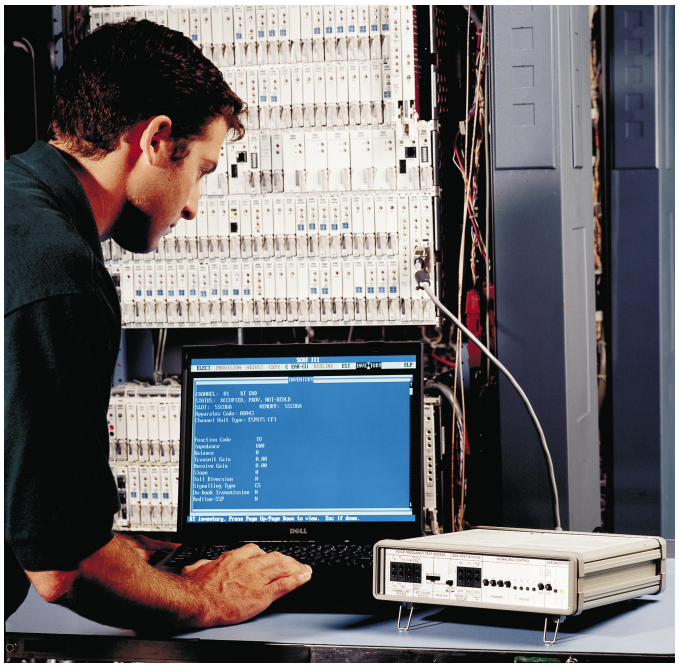
Lucent Technologies
Bell Labs Innovations

# SLC® Series 5 Carrier System
# SCAT III – Enhanced CIU

## User's Guide



363-205-120
Issue 1
March 2000

## Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.

## Mandatory Customer Information

### Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial enrironment. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residence is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Security

In rare instances, unauthorized individuals make connections to the telecommunications network through the use of remote access features. In such event, applicable tariffs require that the customer pay all network charges for traffic. Lucent Technologies cannot be responsible for such charges and will not make any allowance or give any credit for charges that result from unauthorized access.

## Trademarks

SLC, SPOTS, and SPQ are registered trademarks of Lucent Technologies.
LineReach is a trademark of Lucent Technologies.
COMMON LANGUAGE is a registered trademark and CLEI, CLLI, CLCI, and CLFI are trademarks of Telcordia
UL is a registered trademark of Underwriters Laboratories, Inc.

## Documentation Ordering Information

The ordering number for this document is 363-205-120. To order this document call 1.888.LUCENT8 or 1.888.582.3688. RBOC/BOC customers should process document orders or standing order requests through their Company Documentation Coordinator.

# Contents


| | | |
|---|---|---|
| | **About This Information Product** | v |
| | **Intended Audience** | vi |
| | **How to Use This Document** | vii |
| | **Conventions Used** | viii |
| | **Product Safety** | x |
| | **Customer Assistance and Technical Support** | xiii |
| | **Information Products (IPs)** | xiv |
| **1** | **Introducing SCAT III** | 1-1 |
| | **Physical Description** | 1-2 |
| | **Features** | 1-7 |
| **2** | **Getting Started** | 2-1 |
| | **What you Need** | 2-2 |
| | **Install the Software** | 2-3 |
| | **Connections** | 2-4 |
| | **Run the Software** | 2-9 |
| **3** | **Using the SCAT III** | 3-1 |
| | **Operations and Features** | 3-2 |
| | **Navigate** | 3-45 |
| | **Enter Information** | 3-50 |
| | **Print** | 3-63 |

# Contents


| | | |
|---|---|---|
| **4** | **Operations** | 4-1 |
| | **Start Up** | 4-3 |
| | **Select** | 4-6 |
| | **Provisioning** | 4-18 |
| | **Test** | 4-43 |
| | **Inventory** | 4-49 |
| **5** | **Testing** | 5-1 |
| | **Is the TAIU OK?** | 5-2 |
| | **The TAIU and SCAT III Software** | 5-3 |
| | **TAIU Switches, Jacks, and LED Indicators** | 5-9 |

# About This Information Product

## Overview

**Purpose**

This information product (IP) describes the features of the *SLC*® Series 5 Carrier System special channel administration tool (SCAT) III, enhanced craft interface unit (CIU). The IP explains how to access SCAT III software from your personal computer, how to install, start, and exit the program, how to get the most out of the SCAT III system, and how to use the SCAT III to provision and gain test access to special service channel units.

**What is SCAT III?**

SCAT III consists of a PC based software package and an associated hardware interface, the test access interface unit (TAIU). SCAT III software is an easy-to-use software package based on the Microsoft Corporations *MS-DOS*™ platform. The software is intended to be loaded on a portable PC. Together, the SCAT III software and the TAIU are referred to as SCAT III. When used in conjunction with SCAT III software, the TAIU will allow provisioning, test access, and inventory administration of special service channel units in a *SLC* Series 5 Carrier System or a *SLC LineReach*™ Access System. The TAIU and the associated SCAT III software provide a modern, cost effective replacement for the J99404TA-1 CIU.

**Systems supported**

The information in this IP is valid for the SCAT III enhanced CIU. The SCAT III will allow you to connect to a *SLC* Series 5 Carrier System or a *SLC LineReach* Access System.

# Intended Audience

## Who Uses This Document?

**Customers**

The intended audience for this IP includes planners, field service technicians, special service technicians, engineers, craft personnel, and other TELCO administrative personnel.

**What must I know to use this document?**

This information product (IP) assumes that you are familiar with the basic terminology and procedures for using a personal computer. Also, this IP assumes that you are familiar with the provisioning of SLC Series 5 special service channel units.

This document is based on an understanding of basic digital transmission principles and familiarity with digital loop carrier systems. You will find background information on digital loop carrier systems in *SLC Series 5 Carrier System, Applications and Planning Guide,* 363-205-010 and *SLC Series 5 Carrier System, Channel Unit Application and Prescription Setting,* 915-710-116.

# How to Use This Document

## Organization

**Specific information** This document contains specific information and is organized in the following order.

"**About This Information Product**"

This section defines the purpose, scope, and intended audience for this document; provides introductory and support information on this document; includes the bibliography (references); and lists information on how to obtain technical support on the system.

**Chapter 1, "Introducing SCAT III"**

This section gives a physical description of the SCAT III; provides a brief summary of the features; and presents background information on how SCAT III communicates with the *SLC* bank controller.

**Chapter 2, "Getting Started"**

This section defines how to get started with SCAT III. The section explains how to install the SCAT III software, connect the SCAT III TAIU to the *SLC* channel bank, interpret the self-diagnostics of the TAIU, and run the SCAT III software.

**Chapter 3, "Using the SCAT III"**

This section defines how to use the SCAT III software. This includes how to use the keyboard and mouse, enter information, interpret the displayed messages, and print the SCAT III help screens.

**Chapter 4, "Operations"**

This section describes in detail the SCAT software menus and commands. The section covers the menus (Select and Test) and commands (Provision, Adjust, Copy, Clear-CU, Redline, Inventory, and Help).

**Chapter 5, "Testing"**

This section describes the TAIU switches and jacks, gives examples of typical testing procedures. Refer to *SLC Series 5 Carrier System, Channel Unit Installation (TOP),* 363-205-402 for a complete description of testing.

# Conventions Used

## Special fonts

**Overview**

Special fonts are used in this document for text that requires emphasis. The following conventions are used to highlight specific text.

| Special Fonts | Description |
|---|---|
| **Enter** | On some PCs, the **Enter** key may be labeled the **Return** or *left arrow* key. |
| Icons | Special symbols (icons) denote safety labels and notes. |
| *Italic* type face | *Italic* typeface denotes the titles of documents referenced in the text. However, *italic* typeface may also be used to highlight an important word or phrase. |
| **key1**+**key2** | When the plus sign (+) is placed between the key names, you must press the keys at the same time. For example, "Press **CTRL**+e" means that you press and hold the **Control** key while you press the **e** key. |
| **key1**, **key2** | A comma (,) between key names means you must press the keys in sequence. For example, "Press **3**,**e**" means press the **3** key, release it, and then press the **e** key. |
| `Monospace font` | `Constant width` (monospace) font is used in the display of the input and output screens. |
| Note | Identifies supplementary information you may need to be aware of when using the system. |
| UPPERCASE | **UPPERCASE** letters (or literal spelling) denote a panel stamping located on the equipment. |

# Trademarks

### Introduction

The trademarks used in this document are identified on the back of the title page. Trademarks are presented in a specific way — they stand out from the rest of the text by using a different font or capital letters, and they modify a noun. For example, the system name contains a trademark — *SLC*® Series 5 Carrier System. The trademark is never used by itself — the trademark always modifies a noun (for example, *SPOTS*® channel units).

### Trademarks of Lucent Technologies

Lucent Technologies trademarks are identified on first use in *each chapter* (in the table of contents, text, and headings) with the registered mark (®) or trademark (™) symbol. Also, they are identified on first use in each table and figure.

### Trademarks of other companies

Trademarks of other companies are identified using a footnote on the first use in the document.

# Product Safety

## Safety Labels

**Introduction**

This document may contain safety labels as **DANGERS**, **WARNINGS**, and **CAUTIONS**. These safety labels have specific definitions and are listed in order of severity.

**Safety alert symbol**

The safety alert symbol ⚠ is used on product labels and in this document to alert the user to important operating and maintenance instructions.

**Danger**

⚠ **DANGER:**
*Danger indicates the presence of a hazard that **will** cause death or severe personal injury if the hazard is not avoided.*

**Warning**

⚠ **WARNING:**
*Warning indicates the presence of a hazard that **can** cause death or severe personal injury if the hazard is not avoided.*

**Caution**

⚠ **CAUTION:**
*Caution indicates the presence of a hazard that will or can cause minor personal injury or property damage if the hazard is not avoided. The caution is also used for property-damage-only accidents. This includes equipment damage, loss of software, or service interruption.*

# Electrostatic Discharge (ESD)

**Considerations to avoid ESD damage**

**CAUTION:**
*Industry experience has shown that all integrated circuit packs can be damaged by static electricity that builds up on work surfaces and personnel. The static charges are produced by various charging effects of movement and contact with other objects. Dry air allows greater static charges to accumulate. Higher potentials are measured in areas with low relative humidity, but potentials high enough to cause damage can occur anywhere.*

Observe the following list of precautions when handling circuit packs to prevent damage by electrostatic discharge.

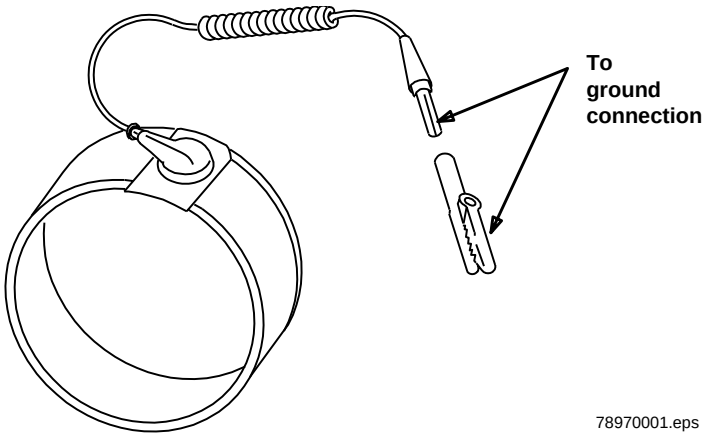
- Assume all circuit packs contain solid state electronic components that can be damaged by ESD.
- When handling circuit packs (storing, inserting, removing, etc.) or when working on the backplane, always wear a grounded wrist strap or wear a heel strap and stand on a grounded, static-dissipating floor mat. If a static-dissipating floor mat is used, be sure that it is clean to ensure a good discharge path.
- Handle all circuit packs by the faceplate or latch and by the top and bottom outermost edges. Never touch the components, conductors, or connector pins.
- Observe warning labels on bags and cartons. Whenever possible, do not remove circuit packs from antistatic packaging until ready to insert them into slots.
- Open, if possible, all circuit packs at a static-safe work position, using properly grounded wrist straps and static-dissipating table mats. If a static-dissipating table mat is used, be sure that it is clean to ensure a good discharge path.
- Always store and transport circuit packs in static-safe packaging. Shielding is not required unless specified.
- Keep all static-generating materials such as food wrappers, plastics, and foam packaging away from all circuit packs. On removal from the bay, immediately put circuit packs into static-safe packages.
- Whenever possible, maintain relative humidity above 20 percent.

(Continued on next page)

# Electrostatic Discharge (ESD) (Continued)

**Grounding jacks**

To reduce the possibility of ESD damage, shelves are equipped with grounding jacks to enable personnel to ground themselves using wrist straps with a minimum resistance of 250 k Ω while handling circuit packs or working on a shelf/shelves. Connect the wrist straps to the grounding jack located on the equipment. When grounding jacks are not available, use an alligator clip adapter to connect to the bay frame ground.



# Customer Assistance and Technical Support

## Regional Technical Assistance Center (RTAC)

**Introduction**

Lucent Technologies provides customer assistance for the *SLC* Series 5 Carrier and *SLC* LineReach Access Systems including, but not limited to, troubleshooting assistance, technical consultation, operational problem consultation, procedural advice, and emergency recovery assistance from a qualified system support professional from the Regional Technical Assistance Center (RTAC).

**1-800-225-RTAC**

Service is provided from the RTAC at **1-800-225-RTAC** (1-800-225-7822). This telephone number is monitored 24 hours a day, 7 days a week. During regular business hours, your call will be answered by your local regional RTAC. Outside normal business hours, all calls will be answered at a centralized technical assistance center where service-affecting problems will be dispatched immediately to your local RTAC. All other problems will be referred to your local RTAC on the next regular business day.

# Information Products (IPs)

## Documentation

**Introduction**

This part contains the *SLC* Series 5 Carrier System, *SLC LineReach* Access System, and *SLC*-2000 Access System documentation plan and bibliography (list of references).

**Documentation plan**

### *SLC* Series 5 Carrier System

The following IPs provide additional information about the *SLC* Series 5 Carrier System.

- *SLC Series 5 Carrier System, Ordering Guide,* 363-205-000
- *SLC Series 5 Carrier System, Applications and Planning Guide,* 363-205-010
- *SLC Series 5 Carrier System, General Description,* 363-205-100
- *SLC Series 5 Carrier System, Centralized Operations and Provisioning, Installation, Test, and Maintenance,* 363-205-103
- *Extended Test Controller, Description, Installation, and Maintenance ,* 363-205-300
- *SLC Series 5 Carrier System, COT Acceptance and Turnup (TOP),* 363-205-400
- *SLC Series 5 Carrier System, RT Acceptance and Turnup (TOP),* 363-205-401
- *SLC Series 5 Carrier System, Channel Unit Installation (TOP),* 363-205-402
- *SLC Series 5 Carrier System, End-to-End Tests (TOP),* 363-205-406
- *SLC Series 5 Carrier System, Trouble Clearing (TOP),* 363-205-500
- *SLC Series 5 Carrier System, Application Engineering,* 915-710-115
- *SLC Series 5 Carrier System, Channel Unit Application and Prescription Setting,* 915-710-116

(Continued on next page)

# Documentation

**Documentation plan (continued)**

## *SLC LineReach* Access System

The following IPs provide additional information about the *SLC LineReach* Access System.

- *SLC LineReach Access System, Applications, Planning, and Ordering Guide,* 363-208-400
- *SLC LineReach Access System, User/Service Manual,* 363-208-401
- *SLC LineReach Access System, Installation Manual,* 363-208-402.

### Data sheets

The *SLC* Series 5 Carrier System, *SLC LineReach* Access System, and *SLC*-2000 Access System data sheets (363-005-101 through 363-005-420) provide detailed information for plug-in units (usually just circuit packs, not shelves). The data sheet gives a detailed description of the operation, controls, and indicators of a unit, and provides figures showing a functional block diagram of the unit and a line drawing of the faceplate and circuit board. Some data sheets contain details on unit maintenance, including test procedures. For example, IP *AUA75 2-Wire PLAR Channel Unit Data Sheet, 363-005-132*, has procedures to set the option switches on the channel unit and to test channel unit transmission and signaling end-to-end.

# Training

**Introduction**

The National Product Training Center in Altamonte Springs, Florida, provides management courses for planning, engineering, and ordering as well as training for telecommunications technicians in installation, operations, and maintenance. Suitcasing of these courses may be available. Consult your local Lucent Technologies Account Executive for more information or reservations.

**Web site**

Information about Lucent Technologies product training can be found at the product training catalog site, http://catalog-install.lucent.com/.

**Enroll using 1-888-LUCENT8**

Call the training coordinator for your company to get information on these and other training courses available, on schedules, fees, and registration. If your company does not have an assigned training coordinator, call this toll-free number [1-888-LUCENT8 (1-888-582-3688)] Monday through Friday, 7:30 a.m. to 5:30 p.m. EST. Use this number to order a product training catalog, get more information about a course, find out about new courses, or to register for a class. However, in Canada, please call 1-800-221-1647**.**

When you call 1-888-LUCENT8, select Option 2 (press ABC 2 one time on a touch-tone phone) for Lucent Technologies product training.

**Enroll using COMCATS**

You may also use a computer and modem to log into the on-line catalog, computerized catalog system (COMCATS).

Set your terminal options to the following values.

- 300/1200/2400 baud rate
- Full duplex
- Space parity
- 7 data bits
- 1 stop bit.

| | |
|---|---|
| dial: | 1-800-662-0662 or 614-764-5566 |
| login: | comcats |
| password: | at&tcat |

If you have trouble accessing COMCATS, call 1-888-LUCENT8 and ask to speak with the COMCATS Administrator.

## Electronic and Alternative Media

**Overview**

Information products (IPs) for the *SLC* Series 5 Carrier System, *SLC LineReach* Access System, and *SLC*-2000 Access System are available in electronic form on compact disk, read-only memory (CD-ROM) and floppy disk. IPs are also maintained on the Internet at the EMNS Web site, http://www-emns.nw.lucent.com/

**CD-ROM**

CD-ROM has many advantages over traditional paper documentation, including cost savings, search and retrieve capability, and the assurance of the most current IPs. The CD-ROM, *Transmission Systems, Products Documentation* is available by annual subscription (on standing order). For CD-ROM technical information, call Lucent Technologies IP Support (1-888-727-3615).

**Pricing information**

For pricing information, contact your Lucent Technologies Account Executive or the Lucent Technologies Customer Information Center at 1-888-LUCENT8 (1-888-582-3688).

**How to order**

To order, call your Technical Information Resource Manager, your Lucent Technologies Account Executive, or the Lucent Technologies Customer Information Center at 1-888-LUCENT8 (1-888-582-3688).

**Web site information**

Information and software updrades are available at the Lucent Technologies special channel administration tool Web site, http://www.lucent-ade.com/scat/.

# How to Order

## Additional copies

To order additional copies of this document (**363-205-120**) and/or to request placement on the standing order list, send or call in an order.

| Customer | Mail Order | Telephone Order *(Monday Through Friday)* |
|---|---|---|
| Commercial customers* | Lucent Technologies<br>Customer Information Center<br>Attention: Order Entry Center<br>2855 N. Franklin Road<br>P.O. Box 19901<br>Indianapolis, IN 46219 | Within USA: **1-888-LUCENT8**<br>or **1-888-582-3688**<br>7:30 a.m to 6:30 p.m. EST<br>FAX: **1-317-322-6484**<br><br>From Canada: **1-800-255-1242**<br><br>Worldwide: **1-317-322-6416**<br>FAX: **1-317-322-6699** |
| RBOC/BOC | Process through your Company documentation coordinator | |

* For commercial customers, a check, money order, purchase order number, or charge card number is required with all orders. Make checks payable to Lucent Technologies. Lucent Technologies entities should use Form IND 1-80.80 FA, available through the Customer Information Center.

## One-time orders

One-time orders include a binder (if applicable) and the IP contents for the current issue in effect at the time of order. Also, you may request placement on the standing order list for all later reissues of any IP. The standing order list for each IP provides automatic distribution for all reissues of the IP. The Regional Bell Operating Company (RBOC)/Bell Operating Company (BOC) customers should process IP orders or standing order requests through their Company Documentation Coordinator.

## How to Comment on this IP

**Feedback forms**

Web-based feedback forms are available at the Lucent Technologies Internet site, **http://www.lucent-info.com/comments/**.

**Mail feedback forms**

If you want to mail feedback forms, please send your comments and suggestions to the following location.

Documentation Services Coordinator
Lucent Technologies
240 E. Central Parkway
Altamonte Springs, FL 32701-9928

**Toll-free number**

You may report errors or request changes to this document; call the toll-free number (**1-407-767-2760**) and give the 9-digit number for the IP, **363-205-120**.

**Email**

You may report errors or request changes to this document; send electronic mail to **ctiphotline@lucent.com** and give the 9-digit number for the IP, **363-205-120**.

# Introducing SCAT III

# 1

## Contents


**Physical Description** 1-2

- J1C182CU-1, L1 1-2

**Features** 1-7

- Communication 1-7
- Provisioning 1-9
- Inventory 1-10
- Test Access 1-11

# Physical Description

## J1C182CU-1, L1

**Introduction**

The J1C182CU-1, L1 (COMCODE 601913536) special channel administration tool (SCAT) III is an enhanced CIU that replaces the J99404TA-1 CIU.

**Intended use**

Use the J1C182CU-1 SCAT III to provision and gain test access to *SLC*® Series 5 Carrier System special service channel units located in a *SLC* Series 5 channel bank or *SLC LineReach*™ Access System (*SLC* System).

**_SLC_ Series 5 Carrier System**

The *SLC* Series 5 Carrier System consists of dual channel banks, each capable of supporting up to 192 customer lines (96 per bank). The channel bank closest to the customer interface [the remote terminal (RT) channel bank] can be equipped with up to 48 *SLC* Series 5 (dual/single) channel units which can be accessed and provisioned using the SCAT III tool. The SCAT III connects using an access port provided in each dual channel bank. One RT bank may interface with either a *SLC* Series 5 central office terminal (COT), integrated network access (INA) COT, D4, DACS, or directly to a local digital switch (LDS). Channel units located in a COT bank are also supported by the SCAT III tool.

**_SLC LineReach_ Access System**

The *SLC LineReach* Access System provides an RT shelf assembly capable of supporting up to 12 channel units and 48 customers. The *SLC LineReach* Access System can interface with a *SLC* Series 5 Carrier System, *SLC*-2000 Access System, INA COTs, D4, DACS, or directly to an LDS. The CU slots support both *SLC* Series 5 (dual/single) channel units and *SLC*-2000 quad channel units. These units can be accessed and provisioned using the SCAT III tool. The SCAT III connects using an access port on the *SLC LineReach* shelf.

# J1C182CU-1, L1 (Continued)

## Configurations

**NOTE:**
SCAT III will work in several *SLC* configurations. When working with an integrated RT-only *SLC* configuration, SCAT III can only be used at the RT. Attempts to access the COT channel unit will fail.

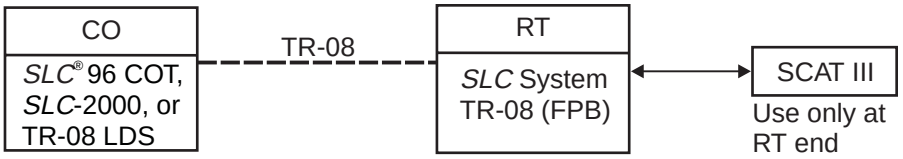
The SCAT III can be used in different configurations for *SLC* Series 5 Carrier System or *SLC LineReach* Access System.

### Configuration 1

Valid configuration for a *SLC* Series 5 Carrier System feature package C (FPC) or *SLC LineReach* Access System in FPC mode (SCAT III can be at either end).

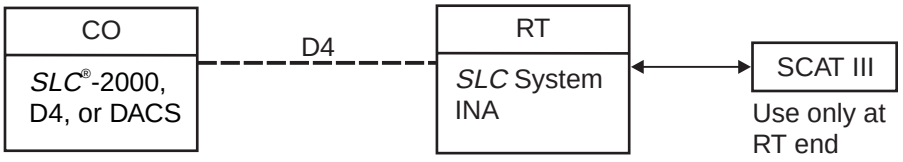

### Configuration 2

Valid configuration for *SLC* Series 5 Carrier System FPB and *SLC LineReach* Access System in FPB mode (SCAT III must be located at the RT end).



