Field Upgrade

It takes two consecutive days to upgrade a VLF Trendsetter to an Autoloader in the field.
[To install a new VLF TS AL from the factory, see the Factory Install page.]

Note: These procedures are designed only as a guide to assist field engineers. It is assumed that any person upgrading a VLF Trendsetter to an AL has completed CreoScitex training on the product.

Day 1 | Day 2 | Printed Documents | Tools

Day 1 Procedures

1. Check the site preparation
2. Unpack & position
3. Upgrade the base VLF Trendsetter

Day 2 Procedures

1. Install the track and picker
2. Install the Single Cassette Unit (SCU) **or** Install the Multiple Cassette Unit (MCU)
3. Install the Slipsheet Removal System (SSR)
4. Install the straight conveyor **or** Install the L-Conveyor
5. Install skins, rear access guards, and guard rail
6. Clean up
7. Test the system (not yet available)
8. Configure the system.
9. Complete the Installation Test Procedure (ITP): for Print Console (38 KB)
10. Train the operator. See the Operator checklist (18 KB).

Procedure Checklist (Excel file) (99 KB): a summary of the procedures for upgrading to a VLF Trendsetter AL.
Note: This checklist must only be used as a reference sheet for those who are fully trained and experienced with installation of the VLF TS AL system.

Check the Site Preparation

Before unpacking the crates, walk through the site to ensure that all the necessary preparations have been made.

1. ☐ Check that the site layout meets all the requirements of the Site Preparation Checklist (Appendix A of the Site Preparations & Requirements document 73-3319A).
    - plant air supply
    - dedicated phone line for workstation communications
    - network connection
    - AC power
    - floor flatness
    - environmental conditions
    - location of the VLF Trendsetter AL: is there enough space? are the air/power/telephone lines easily accessible?
    - service access clearance around the entire VLF Trendsetter AL system
    - location of workstation
    - area for plate storage
    - location of processor, and clearances
    - area for plate stacker or plate puncher, if applicable
2. ☐ Verify the system configuration with the customer (SCU or MCU, conveyor type, system orientation, etc).
3. ☐ Verify the size and type of plates that the customer will be imaging, and the type of processor.
4. ☐ Check that the shipping crates have not been unpacked.
5. ☐ Explain to the company supervisor and the riggers how to properly move the VLF Trendsetter. The customer is responsible for rigging and placement of the system. Make sure that an operator is available, and that the forklift meets the criteria in the Site Preparation Checklist (Appendix A of the Site Preparations & Requirements document 73-3319A):
    - for the Single Cassette Unit: 1800 kg (4000 lb) minimum capacity
    - for the Multiple Cassette Unit: 2300 kg (5000 lb) minimum capacity
    - fork width not exceeding 6" (15cm)
    - lateral fork movement capability is recommended
6. ☐ Walk the path from the loading dock to the permanent location of the VLF Trendsetter AL, checking that there is adequate clearance along pathways and through doors, with no obstructions.
7. ☐ Gather the necessary documents, hand tools, special fixtures, and heavy moving equipment required for the installation. The number of tools needed may vary depending on the size of the crew. Most of the hand tools and all of the special fixtures are in the VLF Trendsetter AL Toolkit, #04-0018A (6 KB), sent to the site from the regional office.

Supplied by Customer

The following heavy moving equipment must be arranged with the customer:

- forklift (1800 kg (4000 lb) for the SCU; 2300 kg (5000 lb) for the MCU) with operator
  -- to move the VLF Trendsetter, the Cassette Unit, individual cassettes, and the conveyor
- dollies -- to move the track
- pallet jack -- to move the garage

Two lifting bars and an adjustable foot wrench will be shipped with the VLF Trendsetter.

The customer must also supply a floor layout diagram (from Site Preparations & Requirements document 73-3319A).

Supplied by Creo CSE

- Two or three 1/2" sockets with handles (for opening crates) **or** a cordless drill with 1/2" socket
- Completed site preparation checklist (from Appendix A of Site Preparations & Requirements document 73-3319A).
- Thermal Head Installation Procedure 77-0074A
- Service Engineer's toolkit 90-1005A (including multimeter, grounding wrist strap, etc)

Unpack for a Field Upgrade

1. ☐ Inspect all delivered crates and boxes. These will normally be located in the customer's loading dock area.
   - Check that all the shipped crates have been received.
   - Check that the toolkit crate is still locked.
   - Check any shockwatches on the outside of crates. They should be white, not red.
   - Look for signs of damage from moisture, improper packing, tipping, dropping, stacking, etc. of crates, or any sign of mishandling.
2. ☐ Record any problems immediately on the Installation Report form and report them to both CreoScitex and the Delivery Company.
3. ☐ If space is tight, consider the best sequence in which to install the components before starting to unpack the crates.

   Note: Do not clutter the workspace.
4. ☐ Unpack the conveyor first.

   ### Straight Conveyor

   a. Dismantle the crate sides and top.
   b. Have the forklift operator remove the conveyor from the crate. It can either be placed on the floor for rolling, or be moved by forklift directly to its permanent location.
   c. Leave the foam pad covering the plate deck in place. Small items from the other crates can be stored on it.

   ### L-Conveyor

   not yet available
5. ☐ Unpack the cassette cart (part of the Single Cassette Unit).
   a. Remove the crate top and one side only.
   b. Cut the tie straps holding the cart to the crate.
   c. Have the forklift operator remove the cart from the crate. It can either be placed on the floor for rolling, or be moved by forklift directly to its permanent location.
   d. Leave the foam pad covering the plate deck in place. Small items from the other crates can be stored on it.
6. ☐ Unpack the AL Upgrade Kit for the VLF Trendsetter.
   a. Remove the crate top.
   b. Remove and unwrap all packages from the crate and put most of them on the conveyor's foam pad or in a cassette (if ordered):
      - adjustable foot assemblies (2)

- adjustable foot wrench
- counterweight addition
- counterweight dampers (2)
- electrical cables
- fasteners
- floor plate (SCU only)
- Genine board
- guard rail assemblies (2) including base plates and struts
- hood with p-door and y-axis (leave in crate)
- picker with skins
- pneumatic upgrade hoses and fittings
- pneumatic upgrade table vacuum
- rear access guards (3 rear and 2 sides)
- table extension assembly (leave in crate)
- table filler strip and external ribs
- table leading edge
- table upgrade panels (4)
- track skins (3)
- track support arms (2)
- track support arm spacers (3 pairs)
- user interface delete panel

7. ☐ Unpack the track.
   a. Remove the crate top, but do **not** remove the track from its crate.
   b. Discard any excess packing material.
   c. Lift the crate by hand onto dollies and roll it to its permanent location.

   Note: Do not unpack the track until you are ready to install it.
8. ☐ Unpack the garage (part of the Single Cassette Unit).
   a. Remove the crate top and sides.
   b. Remove all packing material.
   c. Remove the temporary fasteners securing the garage plate to the bottom of the crate.
   d. Leaving the garage on the crate bottom, move it to its permanent location using a pallet jack.

   Note: Do not take the garage off the crate bottom until you are ready to install it.
9. ☐ Unpack the Multiple Cassette Unit.
   Not yet available.
10. ☐ Unpack the Slipsheet Removal Unit.

Not yet available.

11. ☐ Unpack the Autoloader toolkit (#04-0018A).
    Roll the toolkit box to the location of the installation on its castors.

Base VLF Trendsetter Field Upgrade

1. ☐ Determine the system centerline.
   Using the floor layout drawing and a measuring tape, mark the floor at each end of the autoloader system.
2. ☐ Position the centerline laser plane (#90-1120) outside the work area.
   Note: The laser will maintain the centerline throughout the installation. Do not move the laser at any time during installation.
   a. Set the tripod at 1.5m elevation above the floor.
   b. Assemble the laser plane for vertical plane operation.
   c. Mount the laser plane to the tripod.
   d. Level the laser plane using the bubble level.
   e. Turn the laser on.

   WARNING! Do not look directly into the laser beam.

   f. Adjust the position of the tripod and the rotation of the laser plane until the reference marks on the floor are met ±1mm. The laser plane will now be displaying the plane that marks the autoloader system centerline.
   g. Point the laser to the floor under the tripod and mark the position for reference.
3. ☐ Prepare the VLF Trendsetter for the Autoloader upgrade.
   a. Switch off the power to the VLF Trendsetter and to the workstation.
   b. Disconnect the AC power cable for the VLF Trendsetter.
   c. Disconnect the workstation cables at the VLF Trendsetter.
   d. Disconnect the airline at the VLF Trendsetter.
   e. Remove all side panels from the VLF Trendsetter.
4. ☐ Position the 4 lifting jacks (#92-0084).
   a. Place the lifting bars (#56-3266) through the square holes in the engine casting.
   b. Check that the hose tray is up out of the way of the lifting bars.
   c. Slide the lifting jacks into the tube ends. Make sure the jacks go in all the way.
5. ☐ Raise the VLF Trendsetter and install the castors.
   a. Carefully raise the jacks until the bars are bearing against the top of the engine casting holes at all 4 points.
   b. Place a wood block (#59-3808) under each corner of the VLF Trendsetter for safety.
   c. Raise the Trendsetter, alternating between the 4 jacks so that the machine is kept level.
      WARNING! Do not let any of the lifting points get significantly higher or lower than the others, as this could twist the frame or cause instability.
   d. Stop lifting when there is enough room to install the castors and screws.
   e. Check that the wood blocks are still positioned correctly under the corners of the

machine.

f. Install the 4 screws holding each castor to the VLF Trendsetter frame.



Using jacks to raise and lower the VLF Trendsetter

6. ☐ Lower the VLF Trendsetter onto the castors and remove the jacks.
7. ☐ Move the VLF Trendsetter to its new location.
8. ☐ Install the adjustable feet and set the initial height.
   a. Lay on the floor, reach under the VLF Trendsetter, remove the retainer screw and the foot pad.
   b. Remove the foot spacer.
   c. Lift the new foot into the frame and install the retainer nut.
   d. Turn the foot up until it stops, then turn it down 2 full rotations.
   e. Repeat for the other 2 feet.
9. ☐ Remove the hood.
   a. Open the hood.
   b. Disconnect the p-door cables and airlines from the VLF Trendsetter and the strut.
   c. While supporting the hood, remove the retaining clips and the strut.
   d. Lower the hood.
   e. Open the p-door.
   f. Raise the table.
   g. Remove the hood pivot shoulder bolts and spacers.
   h. With a help of another person, lift and remove the hood.
      - Press the latch
      - Lift the hood up and away from the table. Be careful of the p-door.
      - Place the hood well out of the way.
10. ☐ Dismantle the table.
    a. Raise the table.
    b. Remove the 5 sets of capscrews and brackets holding the sliding gate.
    c. Pull the sliding gate out so that the hole in the metal arm on each side lines up with the screw head underneath. Using a 2.5mm hex key, remove the 2 buttonhead screws.
    d. Using 2.5mm and 3mm hex keys, loosen all the M3 and M4 capscrews along the table joint, but do not remove them yet. It may be difficult to loosen some of them because of the Loctite.


