

3270 Information Display System



3174 Subsystem Control Unit

Asynchronous Emulation Adapter Customer Setup Instructions

First Edition (December 1987)

Changes are made periodically to the information herein; before using this publication in connection with the operation of IBM systems, consult the latest *IBM System/370, 30xx, and 4300 Processors Bibliography*, GC20-0001, for the editions that are applicable and current.

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CAUTION:

For your safety, disconnect the power plug when working on this equipment or when connecting or disconnecting cables. Reconnect the power plug only after all work is complete and all cables have been connected.

If your machine has a metallic, underfloor, waterproof-type connector, do not attempt to disconnect it. Instead, have a qualified electrician check that the receptacle is wired correctly before working on the equipment (or have him disconnect the plug and reconnect it after installation is complete).

Do not work on the equipment during periods of lightning activity.

These instructions tell you how to install an Asynchronous Emulation Adapter (AEA) feature and verify that it is operating correctly.

1

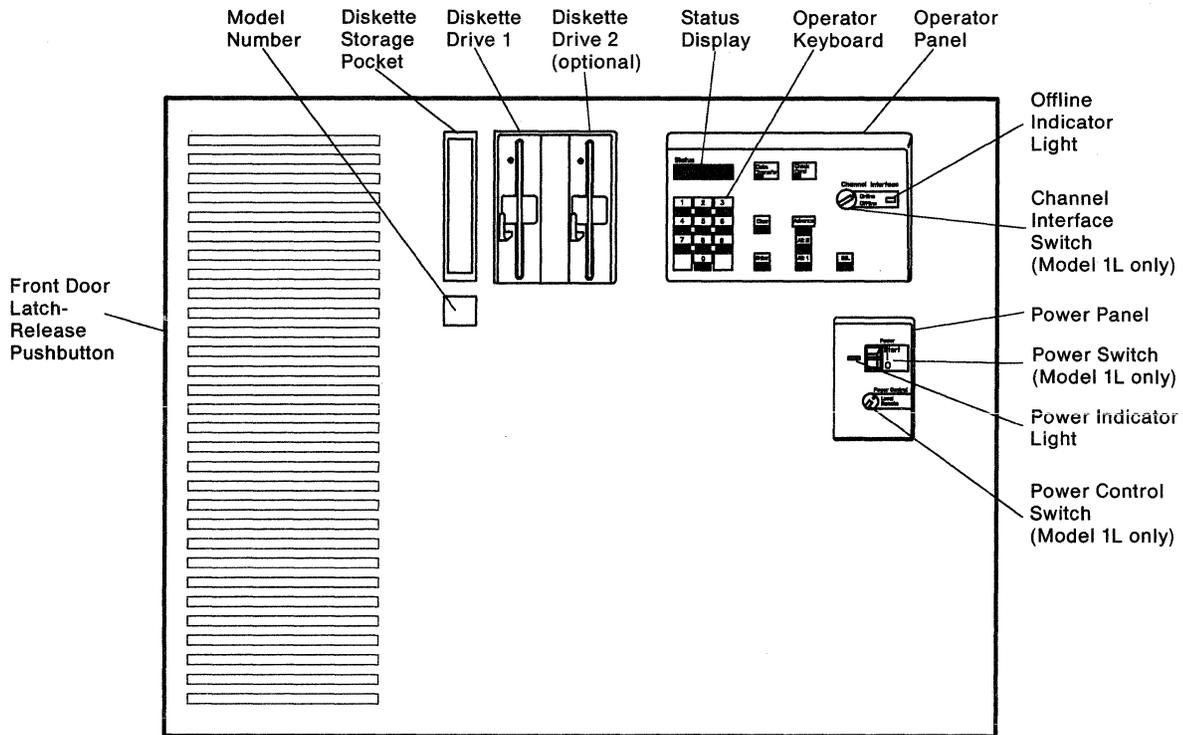
If you are installing this AEA feature on a:

Model 1L, 1R, 2R, or 3R

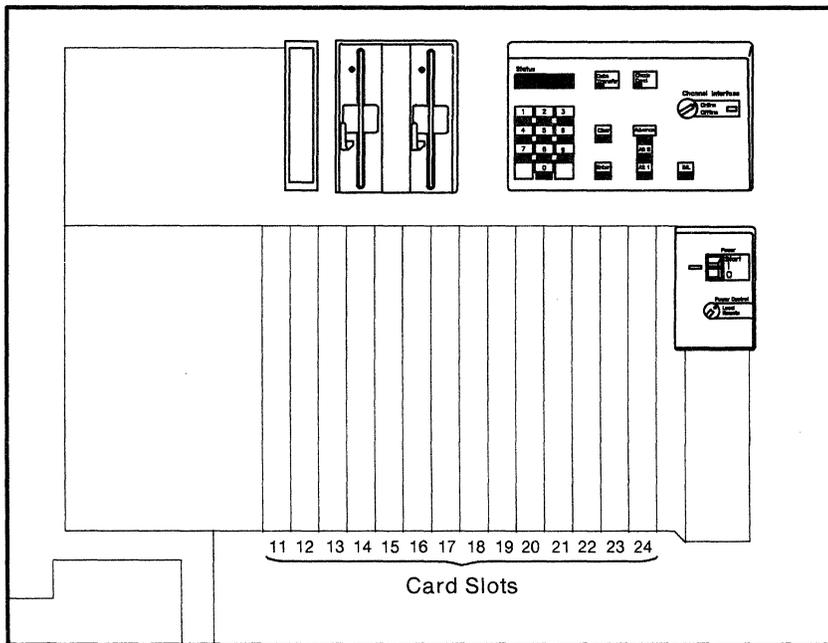
Continue with step 2.

Model 51R or 52R

Turn to "Installing an AEA Card on a Model 51R or 52R" on page 65.



Models 1L,1R,2R,and 3R - Outside Front View



Models 1L,1R,2R,and 3R - Inside Front View

2

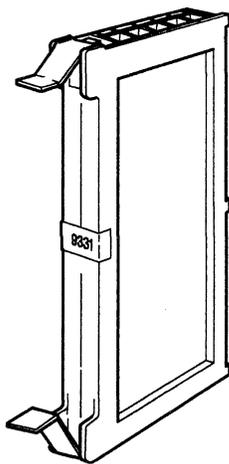
- For the AEA feature to be installed, the control unit must have two diskette drives. Does this control unit have two diskette drives?

YES Continue with step 3.

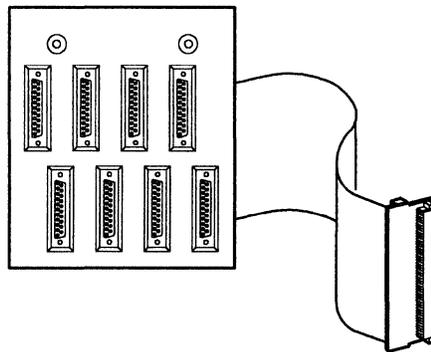
NO Install the required additional diskette drive first and then continue with step 3.

3

- Do you have the following required items for each AEA feature you are installing on this control unit at this time?



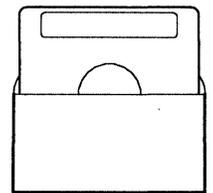
Asynchronous
Emulation
Adapter card



I/O Panel



Wrap Plug



Diskette

Note: If you are installing more than one AEA feature you will have only one diskette.

YES Continue with step 4.

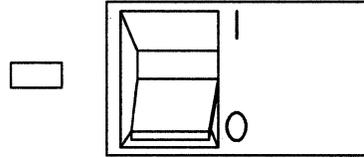
NO Discontinue this procedure until you get the required items.

4

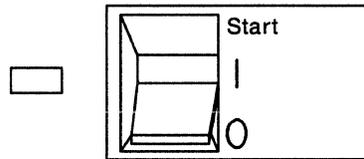
- Is the control unit power switch off?

YES Go to step 9.

NO Notify users whose terminals are attached to this control unit that service will be interrupted until further notice.



Models 1R/2R/3R



Model 1L

5

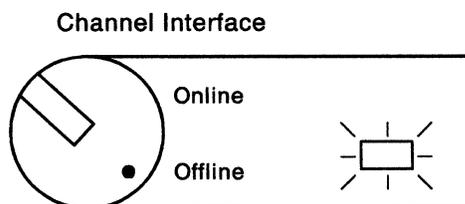
- After the users have been notified, have the host operator take the control unit offline. When the control unit is offline, continue with step 6.

6

- Does this control unit have a Channel Interface switch on the Operator Panel?

NO Go to step 8.

YES Set the Channel Interface switch to Offline and wait for the Offline Indicator to light before continuing with step 7.

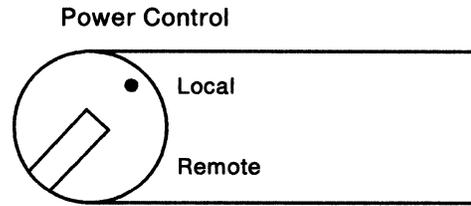


7

- Is the Power Control switch set to Local?

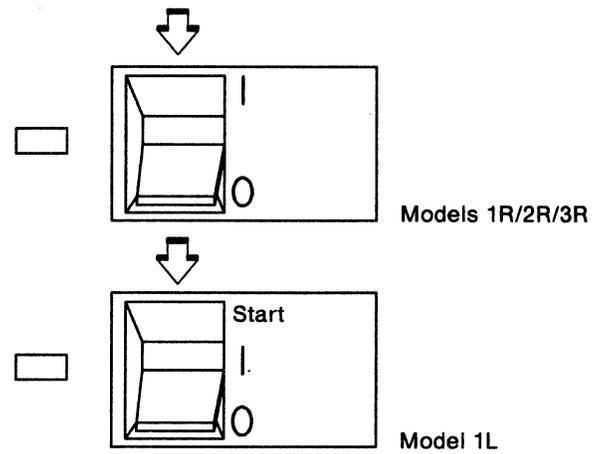
YES Continue with step 8.

NO Set the Power Control switch to Local. Continue with step 8.



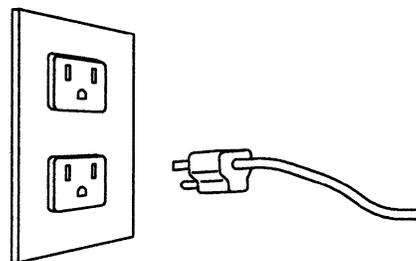
8

- Press the power switch to O (Off).



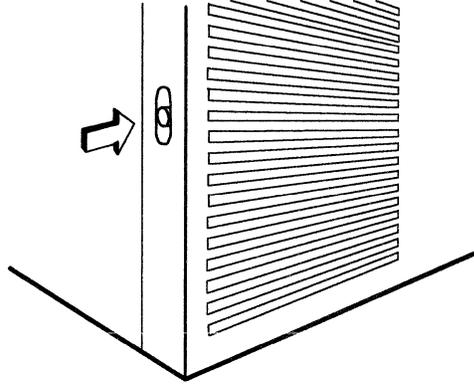
9

- Unplug the power cord **unless** your machine has a metallic, underfloor, waterproof-type connector. In that case, do not unplug it; see the Caution notice on page 1.



10

- Press in the latch release button on the left edge of the front door and open the door.



11

- Are you installing this AEA feature on a Model 3R?

YES Go to step 13.

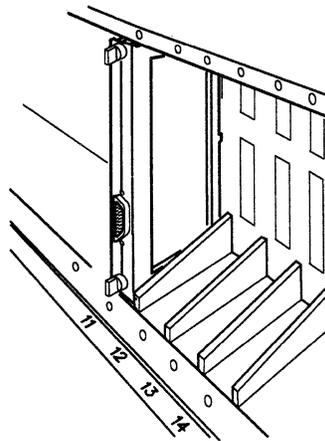
NO Continue with step 12.

12

- Is there a Token-Ring feature (9350) in card location 11 or 12?

YES Close the control unit door and discontinue this procedure. This is not a valid configuration.

NO Continue with step 13.



13

- At this time, how many AEA features are you installing on this control unit?

ONE Continue with step 14.

TWO Go to step 16.

THREE Turn to “Installing Three AEA Cards” on page 44.

14

- Is there an AEA feature (9331) in card location 14?

YES Continue with step 15.

NO Turn to “Installing a Single AEA Card” on page 8.

15

- Is there an AEA feature (9331) in card location 13?

YES Turn to “Installing a Single AEA Card with Two Already Installed” on page 19.

NO Turn to “Installing a Single AEA Card with One Already Installed” on page 13.

16

- Is there an AEA feature (9331) in card location 14?

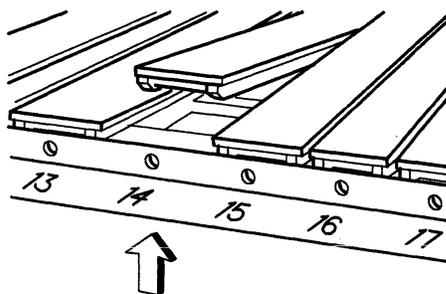
YES Turn to “Installing Two AEA Cards with One Already Installed” on page 33.

NO Turn to “Installing Two AEA Cards with None Already Installed” on page 26.

Installing a Single AEA Card

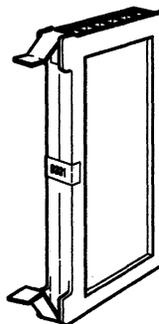
1

- In card location 14, if there is a plastic insert, grip the front of it, pull it up, and remove it.



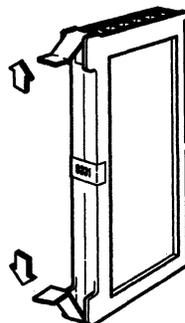
2

- Hold the new AEA card so that the recessed panel is at the right as shown.



3

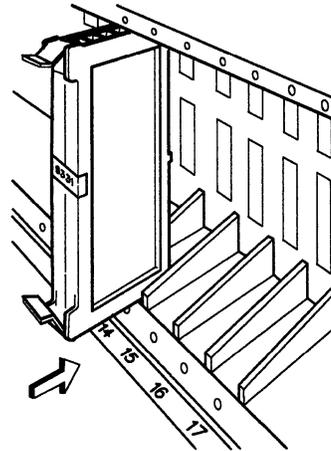
- Make sure both extractor levers are in the open position.



4

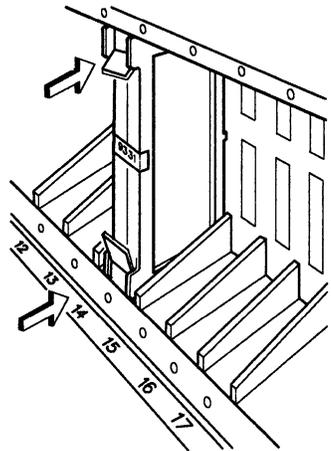
- Insert the new AEA card into the guides of card location 14 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



5

- Press the extractor levers in to lock the AEA card in place.

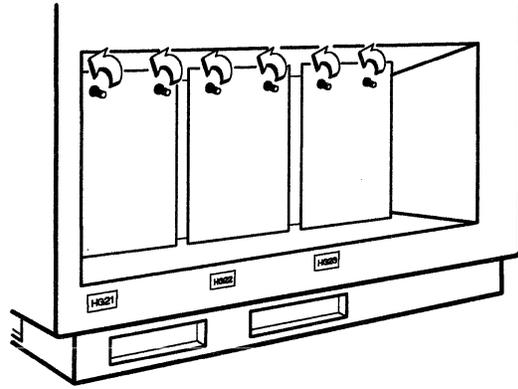


6

- Close the front door of the control unit.

