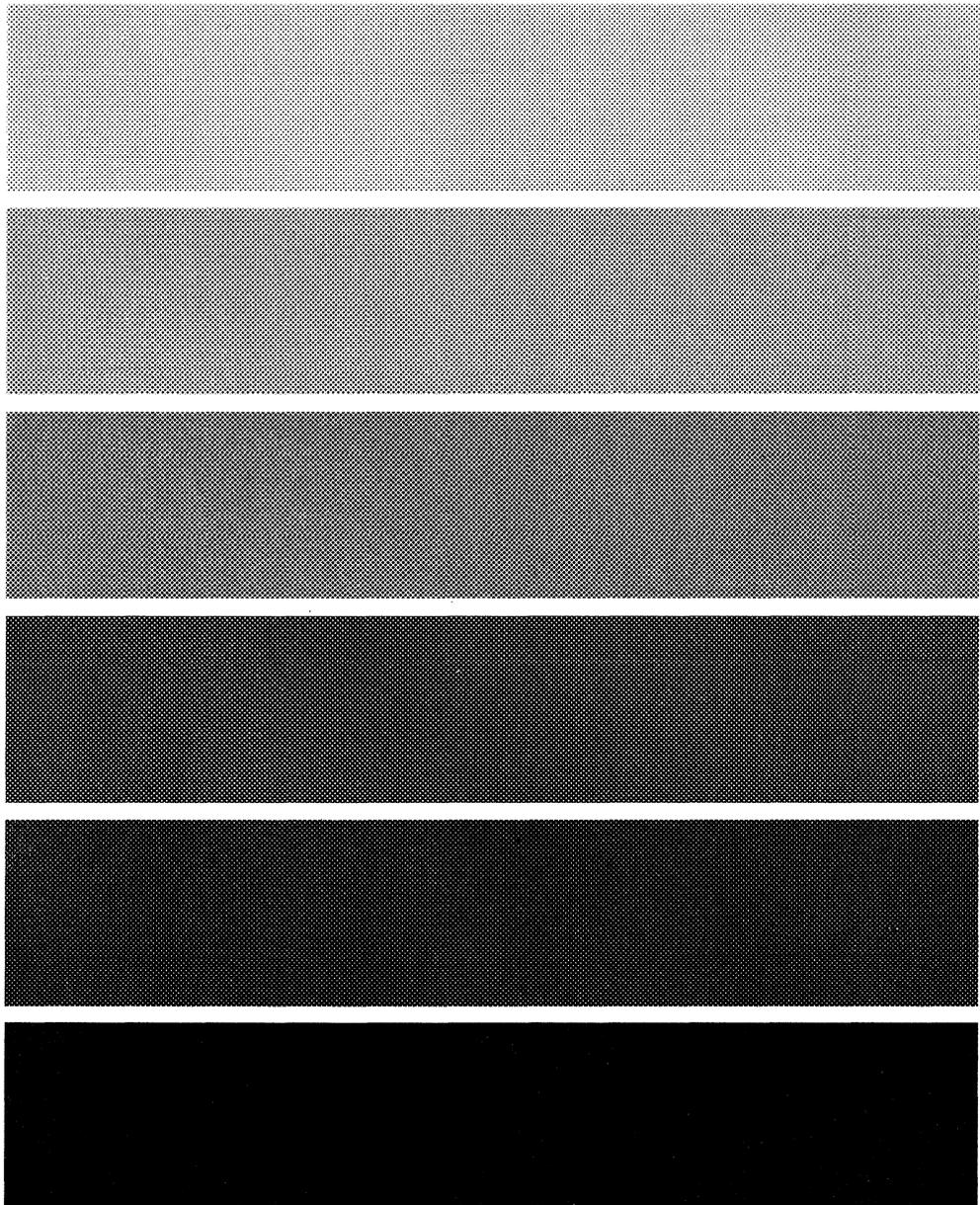




Communication Adapter Feature

Installation and Removal Instructions



Second Edition (May 1989)

This edition obsoletes and replaces GA27-3830-0.

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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The following warning statements (required by country regulatory agencies) are applicable in the countries indicated.

United States

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Additional IBM Statement

This warning is also applicable to all attaching units produced for use in the U.S.A. that have been manufactured after December 31, 1980. A notice of compliance has been affixed within the customer access area of all affected units.

Instructions to User:

Properly shielded and grounded cables and connectors must be used for connection to peripherals in order to meet FCC emission limits. Proper cables are available through IBM marketing channels, or from dealers of computer accessories. IBM is not responsible for any radio or television interference caused by using other than recommended cables or by unauthorized modifications to this equipment. It is the responsibility of the user to correct such interference.

United Kingdom

Warning: This IBM product is made to high Safety standards. It complies inherently with Telecommunications safety standard BS6301. It is not designed to provide protection from excessive voltages appearing externally at its interfaces. Therefore, when this product is connected to a public telecommunications network via any other equipment, and you connect to this product items not supplied by IBM United Kingdom Ltd., you must comply with mandatory telecommunications safety requirements.

You may do this either by choosing products which also are approved as complying to BS6301 or British Telecom Technical Guide No. 26, or by the use of approved safety barriers. Consult the local office of your public telecommunications operator, for advice and permission to make the connections.

Canadian Department of Communications compliance statement

This equipment does not exceed Class B limits per radio noise emissions for digital apparatus, set out in the Radio Interference Regulation of the Canadian Department of Communications. Operation in a residential area may cause unacceptable interference to radio and TV reception requiring the owner or operator to take whatever steps are necessary to correct the interference.

Avis de conformité aux normes du ministère des Communications du Canada

Cet équipement ne dépasse pas les limites de Classe B d'émission de bruits radioélectriques pour les appareils numériques, telles que prescrites par le Règlement sur le brouillage radioélectrique établi par le ministère des Communications du Canada. L'exploitation faite en milieu résidentiel peut entraîner le brouillage des réceptions radio et télé, ce qui obligerait le propriétaire ou l'opérateur à prendre les dispositions nécessaires pour en éliminer les causes.