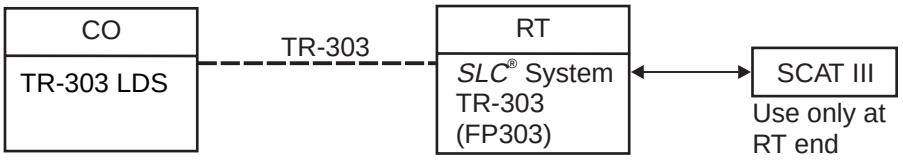

### Configuration 3

Valid configuration for *SLC* Series 5 Carrier System INA and *SLC LineReach* Access System in INA mode (SCAT III must be located at the RT end).




### Configuration 4

Valid configuration for *SLC* Series 5 Carrier System FP303 and *SLC LineReach* Access System in TR-303 mode (SCAT III must be located at the RT end).



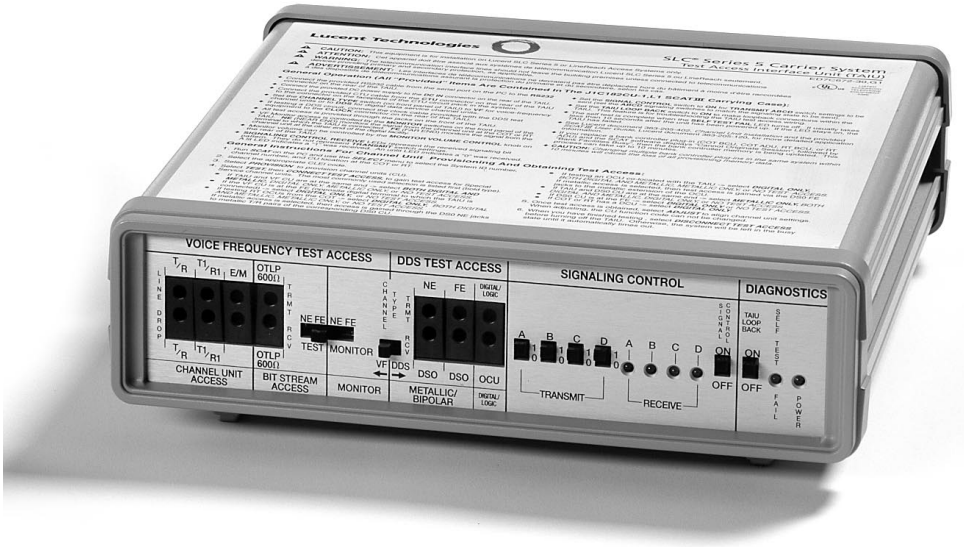
## J1C182CU-1, L1 (Continued)

**SCAT III software**

SCAT III is an easy-to-use software package based on the Microsoft Corporation *MS-DOS*® platform. SCAT III software is intended to be loaded on a portable PC which will be used in conjunction with the test access interface unit (TAIU) to communicate with a *SLC* System. The software is available on CD-ROM (COMCODE 601957517) and diskette (COMCODE 108471004). The CD-ROM includes the User's Guide [in *Adobe* Portable Document Format (PDF)]. Use *Adobe Reader* (included on the CD-ROM) to display the User's Guide.

**TAIU**

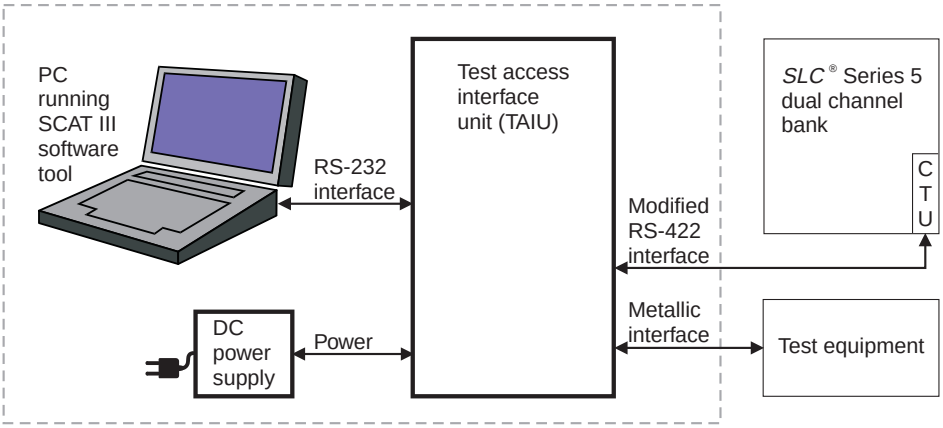
The ED7C672-30, G1 TAIU is an interface box that allows you to connect your PC to a Lucent Technologies *SLC* System. The TAIU is a small, lightweight box (approximately 10" X 12" X 3") powered by a desktop DC power supply that converts 120 V AC to +5 and ±12 V DC. The TAIU provides test jack access to the associated *SLC* System and signaling control functions.



# J1C182CU-1, L1 (Continued)

## Application configuration

The following figure illustrates the configuration for interfacing the J1C182CU-1 SCAT III.




## Bill of material

The following table lists the bill of materials that is contained in the SCAT III kit (COMCODE 601913536).


(Continued on next page)

# J1C182CU-1, L1 (Continued)

**Bill of material (continued)**

| Description | Code | COMCODE | Quantity |
|---|---|---|---|
| Carrying case (Targus model LN20A with SCAT III logo) | Part #6007-07 | 408107597 | 1 |
| Channel test unit (CTU) interface cable | N/A | 848402962 | 1 |
| Power supply | TR2V1000N00 | 408108652 | 1 |
| RS-232 cable | DCA 1037 | 408087559 | 1 |
| SCAT III software CD-ROM | N/A | 601957517 | 1 |
| SCAT III software diskette | N/A | 108471004 | 1 |
| *SLC Series 5 Carrier System, SCAT III (Enhanced Craft Interface Unit), User's Guide* | 363-205-120 | 108448556 | 1 |
| TAIU | ED7C672-30, G1 | 601889249 | 1 |
| Test cables with bantam plugs | PJ944 | 408108769 | 4 |

**NOTE:**
The Targus model LN20A carrying case can be ordered as a replacement through other vendors. However, if not ordered from Lucent Technologies, this case will not include the Lucent Technologies and SCAT III logos.

# Features

## Communication

**Introduction**

This section provides background information on how the SCAT III establishes communication with the bank controller (BC).

**Connection link**

A connection link is required to provision special service channel units. The connection link is between your PC and the *SLC* Series 5 or *SLC LineReach* channel test unit (CTU). The connection link is established using the TAIU, the RS-232 cable, your portable PC, and the CTU cable which accompanies your SCAT III purchase. Run the SCAT software to establish a *session* (communication with the channel bank).

**Channel test unit (CTU)**

Each *SLC* System terminal contains a CTU. The CTU is the access point to the channel bank.

**Bank controller (BC)**

Each *SLC* System contains an alarm display unit (ADU) and bank control unit (BCU). Together, the ADU and BCU make up the BC. The BC oversees the operation of a system and implements any provisioning information transmitted from SCAT III using the CTU interface. The BC stores all provisioning data for the system in non-volatile memory and downloads the provisioning data to the individual channel units.

**One session at a time**

When the BC is communicating (conducting a session) with SCAT III, the BC is not available for a session with any other device. The following devices may be used to initiate a session with the BC.

- another SCAT system (at either end of the *SLC* Series 5 carrier system),
- CIU at either end, or
- eXtended Test Controller (XTC) at the COT. The XTC is an adjunct to the *SLC* Series 5 which allows a Switched Access Remote Testing System (SARTS) or Mechanized Loop Test (MLT2) tester to gain test access to a *SLC* Series 5 channel. Thus, if SCAT III has begun a session with the BC of the blue system of a dual bank, SARTS and MLT2 testers are denied test access to the blue system. In fact, if the SCAT III has gained digital (bitstream) test access, the XTC is also denied digital test access to the white system of that dual bank. In similar fashion, if the XTC (for example, SARTS tester) has already gained test access to a system, SCAT III is denied access to the BC of that system as well as digital test access to the companion system of the dual bank.

## Communication (Continued)

**Two-way communication**

SCAT III sets up two-way communication with the BC. As you use SCAT III, you will not be aware of its communication with the BC. However, you should understand the role of the BC in the provisioning process. SCAT III will work in several *SLC* configurations. When working with an integrated RT-only *SLC* configuration, SCAT III can only be used at the RT. Attempts to access the COT channel unit will fail.

# Provisioning

### The provision command

The provisioning commands allow the user to set the transmission values and signaling parameters so that special service channel units can be used in the *SLC* Series 5 Carrier System or *SLC LineReach* Access System. SCAT III can provision channel units at both ends of a FPC system, whether it is connected at a COT or a RT.

### What can you provision?

You can use the provisioning commands of the SCAT III to complete the following tasks.

- Perform system turnup (for example, clear all provisioning memory for the whole system).
- Provision an empty channel slot for a particular channel unit so that the channel unit is automatically provisioned when it is installed.
- Provision a newly installed channel unit.
- Change the provision parameters of an installed channel unit to provide a different function.
- Change the provision parameters of a channel slot for a different type of channel unit.
- Remove the provision parameters of a channel slot to remove it from service.
- Adjust the provisioned settings if channel unit tests indicate a need for adjustment.
- Copy provisioned settings from the selected channel slot to another.
- Change the special service protection (redlined) status of a channel slot.

### What is the result of provisioning?

The SCAT III uses the provision command(s) to complete the following tasks.

1. Asks you for the function the channel unit will perform. You specify this by entering the function code listed on your work order record and details (WORD) document.
2. Asks you for option settings for the channel unit. This information is also listed on your WORD document.
3. Tells the bank controller (BC) to record the provisioned settings in memory.

# Inventory

### Identify slots

The inventory command allows you to retrieve provisioning settings and unit type for special service (for example, E *SPOTS*® CUs). The provisioning command also retrieves the location of any POTS type channel units installed in the system. Also, for the some POTS units, the comand will retrieve the actual POTS CU type.

- Inventory either end (COT or RT) or both ends
- Inventory all or a subset of channels
- Print the inventory to a printer
- Save the inventory in a file.

# Test Access

## Introduction

The test access interface unit (TAIU) is used to gain test access to *SLC* Series 5 and *SLC LineReach* channel units. The TAIU includes test jacks and signaling control switches, and provides the electrical interface between the PC and the channel bank.

## Function

When used in conjunction with SCAT III software, the TAIU provides test access to special services channel units installed in either *SLC* Series 5 Carrier System or *SLC LineReach* Access System channel bank. The TAIU and the associated SCAT III software provide an equivalent, modern, cost effective replacement for the original and obsolete CIU.

## Tasks completed

The test access commands are used to complete the following tasks.

- Connect to the test bus on the channel test unit (CTU) to check test bus continuity without gaining test access or interrupting service on a channel in a the channel bank. Digital test access is *not* possible to *SLC LineReach* channel units because the *SLC LineReach* channel bank does not support digital test units (DTUs). Only metallic test access is possible in *SLC LineReach*.
- Gain full-splitting metallic test access to a channel.
- Get test access toward the line and/or to the customer drop.
- Get both metallic test access and digital test access to the pulse code modulation (PCM) bit stream of the channel converted from D to A to perform analog half channel measurements on a channel.
- Test either voice frequency (VF) or digital data service (DDS) channel units.
- Perform hitless monitoring on VF channel units using the built-in speaker.
- Get digital test access to either the near end (NE) or the far end (FE) channel unit (only in the *SLC* Series 5 channel bank). No digital test access is available in a *SLC LineReach* channel bank.
- Disconnect test access.

# Getting Started

# 2

## Contents


**What you Need** 2-2

- Hardware 2-2

**Install the Software** 2-3

- Windows 2-3

**Connections** 2-4

- Connect the TAIU to the CTU 2-4
- Initialize the TAIU 2-7
- Disconnect the TAIU 2-8

**Run the Software** 2-9

- Enter SCAT III from the Windows ***Start*** Menu 2-9
- Exit SCAT III 2-10

# What you Need

## Hardware

**Personal computer**

You will need the following minimum PC configuration to install and run SCAT software.

| Hardware | Requirement |
|---|---|
| Laptop or desktop PC | *MS-DOS* compatible running *MS-DOS* 3.0 or higher |
| CD-ROM drive | CD-ROM drive is optional, but necessary if you want to view or print the on-line User's Guide |
| Floppy drive | 3.5-inch, either high density/1.44 MB or low density/720 kB |
| RAM | 640 kB, approximately 500 kB available |
| Hard drive | *Required* |

**Printer**

A printer may be required to print inventory information. However, the information may be saved to a file on the hard disk or on a floppy and printed when a printer is available.

# Install the Software

## Windows

### Introduction

**NOTE:**
If you do not have Windows, refer to your documentation from the Microsoft Corporation for help with copying files and setting up a DOS environment.

SCAT software can be installed and set up to run from Microsoft Corporation Windows platform. A program information file (SCAT3.PIF) has been provided along with an icon file (SCAT.ICO). When using Windows, these files will automatically be copied to the appropriate area and SCAT will appear as a menu item under the Start menu, Programs sub-menu.

### Procedure

**NOTE:**
This procedure assumes a typical PC configuration of one hard disk (drive labeled C:) and a CD-ROM drive.

Insert the SCAT III software CD-ROM (COMCODE 601957517) into the CD-ROM drive to install the SCAT software in a Windows platform. SCAT software starts automatically and loads onto your C: drive in a subdirectory folder labeled *SCAT3*. Follow the instructions displayed on the screen. The SCAT III CD-ROM contains a copy of the User's Guide in Adobe Portable Document Format (PDF) and *Adobe Acrobat Reader* (optional, but required to display the User's Guide).

If you do not have a CD-ROM drive, complete the following steps to install the SCAT software in a Windows platform using the SCAT III software diskette (COMCODE 108471004).

| Step | Procedure |
|---|---|
| 1 | **NOTE:** This procedure assumes a typical PC configuration of one hard disk (drive labeled C:) and a 3.5-inch diskette drive labeled A:. It is also assumed that after booting, you are in the root directory C:\.<br><br>Insert the disk into drive A: |
| 2 | Select the *Start* > *Run* menu and enter **A:INSTALL** and press the **Enter** key.<br><br>**Results:** SCAT software loads onto your C: drive in a subdirectory folder labeled *SCAT3*.<br><br>**Stop! End of Procedure.** |

# Connections

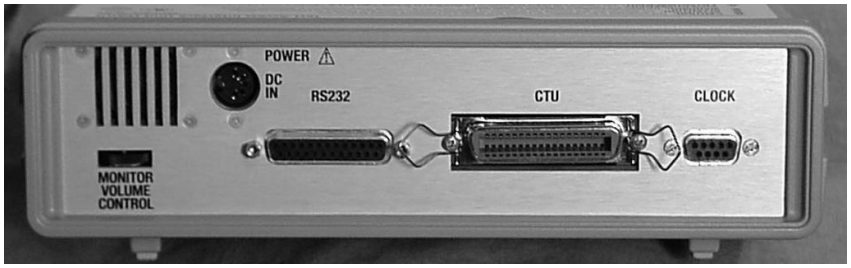
## Connect the TAIU to the CTU

**Procedure**

Connect the TAIU to the channel test unit (CTU) of a channel bank. Communication is established when you plug your PC into the TAIU and the TAIU into the CTU of a channel bank.

**CAUTION:**
*Use only the cables supplied with SCAT III and TAIU to interface with the channel bank.*

| Step | Procedure |
|---|---|
| 1 | Connect the provided DC power supply to the **DC IN** connector located on the rear panel of the TAIU. |



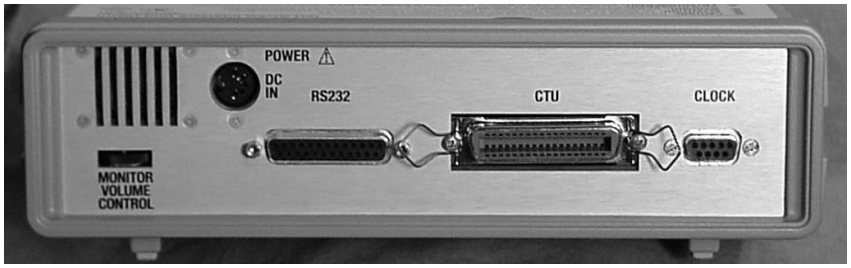

*Continued on next page*

# Connect the TAIU to the CTU (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 2 | Connect the provided RS-232 cable to the serial port on the PC. |

| Step | Procedure |
|---|---|
| 3 | Connect the other end of the provided RS-232 cable to the **RS232** connector located on the rear panel of the TAIU. |



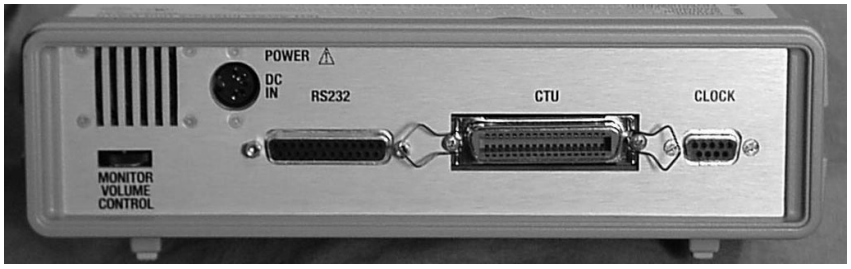

*Continued on next page*

# Connect the TAIU to the CTU (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 4 | Connect the CTU cable supplied with SCAT III to the **CTU** connector located on the rear of the TAIU. |

| | |
|---|---|
| 5 | Connect the other end of the provided CTU cable to the **TEST ACCESS** connector located on the faceplate of the CTU of a channel bank. |

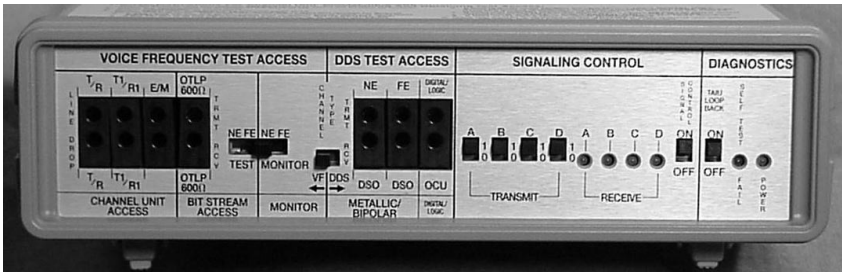



**Stop! End of Procedure.**

# Initialize the TAIU

**Procedure**

Use the following procedure to ensure that the TAIU passes the self test.

| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>The TAIU does *not* have to be connected to a CTU.<br><br>Connect the provided DC power supply to a 120 V AC outlet.<br><br>  <br><br><br>**Results:** Wait a few seconds (less than 10 seconds) for the TAIU to power up and run its internal self-test.<br><br>**Requirement:**The TAIU passes the power up self test when the LED indicators light and go off in the following pattern and the **SELF TEST FAIL** LED indicator is not lighted. Observe the **SELF TEST FAIL** LED indicator. If the LED indicator blinks (in a repeating pattern), send the TAIU in for repair.<br><br>1. **DIAGNOSTICS POWER** LED indicator ON<br>2. **DIAGNOSTICS SELF TEST FAIL** LED indicator ON<br>3. **SIGNALING CONTROL RECEIVE** LED indicators ON for 3 seconds.<br>4. **SIGNALING CONTROL RECEIVE** LED indicators OFF<br>5. **DIAGNOSTICS SELF TEST FAIL** LED indicator OFF.<br><br>**Results:** You can now run the SCAT III software.<br><br>**Stop! End of Procedure.** |

# Disconnect the TAIU

**Procedure**

Disconnect the TAIU from the CTU using the following steps.

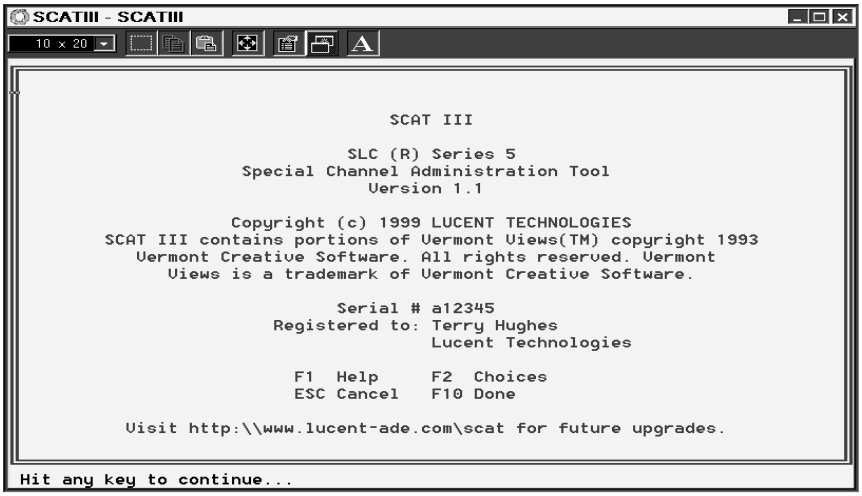
**CAUTION:**
*You must exit the SCAT III prior to disconnecting the TAIU. Otherwise, system test resources will be tied up until they automatically time out. Only one communication session is allowed at a time.*

| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>Refer to the section, Exit SCAT III.<br><br>Ensure that you have exited the SCAT III session. |
| 2 | Disconnect the CTU cable from the **TEST ACCESS** connector located on the faceplate of the CTU of a channel bank. |
| 3 | Disconnect the CTU cable from the **CTU** connector located on the rear of the TAIU. |
| 4 | Disconnect the DC power supply from the 120 V AC outlet and the **DC IN** connector located on the rear panel of the TAIU. |
| 5 | Disconnect the RS-232 cable from the **RS232** connector located on the rear panel of the TAIU. |
| 6 | Disconnect the RS-232 cable from the serial port on the PC. |
| | **Stop! End of Procedure.** |

# Run the Software

## Enter SCAT III from the Windows *Start* Menu

**Procedure** Use the following procedure when accessing SCAT III from *Windows*.

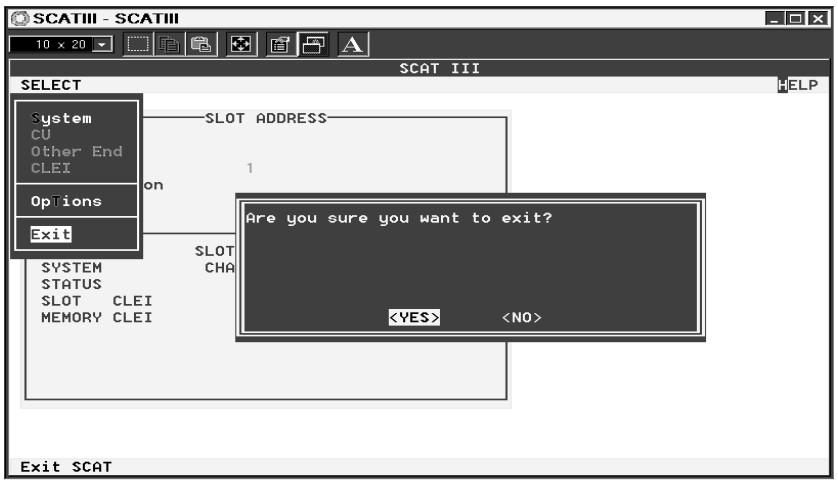
| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>This procedure assumes that you have successfully connected the TAIU to the CTU and the SCAT III is powered on.<br><br>Using Windows95 or WinNT, click on the *Start* menu button. Select *Programs> SCATIII> SCATIII*.<br><br>**Results:** An MS DOS window opens and runs SCAT III. The following screen is displayed. You are now ready to *select* a system.<br><br>  <br><br><br>**Stop! End of Procedure.** |

# Exit SCAT III

**Procedure**

When you have finished using SCAT III, you must *exit*.