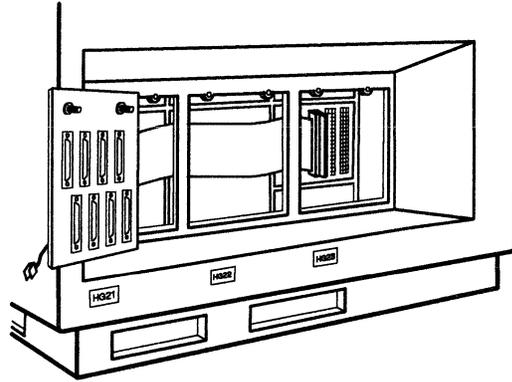
7

- Remove the three blank panels in positions HG21, HG22, and HG23 in the rear of the control unit by turning the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.)



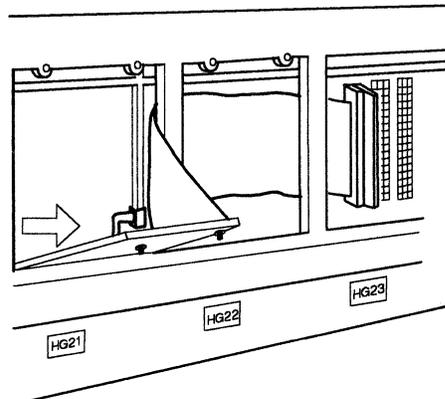
8

- Route the ribbon cable attached to the new I/O panel behind the posts and plug the cable connector into the left-hand socket.



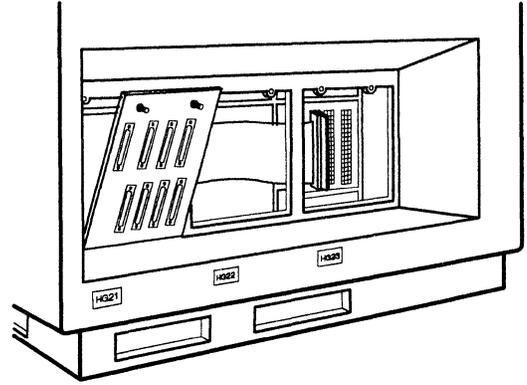
9

- Clip the end of the ground jumper wire to the rib right of position HG21 as shown.



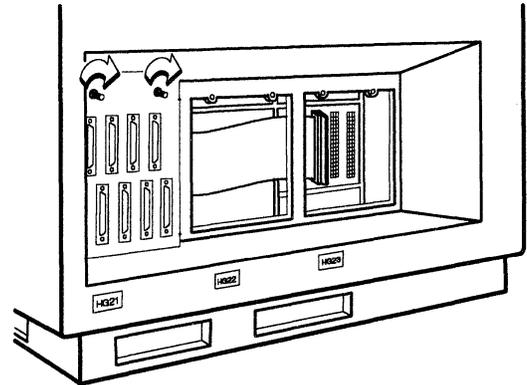
10

- Place the lower edge lugs of the new I/O panel in the slots at position HG21.



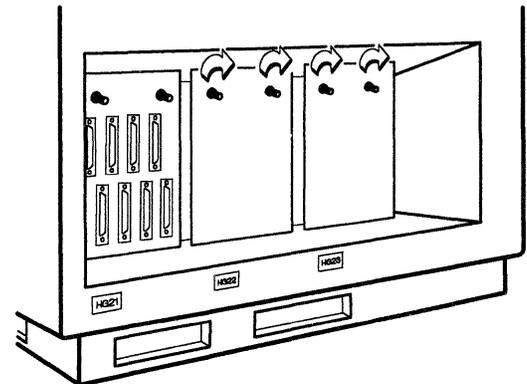
11

- Hold the I/O panel against the control unit and tighten the thumbscrews in an alternating manner. (For example, tighten one screw two turns and then tighten the other two turns. Continue with this method until both screws are tightened completely.)



12

- Re-install the two blank panels in positions HG22 and HG23.



13

- Reconnect the power cord.

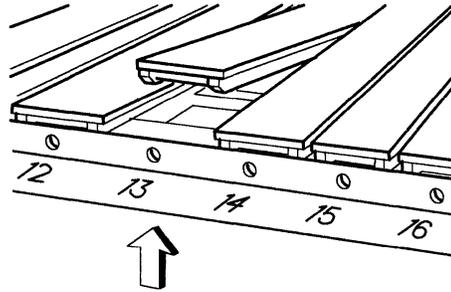
14

- Turn to “Card Verification Test for Models 1L, 1R, 2R, and 3R” on page 56 to verify that this AEA is operating correctly.

Installing a Single AEA Card with One Already Installed

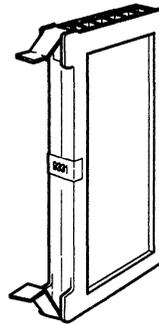
1

- In card location 13, if there is a plastic insert, grip the front of it, pull it up, and remove it.



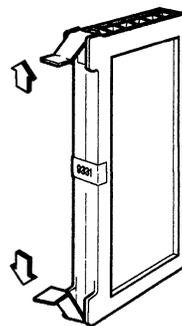
2

- Hold the new AEA card so that the recessed panel is at the right as shown.



3

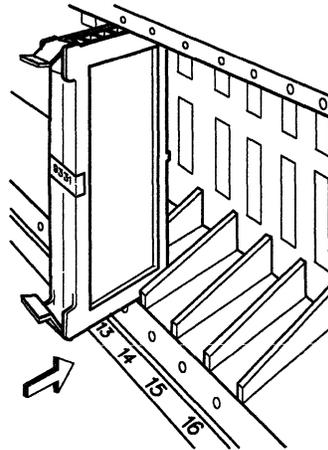
- Make sure both extractor levers are in the open position.



4

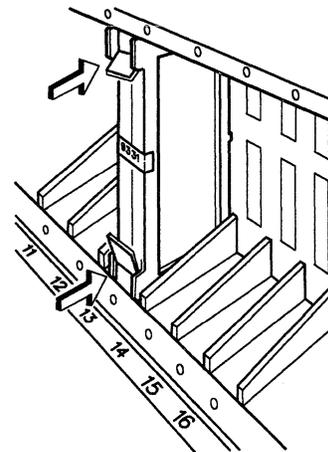
- Insert the new AEA card into the guides of card location 13 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



5

- Press the extractor levers in to lock the AEA card in place.

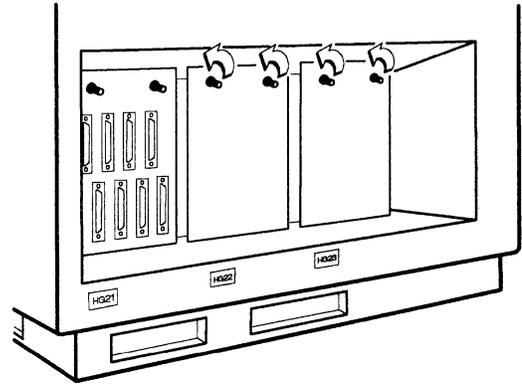


6

- Close the front door of the control unit.

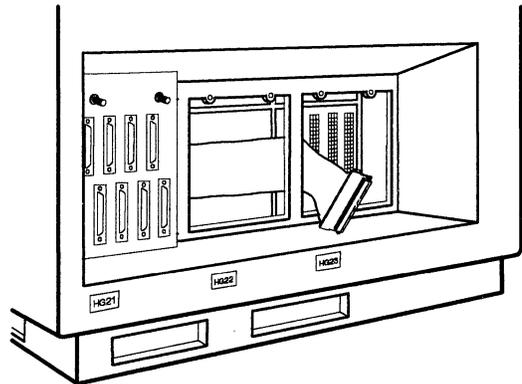
7

- Remove the two blank panels in positions HG22 and HG23 in the rear of the control unit by turning the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.)



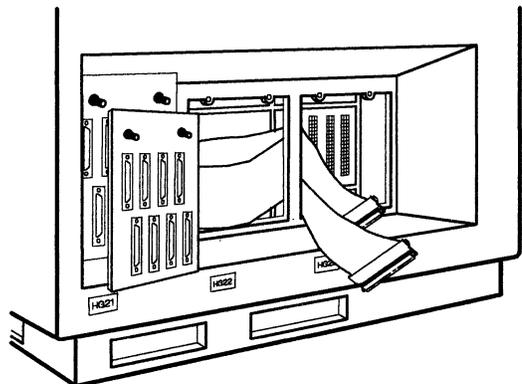
8

- Unplug the ribbon cable connector of the I/O panel in position HG21 and let the connector end hang loose.



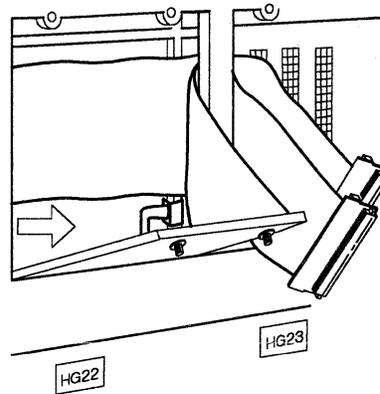
9

- Route the ribbon cable attached to the new I/O panel behind the post and let the cable connector end hang loose.



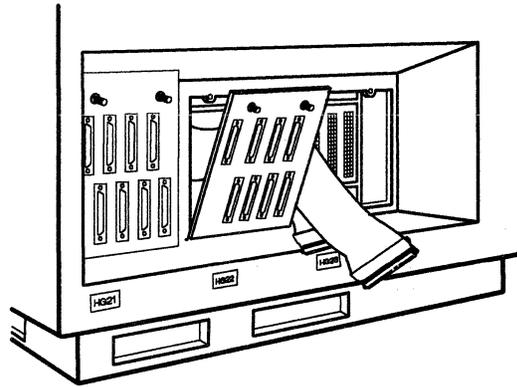
10

- Clip the end of the ground jumper wire to the rib right of position HG22 as shown.



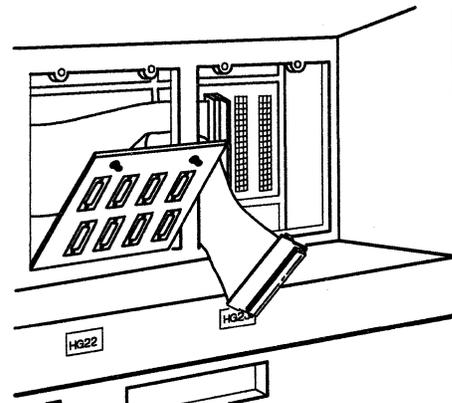
11

- Place the lower edge lugs of the new I/O panel in the slots at position HG22.



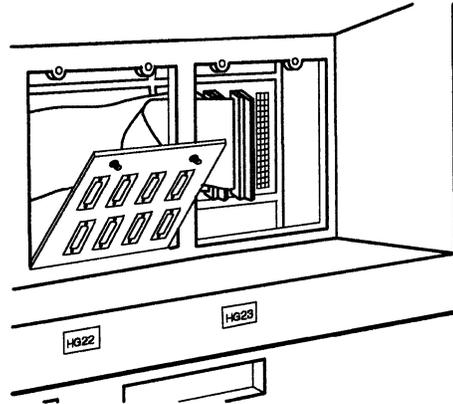
12

- Plug the ribbon cable connector of the I/O panel in position HG21 into the left-hand socket.



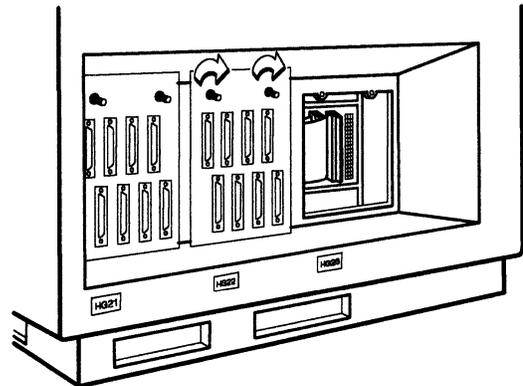
13

- Plug the ribbon cable connector of the I/O panel in position HG22 into the center socket.



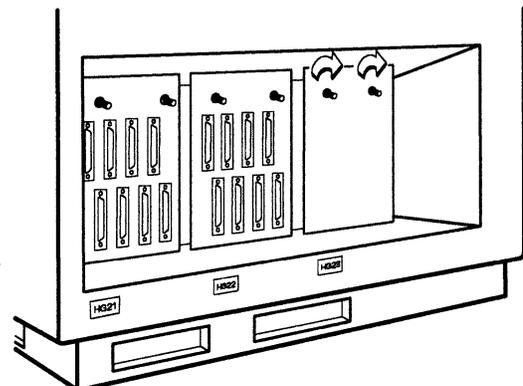
14

- Hold the I/O panel in position HG22 against the control unit and tighten the thumbscrews in an alternating manner. (For example, tighten one screw two turns and then tighten the other two turns. Continue with this method until both screws are tightened completely.)



15

- Re-install the blank panel in position HG23.



16

- Reconnect the power cord.

17

- Turn to “Card Verification Test for Models 1L, 1R, 2R, and 3R” on page 56 to verify that this AEA is operating correctly.

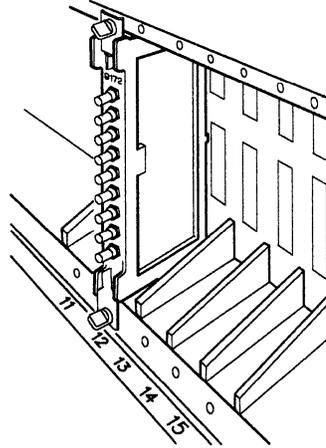
Installing a Single AEA Card with Two Already Installed

1

- Is there a Terminal Multiplexer Adapter (9170 or 9172) in card location 12?

YES Continue with step 2.

NO Go to step 10.

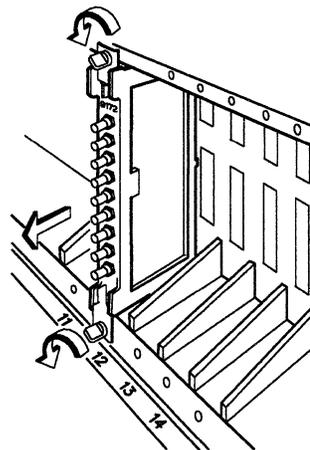


2

- If there are cables connected to the Terminal Multiplexer Adapter (TMA) in card location 12, carefully make a chart of the cable connection locations, label each cable with tape, and disconnect the cables from the TMA.

3

- Loosen the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.) Remove the TMA by pulling it straight out.



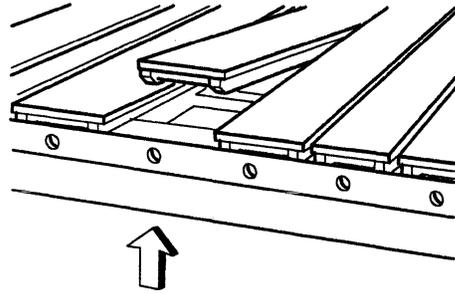
4

- In the following sequence, determine the number of the first available (unused) card location.

23 22 17 24

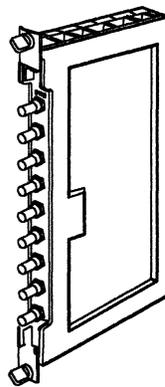
5

- In the card location you determined in step 4, if there is a plastic insert, grip the front of it, pull it up, and remove it.



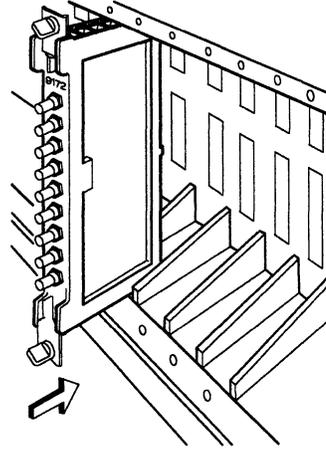
6

- Hold the TMA you removed from card location 12 so that the recessed panel is at the right as shown.



