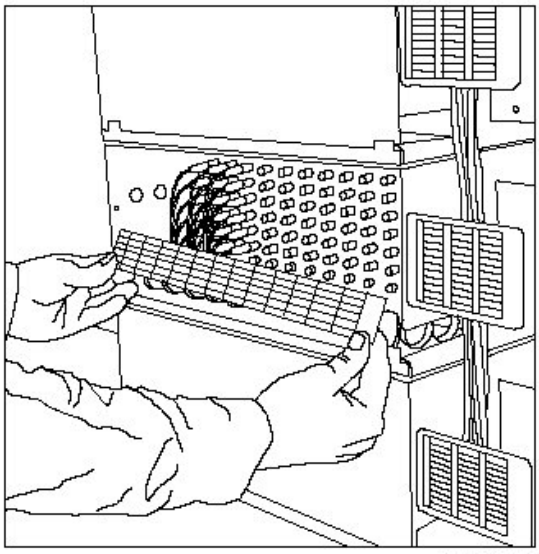
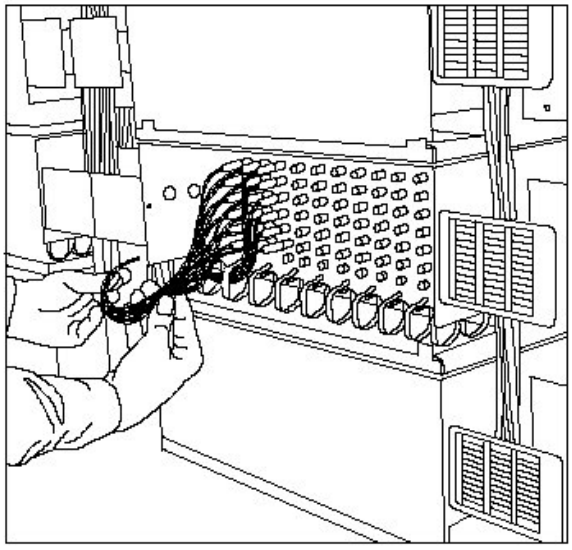
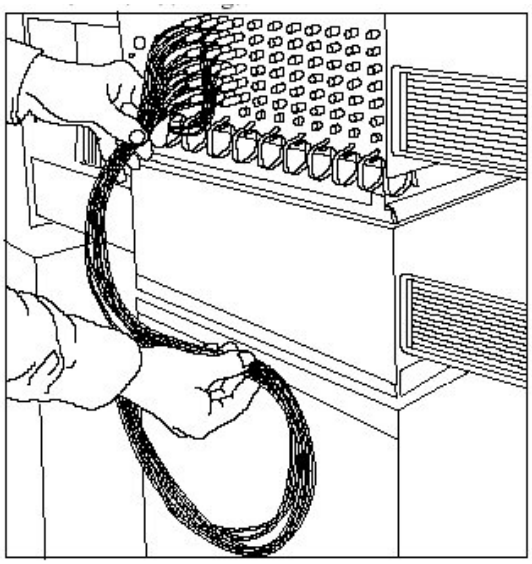
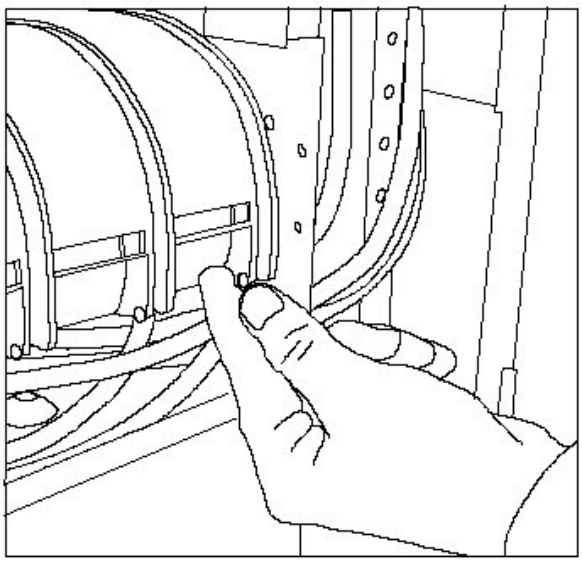
Maintenance and Repair Procedures from the Front of the Termination Shelf



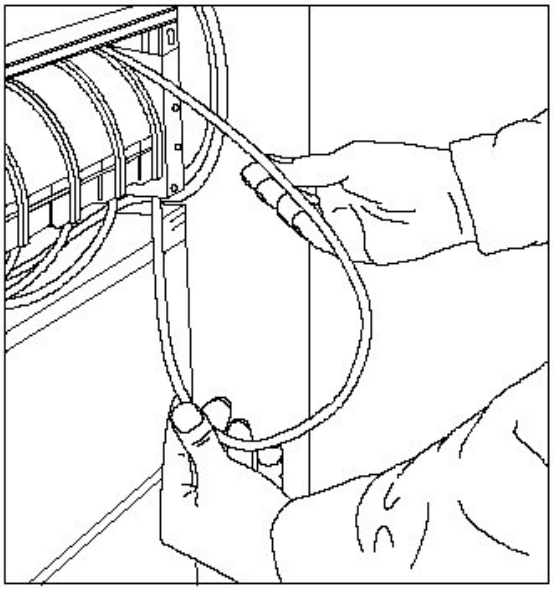


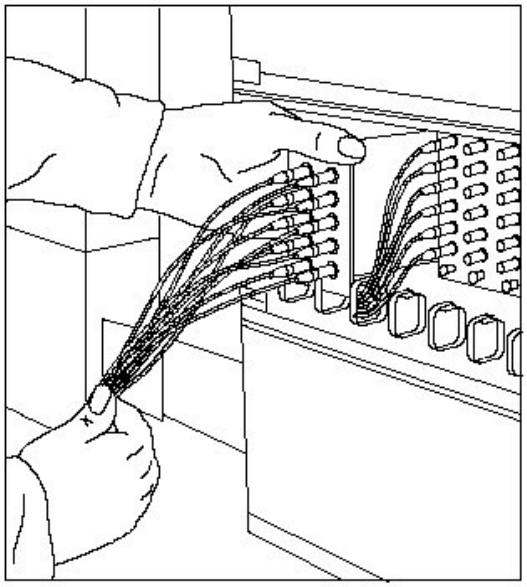
1. Remove the front door and label bracket from the termination shelf and store in a safe place.
2. Identify all the jumpers connected to the module at the front of the shelf and carefully remove the jumpers from the fiber rings.



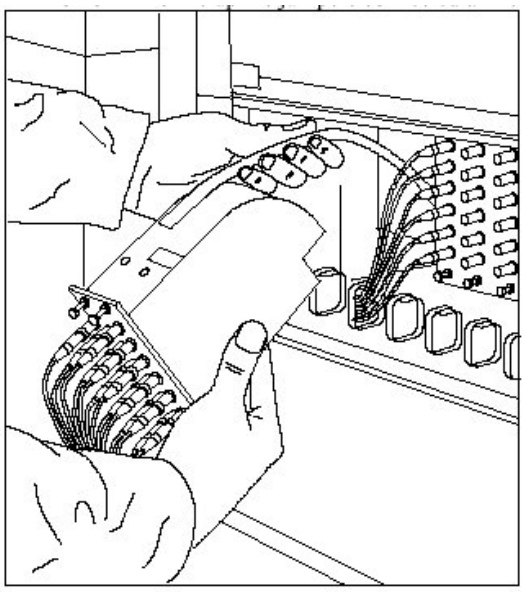


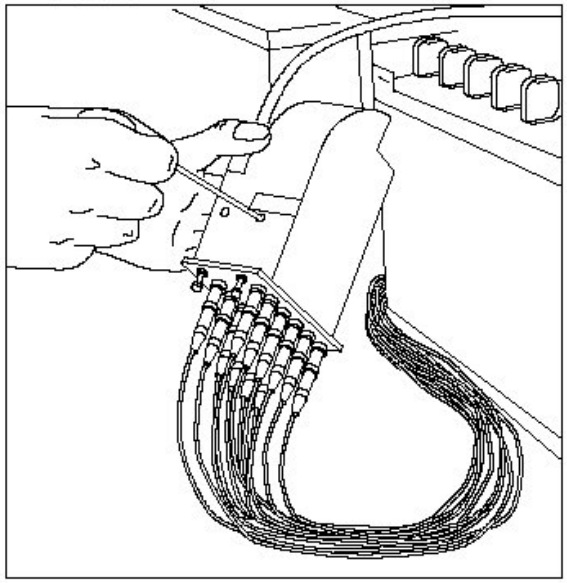
3. Provide sufficient jumper slack at the front of the shelf (about 30 in.) to allow removing the module.
4. At the rear of the module, remove the small black cable retainer and store it for reuse. The retainer may be popped out using a 6-inch scale or flat blade.