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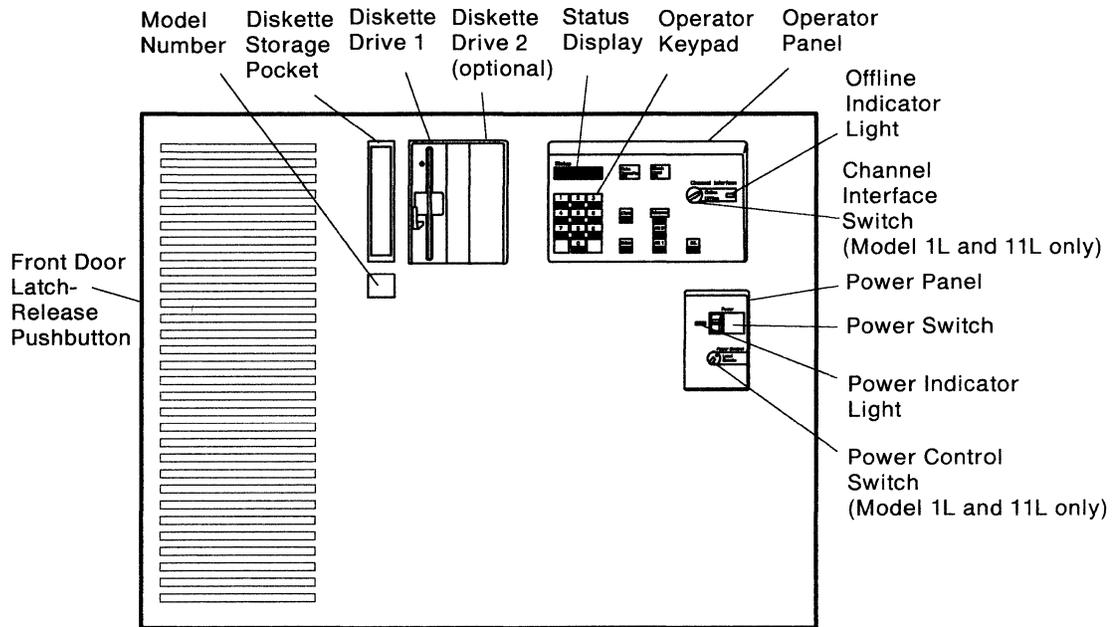
Communication Adapter Installation in a Model 1L, 3R, 11L, or 13R

CAUTION:

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.)

Be sure the required communication service is available and working prior to installing the Communication Adapter.

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



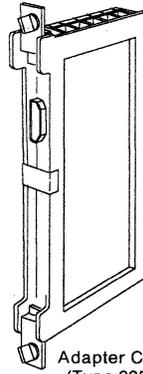
1

Do you have the required items to install one of the three kits displayed on this page?

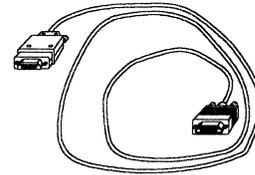
YES Continue with the next step.

NO Discontinue this procedure until you have the required items.

Note: For testing, you will also need a Utility diskette that supports all of the features installed on this controller.

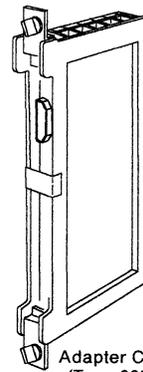


Adapter Card
(Type 9253)

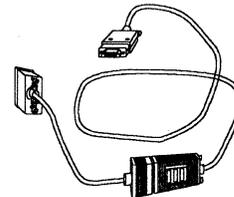


Cable Assembly
(6423153 For Model 1L or 3R,
39F7858 For Model 11L or 13R)
(In Japan and Korea:
73X3722 For Model 1L or 3R,
25F8492 For Model 11L or 13R)

Type 1 Teleprocessing Communication Adapter and
EIA 232D/CCITT V.24 Cable

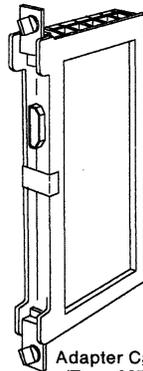


Adapter Card
(Type 9253)

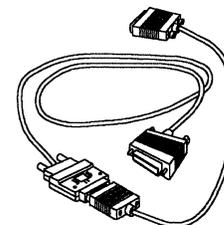


Cable Assembly
(6423325 For Model 1L or 3R,
25F8490 For Model 11L or 13R)
(In France and Switzerland:
6423326 For Model 1L or 3R,
25F8491 For Model 11L or 13R
May Be Used)

Type 1 Teleprocessing Communication Adapter and
CCITT V.35 Cable



Adapter Card
(Type 9273)



Cable Assembly
(P/N 6168155)

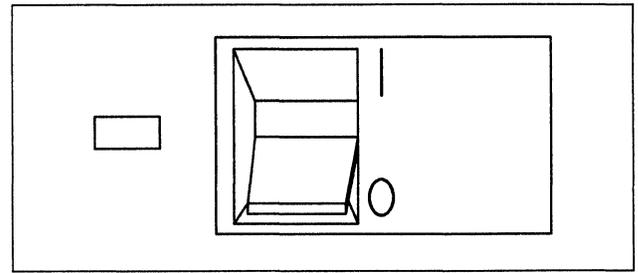
Type 2 Teleprocessing Communication Adapter and
CCITT X.21 Cable

2

Is the controller power switch switched off?

YES Go to step 6 on this page.

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

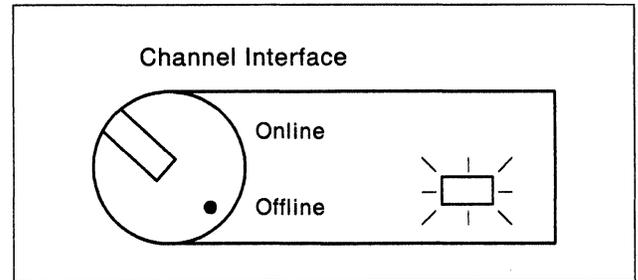


3

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 with the next step.

NO Go to step 5 on this page.

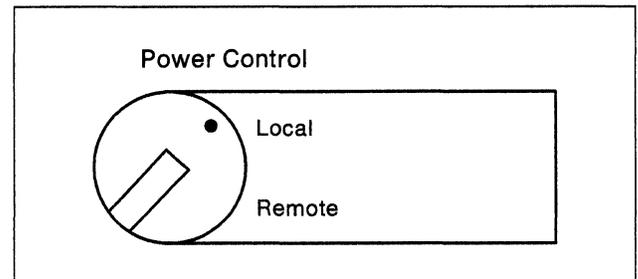


4

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

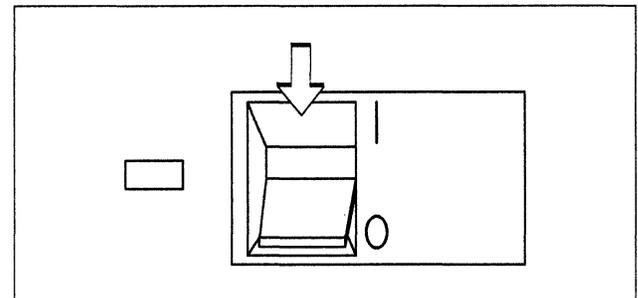
YES Continue with the next step.

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



5

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



6

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

YES CAUTION:

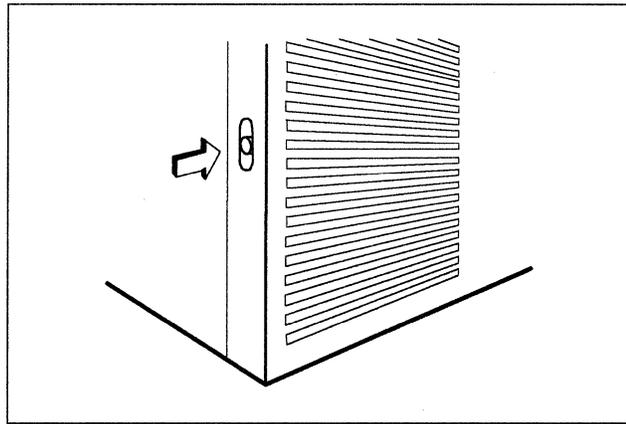
If your machine has a metallic, waterproof-type power plug, do not attempt to disconnect it.