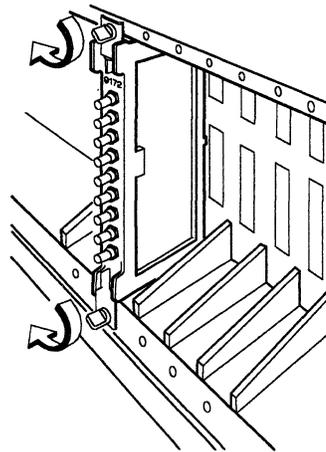
7

- Insert the TMA into the card guides of the card location you determined in step 4 until it is firmly seated.



8

- Tighten the thumbscrews in an alternating manner. (For example, tighten one screw two turns and then tighten the other two turns. Continue with this method until both screws are tightened completely.)

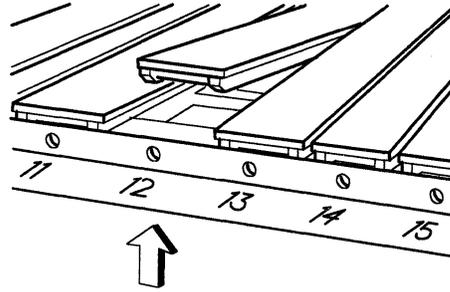


9

- If you disconnected cables from this TMA, reconnect them to this TMA using the cable connection chart and cable labels you made. Then go to step 11.

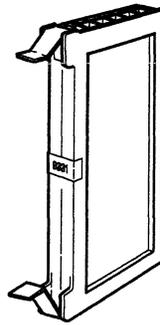
10

- In card location 12, if there is a plastic insert, grip the front of it, pull it up, and remove it.



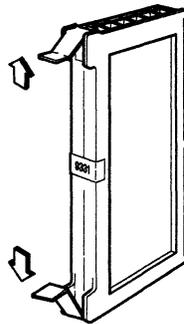
11

- Hold the new AEA card so that the recessed panel is at the right as shown.



12

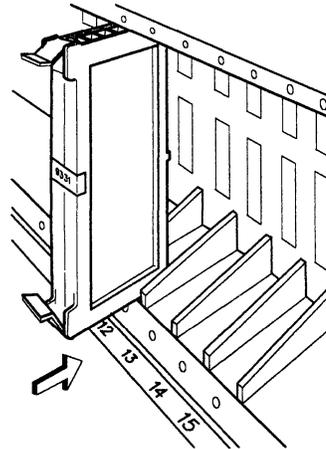
- Make sure both extractor levers are in the open position.



13

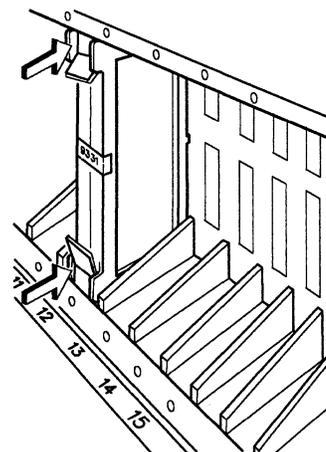
- Insert the new AEA card into the guides of card location 12 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



14

- Press the extractor levers in to lock the AEA card in place.

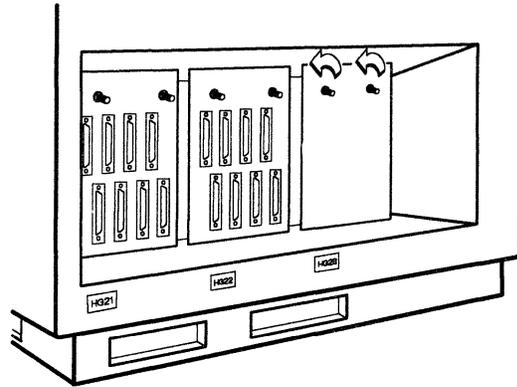


15

- Close the door of the control unit.

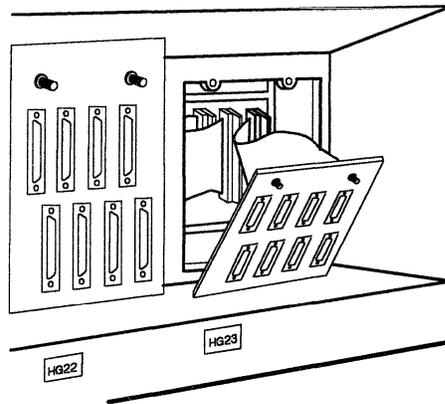
16

- Remove the blank panel in position HG23 in the rear of the control unit by turning the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.)



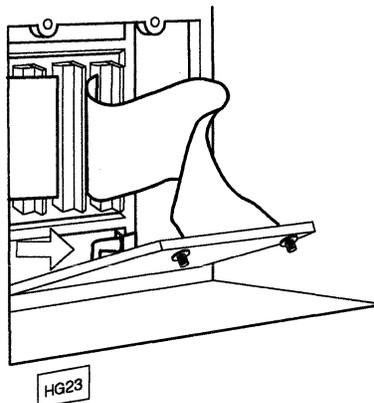
17

- Plug the ribbon cable connector of the new I/O panel in position HG23 into the right-hand socket.



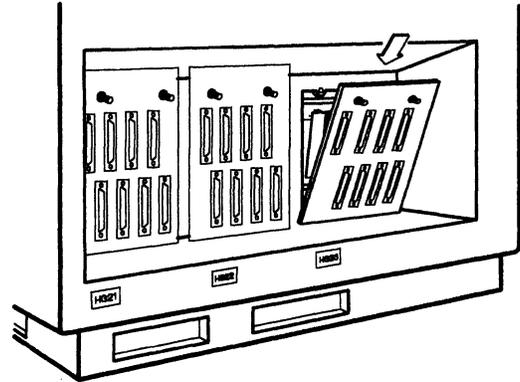
18

- Clip the end of the ground jumper wire to the rib right of position HG23 as shown.



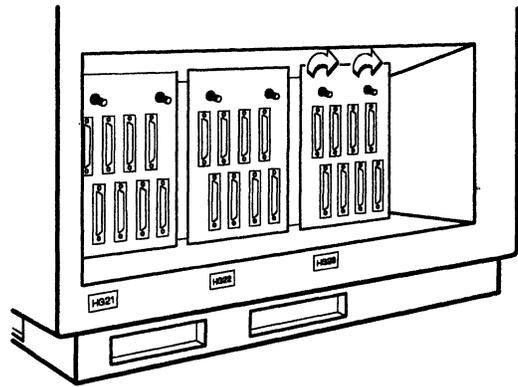
19

- Place the lower edge lugs of the new I/O panel in the slots at position HG23.



20

- Hold the I/O panel in position HG23 against the control unit and tighten the thumbscrews in an alternating manner.



21

- Reconnect the power cord.

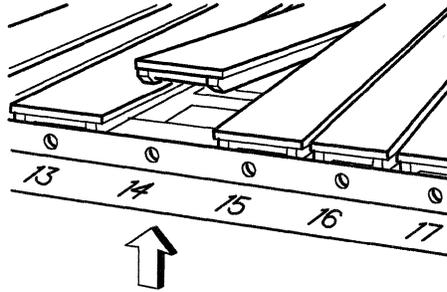
22

- Turn to “Card Verification Test for Models 1L, 1R, 2R, and 3R” on page 56 to verify that this AEA is operating correctly.

Installing Two AEA Cards with None Already Installed

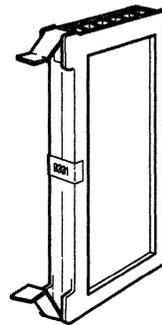
1

- In card location 14, if there is a plastic insert, grip the front of it, pull it up, and remove it.



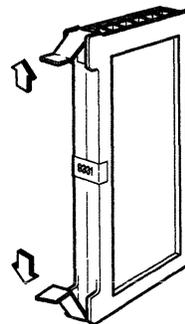
2

- Hold the new AEA card so that the recessed panel is at the right as shown.



3

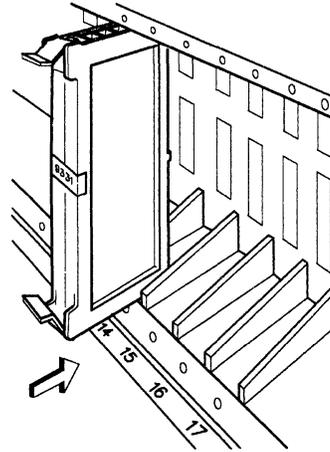
- Make sure both extractor levers are in the open position.



4

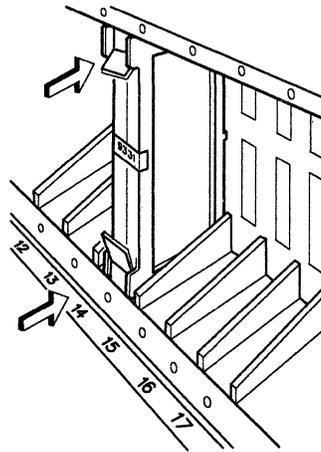
- Insert the new AEA card into the guides of card location 14 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



5

- Press the extractor levers in to lock the AEA card in place.



6

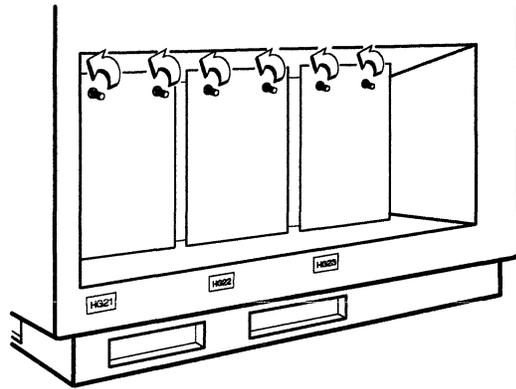
- Locate card location 13, and repeat steps 1 through 5 for card location 13. After the second card has been installed, continue with step 7.

7

- Close the door of the control unit.

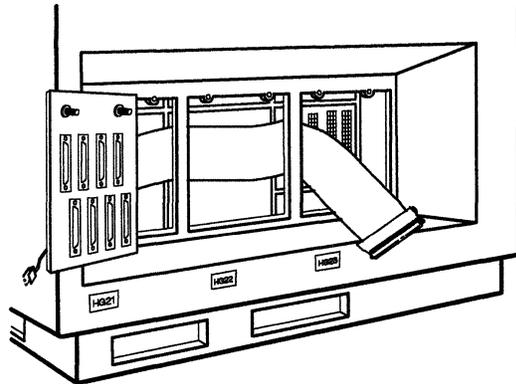
8

- Remove the three blank panels in positions HG21, HG22, and HG23 in the rear of the control unit by turning the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.)



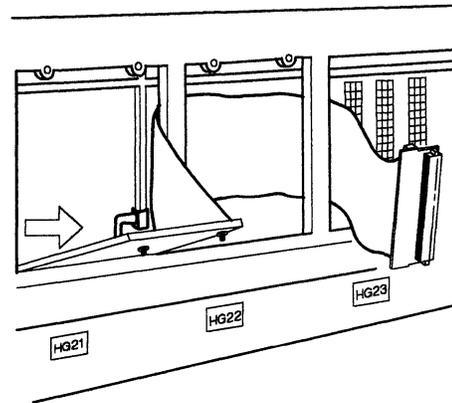
9

- Route the ribbon cable attached to the first new I/O panel behind the posts and let the connector end hang loose.



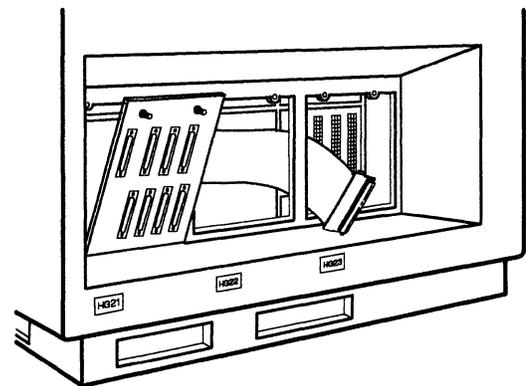
10

- Clip the end of the ground jumper wire to the rib right of position HG21 as shown.



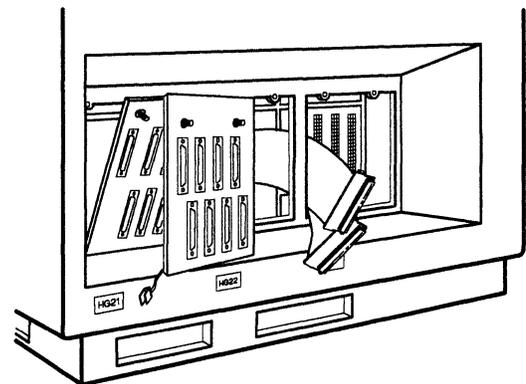
11

- Place the lower edge lugs of the first new I/O panel in the slots in position HG21.



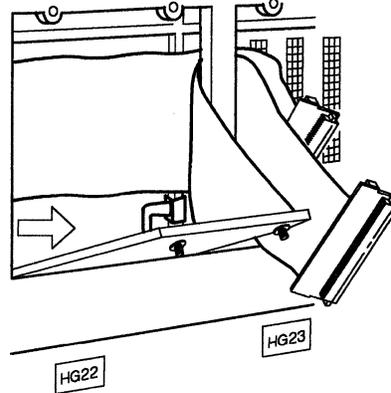
12

- Route the ribbon cable attached to the second new I/O panel behind the post and let the connector end hang loose.



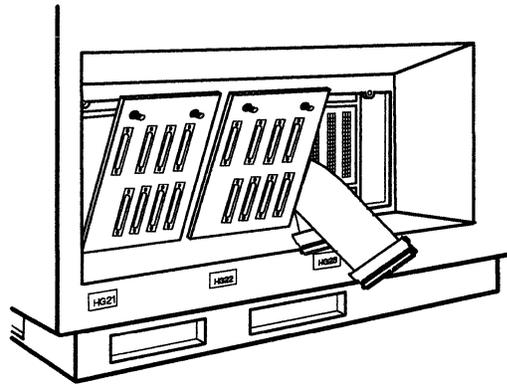
13

- Clip the end of the ground jumper wire to the rib right of position HG22 as shown.



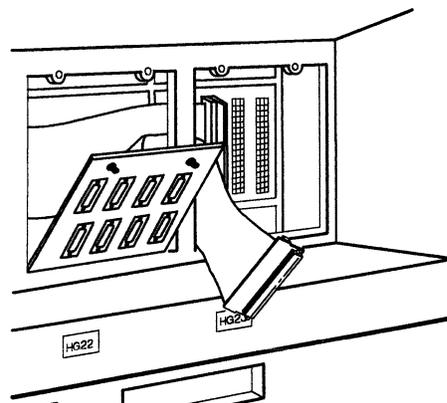
14

- Place the lower edge lugs of the second new I/O panel in the slots in position HG22.



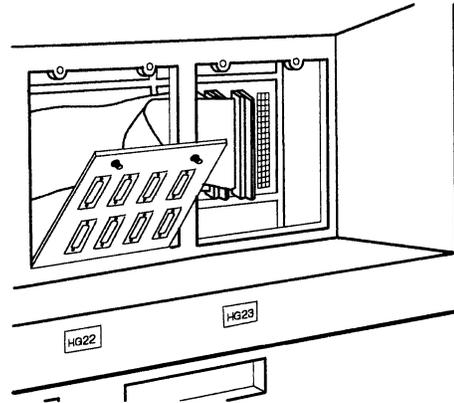
15

- Plug the ribbon cable connector of the I/O panel in position HG21 into the left-hand socket.



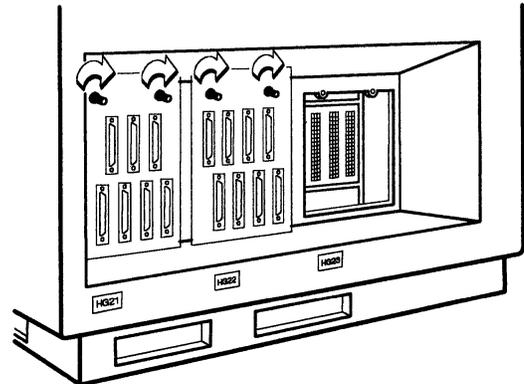
16

- Plug the ribbon cable connector of the I/O panel in position HG22 into the center socket.



