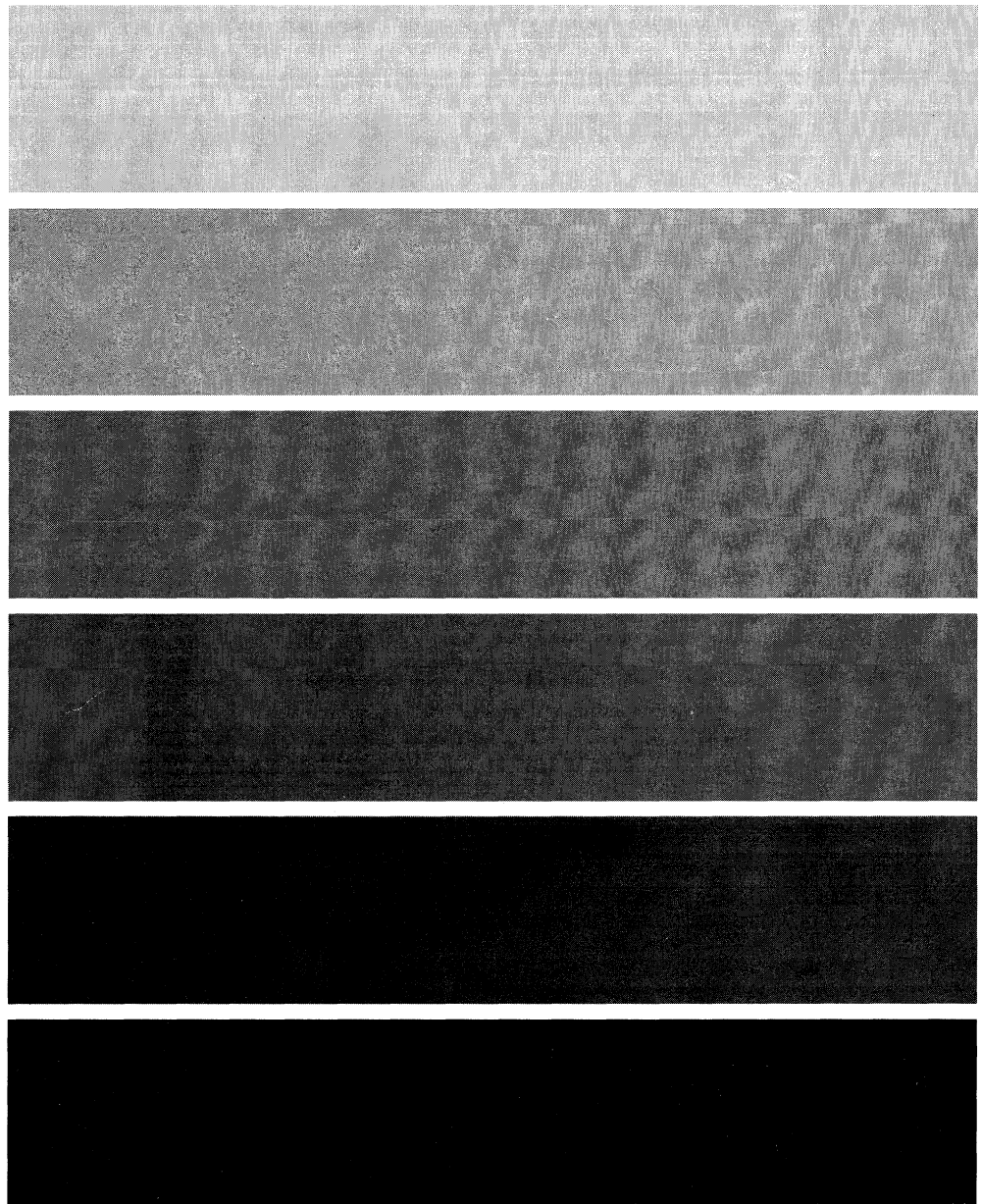




Token-Ring Network Feature Installation and Removal Instructions



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Sixth Edition (May 1991)

This edition obsoletes and replaces GA23-0329-04.

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Translated Safety Notices

U.S. English	You can find translated safety notices in the multilingual safety notice book, GA27-3824.
Belgian Dutch	De vertaalde veiligheidsinstructies vindt u in het meertalige boekje GA27-3824.
Canadian French	Vous trouverez les consignes de sécurité en français dans le manuel multilingue GA27-3824.
Danish	Oversatte sikkerhedsbestemmelser kan findes i den flersprogede sikkerhedsbog, GA27-3824.
Finnish	Turvaohjeet ovat myös suomeksi monikielisessä julkaisussa, GA27-3824.
French	Vous trouverez les consignes de sécurité traduites dans la brochure multilingue <i>Safety Notice Book</i> , GA27-3824.
German	Übersetzte Sicherheitshinweise sind dem mehrsprachigen <i>Safety Notice Book</i> , GA27-3824, zu entnehmen.
Italian	Le informazioni di sicurezza tradotte si trovano nel manuale, GA27-3824.
Japanese	日本語の「安全に関するご案内」は各国語に翻訳された安全に関する記述を一冊にまとめた にありますのでご参照ください。 GA27-3824.
Norwegian	Du finner oversatte sikkerhetsmeldinger i den flerspråklige sikkerhetsboken GA27-3824.
Portuguese	As informações de segurança traduzidas estão incluídas no manual de indicações de segurança GA27-3824 (multilíngue).
Spanish	Puede hallar la información sobre seguridad traducida en el manual multilingüe correspondiente, GA27-3824.
Swedish	Svenska översättningar av de varningstexter som riktar sig till användaren finns i det flerspråkiga dokumentet med nummer GA27-3824.
Swiss French	Vous trouverez la traduction des instructions de sécurité dans le manuel des instructions de sécurité polyglotte, GA27-3824.
Swiss German	Sie finden die übersetzten Sicherheitsinformationen im mehrsprachigen Sicherheits-Informations-Buch GA27-3824.
Swiss Italian	Lei trova gli informazioni di sicurezza tradotte nel <i>Safety Notice Book</i> plurilingue, GA27-3824.

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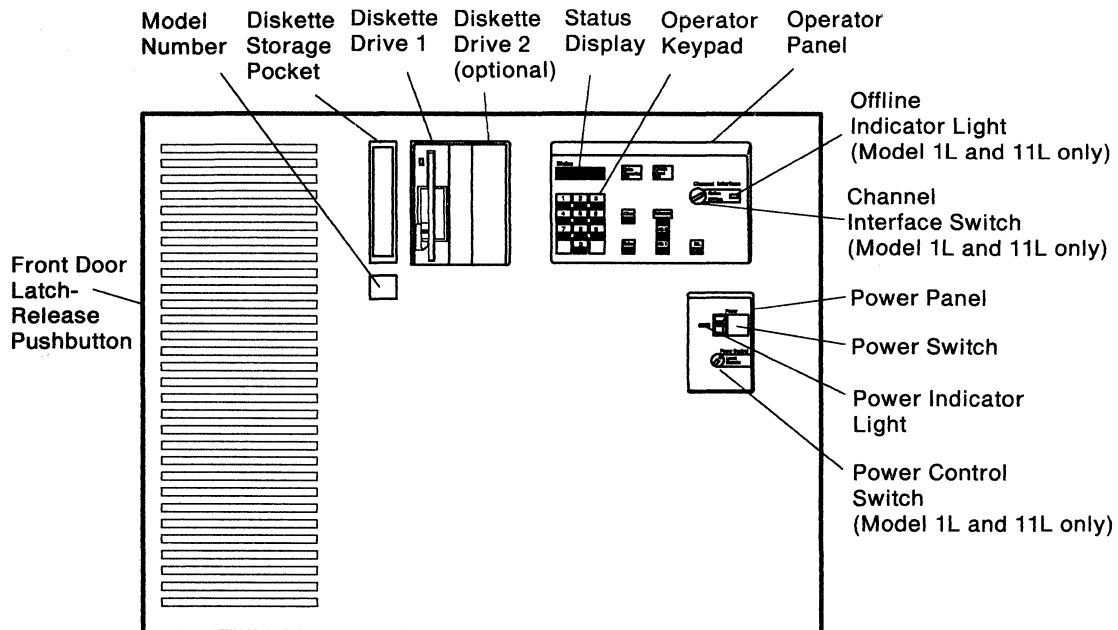
Token-Ring Network Feature Installation in a Model 1L, 1R, 2R, 3R, 11L, 11R, 12L, or 12R	1
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Token-Ring Network Feature Installation in a Model 1L, 1R, 2R, 3R, 11L, 11R, 12L, or 12R

DANGER

Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Before you begin, note the location of the controller's basic components in the following figure.



1 Do you also have a Storage Expansion Feature to install on this controller?

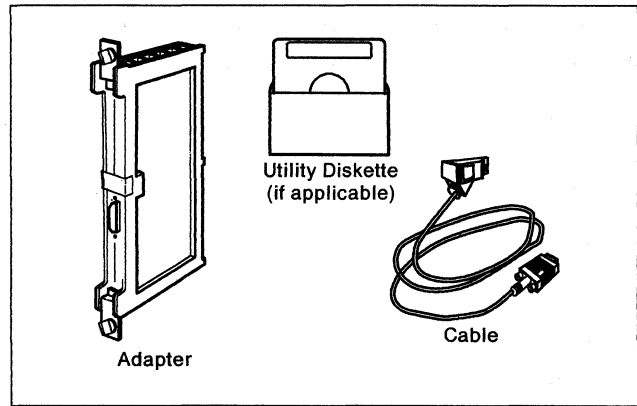
YES Install the Storage Expansion Feature first, then return to this manual.

NO Before starting this procedure make sure you have enough storage. For your level of microcode check the 3174 *Planning Guide*.

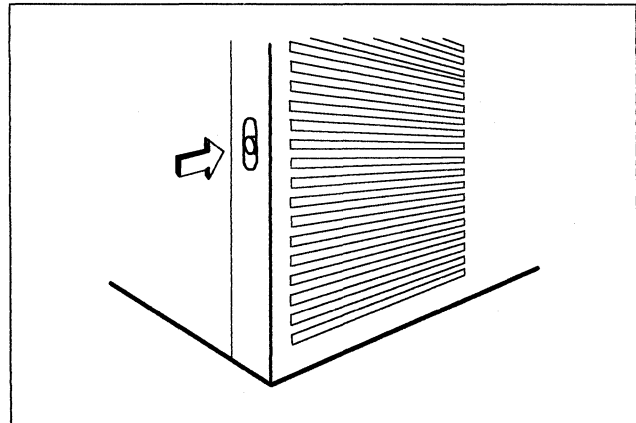
2 Do you have the required items in the kit as shown?

YES Continue to the next step.

NO Discontinue this procedure until you have the required items.



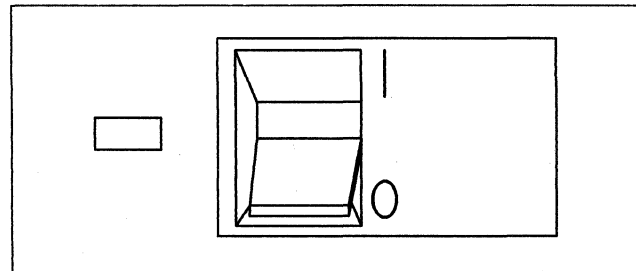
3 Press the latch-release button on the left edge of the front door and open the door.



4 Is the controller power switch switched off?

YES Go to Step 7 .

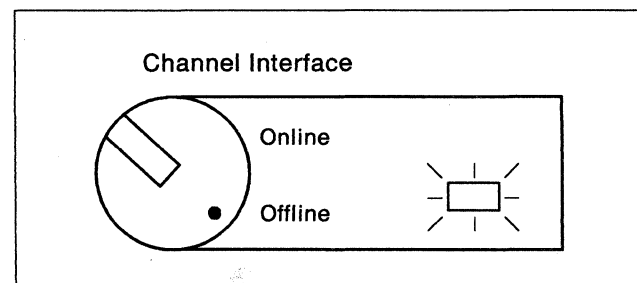
NO Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.



5 Does this controller have a Channel Interface switch on the operator panel?

YES Set the Channel Interface switch to **Offline** and wait for the Offline Indicator light to come on. Then continue to the next step.

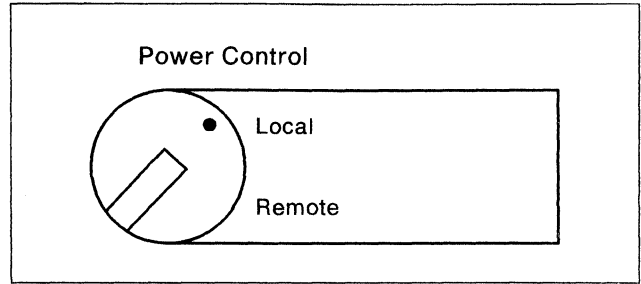
NO Go to Step 7 .



6 Is the Power Control switch set to **Local**?

YES Continue to the next step.

NO Set the Power Control switch to **Local**.



7 Is this controller a Model 12L?

YES Press Clear.

Use the keypad on the operator panel to key in **1700**.

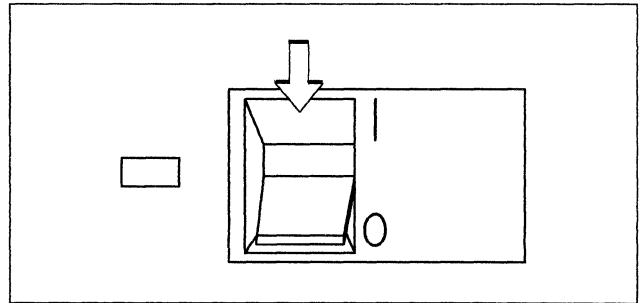
Press Enter.

When 508 appears, the controller is offline. Continue to the next step.

If another status code appears and remains displayed, refer to *3174 Status Codes, GA27-3832*.

NO Continue to the next step.

8 Press the power switch to **O** (Off).



9 Does your controller have a metallic, waterproof-type power plug?

YES CAUTION:

If your machine has a metallic, waterproof-type power plug, do not attempt to disconnect it. Instead, have a qualified electrician disconnect the plug. (For translations of this safety notice, see Safety Notice 2 in *IBM 3174 Safety Notices, GA27-3824*.)

NO Unplug the controller power plug.

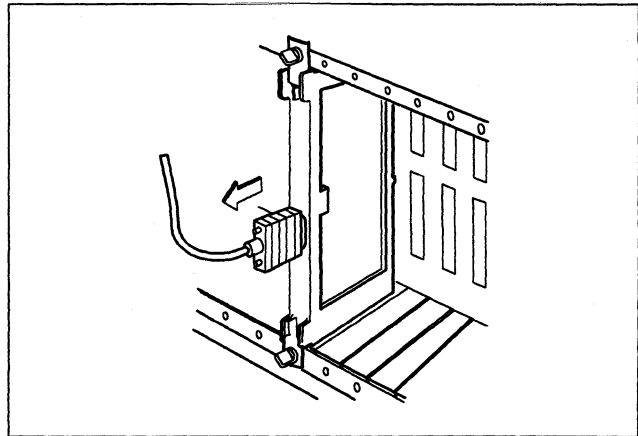
10 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Is there a type 9350 adapter in location 11, 12, 13, 14, 15, 16, or 17?

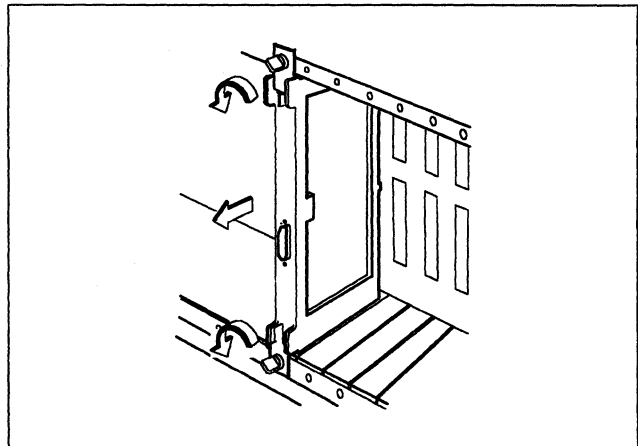
YES Unplug both ends of the cable connected to the adapter and remove the cable from the controller.

NO Go to Step 12 on page 4.



11 Loosen the adapter thumbscrews in an alternating manner and remove the adapter by pulling it straight out.

Store the items you removed according to your company's procedures.



12 In the following sequence, **11 12 13 14 15 16 17**, circle the number of the first available (unused) location.

Then go to Step 21 on page 7.

If there are no available locations, continue to the next step.

13 Do any of the following locations contain a 917x or 9750 adapter?

11 12 13 14 15 16 17,

YES Circle the number above of the **first** location containing a 917x or 9750 adapter and continue to the next step.

NO If none of these locations contains a type 917x or 9750 adapter, close the door and see your system planner. There is not a location available for the Token-Ring Adapter without removing an adapter from location 11, 12, 13, 14, 15, 16, or 17.

- 14** Determine if there is an unused location available for the 917x or 9750 adapter. (If there is no location available, close the door and see your system planner).

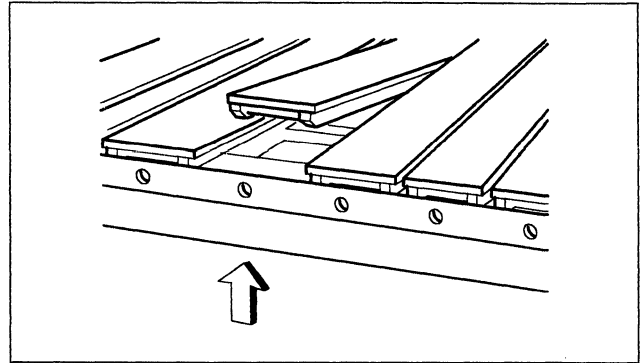
In the following sequence, circle the number of the first unused location. **22 23 24**

Then go to the next step.

- 15** Is there an insert in the location that you circled in Step 14.

YES Grip the front of the insert and pull it up to remove it.

NO Continue to the next step.



16 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Are cables connected to the adapter in the location you circled?