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.

7

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



8

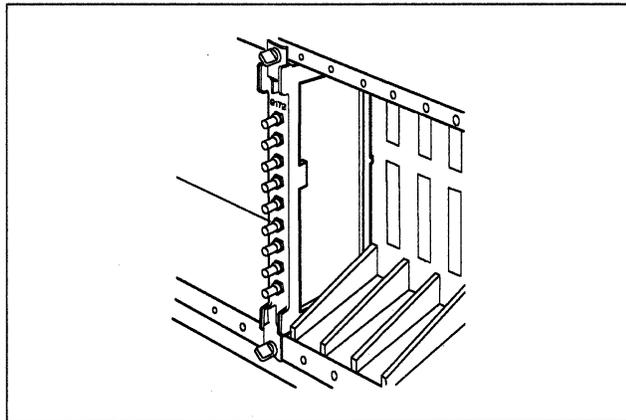
If location 22 contains:

- No adapter** Go to step **23** on page 8.
- Type 915x adapter** Continue with the next step.
- Type 917x adapter** Go to step **10** on this page.

9

Is there a type 917x adapter in location 23?

- YES** Continue with the next step.
- NO** Go to step **18** on page 6.



10

CAUTION:

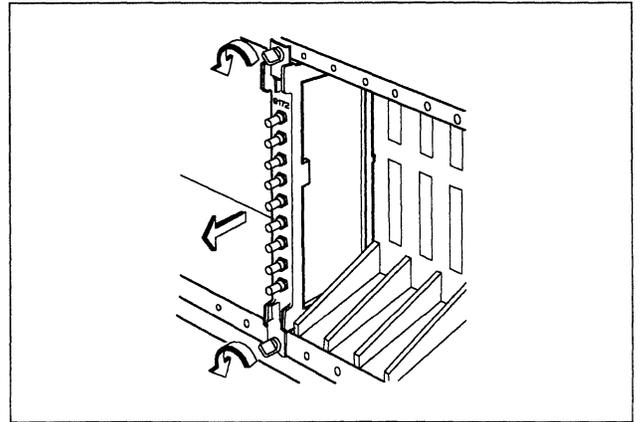
Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Are cables connected to the adapter in this location?

- YES** Carefully make a chart of the cable connection locations, label each cable with tape, and unplug the cables from the adapter.
- NO** Continue with the next step.

11

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



12

In the following sequence, **11 13 15 17 12 14 16 24** , circle the number of the first available (unused) location.

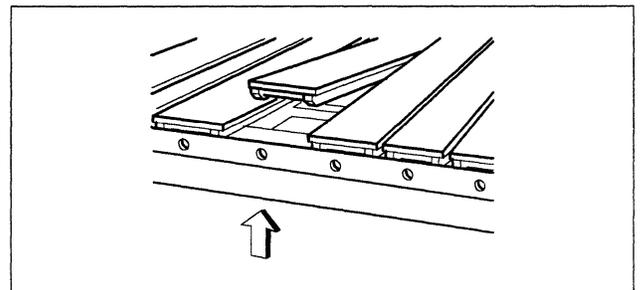
If there is not a location available, close the door, discontinue this procedure, and see your system planner.

13

Is there an insert in the location that you circled in step **12**?

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

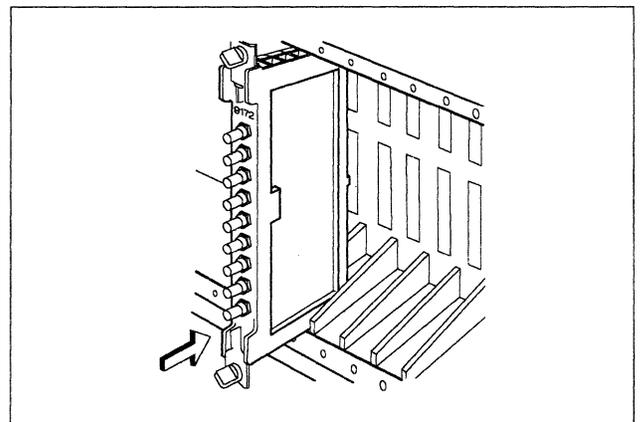
NO Continue with the next step.



14

Hold the type 917x adapter that you removed so that the recessed panel is at the right.

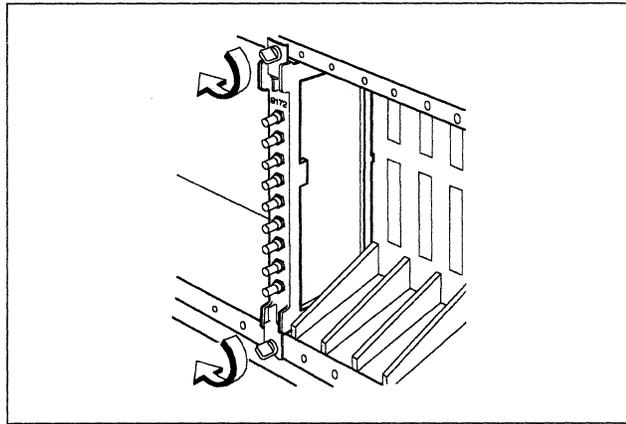
Then insert the adapter into the guides of the location that you circled in step **12** until it is firmly seated.



15

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

Then push the adapter in to see if further thumbscrew tightening is needed.



16

CAUTION:

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.

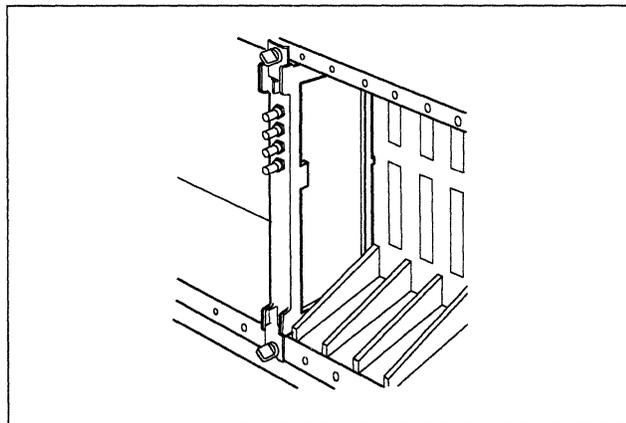
NO Continue with the next step.

17

Is there a type 915x adapter in location 22?

YES Continue with the next step.

NO Go to step 24 on page 8.