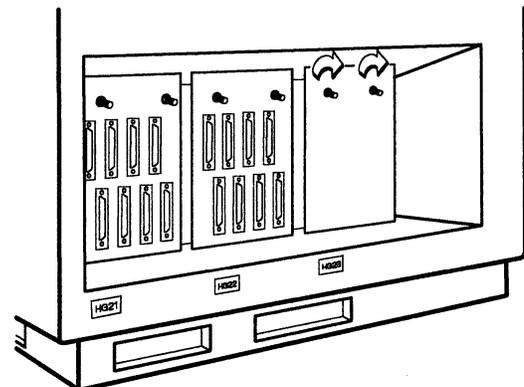
17

- Hold the I/O panels in positions HG21 and HG22 against the control unit and tighten the thumbscrews in an alternating manner.



18

- Re-install the blank panel in position HG23.



19

- Reconnect the power cord.

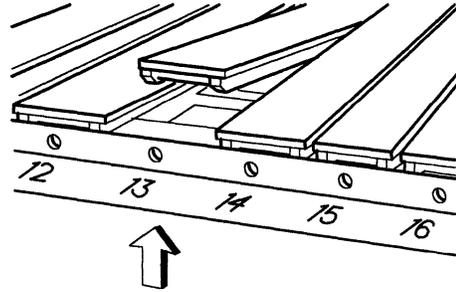
20

- Turn to “Card Verification Test for Models 1L, 1R, 2R, and 3R” on page 56 to verify that these AEAs are operating correctly.

Installing Two AEA Cards with One Already Installed

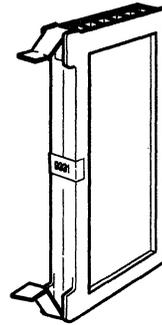
1

- In card location 13, if there is a plastic insert, grip the front of it, pull it up, and remove it.



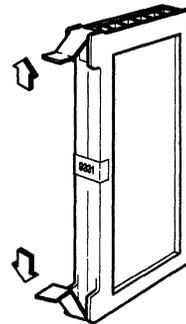
2

- Hold the new AEA card so that the recessed panel is at the right as shown.



3

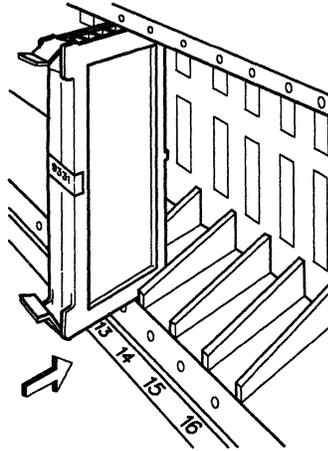
- Make sure both extractor levers are in the open position.



4

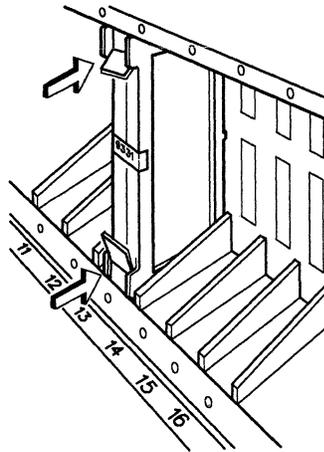
- Insert the new AEA card into the guides of card location 13 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



5

- Press the extractor levers in to lock the AEA card in place.

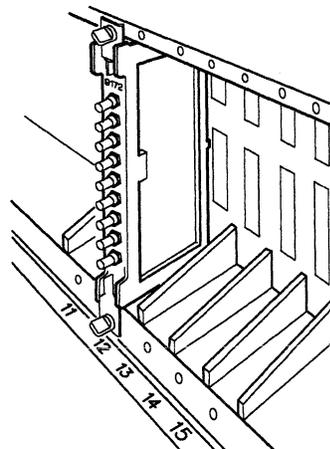


6

- Is there a Terminal Multiplexer Adapter (9170 or 9172) in card location 12?

YES Continue with step 7.

NO Go to step 15.

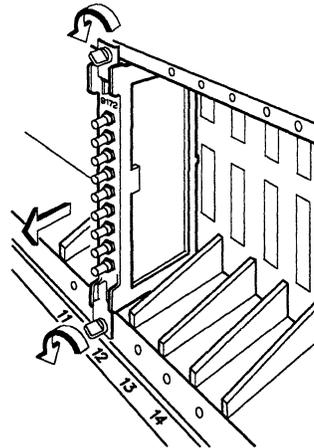


7

- If there are cables connected to the Terminal Multiplexer Adapter (TMA) in card location 12, carefully make a chart of the cable connection locations, label each cable with tape, and disconnect the cables from the TMA.

8

- Loosen the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.) Remove the TMA by pulling it straight out.



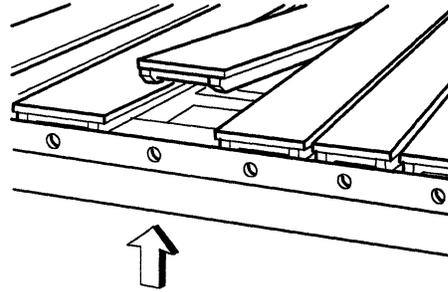
9

- In the following sequence, determine the number of the first available (unused) card location.

23 22 17 24

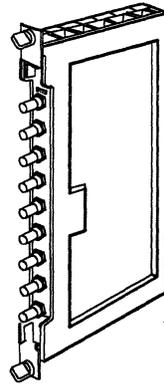
10

- In the card location you determined in step 9, if there is a plastic insert, grip the front of it, pull it up, and remove it.



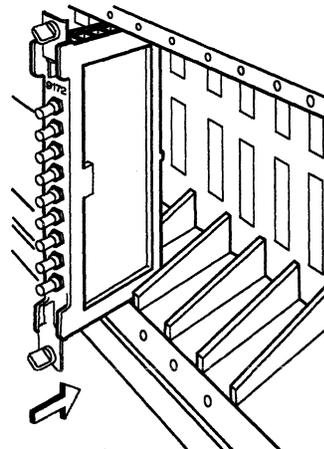
11

- Hold the TMA you removed from card location 12 so that the recessed panel is at the right as shown.



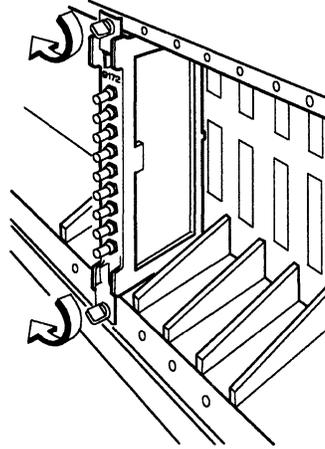
12

- Insert the TMA into the card guides of the card location you determined in step 9 until it is firmly seated.



13

- Tighten the thumbscrews in an alternating manner. (For example, tighten one screw two turns and then tighten the other two turns. Continue with this method until both screws are tightened completely.)

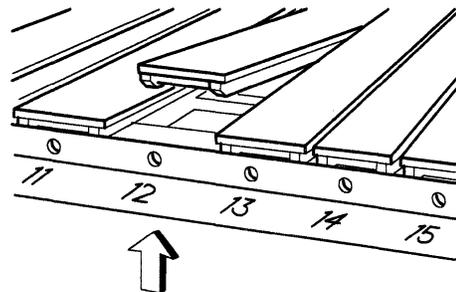


14

- If you disconnected cables from this TMA, reconnect them to this TMA using the cable connection chart and cable labels you made. Then go to step 16.

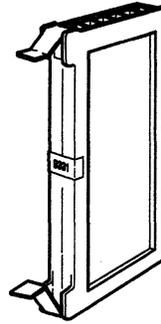
15

- In card location 12, if there is a plastic insert, grip the front of it, pull it up, and remove it.



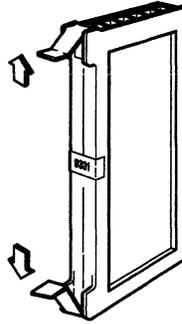
16

- Hold the new AEA card so that the recessed panel is at the right as shown.



17

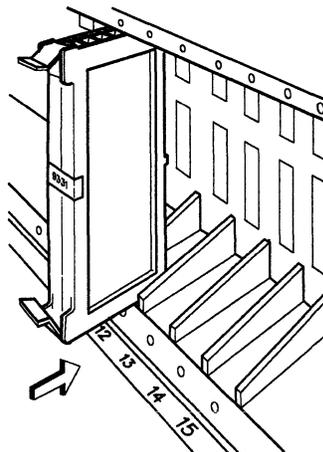
- Make sure both extractor levers are in the open position.



18

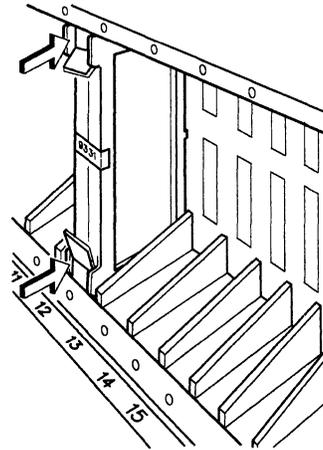
- Insert the new AEA card into the guides of card location 12 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



19

- Press the extractor levers in to lock the AEA card in place.

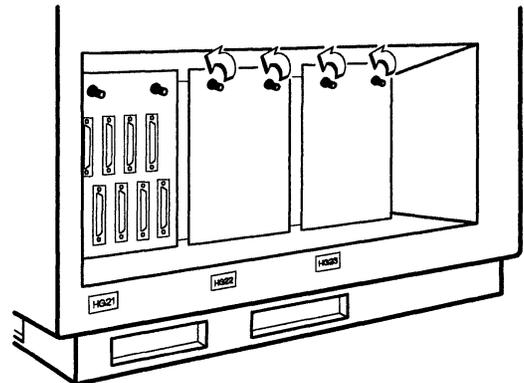


20

- Close the door of the control unit.

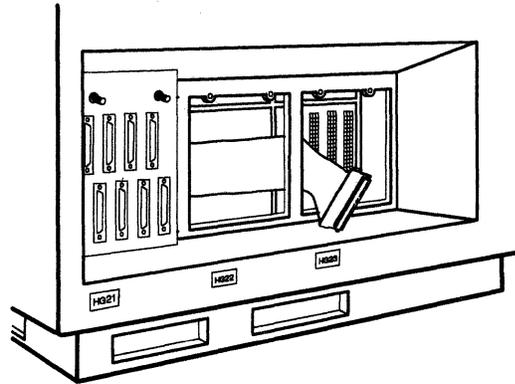
21

- Remove the two blank panels in positions HG22 and HG23 in the rear of the control unit by turning the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.)



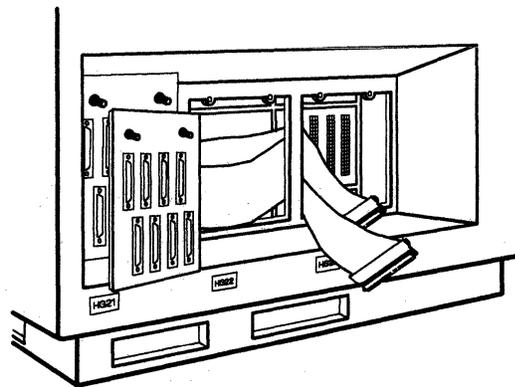
22

- Unplug the ribbon cable connector of the I/O panel in position HG21 and let the connector end hang loose.



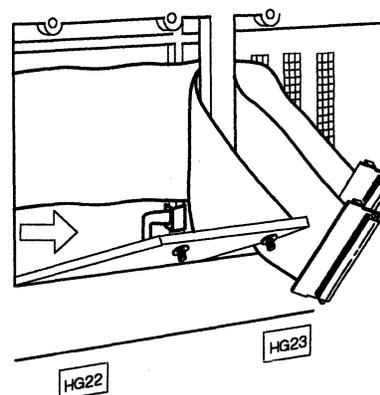
23

- Route the ribbon cable attached to the first new I/O panel behind the posts and let the cable connector end hang loose.



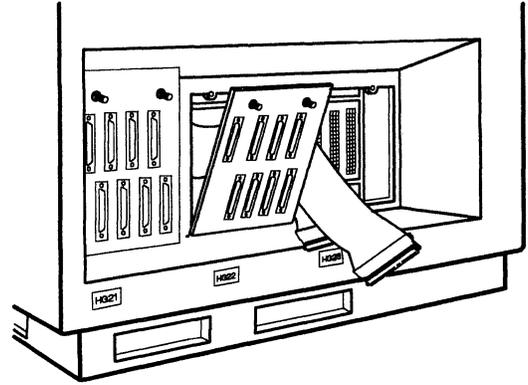
24

- Clip the end of the ground jumper wire to the rib right of position HG22 as shown.



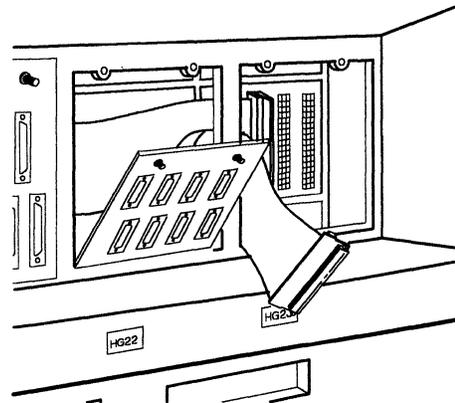
25

- Place the lower edge lugs of the first new I/O panel in the slots at position HG22.



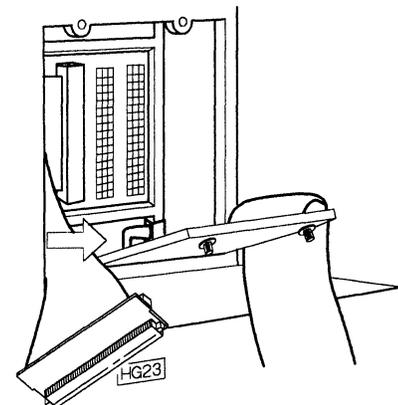
26

- Plug the ribbon cable connector of the I/O panel in position HG21 into the left-hand socket.



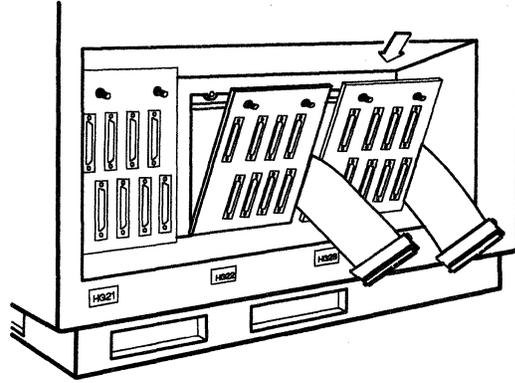
27

- Take the second I/O panel and clip the end of the ground jumper wire to the rib right of position HG23 as shown.



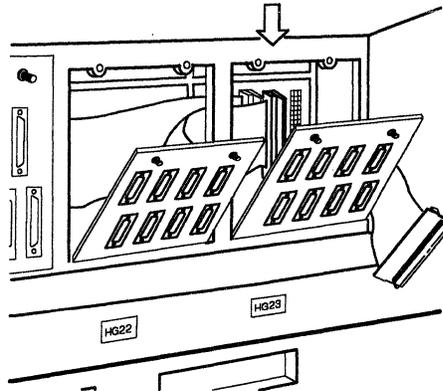
28

- Place the lower edge lugs of the second new I/O panel in the slots at position HG23.