Removing the screws along the table joint

Note: If a screw breaks off, try applying pressure from behind the bracket while unscrewing it. If that doesn't work, use a hacksaw to remove the screwhead.

e. Using a 3 mm hex key, remove and discard the 6 screws holding each wing (3 underneath and 3 facing you). Remove and discard the wings.

f. Pull the sliding gate off and discard it.

11. ☐ Replace the user interface.

a. Raise the table.

b. Using a 3mm hex key, remove the 4 M4x14 screws and washers from underneath the operator interface panel and discard them. The innermost screw may be difficult to remove.


Removing the operator interface panel.

c. Disconnect the cables from the operator interface panel.


Underside of operator interface panel

d. Remove and discard the panel.

e. Wipe the surfaces all around the hole with isopropyl alcohol or similar cleaner. Let it dry.

f. Insert the bulkhead cable ends into the holes in the well on the new cover that is provided.

g. Press the cover down in place over the hole. It must be set back 95mm (3.7") from the edge of the panel so as not to interfere with the mounting bracket for the guard rail.

h. Check that the panel is in position and that the adhesive tape adheres well.


Cover in place over old location of operator interface panel

12. ☐ Install the arborite table upgrade panels.

a. Lower the table.

b. Have a helper hold the table down while you place the wooden table locking block (90-0194) in position beneath the counterweight. The slot in the block fits over the vertical flange on the bottom frame.
c. Attach the 3 table drill fixtures (92-0366 left, 92-0367 center, 92-0368 right).
d. Drill all 32 pilot holes using a 3mm bit.
e. Remove the drill fixtures.
f. Enlarge all the holes to 6.3mm diameter.
g. Deburr all the holes.
h. Clean the table surface and surrounding area.
i. Place a 5mm bead of RTV sealant around the 2 left sets of vacuum ports.
j. Place panel A onto the table. Align the retainer holes and insert the retaining darts.
k. Place the other 3 panels, one at a time. Align the retainer holes and insert the retaining darts.
l. Press firmly around the vacuum ports.

13. ☐ Replace the table leading edge.
    a. Remove the 8 screws and washers.
    b. Remove the leading edge and place it beside the old hood, well out of the way.
    c. Place the new leading edge in the uppermost position and install all 8 screws and washers.
    d. Tighten all fasteners.
    e. ➡ To adjust the leading edge:
        - place a 12" ruler on the table panel.
        - extend the ruler over the leading edge.
        - adjust the leading edge to be flush with the table panel.
        - adjust, using your hands to lightly push or pull on the leading edge.
    f. Tighten the retaining screws.
14. ☐ Install the counterweight upgrade.
    Note: TSV #B020-B357 will require the counterweight to be replaced. For newer machines, skip to step d.
    a. Raise and support the table.
    b. Remove the old counterweight by removing its 4 screws.
    c. Install the new counterweight, using 4 screws with washers.
    d. Install the counterweight addition and the counterweight bracket, using 4 screws with washers.
    e. Tighten all fasteners.
15. ☐ Install the table extension assembly.
    a. Raise the table.
    b. Rotate the vacuum selection switch to the vertical position.

c. With a helper, lift the table extension up to the VLF Trendsetter table.
d. Slide the extension over the two extended rails and onto the lower flange.
e. Install all of the fasteners along the adjoining faces.
f. Install the screws, washers, and nuts attaching the internal ribs.
g. Carefully lower the table.
h. Place the filler strip inside the groove on the table surface and press towards the front edge.
i. Install the thin black UHMW tape along the groove on top of the filler strip.
Starting at one end of the groove and leaving 100mm of tape extended off the edge of the table, peel the backing off and press the tape into the center of the groove. Progress gradually along the groove to the other side of the table. Continue pressing the tape down the side and underneath the table. Go back over all of the tape slowly and ensure that it is pressed in completely onto the filler strip and the panels.
Note: If any of the tape gets outside the groove, onto the table surface, trim the excess with a sharp knife and a steel straight edge.
j. Prepare the table struts.
   - Raise the table.
   - Remove the 3 black plastic caps from each strut.
   - Attach the table strut drill fixture (92-0213) to one of the struts.
   - Check the orientation. Look for the top and front markings.
   - Drill the 3 holes with a 3mm bit.
   - Remove the drill fixture.
   - Enlarge the holes to 4.2mm.
   - Tap the 3 holes to M5.
   - Repeat for the other strut.
k. Install the external ribs.
   - Hold the external rib in position and install the six screws, lock washers, and large flat washers.
   Do not over-tighten the fasteners yet.
l. To adjust the table flatness:
   - place a cassette rail on top of the table above the rib to be adjusted.
   - loosen all 6 screws for the external ribs or 1 screw/nut for the internal ribs.
   - press up at the front table edge until the table surface is flat to the cassette rail.
   - tighten the rib fasteners.
   - repeat for the other 3 ribs.
   - Remove the cassette rail.
m. Tighten all fasteners on the table connection.
n. Install the 4 adjustable bumpers. Position the lock nuts on the inside of the table

flanges, as required.

o. Lower the table.

p. Adjust the 4 adjustable bumpers under the table so that they ALL touch the top panels evenly.

q. Connect the cable to the safety loops.

- Raise the table
- Route the cables and hoses along the table connection flange, under the external rib and down the strut - use tie wraps as required.
- Route the drop leaf cable (10-4355) along the bottom cable track toward the front end and into the power box.
- Connect the 2 cable connectors to the other cables (they will be installed later).

16. ☐ Position the VLF Trendsetter in its approximate location according to the floor layout (±12mm).

17. ☐ Align the VLF Trendsetter to the system centerline laser.

a. Turn on the laser plane. Recheck that the laser is still in position, and is level.

b. Check the centerline reference marks at both ends of the table.

c. Roll the machine until the laser touches both edges of the centerline marks (one on the table edge and one on the table fixture).

d. Turn off the laser plane.

18. ☐ Attach the table fixture (#92-0369) to the table edge on the cassette side, then level the fixture (**SCU installation only**).

See the drawing: Superjig table fixture (40 KB)

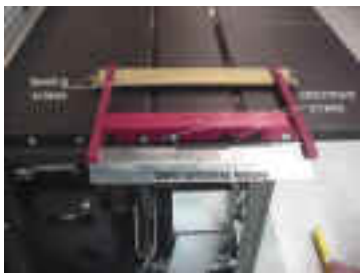


Table fixture (attached to pick side of table)

a. Check that the table is down.

b. Place the table fixture on top of the table.

c. Set the height of the fixture's pivot.
For a Table Left Side pick, rotate the pivot fully clockwise.
For a Table Right Side pick, rotate the pivot fully counter-clockwise.

d. Place the retainer below the table (newer tables have pem-nuts installed and do not require the retainer).

e. Loosely fasten the screws through the table edge (you may want to open the p-door and raise the table to make this task easier without the retainer).

f. To adjust the table fixture level:

- lower the table
- calibrate the digital level
  - turn it on and let the display settle
  - Press the Calibration button. 'cal1' will appear on the display.
  - Wait a few seconds till the display has settled again.
  - Turn the level around 180° and press the Calibration button again. 'cal2' will appear on the display.
  - Wait a few seconds till the display has settled again.
- place the calibrated digital level on the side bar of the fixture, then across the front and rear bars simultaneously
- rotate the leveling screws to adjust the level in both axes to 0° ±0.1°.


Leveling the table fixture

g. Tighten the retaining screws.

19. ☐ Position the floor plate (**SCU installations only**).

Note: If the floor plate has been shipped in pieces, re-assemble it by following the instructions in Assembling the Floor Plate (22 KB).

a. Slide the floor plate under the VLF Trendsetter.

b. Attach the floor plate alignment fixture (#92-0371) to the table fixture.
See the drawing: Superjig floor fixture (36 KB)

c. Suspend the plumb-bobs (#90-1125) from the floor plate fixture so they hang just above the floor plate.

d. Align the holes in the floor plate under each of the plumb-bob tips. Use a mallet, if needed, to bump the floor plate into position. Placement doesn't have to be exact as further adjustments will be made after the castors are removed.


Positioning the floor plate

20. ☐ Position the 4 lifting jacks (92-0084). See Step 4.

Place the white plastic slide plates (57-8573) under each jack

21. ☐ Raise the VLF Trendsetter and remove the castors. See Step 5.
22. ☐ Lower the VLF Trendsetter.
    a. Check the position of the floor plate (SCU installations only).
    b. Make sure that the power box and fan box pucks (pod feet) are not resting on the ground. If they are, raise the VLF Trendsetter using the jacks and rotate the adjustable feet down (1 full rotation = 7 mm height).
    c. Lower the jacks until the lifting bars are no longer touching the engine casting.

    Note: Do not remove the jacks and lifting bars.
23. ☐ Check that the engine is level.
    a. Place the calibrated digital level (#90-1150) along the casting under the drum and take a reading. It should be 0° ± 0.1°.
    b. Rotate it 90° and place it on a motor plate beside the drum. You may need to open the hood to place the level. Be careful of the p-door. Take a reading. It should be 0° ± 0.1°.
    c. ➡ To adjust the engine level:
        - Using the adjustable foot wrench, rotate the appropriate adjustable foot in the direction of least deflection
        - Recheck the engine level
24. ☐ Recheck the centerline position. For SCU installations only, also recheck the floor plate position.