18

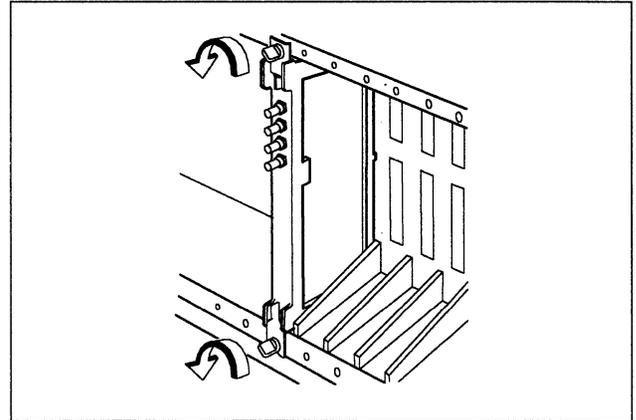
CAUTION:

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.)

Label and temporarily unplug all cables connected to the type 915x adapter in location 22.

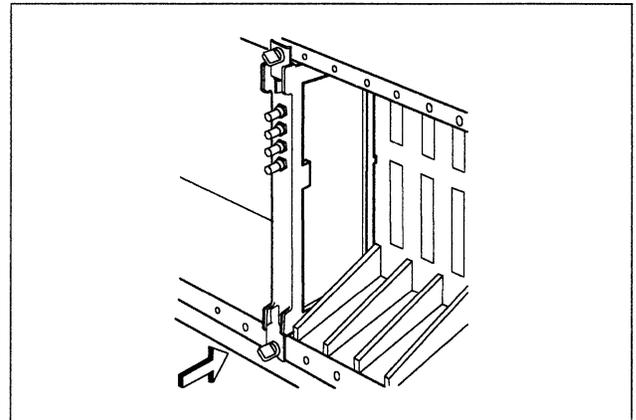
19

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



20

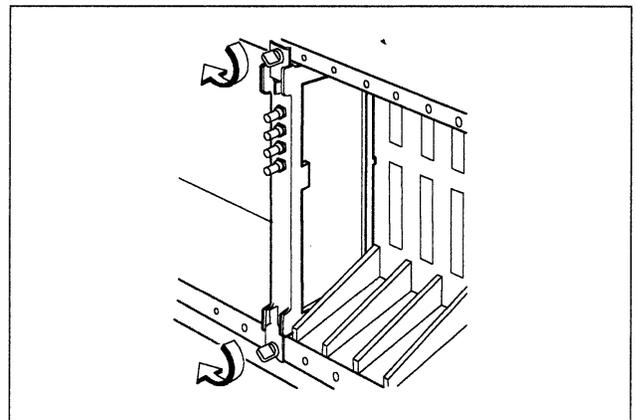
Insert the adapter that you removed from location 22 into the guides of location 23 until it is firmly seated.



21

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

Then push the adapter in to see if further thumbscrew tightening is needed.



22

CAUTION:

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 cables you removed from the adapter back in according to the labels you made.

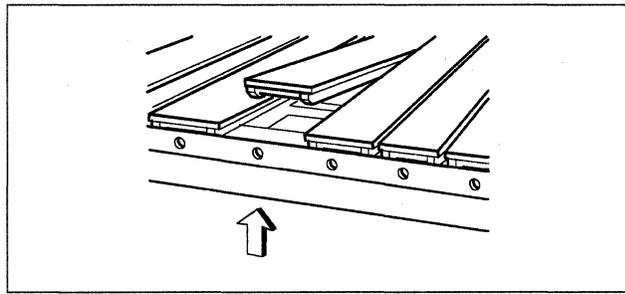
Then go to step **24** on page 8.

23

Is there an insert in location 22?

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

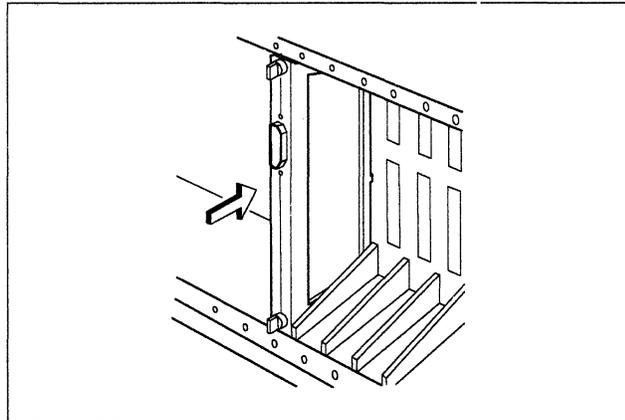
NO Continue with the next step.



24

Hold the adapter from the kit so that the recessed panel is at the right.

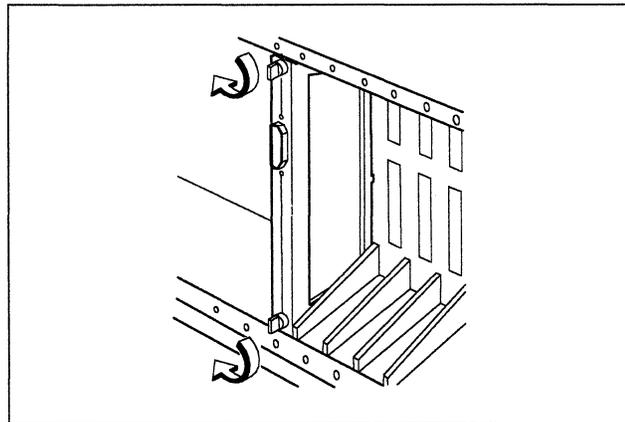
Then insert it into the guides of location 22 until it is firmly seated.



25

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

Then push the adapter in to see if further thumbscrew tightening is needed.

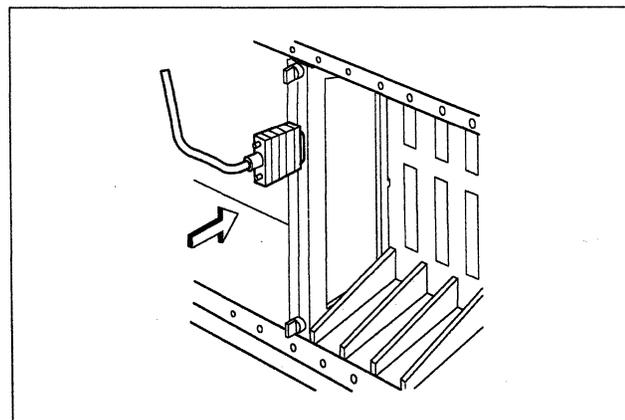


26

Plug the cable from the kit into the connector on the adapter from the kit you installed.

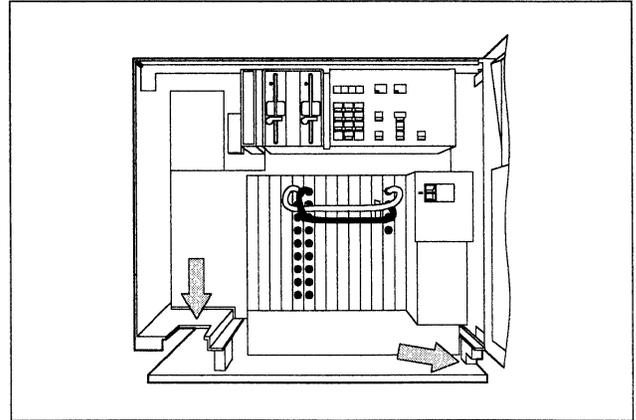
Turn the thumbscrews clockwise to lock the cable connector in place.