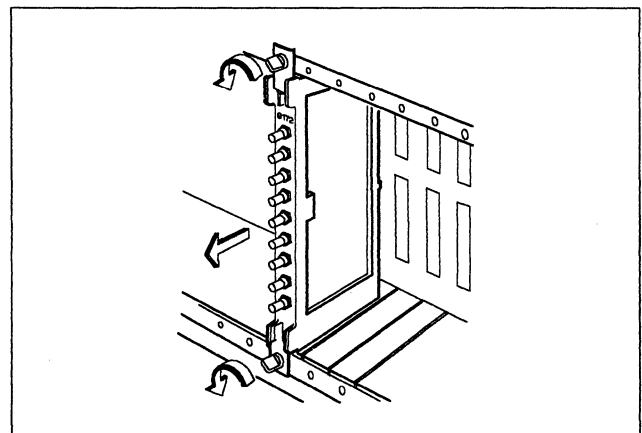
YES Carefully make a chart of the cable connection locations, label each cable with tape, and unplug the cables from the adapter.

NO Continue to the next step.

- 17** Loosen the thumbscrews in an alternating manner. For example, loosen one screw two turns and then the other screw two turns until both screws are loosened completely.

Then pull the adapter straight out to remove it.

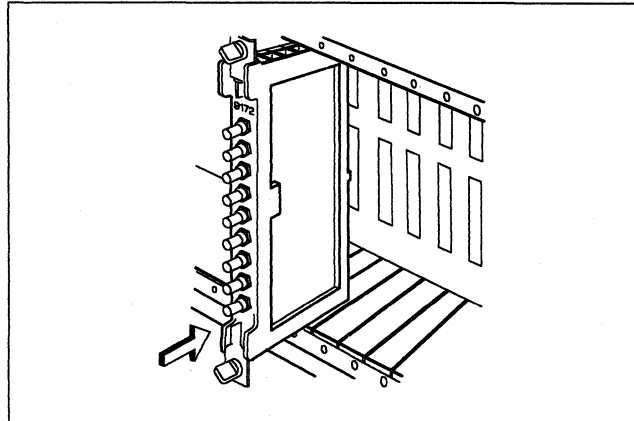
Note: The steps that pertain to the 917x or 9750 adapters show pictures for the 917x adapter only.



- 18** Hold the adapter that you removed so that the recessed panel is at the right. Insert it into the guides of the location you circled in Step 13 or Step 14 , until the points of the thumbscrews almost touch the rail.

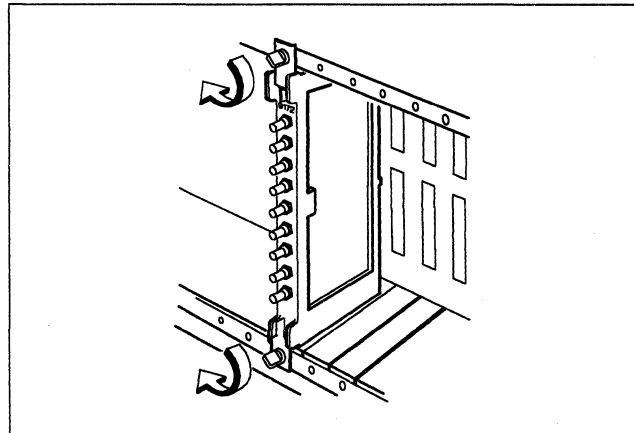
If the thumbscrews are *not* spring-loaded, carefully guide the point of each screw into a mounting hole to engage the threads. Go to the next step.

If the thumbscrews are spring-loaded, firmly push the adapter into the location until the connector on the back of the card is firmly seated. Go to the next step.



- 19** Tighten the thumbscrews in an alternating manner. For example, tighten one screw two turns, then the other two turns, until both screws are tightened completely.

Then push the adapter in to determine if additional thumbscrew tightening is needed.



20 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Did you unplug cables from this adapter?

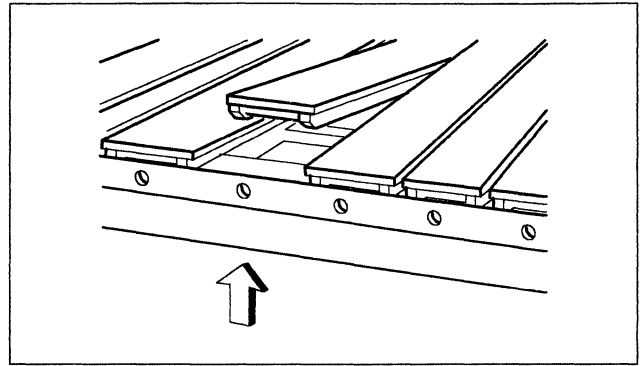
YES Plug them into the adapter according to the cable connection chart and labels you made.

NO Continue to the next step.

21 Is there an insert in the location that you circled?

YES Grip the front of the insert and pull it up to remove it.

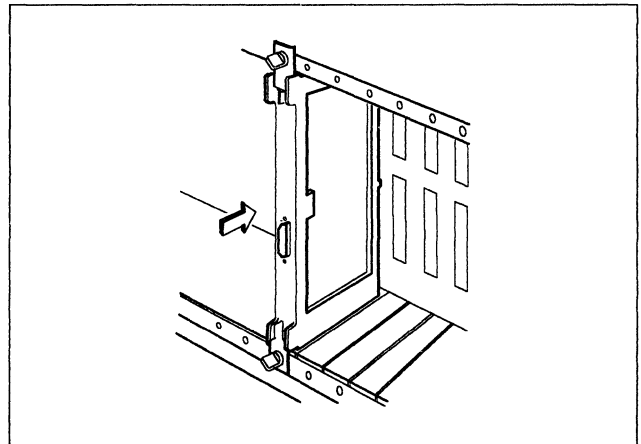
NO Continue to the next step.



22 Hold the adapter from the kit so that the recessed panel is at the right. Insert it into the guides of the location you circled, until the points of the thumbscrews almost touch the rail.

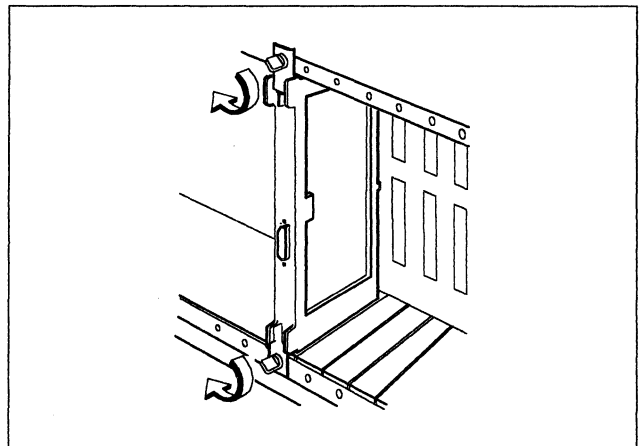
If the thumbscrews are *not* spring-loaded, carefully guide the point of each screw into a mounting hole to engage the threads. Go to the next step.

If the thumbscrews *are* spring-loaded, firmly push the adapter into the location until the connector on the back of the card is firmly seated. Go to the next step.



23 Tighten the thumbscrews in an alternating manner. For example, tighten one screw two turns, then the other two turns, until both screws are tightened completely.

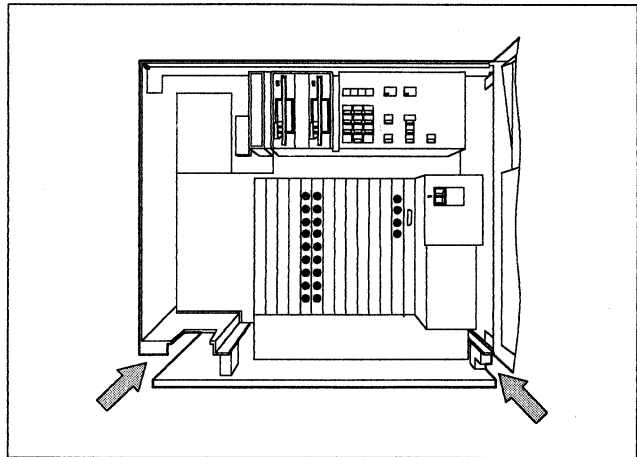
Then push the adapter in to determine if additional thumbscrew tightening is needed.



- 24** Determine which end of the cable from the kit fits the connector of the adapter you just installed.

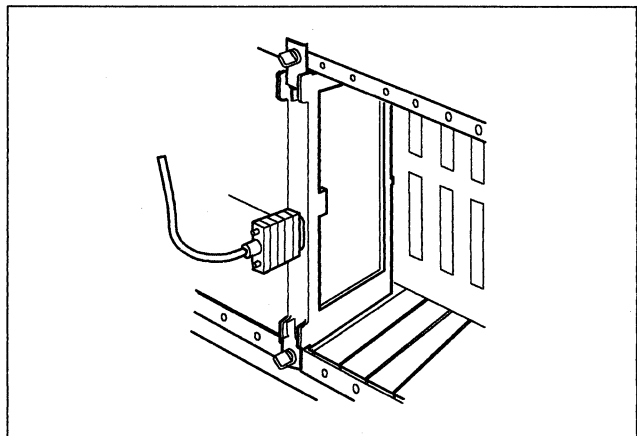
Do not connect the cable at this time.

Route the end of the cable with the adapter plug up through one of the cable access openings at the base of the controller.



- 25** Plug the cable into the connector on the type 935x adapter.

Turn the thumbscrews clockwise to secure the cable connector in place.



- 26** Close the door of the controller.

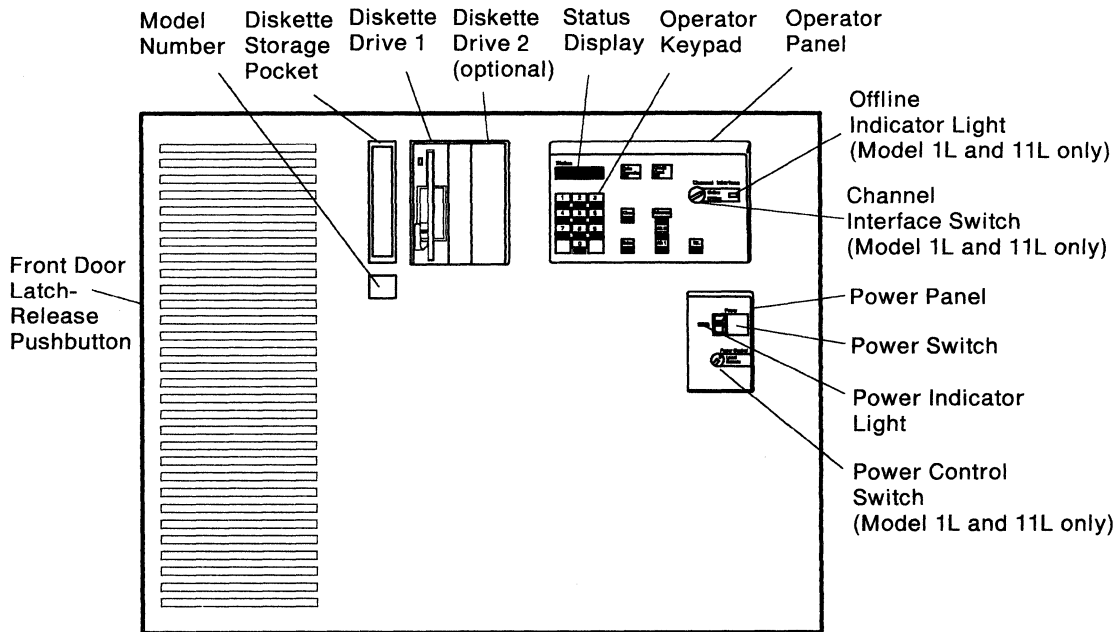
Then go to "Verification Test for Models 1L, 1R, 2R, 3R, 11L, 11R, 12L, and 12R" on page 13 to verify that this controller operates correctly.

Token-Ring Network Feature Removal from a Model 1L, 1R, 2R, 11L, 11R, 12L, or 12R

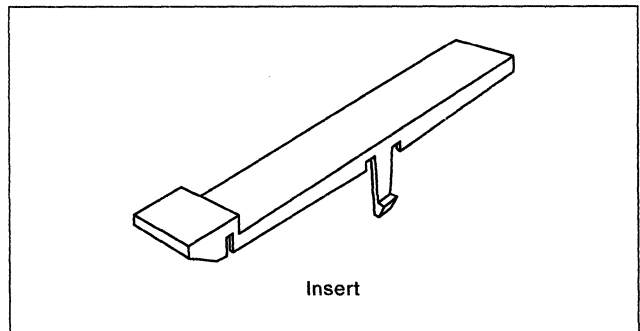
DANGER

Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices, GA27-3824.*)

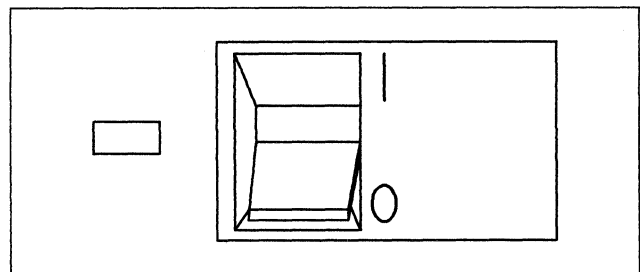
Before you begin, note the location of the controller's basic components in the following figure.



- 1** Do you have the required item in the kit as shown?
- YES** Continue to the next step.
- NO** Discontinue this procedure until you have the required item.
- Note:** To test this feature, you also need a Utility diskette that supports all of the features installed on this controller.



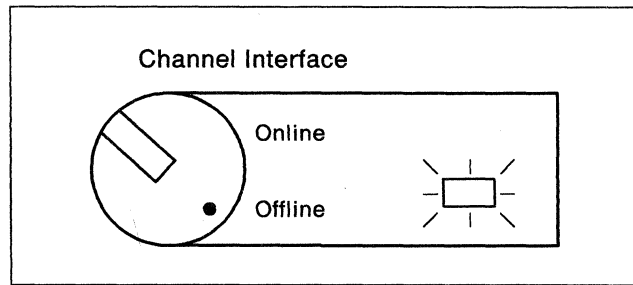
- 2** Is the controller power switch switched off?
- YES** Go to Step 7 on page 10.
- NO** Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.



3 Does this controller have a Channel Interface switch on the operator panel?

YES Set the Channel Interface switch to **Offline**, wait for the Offline Indicator light to come on, and continue to the next step.

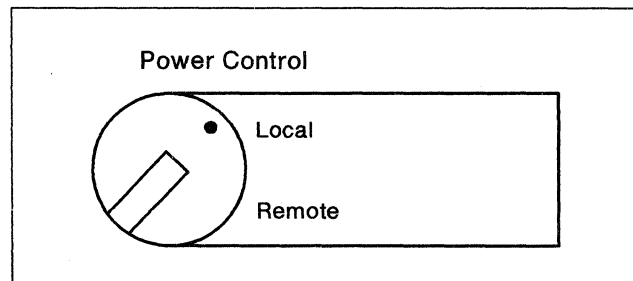
NO Go to Step 5 .



4 Is the Power Control switch set to **Local**?

YES Continue to the next step.

NO Set the Power Control switch to **Local**.



5 Is this controller a Model 12L?

YES Use the keypad on the operator panel to key in **1700**.

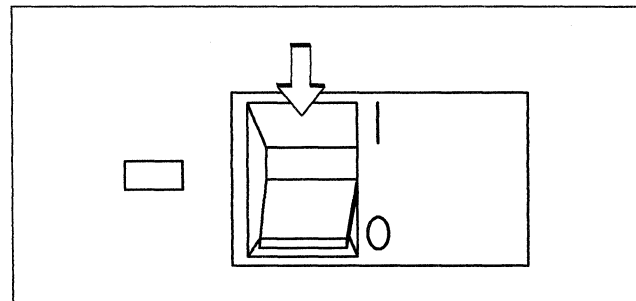
Press Enter.

When 508 appears, the controller is offline. Continue to the next step.

If another status code appears and remains displayed, refer to *3174 Status Codes, GA27-3832*.

NO Continue to the next step.

6 Press the power switch to **O** (Off).

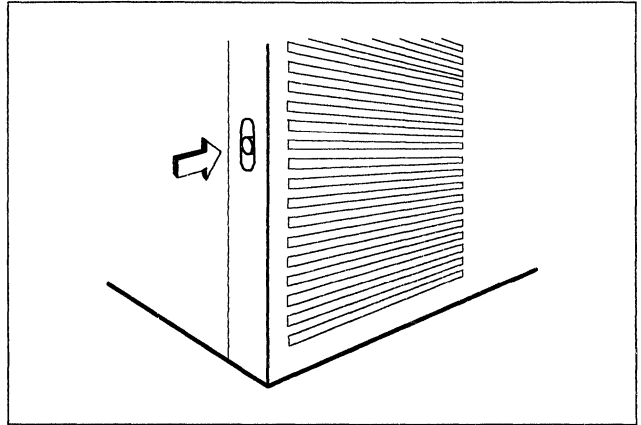


7 Does your controller have a metallic, waterproof-type power plug?

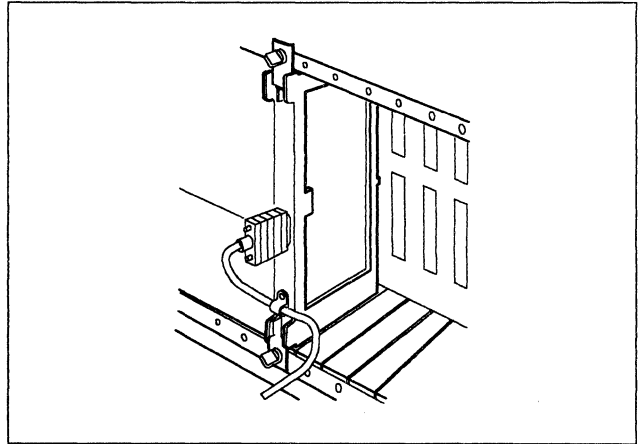
YES **CAUTION:**
If your machine has a metallic, waterproof-type power plug, do not attempt to disconnect it. Instead, have a qualified electrician disconnect the plug. (For translations of this safety notice, see Safety Notice 2 in *IBM 3174 Safety Notices, GA27-3824*.)

NO Unplug the controller power plug.

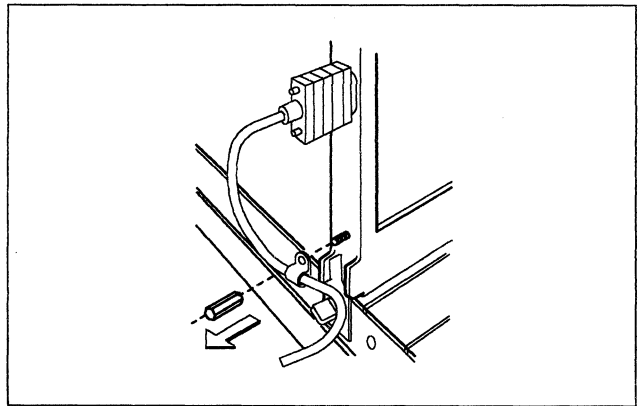
- 8** Press the latch-release button on the left edge of the front door and open the door.