    ➡ To adjust the alignment of the VLF Trendsetter:
    - Lift the VLF Trendsetter evenly, using the jacks, until the adjustable feet are all 3 mm off the floor.
    - Push, pull or bump the VLF Trendsetter and/or the jacks until the position is correct. Sit on the floor and kick on the corner of the base frame. Don't push or pull on the table or the fixtures. The machine will slide on the white plastic plates.
    - Lower the jacks evenly until they are loose.
    - Recheck the centerline position. For SCU installations only, recheck the floor plate position.
    - Recheck the distance from the side of the Trendsetter to the processor.
    - Repeat the adjustment if needed.
25. ☐ Remove the table fixture plumb bobs and floor plate fixture (SCU installations only).
26. ☐ Adjust the table to the drum. **Note:** The table surface must be at least 15mm above the frame on the conveyor side.
    - Connect the VLF Trendsetter to AC power.
    - Connect the workstation or a laptop to the diagnostic port.
    - Connect the shop air supply to the VLF Trendsetter.
    - Follow the table alignment procedure (73-3257B)

27. ☐ Install the counterweight dampers.
Note: On TSV #B020-B349, four holes are required to attach the damper brackets. For newer machines, skip the step f.
    a. Attach both damper drill fixtures (92-0389lower and 92-0390 upper).
    b. Drill 4 pilot holes with a 3mm bit.
    c. Remove both drill fixtures.
    d. Enlarge all holes to 7mm diameter.
    e. Deburr all holes.
    f. Install both damper assemblies and tighten all fasteners.

➡ To adjust the stroke of both dampers:
- loosen the large lock nuts.
- rotate the damper until there is 4mm of shaft visible when the table is pressing on it.
- tighten the lock nuts.

➡ To adjust the dampening of both dampers:
- loosen the set screw on the side of the cap.
- rotate the cap slightly.
- test the damper with your hand.
- adjust the cap until the required dampening is achieved.
- test by raising and lowering the table and adjust as required.
- tighten the set screw.

28. ☐ Check that the table is level at both ends. It should be 0° ± 0.5°.
Press gently on the table while reading the calibrated digital level.

Note: Some VLF Trendsetters may require the front panels to be in place to get an accurate measurement of the table level.

Table levelness is most important at the cassette end, where the pick happens.
Adjust the table to 0° on the pick side. If the conveyor side of the table is more than ±0.5°, then adjust the whole table until the conveyor side is ±0.5°.

➡ To adjust the table level:
- adjust the four bumpers underneath the table.
- if levelness still can't be achieved, use the adjustable foot wrench to rotate the front center foot and tilt the front of the VLF Trendsetter up or down (0.4° maximum, front to rear).

WARNING! Do not tilt the VLF Trendsetter from side to side.

29. ☐ Check the table sensors.
    a. Raise the table by typing "table up".

b. Check the sensor by typing "table".
c. Adjust the sensors until 'table up' is true.
d. Repeat for "table down".
e. Tighten all fasteners.

30. ☐ Re-attach the table fixture (92-0369) to the table edge on the cassette side and level the fixture. See Step 17.
31. ☐ Recheck that the VLF Trendsetter is aligned to the system centerline laser.
    a. Turn on the laser plane.
    b. Check the reference marks.
    c. Roll the machine until the laser touches both edges of the centerline marks (one on the table edge and one on the table fixture).
    d. Turn off the laser plane.
32. ☐ Adjust the power box and fan box pucks (pod feet).
    Rotate the pucks down until they are just touching the ground, then rotate them down one more turn.

    WARNING! Do not lower the pucks further or the frame will twist.
33. ☐ Remove the jacks, sliding plates, and lifting bars.
34. ☐ Lower the hose tray to its lowest position.
35. ☐ Upgrade the lower frame.
    Note: Frames on TSV B020-B275 will require new holes and openings in both lower frame rails.
    a. Attach the lower frame drill fixture (92-0396) to the lower frame on the cassette side.
    b. Drill the 10 pilot holes using a 3mm drill bit.
    c. Remove the drill fixture.
    d. Enlarge all of the holes to 7mm in diameter with the drill.
    e. Enlarge holes A,C,D, and H with a 9.5mm bit.
    f. Use the 19mm (3/4") cabinet punch in holes C,D, and H.
    g. Use the 22mm (7/8") cabinet punch in hole A.
    h. Use the 38mm (1.5") cabinet punch in holes C and D.
    i. Use the 51mm (2") cabinet punch in hole H.
    j. Apply a strip of 50mm wide masking tape to the frame between holes C and D.
    k. Cut along both edges of the tape to create a slot, using the electric jigsaw with a metal cutting blade.
    l. Deburr all openings.
    m. Install the 2 frame cover plates.
    n. Attach the lower frame drill fixture (92-0397) to the lower frame on the conveyor side.
    o. Drill the 4 pilot holes using a 3mm drill bit.

p. Remove the drill fixture.
q. Enlarge all of the holes to 7mm in diameter with the drill.
r. Enlarge holes L and N with a 9.5mm bit. **Note:** Hole N is the first from the rear and is used with the L-conveyor only.
s. Use the 19mm (3/4") cabinet punch in hole L.
t. Use the 22mm (7/8") cabinet punch in hole N.
u. Use the 38mm (1.5") cabinet punch in hole L.
v. Deburr all openings.
w. Install the frame cover plate over hole L.

36. ☐ Upgrade the upper frame (B020-B275 only)
    a. Remove the top cover from the upper frame by removing the 4 nuts from underneath.
    b. Attach the support arm drill fixture (92-0391) to the top of the upper frame.
    c. Drill the 11 pilot holes using a 3mm drill bit.
    d. Remove the drill fixture.
    e. Enlarge the 2 marked holes to 6mm in diameter with the drill.
    f. Enlarge the other 9 holes to 10mm.
    g. Deburr all edges.
    h. Repeat for the other side of the frame.
37. ☐ Install the pneumatic upgrades:
    Part A - Autoloader air supply hose kit (50-2042A).
    a. All the fitting and hose pieces should already be completely assembled. Refer to the above drawing for assembly details.
    b. Remove the threaded fitting from the exit of the regulator assembly.
    c. Install the new fitting (55-0196) into the regulator.
    d. Insert the Autoloader hose assembly into the fitting.
    e. Trim the TSV line (5/16" tube) and connect it to the new hose assembly.
    f. Route the 1/2" hose across the floor of the frame along the left side rail into the rear frame rail.
    g. Remove the jam nut from the bulkhead fitting (55-1055), insert fitting into the 22mm hole in the frame side rail, tighten the jam nut and connect the hose assembly. Repeat on the other side of the frame. Both bulkhead fittings must have 3/8" plugs (55-1058) installed.
    h. The Y fitting closest to the conveyer must have a 1/2" plug (55-0595) installed.
    i. Tuck the excess hose neatly under the frame rails - use tie wraps as required.
    j. Close the Autoloader shut-off valve. Do not open until the picker and track has been installed.

    Part B - Table vacuum improvement kit, including the three actuators for the Y-axis gripper and table cup functions.

Manifold Bracket assembly drawing (48 KB)

a. Turn off the air supply to the whole Trendsetter.
b. Remove the second and third screws from the bottom along the left edge of the engine clamp plate.
c. Attach the valve assembly bracket using the two screw holes from Step 2.



Installing the valve assembly bracket

d. Disconnect the ¼" O.D. blue tubing from the center port of the vacuum generator.



Disconnecting tubing from vacuum generator.

e. Seal the end of the tube disconnected in Step 3 with the plugged straight connector assembly.



Straight connector and plug



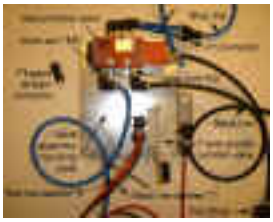
Attaching the straight connector

f. Locate the free-floating needle shut-off valve that has a T-fitting attached behind it with a single through bolt.



Location of needle shut-off valve

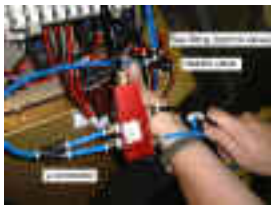
g. Disconnect both ends of the short loop of blue tubing (the end connected to the T-fitting and the end connected to one side of the needle valve).
h. Open the needle valve fully by loosening the knurled jamb nut found on the valve stem and rotating the valve spindle fully counterclockwise until it stops rotating.
i. Retighten the knurled jamb nut.
j. Locate the elbow fitting at the bottom of the vacuum generator.
k. Cut the black tubing approximately 25mm from the vacuum generator elbow fitting and install the T-fitting of the black hose from the new valve assembly.


Valve assembly


Installed T-fitting (valve assembly is attached)

l. Connect the blue line that comes from the valve port labeled "EB" on the *valve assembly* to the center port of the vacuum generator (shown in *Disconnecting tubing*).

m. Connect the blue line that comes from the Y-connector on the *valve assembly* to the open port on the T-fitting of the free floating assembly directly behind the needle valve.


Attaching the y-connector hose of the valve assembly

n. Connect the black line that comes from the valve port labeled "EA" on the *valve assembly* to the open port on the needle valve.

o. Attach the red gripper actuator hose from the valve assembly bracket to the connector labeled "R" on the back of the P-door (this hose is no longer used and should be plugged).

p. Attach the black hose from the gripper actuator on the valve assembly bracket to the connector labeled "T" on the back of the P-door.

q. Locate the 5/16" tube "T" that exits from the rear of the main valve manifold (the manifold that mounts the 16 solenoid-operated directional control valves). The "T" fitting exits from the port labeled "P" on the rear of the manifold.


Location of 5/16" black tubing

r. Cut the 5/16" tube "T" approximately 170mm away from where it exits the bottom of the fitting.

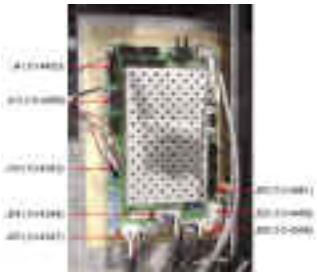
s. Insert the 5/16" tube "T" from the valve assembly, splicing the ends of the cut tubing together.


5/16" black tubing cut and inserted into T-fitting

s. Tidy up the cabling so that it doesn't interfere with the movement of the counterweight or the P-door.

t. Secure the valve assembly and its tubing to the existing hose and cable bundle. Make sure that the hoses are adequately secured to prevent any binding when the table is moved.

38. ☐ Install the electrical upgrades.
CAUTION: An antistatic strap should be worn at all times.