Do not plug the other end of the cable in at this time.



27

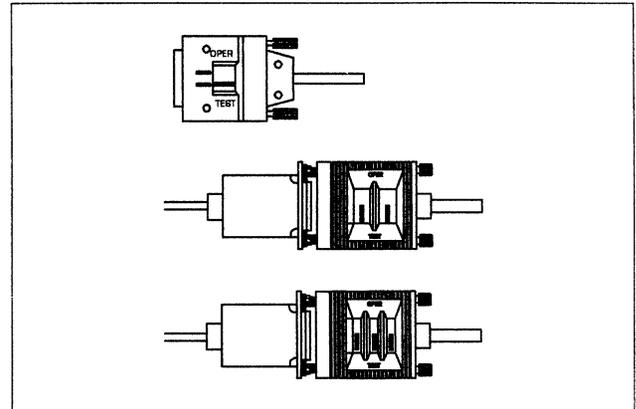
Route the cable out through one of the access holes in the base of the controller.



28

The cable you just installed has one or more **Test/Oper** switches.

Set the **Test/Oper** switch(es) to **Test**.



29

Close the door of the controller.

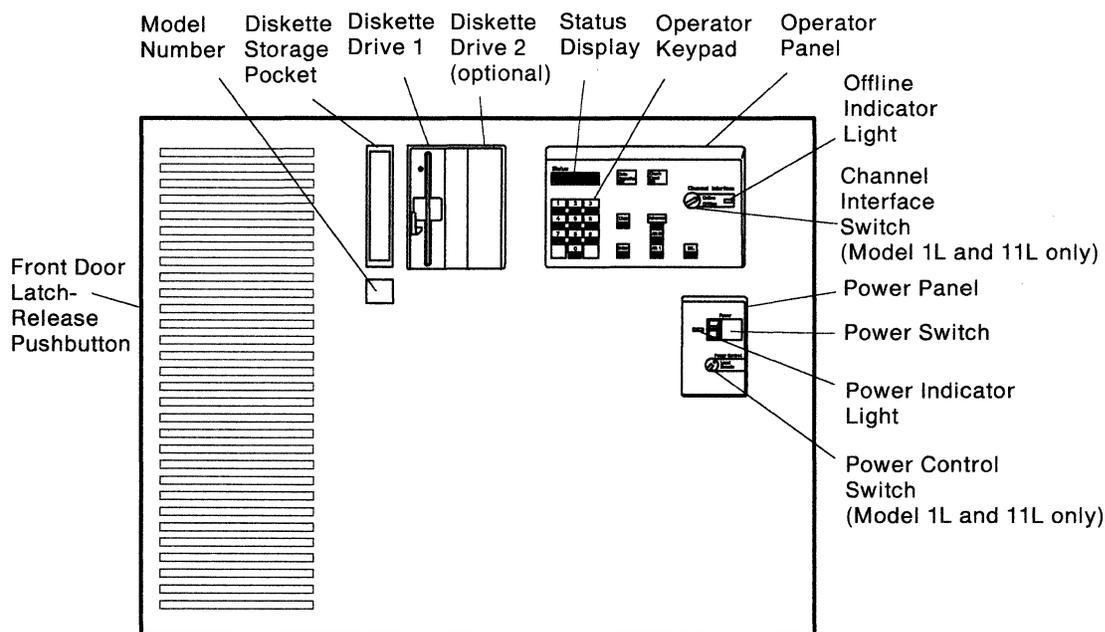
Then go to "Verification Test for Models 1L, 3R, 11L, or 13R" on page 15 to verify that this controller is operating correctly.

Communication Adapter Removal from a Model 1L, 3R, 11L, or 13R

CAUTION:

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.)

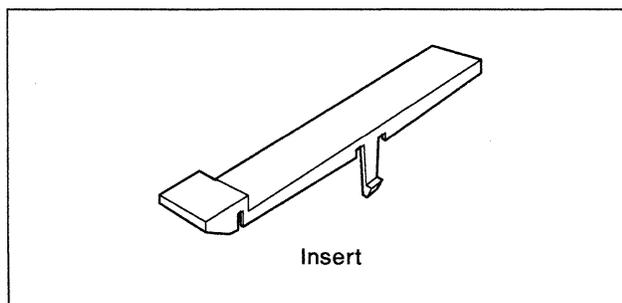
Before beginning, note the location of the controller's basic components in the following figure.



1
Do you have the required item shown, in the kit?

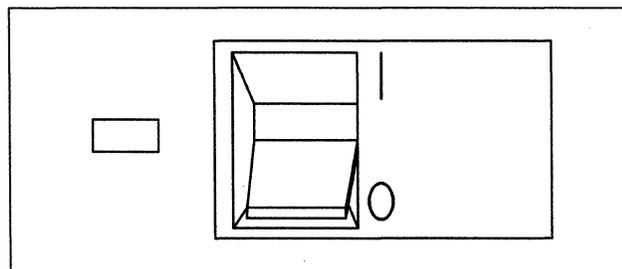
- YES** Continue with the next step.
- NO** Discontinue this procedure until you have the required item.

Note: For testing, you will 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 6 on page 11.
- NO** Follow your company's procedures to notify users and to have this controller taken offline before continuing with the next step.

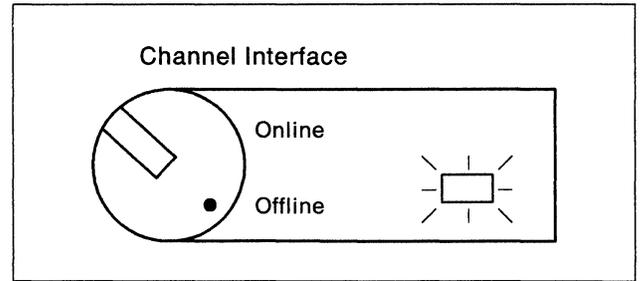


3

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 with the next step.

NO Go to step 5 on this page.

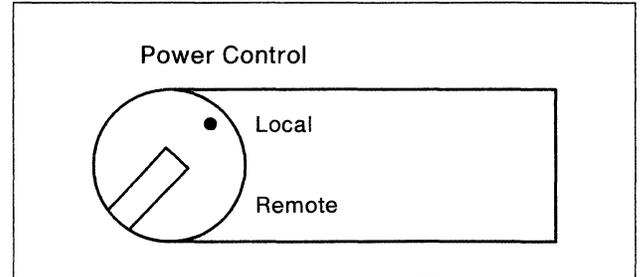


4

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

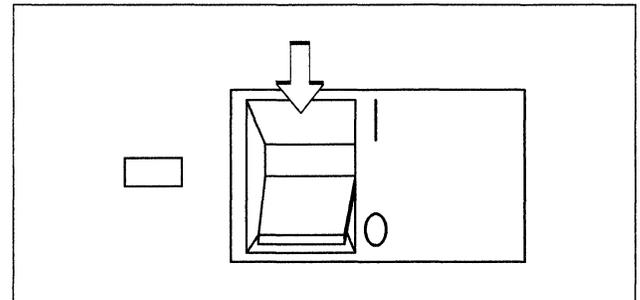
YES Continue with the next step.