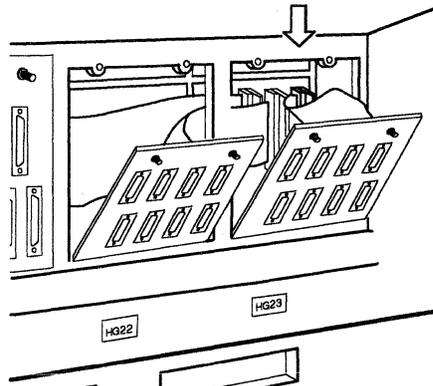
29

- Plug the ribbon cable connector of the I/O panel in position HG22 into the center socket.



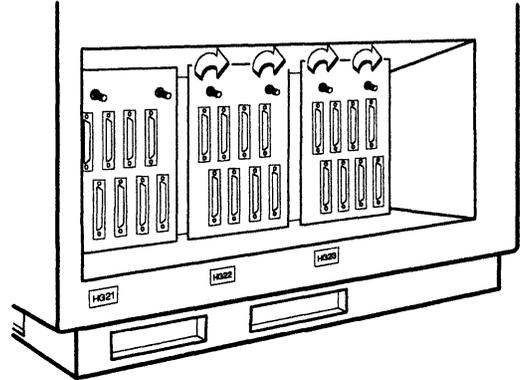
30

- Plug the ribbon cable connector of the I/O panel in position HG23 into the right-hand socket.



31

- Hold the I/O panels in positions HG22 and HG23 against the control unit and tighten the thumbscrews in an alternating manner.



32

- Reconnect the power cord.

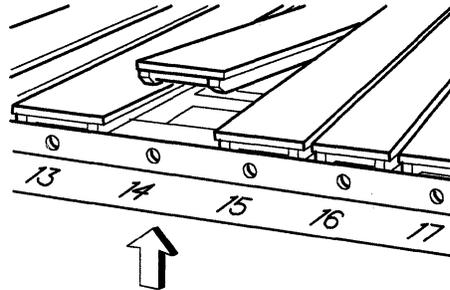
33

- Turn to “Card Verification Test for Models 1L, 1R, 2R, and 3R” on page 56 to verify that these AEAs are operating correctly.

Installing Three AEA Cards

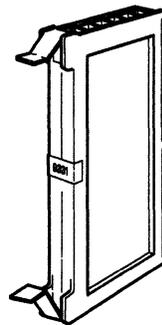
1

- In card location 14, if there is a plastic insert, grip the front of it, pull it up, and remove it.



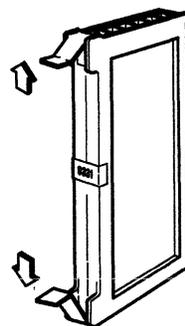
2

- Hold the new AEA card so that the recessed panel is at the right as shown.



3

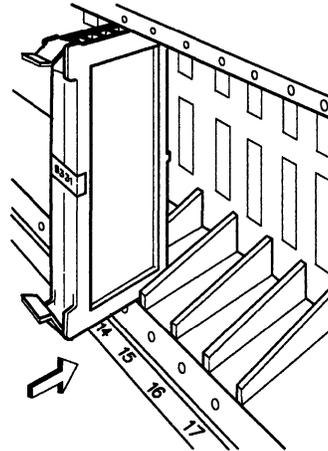
- Make sure both extractor levers are in the open position.



4

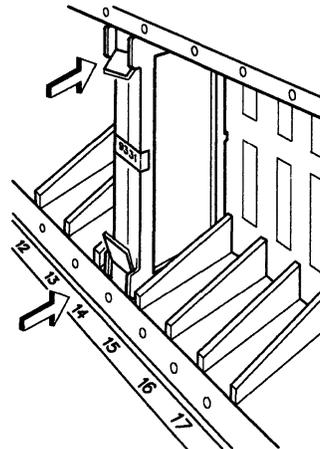
- Insert the new AEA card into the guides of card location 14 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



5

- Press the extractor levers in to lock the AEA card in place.



6

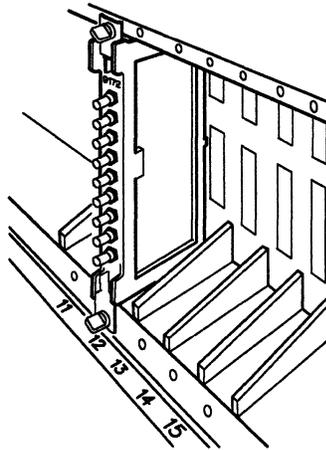
- Locate card location 13, and repeat steps 1 through 5 for card location 13. After the second card has been installed, continue with step 7.

7

- Is there a Terminal Multiplexer Adapter (9170 or 9172) in card location 12?

YES Continue with step 8.

NO Go to step 16.

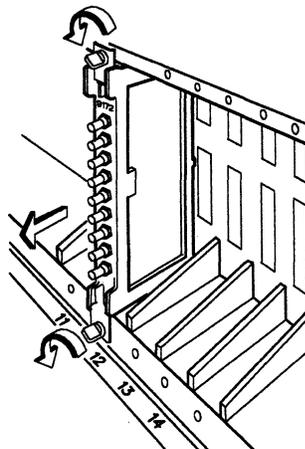


8

- If there are cables connected to the Terminal Multiplexer Adapter (TMA) in card location 12, carefully make a chart of the cable connection locations, label each cable with tape, and disconnect the cables from the TMA.

9

- Loosen the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.) Remove the TMA by pulling it straight out.



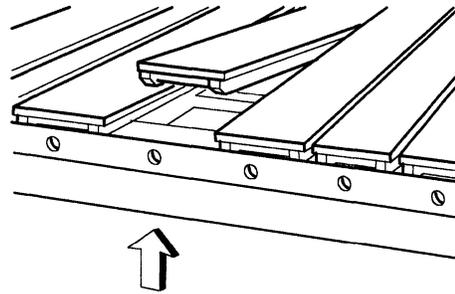
10

- In the following sequence, determine the number of the first available (unused) card location.

23 22 17 24

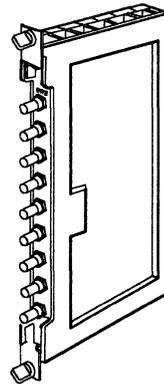
11

- In the card location you determined in step 10, if there is a plastic insert, grip the front of it, pull it up, and remove it.



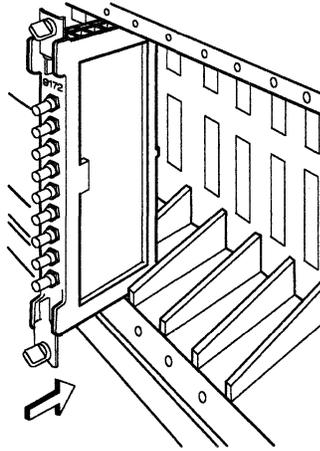
12

- Hold the TMA you removed from card location 12 so that the recessed panel is at the right as shown.



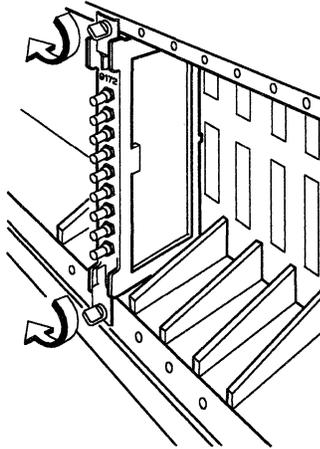
13

- Insert the TMA into the card guides of the card location you determined in step 10 until it is firmly seated.



14

- Tighten the thumbscrews in an alternating manner. (For example, tighten one screw two turns and then tighten the other two turns. Continue with this method until both screws are tightened completely.)

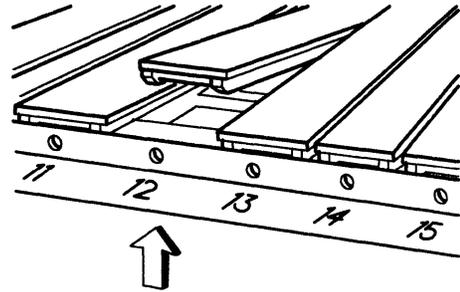


15

- If you disconnected cables from this TMA, reconnect them to this TMA using the cable connection chart and cable labels you made. Then go to step 17.

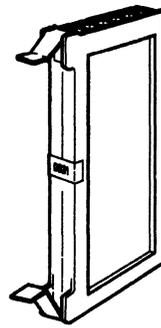
16

- In card location 12, if there is a plastic insert, grip the front of it, pull it up, and remove it.



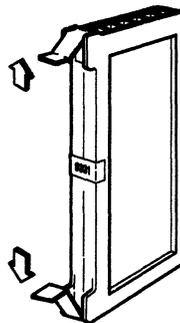
17

- Hold the new AEA card so that the recessed panel is at the right as shown.



18

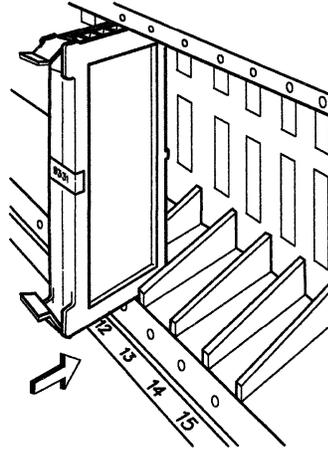
- Make sure both extractor levers are in the open position.



19

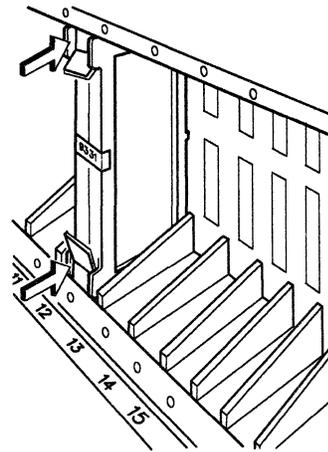
- Insert the new AEA card into the guides of card location 12 until it is firmly seated.

Note: Check carefully to make sure the card is completely seated.



20

- Press the extractor levers in to lock the AEA card in place.

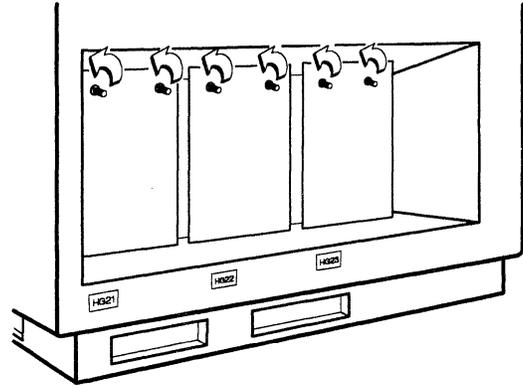


21

- Close the door of the control unit.

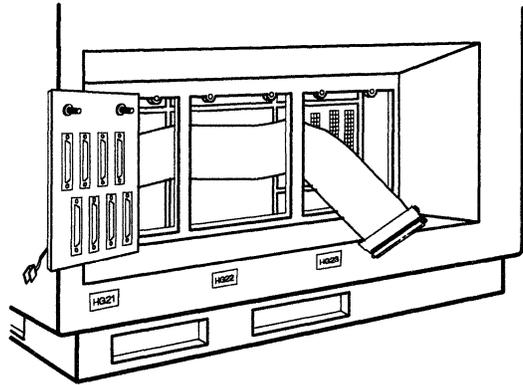
22

- Remove the three blank panels in positions HG21, HG22, and HG23 in the rear of the control unit by turning the thumbscrews counterclockwise in an alternating manner. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.)



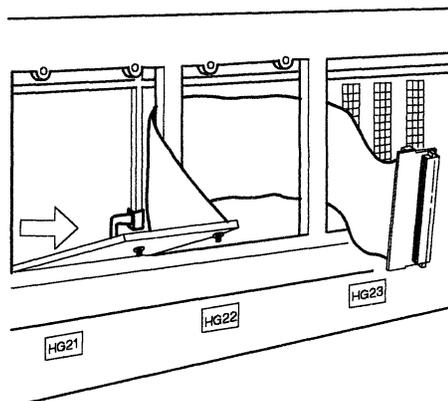
23

- Route the ribbon cable attached to the first new I/O panel behind the posts and let the connector end hang loose.



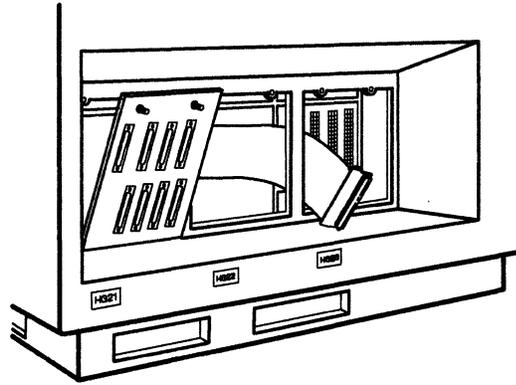
24

- Clip the end of the ground jumper wire to the rib right of position HG21 as shown.



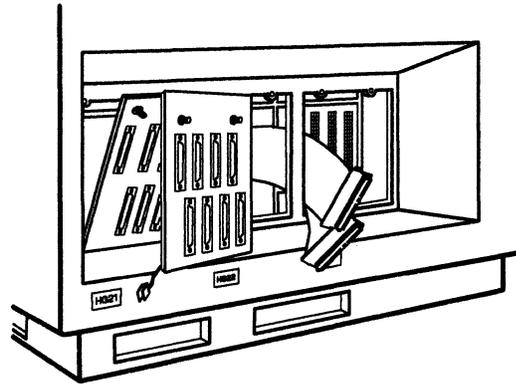
25

- Place the lower edge lugs of the first new I/O panel in the slots at position HG21.



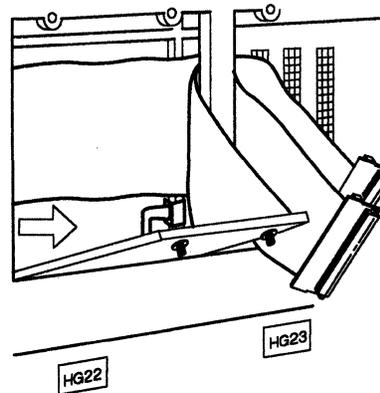
26

- Route the ribbon cable attached to the second new I/O panel behind the post and let the cable connector end hang loose.



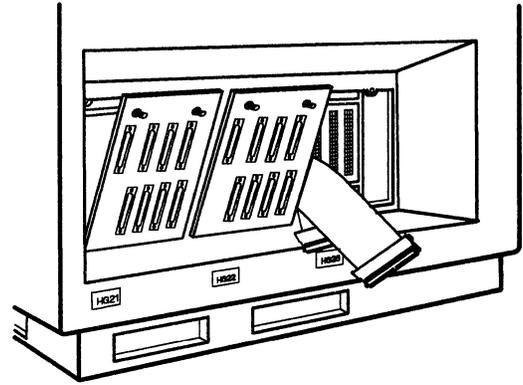
27

- Clip the end of the ground jumper wire to the rib right of position HG22 as shown.



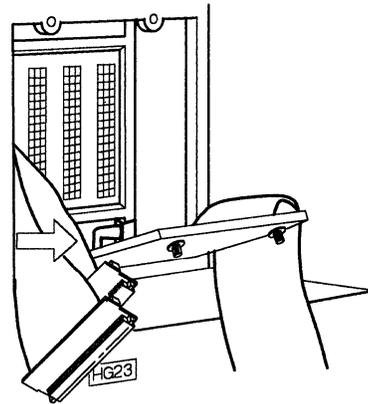
28

- Place the lower edge lugs of the second new I/O panel in the slots at position HG22.