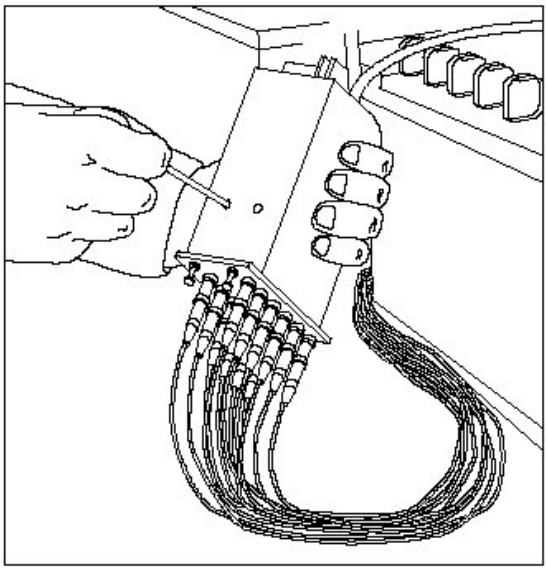


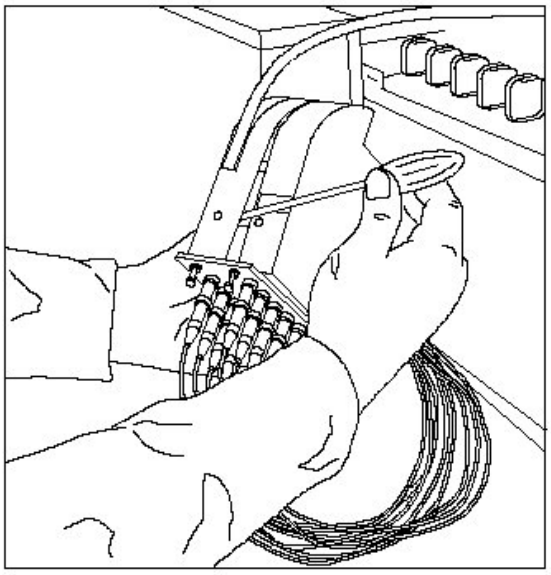
5. Pull out the slack cable loop to allow removing the module.
6. Disengage the four white Nylatch fasteners and pull the module out from the front of the shelf being careful not to kink or tie up the jumpers connected at the front of the module.



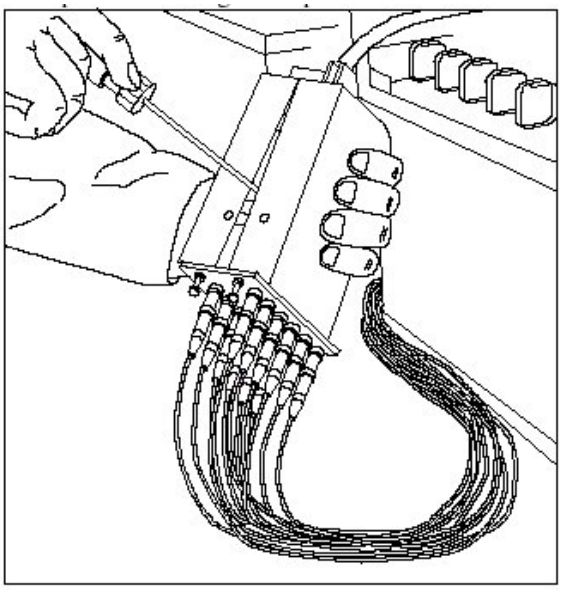


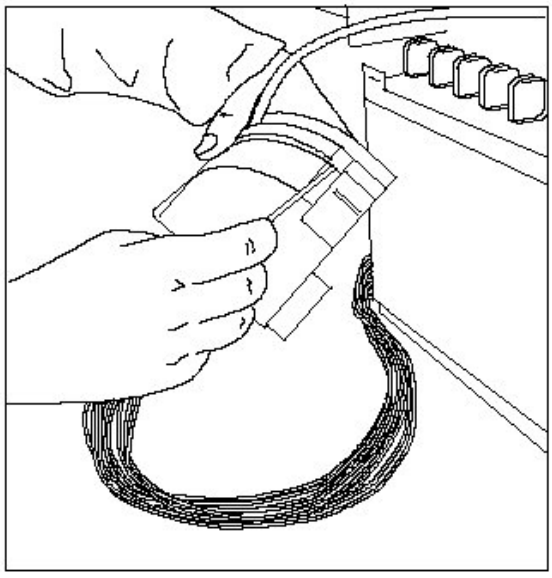
7. Pull out sufficient cable slack to allow the module to be placed on a portable work table.
8. To disassemble the module, remove the barcode label from the top of the module - exposing the module screws. Remove the screw in the cover side - the side opposite from the cable entry.



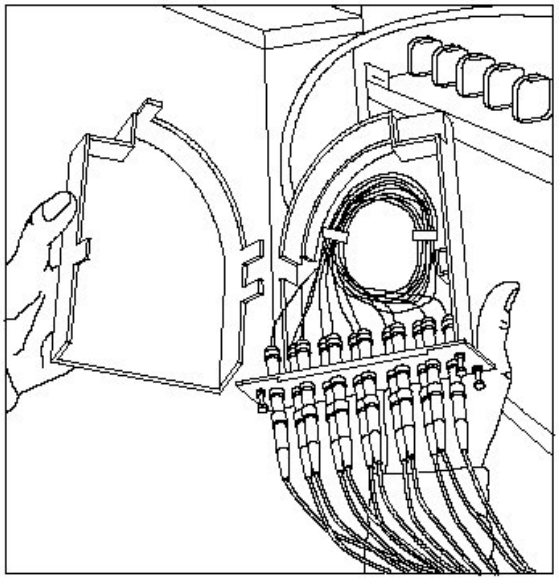


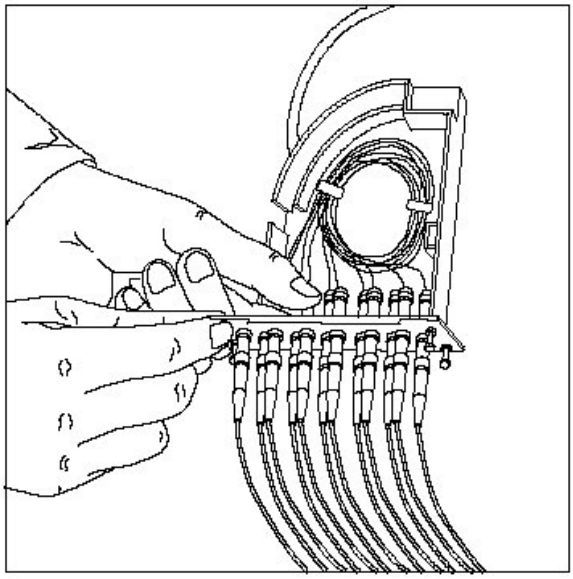
9. Turn module over and remove the bottom screw from the cover side. Store screws for reuse.
10. Insert small screwdriver (used to remove screws) into the slot at the top of module ¼ inch and lift screwdriver upward to dislodge the top latch of cover.