**NOTE:**
You must exit the SCAT III prior to disconnecting the TAIU. Otherwise, system test resources will be tied up until they automatically time out (less than 10 minutes). Only one communication session is allowed at a time. Then other equipment, such as the XTC, may again begin communication with the BC.

| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>If *Connect Test Access* was previously selected, you must select *Disconnect Test Access* before selecting *Exit*.<br><br>Select *Exit* from the **Select** Menu.<br>  <br><br><br>**Results:** You exit the SCAT III session.<br><br>**Stop! End of Procedure.** |

# Using the SCAT III

# 3

## Contents


**Operations and Features** 3-2

- Overview 3-2
- Main Task Bar 3-3
- Select a Channel 3-41

**Navigate** 3-45

- Overview 3-45
- Keyboard 3-46
- Mouse 3-49

**Enter Information** 3-50

- Menus 3-50
- Dialog Boxes 3-51
- Read Displayed Information 3-54
- Overview 3-54
- Slot Status Message 3-55
- Command Completion Message 3-60
- Command Confirmation Message 3-61
- Message Line 3-62

**Print** 3-63

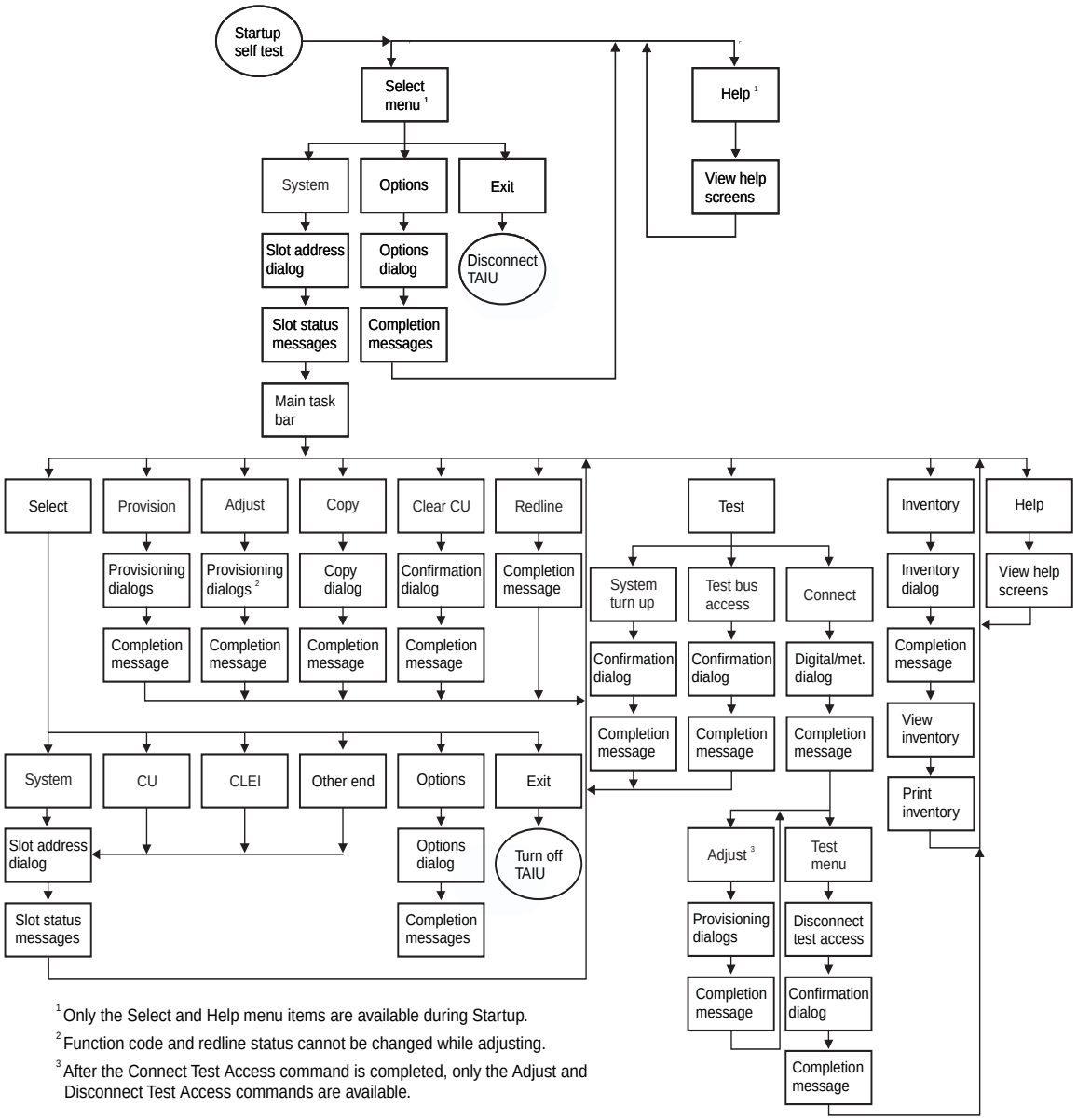
- User's Guide 3-63

# Operations and Features

## Overview

### Introduction

This section provides a high level, user oriented, description of the SCAT III software system (shown in the following flow diagram). Chapter 4, "Operations" contains detailed information for making menu selections and the content of dialog boxes, associated command, and parameter entry fields. Some entry fields offer a pull-down menu (choice list) to facilitate the entry process. The content of various message boxes associated with the various dialogs is also covered in Chapter 4, "Operations".




[1] Only the Select and Help menu items are available during Startup.

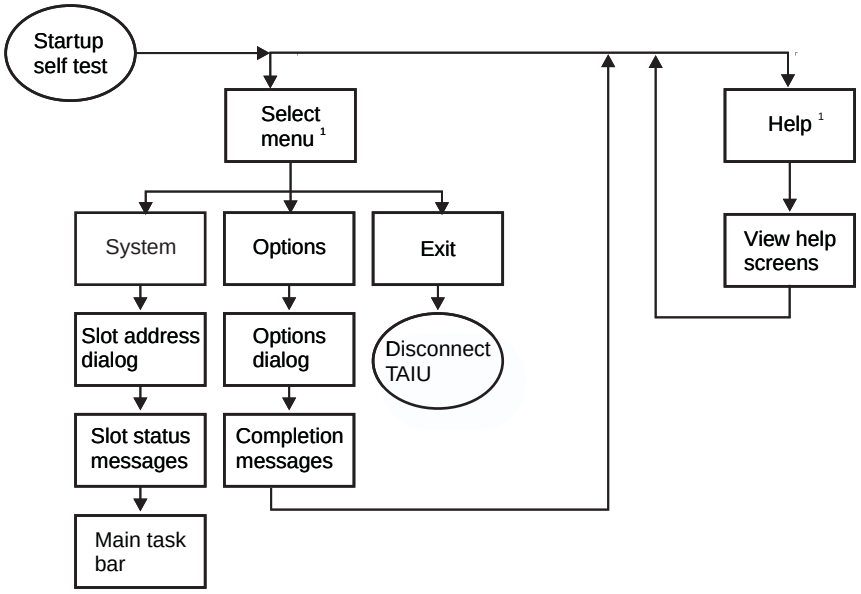
[2] Function code and redline status cannot be changed while adjusting.

[3] After the Connect Test Access command is completed, only the Adjust and Disconnect Test Access commands are available.

# Main Task Bar

**Start up**

The main task bar is the primary entry point for initiating a SCAT III session activity. It is displayed across the top of the screen during all session activities, except when the help function is invoked. At all times one of the nine items on this menu will be highlighted. At start up (shown in the following flow chart), the task bar offers the user two possible selections, SELECT and HELP. Other functions will be available after a system has been selected.

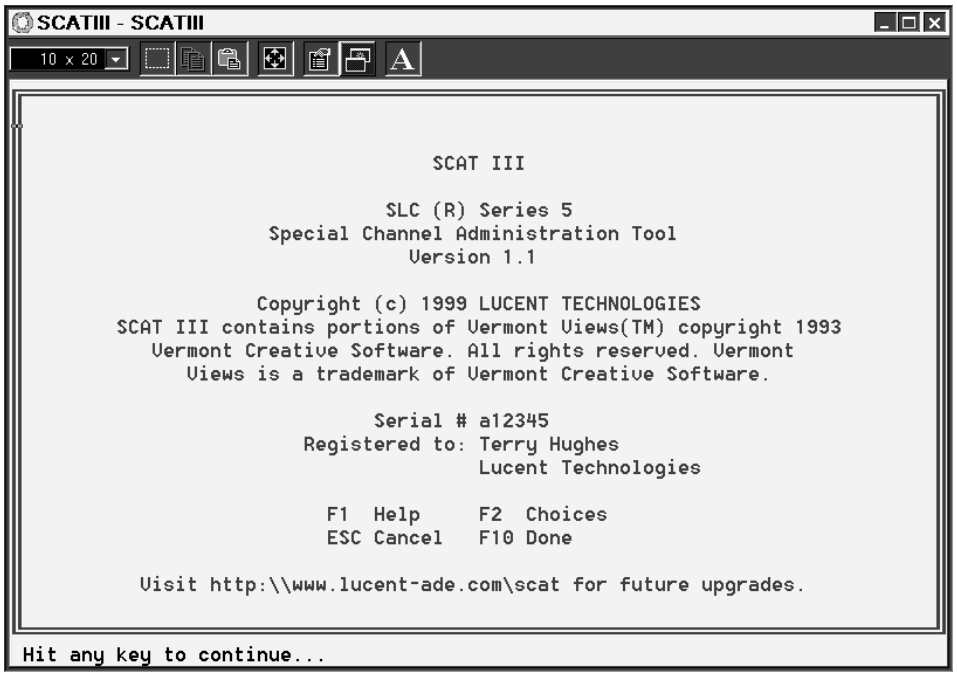


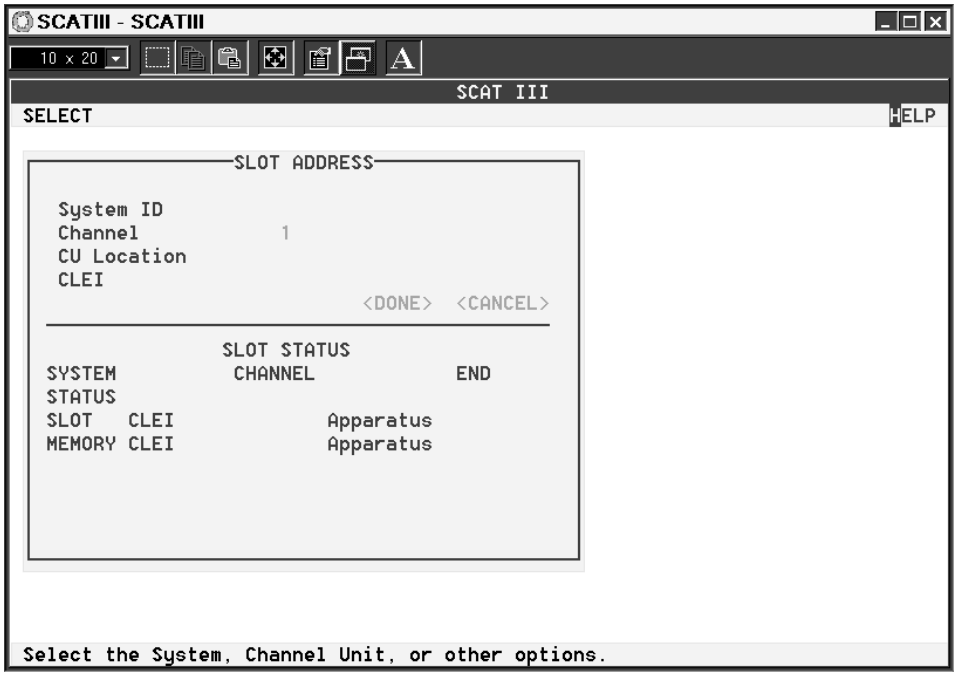

[1] Only the Select and Help menu items are available during Startup.

(Continued on next page)

# Main Task Bar (Continued)

**Start up (continued)**



# Main Task Bar (Continued)

**The *main* task bar**

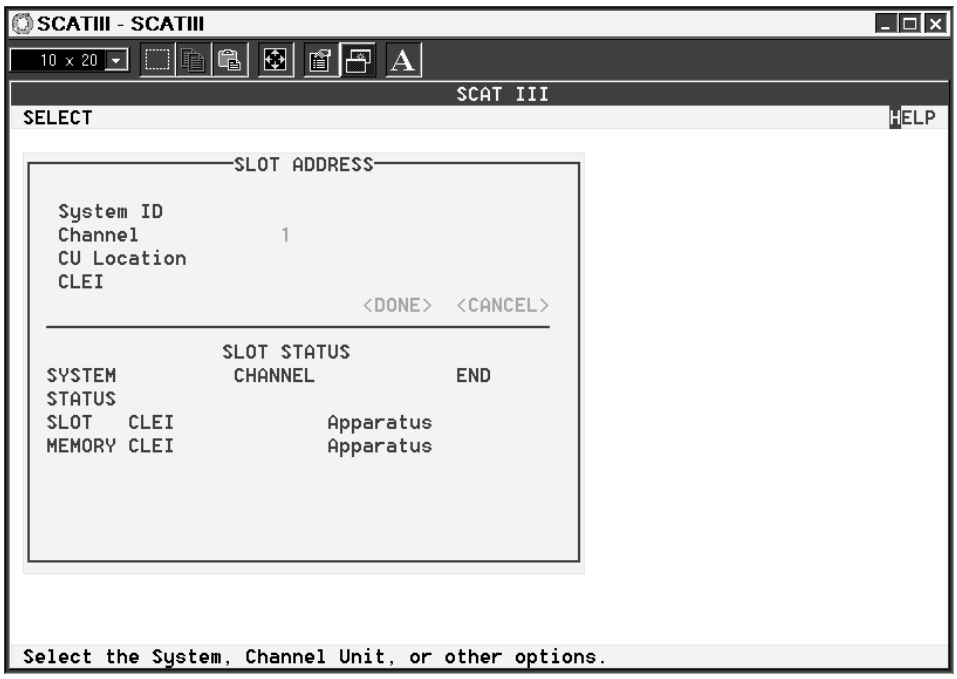
Each main task bar selection may have an additional submenu, which will be displayed when a selection is made. Also, each main task bar selection or submenu selection will open (activate) a dialog box for the purpose of entering commands and parameters.

| Menu | Function |
|---|---|
| SELECT | Specify *SLC* system and CU identity parameters, to specify printer options (for Inventory print functions), and to *Exit* the SCAT III program. |
| PROVISION | Specify provisioning parameters for the selected CU. |
| ADJUST | Adjust parameters for a previously provisioned CU. |
| COPY | Copy provisioning parameters from one CU to another CU. |
| CLEAR-CU | Clear the provisioning parameters for the selected CU. |
| REDLINE | Set or clear the Redline condition for the selected CU. |
| TEST | Initialize (clear) the provisioning data for all CUs during turn up or to reset the *SLC* system. Also, used to access the test bus for the purpose of connecting external test equipment to a CU under test |
| INVENTORY | Access the Inventory dialog box for initiating an inventory |
| HELP | Access the Help menu. The Help menu may be accessed at any time by pressing the **F1** function key. |

## Main Task Bar (Continued)

**Slot address dialog**

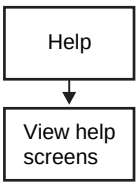
The initial window will also display the CU SLOT ADDRESS dialog box used to enter system and CU selection parameters, as well as a SLOT STATUS message box which will display information about the selected CU slot. As additional selections are made other dialog boxes and or message boxes will be displayed as needed.



# Main Task Bar (Continued)

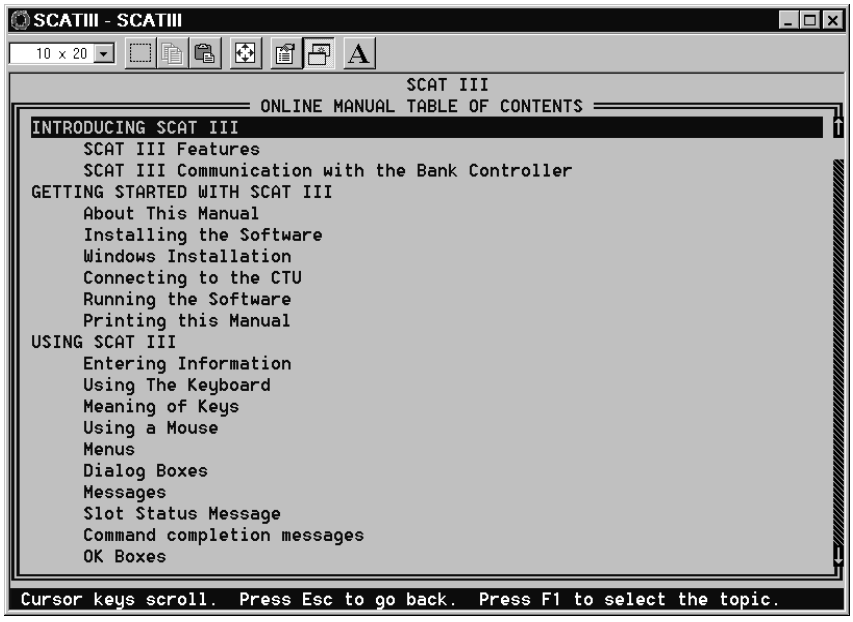
## Help

Press the **F1** function key on the keyboard or click on the HELP selection (shown in the following flow chart) on the main task bar *at any time* during a SCAT III session to display descriptive information regarding specific features and functions associated with the SCAT III system.




Use the following procedure to access the *Online User's Reference Guide*. You can access the help function using two methods, select **HELP** on the Task menu bar or press the **F1** function key.

| Step | Procedure |
|---|---|
| 1 | Select HELP from the Task menu bar. Go to **Step 4**. Otherwise, go to **Step 2**.<br><br>**Results:** The *Table of Contents* is displayed. |
| 2 | Press the **F1** function key to select context sensitive help. |
| 3 | Press the **F1** function key a second time to bring up the *Table of Contents*.<br><br>**Results:** The *Table of Contents* is displayed. |




*Continued on next page*

# Main Task Bar (Continued)

## Help (continued)

| Step | Procedure |
|---|---|
| 4 | Select a specific help screen by either scrolling through the menu, using the **Up/Down** arrows on the keyboard, and then pressing the **ENTER** or **F1** key, or by selecting the item by pointing to it with the mouse and clicking on it. |
| 5 | Press the **Esc** key two times (three times if you accessed the *help* function using the **F1** function key) to exit *help*.<br><br>**Results:** The main screen is displayed.<br><br>**Stop! End of Procedure.** |

## Main Task Bar (Continued)

**Select**

**NOTE:**
The System entry must be completed before any additional SCAT III activity. When the SELECT dialog for setting system ID and CU information has been completed and the <DONE> command has been selected, SCAT III will retrieve any existing provisioning information stored in the selected system for the selected *CLEI* code. If the previously stored information is for a different CLEI code, it will not be retrieved as the system assumes the user is re-provisioning the selected channel.

The SLOT STATUS message box will also be populated with slot status information, identifying the selected system and CU slot, the presence of prior provisioning information, and any redline status assigned to the slot. When a CU is actually installed in the system the *CLEI* and apparatus codes will be displayed for the slot. The apparatus code will not be displayed for some non-provisionable CU codes and only a generic description will be provided (for example, POTS).

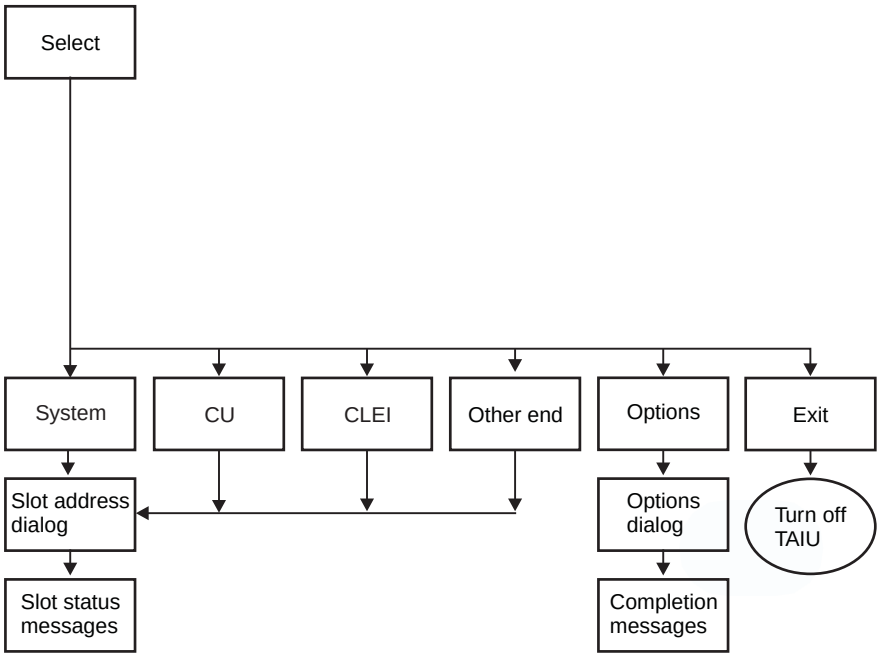
The system will also display a provisioning dialog box appropriate to the *CLEI* code entered in the SLOT ADDRESS dialog box. The title of this box will offer a generic description of the type of CU selected for provisioning (for example, E *SPOTS*, 4-wire, etc.). If any previously stored provisioning information is applicable to the selected CU type, it will be loaded in the dialog box. A blank dialog box does not mean that no provisioning information is stored in the system, simply that it does not correspond to the selected CU type. If the channel is re-provisioned at this time, any prior settings will be deleted and the information in the SLOT STATUS message box will be updated.

(Continued on next page)

# Main Task Bar (Continued)

**Select (continued)**

The SELECT function (shown in the following flow chart) is the initial entry point for all other SCAT III activities.



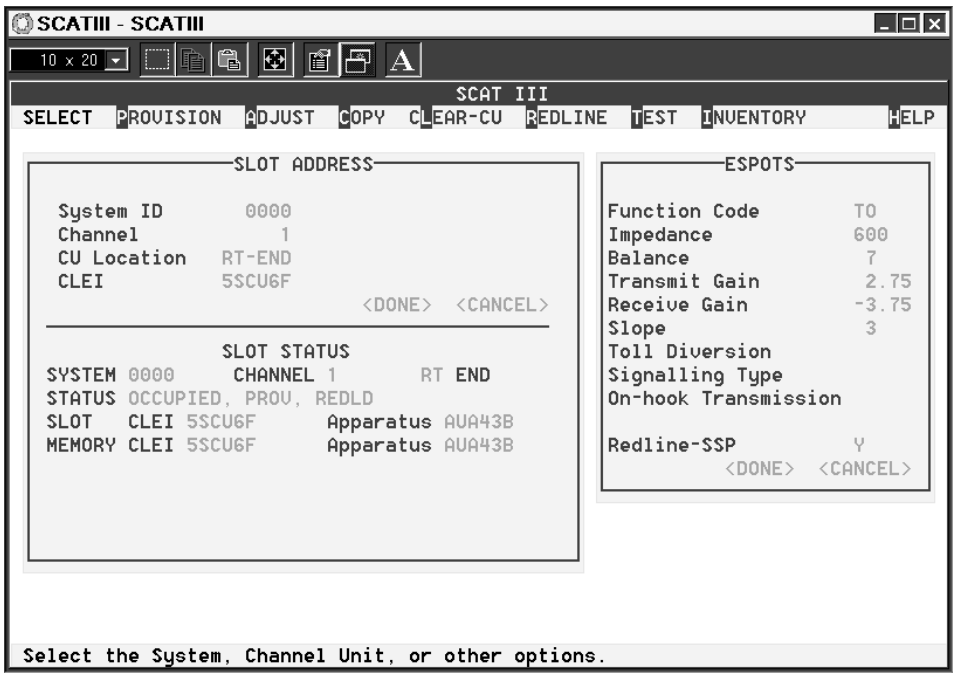

A submenu with six selections will be displayed directly below SELECT when the SELECT menu function is selected. Once a selection has been entered, the SELECT menu will close and the appropriate field in the SLOT ADDRESS dialog will be highlighted.