Genine 0 electrical connections

a. Turn OFF all power and unplug the TS from the power supply.

b. The electrical upgrade kit includes 1 board (Genine 0), 14 cables (minimum) with 41 connections and the mounting brackets required to attach everything to the TS.

c. Many of the cables will be routed into the TS power box, open the cable trays and loosen the cable clamps at both exits.

d. Access the front cable tray, behind the center panel and remove the cap from the tray.

e. The right side cable tray starts behind the power box and goes below the counterweight.

f. Working inside the power box, attach the mounting bracket for Genine 0 to the outside of the card cage. Remove the 3 screws that are already installed, position the bracket, and install the 3 screws.

g. Attach the Genine board to the bracket - the vacuum sensor must be at the top. Use the 4 flat washers and nylock nuts to secure the board. **Note:** The installer MUST be wearing an antistatic strap before removing the board from the protective bag.

h. Install cable #10-4346 from the left frame bulkhead (encoder side) to the power box. · Insert the cable into the power box, through the hole in the lower left corner behind the power supply. Route it along the bottom cable tray, under the card cage and up to Genine 0. · Attach the connector (GEN0.J24) to terminal J24 on Genine 0. · The connector (AL SAFETY) will connect to connector (SAFETY EXP) on cable #10-4348 after it is installed. · Route the other end of the cable along the front TS cable tray to the left frame rail and out of the large rectangular opening near the back. Allow 100-150mm of cable to extend from the frame opening. · Do not tie wrap the cable until ALL cables have been installed.

i. Install cable #10-4348 from the right frame bulkhead (motor side) to the power box. · Insert the cable into the power box, through the opening in the lower right corner. Route it under the card cage and up to Genine 0. · Attach the connector (GEN0 J26) to terminal J26 on Genine 0. · Attach the connector (SAFETY EXP) to connector (AL SAFETY) on cable #10-4346. · Attach the connector (TABLE LEAF) to connector (DROP LEAF, AL SAFETY) on cable #10-4355 that was installed with the new table assembly. · The last connector (GUARDRAIL) will be connected to cable #10-4468 after it is installed. · Route the other end of the cable along the cable track and out of the opening in the frame. Let it extend 100-150mm. · Do not tie wrap the cable until ALL cables have been installed.

j. Install cable #10-4681 from the p-door to the power box. · Insert the cable into the power box, through the opening in the lower right corner. Route it under the card cage and up to Genine 0. · Attach the connector (GEN0 J20) to terminal J20 on Genine 0. · Route the other end of the cable along the cable track, for a short distance, and then up the frame/strut to the p-door. The connectors will attach to the y-axis home and away sensors after the new hood is installed. · Do not tie wrap the cable until ALL cables have been installed.

k. Install cable #10-4347 from the p-door to the power box. · Insert the cable into the power box, through the opening in the lower right corner. Route it under the card cage and up to Genine 0. · Attach the connector (GEN0 J25) to terminal J25 on Genine 0. · Route the other end of the cable along the cable track, for a short distance, and then up the frame and hood strut to the p-door. · The connector will attach to the y-axis drive motor after the new hood is installed. · Do not tie wrap the cable until ALL cables have been installed.

l. Install cable #10-4343 from the actuator manifold to the power box. · Insert the cable into the power box, through the opening in the lower right corner. Route it under the card cage and up to Genine 0. · Attach the connector (GEN0 J18) to terminal J18 on Genine 0. · Route the other end of the cable along the cable track, for a short distance, and then up the frame to the air manifold behind the counterweight. · Attach the connector (Y-AXIS) to the y-axis gripper actuator. · Do not tie wrap the cable until ALL cables have been installed.

m. Install cable #10-4453 from the engine satellite board to the power box. · Insert the cable into the power box, through the opening in the lower right corner. Route it under the card cage and up to Genine 0. · Attach the connector (GEN0 J4) to terminal J4 on Genine 0. · Route the other end of the cable along the cable track to the engine satellite board, behind the counterweight. · Attach the connector (SAT J30) to terminal J30 on the satellite board. · Do not tie wrap the cable until ALL cables have been installed.

n. Install cable #10-4451 from the engine satellite board to the power box. · Insert the cable into the power box, through the opening in the lower right corner. Route it under the card cage and up to the top bulkhead plate (where the user interface used to be). · Attach the connector (GUARD RAIL) to the top bulkhead plate. A cable from the guard rail assembly will be connected after the guard rail is installed. · Route the other end of the cable along the cable track to the engine satellite board, behind the

counterweight. · Attach the connector (SAT J1) to the J1 terminal on the satellite board. Remove the blue ribbon cable #10-3537A from terminal J1 first. · The third connector (TRACK LIGHTS) will attach to cable #10-4380 after it is installed. · Do not tie wrap the cable until ALL cables have been installed.

o. Install cable #10-4468 inside the power box. · Attach the connector (GUARD RAIL) to the top bulkhead plate (where the user interface used to be). A cable from the guard rail assembly will be attached after the guard rail is installed. · Route the other end of the cable down to Genine 0. · Attach the white 8 pin connector (GEN J23) to terminal J23 on Genine 0 and attach the black 14 pin connector (GEN J10) to terminal J10. · Route the other two connectors down to the power box floor. · Attach the connector (GUARD RAIL, AL SAFETY) to connector (GUARD RAIL, AL SAFETY) on cable #10-4348. · The last connector (GUARD RAIL, VLF SAFETY) will attach to cable #10-4449 after it is installed. · Do not tie wrap the cable until ALL cables have been installed.

p. Install cable #10-4449 inside the power box. · Attach the connector (J4) to terminal J4 on the Registration Table Safety Electronics board that is mounted at the back of the power box. · Route the other three connectors down to the power box floor. · Attach the connector (GUARD RAIL) to connector (GUARD RAIL, VLF SAFETY) on cable #10-4468. · Attach the connector (DROP LEAF) to connector (DROP LEAF, VLF SAFETY) on cable #10-4355 that was installed with the new table assembly. · The last connector (CONV PANEL) will attach to cable #10-4603 after it is installed. · Do not tie wrap the cable until ALL cables have been installed.

q. Install cable #10-4603 from the conveyor interface switch to the power box. · Attach the connector (CONV PNL) to cable #10-4449 at the bottom of the power box. · When the conveyor is going to be on the right hand side of the TS, route the other end of the cable out of the top, right side of the power box. Let the connectors extend about 400mm past the frame and tie wrap the extra cable. · When the conveyor is going to be on the left hand side of the TS, route the cable out of the lower left corner of the power box, along the front cable tray and up to the top left frame rail. · The connectors will attach to the switch after the conveyor interface is installed. · Do not tie wrap the cable until ALL cables have been installed.

r. Install cable #10-4344 from the frame bulkhead to the power box. · Attach one of the connectors to the serial port (LASER CH2) on the Backplane board inside the power box. · When the cassette is going to be on the right hand side of the TS, route the other end of the cable out of the lower, right corner of the power box, under the cardcage and along the cable tray to the 50mm hole in the lower frame rail. · When the cassette is going to be on the left hand side of the TS, route the cable out of the lower left corner of the power box and along the front cable tray. · Attach the connector to cable #10-4345 and continue routing the cable along the front cable tray and along the left frame rail to the 50mm hole. · Attach bracket #57-7614 to the connector, then attach the bracket to the inside of the frame rail. · Do not tie wrap the cable until ALL cables have been installed.

s. Install cable #10-4380 from the engine satellite board to both track support arms. · Attach the connector (SAT BRD) to connector (TRK LGHT) on cable #10-4451 near

the engine satellite board. · Route the cable along the inside rear frame rail and up both rear frame uprights. · The cable will route inside each track support arm, along the track to the lights in the track skins after they are installed.

t. Install cable #10-4378 from the lower frame bulkhead to both track support arms. · Let the bulkhead connector extend from the frame 100-150mm. · Route the cable along the inside rear frame rail and up both rear frame uprights. · The cable will route inside each track support arm and attach to the x-axis home and away sensors after they are installed.

u. Install cable #10-4381 from the lower frame bulkhead to the nearest track support arm. · Let the bulkhead connector extend from the frame 100-150mm. · Route the cable along the inside frame rail and up the rear frame upright. · The cable will route inside the track support arm and attach to the x-axis motor after they are installed.

v. Install cable #10-4390 from the lower frame bulkhead to the nearest track support arm. · Let the bulkhead connector extend from the frame 100-150mm. · Route the cable along the inside frame rail and up the rear frame upright. · The cable will route inside the track support arm and attach to the track cable after they are installed.

w. Install cable #10-4397 from the lower frame bulkhead to the nearest track support arm. · Let the bulkhead connector extend from the frame 100-150mm. · Route the cable along the inside frame rail and up the rear frame upright. · The cable will route inside the track support arm and attach to the x-axis safe home and safe away sensors after they are installed.

x. Attach the two bulkhead brackets #57-7409 to the lower frame rails. Y. Tie wrap the extended cables to the bulkhead brackets, then neatly tuck the cables away. Close all of the cable trays and tie wrap all the cables.

39. ☐ Install the hood assembly.
    a. Lower the table.
    b. With a helper, lift the hood assembly out of the crate.
    c. Position the new hood on top of the upper frame, behind the table. Align the pivot holes to the frame.
    d. Open the p-door.
    e. Raise the table.
    f. Install the shoulder bolts and spacers on both sides.
    g. Lower the table.
    h. Raise the hood.
    i. Attach the strut and insert the retaining clips.
    j. Route the cables and hoses along the strut and cable bundle.
    k. Connect the cables to the harness.
    l. Connect the hoses to the actuators.
    m. Install the cable ties as required.
40. ☐ Check the angle of the p-door.

a. Turn the air and power switches ON.
b. Cycle the p-door opened and closed several times, using the commands "pdoor open' and 'pdoor close'. .
c. Remove the 2 screws and the y-axis cover.
d. Manually rotate the y-axis driveshaft to move the gripper assembly out over the table. Stop when the gripper is over the top of the leading edge.
There should be a 2mm gap between the table edge and the gripper. If the gap is too small, or if the gripper hits the table, the p-door angle requires adjusting.
e. To adjust the p-door angle:
   - Open the p-door.
   - Open the hood.
   - Close the p-door.
   - Loosen the 2 screws attaching the cylinder mounts.
   - Slide the mounts rearwards to increase the angle, or slide them forward to decrease the angle.
   - Tighten the screws.
   - Open the p-door.
   - Close the hood.
   - Close the p-door.
   - Recheck the clearance and adjust as required.

41. ☐ Check the plate drop.