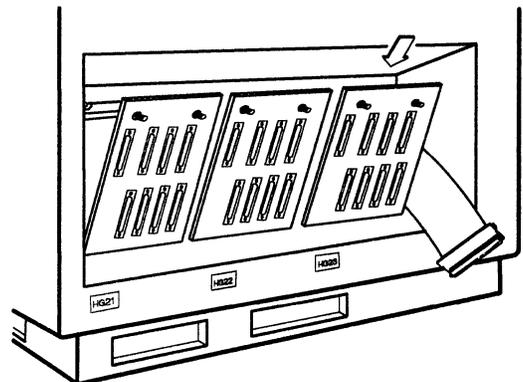
29

- Clip the end of the ground jumper wire for the third I/O panel to the rib right of position HG23 as shown.



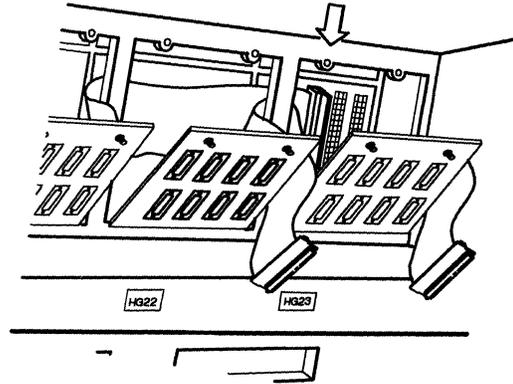
30

- Place the lower edge lugs of the third new I/O panel in the slots at position HG23.



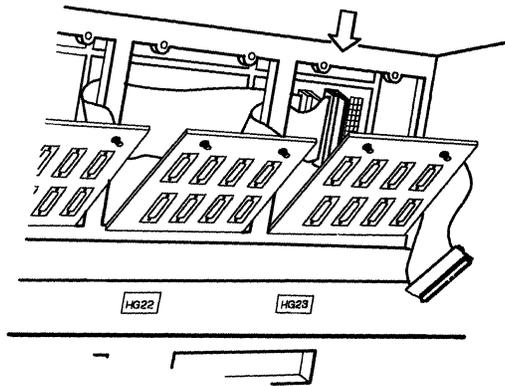
31

- Plug the ribbon cable connector of the I/O panel in position HG21 into the left-hand socket.



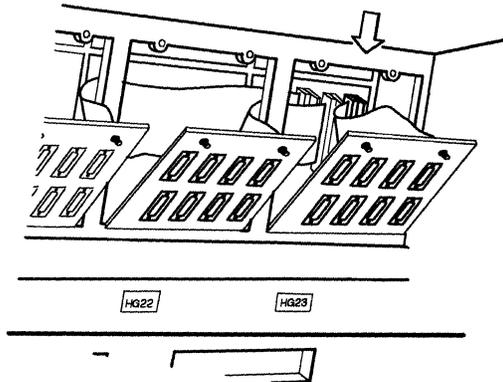
32

- Plug the ribbon cable connector of the I/O panel in position HG22 into the center socket.



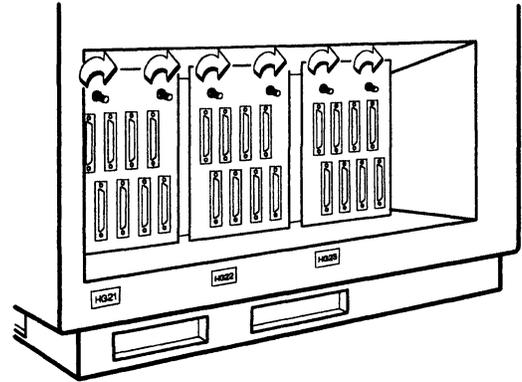
33

- Plug the ribbon cable connector of the I/O panel in position HG23 into the right-hand socket.



34

- Hold each I/O panel against the control unit and tighten the thumbscrews in an alternating manner. (For example, tighten one screw two turns and then tighten the other two turns. Continue with this method until both screws are tightened completely.)



35

- Reconnect the power cord.

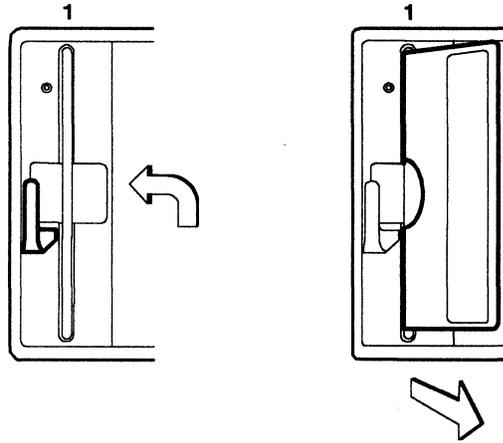
36

- Turn to “Card Verification Test for Models 1L, 1R, 2R, and 3R” on page 56 to verify that these AEAs are operating correctly.

Card Verification Test for Models 1L, 1R, 2R, and 3R

1

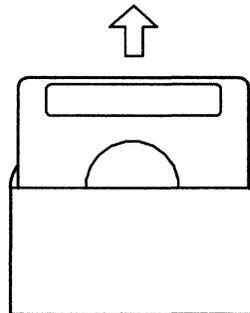
- Open the lever of diskette drive 1 and remove the Control diskette, if present.



2

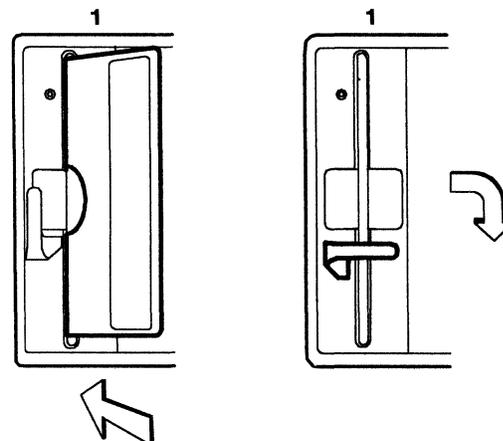
- Get the Utility diskette from the diskette storage pocket and remove it from the protective envelope.

Note: The Utility diskette should be Release 3 or later level.



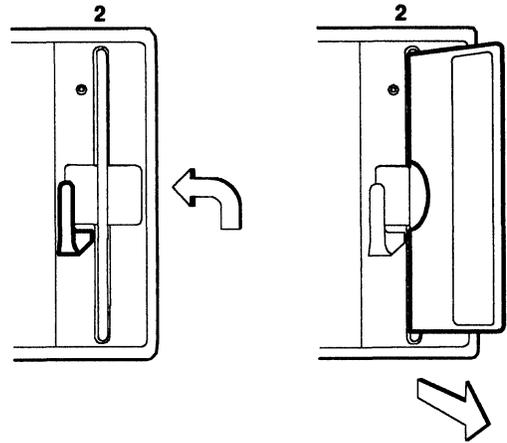
3

- With the label facing to the left, insert the Utility diskette into diskette drive 1 and close the lever.



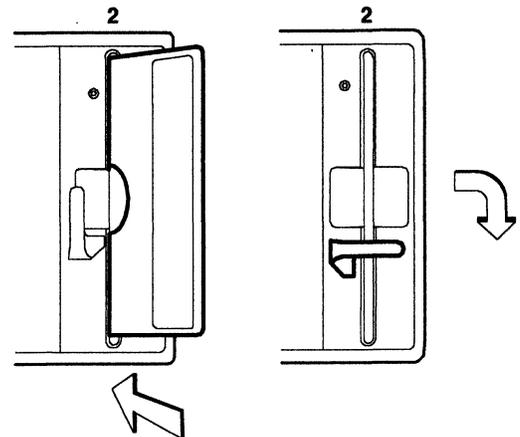
4

- Open the diskette drive 2 lever, remove the diskette, if present.



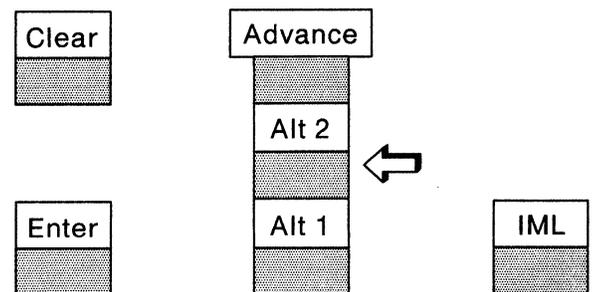
5

- Insert the Control diskette into diskette drive 2, and close the lever.



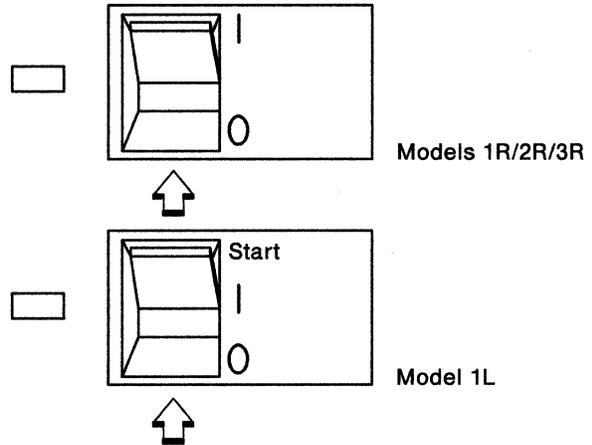
6

- Press down and hold Alt 2 until you complete the next step.



7

- Lift the power switch to its top position and hold until 31 is displayed on the status panel. Release Alt 2. (Tests will run for 1 to 3 minutes.)

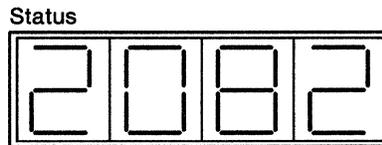


8

- Does 2082 appear on the Status display now?

YES Continue with step 9.

NO Refer to the "Problem Determination" chapter in the *IBM 3174 Subsystem Control Unit Models 1L, 1R, 2R, 3R User's Guide, GA23-0337*.

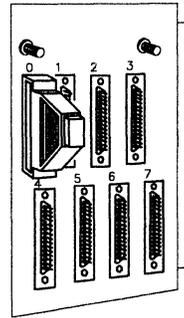


9

- To test each port of each new I/O Panel you installed, perform steps 10 through 15.

10

- Plug the wrap plug into the I/O panel port you want to test now.



11

- Use the keypad on the Operator Panel to key in:

2101 If you are testing ports in I/O panel position HG21

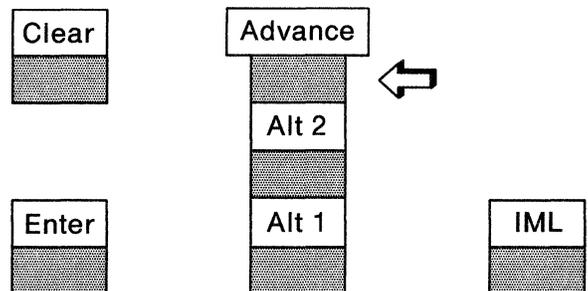
2201 If you are testing ports in I/O panel position HG22

2301 If you are testing ports in I/O panel position HG23.

If you key in a wrong number, press Clear and try again.

12

- Press Advance.



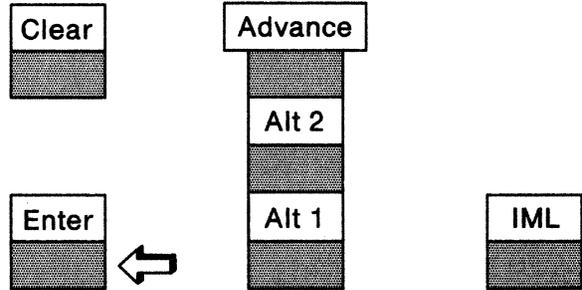
13

- Use the keypad to key in:

- 00** If you are testing port 0
- 01** If you are testing port 1
- 02** If you are testing port 2
- 03** If you are testing port 3
- 04** If you are testing port 4
- 05** If you are testing port 5
- 06** If you are testing port 6
- 07** If you are testing port 7.

14

- Press Enter. (Each test will run 10 seconds per port.)

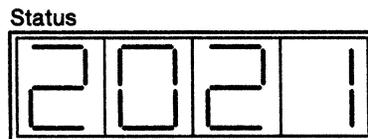


15

- Does 2021, 2022, or 2023 appear on the Status display now?

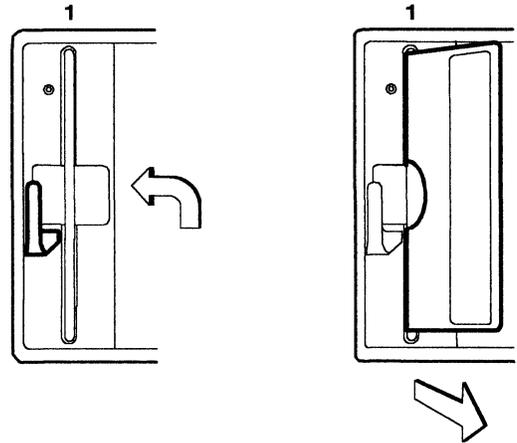
YES Repeat steps 10 through 15 until all new ports have been successfully tested. Store the wrap plug for future use in problem determination procedures and continue with step 16.

NO Refer to the "Problem Determination" chapter in the *IBM 3174 Subsystem Control Unit Models 1L, 1R, 2R, 3R User's Guide, GA23-0337*.



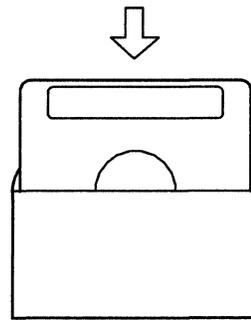
16

- Open the lever of diskette drive 1 and remove the Utility diskette.



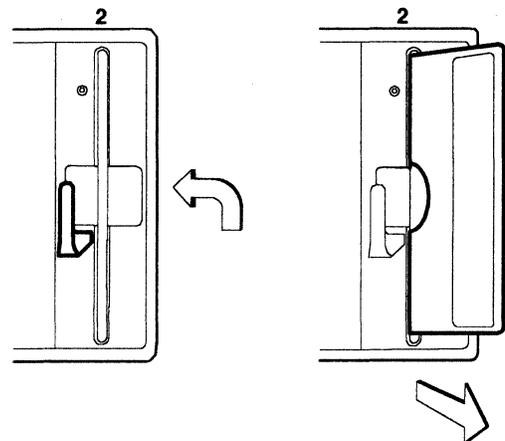
17

- Place the Utility diskette in the protective envelope and put it in the diskette storage pocket.



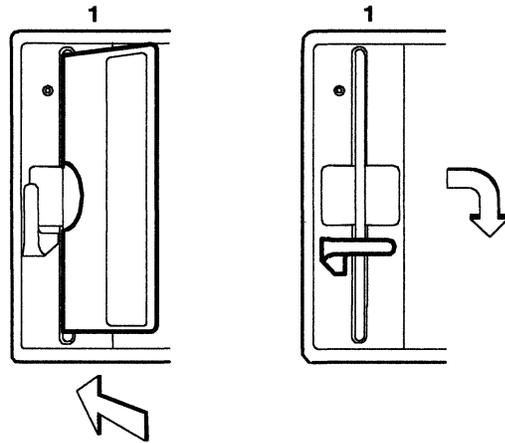
18

- Open the diskette drive 2 lever and remove the Control diskette.



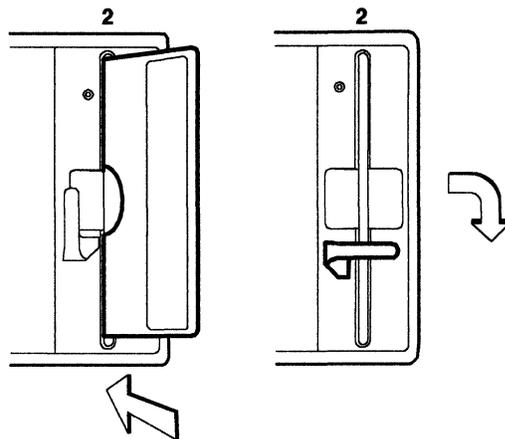
19

- Insert the Control diskette into diskette drive 1 and close the lever.



20

- Insert the diskette you removed from diskette drive 2 in step 4 into diskette drive 2 and close the lever.