(Continued on next page)

# Main Task Bar (Continued)

**Select (continued)**

Once the SLOT ADDRESS dialog box has been populated the user can access any of the other main task items associated with specific CU activity (for example, provisioning). The INVENTORY command requires that a *SLC* system identification number and CU information be entered in the SLOT ADDRESS dialog box.

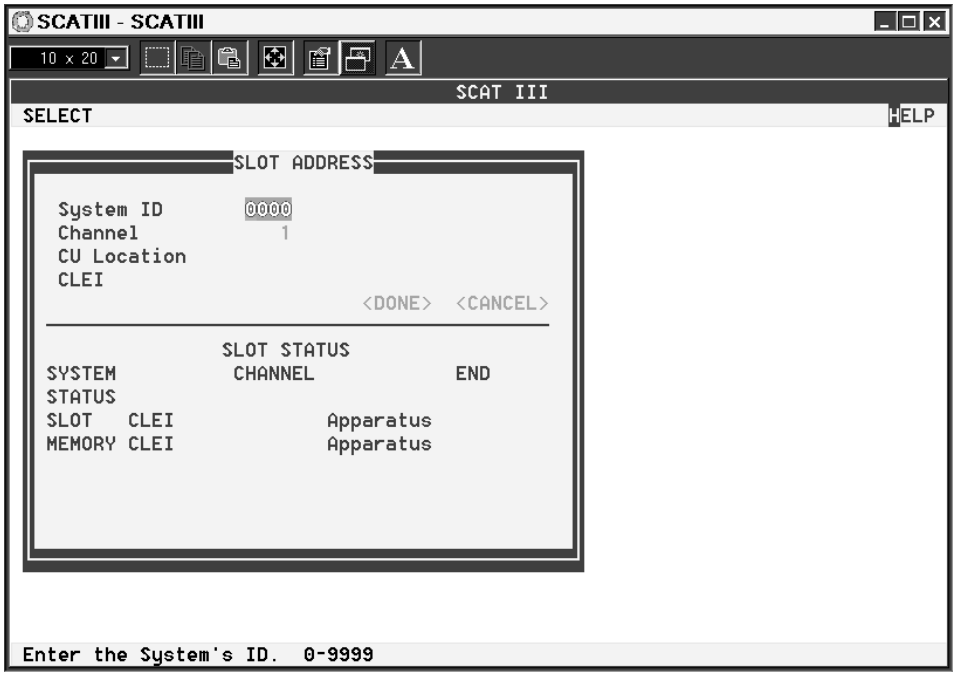



(Continued on next page)

# Main Task Bar (Continued)

**Select (continued)** **System**

The System ID is the first entry in the SLOT ADDRESS dialog box. Use the System selection to enter the *SLC* System ID number. The dialog box will also prompt for additional required entries once a system ID is entered – Channel, CU Location, and CLEI.

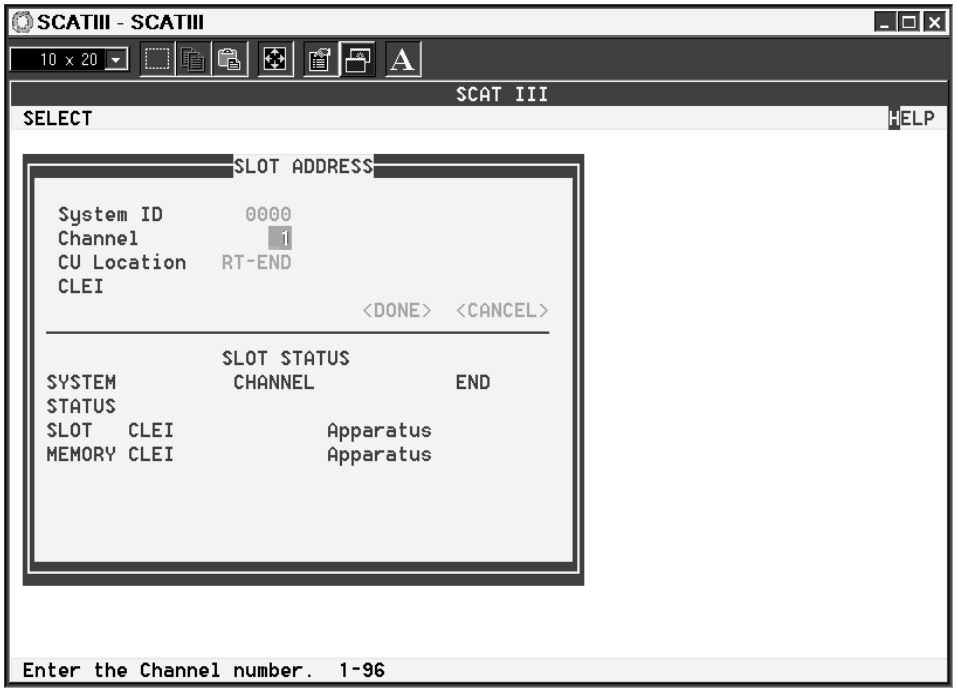



(Continued on next page)

# Main Task Bar (Continued)

### Select (continued) CU

This selection directs the user to the SLOT ADDRESS dialog box for entering a new channel number (CU number) when activity on a CU other than the one selected initially is needed.

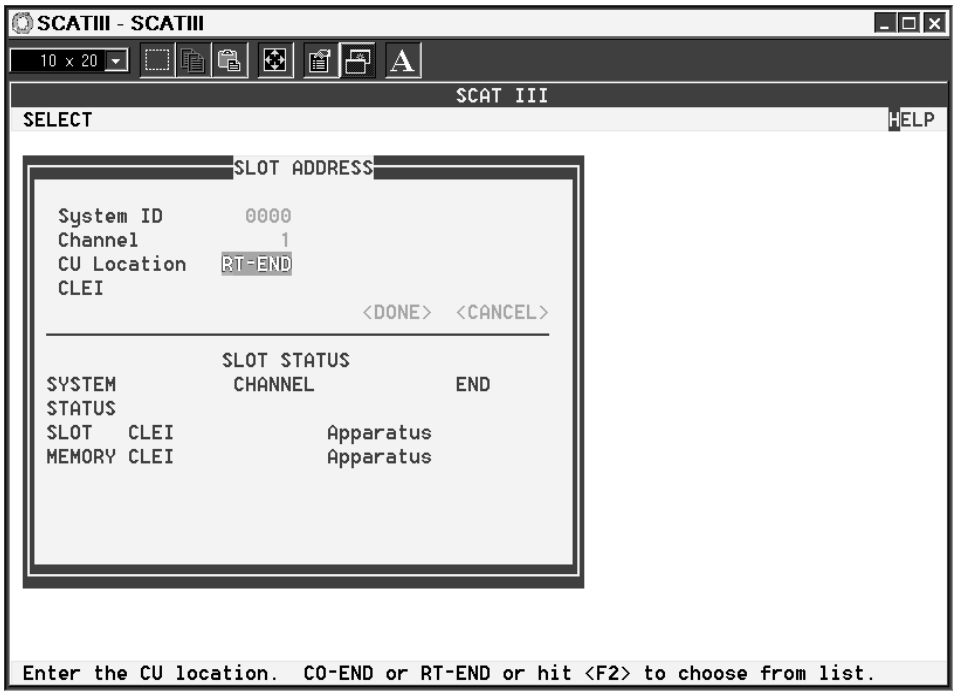



(Continued on next page)

# Main Task Bar (Continued)

### Select (continued) Other End

Use this selection to switch the CU Location entry in the SLOT ADDRESS dialog box for the selected CU. Use this entry to initiate provisioning activity on the *other* CU in a COT/RT channel pair.

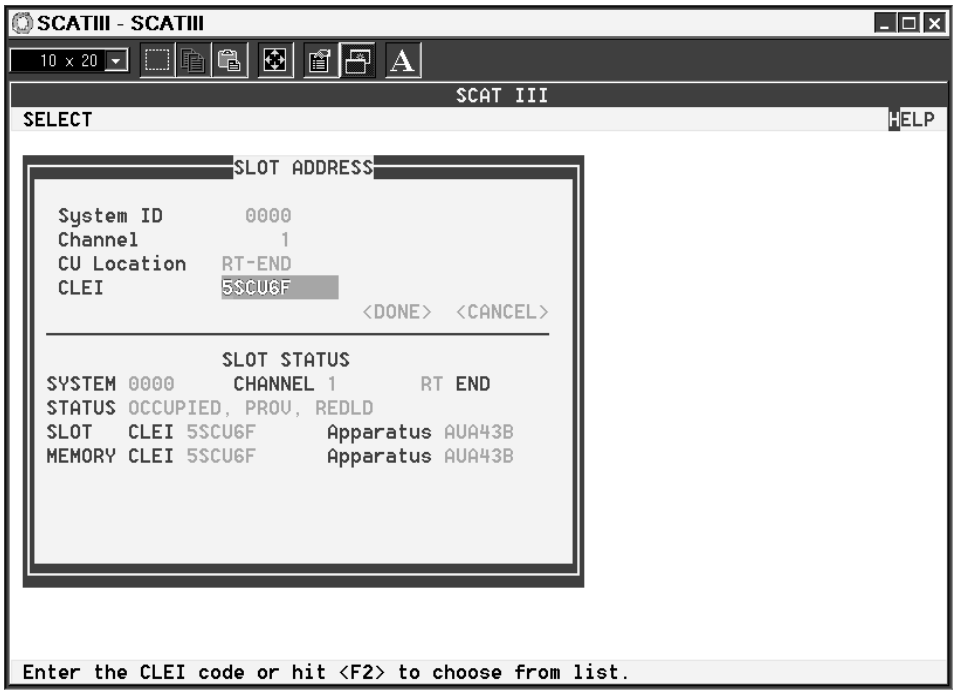



(Continued on next page)

# Main Task Bar (Continued)

**Select (continued)** **CLEI**

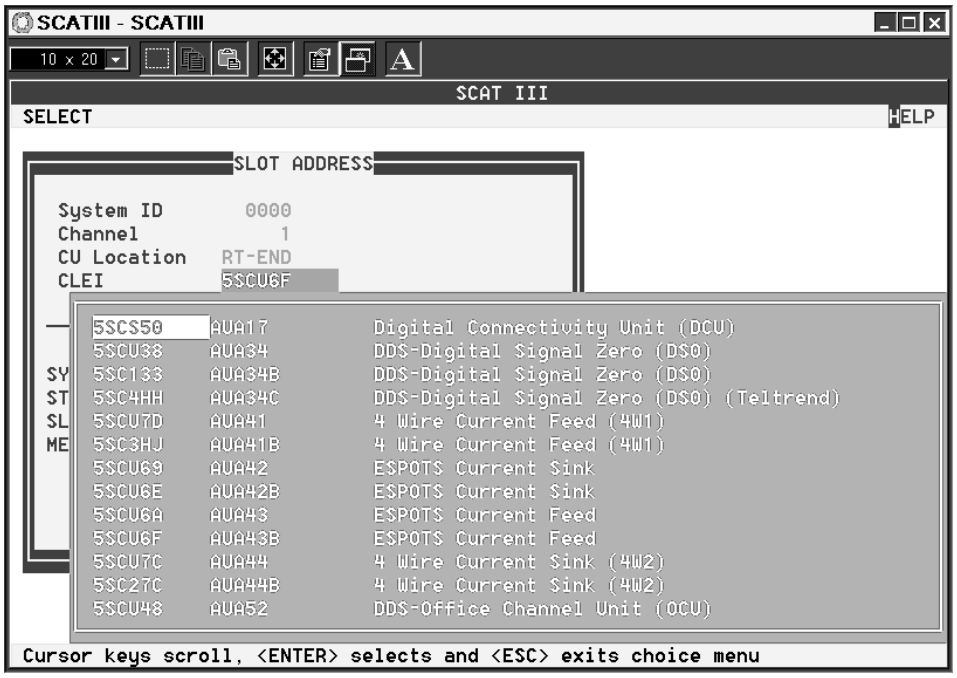
Use the CLEI selection to enter or change the *CLEI* code specified in the SLOT ADDRESS dialog box for provisioning the selected CU slot.

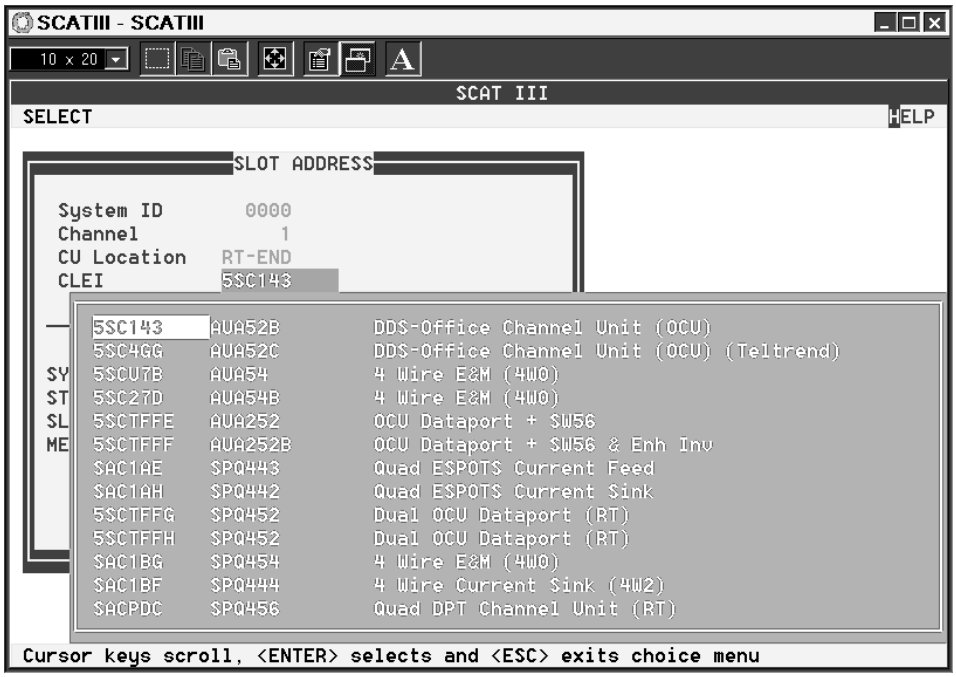



(Continued on next page)

# Main Task Bar (Continued)

**Select (continued)** Press the **F2** key to display a list of valid *CLEI* codes.



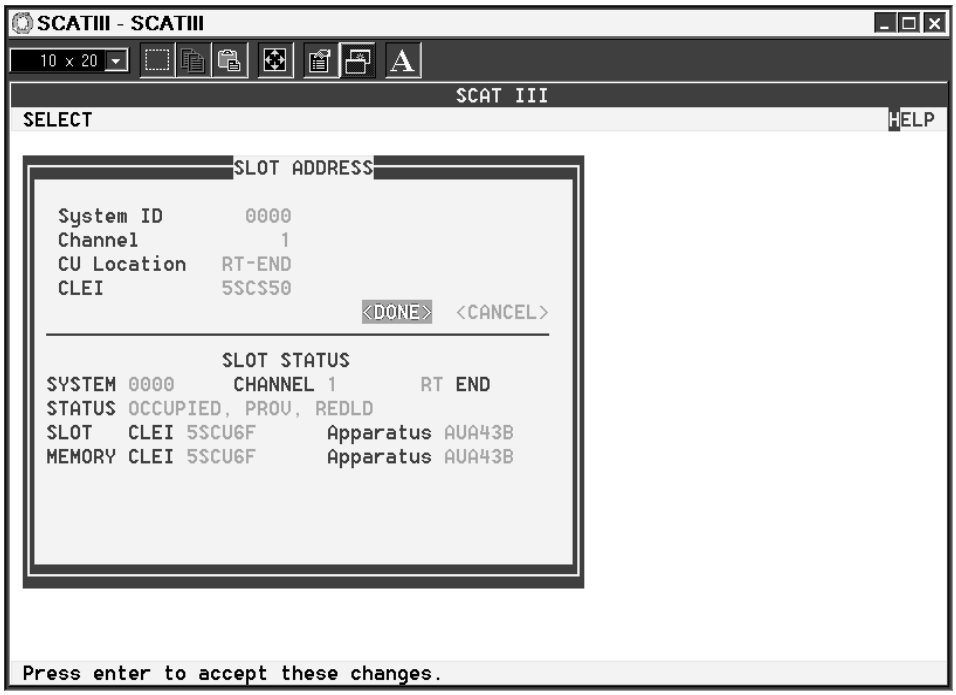




(Continued on next page)

# Main Task Bar (Continued)

### Select (continued) <DONE> command

Select the <DONE> command when all required entries are completed.



# Main Task Bar (Continued)

### Select (continued) OpTions

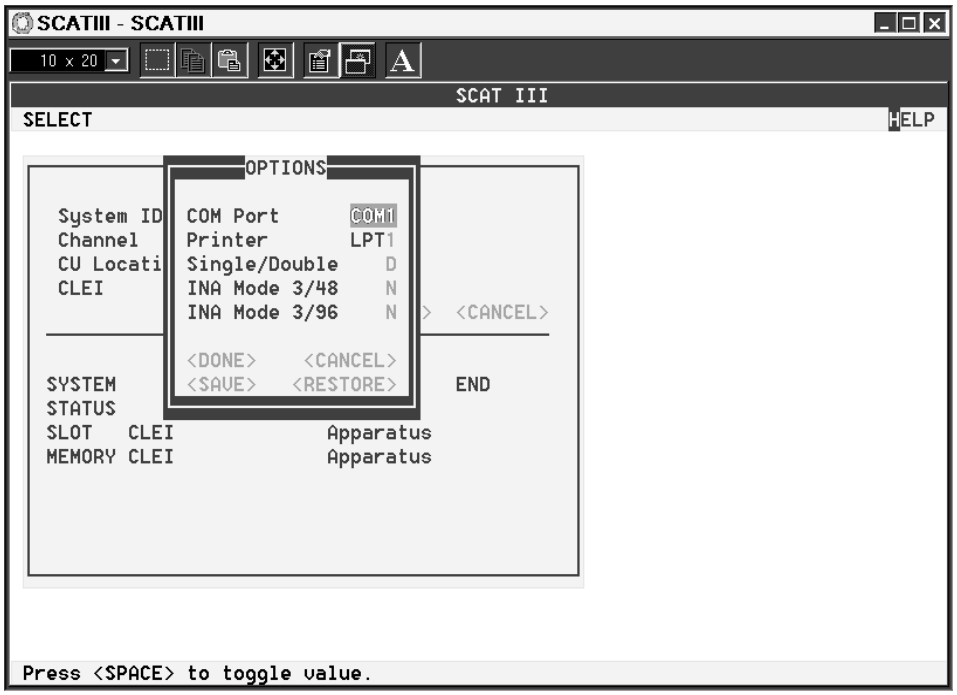
Open the OpTions dialog box to select printer options as well as options associated with INA configured *SLC* Systems.This selection is normally used at the beginning of a session to configure printer and control options that will be used in accessing systems and for printing inventory results. If a printer is not being used and/or if activity is not intended on an INA-type system, there is no need to enter the OpTions dialog. The following table lists available *options*.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **COM port** | Depends on configuration of your computer. | Select the COM port (COM1 or COM2) you wish to use. Press the **Space** bar to toggle the COM port. |
| **Printer** | Depends on configuration of your computer. | Enter the Printer port you wish to use. Generally, LPT1 is used, but some computers can use other ports. |
| **Single/Double** | S | INA Mode 3 only. Set to the same position as on the Single/Double option switch located on the ADU of the *SLC*® System being accessed. Allow selection of single channel CUs (for example, 4-wire VF and dataports) in even channel slots. Overrides the SCAT III automatic checking feature and is useful for provisioning a *SLC* System INA mode 3 with 48 channels configuration. |
| | D | Normal operation. Check to make sure that single channel CUs do not try to access even channels. |
| **INA Mode 3/48** | Yes | Connected to an INA in Mode 3 with 48 channel configuration. SCAT III will use channel slots only in the range 1 to 48. |
| | No | Normal operation. Any other configuration or feature package. |
| **INA Mode 3/96** | Yes | Connected to an INA in Mode 3 with 96 channel configuration. SCAT III will only use *odd* channel slots (range=1 to 96). |
| | No | Normal operation. Any other configuration or feature package. |

(Continued on next page)

# Main Task Bar (Continued)

### Select (continued)

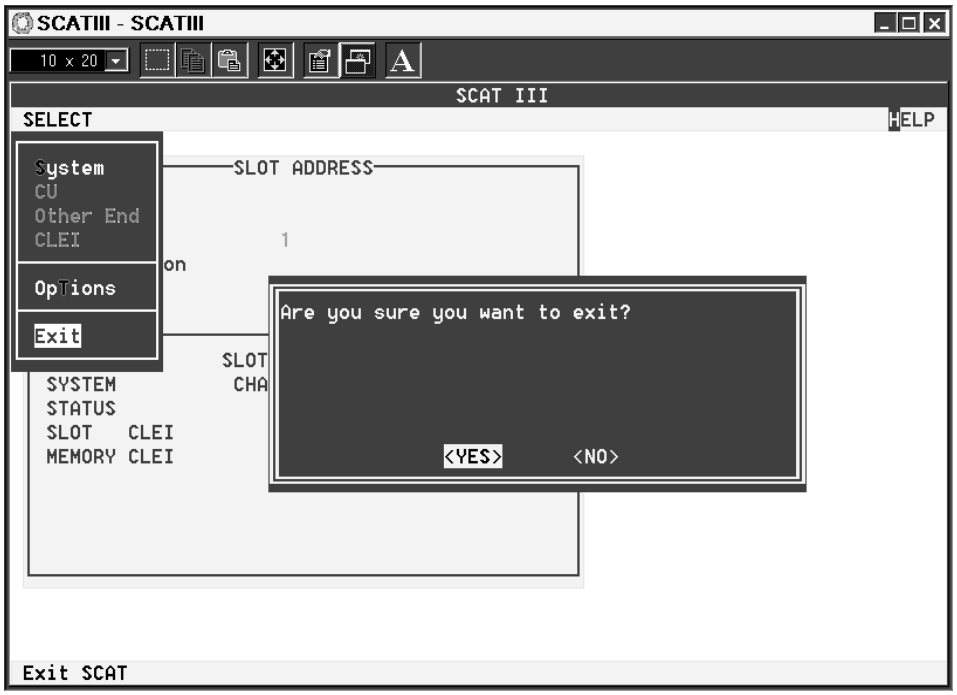


# Main Task Bar (Continued)

**Select (continued)** **Exit**

**CAUTION:**
*You must exit the SCAT III prior to disconnecting the TAIU. Otherwise, system test resources will be tied up until they automatically time out (less than 10 minutes). Only one communication session is allowed at a time. Then other equipment, such as the XTC, may again begin communication with the bank controller.*

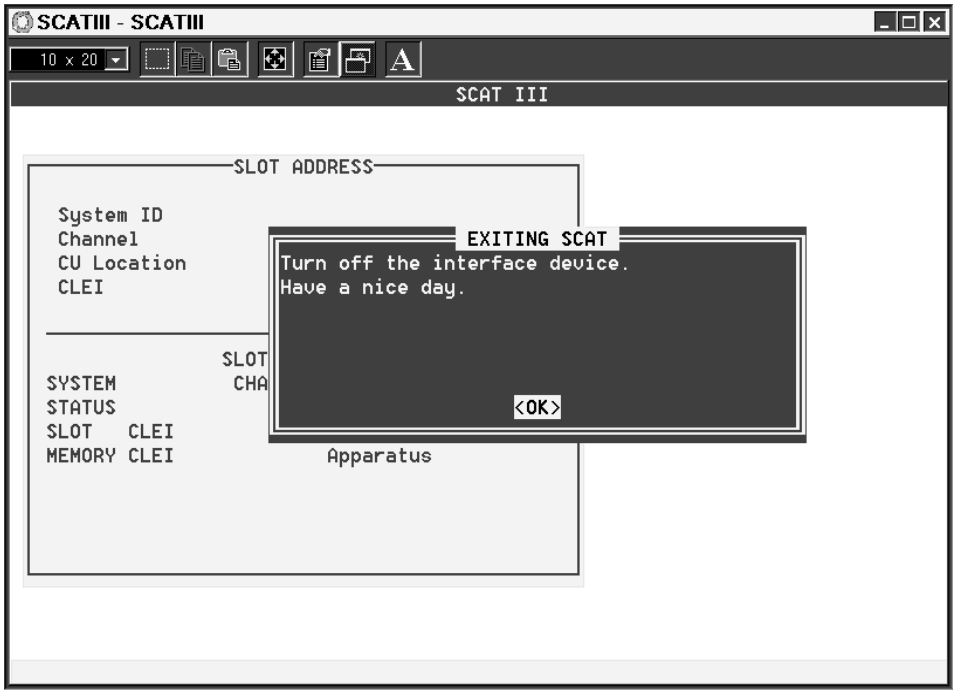
Exit the SCAT III software system. You must use this command to exit to ensure that the system will properly terminate the session with the associated *SLC* system.