    See also the full VLF Trendsetter Plate Door Adjustment (92 KB)

    a. Set the p-door angle before checking the plate drop.
    b. Set the drum with the leading edge clamps open.
    c. Center a moderately sized plate on the table and push it back against the plate stop.
    d. Place 4 strips of masking tape under the front edge of the plate.
    e. Mark the tape along the edge of the plate with a pen.
    f. Turn on the table vacuum.
    g. Raise the table.
    h. Turn off the table vacuum.
    i. Drop the plate onto the registration pins.
    j. Mark the tape along the plate edge again.
    k. Remove the plate.
    l. Lower the table.
    m. Measure the distance between the lines on the tape. It should be 4-5mm.
    n. To adjust the plate stop:
       - Open the hood.

- Loosen the plate stop retaining nuts slightly.
- Close the hood.
- Close the p-door.
- Move the plate stops to the required position.
- Carefully open the p-door.
- Carefully open the hood.
- Tighten the nuts.
- Close the hood.
- Close the p-door.

42. ☐ Set the y-axis home position.
43. ☐ Install the track support arms.
    a. The track support arms will require adjustments after the picker has been installed. Use the following adjustment procedures to adjust the track support arms.

- horizontal - top through bolts
- vertical
- rotational
- aligned to each other

Track and Picker

Objectives:

- To mount and level the track and picker
- To locate the picker centerline and the picker 'safe' zone. [For installation, the safe zone is an area at the cassette end of the machine where the picker can sit with its push side flush with the table edge.]

Before the track and picker assemblies are installed:

- The base VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- The track support arms must be installed with cables (they should arrive from the factory already installed).
- The shop airline must be connected properly.

Refer to the drawing: Track assembly (75 KB)

1. ☐ Prepare the VLF Trendsetter for track mounting.
   a. Place the 2 track support fixtures (#92-0198B) on the table, one at each end.
   b. Remove the covers from the support arms.
   c. Undo the tie straps that secure the cables to the track support arms
2. ☐ Lift the track onto the fixtures.
   a. With a helper, lift or roll the track crate and place it in front of the VLF Trendsetter.
   b. Lift the track out of the crate and place it on the fixtures. Position the track and fixtures close to the support arms.
   Note: Check that the drive belt is not being pinched on the fixtures.
   c. Route the cable and hose from the track into the support arm.

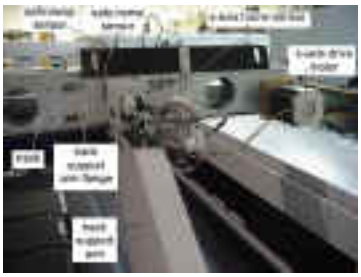


Track mounted on jigs

3. ☐ Move the track onto the support arms and fasten.
   a. With a helper, lift the track from the fixtures onto the support arms.
   b. Install all fasteners securely.
   c. Connect the hose to the supply fitting near the bottom of the VLF Trendsetter frame at the rear.

d. Connect the cables at the top of the support arms.
e. Remove the tie strap attached to the drive belt.

Note: Leave the foam in place on the track ends. It is there for your safety

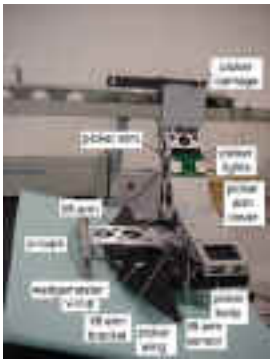


Cabling from support arm at motor end of track

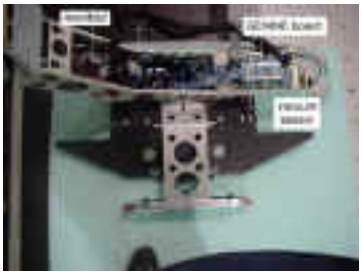


Cabling from support arm at conveyor end of track

4. ☐ Install the drive motor. See photo above.
   a. Connect the motor ground cable using a star washer.
   b. Tension the belt lightly with the idler gear.
      Note: The idler has a bearing inside. Do not overtighten.
   c. Tighten all fasteners.
   d. Connect the motor cable.
5. ☐ Reinstall the support arm covers.
6. ☐ Remove the track support fixtures.
7. ☐ Prepare the picker for mounting.
   a. Carefully remove the two picker skins.
   b. Remove the two picker wings and fasteners.
   c. Remove the fasteners from the picker arm cover.
   d. Check that the protective foam pad is still attached to the bottom of the picker.
   e. Place the picker on the table, near the center. Open the dropleaf gate for better access.
   f. Remove the 4mm pin that secures the picker carriage to the track.
   g. Slide the picker carriage close to the picker.
   h. Swing open the picker arm cover.
   i. Insert the cable and hoses into the picker arm.
   j. Connect the hoses to the manifold.
   k. Connect the cable to the Genine board.
   l. Route the cables and hoses in the arm so that they don't interfere with any connections.
   m. Close the picker arm cover carefully.
      Note: Be careful not to pinch any cables or hoses.
   n. Install all eight fasteners loosely.
   o. Securely tighten the fasteners on each side.



Picker components



Inside the picker arm

8. ☐ Lift the picker into position.
   a. Lift the picker up to the picker carriage.
   Note: Handle the picker with care!
   b. Install all eight fasteners loosely.
   c. Line up the alignment marks in the circles on each side of the picker arm.
   d. Securely tighten the fasteners on each side.
   e. Plug the air supply fitting for the garage or MCU temporarily.
   f. Turn the AL air supply shut-off valve ON. The p-cup arm and the pusher fingers will lift up.

      WARNING! To move the picker by hand, never push or pull the picker body or arm. Push or pull on the picker carriage or the drive belt.
   g. Remove the protective foam pad from the bottom of the picker.
9. ☐ Set the picker 'safe' position.
   a. Move the picker to the edge of the table.
   b. Place a 4mm pin (hex key) through the hole in the picker carriage and into the hole in the track.
   c. Attach the picker fixture (#57-8430) to the table fixture.
   d. Check that the pusher edge of the picker body is within the marks on the picker fixture.
   See the drawing: Superjig table fixture (40 KB)
   e. ➡ To adjust the picker 'safe' position:
      - Loosen the track support arm flange-to-track fasteners, 4 on each side.
      - Slide the track in the appropriate direction by hitting the support arm with a soft, heavy (dead-blow) hammer in the opposite direction. Don't hit the track itself.
      - Tighten all 8 fasteners.
      - Recheck the picker 'safe' position.
10. ☐ Check the levelness of the picker. It should be 0° ±0.1°.
   a. Place the calibrated digital spirit level across the top of the lift arm bracket on the picker body and take a reading.

b. To adjust the picker level:
   - Loosen the track support arm fasteners.
   - Rotate the adjustment screws until the angle is correct.
   - Tighten the track support arm fasteners.
   - Recheck the picker 'safe' position. See Step 9.

11. ☐ Check the picker height.
    a. Check that the bottom edge of the 'push' side of the picker body shows through the "window" formed by the two tabs on the picker fixture.
    b. To adjust the picker height:
       - Loosen the track support arm fasteners.
       - Rotate the vertical adjustment screws.
       - Tighten the support arm fasteners.
12. ☐ Check the picker alignment to the system centerline.
    a. Check that the system centerline laser fixture is aligned to the reference marks. The laser should touch both edges of the picker body centerline holes.
    b. To adjust the picker centerline alignment:
       - Loosen the track support arm fasteners.
       - Rotate the horizontal adjustment screw until the picker is aligned.
       - Tighten the support arm fasteners.
13. ☐ Move the picker to the conveyor side.
    a. Remove the 4mm pin from the picker carriage.
    b. Move the picker slightly.
    c. Remove the picker fixture.
    d. Move the picker to the other table edge (conveyor side). Make sure the picker body is over the table, and the 'push' side is flush with the table edge.
14. ☐ Recheck the levelness of the picker and adjust as needed. It should be 0° ±0.1°.
    See Step 10.
15. ☐ Recheck the picker alignment to the system centerline.
    See Step 11.
16. ☐ Check that the track is level to 0° ±0.2°.
    a. Place the calibrated digital spirit level along the top of the track at two locations and take readings.
    b. To adjust the track level:
       - Loosen the track support arm fasteners (conveyor side only).
       - Rotate the vertical adjustment screws.
       - Tighten the track support arm fasteners.
17. ☐ Move the picker back to the cassette side.

18. ☐ Recheck the levelness of the picker. It should be 0° ±0.1°.
    See Step 10.
19. ☐ Recheck the picker alignment to the system centerline.
    See Step 11.
20. Check that all the fasteners (track support arms, track adjustment screws, picker-to-carriage, picker arm cover) are securely tightened.

Single Cassette Unit (SCU)

Objectives:

- To position and level the Single Cassette Unit (SCU). The SCU option consists of a garage, docking station, garage plate (bolted to the garage) and cassette cart
- To align the plenum of the SCU with the picker and with the cassette.

Before installing the SCU:

- the VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- the track and picker must be correctly installed and aligned. See the Track/Picker Installation procedure.

1. ☐ Park the picker in the middle of the table.
2. ☐ Check that the table fixture (#92-0369) is attached and level.
   (See Step 7 of Base VLF Trendsetter installation.)
3. ☐ Remove both side panels from the garage.
4. ☐ Move the garage into position.
   a. Roll the garage on dollies near its permanent location.
   b. With a helper, lift one end of the garage off the crate bottom at a time. Slide it off the edge and onto the floor.
   c. Slide the garage towards the VLF Trendsetter.
   d. Put a 1" wood block under each arm of the floor plate to lift it up.
   e. Slide the garage plate under the floor plate.
   f. Remove the wood blocks.
   g. Align the holes in the garage plate with the holes in the floor plate
   h. Install the fasteners loosely.



Garage components



Garage power box

5. ☐ Level the garage.
   a. Use a calibrated digital spirit level to check that the garage face is level (plumb) to 90° ±0.2°.
   b. ➡ To adjust the garage level:

- Rotate the adjustable garage feet until the desired angle is achieved.
- Tighten the fasteners.

6. ☐ Check the distance from the plenum to the table edge at the front and back. It should be 660mm ±5mm.

   To adjust the plenum-to-table distance

   - Bump the garage until the distance at the front of the machine and the back are more or less equal.
     Note: Don't push the garage from the top. Sit down and kick the bottom to move the garage into place.

7. ☐ Check that the plenum is aligned to the system centerline laser.
   a. Turn the laser plane ON.
   b. Check that the laser plane is aligned to the reference marks. The laser should touch both edges of the plenum centerline feature.
   c. To adjust the plenum centerline
      - Bump the garage until the laser is within the plenum centerline feature.
        Note: Don't push the garage from the top. Sit down and kick the bottom to move the garage into place.