21

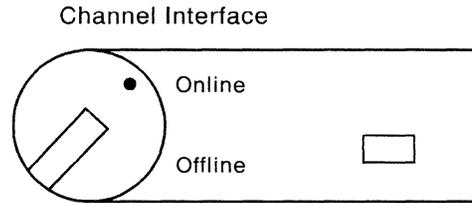
- Do you want to put the control unit back into service without attaching devices to the AEA(s) you just installed?
YES Continue with step 22.
NO Go to step 28.

22

- Does this control unit have a Channel Interface switch on the Operator Panel?

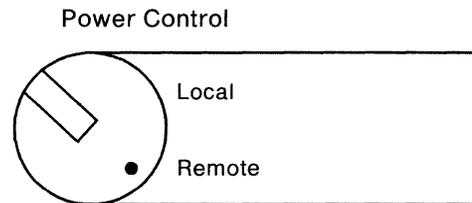
NO Go to step 24.

YES Set the Channel Interface switch to Online.



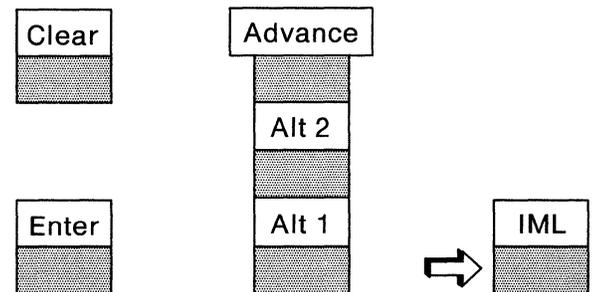
23

- If you changed the Power Control switch setting from Remote to Local in step 7 on page 5, turn the switch back to Remote.



24

- Press and release IML.



25

- When 501 or 532 appears on the Status display, notify the host operator to bring the control unit online.



26

- Notify users whose terminals are attached to this control unit that service is restored.

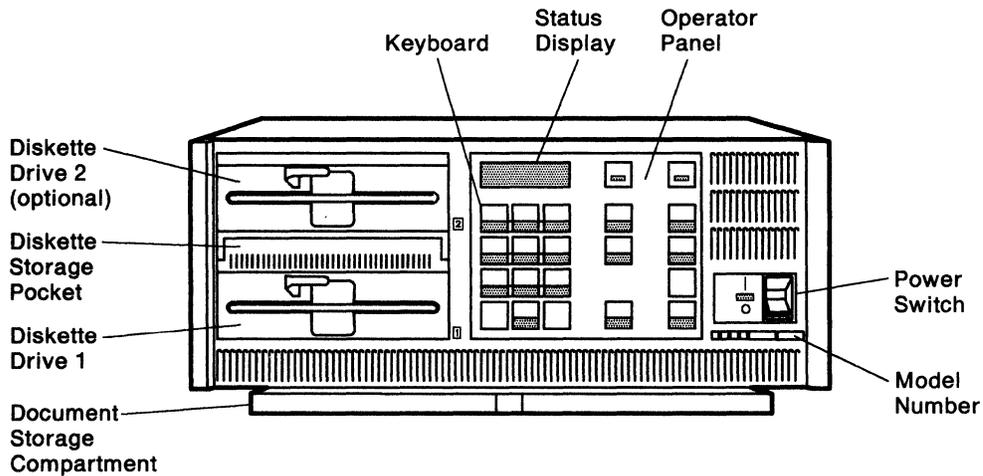
27

- If you are not attaching devices, AEA installation is complete.

28

- This step is used when you want to connect devices to the AEA(s) you just installed.
 1. Press the power switch to O (Off).
 2. Unplug the power cord **unless** your machine has a metallic, underfloor, waterproof-type connector. In that case, do not unplug it; see the Caution notice on page 1.
 3. Connect the terminal cables by referring to the cabling worksheets and the cabling instructions provided by your organization.
 4. Customize the control unit by referring to the *IBM 3174 Subsystem Control Unit Customizing Guide*, GA23-0214.

Installing an AEA Card on a Model 51R or 52R



Models 51R and 52R -- Outside Front View

1

- Does this control unit have two diskette drives?

YES Continue with step 2.

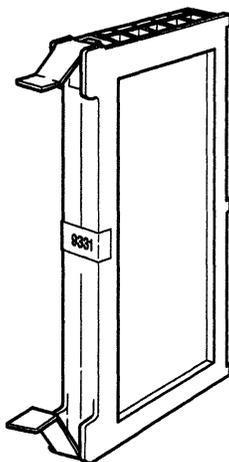
NO Install the required additional diskette drive first and then continue with step 2 on this page.

2

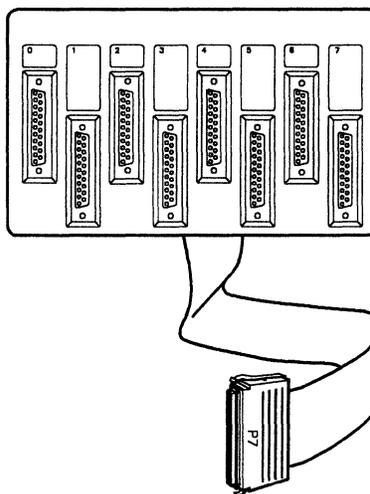
- Do you have the following required items for the AEA feature you are installing on this control unit?

YES Continue with step 3.

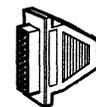
NO Discontinue this procedure until you get the required items.



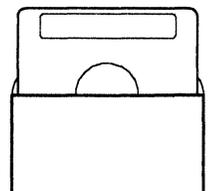
Asynchronous
Emulation
Adapter card



I/O Panel



Wrap Plug



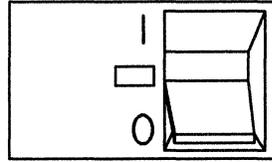
Diskette

3

- Is the control unit power switch Off?

YES Go to step 6.

NO Notify users whose terminals are attached to this control unit that service will be interrupted for about 30 minutes.

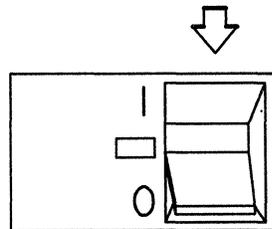


4

- After the users have been notified, have the host operator take the control unit offline. When the control unit is offline, continue with step 5.

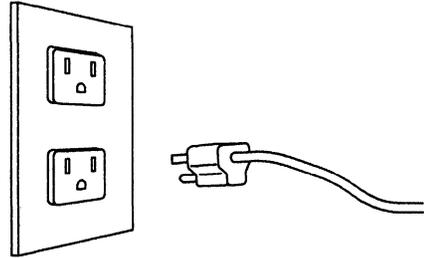
5

- Press the power switch to O (Off).



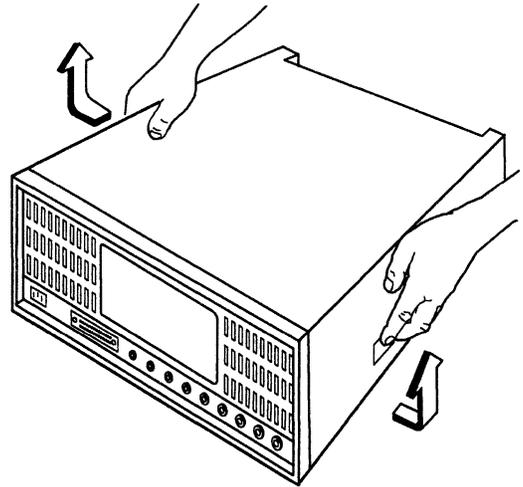
6

- Unplug the control unit power cord from the electrical outlet.



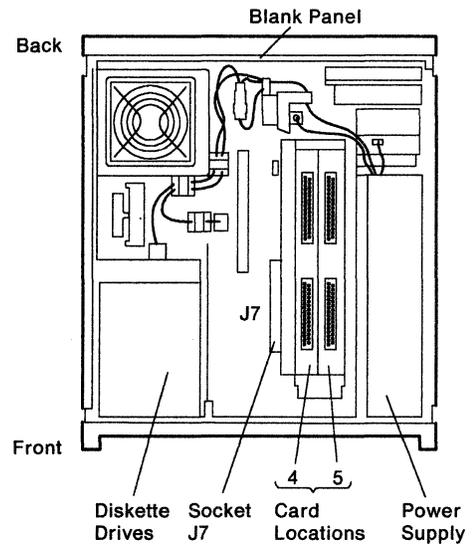
7

- Lift the latches on the sides of the top cover. Pull the sides slightly outward and lift the cover off.



8

- Locate card location 4.



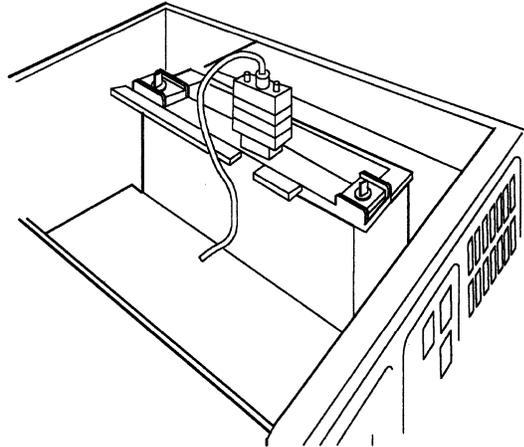
Models 51R and 52R--Inside Top View

9

- Is there a Token-Ring adapter (Type 9350) in card location 4?

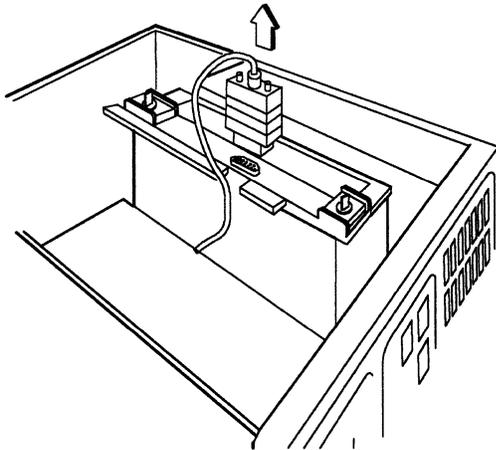
YES The card in this location cannot be used with the AEA feature. It must be removed. **Make sure you want to remove this card.** If you are certain you want to remove this card, continue with step 10.

NO Go to step 14.



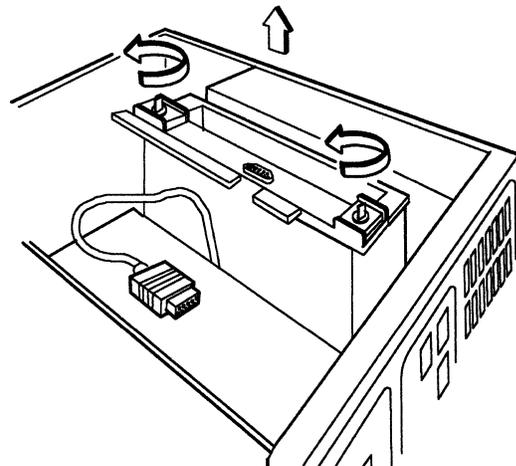
10

- Remove the communication cable from the card in location 4 by carefully pulling the cable connector out.



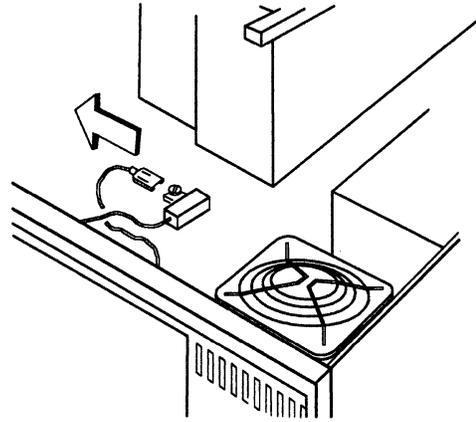
11

- Remove the card in location 4 by turning the thumbscrews alternately counterclockwise until they are completely loosened. (For example, loosen one screw two turns and then loosen the other two turns. Continue with this method until both screws are loosened completely.) Pull the card up and remove it.



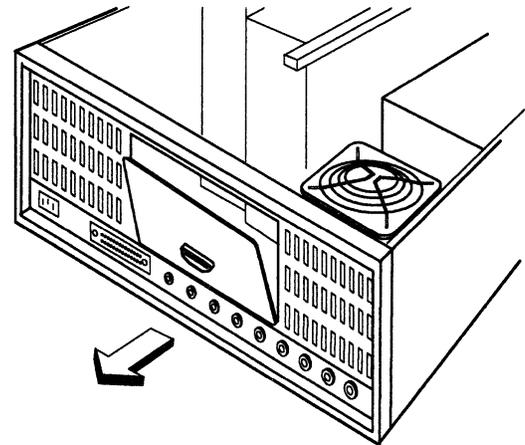
12

- From the rear of the control unit remove the ground strap as shown.



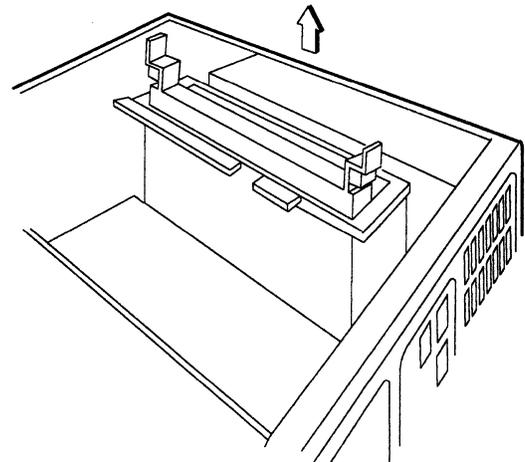
13

- From the rear of the control unit remove the rear panel by pressing down on the tabs inside the box and pushing the panel out. Go to step 15.



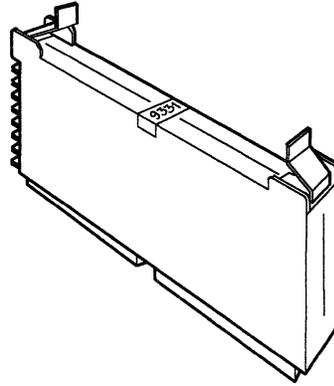
14

- If there is an empty cassette in card location 4, remove it by gripping the tabs on each end and pulling it straight up. Continue with step 15.



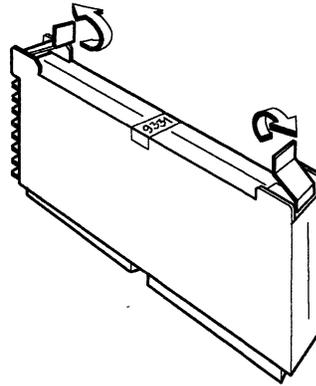
15

- Hold the new AEA card so that the flat panel is facing left.



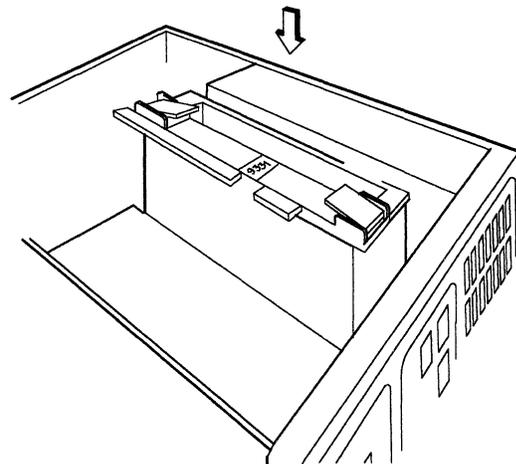
16

- Make sure both extractor levers are in the open position.