(Continued on next page)

# Main Task Bar (Continued)

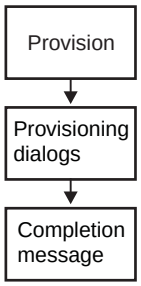
**Select (continued)** The SCAT III displays a completion message reminding you to disconnect the TAIU.



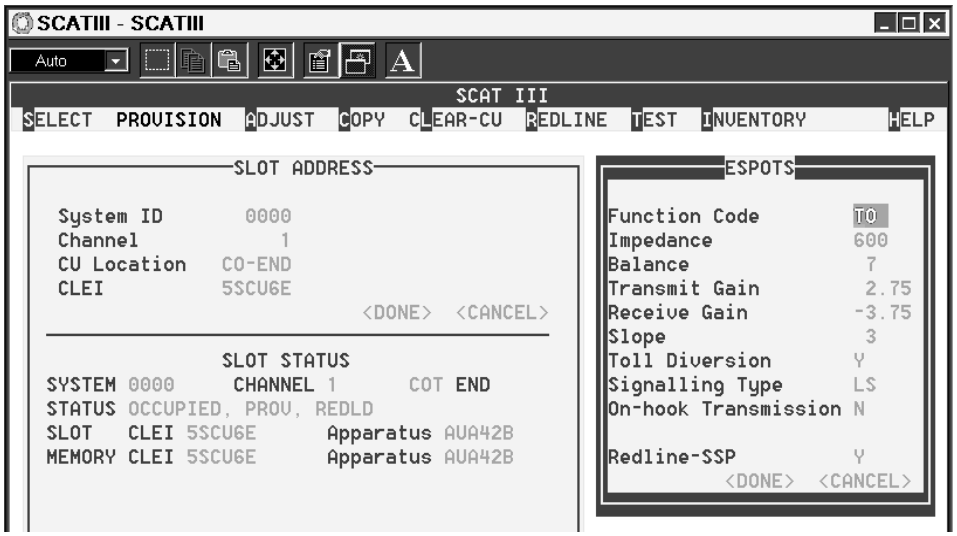
# Main Task Bar (Continued)

**Provision**

The PROVISION selection (shown in the following flow chart) will activate the provisioning data box associated with the selected CU type. Use the PROVISION command to enter or modify provisioning parameters assigned to the channel (for an existing or newly installed CU, or an empty CU slot to be filled at a later time).




When PROVISION is selected, the system will activate the previously displayed provisioning dialog box and highlight the first data entry field. At this point the user must enter the required provisioning data by either keying in the appropriate entry or by selecting an entry from a choice list if available. Refer to Chapter 4, "Operations" for detailed information on specific data entries for each of the CU types supported by the SCAT III. When all entries have been completed and verified the user will be prompted for the <DONE> command. Executing this command at this time will initiate the download of the provisioning information to the *SLC* system, thereby clearing any prior provisioning information for the channel in the *SLC* system. The SLOT STATUS box will be updated to reflect the new provisioning assigned to the CU slot. The SLOT STATUS message box will continue to display the actual CU code installed in the system. If this does not correspond to the code as provisioned, the CU will not be placed in service until it has been removed and replaced with the correct type (as provisioned).

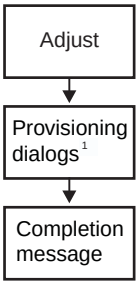


# Main Task Bar (Continued)

## Adjust

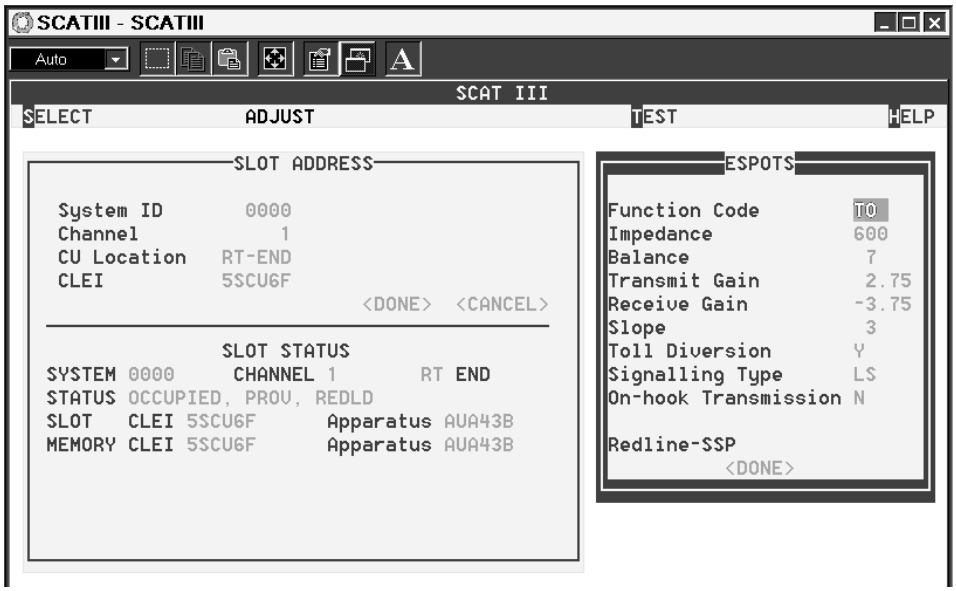
**CAUTION:**
*When a parameter is changed during* ADJUST*, the new value is passed to the BCU and CU as soon as the* **Enter** *key is pressed. The change can only be undone by manually reentering the correct value. The* **Esc** *key will not restore the previous value. There is no cancel function for an* ADJUST *change once it has been submitted to the system.*

The ADJUST command (shown in the following flow chart) will activate the previously opened PROVISION dialog box associated with the selected CU. Select the ADJUST command to *adjust* a circuit to specific requirements. When a CU is not installed, the changes are stored in system memory until a CU is installed. Normally, this function is used during the test access function.




[1] Function code and redline status cannot be changed while adjusting.

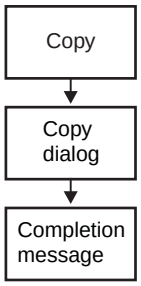
Changes are immediately entered into the system when the **Enter** key is pressed. Select the <DONE> command to end the activity.



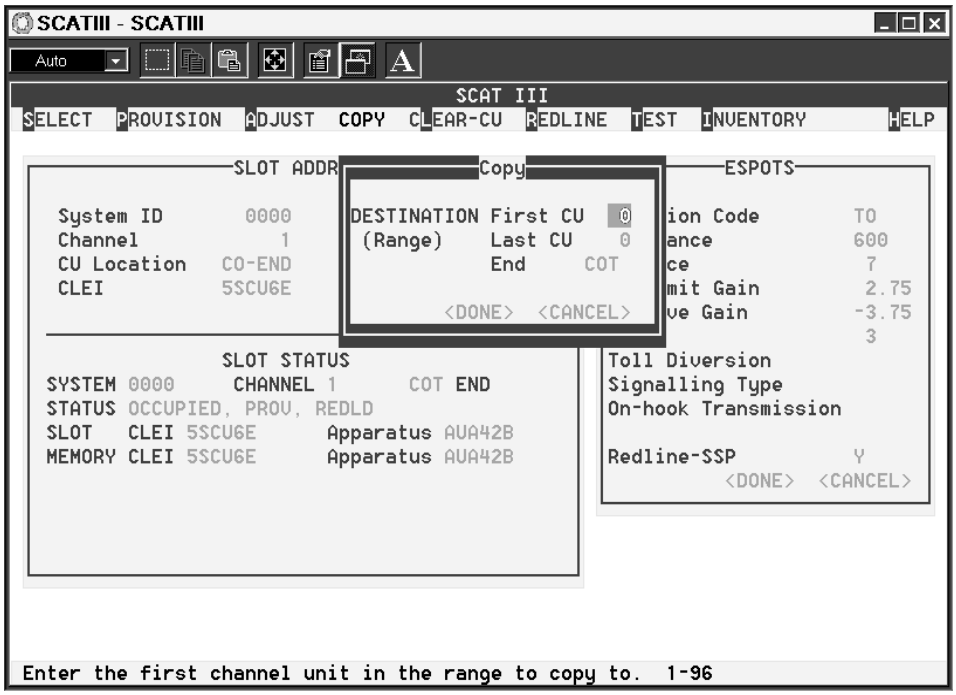
# Main Task Bar (Continued)

## Copy

The COPY selection (shown in the following flow chart) will open a dialog box which allows the user to copy the provisioning information for the selected CU slot into one or more new CU slots for which comparable service is specified.




Selecting COPY opens the Copy dialog box to specify the CU numbers intended as the destination for the copied provisioning data. When you intend to copy to only one other CU, the First CU and Last CU entries must show the same destination CU number. A copy can be directed to either available end of the system, RT or COT.

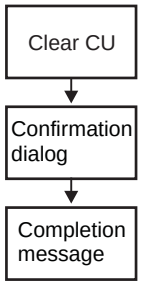


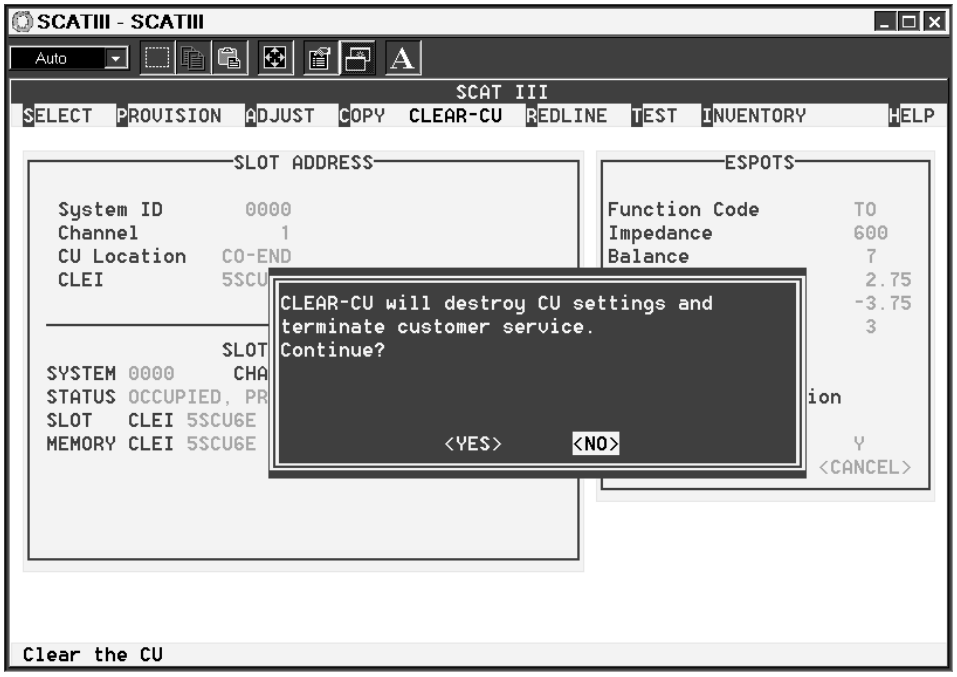
# Main Task Bar (Continued)

**Clear channel unit**

**CAUTION:**
*The CLEAR-CU selection will clear the provisioning information for the selected CU slot and terminate customer service. Select the YES command only when you wish to clear the provisioning information for the selected CU slot.*

The CLEAR-CU selection (shown in the following flow chart) will clear the provisioning information for the selected CU slot and terminate customer service.

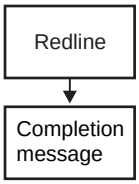


## Main Task Bar (Continued)

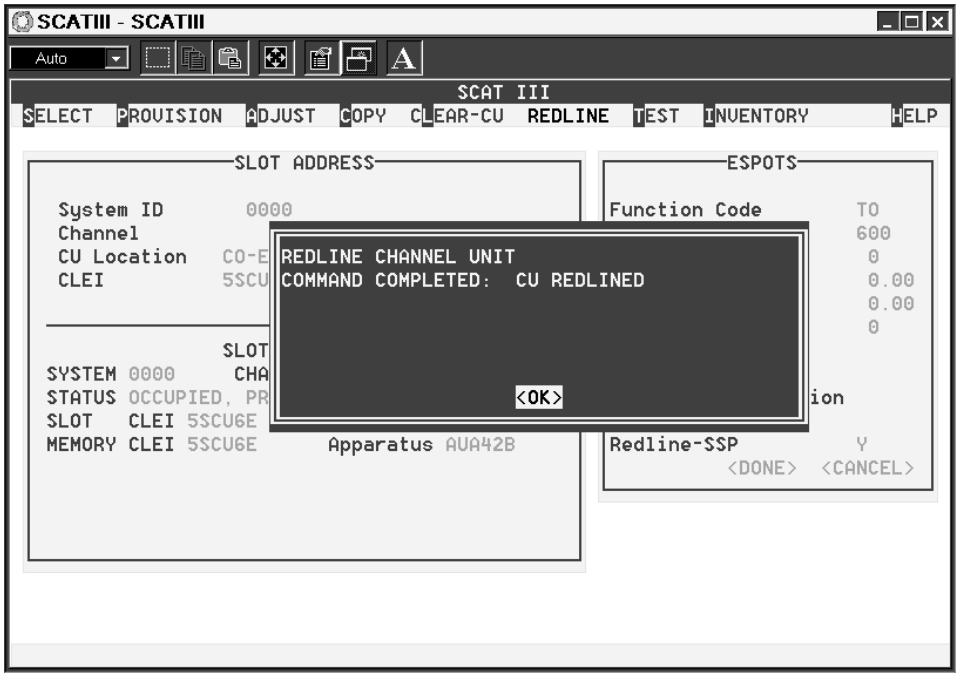
### Redline

The REDLINE selection (shown in the following flow chart) will toggle (set or clear) the redline status of the selected channel. Each time this command is selected, the Redline status will be automatically changed to the opposite state. Redline status can also be changed in the Provisioning dialog.




**NOTE:**
The REDLINE tag will not block SCAT III from making changes to provisioning parameters.

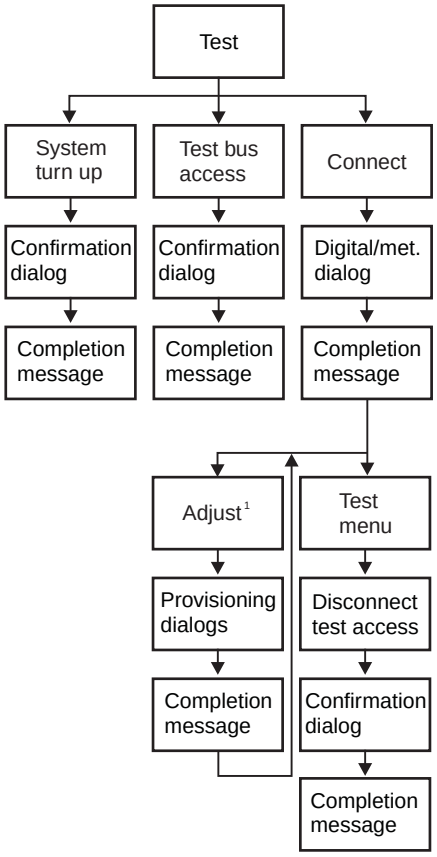
Redline status is used to designate channels which are providing critical customer services which should never be interrupted or changed without first providing customer notification and obtaining customer authorization. Applicable local procedures should always be followed when accessing channels designated as REDLINE=Yes.



# Main Task Bar (Continued)

**Test**

The TEST selection (shown in the following flow chart) will open a dialog box offering four options. The four selections are System Turn-up, Test Bus Access, Connect Test Access, and Disconnect Test Access. Test access through the TAIU is set up using the Connect Test Access selection. The Disconnect Test Access selection only becomes available after Connect Test Access has been completed.



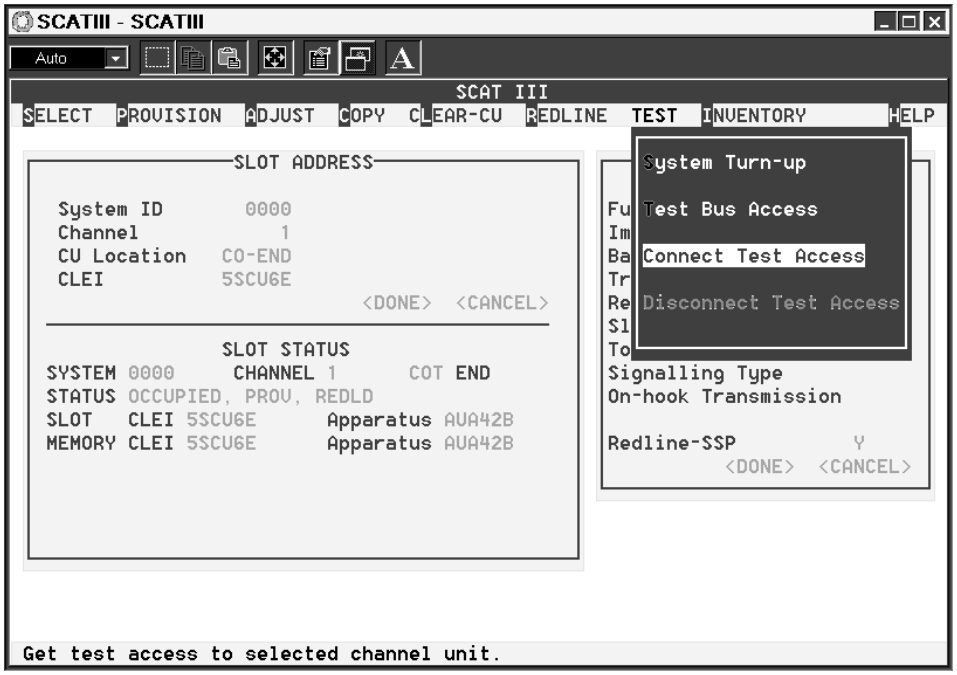

[1] After the Connect Test Access command is completed, only the Adjust and Disconnect Test Access commands are available.

(Continued on next page)

# Main Task Bar (Continued)

**Test (continued)**

When test access is established by the *SLC* System, the access can be configured to provide a variety of test capabilities. Select the test capabilities using the dialog box displayed following selection of Connect Test Access. After test access has been configured (per the required activity) the user can connect test equipment to the TAIU. The user can also activate various signaling functions using switches on the TAIU. The TEST selection also offers the user the ability to clear all provisioning data in the system by selecting the System Turn up activity.



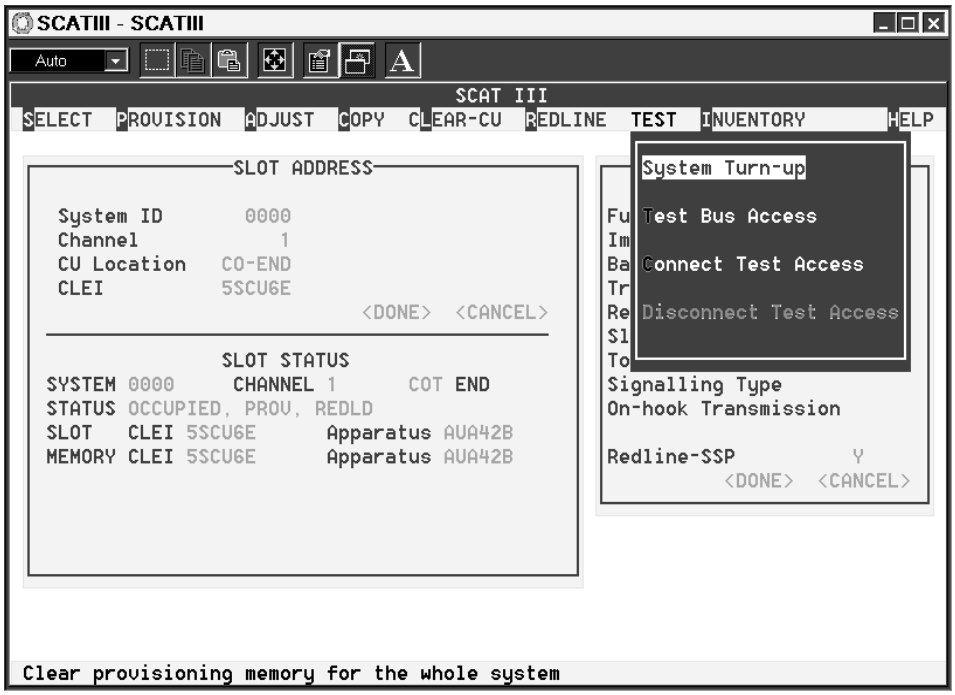

(Continued on next page)

# Main Task Bar (Continued)

**Test (continued)** **System turn-up**

**CAUTION:**
*The user must select the default NO command (or press the* **Enter** *key) to prevent clearing of all provisioning information from the system. A selection of YES will clear the memory (no undo is available).*

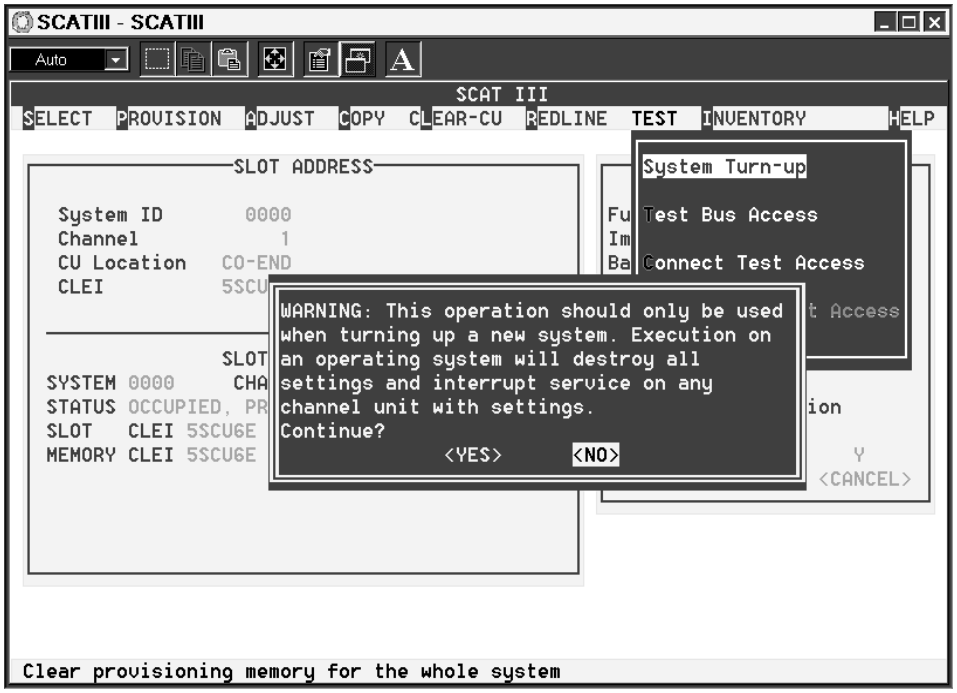
Selecting System Turn up opens a dialog box that will clear all of the provisioning information for all CU slots in the selected system. This function may be used during initial turn up of the *SLC* system or where a system failure or other activity requires complete system re-provisioning.