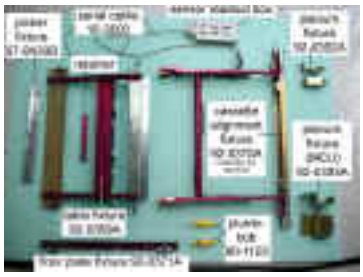
8. ☐ Prepare for cassette alignment.
   a. Turn the AL air supply OFF.
   b. Remove the kick panels from the VLF Trendsetter.
   c. Remove the plug from the garage air supply fitting.
   d. Connect the airline from the garage to the VLF Trendsetter.
   e. Connect the electrical cables from the garage to the VLF Trendsetter.
   f. Turn the AL air supply ON.
   g. Remove the docking station cover.
   h. Open the cassette and picker doors manually. Prop them open with a foam pad at each end of the plenum.
   i. Check that the adjustable cart stops on the cassette cart (just above the front wheels) are loose.
   j. Roll the cassette cart into position inside the garage.
   k. Check that the cassette centerline is aligned with the system centerline laser. Use the center of the strip of black tape that runs along the cassette bottom as a reference point.
   l. Attach the two plenum fixtures (#92-0392) by slipping them onto the front rail of the cassette cart, one at each end, and sliding them over the plenum. The fixtures should hold the cassette tightly to the plenum.
   m. Insert the sensor end of the cassette alignment fixture (#92-0370) through the garage doors and place it onto the cassette, being careful not to damage the sensors.
   n. Place the other end against the table fixture and align the brackets.

o. Insert both quick-release pins.

p. Connect the sensor readout box to the cassette alignment fixture via the serial cable (#16-3500).



SCU alignment fixtures



Fixture detail

9. ☐ Check the distance from the table edge to the inside edge of the cassette.
   a. Turn ON the sensor readout.
   b. Check that both Plate Edge sensors are green.
   c. ➡ To adjust the distance between the table edge and the inside edge of the cassette:
      - Bump the garage either away from the table or toward it, as required, until both lights are green.
        Note: Don't push the garage from the top. Sit down and kick the bottom to move the garage into place.
      - Recheck the centerline alignment.
   d. Securely tighten the garage plate to the floor plate.
   e. Recheck the plenum distance (Step 6) and the centerline alignment (Step 7).
10. ☐ Check the height from the plenum to the picker.
   a. Move the picker into the pick position (carriage at the end of the track, picker head inside the garage).
   b. Check that both Pick Height sensor readouts are green.
   c. ➡ To adjust the height from the plenum to the picker:
      - Loosen the screws inside the garage side pods, at the bottom.
      - Rotate the 4 vertical adjustment screws until both Pick Height sensor readouts are green.
   d. Recheck that the Plate Edge sensor readouts are still green.
   e. Tighten all the fasteners inside both garage side pods.
11. ☐ Check the height from the cassette to the picker.
   a. Check that both Cass Bott sensor readouts are green.
   b. ➡ To adjust the height from the cassette to the picker:
      - Loosen the large lock nuts on top of the adjustable cassette castors (the two closest to the garage)
      - Rotate the adjustable cassette castors until both Cass Bott sensor readouts are green.

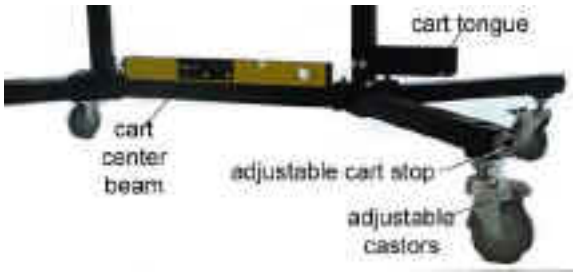
- Retighten both large lock nuts.

c. Recheck that the Plate Edge and Pick Height sensor readouts are still green.

12. ☐ Check that the cart is level along the center beam. It should be 0° ±0.2°.
    a. Place the calibrated digital spirit level along the cart's center beam. Take a reading.
    b. ➡ To adjust the cart level:
        - Loosen the large lock nuts on top of the adjustable cassette castors (the two furthest from the garage)
        - Rotate the adjustable cassette castors until the cart is level.
        - Retighten both large lock nuts.



Cassette and cart



Cart detail

13. ☐ Align the docking station to the cassette cart.
    a. Slide the docking station into the "V" of the cart rails. The cart rails should contact at least one wheel on each side of the docking station.
    b. Place a 6mm hex key on top of the docking station, directly under the cart tongue (the bar that extends past the front frame of the cart).
    c. Lower the cart tongue evenly onto the hex key.
    d. Tighten the cart tongue fasteners.
    e. Remove the 6mm hex key
    f. Activate the "cass lock" actuator in the side of the garage.
    The cart rails should still be contacting the wheels on the docking station.
    g. Tighten the docking station to the garage plate.
    h. Rotate the adjustable cart stops out until they contact the docking station.
    i. Deactivate the "cass lock" actuator.
    j. Remove the two cassette-to-plenum fixtures.
    k. Reactivate the "cass lock" actuator in the side of the garage.
    Check that the sensor readouts are still green. Adjust if needed.
    l. Deactivate the "cass lock" actuator.



Aligning docking station to cart

14. ☐ Adjust the cart stops.
    a. Move the picker over the table.
    b. Remove the cassette alignment fixture.
    c. Remove the foam pads propping the garage doors open.
    d. Remove the table fixture.
    e. Roll the cassette cart out of the garage.
    f. Rotate the adjustable cart stops out 1/4 of a rotation.
    g. Securely tighten the lock nuts.
    h. Clean the cassette before loading plates.
13. ☐ Connect the garage power cable to the AC power.

    WARNING! Make sure that both power switches on the SCU are OFF.

    Check the AC power at the customer-supplied receptacle.
    It must be correctly wired and on the same AC panel as the AC receptacle for the workstation. See the Site Preparations & Requirements document for more information.
14. ☐ Install both side covers on the garage.

Multiple Cassette Unit (MCU) *beta version*

Before installing the MCU:

- the VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- the track and picker must be correctly installed and aligned. See the Track/Picker Installation procedure.
- the picker must be safely parked over the table.
- the table fixture must be attached and aligned.

1. ☐ Roll the MCU into its final position.
2. ☐ Check that the plenum of the MCU is aligned to the system centerline laser.
    a. Turn ON the laser plane
    b. Check that the laser plane is aligned to the reference marks. The laser should touch both edges of the plenum centerline feature.
    c. ➡ To adjust the alignment of the MCU:
        - roll the MCU until the plenum feature is aligned to the system centerline laser.
3. ☐ Check the distance from the table edge to the plenum.
    a. Measure from the inside edge of the plenum to the edge of the table, using a measuring tape. Check the distance at two points on the table, front and rear. The distance should be 660mm at each point.
    b. Roll the MCU until the distance is 660 mm at both points.
    c. Recheck the system centerline alignment.
4. ☐ Remove the castors.
    a. Carefully slide the chariot until it is fully open. You must support the chariot as you open it, as the wheels will not touch the ground.
    b. Remove the large rear access panel and place it safely out of the way.
    c. Attach the 2 rear lifting fixtures (#92-0376A) to the lower rear frame.
    d. Attach the 2 front lifting fixtures (#92-0377A) to the front cross member.
    e. Place the other front fixture (#92-0374A) between the side frames.
    f. Slide the lifting bars (#56-3266A) through the front lifting fixtures and into the other front fixture.
    g. Insert the 4 lifting jacks (#92-0084A) into the 4 lifting fixtures.
    h. Place 2 white plastic slide plates (#57-8573A) under each jack.
    i. Carefully raise the jacks until all 4 are loaded. Continue to raise the jacks until the castors are 20mm above the floor.

j. Place wood safety blocks (#59-3808) under each corner of the MCU.
k. Remove the 4 screws holding the castors onto the MCU, using a ratchet handle, 450mm (18") extension and a 8mm hex key socket.
   - Lay on the floor beside the MCU and reach underneath to remove the castors.
   - Keep the castors and fasteners on site for future moves.
l. Lower the MCU until it rests on the 4 outside feet.
m. Do not remove the lifting jacks yet.

5. ☐ Check that the base of the MCU is level to 0º.
   a. With the chariot open, crawl inside the MCU.
   b. Place a calibrated digital level along the rear cross member and then the side frame rails.
   c. ➡ To adjust the levelness of the MCU:
      - rotate the adjustable feet until the desired angle is achieved.
6. ☐ Open the cassette and picker doors. Use 2 foam pads to hold the doors open.
7. ☐ Attach the 2 plenum fixtures (#92-0393A) to the plenum.
8. ☐ Attach the cassette alignment fixture (#92-0370A).
   a. Check the calibration of the 6 sensors.
      - Turn the power ON. All lights should read green.
      - Remove the calibration cover.
   b. Place the sensor end of the fixture through the door opening and rest the fixture on the plenum.
   c. Depress the sensors to allow the fixture to fit into position.
   d. Connect the cassette fixture to the table fixture, using the 2 quick release pins.
   e. Turn on the sensor readout.
9. ☐ Check the position of the MCU.
   a. Check the alignment to the system centerline. (See Step 2 for instructions.)
   b. Check the distance from the plenum to the table. Both sensors #1 and #2 should be green.
   c. ➡ To adjust the position of the MCU:
      - raise the lifting jacks evenly until the 4 MCU feet are 2mm above the floor.
      - push, pull or bump the MCU until the desired position is achieved.
      - lower the lifting jacks.

10. ☐ Check the height from the plenum to the picker.
    a. Move the picker into position over the plenum fixture. Both sensors #3 and #4 should be green.

b. To adjust the height of the plenum:
   - raise the MCU by rotating the 4 adjustable feet.
   - adjust the feet evenly until the sensor readouts are green.

c. Check that the #1 and #2 sensors are still green.

11. ☐ Remove the cassette alignment fixture.
12. ☐ Remove the plenum fixtures.
13. ☐ Remove the table fixture.
14. ☐ Remove the foam pads from the door opening.
15. ☐ Lower the other 2 MCU feet inside the MCU.
16. ☐ Remove the lifting jacks, bars, fixtures and slide plates.
17. ☐ Check the operation of the chariot. It should roll easily and should engage the MCU easily.

To adjust the chariot ride height:
- rotate the adjustment screws until the desired height is achieved.