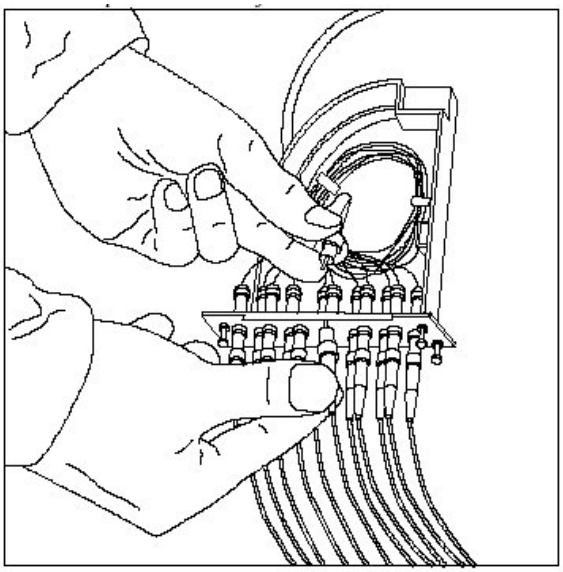


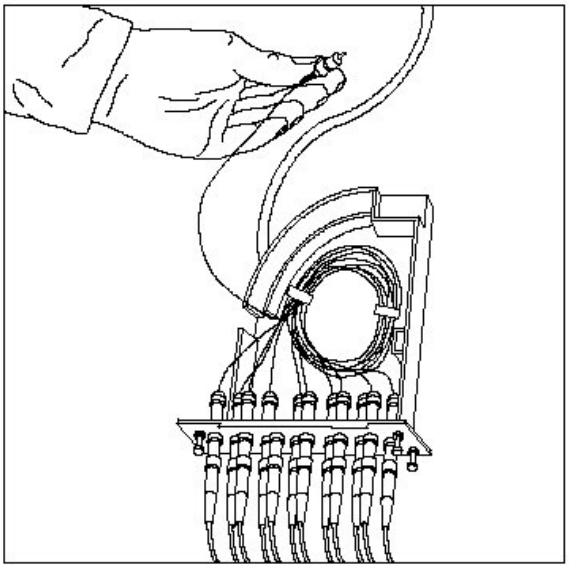
11. Turn module over and insert small screwdriver ¼ inch into the slot at bottom and lift screwdriver upward to dislodge the bottom latch of the cover.
12. Finally, insert small screwdriver ¼ inch into the slot at the back of the module and lift the screwdriver upward to dislodge the back latch of the cover.



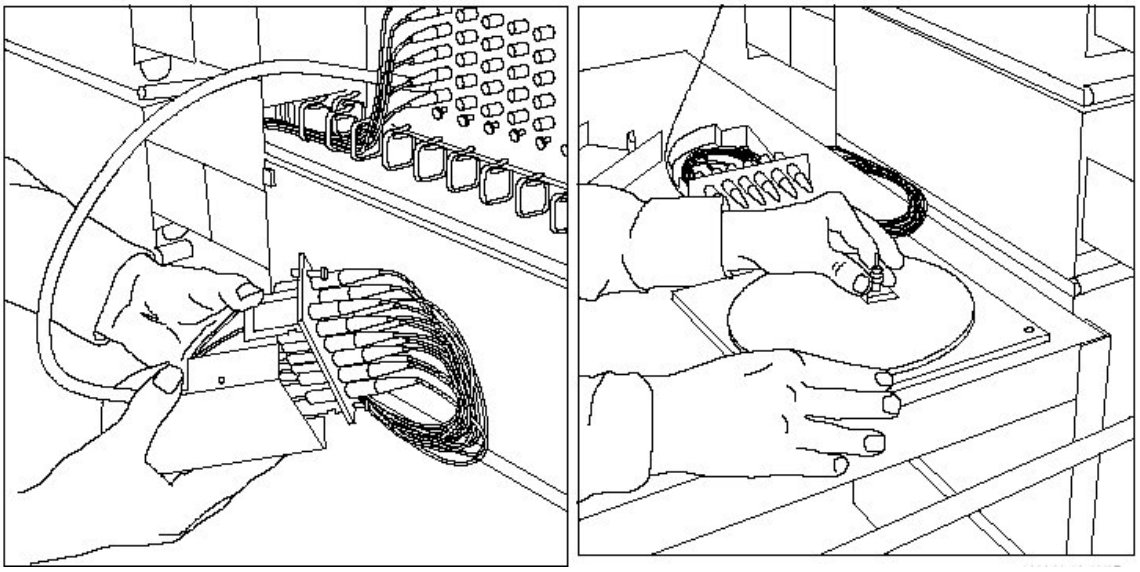


13. Pull cover from module and place in a safe area with the screws and retainer.
14. Hold the module housing firmly on the work table. Remove connector from inside the module being careful not to pinch or bind adjacent fibers.