- 9** Find the type 935x adapter in location 11, 12, 13, 14, 15, 16, or 17.



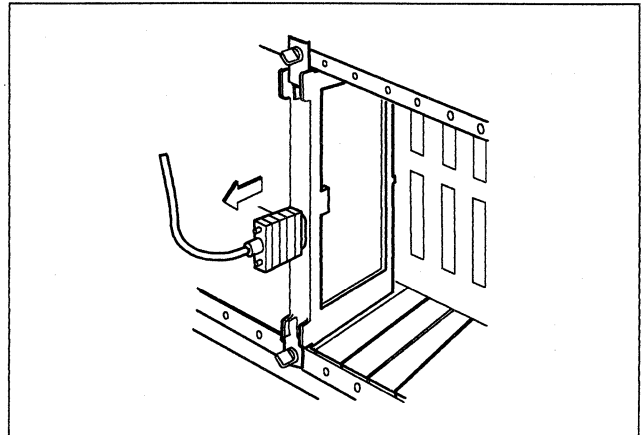
- 10** If the cable is secured to the adapter with a clamp, remove the hexnut and then remove the clamp from the adapter.



11 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

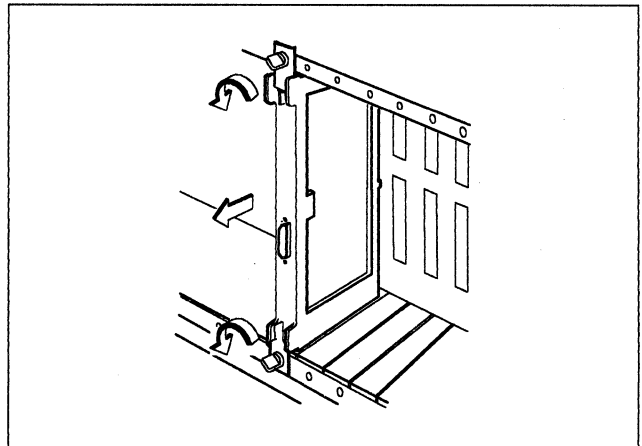
Unplug both ends of the cable that connects the adapter to the Token-Ring network and remove the cable from the controller.



- 12** Loosen the adapter thumbscrews in an alternating manner. For example, loosen one screw two turns, then the other two turns until both screws are loosened completely.

Then pull the adapter straight out to remove it.

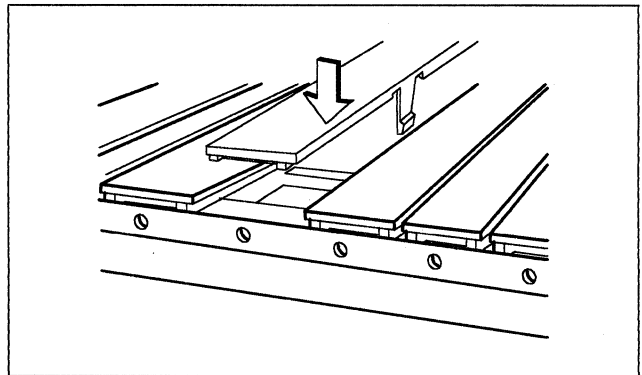
Store the items you removed according to your company's procedures.



- 13** Install the insert from the kit in the location where you removed the adapter.

Hold the insert level and press it down very firmly to snap it into place.

Note: If necessary, temporarily remove one of the adjacent adapters until you install the insert.



- 14** Close the door of the controller.

Then go to "Verification Test for Models 1L, 1R, 2R, 3R, 11L, 11R, 12L, and 12R" on page 13 to verify that this controller operates correctly.

Verification Test for Models 1L, 1R, 2R, 3R, 11L, 11R, 12L, and 12R

DANGER

Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 6 in *IBM 3174 Safety Notices*, GA27-3824.)

1 Does your controller have a metallic, waterproof-type power plug?

YES CAUTION:
If your machine has a metallic, waterproof-type power plug, do not attempt to connect it. Instead, have a qualified electrician connect the plug. (For translations of this safety notice, see Safety Notice 3 in *IBM 3174 Safety Notices*, GA27-3824.)

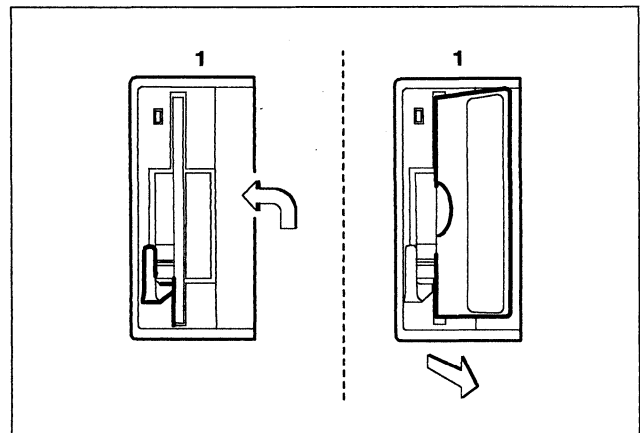
NO Plug the controller power plug into an electrical outlet.

CAUTION:
The power plug must be connected to a properly wired and grounded receptacle. An improperly wired receptacle could place a hazardous voltage on accessible metal parts of machines. (For translations of this safety notice, see Safety Notice 6 in *IBM 3174 Safety Notices*, GA27-3824.)

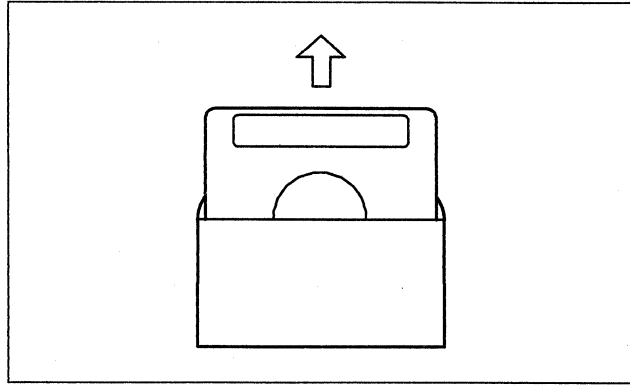
2 Is there a diskette in drive 1?

YES Open the lever of drive 1 and remove the diskette.

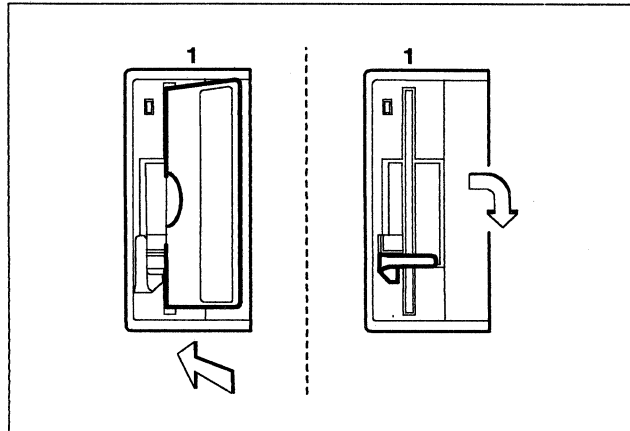
NO Continue to the next step.



- 3** Remove the Utility diskette from the protective envelope.



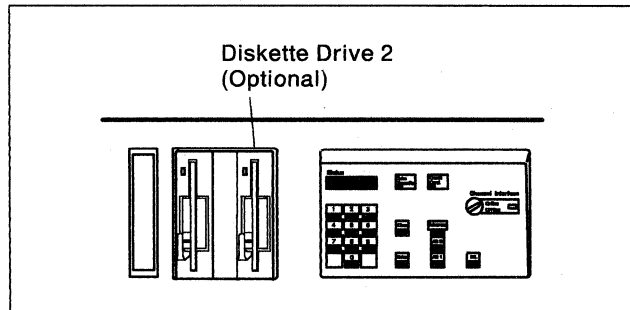
- 4** With the label facing to the left, insert the Utility diskette into drive 1 and close the lever.



- 5** Does this controller have an optional diskette drive 2?

YES Continue to the next step.

NO Go to Step 7 on page 15.

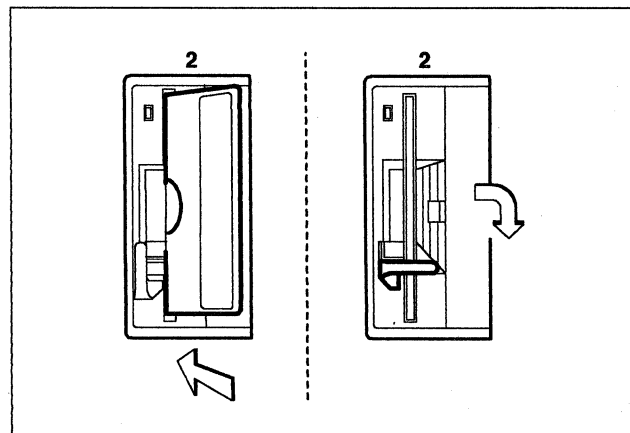


- 6** Is there a diskette in drive 2?

YES Continue to the next step.

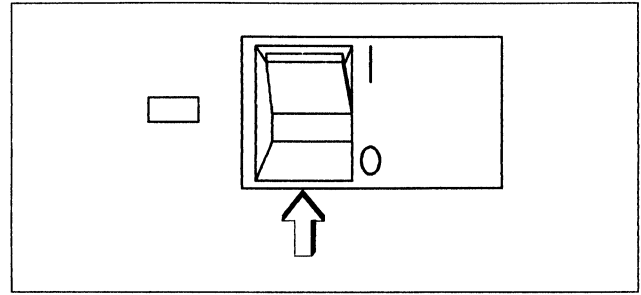
NO Insert either a 3174 Control, DSL, or RPQ diskette into drive 2 and close the lever.

Note: Do not use a diskette marked **2.4 MB** unless drive 2 is labeled **2.4**.



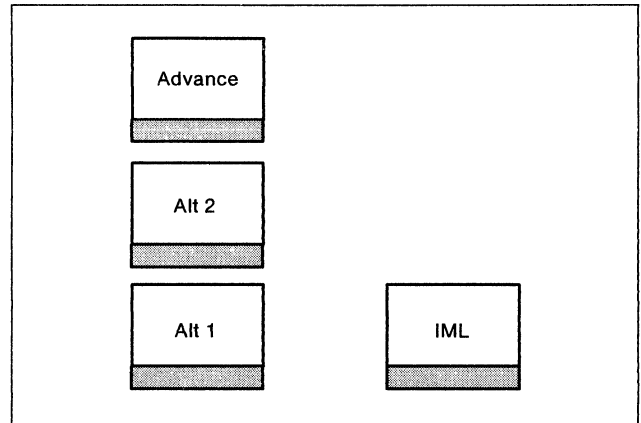
7 Switch the machine on with the power switch.

Note: For a Model 1L or 11L, lift the switch to the **Start** position and release.



8 In the following sequence:

- a. Press and hold **Alt 2**.
- b. Press and release **IML**.
- c. Release **Alt 2**.

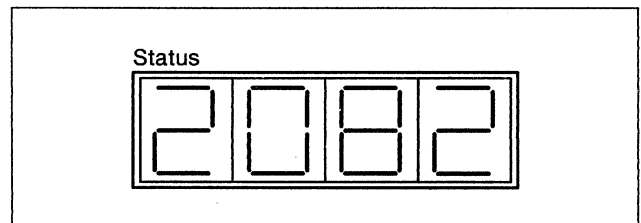


9 Does 2082 appear on the Status display within several minutes?

YES Continue to the next step.

NO Repeat Step 8 .

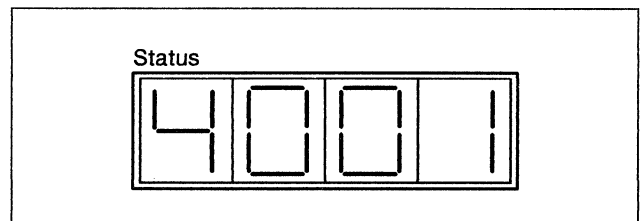
If 2082 still does not appear, refer to *3174 Status Codes, GA27-3832*, for a description of the status code displayed.



10 Did you remove the Token-Ring Adapter?

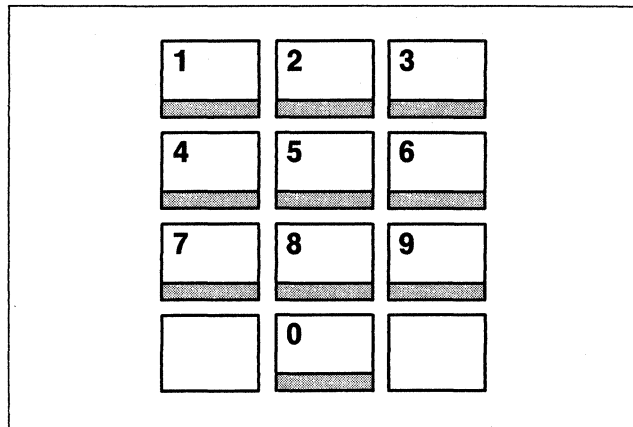
YES Go to Step 14 on page 16.

NO Press Enter to display 4001.



11 Use the keypad on the operator panel to key in **3101**.

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

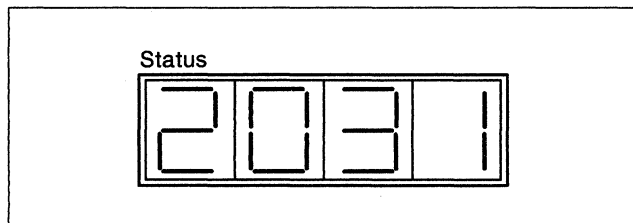


12 Press Enter.

Does 2031 appear?

YES Continue to the next step.

NO Refer to *3174 Status Codes*, GA27-3832, for a description of the status code displayed.



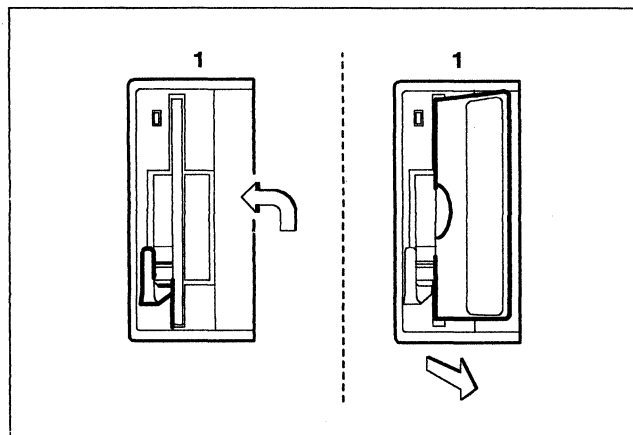
13 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Plug the Token-Ring cable into the Token-Ring network.

14 Open the lever of drive 1 and remove the diskette.

Insert the diskette into its protective envelope and put it into the diskette storage pocket.

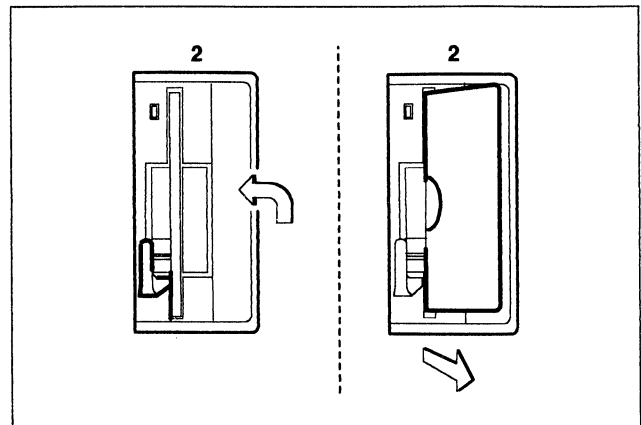


15 Is there an optional diskette drive 2?

YES Open the lever of drive 2 and remove the diskette.

Insert the diskette into its protective envelope and put it into the diskette storage pocket.

NO Continue to the next step.



16 Token-Ring Adapter hardware modification is complete.

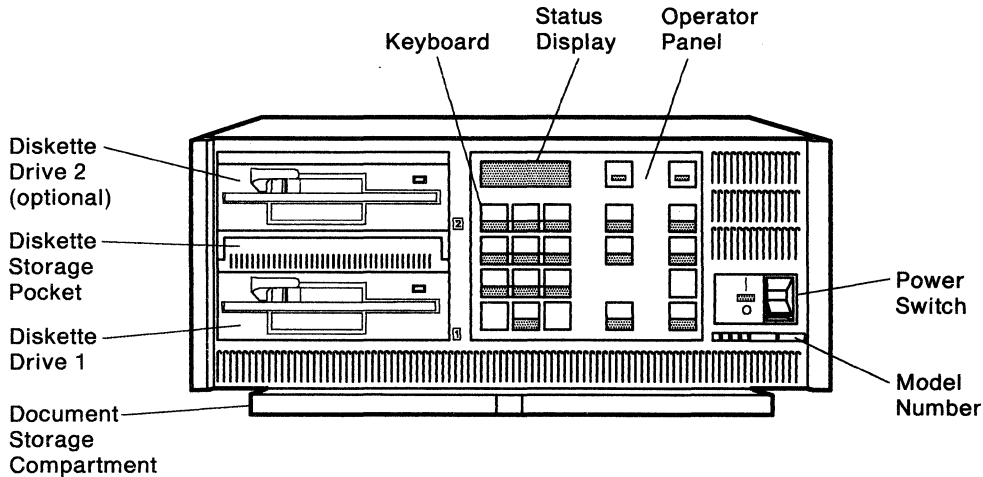
To make the controller operational, see the *3174 Model 1L, 1R, 2R, 3R, 11L, 11R, 12L, 12R, and 13R User's Guide, GA23-0337*.

The source for customizing information depends on the release level of the microcode¹ the controller uses. See the appropriate *3174 Planning and Utilities* guides.

¹ Microcode may be classified as IBM Licensed Internal Code. See the "3174 Licensed Internal Code" notice at the beginning of this document for more information.