18. ☐ Connect the air and power lines.
    a. Turn the power switches on the MCU to OFF.
    b. Turn the AL air shutoff valve to OFF.
    c. Route the cables from the MCU to the lower frame of the VLF Trendsetter.
    d. Plug in all cables securely.
    e. Carefully pull the excess cable length into the MCU.
    f. Remove the plug from the air fitting in the lower frame.
    g. Install the airline from the lower frame to the MCU.
    h. Connect the VLF Trendsetter AC power cable to the receptacle from the MCU.

Do not install the cassettes yet! Complete the rest of the Autoloader installation before loading the cassettes into the MCU.

When the Autoloader is fully installed, follow these steps to install each cassette:

19. ☐ Install the cassettes.
    a. Turn the air and power ON.
    b. Open the chariot until it stops.
    c. With 3 helpers, lift one cassette over the chariot.
    d. Lower the rear edge of the cassette into the MCU until the front edge clears the chariot body.

e. Position the cassette on the rollers.
f. Pull the cassette into the chariot body until the latch engages.
g. Push the chariot, with the cassette, into the MCU until the cassette latch engages.
h. Release the chariot latch and move to the park position.
i. Raise or lower the cassette until the next bay is in position.
j. Open the chariot and repeat the procedure for the other cassettes.

Slipsheet Removal (SSR) System *beta version*

Before installing the Slipsheet Removal System:

- the VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- the track and SSR picker must be correctly installed and aligned. See the Track/Picker Installation procedure.
- the Single Cassette Unit or Multiple Cassette Unit must be correctly installed and aligned. See the Single Cassette Unit Installation procedure.
- The picker must be safely parked over the table.
- The side panel of the VLF Trendsetter must be in place.

1. ☐ Route the SSR cables and hoses.
    a. Thread the cables from the rear of the garage (SCU) or the MCU, through the rail bracket on the side of the garage (SCU) or the MCU.

    Note: The side panel must be installed on the VLF Trendsetter before the pinch-roller assembly is installed.
2. ☐ Install the SSR pinch-roller assembly.
    a. With a helper, lift the pinch-roller assembly out of the crate.
    Note: Remove the ends of the crate so the paint isn't damaged.
    b. Place the pinch-roller assembly onto the rail bracket on the side of the garage (SCU) or the MCU. The motor end of the assembly goes to the rear of the machine.
    c. Place the other edge of the assembly onto the frame rail of the VLF Trendsetter.


Installing the pinch roller unit

3. ☐ Center the rollers to the cassette door.
4. ☐ Connect the SSR cables and hoses.
    a. Connect the cables and airlines from the rail bracket on the garage (SCU) or MCU to the control box (front of the pinch roller assembly).


SSR control box (at front of pinch roller unit), viewed from above.

b. Connect the SSR power cable from the garage or MCU to the motor box (rear of the pinch roller assembly).


SSR motor assembly (at rear of pinch roller unit)

5. ☐ Install the SSR bin.
   a. Insert the bin rails into the guides under the roller assembly.
   b. Slide the bin completely under the roller assembly.
6. ☐ Check the alignment of the SSR system.

Not yet available.

Straight (S) Conveyor

Objectives:

- To position and level the straight conveyor.
- To install the interface panels.

The conveyor is connected to the machine so that it may be easily moved for service access or for manual operation of the VLF Trendsetter. The interface is a top plate that can be removed without tools.

Before installing the S-conveyor:

- the VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- the track and picker must be correctly installed and aligned. See the Track/Picker Installation procedure.

1. ☐ Move the picker to its 'safe' zone near the cassette.
2. ☐ Check that both the VLF Trendsetter main power and the autoloader power are turned OFF.
3. ☐ Remove both end panels from the conveyor.
4. ☐ Install the frame interface panel.
   a. Place the panel on top of the frame rail.
   b. Align the panel centerline hole with the system centerline laser.
   c. Install both sets of fasteners.
   d. Tighten all fasteners.
   e. Connect the cable from inside the VLF Trendsetter to the interface sensor.
   The sensor is on the bottom of the interface panel. If the switch has four terminals, it should be connected to the two center terminals only.



Interface sensors



Frame interface panel installed

5. ☐ Install the S-conveyor.
   a. Carefully roll the conveyor to a position 2mm away from the VLF Trendsetter. To protect the frame interface panel, hook hex keys over its edge so that they hang in the gap.

      WARNING! Do not overlap the conveyor flange with the frame interface panel. The sensors on the bottom of the panels will be damaged.

b. Align the conveyor flange with the frame interface panel. The top surfaces should be flush.

c. To adjust the conveyor-panel alignment:

- Loosen the large lock nuts on top of the two adjustable conveyor castors closest to the VLF Trendsetter.
- Have a helper take the weight off the castors by using the lever (90-1093A) to lift the conveyor slightly.
- Rotate the adjustable conveyor castors.
- Retighten both large lock nuts.

d. Align the conveyor centerline to the system centerline laser.

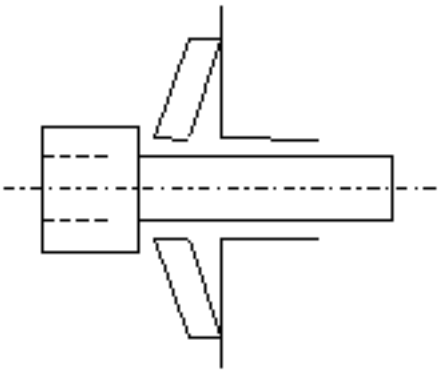
6. ☐ Install the conveyor interface plate.
   a. Place the conveyor interface plate on top of the frame interface panel and the conveyor flange.
   b. Fit the alignment pins into the holes.
   c. Press down firmly at both ends to secure.
   d. Adjust the two adjustable conveyor castors furthest from the VLF Trendsetter until the conveyor is level.
   e. Connect the cable from the VLF Trendsetter to the S-conveyor.



Cable connected to S-conveyor

7. ☐ Align the S-conveyor to the processor.
   The conveyor belts should be slightly higher than the processor.
   To adjust the conveyor-processor height:
   - Rotate both adjustable turnbuckles until the desired alignment is achieved.
8. ☐ Install both end panels on the S-conveyor.
9. ☐ Clean the surface of the S-conveyor.

L-Conveyor Installation



Put Belleville washers on screws and bolts as shown in the illustration.

Before installing the L-conveyor:

- the VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- the track and picker must be correctly installed and aligned. See the Track/Picker Installation procedure.
- the picker must be safely parked over the table.
- the VLF Trendsetter and Autoloader power must be turned OFF.
- the laser plane must be turned ON and be aligned to the reference marks.
- All the end panels must be removed from the L-conveyor.

The L-conveyor is shipped in three pieces: the frame unit, the table, and the skins.

1. ☐ Install the frame interface panel.

   Use torque wrench wherever possible to achieve proper tightness.

   a. Place the panel on top of the VLF Trendsetter frame rail.
   b. Align the panel centerline hole with the system centerline laser.
   c. Install both sets of fasteners.
   d. Tighten all fasteners.
   e. Connect the cable from the inside of the VLF Trendsetter to the interface sensor.
      The sensor is on the bottom of the panel, and connects to the two center terminals only (if the switch has four terminals).

2. ☐ Assemble the L-conveyor.
   All fasteners for this assembly are in marked bags.

   a. Assemble the black table shrouds; assemble the long side shrouds first and then the end ones (two helpers are needed). To overcome any alignment problems, partially put all screws in the holes before doing the final tightening. Add the four small corner braces.

b. Slide the two guide pins into their spherical bearings on top of the base.

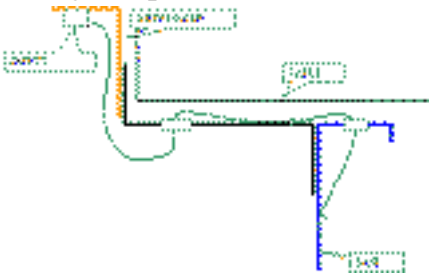
c. Put four hard pieces of foam (from crates, appr. 130-150 mm high) at each corner of the shrouded base to keep the table raised for easy access underneath the table.

d. Using six or eight (preferred) helpers, orient the table correctly and lift it over the shrouded base and lower it down onto the foam blocks. Center the table horizontally with shroud edges.

e. Underneath the table: Attach the guide pins. Attach the table down sensor tabs (4) to the black nut plates of the table height adjustment screws at the bottom of the table. It is correctly orientated when, with the table down, it brings the tab about 10mm in front of the optical sensor (there is only one way to do this).

f. Outside the conveyor: Screw in the four black table height adjustment screws (the ones with large sockets) at the cylinders - they might be a little tough to turn because of supporting plastic blocks inside the table. Most of the turning can be done from the top of the table by first removing the plastic plugs and using a heavy flat screwdriver and adjustable wrench as torque arm. Space the screws evenly and leave about a 20mm gap between the nut plate nut and the back of the screw socket.

g. Underneath the table: Slide the Y-axis tubes and cables (in the flex track) through the opening up to the Y-axis channel - have a helper above the table pulling and making sure the cables and tubes do not get scratched. Attach the flex track bracket. Route and attach the X-axis cables (also in the flex track) to the X-axis box terminal; the cable connectors are marked. Route and attach the safety loop cable:



h. Underneath the table: Before lowering the table, check that there are no tools or debris left between the shrouds, base, and table. With six to eight helpers, lift the table slightly from the foam blocks (so that guide pins don't come off bearings), and remove the foam blocks (keep your head down in case your helpers lose grip and drop the table). Lower the table slowly onto the four rubber stops, the person underneath must check that the guide pins stay on the bearings.

i. Above the table: Connect the Y-axis cables and tubes (all are marked) and put the Y-axis covers on. Fasten the Y-axis push bar to the two tabs (screws into the tabs).

j. Outside the conveyor: Attach the X-axis box safety plate with the bent edge inwards.

k. Attach the in-feed ramp bracket to the four studs on the side of the shroud at a

level so that the bridge plate, which is added later, will be flush with table top.

l. Attach the plate exit ramp to match the processor height.

m. Attach the side backing panels (plain aluminum) to the table sides. The longest panel has two possible positions (two sets of screw holes). Attach it so that the end is flush with the table end facing the processor. Other end of the panel protrudes by approximately 30mm.

n. Attach the decorative panels to the backing panels:

Longest panel to the table side
Combined panel (curved and straight together) to the end opposite the processor
Shortest panel flanks the combined panel
Second shortest panel goes to the side facing the Trendsetter, at the processor end.

o. Adjusting the assembled conveyor:

Conveyor to TS: First level the conveyor table using the digital level. Adjust the casters (3mm/turn) until the conveyor table height is approximately 5-10mm lower than the TS table height. Adjustment is easier if the conveyer is temporarily raised on blocks to take the weight off of the casters. Use the conveyor lifting lever, #90-1093A, and another wooden safety block to lift the conveyor to insert the temporary blocks.
Conveyor to Processor: This can only be adjusted after the power and air have been turned on and the conveyer is functional. This is done in step 5.