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



5

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



6

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

YES CAUTION:

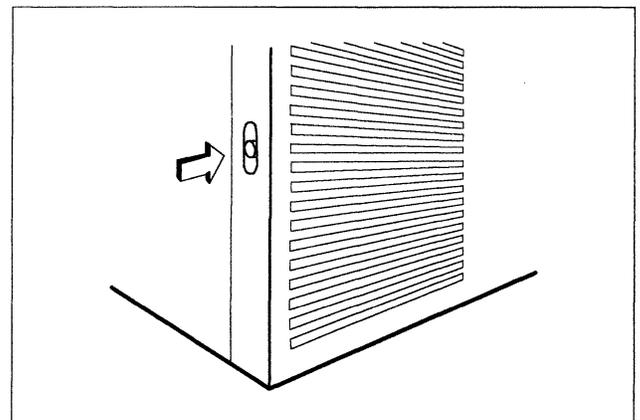
If your machine has a metallic, waterproof-type power plug, do not attempt to disconnect it.

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.

7

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

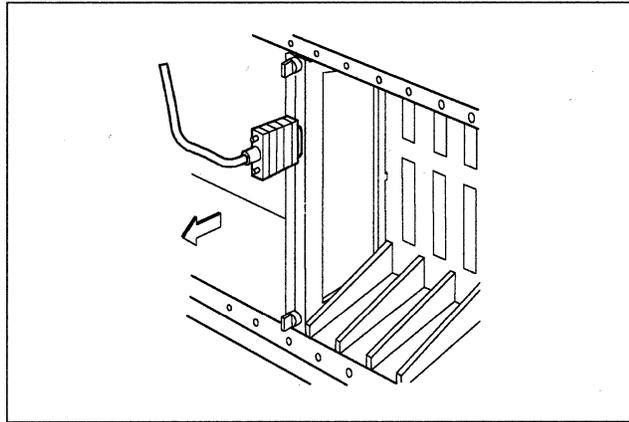


8

CAUTION:

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.)

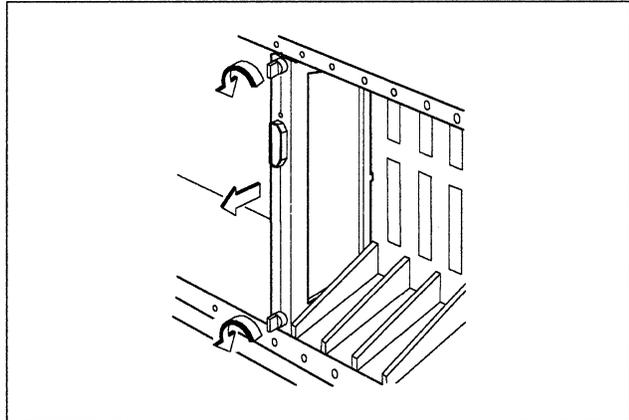
Unplug both ends and remove the cable attached to the type 92x3 adapter in location 22.



9

Loosen the thumbscrews in an alternating manner and remove the adapter from location 22 by pulling it straight out.

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



10

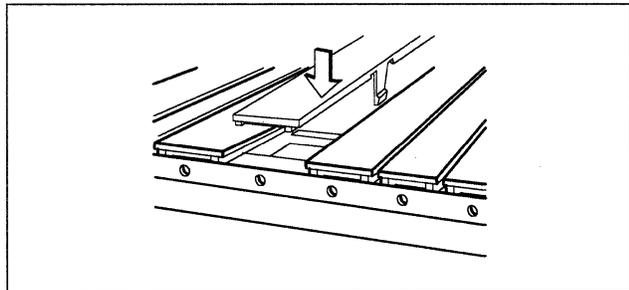
Is there a type 915x adapter in location 23?

YES Continue with the next step.

NO Install the insert from the kit in location 22.

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

Then go to step 17 on page 14.



11

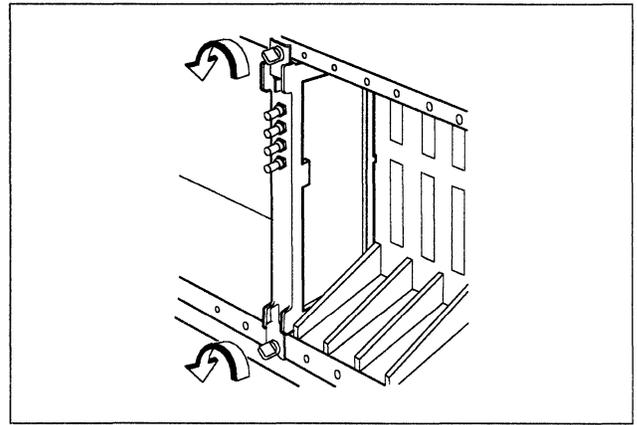
CAUTION:

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.)

Label and temporarily unplug all cables connected to the type 915x adapter in location 23.

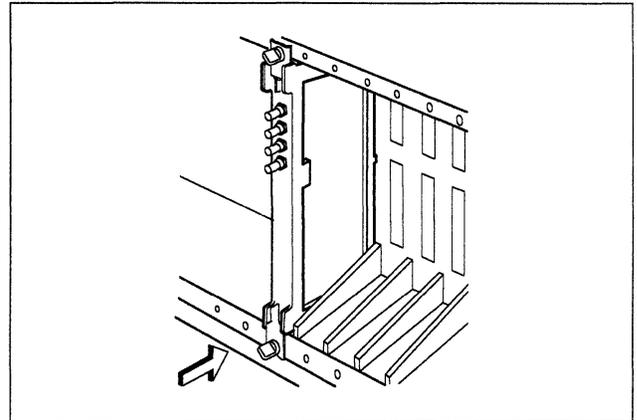
12

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



13

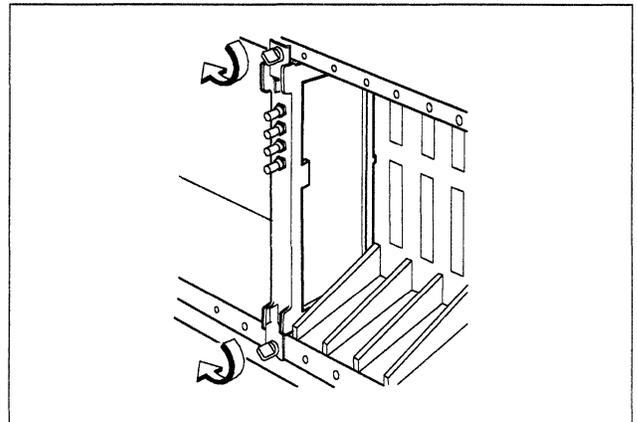
Insert the adapter that you removed from location 23 into the guides of location 22 until it is firmly seated.