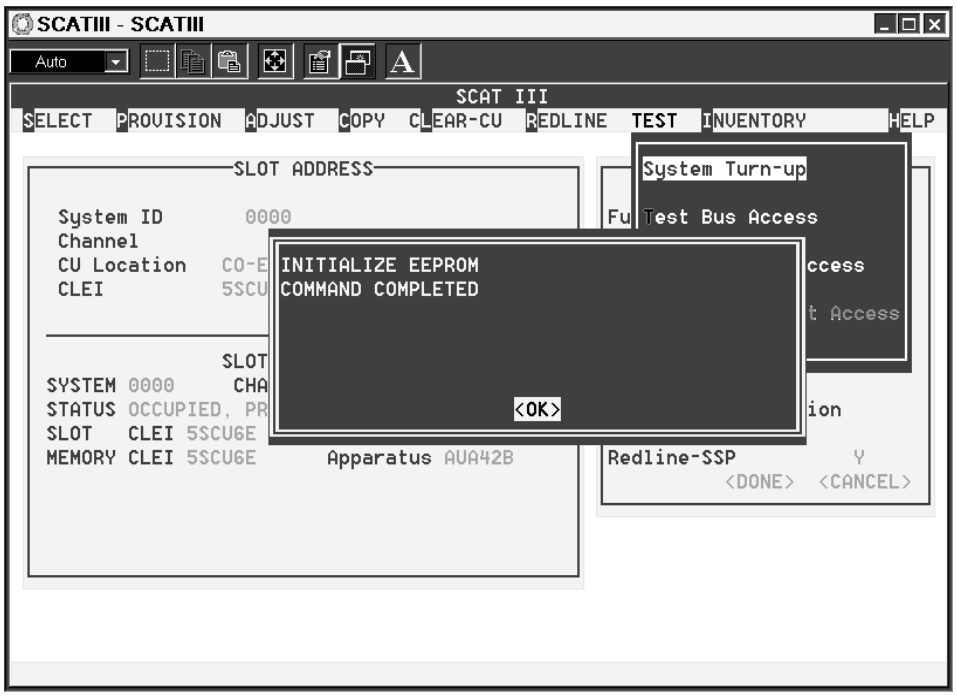



(Continued on next page)

# Main Task Bar (Continued)

**Test (continued)**



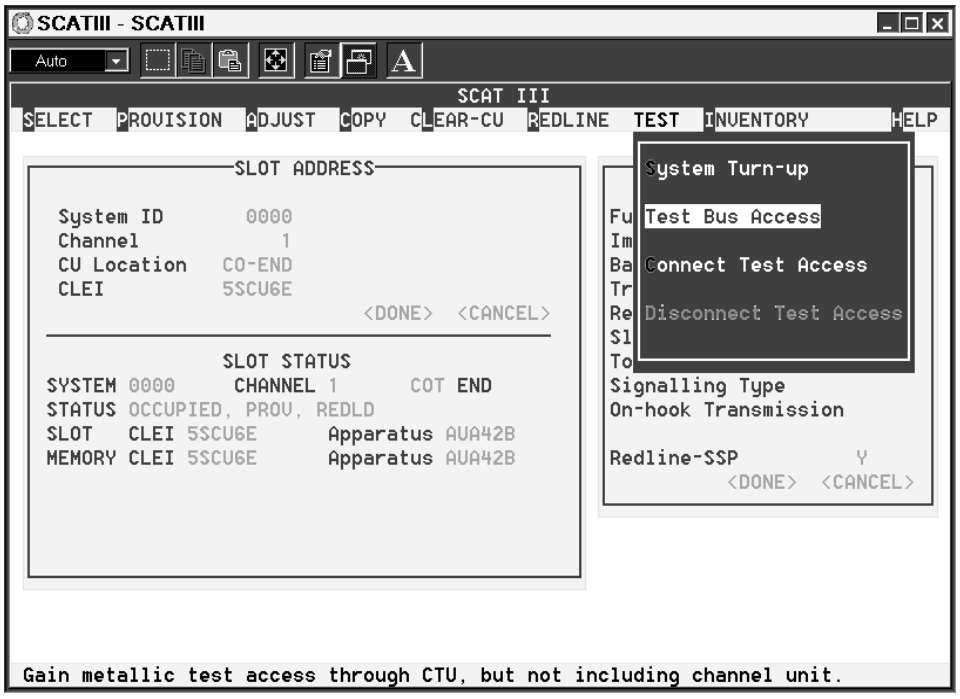



# Main Task Bar (Continued)

**Test (continued)** **Test bus access**

**NOTE:**
When Test Bus Access is implemented all commands are displayed on the Main task bar, however none are available until the test bus is released.

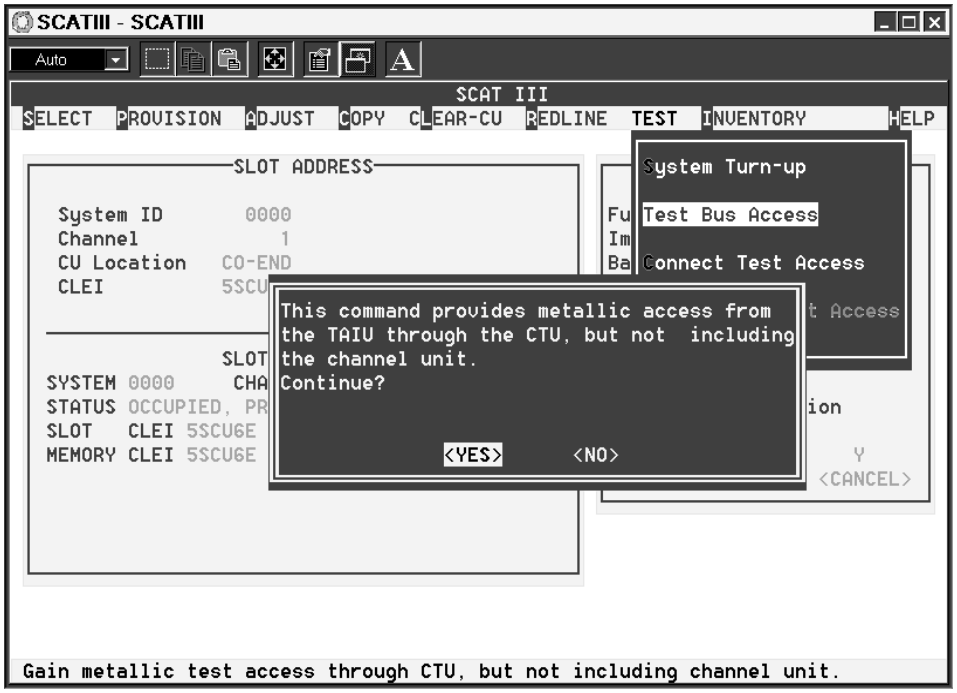
The Test Bus Access selection offers access to the test access bus within the *SLC* system, using the TAIU, to verify its availability for accessing a selected CU. This selection instructs the SCAT III to establish communication between the TAIU and the Test Access Bus in the selected *SLC* System. SCAT III first verifies the availability of the test bus prior to making the connection and opens a dialog box to offer the user selection options. This selection does not make a test access connection to the selected channel, only to the test bus.

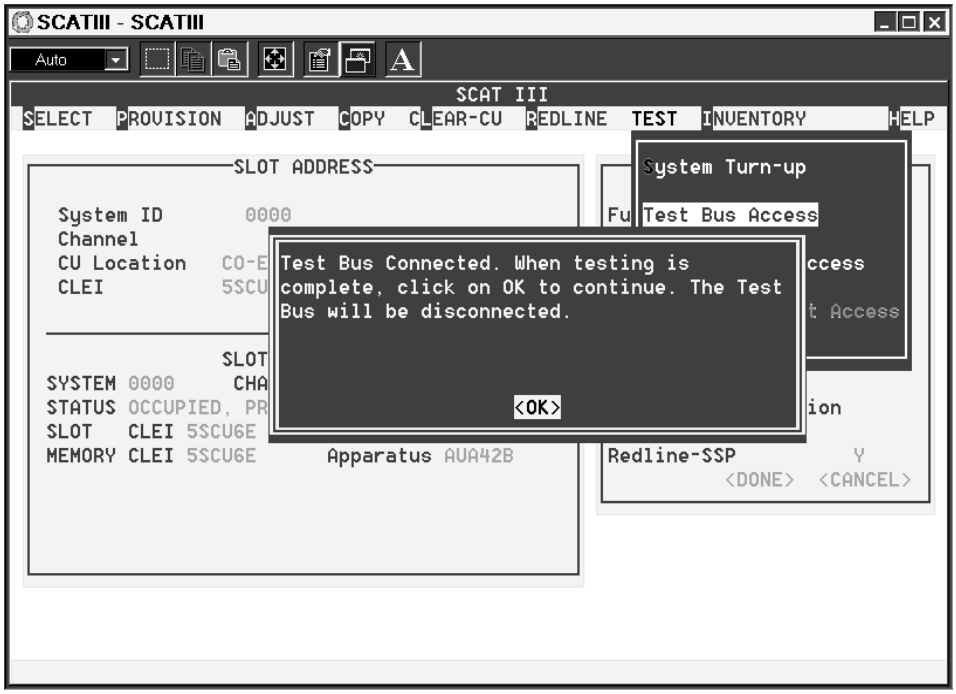



(Continued on next page)

# Main Task Bar (Continued)

**Test (continued)**

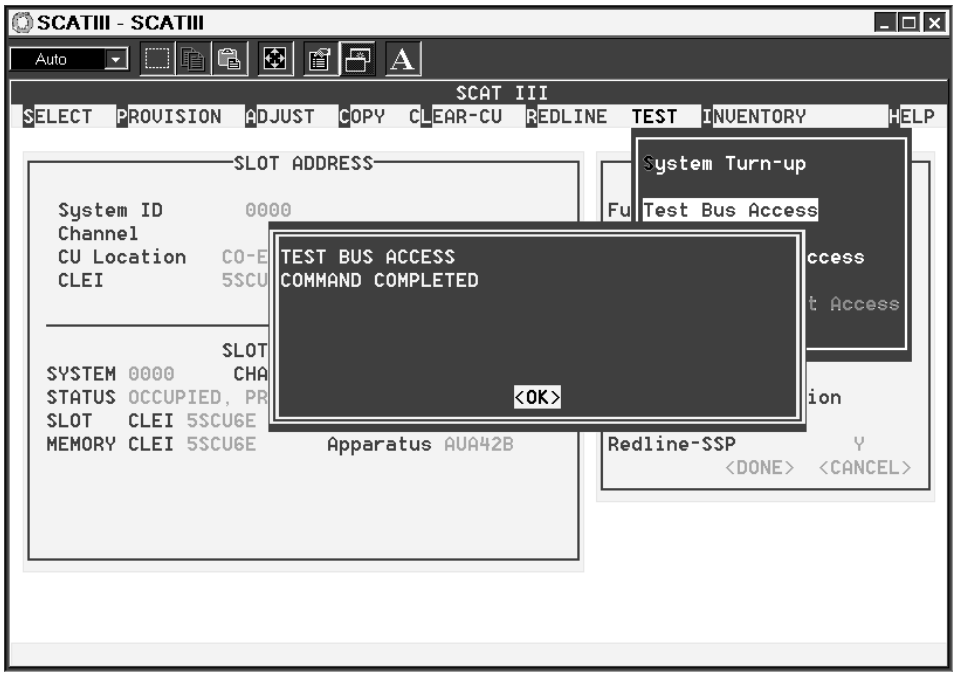



(Continued on next page)

# Main Task Bar (Continued)

**Test (continued)**

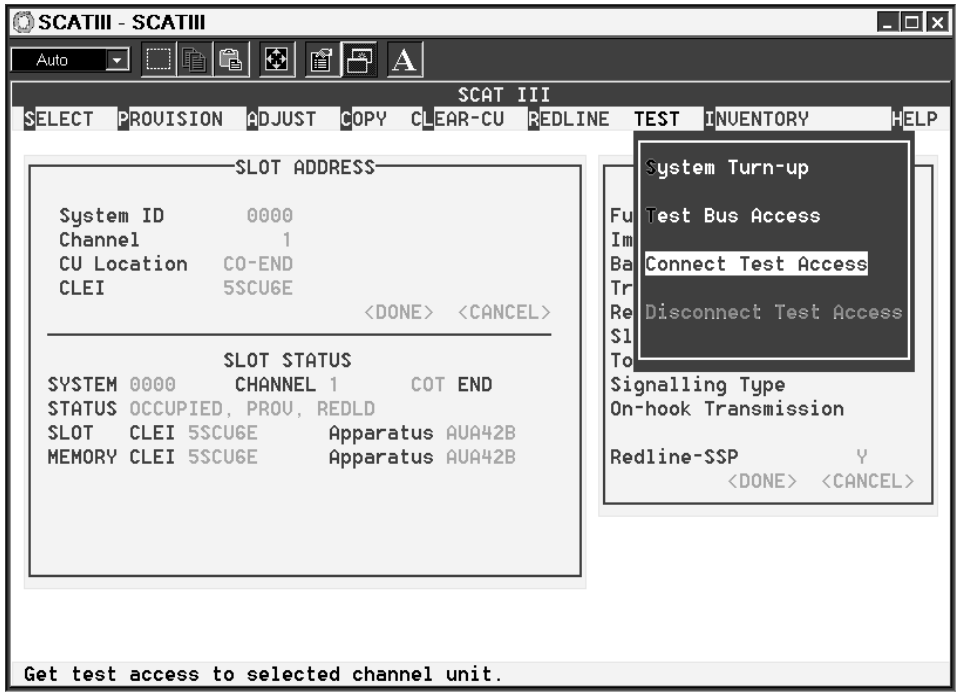


# Main Task Bar (Continued)

**Test (continued)** **Connect test access**

**NOTE:**
When TEST> Connect Test Access is implemented, only the SELECT, ADJUST, and HELP commands are available. Selecting the SELECT> Exit command will display a reminder to run the TEST> Disconnect Test Access command before exiting.

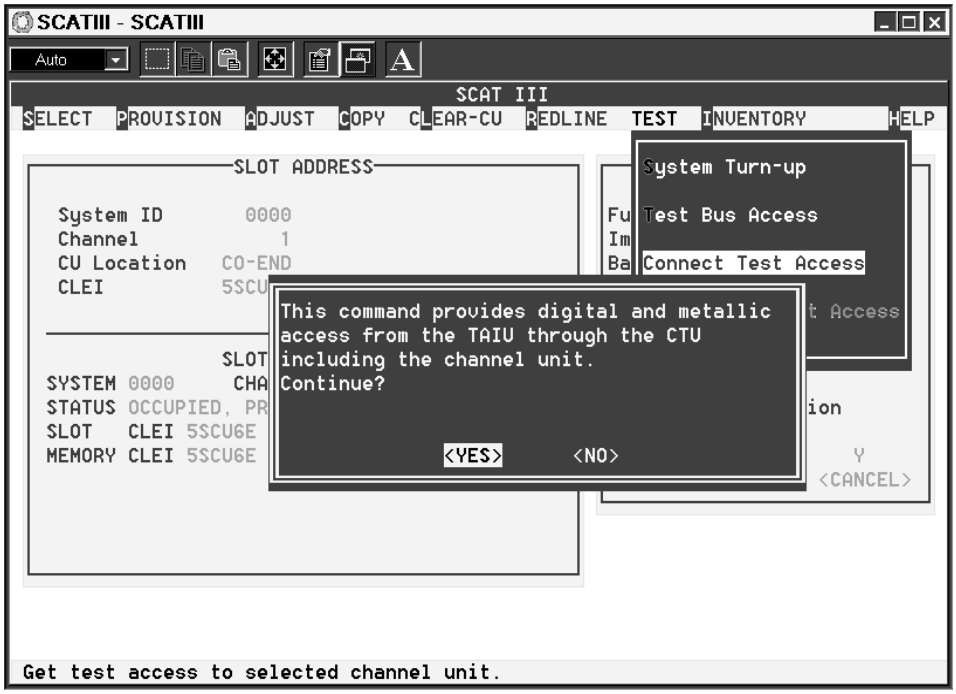
The Connect Test Access selection connects the selected CU to the test bus and to the TAIU for manual testing activity. This command instructs the system to make a test bus connection to the selected *SLC* system and to access the selected channel. This command does not have to be preceded by the Test Bus Access command. Once this command has implemented test access, the TAIU features can be used to execute manual testing of selected circuit parameters through external locally provided test equipment. Typical activities and procedures are described in Chapter 5, "Testing".

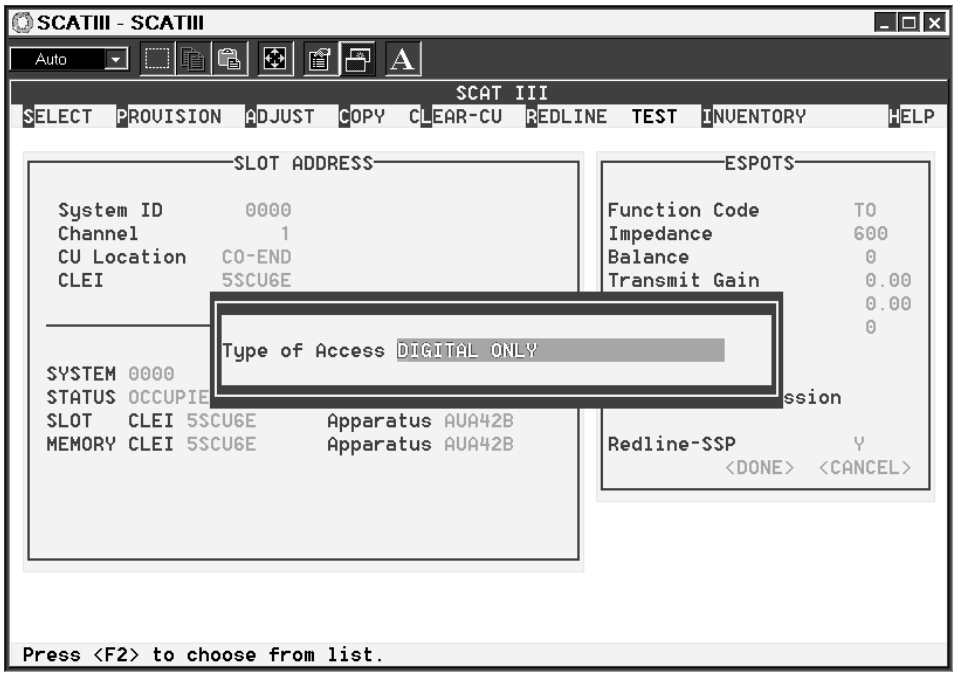



(Continued on next page)

# Main Task Bar (Continued)

### Test (continued)

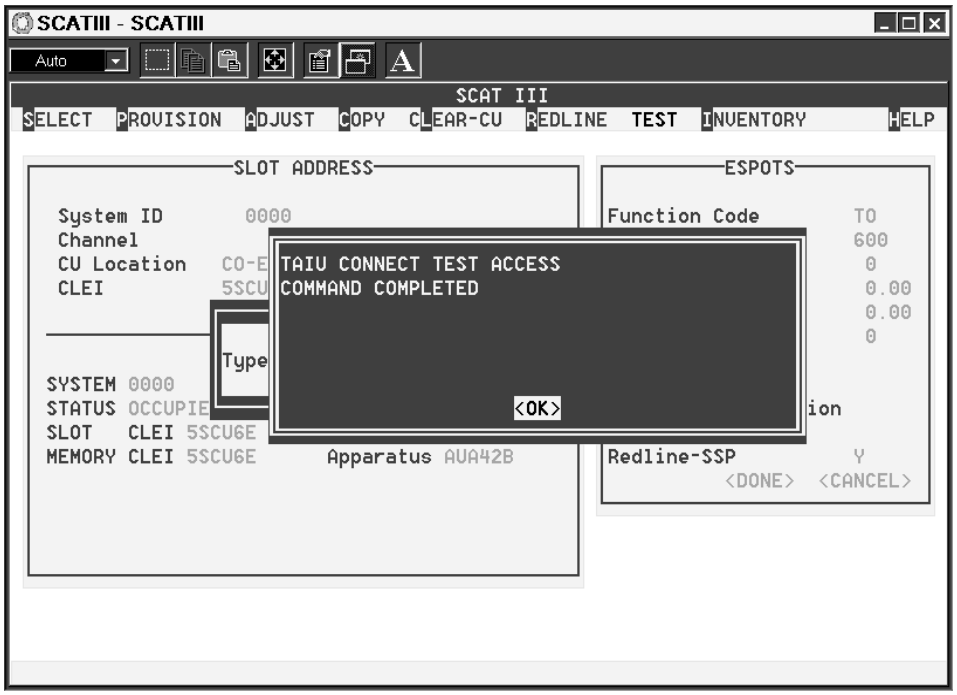


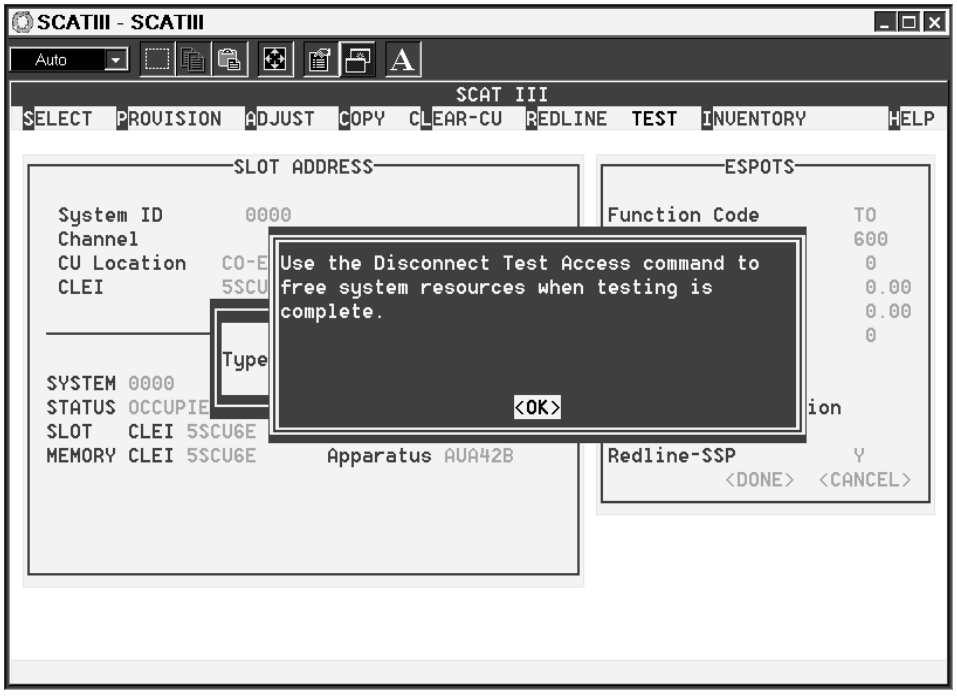




(Continued on next page)