Token-Ring Network Feature Installation in a Model 51R, 52R, or 53R

Before you begin, note the location of the controller's basic components in the following figure.



1 In addition to the Token-Ring Adapter, do you also have a Storage Expansion Feature to install in this controller?

YES Install the Storage Expansion Feature first, then return to this manual.

NO Before starting this procedure make sure you have enough storage. For your level of microcode check the 3174 *Planning Guide*.

2 Are you replacing a Token-Ring Adapter in this controller with a different Token-Ring Adapter?

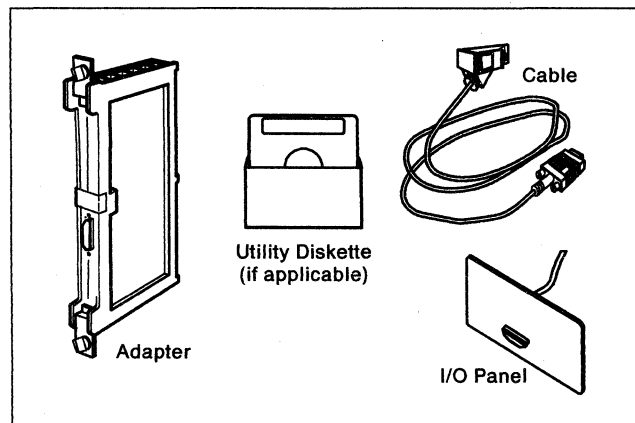
YES Go to Step 18 on page 22.

NO Continue to the next step.

3 Do you have the required items in the kit as shown?

YES Continue to the next step.

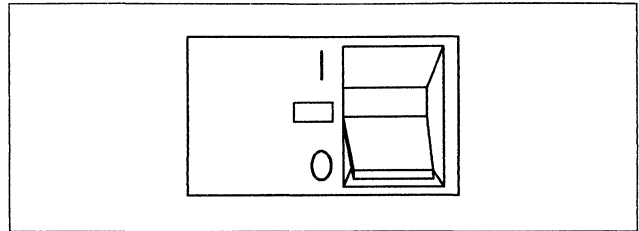
NO Discontinue this procedure until you have the required items.



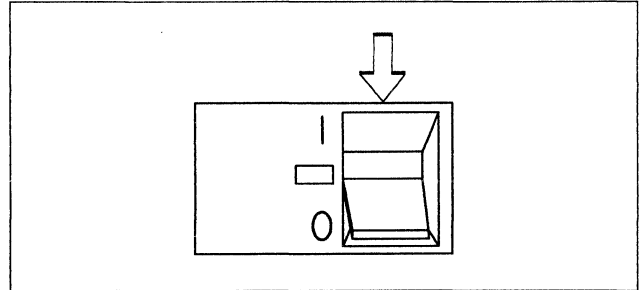
4 Is the controller power switch switched off?

YES Go to Step 6 on page 19.

NO Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.



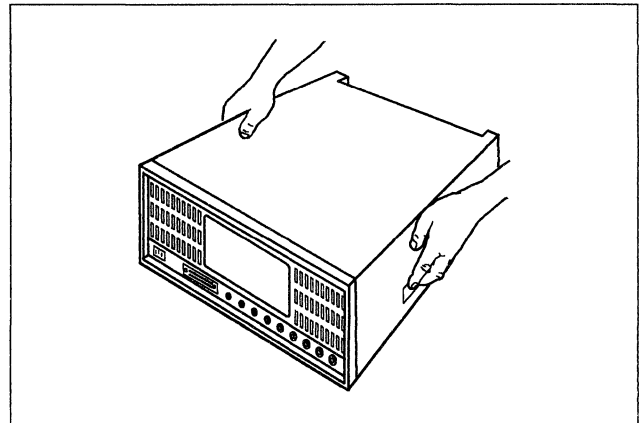
5 Press the power switch to **O** (Off).



6 Unplug the controller power plug.

7 Lift the latches on the sides of the top cover.

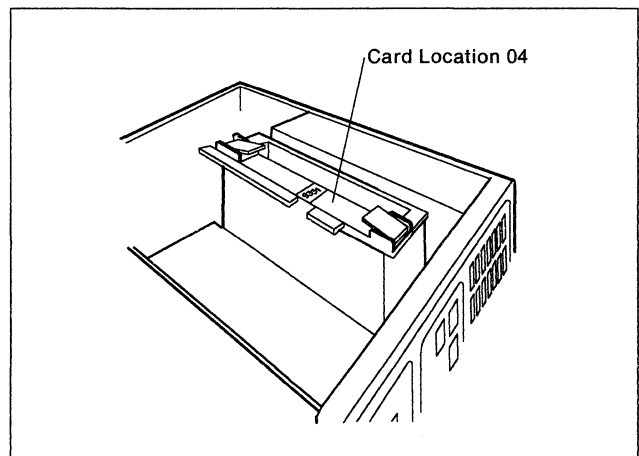
Pull the sides slightly outward and lift the cover off.



8 Is there a type 9331 adapter or a type 926x adapter in location 04?

YES Replace the cover, discontinue this procedure, and see your system planner. The adapter in location 04, and its associated parts, must be removed before the Token-Ring Adapter can be installed.

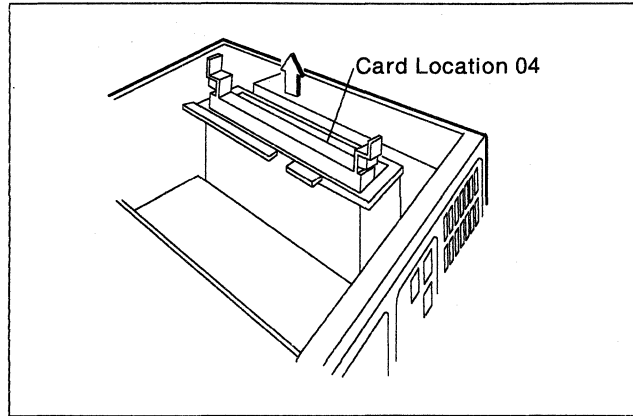
NO Continue to the next step.



9 Is there an empty cassette (no adapter type) in location 04?

YES Grip the tabs on each end of the cassette and pull it up to remove it.

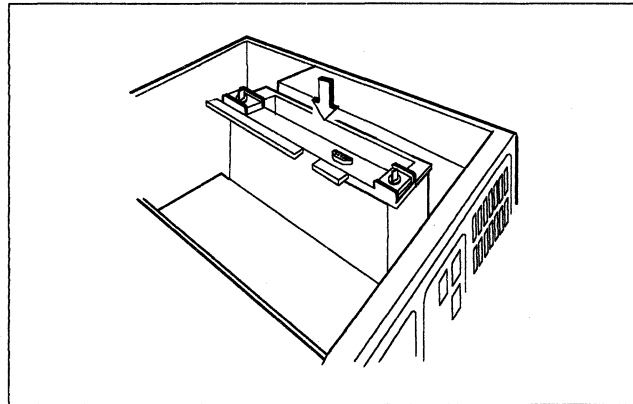
NO Continue to the next step.



10 From the front of the controller, hold the adapter from the kit so that the flat panel is facing left. Insert it into the guides of location 04, until the points of the thumbscrews almost touch the rail.

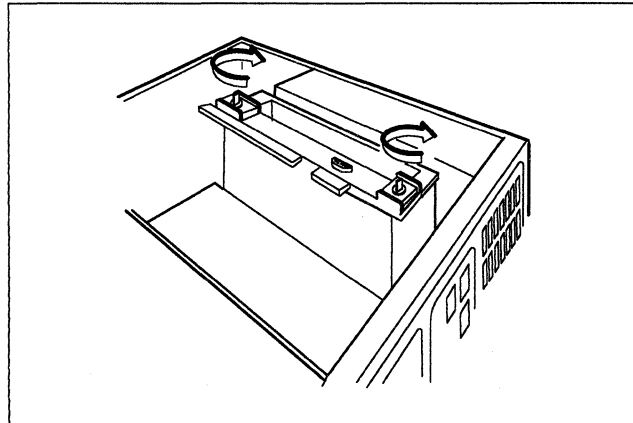
If the thumbscrews are *not* spring-loaded, carefully guide the point of each screw into a mounting hole to engage the threads. Go to the next step.

If the thumbscrews *are* spring-loaded, firmly push the adapter into the location until the connector on the back of the card is firmly seated. Go to the next step.

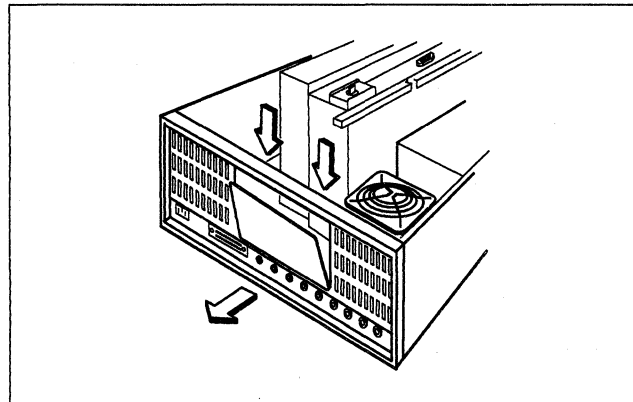


11 Tighten the thumbscrews in an alternating manner. For example, tighten one screw two turns, then the other two turns, until both screws are tightened completely.

Then push the adapter down to determine if additional thumbscrew tightening is needed.

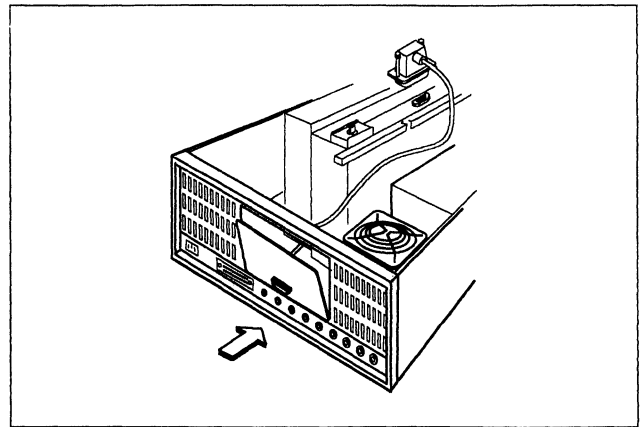


12 From the rear of the controller, press down on the inside top panel tabs and push the panel out to remove it.



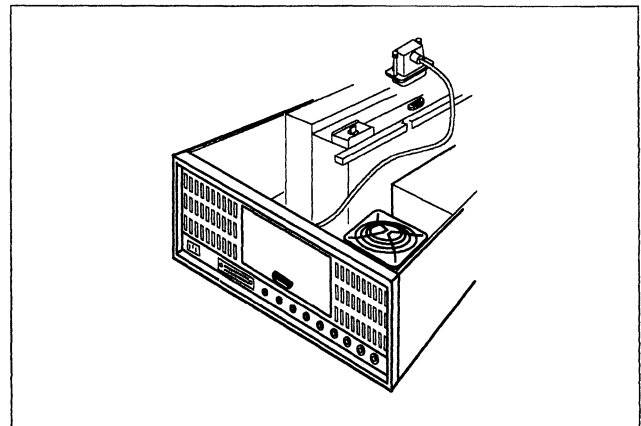
13 From the rear of the controller:

- a. Place the lower tabs of the I/O panel from the kit on the lower edge of the opening in the controller.
- b. Press the panel in firmly until the upper tabs latch.

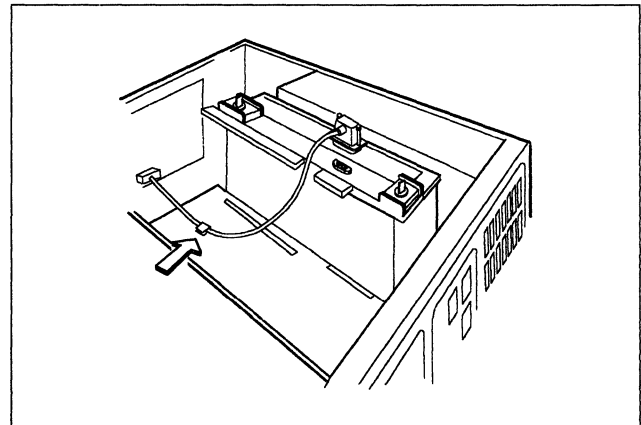


14 Route the cable through the opening in the cassette structure and plug the cable into the adapter you just installed.

Tighten the cable thumbscrews (if installed).

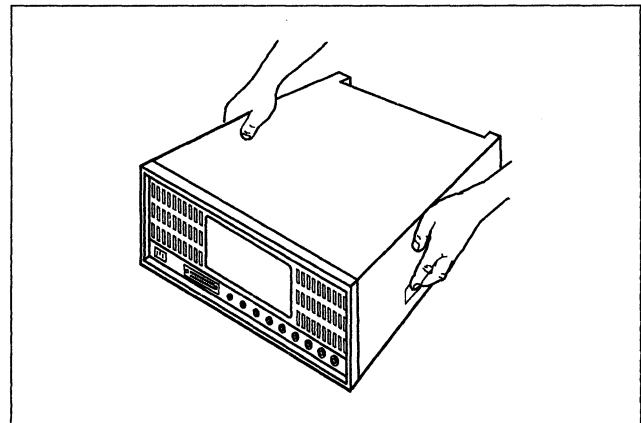


15 Secure the cable under the cable clamp.



16 Lift the latches on the sides of the top cover.

Put the top cover back in place and push the sides slightly inward. Then press the latches down into the locked position.

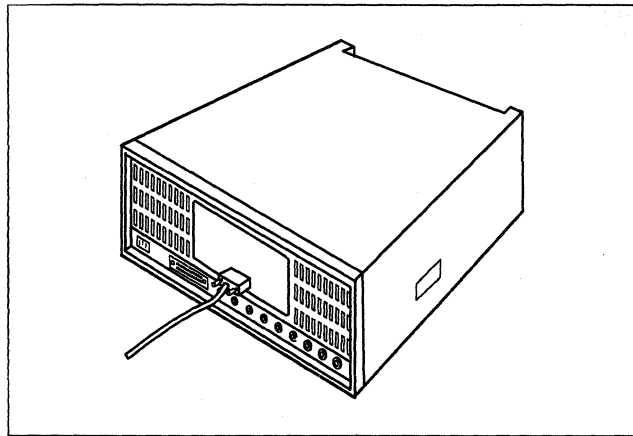


- 17** Plug the cable from the kit into the connector of the I/O panel.

Turn the thumbscrews clockwise to lock the cable connector in place.

Do not plug the cable into the Token-Ring network at this time.

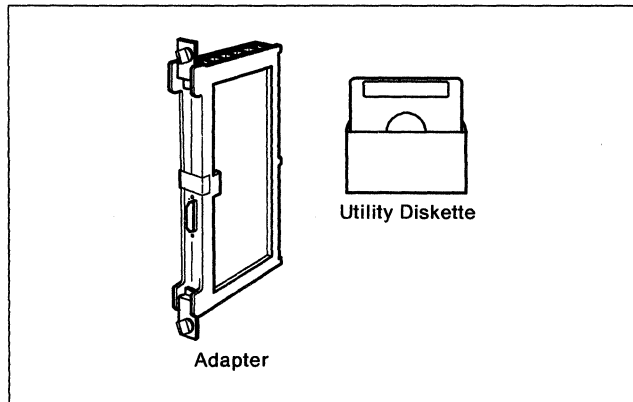
Then go to "Verification Test for Models 51R, 52R, 53R, 61R, and 62R" on page 39 to verify that this controller operates correctly.



- 18** Do you have the required items in the kit as shown?

YES Continue to the next step.

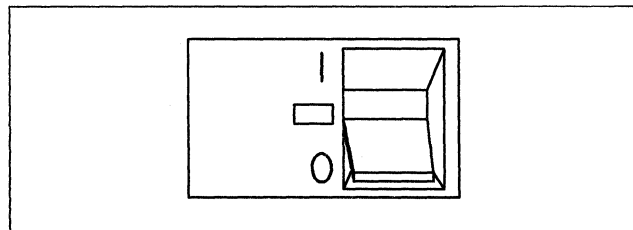
NO Discontinue this procedure until you have the required items.



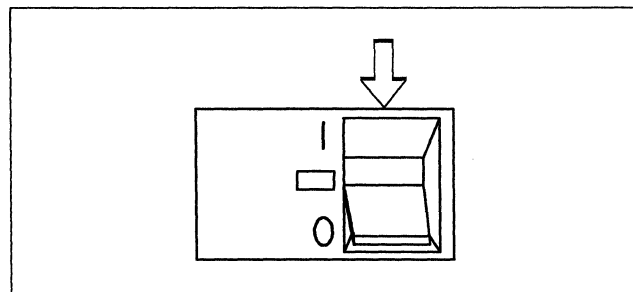
- 19** Is the controller power switch switched off?

YES Go to Step 21 on page 22.

NO Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.



- 20** Press the power switch to **O** (Off).

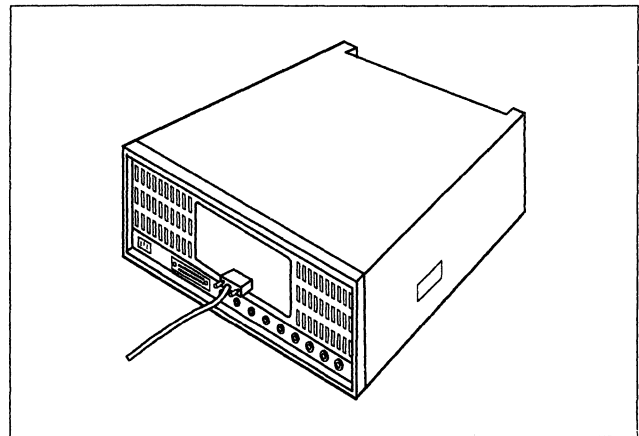


- 21** Unplug the controller power plug.