14

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

Then push the adapter in to see if further thumbscrew tightening is needed.



15

CAUTION:

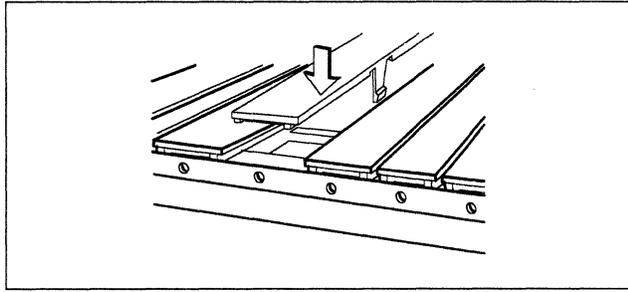
Do not connect or disconnect cables during periods of lightning activity. (For translations of this safety notice, see Safety Notice 5 in *IBM 3174 Safety Notices*, GA27-3824.)

Plug the cables you removed from the adapter back in according to the cable connection chart and labels you made.

16

Install the insert from the kit in location 23.

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



17

Close the door of the controller.

Then go to "Verification Test for Models 1L, 3R, 11L, or 13R" on page 15 to verify that this controller is operating correctly.

Verification Test for Models 1L, 3R, 11L, or 13R

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.*)

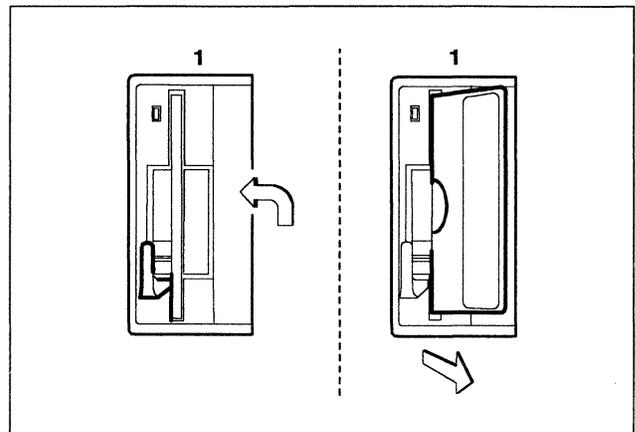
NO Plug the controller power plug to an electrical outlet.

2

Is there a diskette in drive 1?

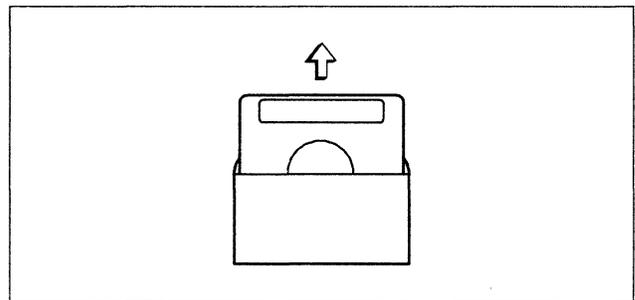
YES Open the lever of drive 1, and remove the diskette.

NO Continue with the next step.



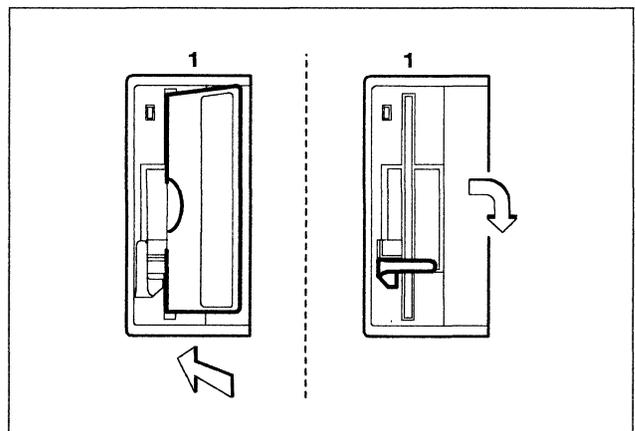
3

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.

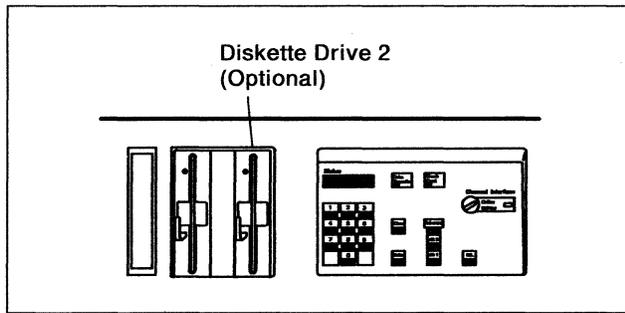


5

Does this controller have an optional Diskette Drive 2?

YES Continue with the next step.

NO Go to step 7 on this page.



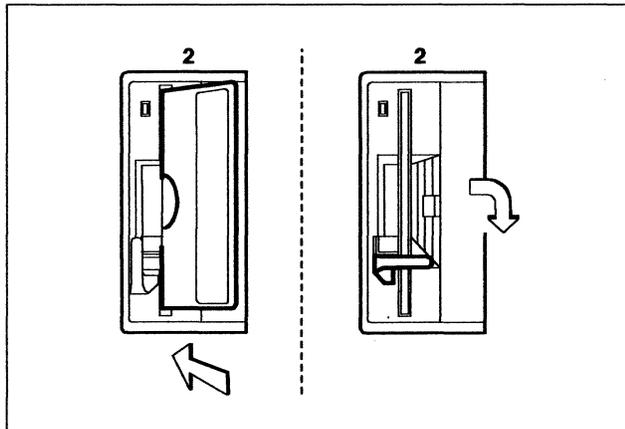
6

Is there a diskette in drive 2?

YES Continue with the next step.

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

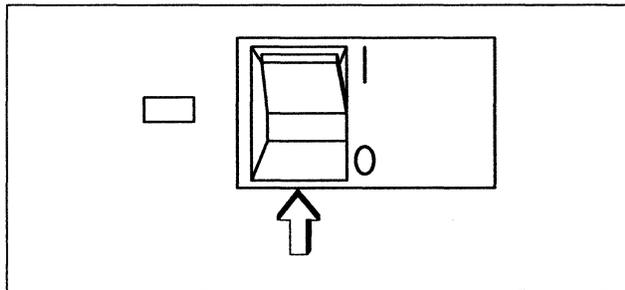
Do not use a diskette marked **2.4** unless drive 2 is labeled **2.4**.



7

Switch the machine on with the power switch.