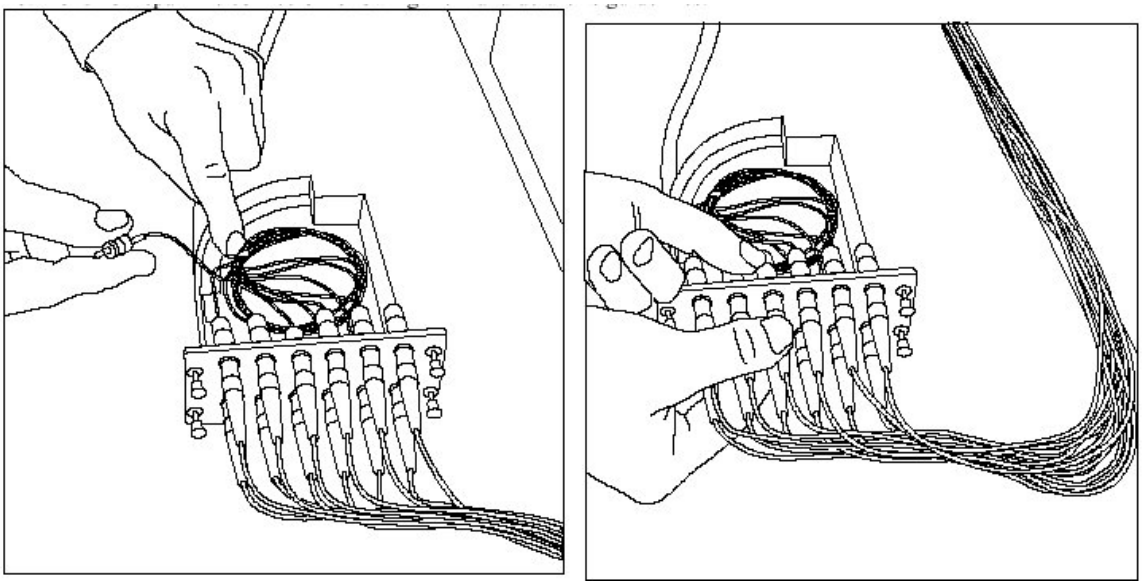




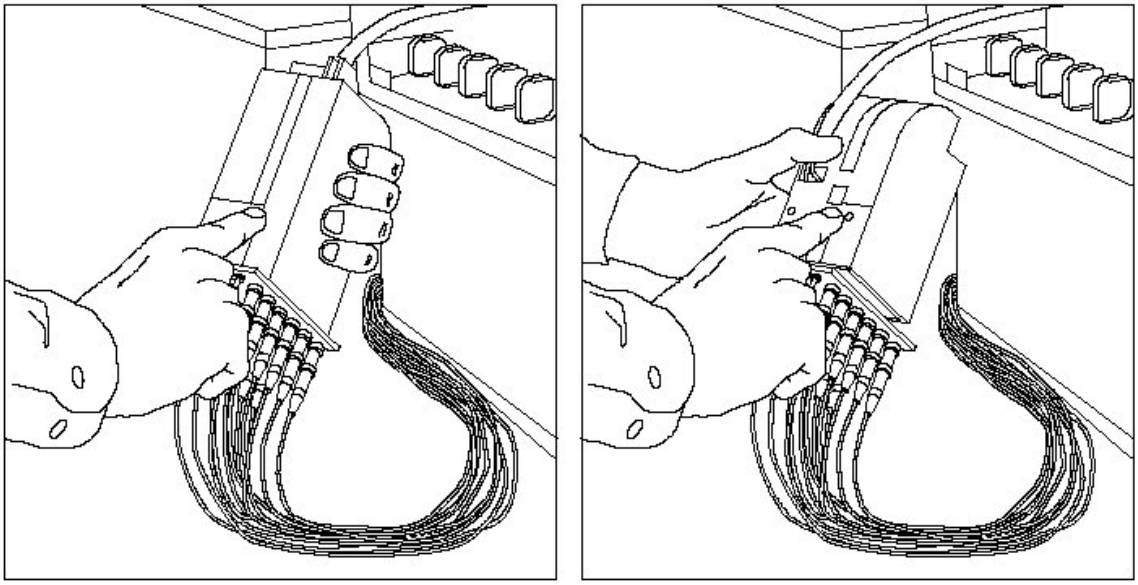
15. Remove jumper connector from the front of the module. Follow the connector manufacture's guidelines for cleaning connectors and coupling. Place connector caps on both connectors to prevent damage.
16. If connector inside the module requires repolishing, carefully remove the connector and enough of the stored slack (about 16 in.) to allow polishing or repair. The fiber must be carefully removed from the fiber retaining clips in the module.



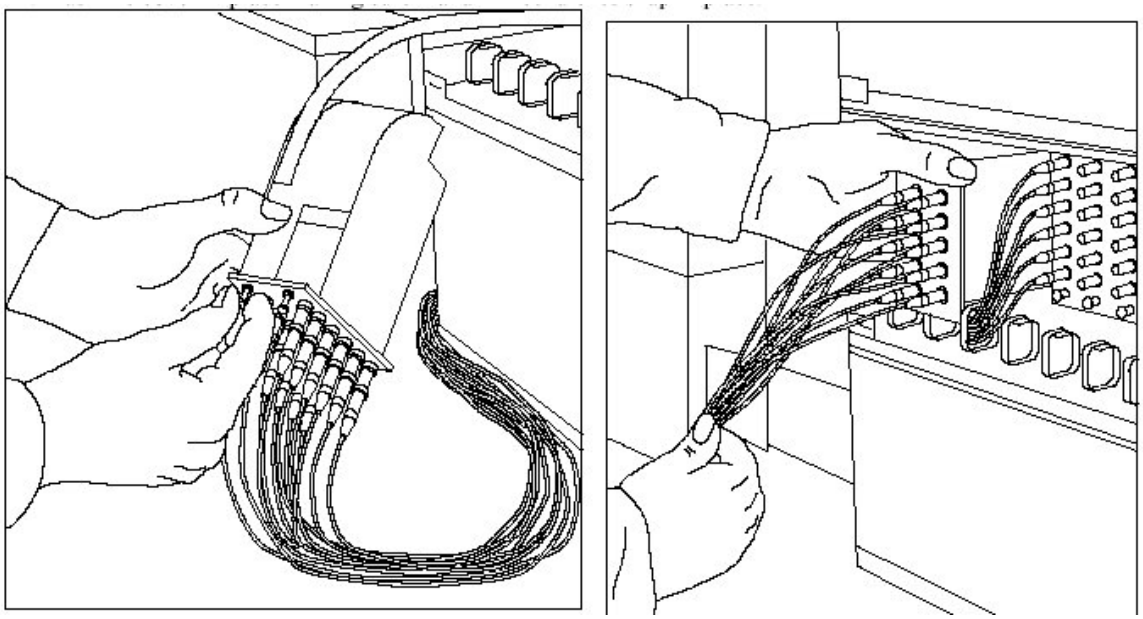
17. It may be necessary to remove the connector panel to access connectors with some connector styles. Remove the remaining two screw and pull the connector panel away from the housing being careful not to pinch or bind the fibers.
18. Polish or repair the connector following the manufacturer's guidelines.



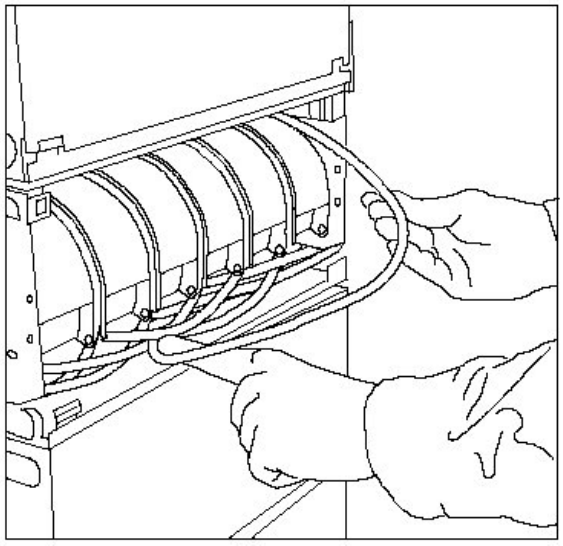
19. After completing the maintenance procedure, dress the slack fiber back into the fiber retainer clips inside the modules. Be careful not to bind or pinch the slack or adjacent fibers when dressing the slack. Do not remove connector caps until connector is ready to be mated.
20. Reconnect both connectors into the coupling.

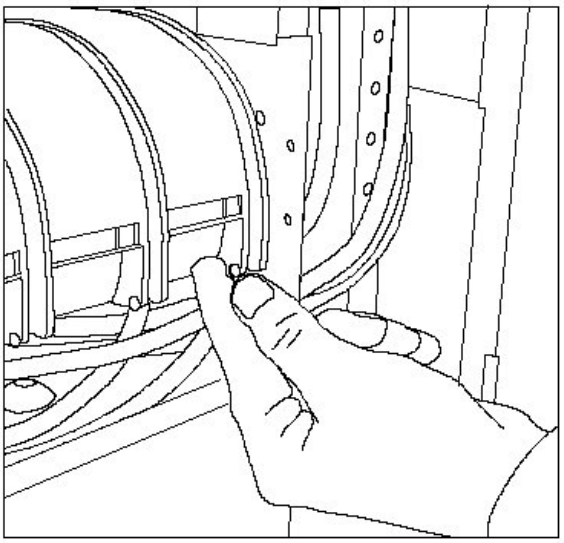


21. Re-install cover making sure that fibers are not pinched at the bottom latch, at the top latch, and at the rear of the module.
22. Push the cover in place making sure that all three latches snap in place.



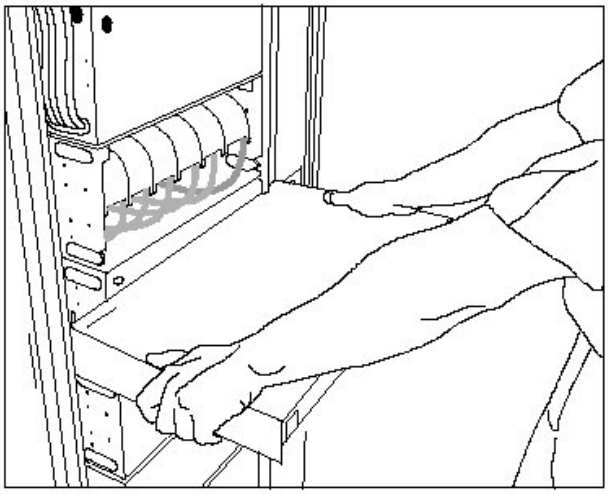
23. Re-install the two screws to secure the cover at the top (Step 8, Page 2) and at the bottom (Step 9, Page 3) of the module. Make sure that the four white Nylatch fasteners are disengaged by pulling on them.
24. Position the module into the shelf being careful not to pinch or bind the jumpers and push module over the fiber rings toward the rear of the shelf. Seat the module on the bulkhead mounting holes and push in the four Nylatch fasteners making sure that they snap in place.