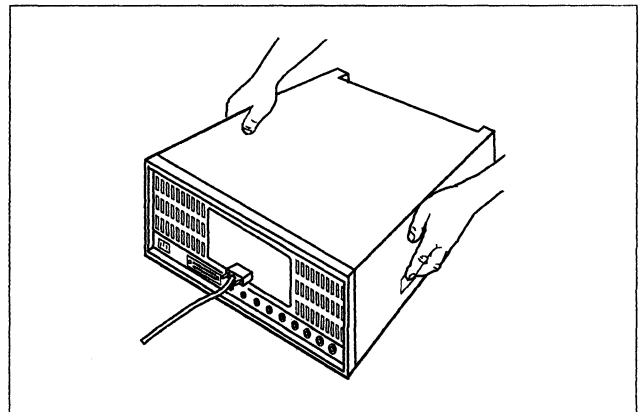
22 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

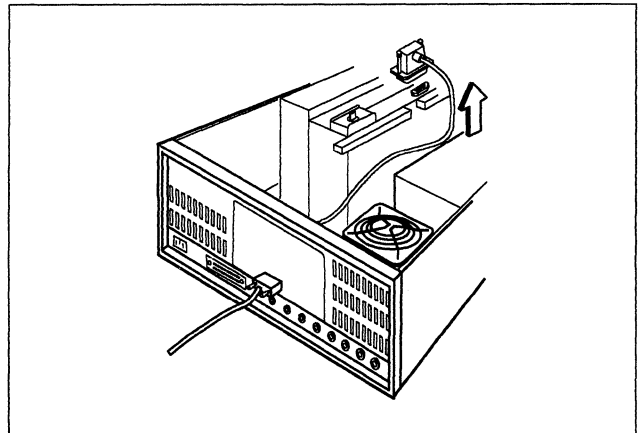
Unplug the Token-Ring cable from the Token-Ring network. Leave the other end of the cable attached to the I/O panel in the back of the controller.



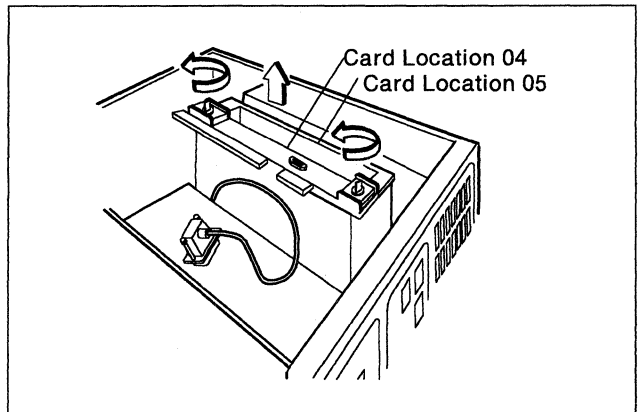
23 Lift the latches on the sides of the top cover. Pull the sides slightly outward and lift the cover off.



24 Loosen the cable thumbscrews (if installed). Unplug the cable from the type 9350 adapter in location 04.



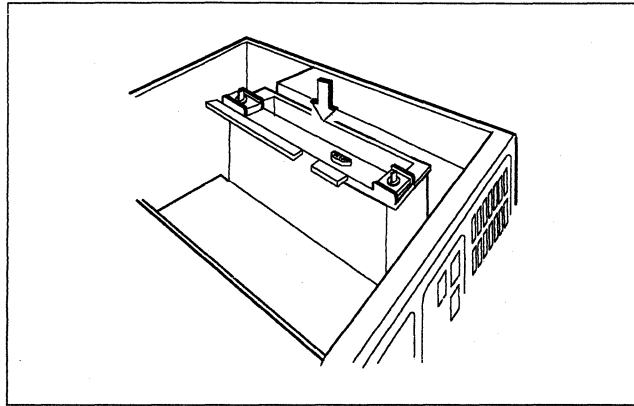
25 Loosen the thumbscrews in an alternating manner and remove the adapter. Set the adapter aside temporarily.



- 26** From the front of the controller, hold the adapter from the kit so that the flat panel is facing left. Insert it into the guides of location 04, until the points of the thumbscrews almost touch the rail.

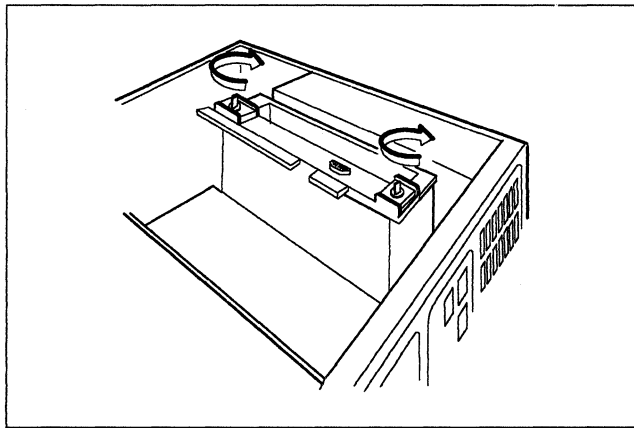
If the thumbscrews are *not* spring-loaded, carefully guide the point of each screw into a mounting hole to engage the threads. Go to the next step.

If the thumbscrews *are* spring-loaded, firmly push the adapter into the location until the connector on the back of the card is firmly seated. Go to the next step.

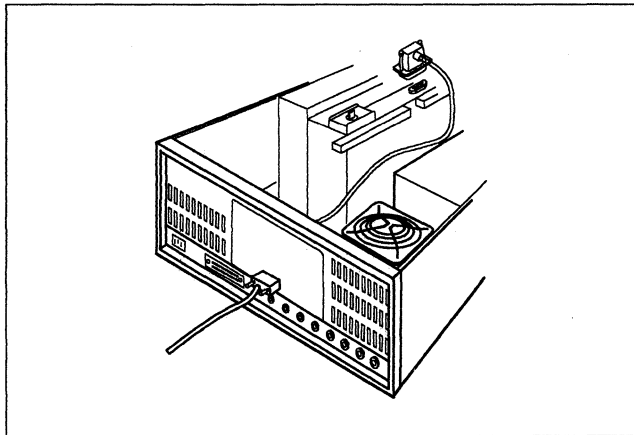


- 27** Tighten the thumbscrews in an alternating manner. For example, tighten one screw two turns, then the other two turns, until both screws are tightened completely.

Then push the adapter down to determine if additional thumbscrew tightening is needed.



- 28** Route the cable through the opening in the cassette structure and plug the cable into the adapter you just installed.



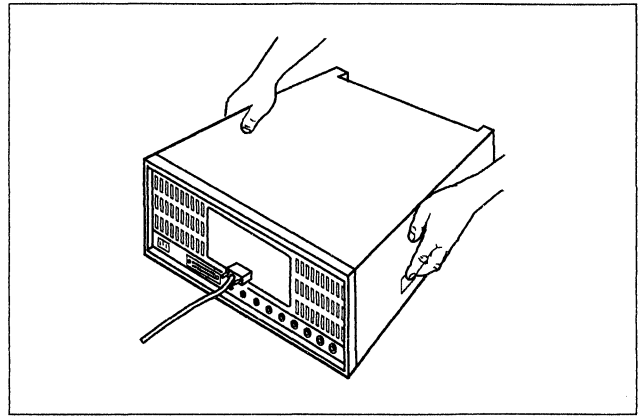
29 Lift the latches on the sides of the top cover.

Put the top cover back in place and push the sides slightly inward. Then press the latches down into the locked position.

Do not plug the cable into the Token-Ring network at this time.

Store the items you removed according to your company's procedures.

Then go to "Verification Test for Models 51R, 52R, 53R, 61R, and 62R" on page 39 to verify that this controller operates correctly.

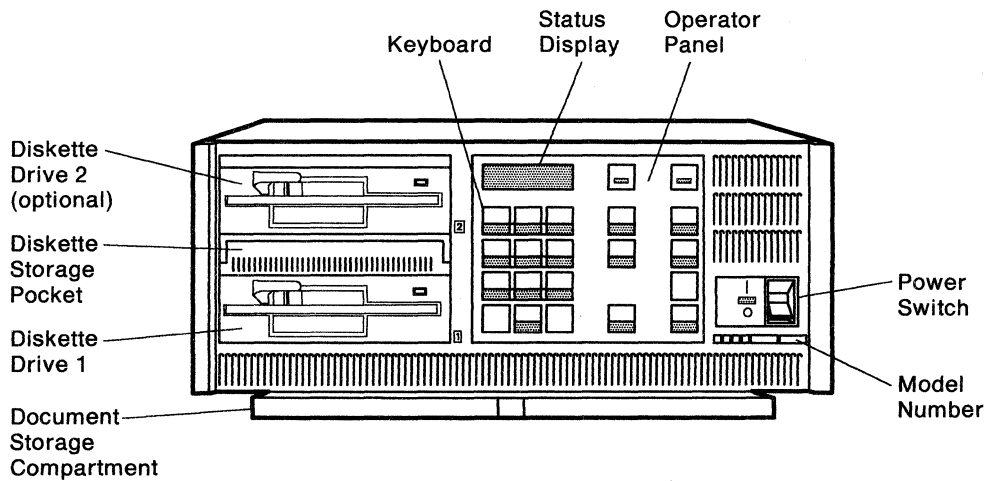


Token-Ring Network Feature Removal from a Model 51R or 52R

DANGER

Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices, GA27-3824.*)

Before you begin, note the location of the controller's basic components in the following figure.

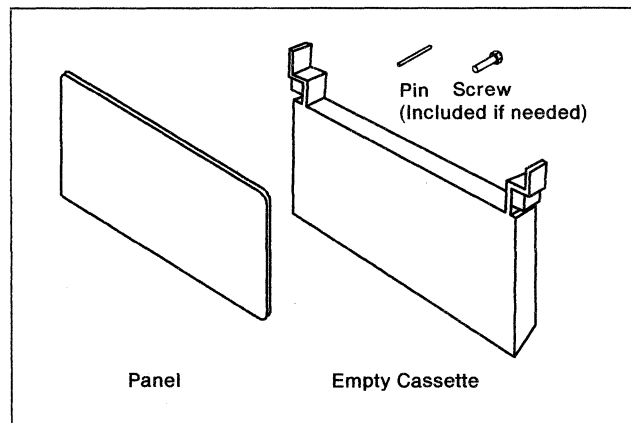


1 Do you have the required items in the kit as shown?

YES Continue to the next step.

NO Discontinue this procedure until you have the required items.

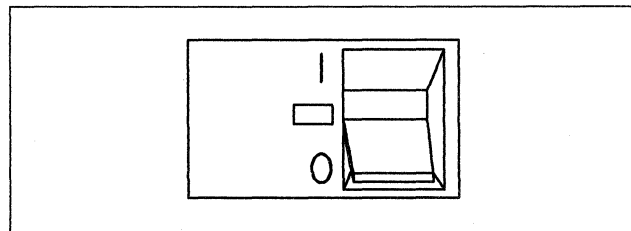
Note: To test this feature, you also need a Utility diskette that supports all of the features installed on this controller.



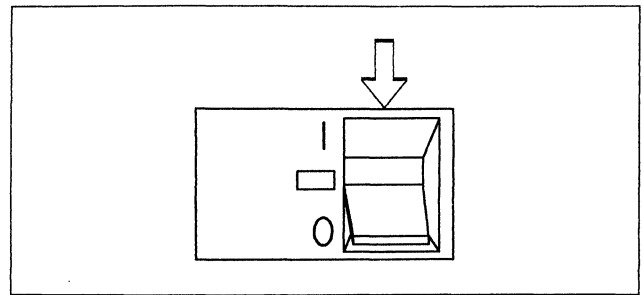
2 Is the controller power switch switched off?

YES Go to Step 4 on page 27.

NO Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.



- 3** Press the power switch to **O** (Off).

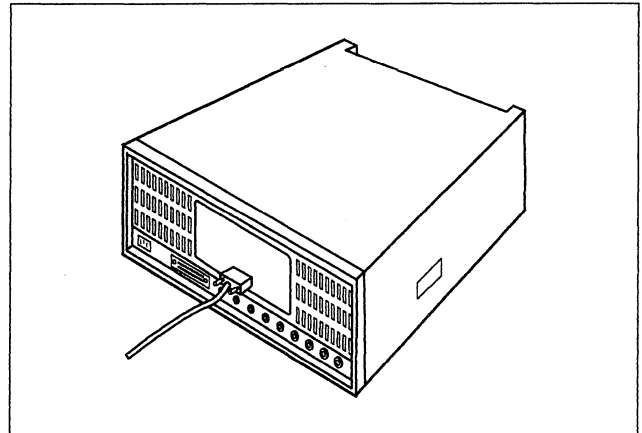


- 4** Unplug the controller power plug.

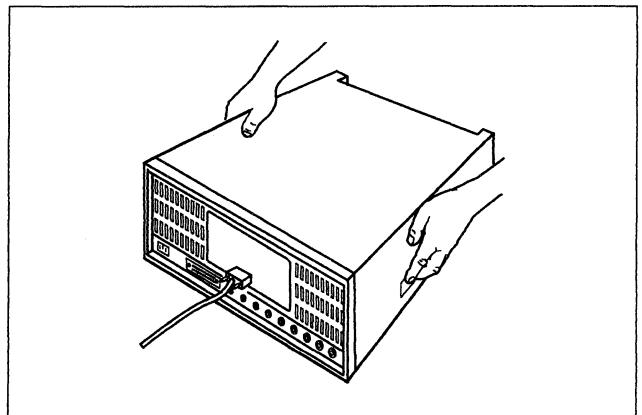
5 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices, GA27-3824.*)

Unplug the cable from the rear of the controller and from the Token-Ring network.

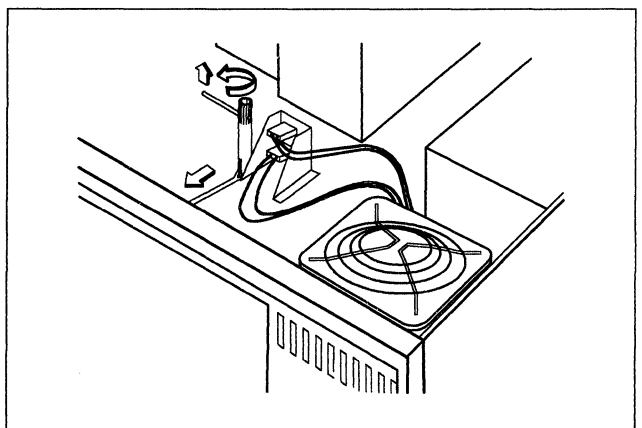


- 6** Lift the latches on the sides of the top cover.
Pull the sides slightly outward and lift the cover off.



- 7** Is there a pin in the kit?

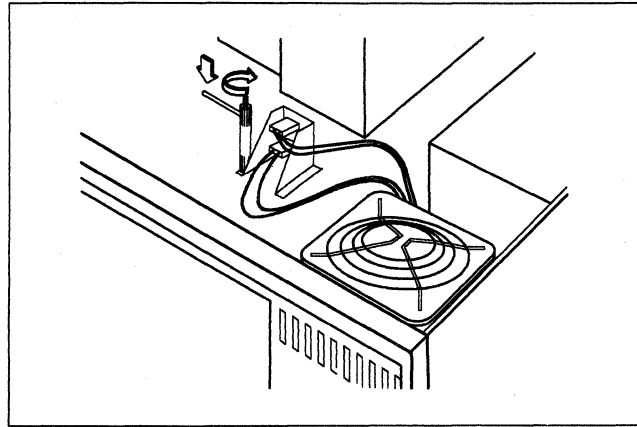
- YES** Put the pin in the hole nearest to the upper end of the standoff screw.
Unscrew the standoff screw and move the Token-Ring cable clamp out of the way.
Remove the ground strap, if there is one.
- NO** Go to Step **9** on page 28.



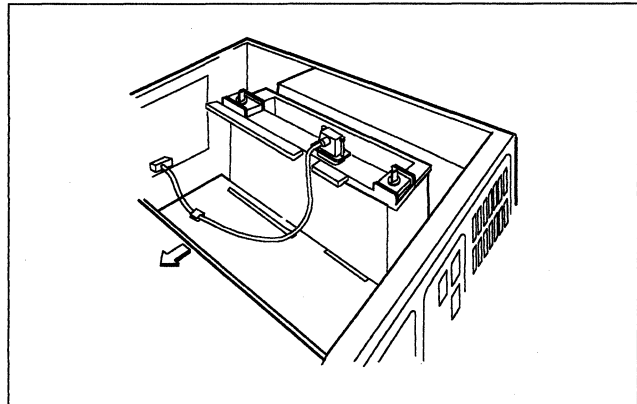
8 Follow these steps:

- a. Insert the screw from the kit through the hole in the bracket.
- b. Put the pin in the hole closest to the threaded end of the standoff screw.
- c. Use the standoff screw to securely tighten the screw holding the bracket to the base of the controller.
- d. You may discard the standoff screw and pin.

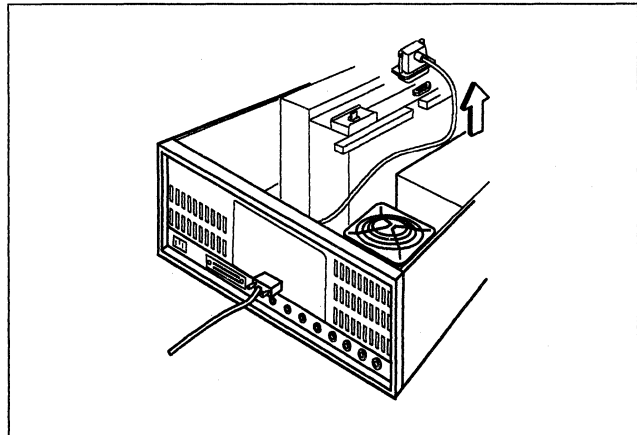
Then go to Step 10 .



9 Remove the I/O cable from under the cable clamp.

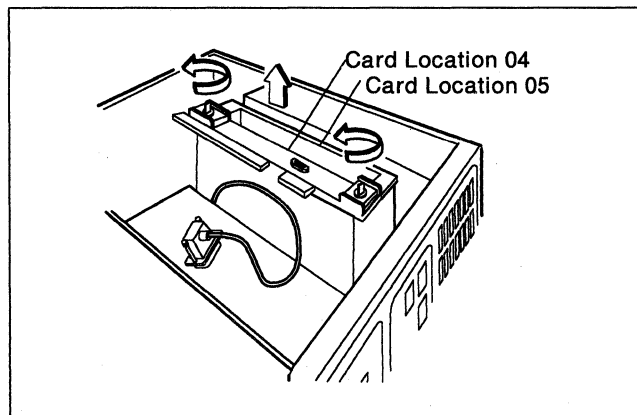


10 Loosen the thumbscrews (if installed) and unplug the cable from the type 935x adapter in location 04.



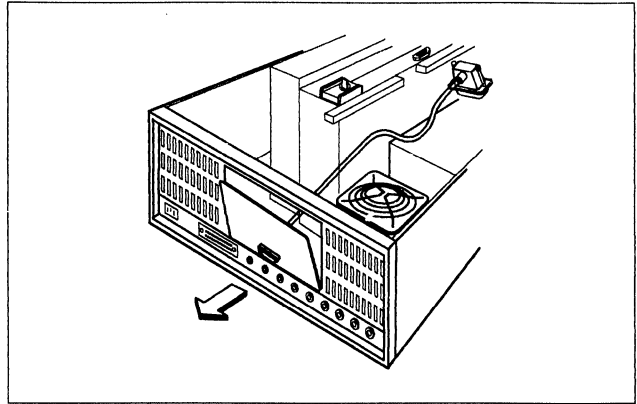
11 Loosen the thumbscrews in an alternating manner. For example, loosen one screw two turns, then the other two turns until both screws are loosened completely.