3. ☐ Install the conveyor.

a. Roll the conveyor into position beside the VLF Trendsetter. Maintain a 2mm gap between the conveyor flange and the frame panel.
Warning! The sensors on the bottom of the panel will be damaged if the flange and panel overlap.

b. Align the conveyor centerline to the system centerline laser.

c. Align the conveyor flange with the frame interface panel.

4. ☐ Install the conveyor interface plate.

a. Place the plate on top of the frame interface panel and the conveyor flange.

b. Fit the alignment pins into the holes.

c. Press down firmly at both ends to secure the plate.

d. Connect the airline to the VLF Trendsetter and the conveyor.

e. Make the correct electrical connections for the machine orientation. There are two sets of wires; one for a L-R orientation and one for a R-L orientation.

5. ☐ Align the conveyor to the processor.
The conveyor table should be slightly higher than the processor.

➡ To adjust the conveyor/processor height:

- Put the conveyor table in the 'up' position.

- Remove the plastic plugs and adjust the table height adjustment screws from the top of the table. Use a heavy flat screwdriver and an adjustable wrench - the rate is 2.3mm/turn (5/8"-11 UNC thread).
  Note: Because the current firmware does not allow zero lift, the table must have a minimum lift of approximately 10mm to trigger the sensor.
- Align the safety plate at the processor end of the conveyor table with the top surface of the conveyor table (in the 'up' position).

6. ☐ Install the outer panels of the conveyor: Curved panels in the front and back and straight panel on the sides.
7. ☐ Clean the surface of the conveyor.

Skins, Rear Access Guards, Guard Rail for a Field Upgrade

Before installing the skins, rear access guards, and guard rail:

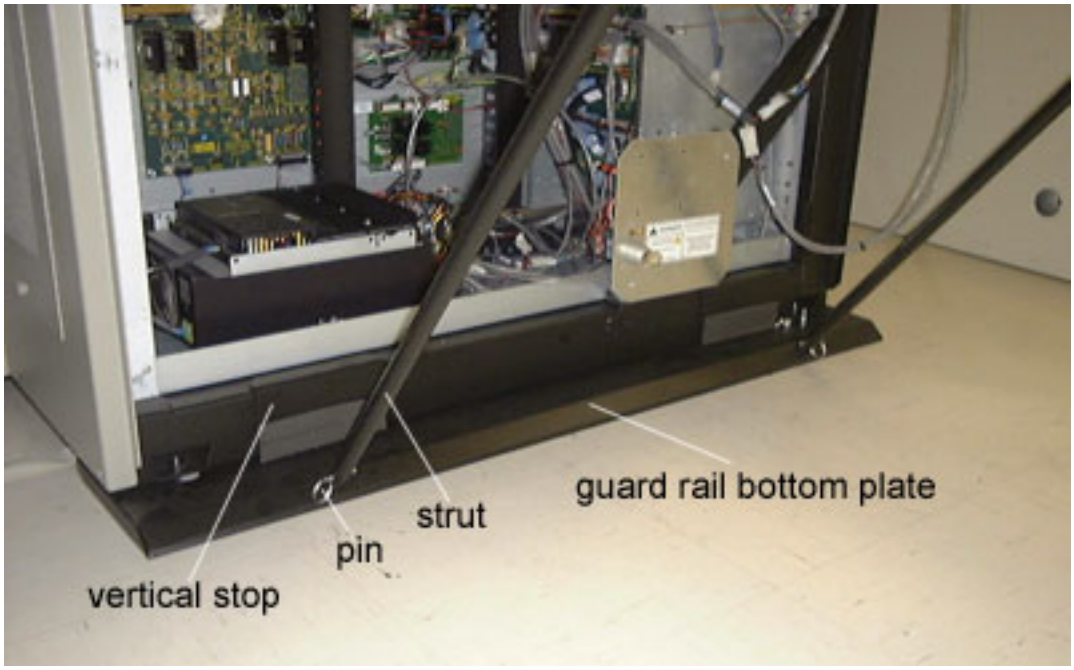
- the VLF Trendsetter must be correctly installed and aligned. See the Base VLF Trendsetter installation procedure.
- the track and picker must be correctly installed and aligned. See the Track/Picker Installation procedure.
- The picker must be safely parked over the table.
- The Single Cassette Unit or Multiple Cassette Unit must be attached and aligned. See the Single Cassette Unit Installation procedure or the Multiple Cassette Unit Installation procedure.
- The AC power must be turned OFF.
- The conveyor must be installed and aligned. See the Straight (S) Conveyor Installation procedure or the L-Conveyor Installation procedure.
- The imaging head must be installed. See the Head Install procedure (doc #77-0074A).

1. ☐ Move the picker to the middle of the table.
2. ☐ Check that the AC power is turned OFF.
3. ☐ Complete the picker assembly.
   a. Attach both picker wings and tighten all four screws.
   b. Install the main picker skin.
      Rotate the top in first, then swing the bottom in and press the retainers into the clips.

      WARNING! Be careful not to jolt or make contact with any picker components.
   c. Install the rear picker skin.
4. ☐ Complete the track assembly.
   a. Connect the track light inside the end skin.
   b. Manoeuver the end skin over the end track flange.
   c. Install the 6 fasteners loosely.
   d. Repeat (a) to (c) for the other end skin.
   e. Place the center skin on the track and end skins.
   f. Snap the front edge of the center skin over the end skins.
   g. Install the 4 fasteners loosely.
   h. Tighten all 10 skin fasteners.
5. ☐ Check the movement of the picker.
   a. Move the picker along the entire length of the track by pulling or pushing the drive

belt.
Movement should be smooth and easy, with no mechanical contact or interference.

6. ☐ Install the guard rail.
   a. Open the p-door and raise the table.
   b. Remove the two front panels from the VLF Trendsetter.
   c. Upgrade the upper panels.
      - Attach the left and right guard rail drill fixtures to the upper panels.
      - Drill the 8 pilot holes with a 3mm bit.
      - Remove the drill fixtures.
      - Enlarge all 8 holes to 9mm diameter. Drill through the lower panel as well.
      - Enlarge the top holes only to 13mm diameter.
      - Install the 8 spacers into the 8 openings.
   d. Slide the lower support panels under the front bottom edge of the machine until the vertical stops butt up against the machine. (When the front panels are replaced, their pressure will hold the plate firmly in place.)



Lower support panel in position

   e. With a helper, hold each guard rail assembly in place
   f. Insert the bottom supports.
   g. Fasten the top support.
   h. Connect the two cables from the righthand guard rail assembly to the receptacle on the top surface of the VLF Trendsetter.
   i. Install the cover bracket and the cover plate over the cables.

j. Align the sliding gate with the rail.

k. To adjust the gate-rail height:

- Rotate the bottom support rods until the sliding gate and rail are aligned.

l. Insert the four retaining pins.

m. Tighten all fasteners.

n. Lower the table.

o. Close the p-door.

p. Close the sliding gate.

Drawing: Installed rail assembly (40 KB)

7. ☐ Install all the VLF Trendsetter outer panels.
8. ☐ If slipsheet removal is not being installed, install the plate deck.
   a. Position the plate deck between the machine and the garage.
   The wide end sits on the bracket on the face of the garage. The narrow end sits on the top frame of the VLF Trendsetter. (There are no screws or fasteners.)



Installing the plate deck

9. ☐ Install the rear access panels.
   a. Lower the hood.
   b. Clean the hood, track support arms, and the MCU or garage.
   c. Install the hood access guards.

- Remove the protective covering from the 3 hood guards.
- Install the 6 retaining pads, spacers and screws onto the hood guards.
- Position the 3 guards along the top of the hood, 10mm back from the front edge and 9mm in from the sides. Leave a 9mm gap between each guard.
- Mark their positions with a pencil.
- Lift up one guard at a time. Remove the backing from the adhesive tape on the mounting pads and press into position.

d. Install the side access guards.

- Install the 2 retaining brackets onto each side guard.
- Cut the Velcro into 4 strips, each 50mm long.
- Remove the backing from the hook side. Press the Velcro onto the 4 brackets.
- Remove the backing from the loop side.
- Position the side guard on the support arm. Align the vertical panel with the hood guard.
- Install and tighten the retaining screw in each of the 4 brackets.

e. Install the slipsheet roller access guard.

- Install the 2 retaining pads on the roller access guard, using the spacers and screws.
- Remove the backing from the adhesive tape on both mounting pads.
- Position the roller access guard on top of the slipsheet cover panel.
- Align the mounting holes in the access guard with the cover panel.
- Press the guard against the MCU or garage.
- Install the screws and washers through the guard and into the slipsheet cover panel.

Warning! Before opening the hood, remove both side access guards and the hood access guard that is directly behind the picker.

10. ☐ Connect the workstation to the VLF Trendsetter.
11. ☐ Power up the VLF Trendsetter and the workstation.
12. ☐ Update the firmware.
13. ☐ Load the cassettes.

Clean up

Clean the VLF Trendsetter AL and its surroundings before leaving the site for the day.

1. ☐ Wipe down all external surfaces of the VLF Trendsetter AL, using a glass cleaner or mild detergent. Take particular care in wiping the table, which needs to be kept very clean.
2. ☐ Vacuum the inside of the VLF Trendsetter.
3. ☐ Vacuum the floor.
4. ☐ Deposit garbage in receptacles.
5. ☐ Pick up all tools and replace them in the toolbox.

Configure the system

1. ☐ Power up the VLF Trendsetter and the Autoloader.
2. ☐ Power up the workstation.
3. ☐ Verify that the network is configured and the connection is working.

   Note: If the network is not responding, contact the applications specialist.
4. ☐ Configure the media following the Setting Up New Thermal Media instructions.
5. ☐ Configure the workstation following the applicable Workstation Software User Guide.
6. ☐ Install the Plate Alignment Labels on the load table. See Plate Alignment Label Placement (32 KB).