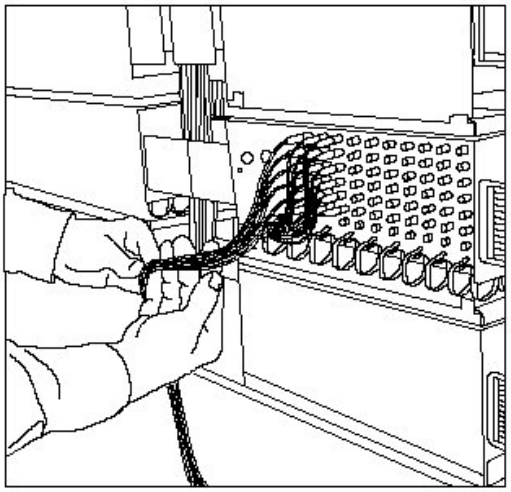




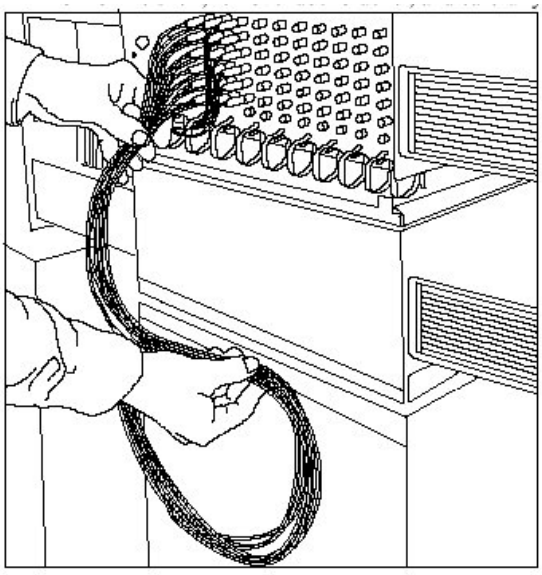
25. Dress the cable stub slack underneath the cable stubs of the adjacent modules.
26. Re-install the black cable retainer.
27. At the front of the shelf, dress the jumper slack back into the jumper retainers and the vertical trough (Step 3, Page 1).
28. Finally, dress the jumpers into the fiber rings (Step 2, Page1), and replace the self front and rear doors.

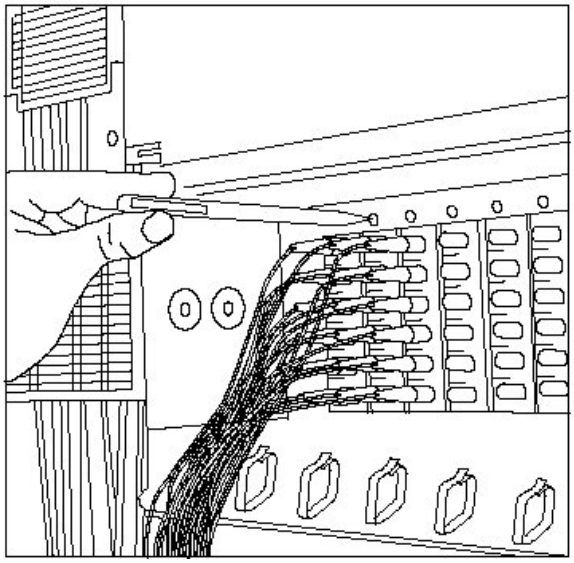
Maintenance and Repair Procedures from the Rear of the Termination Shelf



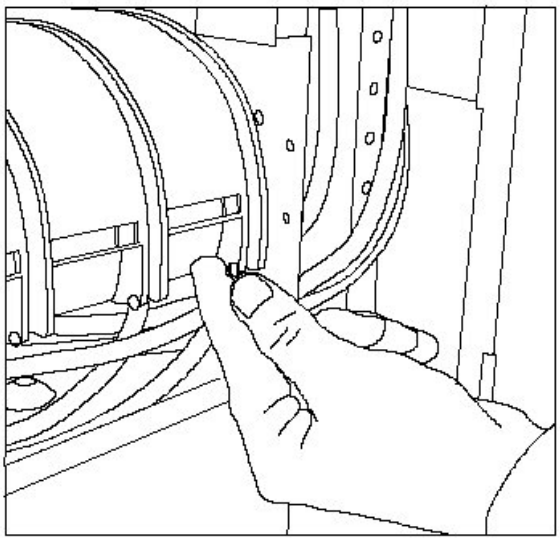


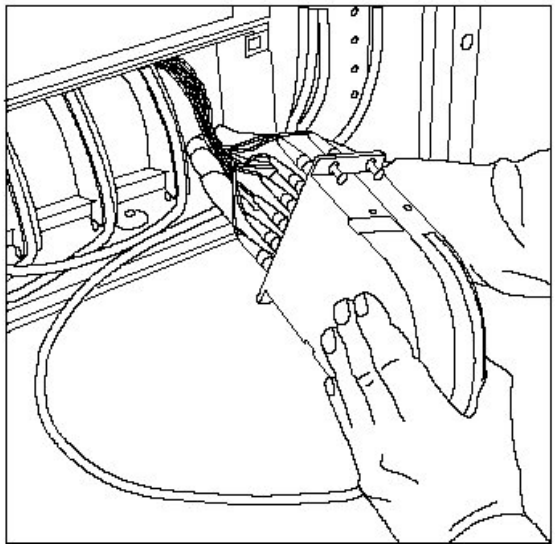
1. Remove the rear door of termination shelf and install a 26A Work Shelf equipped with 136A Brackets at the rear of the frame underneath the shelf. LGX frame rear doors where used must be removed to install work shelf.
2. Before removing module from the shelf at the rear, identify all the jumpers connected to the module at the front of the shelf, remove label bracket, and carefully remove the jumpers from the fiber rings.



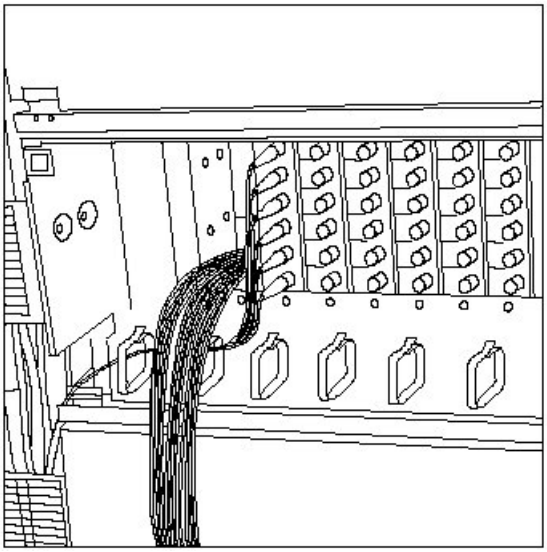


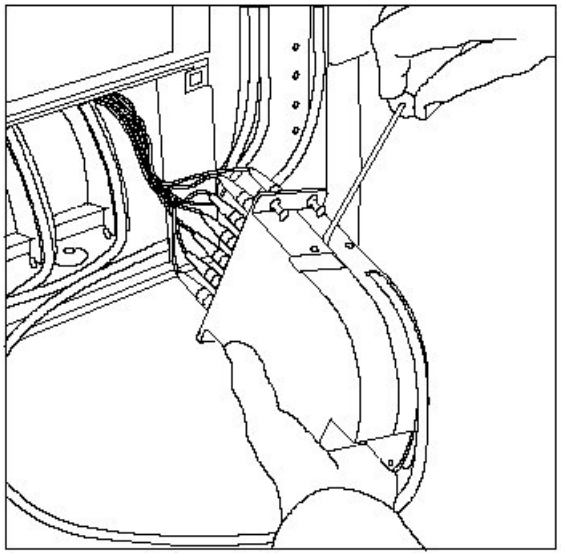
3. Provide sufficient jumper slack at the front of the shelf (about 30 in.) to allow removing a module.
4. Using the tip of a pen, or small screwdriver, push the four Nylatch fasteners in to dislodge the module.