Then pull the adapter straight up to remove it.

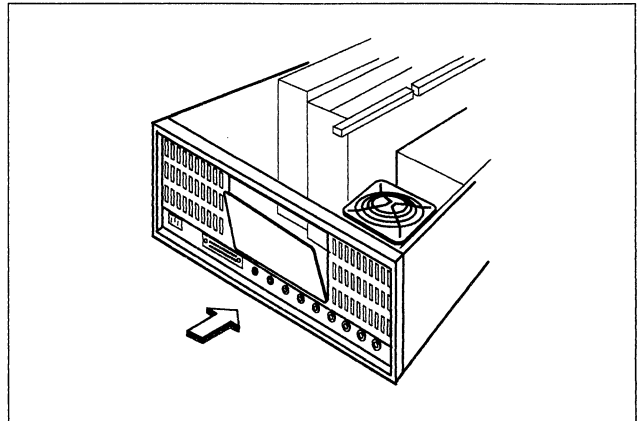


- 12** From the rear of the controller:
- Press down on the tabs on the inside top of the panel.
 - Push the panel out and remove it.

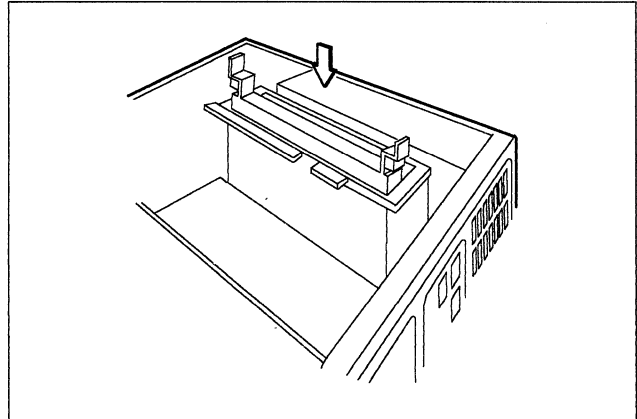
Store the items you removed according to your company's procedures.



- 13** From the rear of the controller:
- Place the lower tabs of the panel from the kit on the lower edge of the opening in the controller.
 - Press the panel in firmly until the upper tabs latch.



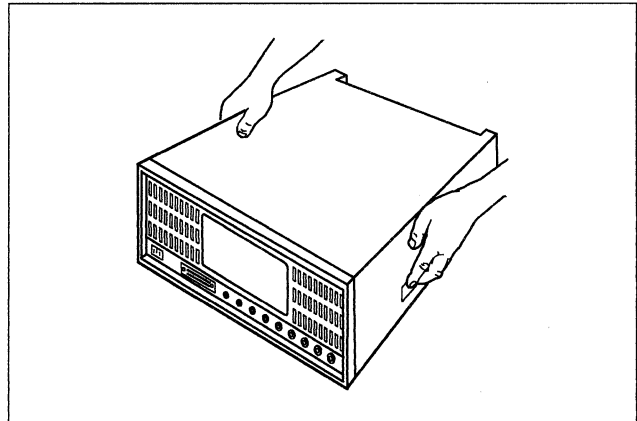
- 14** Insert the empty cassette from the kit firmly into location 04.



- 15** Lift the latches on the sides of the top cover.

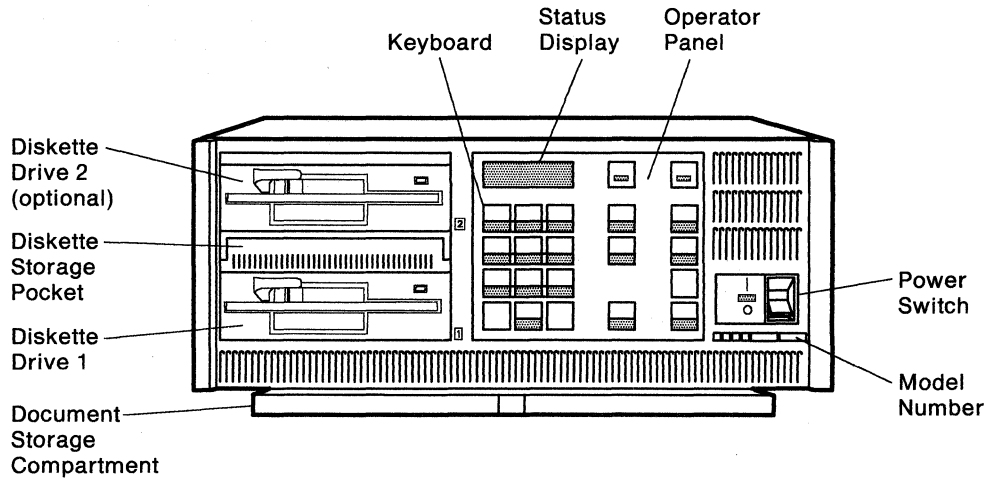
Put the top cover back in place and push the sides slightly inward. Then press the latches down into the locked position.

Then go to "Verification Test for Models 51R, 52R, 53R, 61R, and 62R" on page 39 to verify that this controller operates correctly.



Token-Ring Network Feature Installation in a Model 61R or 62R

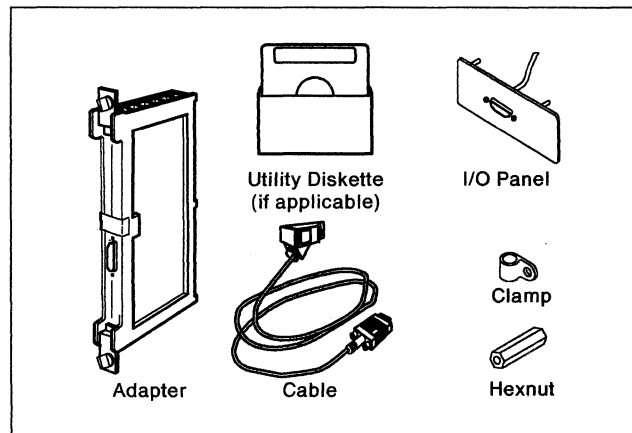
Before you begin, note the location of the controller's basic components in the following figure.



1 Do you have the required items in the kit as shown?

YES Continue to the next step.

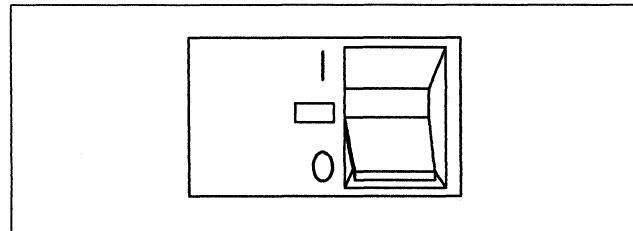
NO Discontinue this procedure until you have the required items.



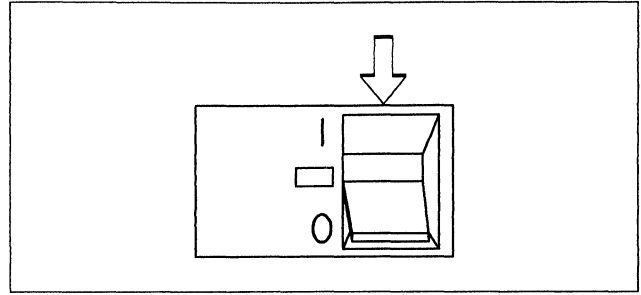
2 Is the controller power switch switched off?

YES Go to Step 4 on page 31.

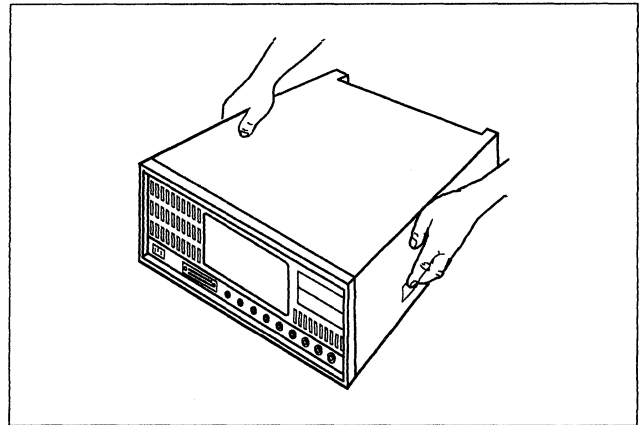
NO Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.



- 3** Press the power switch to **O** (Off).

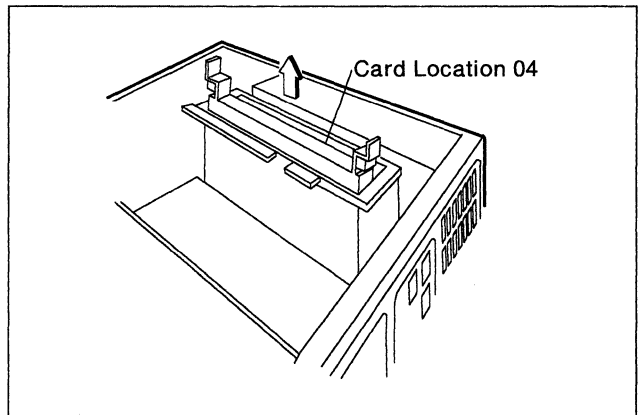


- 4** Unplug the controller power plug.
- 5** Lift the latches on the sides of the top cover.
Pull the sides slightly outward and lift the cover off.



- 6** If location 04 contains:
- No adapter**
Continue to the next step.
- Any adapter**
Go to Step 10 on page 32.

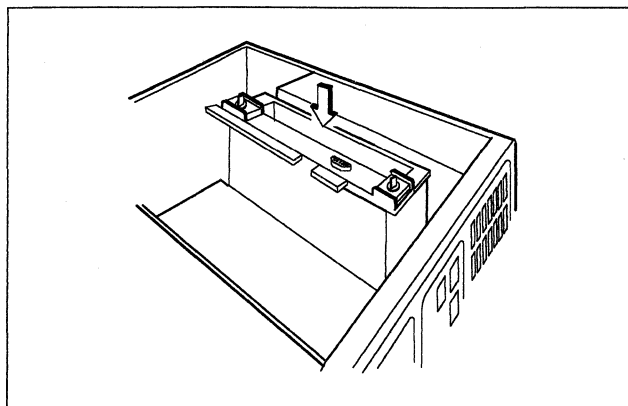
- 7** Is there an empty cassette (no adapter type) in location 04?
- YES** Grip the tabs on each end of the cassette and pull it up to remove it.
- NO** Continue to the next step.



- 8** From the front of the controller, hold the adapter from the kit so that the flat panel is facing left. Insert it into the guides of location 04, until the points of the thumbscrews almost touch the rail.

If the thumbscrews are *not* spring-loaded, carefully guide the point of each screw into a mounting hole to engage the threads. Go to the next step.

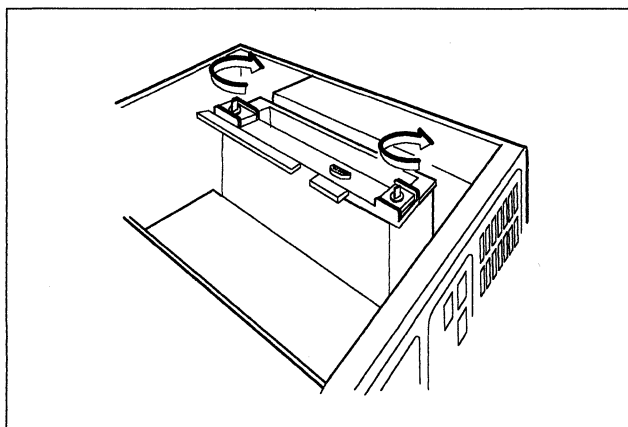
If the thumbscrews *are* spring-loaded, firmly push the adapter into the location until the connector on the back of the card is firmly seated. Go to the next step.



- 9** Tighten the thumbscrews in an alternating manner. For example, tighten one screw two turns, then the other two turns, until both screws are tightened completely.

Push the adapter down to determine if additional thumbscrew tightening is needed.

Then go to Step 14 on page 33.



- 10** If location 05 contains:

No adapter

Continue to the next step.

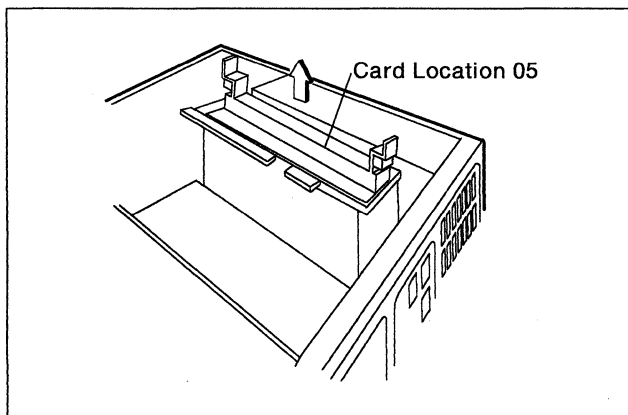
Any adapter

Replace the cover, discontinue this procedure, and see your system planner. There is not a location available to install the Token-Ring Adapter.

- 11** Is there an empty cassette (no adapter type) in location 05?

YES Grip the tabs on each end of the cassette and pull it up to remove it.

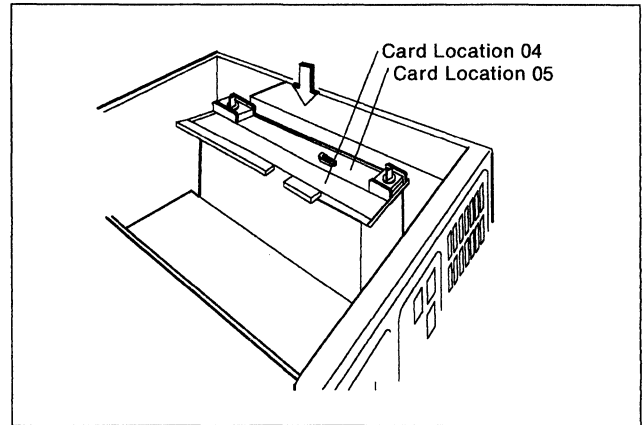
NO Continue to the next step.



- 12** From the front of the controller, hold the adapter from the kit so that the flat panel is facing left. Insert it into the guides of location 05, until the points of the thumbscrews almost touch the rail.

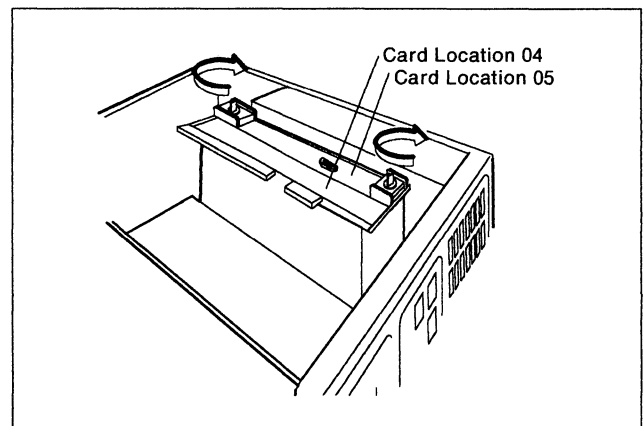
If the thumbscrews are *not* spring-loaded, carefully guide the point of each screw into a mounting hole to engage the threads. Go to the next step.

If the thumbscrews *are* spring-loaded, firmly push the adapter into the location until the connector on the back of the card is firmly seated. Go to the next step.



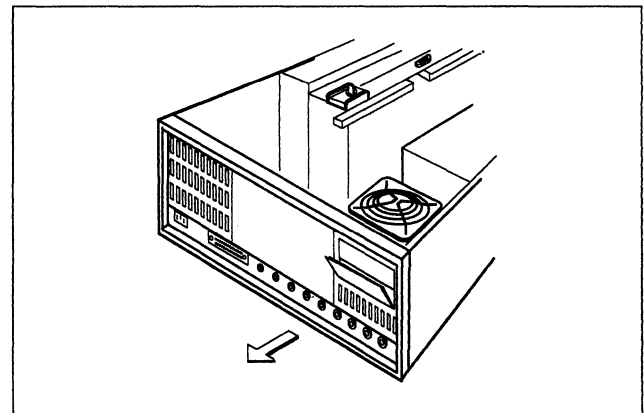
- 13** Tighten the thumbscrews in an alternating manner. For example, tighten one screw two turns, then the other two turns, until both screws are tightened completely.

Then push the adapter down to determine if additional thumbscrew tightening is needed.



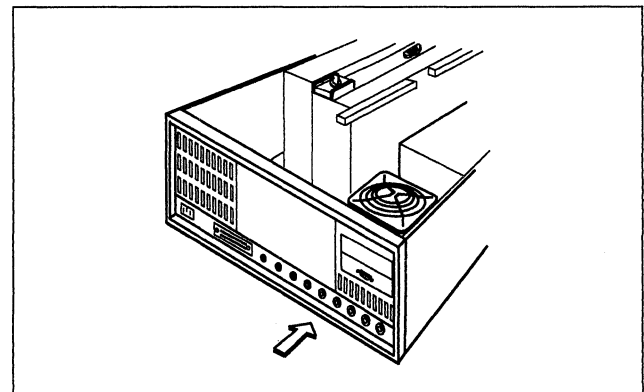
- 14** From the rear of the controller:

- Unscrew the two hexnuts of the lower panel if it is blank. Otherwise, unscrew the hexnuts of the upper panel.
- Set the hexnuts aside temporarily.
- Push the panel out.



