing on the network hub, if not, check 24 V power supply.
- Is the reset switch activated (light on), if not, press reset button. Light should turn on

5 – Chain not moving

FC3100 Model

- Turn machine off, wait 10 to 15 seconds and turn machine back on
- Chain broken
- Chain jammed
 - A. Rail jam – press chain reverse button and/or attempt to raise the clipping head and remove jammed rail
 - B. Lug screws loose – check all lug screws and tighten as necessary
 - C. Obstruction(s) – look for any obstructions and remove as necessary
 - D. Loose set screws in drive sprocket – check and tighten as needed
 - E. Motor-mount screws loose between drive sprocket and motor-mount bracket
 - F. Gearbox dry or bad
- Is driver blade stuck down? If so, please follow troubleshooting procedures for “blade stuck down or tool doesn’t fire”
- Faulty or broken VH0293 switch
- Confused logic – reset power
- Bad motor

6 – Exit stacker issues

FC3100 Model

- Pusher cylinders are binding due to:
 - A. Lack of oil – remove ¼" tubing on the back of each VH0365 cylinder and insert 3 drops of 30WT non-detergent oil in each
 - B. Adjust VH0840 flow control valve
 - C. Loose mounting hardware – check and tighten as necessary
 - D. Debris/obstructions – check and remove as needed
- Defective VH0362 mac valve – use VH0520 valve repair kit

7 – Tool height adjustment not working

FC3100 Model

- The jam's cause could be debris or clips in the VC5431 acme rod threads
- Binding/misaligned motor – check for loose or missing fasteners
- Head driven up too far – turn clipper head adjustment to lower and jiggle head until it frees itself
- Head adjustment motor VC5217 sprocket loose – tighten VH0159 set screw(s) (use blue Loctite) on VH0270 sprocket
- VH0290 switch bad
- VC5727 tool motor bad
- Tool head binding due to excess wear on the VC5431 acme rod – inspect and replace if necessary

8 – Frequent rail jams

FC3100 Model

- Warped or bowed rails
- Worn lugs – inspect and replace as necessary
- Improper tool height – inspect and adjust as necessary
- Improper front fence adjustment – inspect and adjust as necessary
- Chain too loose, causing lug to go under rail – inspect and adjust chain as per instructions

9 – Driver blade stuck down, tool doesn't fire

FC3100 Model

- Blade jammed on rail
- Lack of lubrication – remove VH0248 ¼" tubing from back of tool and add 3 drops of 30WT non-detergent oil to the tool, re-install tubing and attempt to cycle the tool
- Check for debris or loose clips on all tool components and remove
- Piston may be unscrewed from the VC5119 yoke – inspect and reattach if necessary using "red" Loctite
- VC5119 yoke, VC011 link, or VC5118 link pin may be broken – inspect and replace if necessary
- VC0006 piston may be broken
- VC0004 piston spring may be collapsed or broken
- Check for burrs on the side plates that would keep the driver blade from returning properly, if present, buff out and reinstall side plates
- Clipping time is set too long – verify and adjust on the machine adjustment screen
- Bad mac valve, use mac valve repair kit