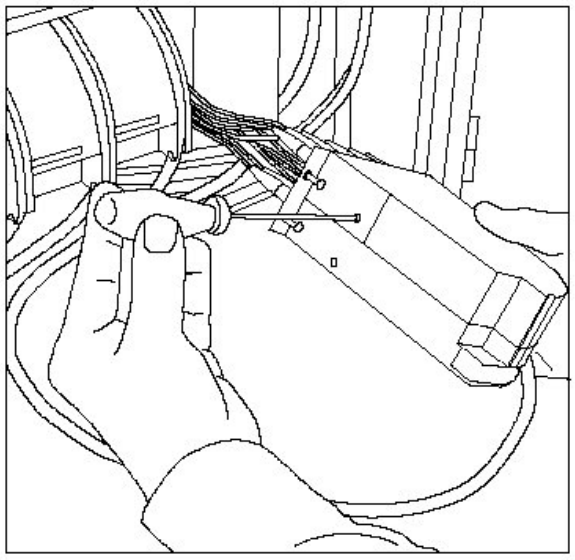


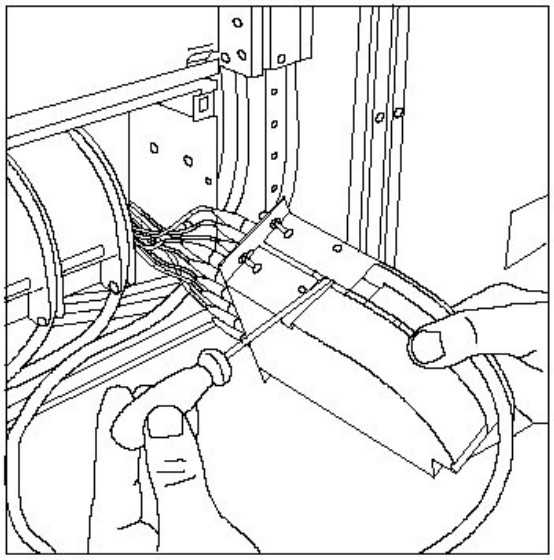
5. At the rear of the module, remove the small black cable retainer and store it for reuse. The retainer may be popped out using a 6-inch scale or flat blade.
6. Pull the module and cable stub out from the rear of the shelf being careful not to kink or tie up the jumpers connected to the front of the module.



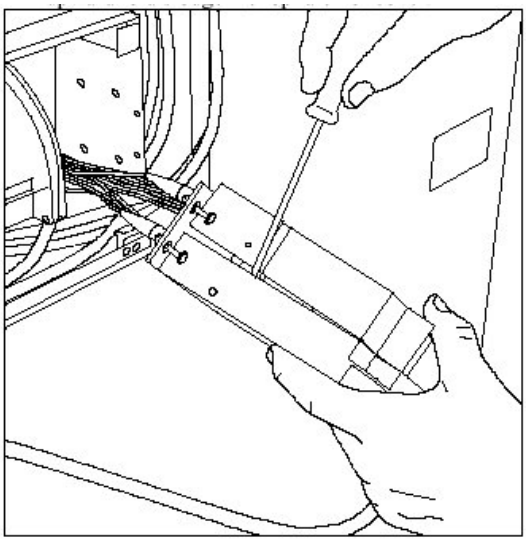


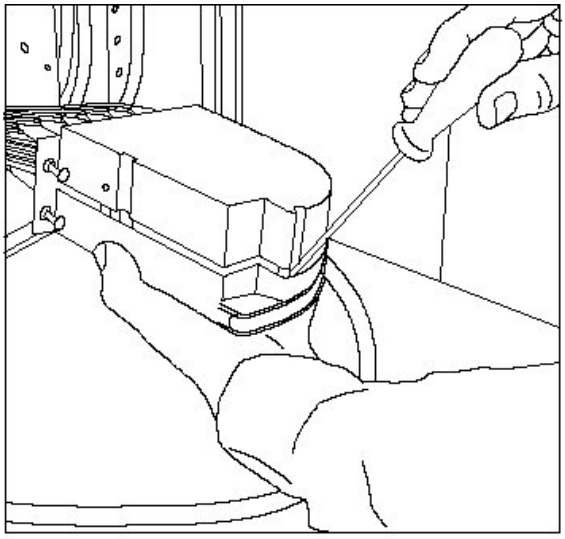
7. Assure that jumpers have sufficient slack and are not tightly pulled at the front of the shelf.
8. To disassemble the module, remove the barcode label from the top of the module - exposing the module screws. Remove the screw in the cover side - the side opposite from the cable entry.



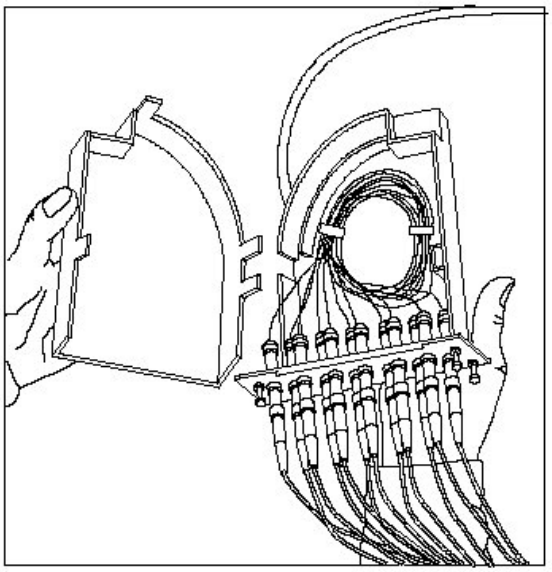


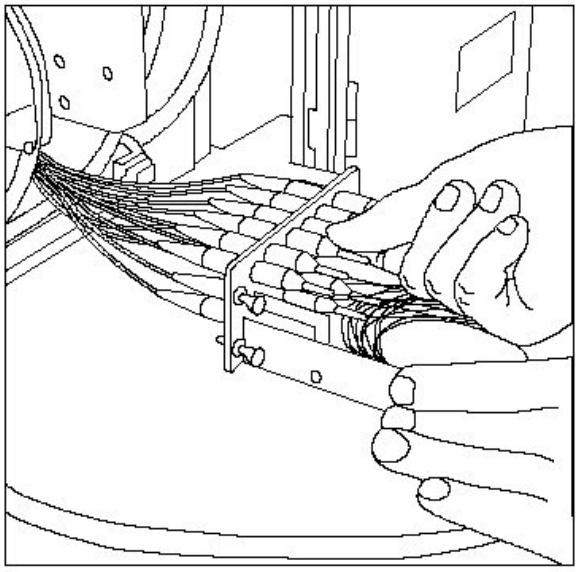
9. Turn module over and remove the bottom screw from the cover side. Store screws for reuse.
10. Insert small screwdriver (used to remove screws) into the slot at the top of module ¼ inch and lift screwdriver upward to dislodge the top latch of cover.