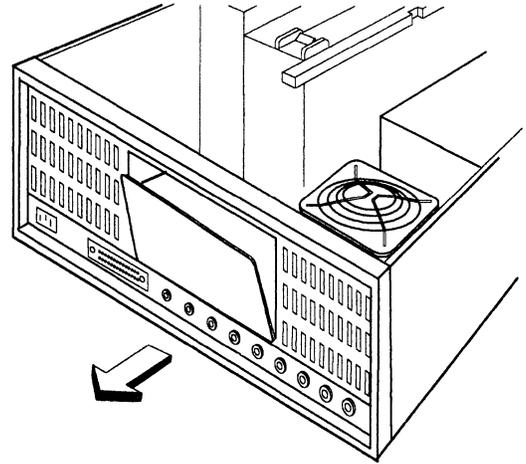
17

- Insert the AEA card into card location 4. Press the extractor levers down to lock the AEA card in place.



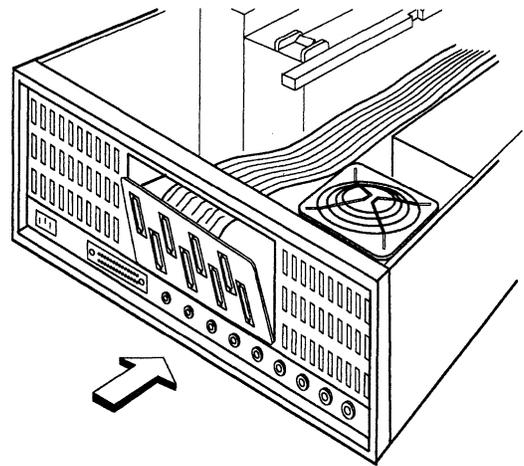
18

- If there is a blank panel in the rear of the control unit, remove the blank panel by pressing down on the tabs inside the box and pushing the panel out.



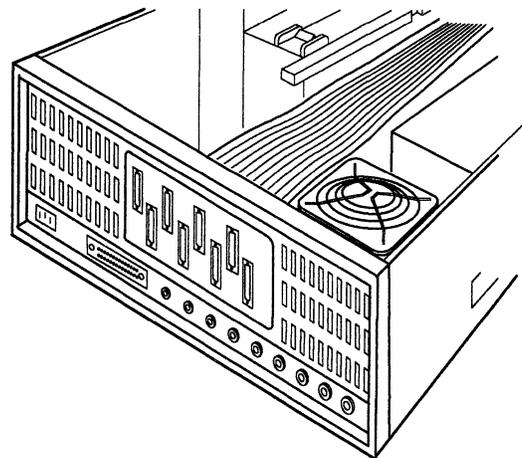
19

- Install the I/O panel by placing the lower tabs on the lower edge of the opening and pressing the I/O panel in firmly until the upper tabs latch.



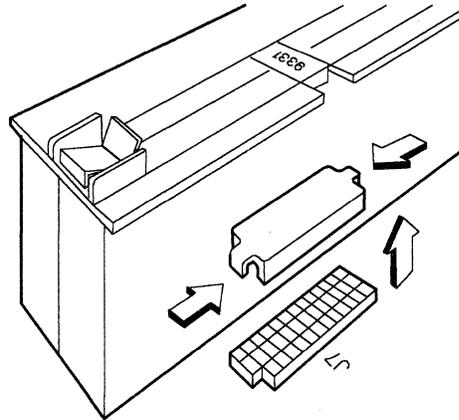
20

- Check to ensure that the I/O panel is flush with the rear of the control unit.



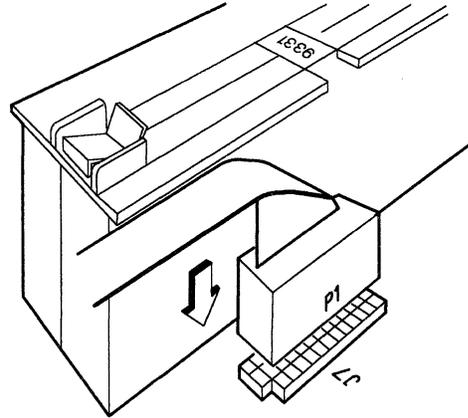
21

- Remove the cover of socket J7 by pressing in on the cover ends and pulling the cover up.



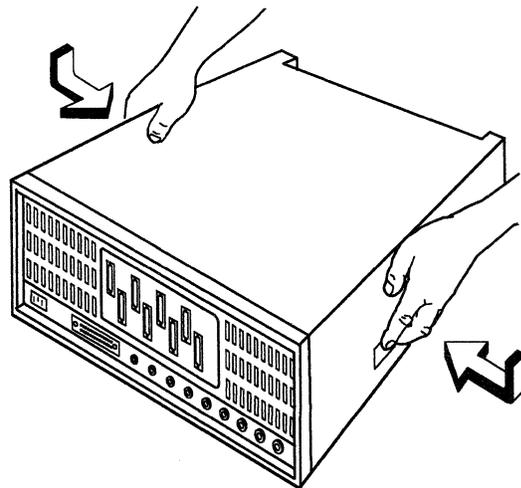
22

- From the rear of the control unit hold the P1 connector while extending the ribbon cable toward the front of the unit. Turn the ribbon connector one quarter turn counterclockwise and carefully align the P1 connector with the slots in socket J7 and plug the connector into the socket.



23

- Ensure that the top cover latches are up. Put the top cover back in place and push the sides slightly inward while pushing the latches down into the locked position.



24

- Reconnect the power cord.

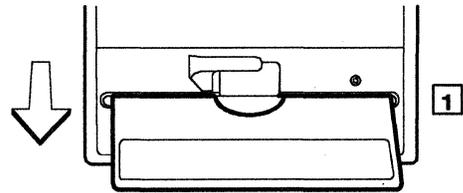
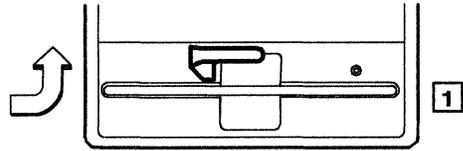
25

- Turn to “Card Verification Test for Models 51R and 52R” on page 74 to verify that this AEA is operating correctly.

Card Verification Test for Models 51R and 52R

1

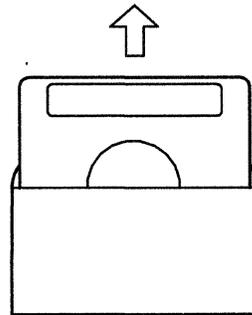
- Open the lever of diskette drive 1 and remove the Control diskette, if present.



2

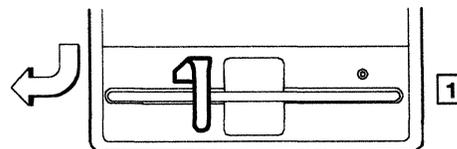
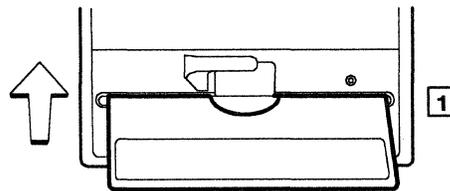
- Get the Utility diskette from the diskette storage pocket and remove it from the protective envelope.

Note: The Utility diskette should be Release 3 or later level.



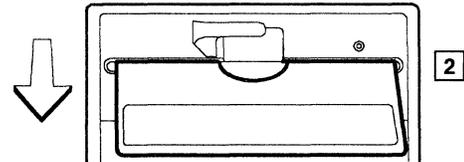
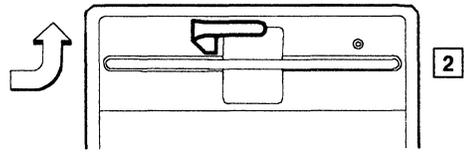
3

- With the label facing up, insert the Utility diskette into diskette drive 1 and close the lever.



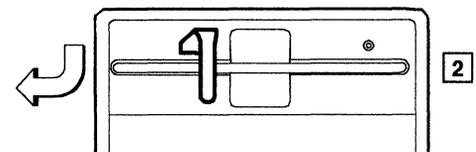
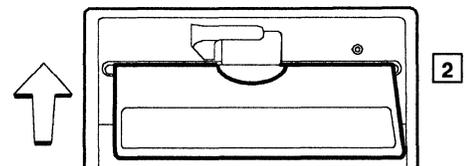
4

- Open the diskette drive 2 lever and remove the diskette, if present.



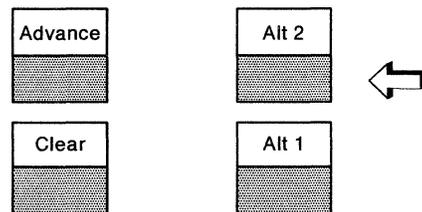
5

- Insert the Control diskette into diskette drive 2 and close the lever.



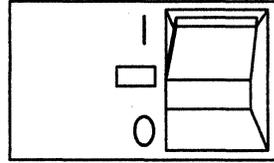
6

- Press down and hold Alt 2 until you complete the next step.



7

- Lift the power switch to its top position and hold until 31 is displayed on the status panel. Release Alt 2. (Tests will run 1 to 3 minutes.)



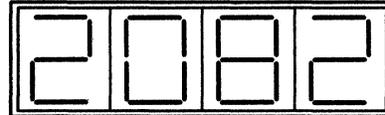
8

- Does 2082 appear on the Status display now?

YES Continue with step 9.

NO Refer to the "Problem Determination" chapter in the *IBM 3174 Subsystem Control Unit Models 51R, 52R, and 53R User's Guide, GA23-0333*.

Status

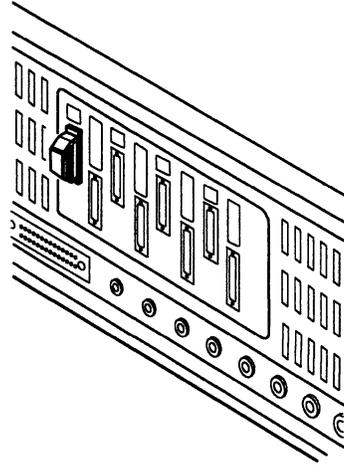


9

- Repeat steps 10 through 15 to test each port of the new I/O panel you installed.

10

- Plug the wrap plug into the I/O panel port you want to test now.

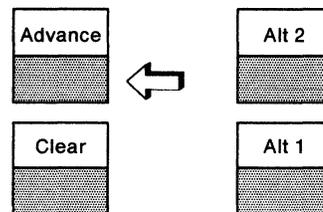


11

- Use the keypad on the Operator Panel to key in 2101. If you key in a wrong number, press Clear and try again.

12

- Press Advance.



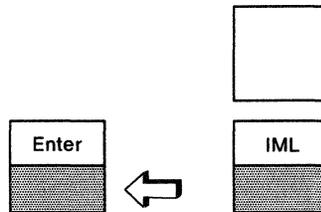
13

Use the keypad to key in:

- 00** If you are testing port 0
- 01** If you are testing port 1
- 02** If you are testing port 2
- 03** If you are testing port 3
- 04** If you are testing port 4
- 05** If you are testing port 5
- 06** If you are testing port 6
- 07** If you are testing port 7.

14

Press Enter. (Each test will run for 10 seconds per port.)



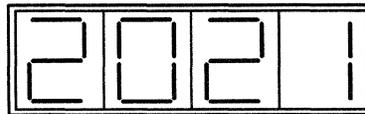
15

Does 2021 appear on the Status display now?

YES Repeat steps 10 through 15 until all new ports have been successfully tested. Store the wrap plug for future use in problem determination procedures and continue with step 16.

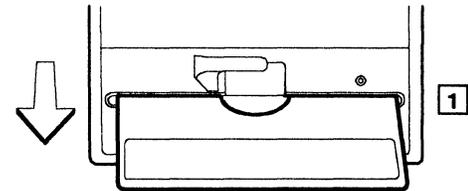
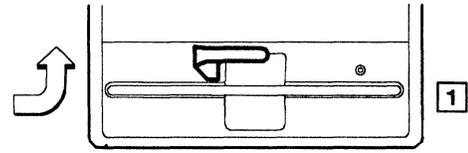
NO Refer to the "Problem Determination" chapter in the *IBM 3174 Subsystem Control Unit Models 1L, 1R, 2R, 3R User's Guide, GA23-0337*.

Status



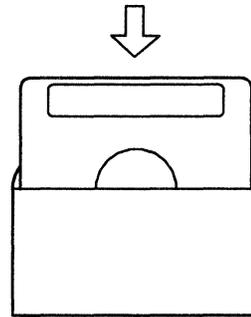
16

- Open the lever of diskette drive 1 and remove the Utility diskette.



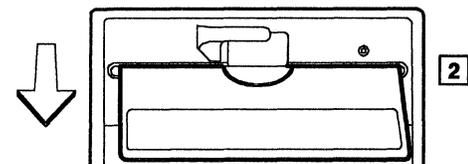
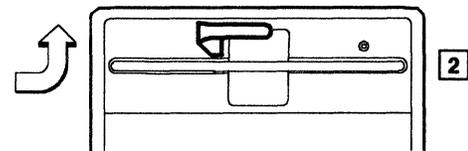
17

- Place the Utility diskette in the protective envelope and put it in the diskette storage pocket.



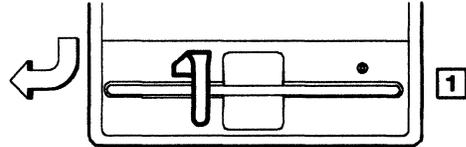
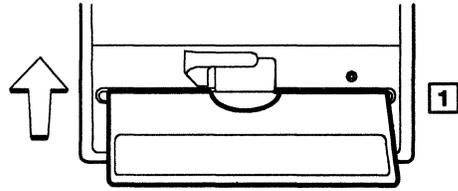
18

- Open the diskette drive 2 lever and remove the Control diskette.



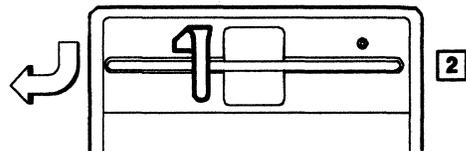
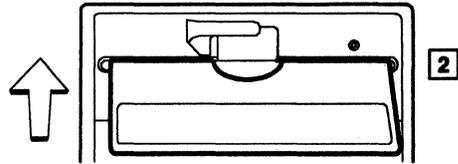
19

- Insert the Control diskette into diskette drive 1 and close the lever.



20

- Insert the diskette you removed from diskette drive 2 in step 4 into diskette drive 2 and close the lever.



21

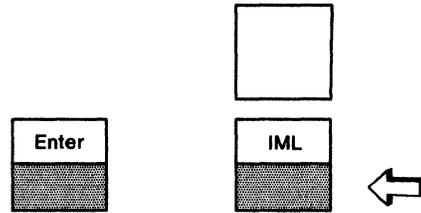
- Do you want to put the control unit back into service without attaching devices to the AEA you just installed?

YES Continue with step 22.

NO Go to step 26.

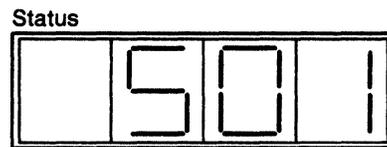
22

- Press and release IML.



23

- When 501 or 532 appears on the Status display, notify the host operator to bring the control unit online.



24

- Notify users whose terminals are attached to this control unit that service is restored.

25

- AEA installation is complete.

26

- This step is used when you want to connect devices to the AEA you just installed.
 1. Press the power switch to O (Off).
 2. Unplug the power cord.
 3. Connect the terminal cables by referring to the cabling worksheets and the cabling instructions provided by your organization.
 4. Customize the control unit by referring to the *IBM 3174 Subsystem Control Unit Customizing Guide*, GA23-0214.

**IBM 3174 Subsystem Control Unit
Asynchronous Emulation Adapter
Customer Setup Instructions**

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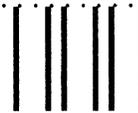
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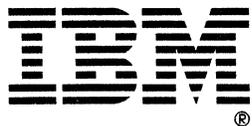
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