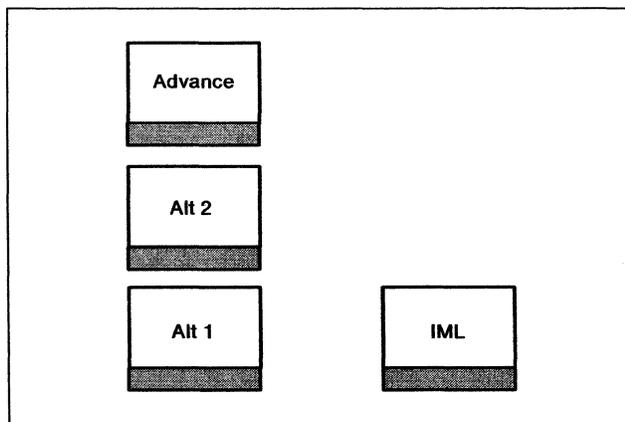
Note: For a Model 1L or 11L, lift the switch to the **Start** position and release.



8

In the following sequence:

1. Press and hold **Alt 2**.
2. Press and release **IML**.
3. Release **Alt 2**.



9

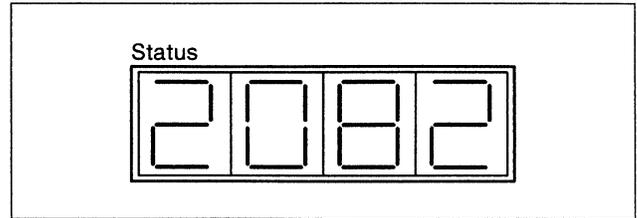
Does 2082 appear on the Status display within 5 minutes?

YES Continue with the next step.

NO Repeat step 8 on page 16.

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

This status code description is also in the first and second editions of the *3174 Models 1L, 1R, 2R, and 3R User's Guide*, GA23-0337.

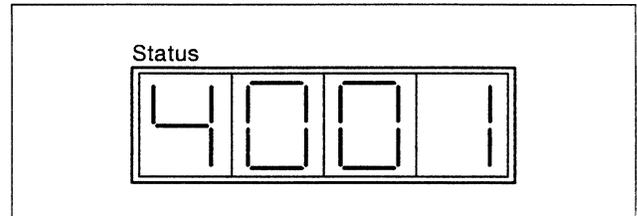


10

Did you remove the Communication Adapter from this controller?

YES Go to step 13 on page 18.

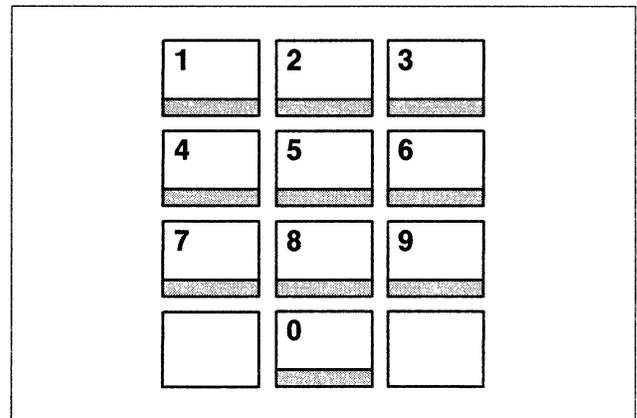
NO Press **Enter** to display 4001.



11

Use the keypad on the operator panel to key in 1101.

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



12

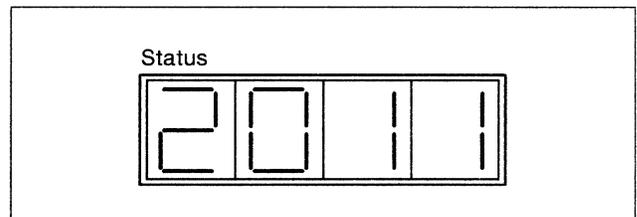
Press **Enter**.

Does 2011 appear?

YES Set the communication cable **Test/Oper** switch(es) to **Oper**.

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

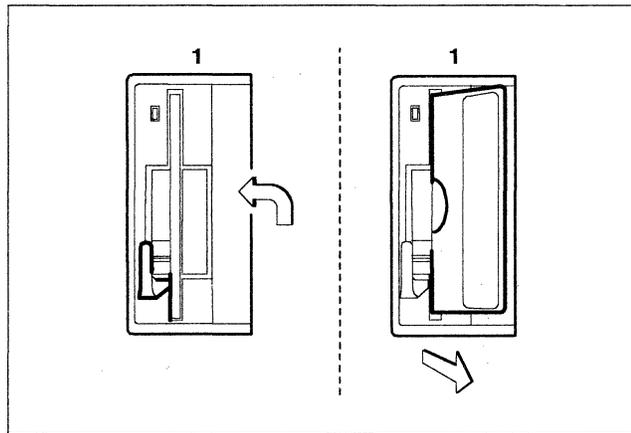
This status code description is also in the second edition of the *3174 Models 1L, 1R, 2R, and 3R User's Guide*, GA23-0337.



13

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.



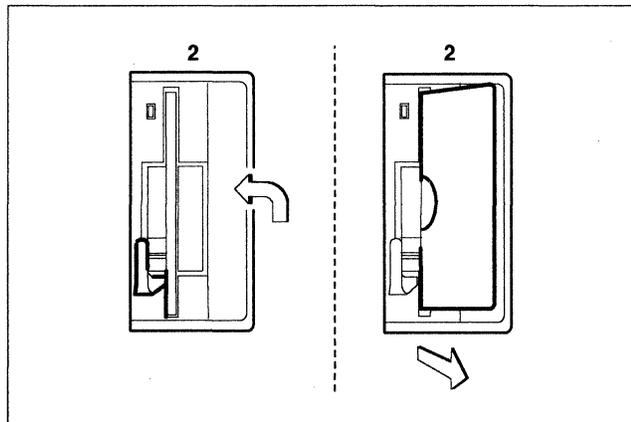
14

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 with the next step.



15

Communication Adapter hardware modification is complete.

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

The source of customizing information depends on the release level of the microcode the controller will be using.

- Customizing information for microcode below release level A/S 5.0 is in the *3174 Customizing Guide*, GA23-0214.
- Customizing information for microcode release level A/S 5.0 is in the *3174 Planning Guide*, GA27-3844, and the *3174 Utilities Guide*, GA27-3853.
- Customizing information for microcode release level B 1.0 is in the *3174 Planning Guide*, GA27-3862, and the *3174 Utilities Guide*, GA27-3863.

To attach the communication cable to the communication service, see *3174 Site Planning*, GA23-0213.

**IBM 3174 Establishment Controller
Communication Adapter Feature
Installation and Removal Instructions**

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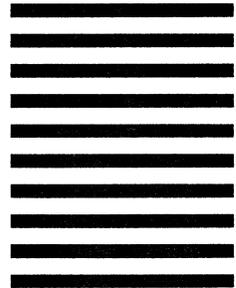
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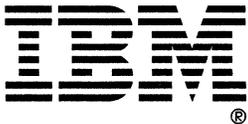
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