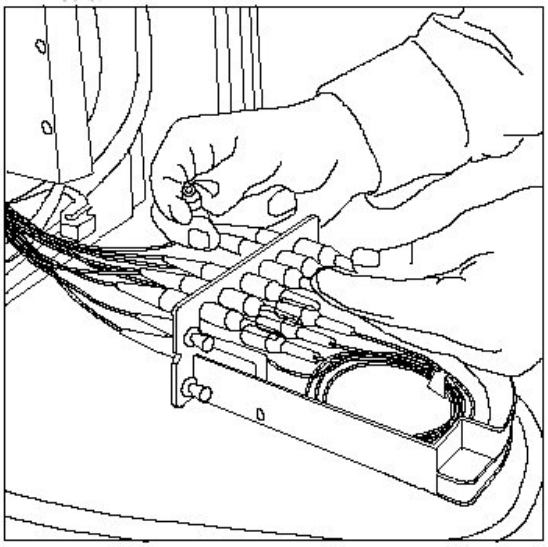


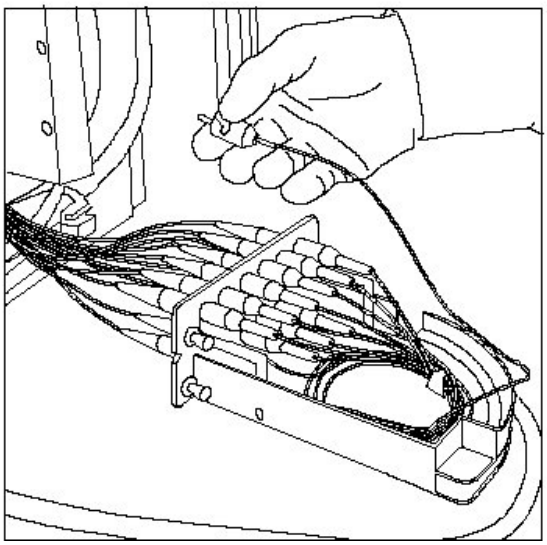
11. Turn module over and insert small screwdriver ¼ inch into the slot at bottom and lift screwdriver upward to dislodge the bottom latch of the cover.
12. Finally, insert small screwdriver ¼ inch into the slot at the back of the module and push the screwdriver downward to dislodge the back latch of the cover.



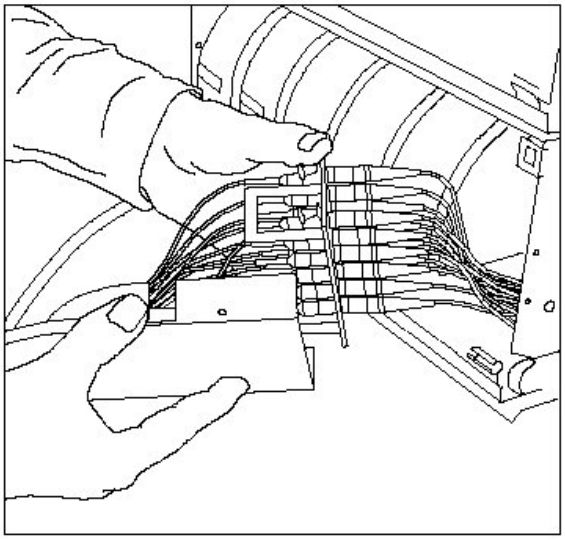


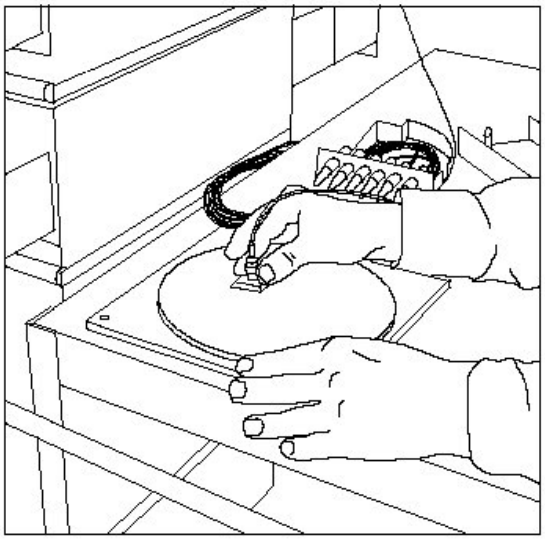
13. Pull cover from module and place in a safe area with the screws and retainer.
14. Hold the module housing firmly on the work shelf making sure that the jumpers are not pulled tightly and have sufficient slack. Remove connector from inside the module being careful not to pinch or bind adjacent fibers.



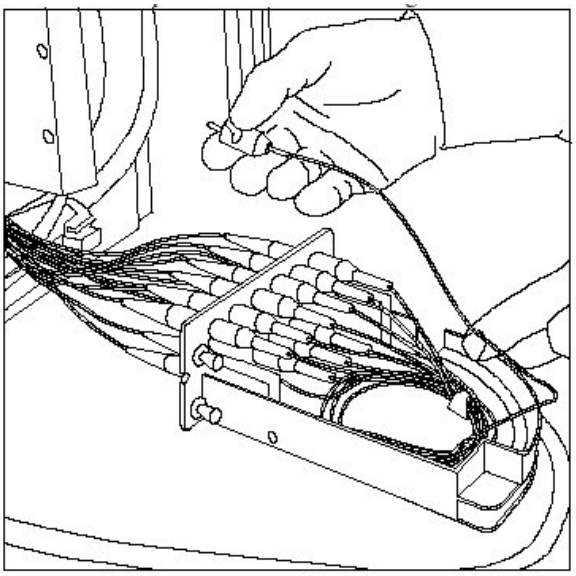


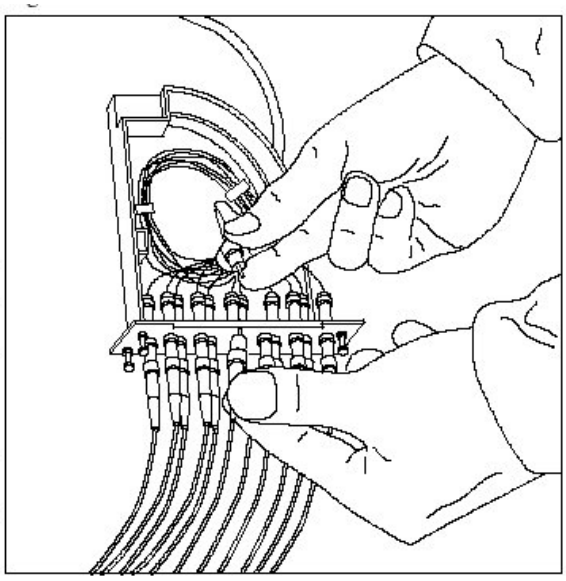
15. Remove jumper connector from the front of the module. Follow the connector manufacture's guidelines for cleaning connectors and coupling. Place connector caps on both connectors to prevent damage.
16. If connector inside the module requires repolishing, carefully remove the connector and enough of the stored slack (about 16 in.) to allow polishing or repair. The fiber must be carefully removed from the fiber retaining clips in the module.