- 15** From the rear of the controller:

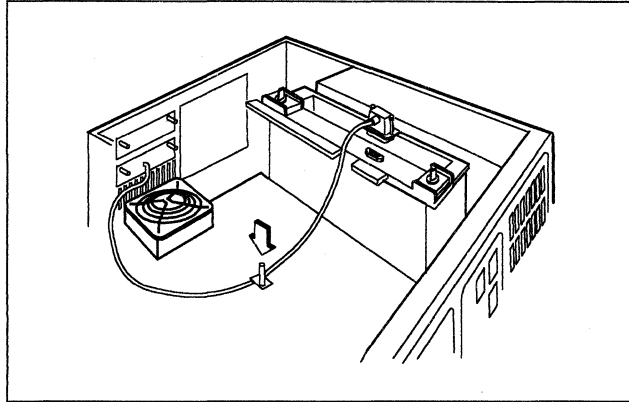
- Insert the end of the cable through the opening.
- Place the lower catch of the panel from the kit over the lug on the lower edge of the opening in the controller.
- Hold the panel against the controller and screw the hexnuts back in to hold the panel in place.



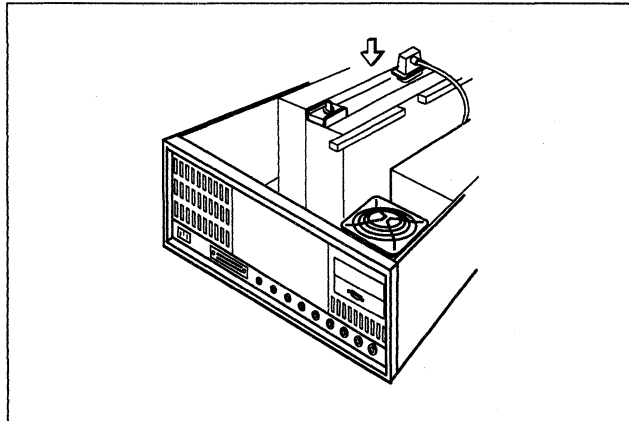
- 16** Insert the cable into the cable clamp from the kit.

Place the cable clamp over the threaded stud in the base of the controller.

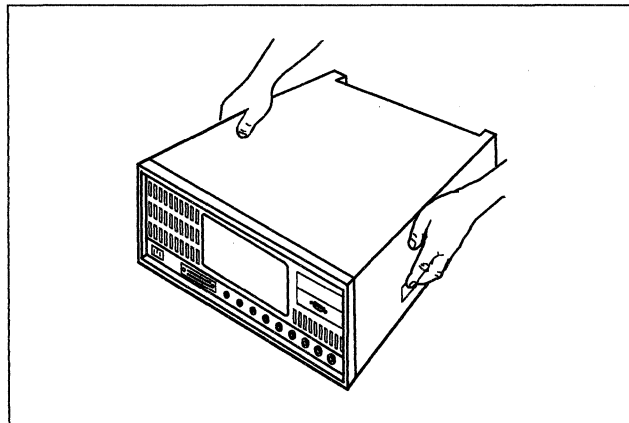
Screw the hexnut from the kit in securely to hold the clamp in place.



- 17** Route the cable through the opening in the cassette structure and plug the cable into the adapter you just installed. Tighten the cable thumbscrews (if installed).



- 18** Lift the latches on the sides of the top cover.
Put the top cover back in place and push the sides slightly inward. Then press the latches down into the locked position.

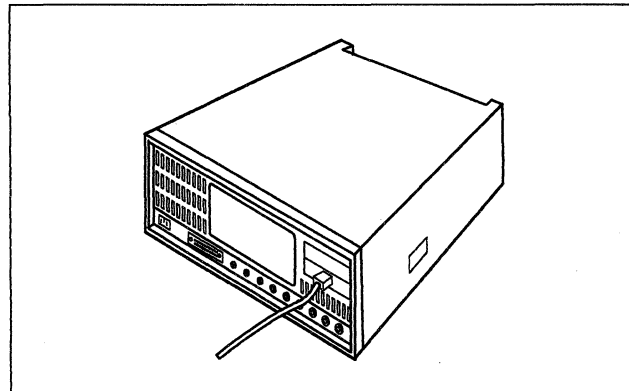


- 19** Plug the cable from the kit into the connector of the Token-Ring I/O panel.

Turn the thumbscrews clockwise to lock the cable connector in place.

Do not plug the cable into the Token-Ring network at this time.

Then go to "Verification Test for Models 51R, 52R, 53R, 61R, and 62R" on page 39 to verify that this controller operates correctly.

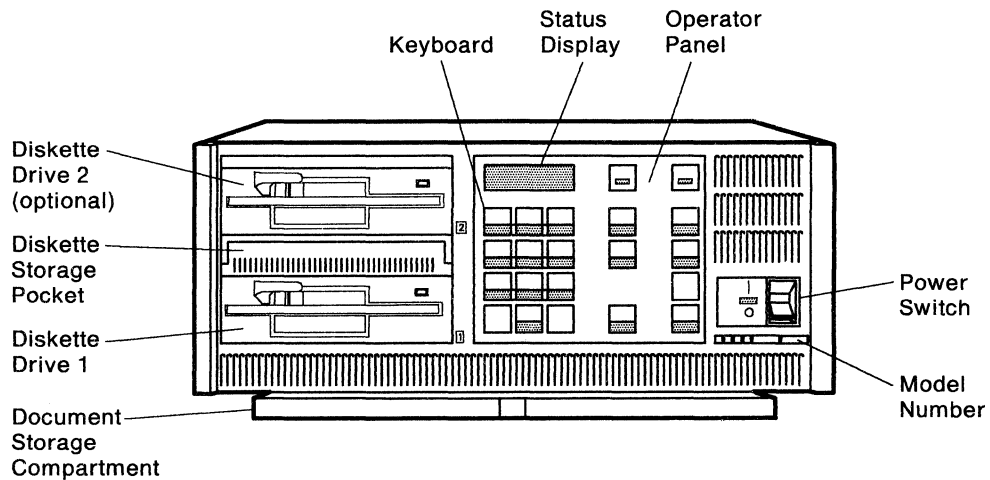


Token-Ring Network Feature Removal from a Model 61R or 62R

DANGER

Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

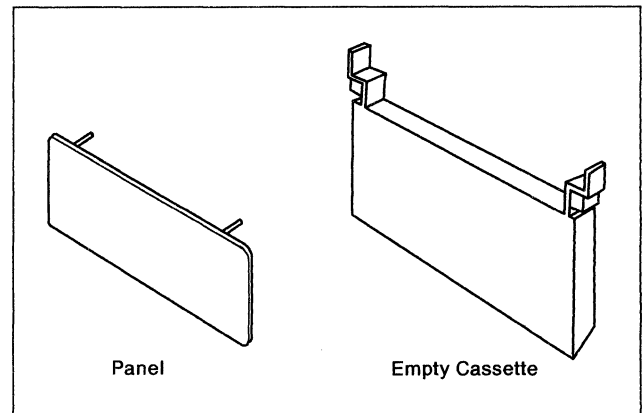
Before you begin, note the location of the controller's basic components in the following figure.



1 Do you have the required items in the kit as shown?

YES Continue to the next step.

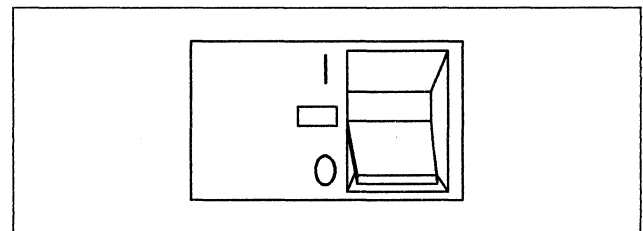
NO Discontinue this procedure until you have the required items.



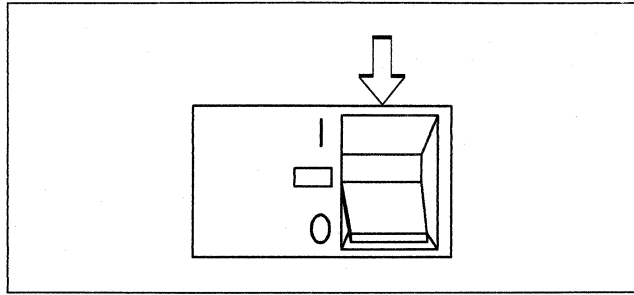
2 Is the controller power switch switched off?

YES Go to Step 4 on page 36.

NO Follow your company's procedures to notify users and to have this controller taken offline before you continue to the next step.

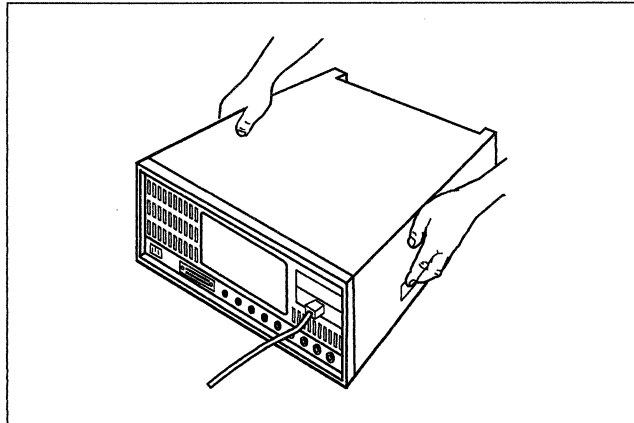


- 3** Press the power switch to **O** (Off).



- 4** Unplug the controller power plug.

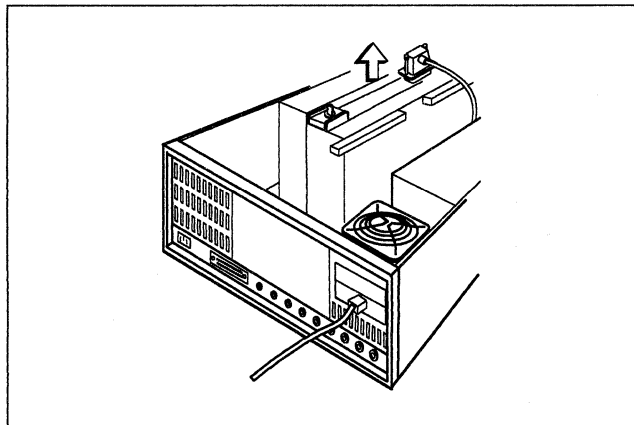
- 5** Lift the latches on the sides of the top cover.
Pull the sides slightly outward and lift the cover off.



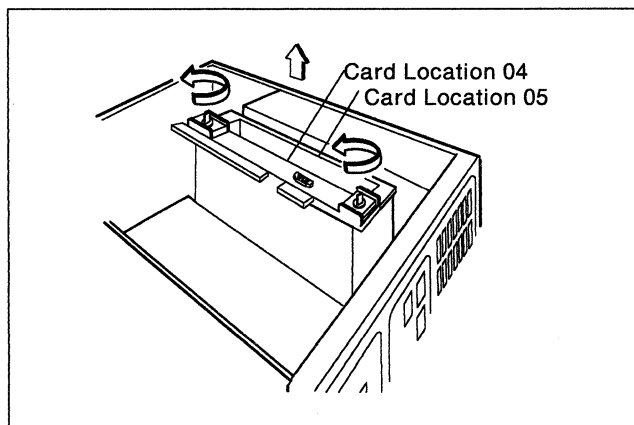
- 6 DANGER**

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

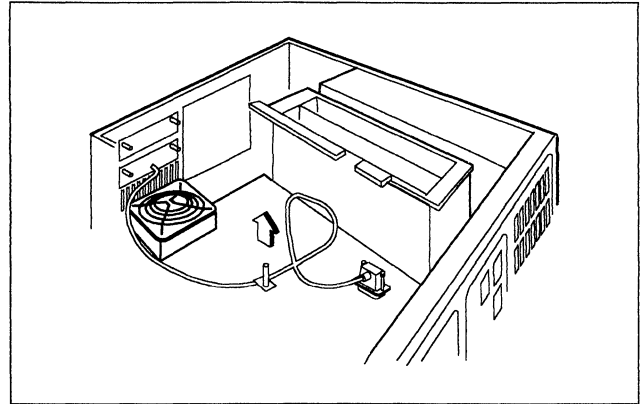
Loosen the cable thumbscrews (if installed).
Unplug the cable from the type 935x adapter in either location 04 or location 05.



- 7** Loosen the thumbscrews in an alternating manner. For example, loosen one screw two turns, then the other two turns, until the thumbscrews are loosened completely. Then pull the type 935x adapter straight out to remove it.



- 8** Unscrew the hexnut that secures the cable clamp to the controller base.

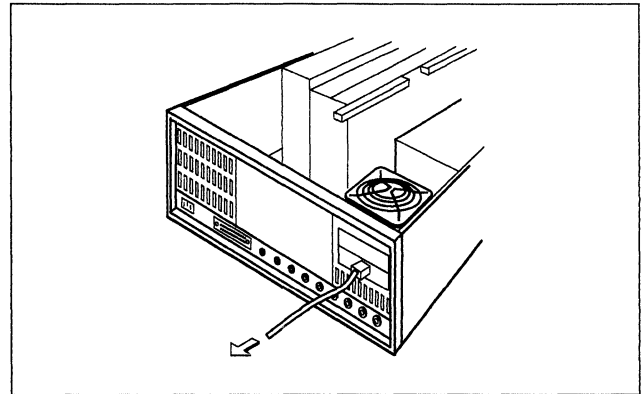


9 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Unplug the cable from the connector of the I/O panel in the rear of the controller and from the Token-Ring Network.

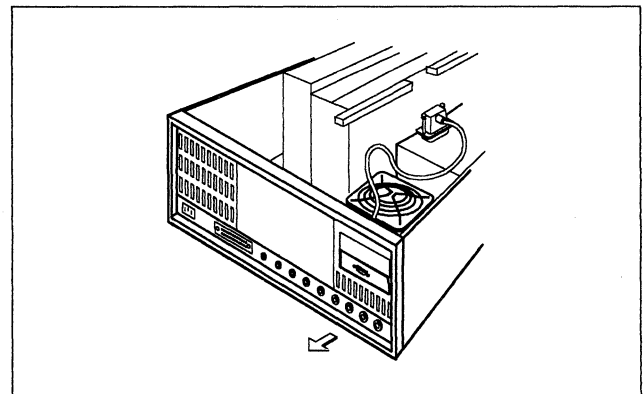
If there are two cables connected to two I/O panels, be sure you unplug the cable that is connected to the Token-Ring I/O panel.



- 10** From the rear of the controller remove the Token-Ring I/O panel in the following way:

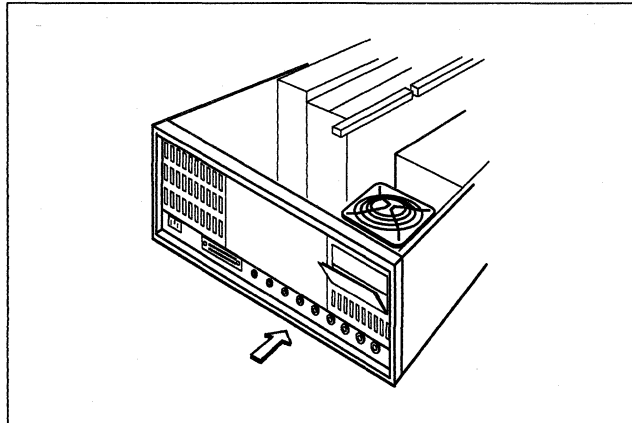
- a. Unscrew the two hexnuts.
- b. Set the hexnuts aside temporarily.
- c. Push the panel out and remove it.

Store the items you removed, except the hexnuts, according to your company's procedures.

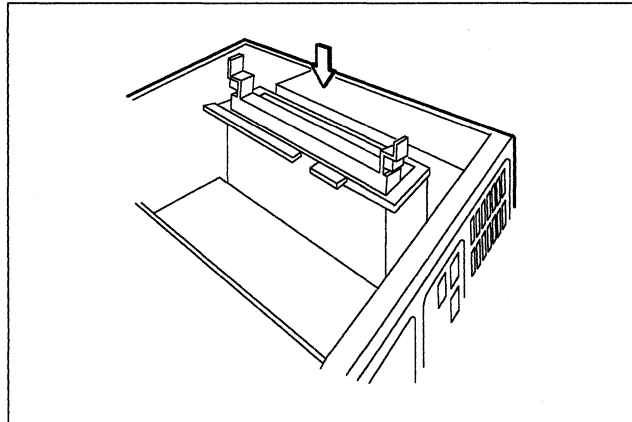


11 From the rear of the controller:

- a. Place the lower catch of the blank panel from the kit over the lug on the lower edge of the opening in the controller.
- b. Hold the panel against the controller and screw the hexnuts back in to hold the blank panel in place.



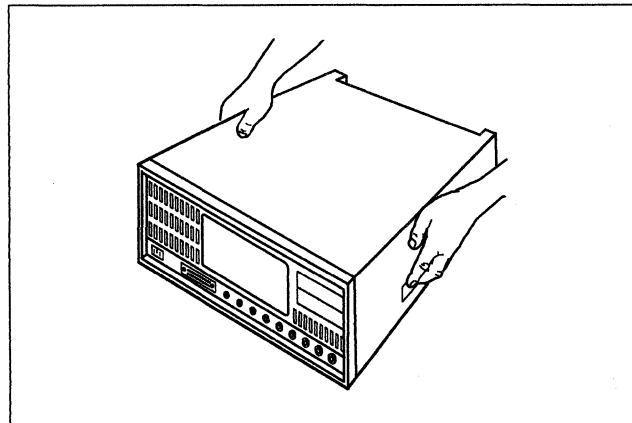
12 Insert the empty cassette from the kit firmly into the location where you removed the adapter.



13 Lift the latches on the sides of the top cover.

Put the top cover back in place and push the sides slightly inward. Then press the latches down into the locked position.

Then go to "Verification Test for Models 51R, 52R, 53R, 61R, and 62R" on page 39 to verify that this controller operates correctly.



Verification Test for Models 51R, 52R, 53R, 61R, and 62R

DANGER

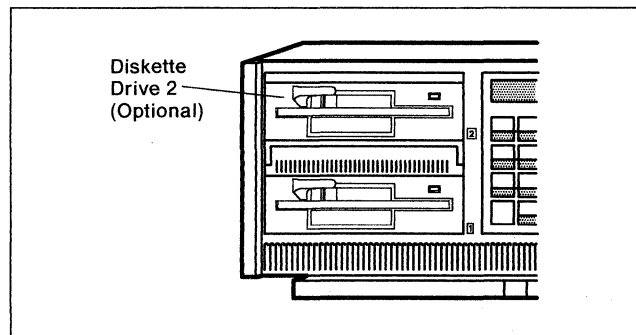
Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

- 1** Plug the controller power plug into an electrical outlet.
- CAUTION:**
The power plug must be connected to a properly wired and grounded receptacle. An improperly wired receptacle could place a hazardous voltage on accessible metal parts of machines. (For translations of this safety notice, see Safety Notice 6 in *IBM 3174 Safety Notices*, GA27-3824.)