# Main Task Bar (Continued)

### Test (continued)



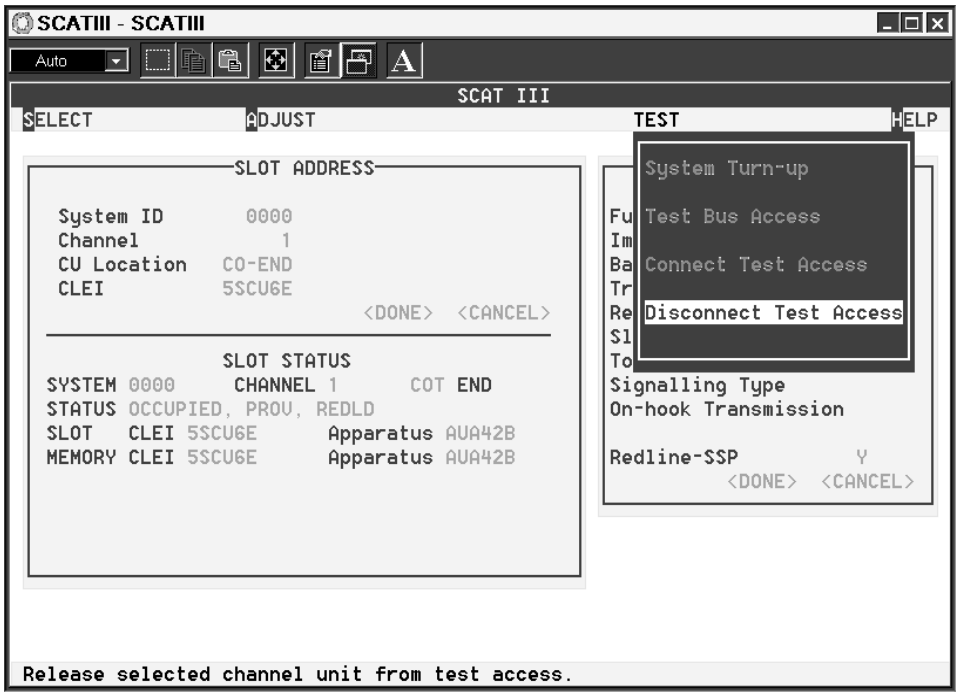



# Main Task Bar (Continued)

**Test (continued)**

### Disconnect test access

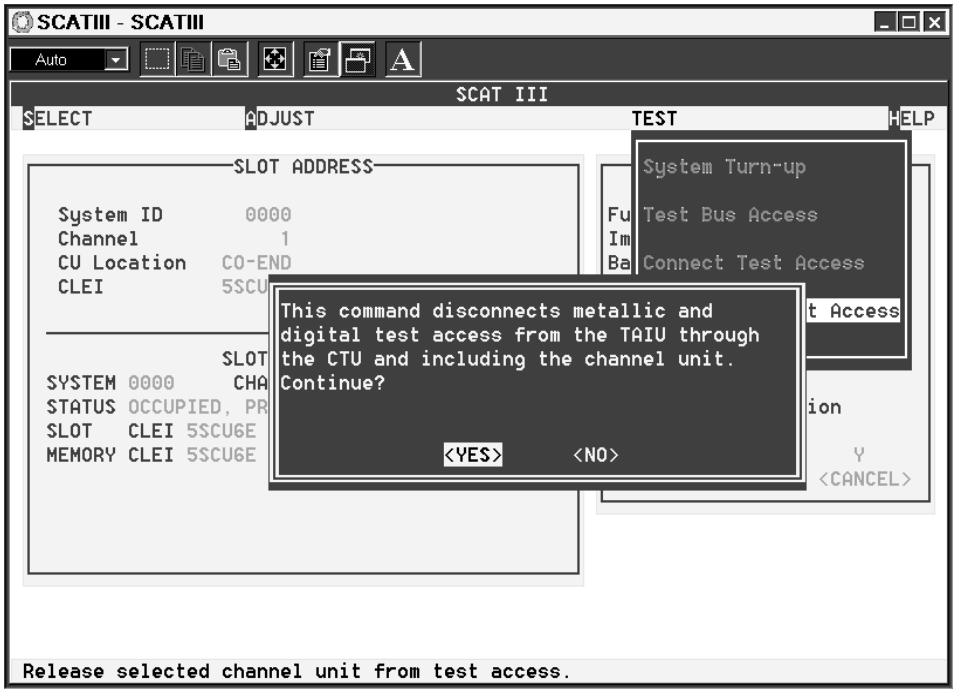
The Disconnect Test Access selection disconnects the test bus from the CU and from the TAIU interface, thereby restoring the CU to service. This command instructs the system to drop the test bus access connection and the associated connection to the selected channel. The disconnect is confirmed using a dialog box.

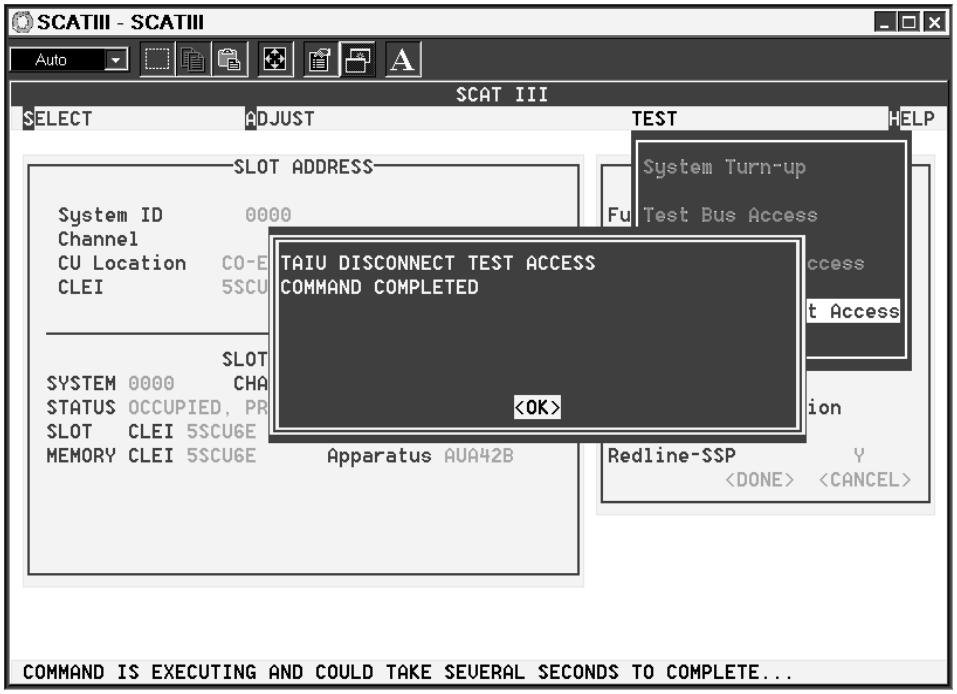



(Continued on next page)

# Main Task Bar (Continued)

### Test (continued)



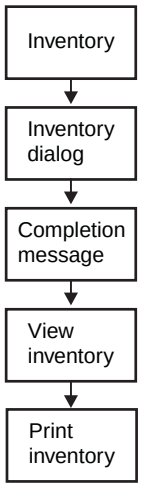



## Main Task Bar (Continued)

### Inventory

**NOTE:**
The INVENTORY command can take several minutes to complete.

The INVENTORY selection will open a dialog box which will permit the user to complete an inventory of the selected *SLC* System.



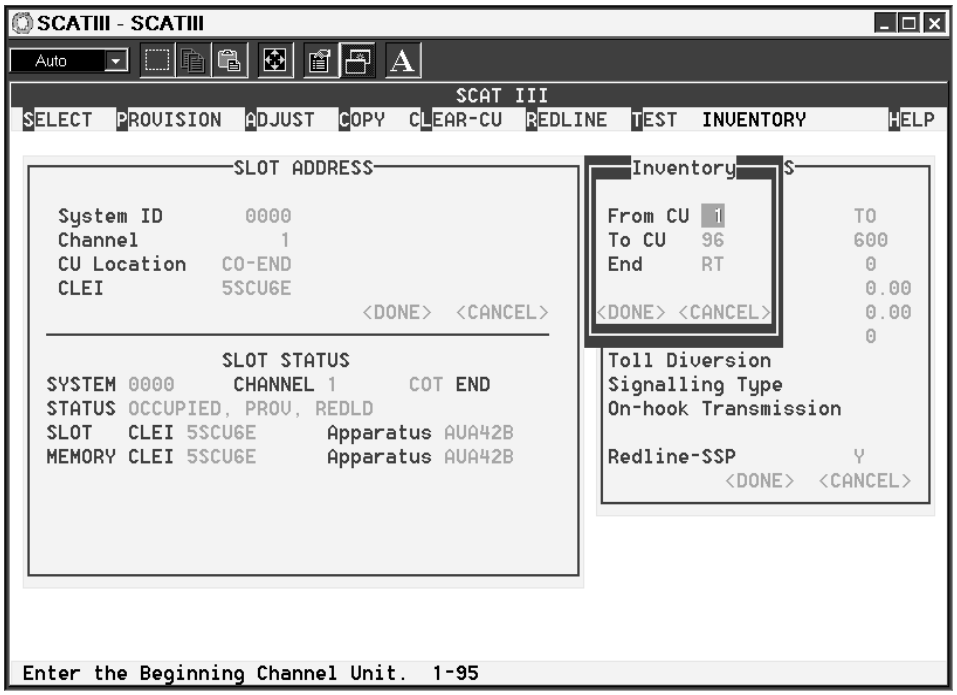

**NOTE:**
When printing is desired, printer options must be established using the SELECT> Option command, prior to entering the INVENTORY function (the options can not be changed at this time).

(Continued on next page)

# Main Task Bar (Continued)

**Inventory (continued)**

The first data field, From CU, identifies the first channel to be inventoried and the second data field, To CU, identifies the last channel to be inventoried. The system provides defaults of 1 for From CU and 96 for To CU. The user may change the entries if desired or accept the defaults by pressing the **Enter** key. The last field selects the location of the inventory, COT, RT, or BOTH, and can be entered or selected from a *choice list*. Once all fields are entered the system prompts for <DONE> which instructs the system to gather the inventory data and prompts the user to view the data. If YES is selected, a new screen is opened which displays the selected inventory information.



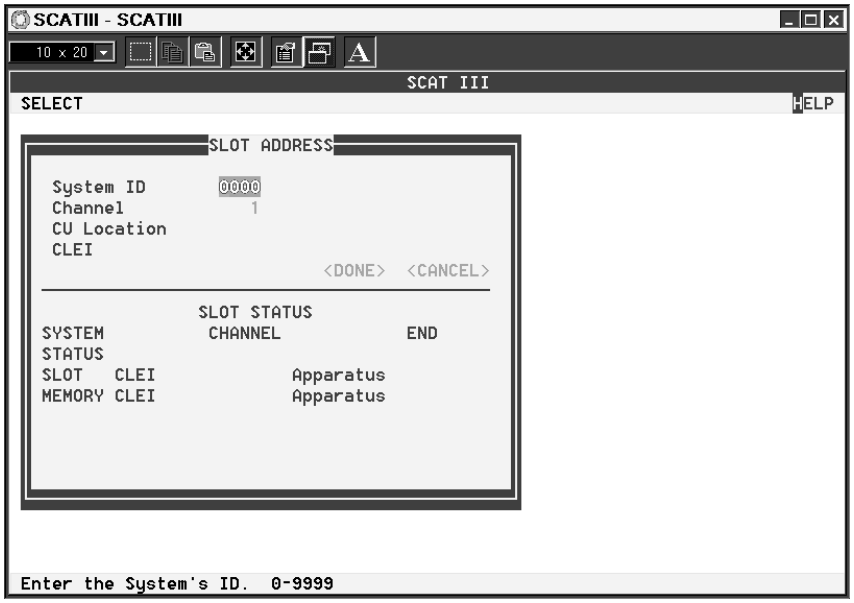

When finished, the **ESC** key will exit the display and prompt the user if the data is to be printed at this time. In either case, the system will save the inventory data in a simple text-type file with a name given using the system ID number followed by the extension *.inv* (for example, 0000.inv). The file can be accessed at a later time. This file will be overwritten when a new inventory is requested for the same system.

# Select a Channel

**Typical procedure**

The first step in initiating a SCAT III dialog with a *SLC* system is to enter the SELECT function and its associated submenu. This submenu (a pull-down menu), as well as all other submenus, is displayed vertically below the associated main task bar selection. While the Select submenu offers six possible command functions, most activities will start with system and channel unit selection. The following procedure is typical for this type of activity.

| Step | Procedure |
|---|---|
| 1 | View the menu of available activities and choose the SELECT > System command.<br><br>**Results:** The SLOT ADDRESS dialog box opens with the System ID field active. |

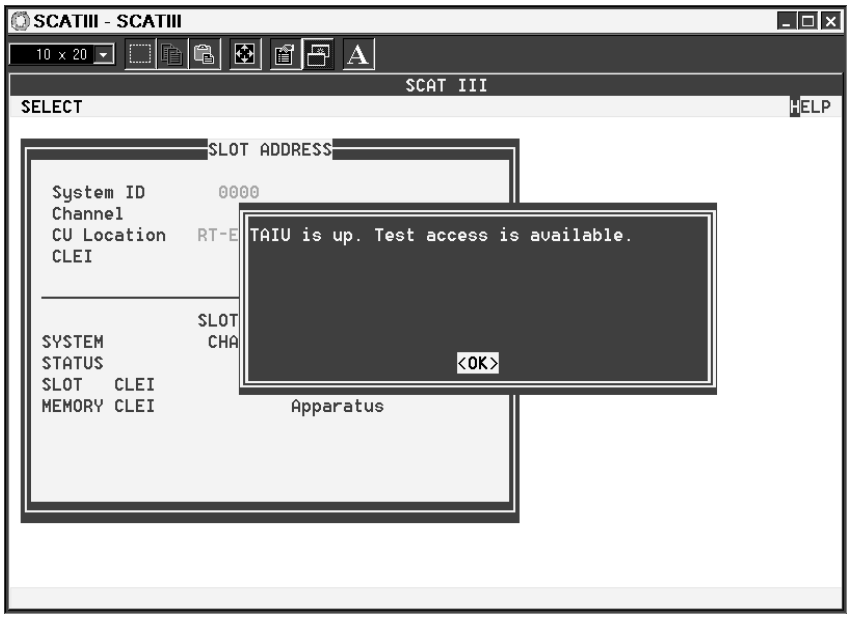



*Continued on next page*

# Select a Channel (Continued)

**Typical procedure (continued)**

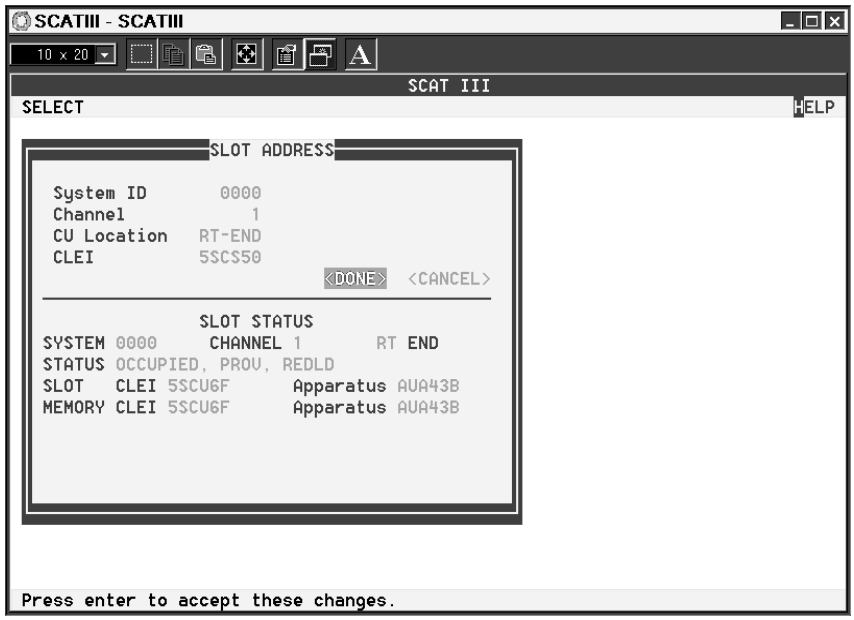
| Step | Procedure |
|---|---|
| 2 | Enter the system identification (ID) number (a four digit number set by switches **S4**–**S7** on the ADU) of the system you wish to test. The system will confirm that the TAIU is up and test access is available. Select <OK>.<br><br>**Results:** If the specified system is available, SCAT III begins communicating with the associated BC. If that BC is communicating with a craft interface unit (CIU), extended test controller (XTC), or another SCAT connected at the other end of the system, your SCAT software will inform you that the system is busy. The system may also be busy if a BCU or ADU circuit pack was just replaced and the system has not completed updating the memory of the new pack with the current system data. |




*Continued on next page*

# Select a Channel (Continued)

**Typical procedure (continued)**

| Step | Procedure |
|---|---|
| 3 | Identify the channel number and location (COT or RT).<br><br>**Results:** SCAT III sends the channel address to the BC. The communications session is established when the BC knows the address of the channel. The previously provisioned (if any) Telecordia *CLEI*® code and the slot status information fields are updated in the SLOT ADDRESS dialog box. |
| 4 | If the channel is to be re-provisioned, enter the appropriate new *CLEI* code. Type in the first six characters of the *CLEI* code or press the **F2** key for a list. Select <DONE> or <CANCEL>.<br><br>  <br><br><br>**Results:** The SLOT STATUS message box will be populated with information regarding the current provisioning status of the selected channel and *CLEI* codes for the actual channel unit installed in the selected slot. If a new *CLEI* code has not been entered, the provisioning dialog box appears pre-loaded with previously stored settings. When a new *CLEI* code is entered, the appropriate provisioning dialog box is displayed with all parameters set to zero (not provisioned). |

*Continued on next page*

# Select a Channel (Continued)

**Typical procedure (continued)**

| Step | Procedure |
|---|---|
| 5 | You are now ready to use SCAT III menus and commands to communicate with the BC to provision and retrieve data. The session is continuous with SCAT III, allowing you to complete the following tasks by selecting the appropriate menu function from the task bar.<br>■ Provision an empty channel or re-provision the channel<br>■ Conduct an inventory of channel units installed in the system<br>■ Adjust channel unit settings (channel unit settings are often aligned while test access is connected to the CU and the CU is being measured).<br>■ Copy settings from one channel to another (or a range) channels<br>■ Clear existing provisioning<br>■ View or change the Redline status<br>■ Connect test access<br><br>**NOTE:**<br>Continue with the appropriate procedure as required.<br><br>**Stop! End of Procedure.** |

# Navigate

## Overview

**Use of keyboard or mouse**

All menu and dialog fields can be reached by using either keyboard or mouse commands. To reach a specific item using keyboard commands the user must use the **up/down** and or **left/right** arrow keys to move the highlighted area on the screen to the desired location. Once the desired selection of field is reached a select is initiated by pressing the **Enter** key. Some selections can also be selected by typing a single letter highlighted on the selection (for example, enter **P** for Provision). If a dialog field has been accessed and highlighted the user can then enter the required data or in some cases take advantage of a Choice List by pressing the **F2** function key. The message line (last line displayed at the bottom of the screen) will display a message of availability when a Choice List is available. As with other selections a specific choice from a Choice List is made by scrolling and pressing enter or by mouse selection and clicking. Note that the system will not let the user make a new menu selection if required System or CU data has not been properly entered or is incomplete. For example, the system will not let the user enter the provisioning function until all entries in the SLOT ADDRESS dialog have been completed.

# Keyboard

### Select menu items

The SCAT III can be instructed to complete actions using the keyboard. There are two ways to select a menu item.

- Type the *selection character* (the highlighted letter in each item) for that item
- Use the cursor keys to highlight the item you want and press **Enter**.

### Move from a field to the *next* field in dialog boxes

To move to the next field in a dialog box, press **Enter**, **Tab**, **Right** ►, or **Down** ▼ keys.

### Move from a field to the *previous* field in dialog boxes

To move to the *previous* field in a dialog box, press **Shift**+**Tab**, **Left** ◄, or **Up** ▲ keys.

### Navigate on the display

The following table lists the keys you can use to navigate on the screen.

| Key | Function |
|---|---|
| ► | Moves the cursor one position to the right |
| ◄ | Moves the cursor one position to the left |
| ▼ | Moves to the next item on the form |
| ▲ | Moves to the previous item on the form |
| **Ctrl**+**End** | Moves to the last item on the form |
| **Ctrl**+**Home** | Moves to the first item on the form |
| **End** | Moves the cursor to the end of the field |
| **Enter** | Moves to the next item on the form or executes a selected command |
| **Home** | Moves the cursor to the beginning of the field |
| **Shift**+**Tab** | Moves to the previous item on the form |
| **Tab** | Moves to the next item on the form |

# Keyboard (Continued)

## Edit display content

The following table lists the keys you can use for editing the contents of the display.

| Key | Function |
|---|---|
| **Backspace** | Deletes the character to the left of the cursor |
| **Del** | Deletes the character at the current cursor position |
| **F6** | Clears the field |
| **Ins** | Toggles between insert and overstrike mode |
| **Shift**+**F3** | Clears the field and redisplays the original value |
| **Shift**+**F6** | Clears from the cursor to the end of the field |

## Activity control

The following table lists the keys you can use to control an activity.

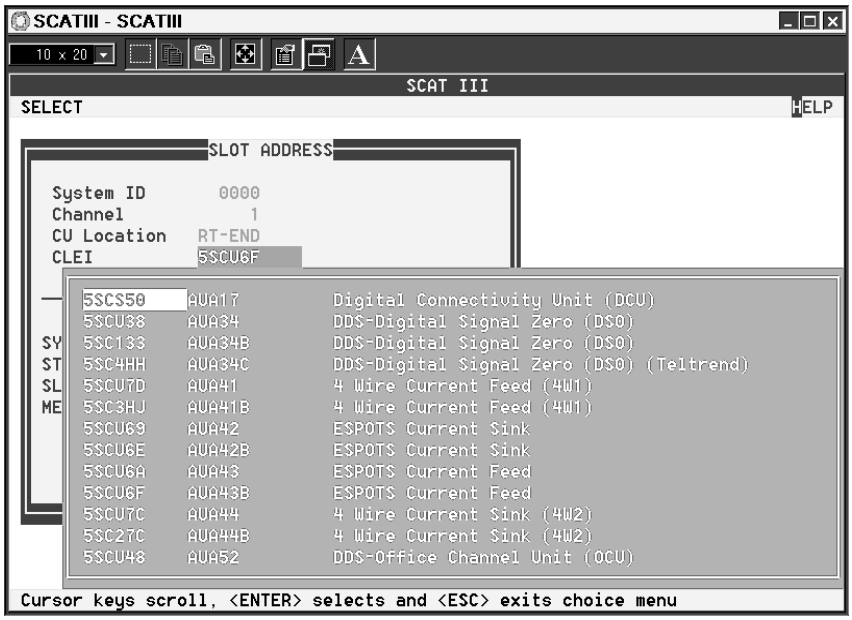
| Key | Function |
|---|---|
| **Alt**+**F1** | Zooms/unzooms the help screen to/from full screen |
| **Esc** | Quits (and abandons) the current process |
| **F1** | Invokes help for the current field |
| **F10** | Exits (and saves) the current process |
| **F2** | Displays the attached choice list, if any |
| **Space** | Toggles <YES> / <NO> fields, if enabled for the current field |

# Keyboard (Continued)

## Choice list

You can type entries into a field, but some fields have a *choice list* (a list of the choices available for that field). Access the choice list and select a choice using the following procedure.

| Step | Procedure |
|---|---|
| 1 | Press the **F2** function key to access the *choice list* for a field. |




| | |
|---|---|
| 2 | Move the highlighted bar up or down using the arrow keys until the choice you want is highlighted. |
| 3 | Press the **Enter** key to put the entry into the field. |
| 4 | Press the **Esc** key to leave the *choice list* without making a selection. |
| | **Stop! End of Procedure.** |

# Mouse

**Introduction**

The SCAT III can be instructed to complete actions through the mouse.