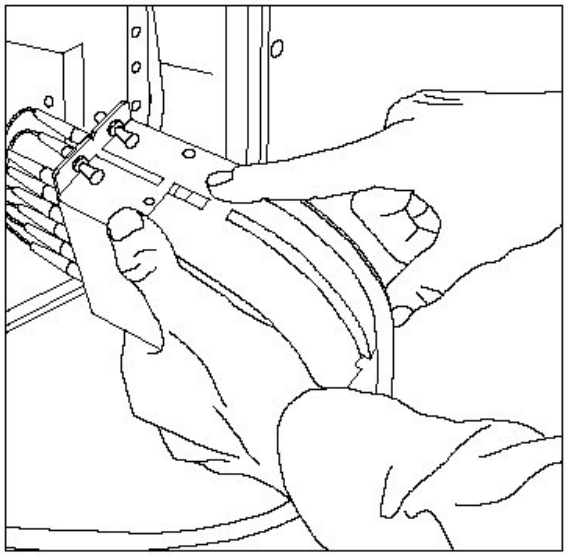


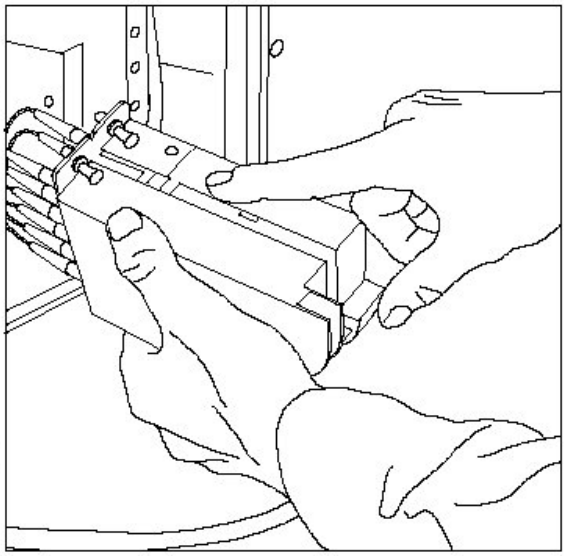
17. It may be necessary to remove the connector panel to access connectors with some connector styles. Remove the remaining two screws and pull the connector panel away from the housing being careful not to pinch or bind the fibers.
18. Polish or repair the connector following the manufacturer's guidelines.



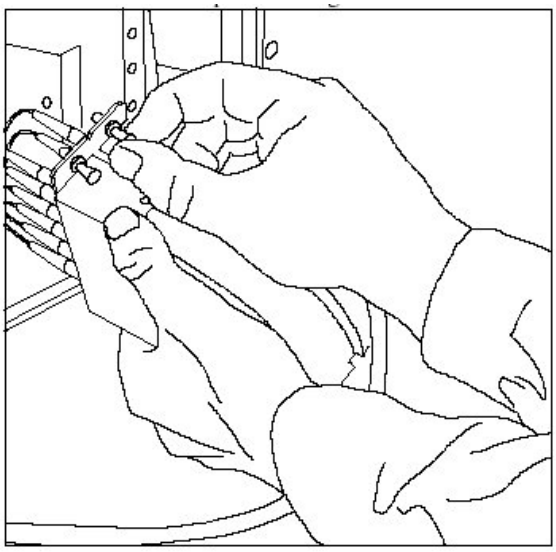


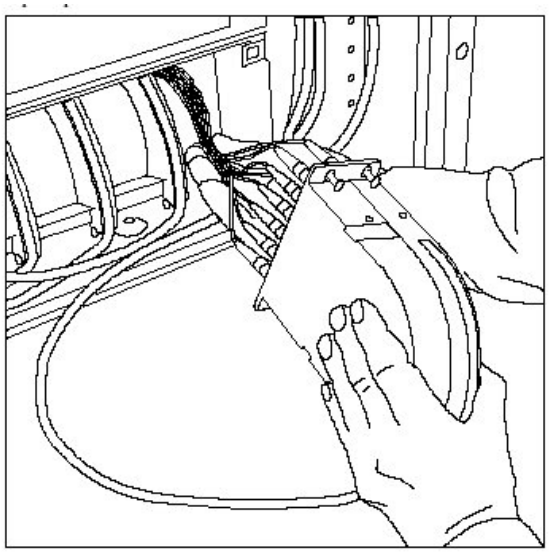
19. After completing the maintenance procedure, dress the slack fiber back into the fiber retainer clips inside the modules. Be careful not to bind or pinch the slack or adjacent fibers when dressing the slack. Do not remove connector caps until connector is ready to be mated.
20. Reconnect both connectors into the coupling.



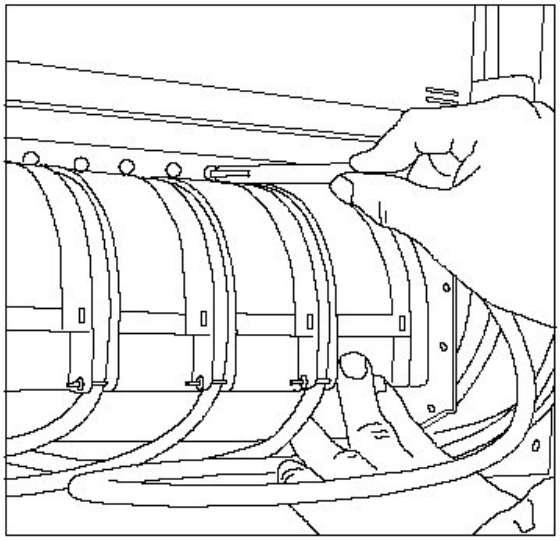


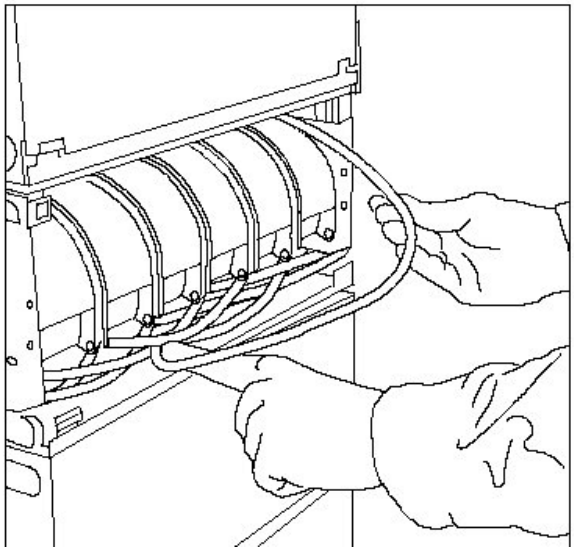
21. Re-install cover making sure that fibers are not pinched at the bottom latch, at the top latch, and at the rear of the module.
22. Push the cover in place making sure that all three latches snap in place.



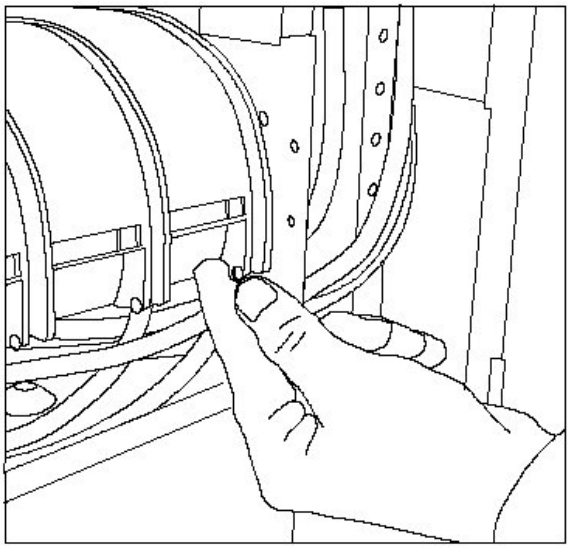


23. Re-install the two screws to secure the cover at the top (Step 8, Page 9) and at the bottom (Step 9, Page 10) of the module. Make sure that the four white Nylatch fasteners are disengaged by pulling on them.
24. Position the module into the shelf being careful to dress the jumpers toward the front of the shelf.





25. Seat the module on the bulkhead mounting holes and, using a pen or screwdriver, push in the four Nylatch fasteners making sure that they snap in place.
26. Dress the cable stub slack underneath the cable stubs of the adjacent modules.



27. Re-install the black cable retainer.
28. At the front of the shelf, dress the jumper slack back into the jumper retainers and the vertical trough (Step 3, Page 8).
29. Finally, dress the jumpers into the fiber rings (Step 2, Page 8), re-install the label bracket, and replace the shelf front door.
30. Remove the work shelf at the rear of the shelf (Step 1, Page 8) and replace rear door. Replace LGX rear frame doors where used.