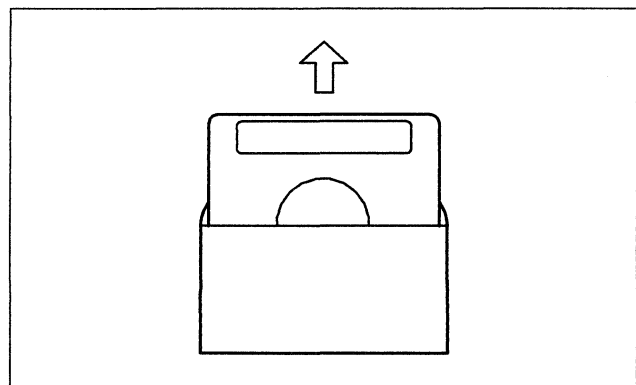
- 2** Does this controller have an optional diskette drive 2?

YES Continue to the next step.

NO Go to Step 10 on page 41.



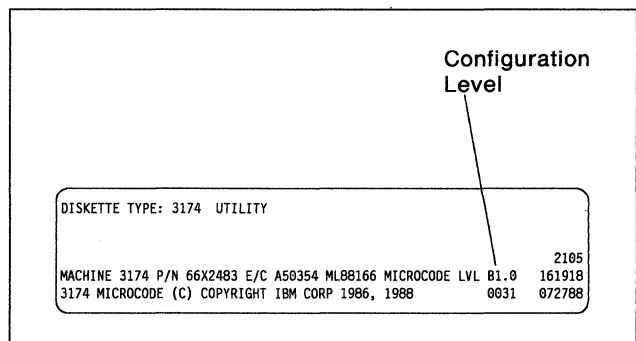
- 3** Remove the Utility diskette from the protective envelope.



- 4** Is the Utility diskette label marked Configuration B or C?

YES Continue to the next step.

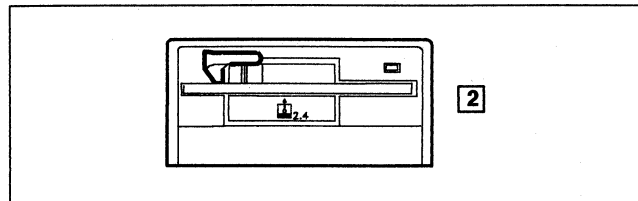
NO Go to Step 6 on page 40.



5 Is drive 2 labeled 2.4?

YES Continue to the next step.

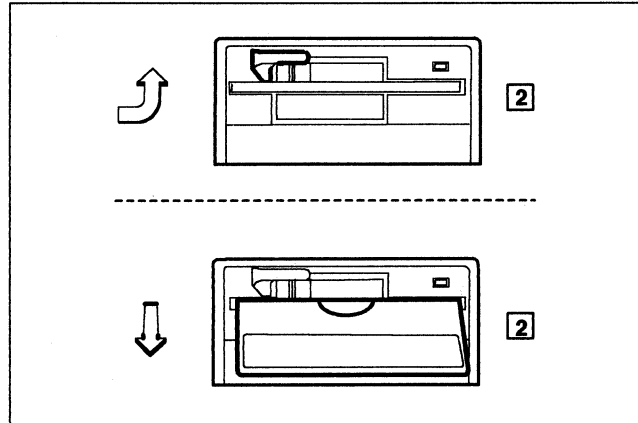
NO Go to Step 9 on page 41.



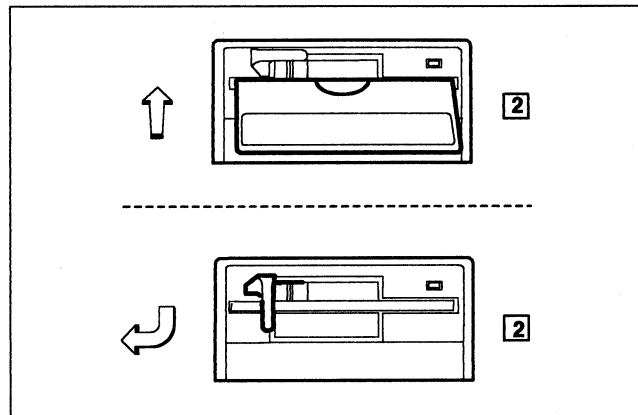
6 Is there a diskette in drive 2?

YES Open the lever of drive 2 and remove the diskette.

NO Continue to the next step.



7 With the label facing up, insert the Utility diskette into drive 2 and close the lever.



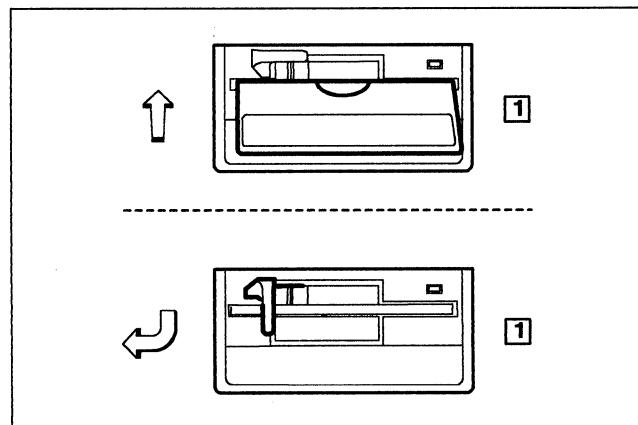
8 Is there a diskette in drive 1?

YES Go to Step 13 on page 42.

NO Insert either a 3174 Control, DSL, or RPQ diskette into drive 1 and close the lever.

Note: Do not use a diskette marked **2.4 MB** unless drive 1 is labeled **2.4**.

Then go to Step 13 on page 42.

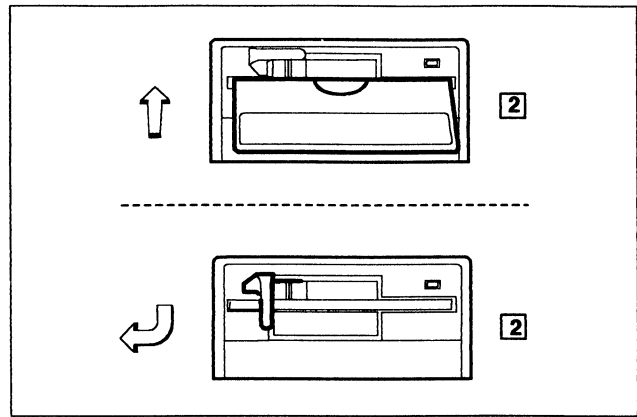


9 Is there a diskette in drive 2?

YES Continue to the next step.

NO Insert either a 3174 Control, DSL, or RPQ diskette into drive 2 and close the lever.

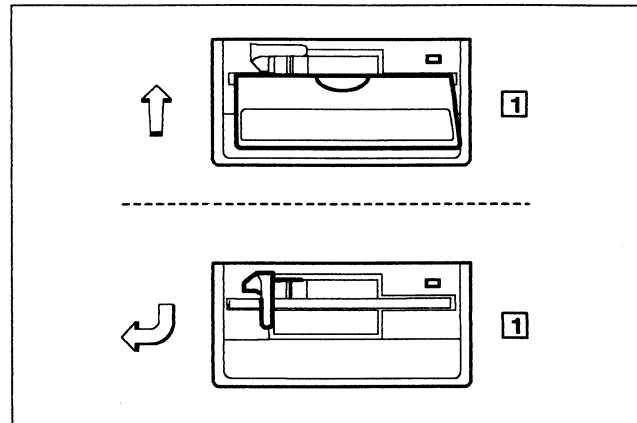
Note: Do not insert a diskette marked **2.4 MB**.



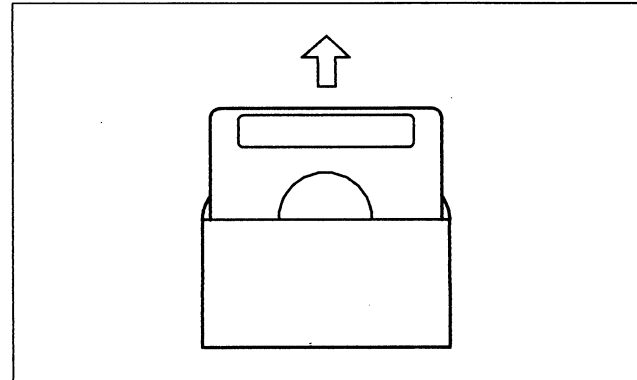
10 Is there a diskette in drive 1?

YES Open the lever of drive 1 and remove the diskette.

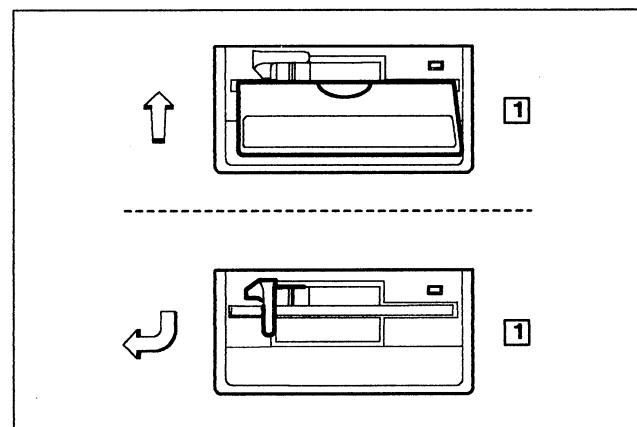
NO Continue to the next step.



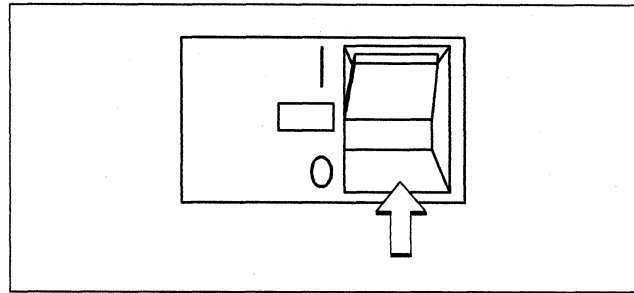
11 If necessary, remove the Utility diskette from the protective envelope.



12 Put the Utility diskette into drive 1 and close the lever.

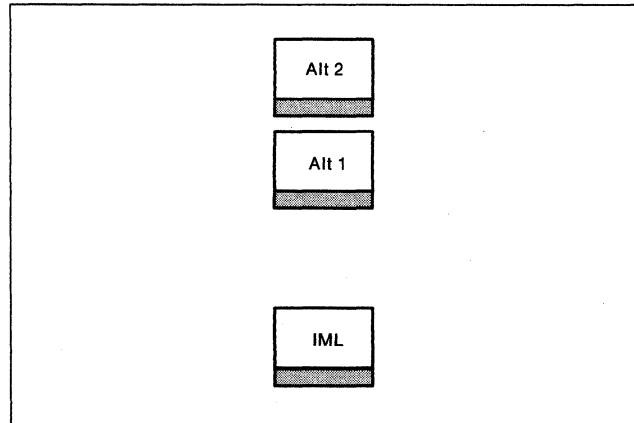


13 Switch the machine on with the power switch.



14 In the following sequence:

- a. Press and hold **Alt 1**.
- b. Press and release **IML**.
- c. Release **Alt 1**.

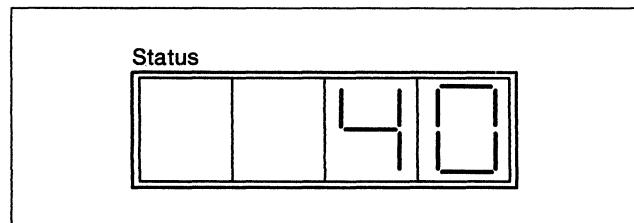


15 Does 40 appear on the Status display within 20 seconds?

YES Continue to the next step.

NO Repeat Step 14.

If 40 still does not appear, refer to *3174 Status Codes, GA27-3832*, for a description of the status code displayed.

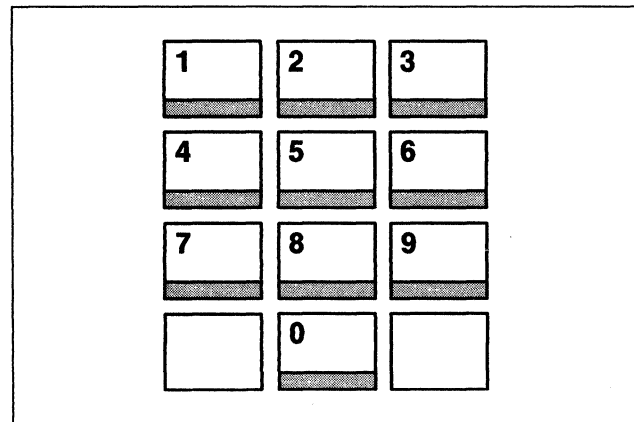


16 Use the keypad on the operator panel to key in:

82 If the Utility diskette is in drive 1.

0282 If the Utility diskette is in drive 2.

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

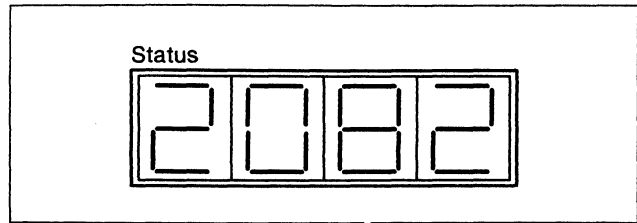


17 Press Enter.

Does 2082 appear on the Status display within several minutes.

YES Continue to the next step.

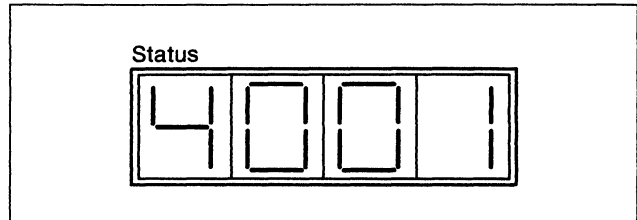
NO Refer to *3174 Status Codes*, GA27-3832, for a description of the status code displayed.



18 Did you remove the Token-Ring Adapter?

YES Go to Step 21 on page 43.

NO Press Enter to display 4001.

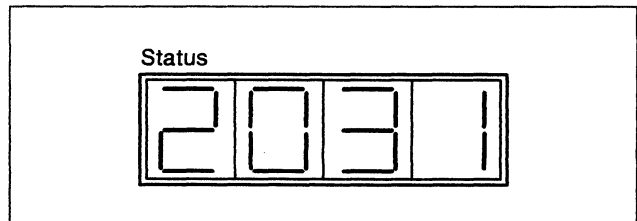


19 Key in 3101 and press Enter.

Does 2031 appear?

YES Continue to the next step.

NO Refer to *3174 Status Codes*, GA27-3832, for a description of the status code displayed.



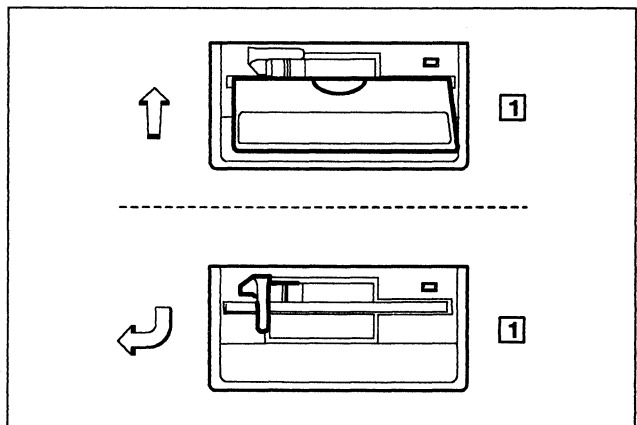
20 DANGER

Do not connect or disconnect cables during periods of lightning activity.
(For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Plug the Token-Ring cable into the Token-Ring Network or into the connector of the Token-Ring I/O panel in the rear of the controller.

21 Open the lever of drive 1 and remove the diskette.

Insert the diskette into its protective envelope, and put it into the diskette storage pocket.

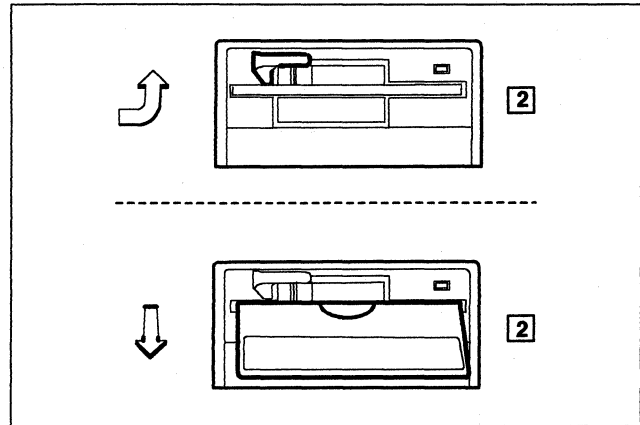


22 Is there an optional diskette drive 2?

YES Open the lever of drive 2 and remove the diskette.

Insert the diskette into its protective envelope, and put it into the diskette storage pocket.

NO Continue to the next step.



23 Token-Ring Adapter hardware modification is complete.

To make the controller operational, see the *3174 Model 51R, 52R, 53R, 61R, 62R, and 63R User's Guide, GA23-0333*.

The source for customizing information depends on the release level of the microcode the controller uses. See the appropriate *3174 Planning and Utilities* guides.

Readers' Comments

**IBM 3174 Establishment Controller
Token-Ring Network Feature
Installation and Removal Instructions
Publication No. GA23-0329-05**

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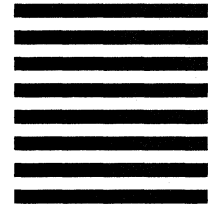
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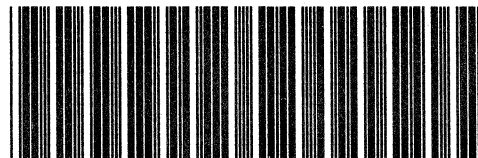
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