**Select menu items**

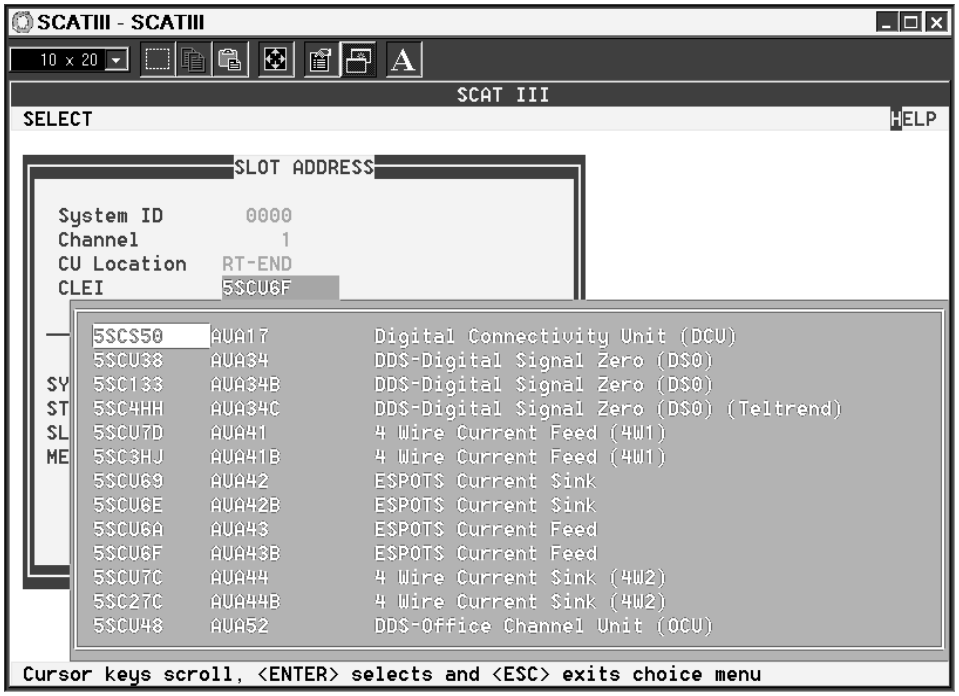
To select a menu or menu item using a mouse, move the mouse cursor over the item you want to select. Click the left mouse button.

**Move from field to field in dialog boxes**

To move in a dialog box, click on the field you wish to move to.

**Enter information in a field**

You must type the entries into a field, but in fields with a *choice list* (a list of the choices available for that field), you can double click on the field to bring up the choice list. Click on the choice. The *Choice List* will close and place the entry into the field.

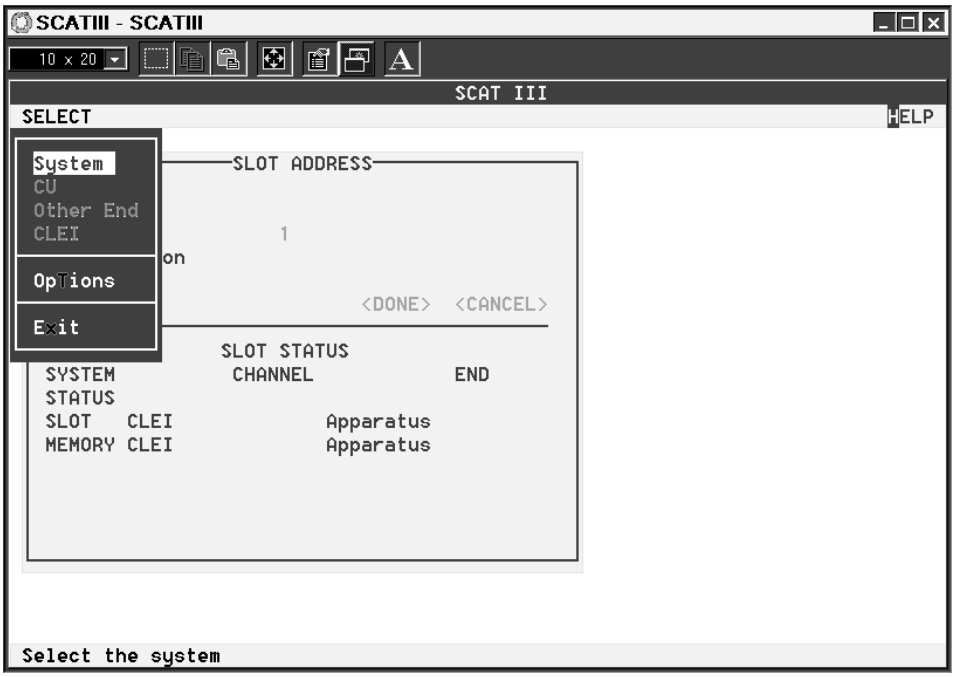


# Enter Information

## Menus

**Description**

Information to be entered into SCAT III is selected by way of menus. These allow you to access the dialogs.



# Dialog Boxes

**Example of dialog**

Once System ID and channel information have been entered into the SLOT ADDRESS dialog box and the <DONE> command is selected, SCAT III returns to the main task bar giving the user access to the full menu of additional activities. Dialog boxes generally contain the following information.

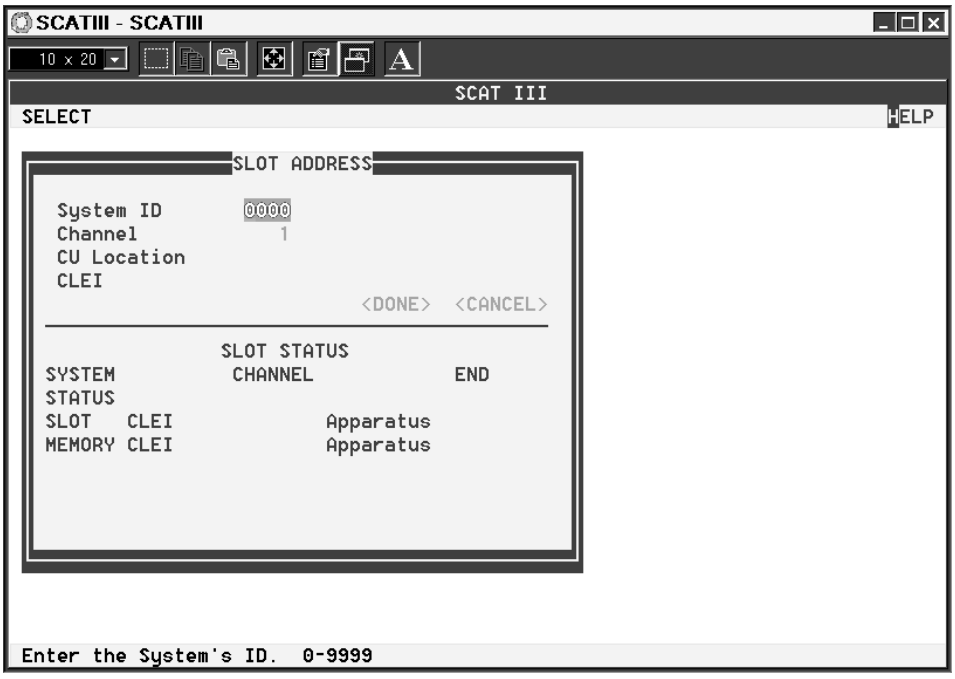
- Prompts describing the requested input
- Fields to accept input
- <DONE> and <CANCEL> commands which allow you to end the dialog.

**Access to all dialog selections**

Select the <DONE> command in the SLOT ADDRESS dialog to return to the main task bar from which the appropriate activity can be selected. There are seven choices: PROVISION, ADJUST, COPY, CLEAR-CU, REDLINE, TEST, or INVENTORY.

**Active dialog box**

The active dialog box (for example, SLOT ADDRESS) is indicated with a highlighted border.



## Dialog Boxes (Continued)

### Commands

Command entries are generally presented as descriptors enclosed in arrows (for example, <DONE>) and are activated by selecting (highlighting) the command using either keyboard arrows followed by enter or by mouse selection and clicking. For example, selecting the <DONE> command will exit the dialog and transfer the information entered during the dialog session to the *SLC* system. Most dialog boxes contain a <CANCEL> command that can be selected if an error has been made or the wrong dialog has been opened. The **Esc** key will always exit a dialog, without executing any changes. However, while using ADJUST, the Esc key will only abort the entry in the current field (as long as the Enter key has not been pressed). Previous entries using the ADJUST command will not be aborted.

Another type of command entry is presented by a special message dialog box, in the center of the screen, asking the user to verify (confirm) the menu selection command. For example, if Exit is selected a box is opened requesting verification of the exit request. This type of box presents two command selections <YES> or <NO>, which can be highlighted and selected using either keyboard entries or mouse selection.

### Data fields

Most dialog boxes provide for entering provisioning or other types of data to either the *SLC* system or for use by the SCAT III software system. This type of entry is presented as a data field entry location within the dialog box (for example, System ID). Initially, data fields are blank or preloaded with zeros and provide space to enter the appropriate number of information characters (in the case of System ID that is 4 numeric digits). When a dialog box is opened the first field will be automatically selected and highlighted. A different field can be selected by using either the keyboard arrow keys to scroll to the entry or by using the mouse to point and click on the desired field. Once the appropriate data is keyed into the field the **Enter** key completes the action and will automatically move the highlighted area to the next appropriate field. The SCAT III software checks all field entries to verify correct format and value range before accepting the entry. The field entry will not be downloaded to the *SLC* system until the <DONE> command is selected. All ADJUST command changes are immediately loaded after **ENTER** on each field.

# Dialog Boxes (Continued)

## Choice lists

**NOTE:**
An **Esc** entry will exit the choice list without making a selection.

Some data fields offer a *Choice List* to aid the user in making appropriate data entries. Where a list is offered, selecting the data field and then pressing the **F2** function key (or double click the mouse key) will open the Choice List. A box containing the choice list will be presented and the user can select the appropriate entry by using either scroll commands or mouse selection and click commands. The system will automatically enter the selection in the data field, and close the choice list. Press **Enter** to implement the choice and move to the next field.

## Exit a dialog

You can end a dialog in two ways. You can accept or cancel the dialog.

**CAUTION:**
*When a parameter is changed during ADJUST, the new value is passed to the BCU and CU as soon as the* **Enter** *key is pressed. The change can only be undone by manually reentering the correct value. The* **Esc** *key will not restore the previous value. There is no cancel function for an ADJUST change once it has been submitted to the system.*

- Accept the dialog to end the dialog confirming changes. To accept, move to the button labeled <DONE> and press **Enter**, or press the **F10** function key.
- Cancel the dialog to exit the dialog without making any changes. To cancel, move the cursor to the <CANCEL> selection and press **Enter** or **Esc**.

# Read Displayed Information

## Overview

**Several kinds of messages**

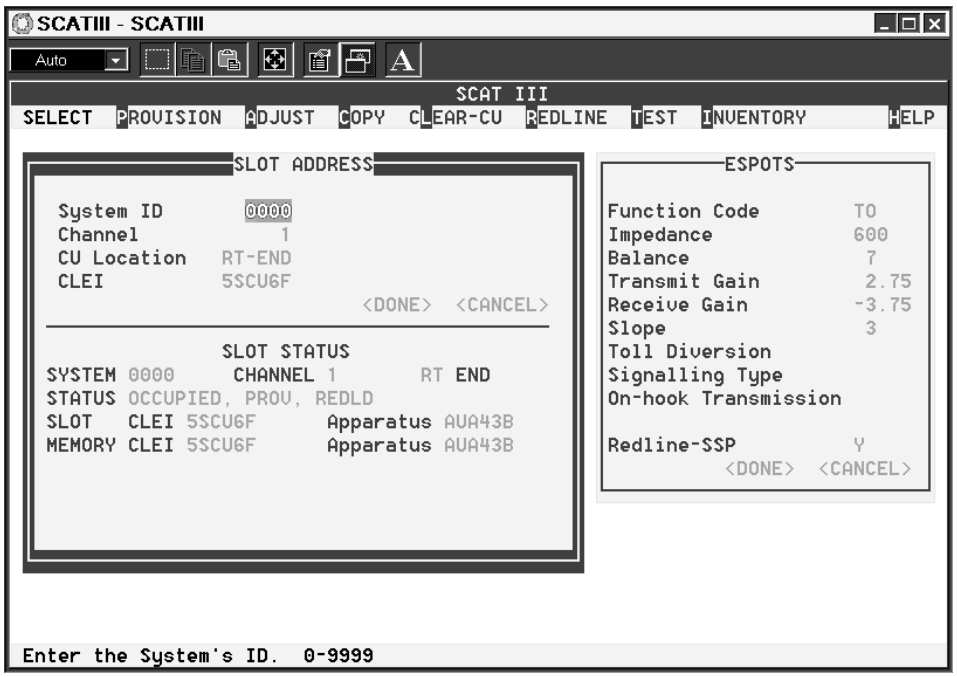
SCAT III presents information to the user using different types of messages.

- The SLOT STATUS message displays the status of the current slot
- The COMMAND COMPLETED message is displayed when the command has completed
- Command verification box
  - An <OK> box is displayed when the user needs to be notified of information
  - A <YES>/<NO> box is displayed when a choice is required
- The message line, located at the bottom of the screen, displays prompts and error information.

# Slot Status Message

**Description**

The SLOT STATUS message contains up to five lines of important information concerning the channel slot. The SLOT STATUS message is located under the Slot Address and is always displayed. It is updated when you identify a channel in the SLOT ADDRESS dialog or make changes to the provisioning information for a channel using the PROVISION, CLEAR-CU, or REDLINE commands.




**Line one**

The first line of this message identifies the location of the selected channel.

## Slot Status Message (Continued)

**Line two**

The second line describes the current status of the channel.

**NOTE:**
Slot refers to the physical CU slot in the bank associated with the selected channel. If the slot contains a CU, presence of the CU will be indicated by OCCUPIED and the type will be displayed in line 3 of the SLOT STATUS message box. Channel refers to service for one customer on a channel unit circuit pack. Some channel units serve one customer, however, some (for example, *SPQ*442) may serve up to four.

| Status | Explanation |
|---|---|
| **CU-FAILED** | The channel unit in the slot is failed; normal customer service is probably not possible |
| **NOT-REDLD** | The channel is not redlined |
| **OCCUPIED** | The slot associated with the channel contains a CU |
| **PROV** | The channel is not currently provisioned |
| **REDLD** | The channel is redlined |
| **UNOCCUPIED** | The slot does not contain a channel unit |
| **UNPROV** | The channel is not currently provisioned |

## Slot Status Message (Continued)

**Line three**

The third line describes the status of the channel slot. The term SLOT= refers to the type of channel unit, if any, is in the slot.

| SLOT= | Explanation |
|---|---|
| **CLEI code** | The slot contains a provisionable channel unit identified with this Telcordia *CLEI*® code. SCAT III usually needs only the first six characters in a *CLEI* code to identify the channel unit. Therefore, it displays a *CLEI* code as **SLOT=5SCU6A**. CLEI code will always display the CLEI code for provisionable CUs and for non-provisionable codes. However, for some non-provisionable codes, the apparatus code will not be specific, but rather only a generic description [for example, POTS-C (for a COT POTS unit)]. If the slot is occupied by a non-provisionable unit, a message will be displayed at the bottom of the status box indicating that fact. |
| **EMPTY** | The slot is not occupied (does not contain a channel unit) |
| **NON-PROV-CU** | The channel unit in the slot is not provisionable |

## Slot Status Message (Continued)

### Line four

The fourth line describes the status of provisioning information stored in the memory of the bank controller. The term MEMORY= refers to whether the memory of the bank controller contains option settings for that channel.

| MEMORY= | Explanation |
|---|---|
| **CLEI code** | **NOTE:** Only provisionable *CLEI* and apparatus codes can be resident in the provisioning memory.<br><br>The channel memory location contains a provisionable channel unit identified with this Telcordia *CLEI*® code. SCAT III usually needs only the first six characters in a *CLEI* code to identify the channel unit. Therefore, it displays a CLEI code as **SLOT=5SCU6A**. |
| **EMPTY** | No channel information is stored in the system memory. |
| **INVALID** | SCAT III does not recognize the *CLEI* code stored in memory. |

## Slot Status Message (Continued)

### Line five

**NOTE:**
Usually, when line five is not displayed, the slot contains a provisionable channel unit. However, the last two *Status Messages* listed can be displayed for a provisionable CU.

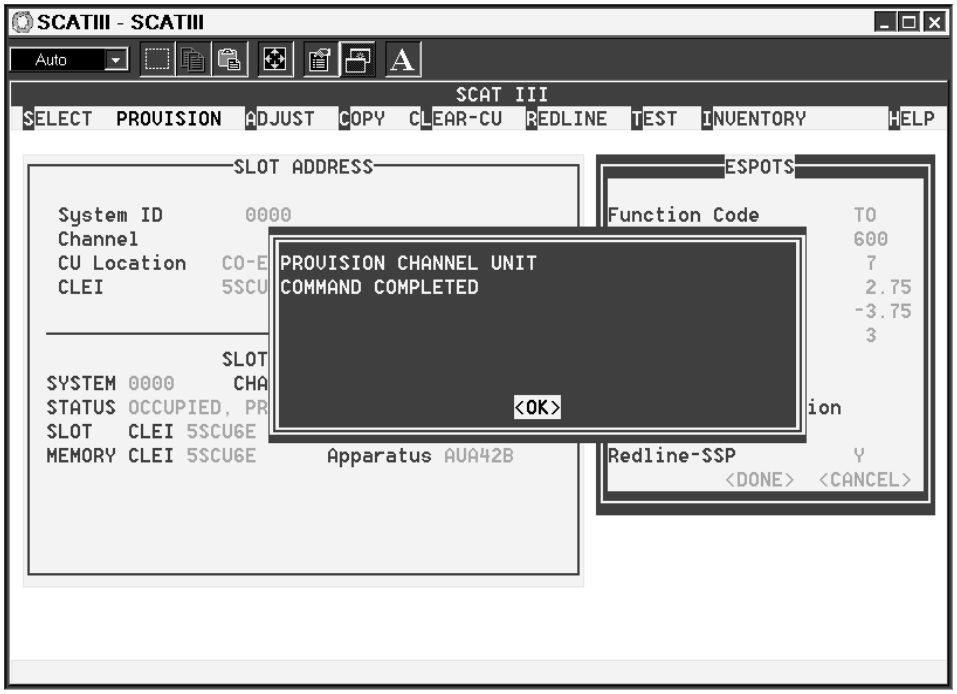
The messages that may appear on the fifth line are listed and explained in the following table.

| Status Message | Explanation |
|---|---|
| **CHANNEL SLOT SPECIFIED IS CONTAINED IN A DCU** | The channel slot is served by a digital connectivity unit (DCU) |
| **CHANNEL SLOT SPECIFIED IS EMPTY** | This slot does not contain a channel unit. |
| **CU IN SLOT SPECIFIED IS NON-PROVISIONABLE** | The channel unit in the slot is not provisionable |
| **MEMORY CONTAINS INVALID DATA** | The Telcordia *CLEI*® code in memory represents a channel unit that SCAT III cannot provision |
| **WARNING: SLOT AND BCU MEMORY DO NOT AGREE** | The bank controller memory contains information for a type of channel unit which is different from what is in the slot. |

# Command Completion Message

**Complete or fail**

Command completion messages appear immediately after SCAT III has attempted to execute a command. The message indicates a completed or failed status.



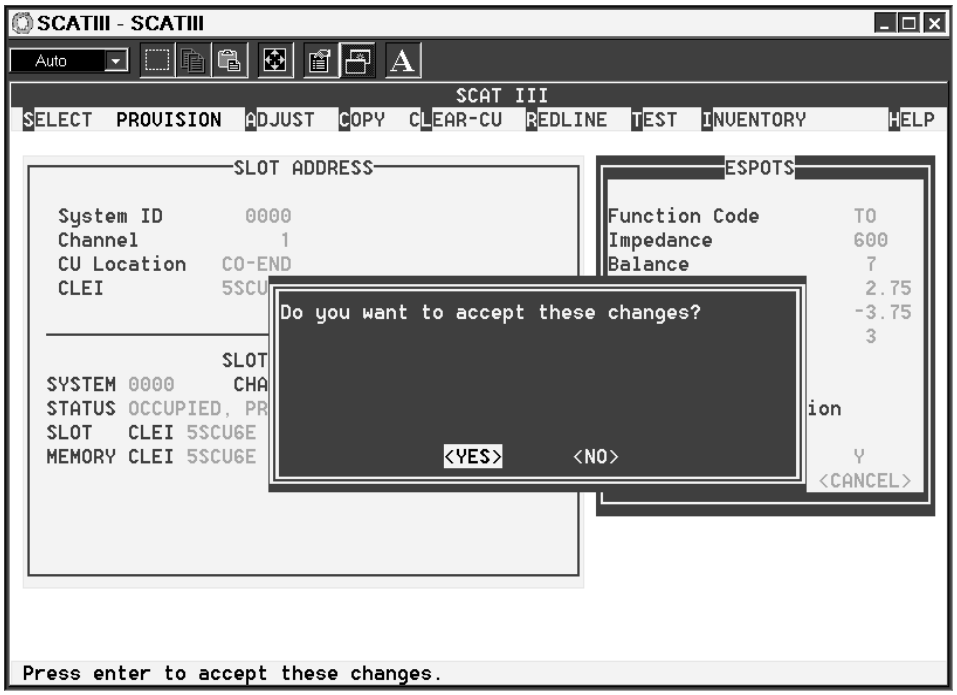

**Return to the Main task bar**

After reading the completion message, press **Enter** or click on the <OK> button. SCAT III will return to the *Main* task bar.

# Command Confirmation Message

**User confirmation**

The <YES> / <NO> box is displayed when a choice (confirmation) is required.




**How to interact with the <YES> / <NO> box**

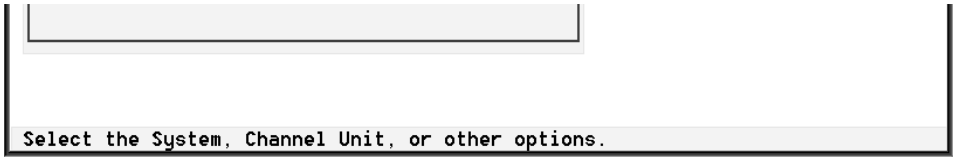
A <YES> / <NO> box offers you a choice.

- You can select YES using different methods.
  - Press the **Enter** key with the YES button highlighted
  - Click on the YES button
  - Press the **F10** function key.
- You can select NO using different methods.
  - Press the **Right Arrow** key to highlight NO and press the **Enter** key
  - Click on NO
  - Press the **Esc** key.

## Message Line

**Last line**

The message line is the last line on the screen.




**Field specific prompts**

The message line displays information specific to the currently selected field or command.

**Error messages**

The message line will display error messages when you enter invalid information.

# Print

## User's Guide

**Procedure**

Use the following procedure to print a hard copy of this information product (*SLC® Series 5 Carrier System, SCAT III – Enhanced CIU, User's Guide*).

| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>If you have the User's Guide and Adobe Acrobat Reader loaded, you can use the desktop shortcut. Otherwise, you will need to insert the CD-ROM.<br><br>Insert the SCAT III software CD-ROM (COMCODE 601957517) into the CD-ROM drive. |
| 2 | **NOTE:**<br>Refer to *Adobe Acrobat Reader* Help and documentation for more information on using the Reader.<br><br>On the Windows task bar, respectively select *Start> Programs> SCAT> SCATIII User's Guide* to open the User's Guide in *Adobe Acrobat Reader*.<br><br>**Results:** The *User's Guide* is displayed. |
| 3 | **NOTE:**<br>Because of the length of the document, the recommended setting for printer properties is to print duplex, long-side.<br><br>Select File and Print.<br><br>**Results:** This document will be printed on the default printer of your PC. If you are using a network printer and you have trouble, make sure you are set up to capture LPT1 to your network printer.<br>■ For example, in Windows 95, under *MyComputer* select Printers, then select the network printer.<br>■ Under File, select Properties, then select Details. Select Capture Printer Port and make sure LPT1 is set up to be captured to the network printer.<br><br>**Stop! End of Procedure.** |

# Operations

# 4

## Contents


**Start Up** 4-3

- Overview 4-3

**Select** 4-6

- Introduction 4-6
- System 4-8
- CU 4-9
- Other End 4-10
- CLEI 4-11
- Options 4-14
- Exit 4-17

**Provisioning** 4-18

- Provision 4-18
- Channel Units 4-19
- Dialogs 4-20
- Adjust 4-34
- Copy 4-36
- Clear-CU 4-40
- Redline 4-42

**Test** 4-43
- Overview 4-43
- System turnup 4-44
- Test Bus Access 4-45
- Connect Test Access 4-46
- Disconnect Test Access 4-48

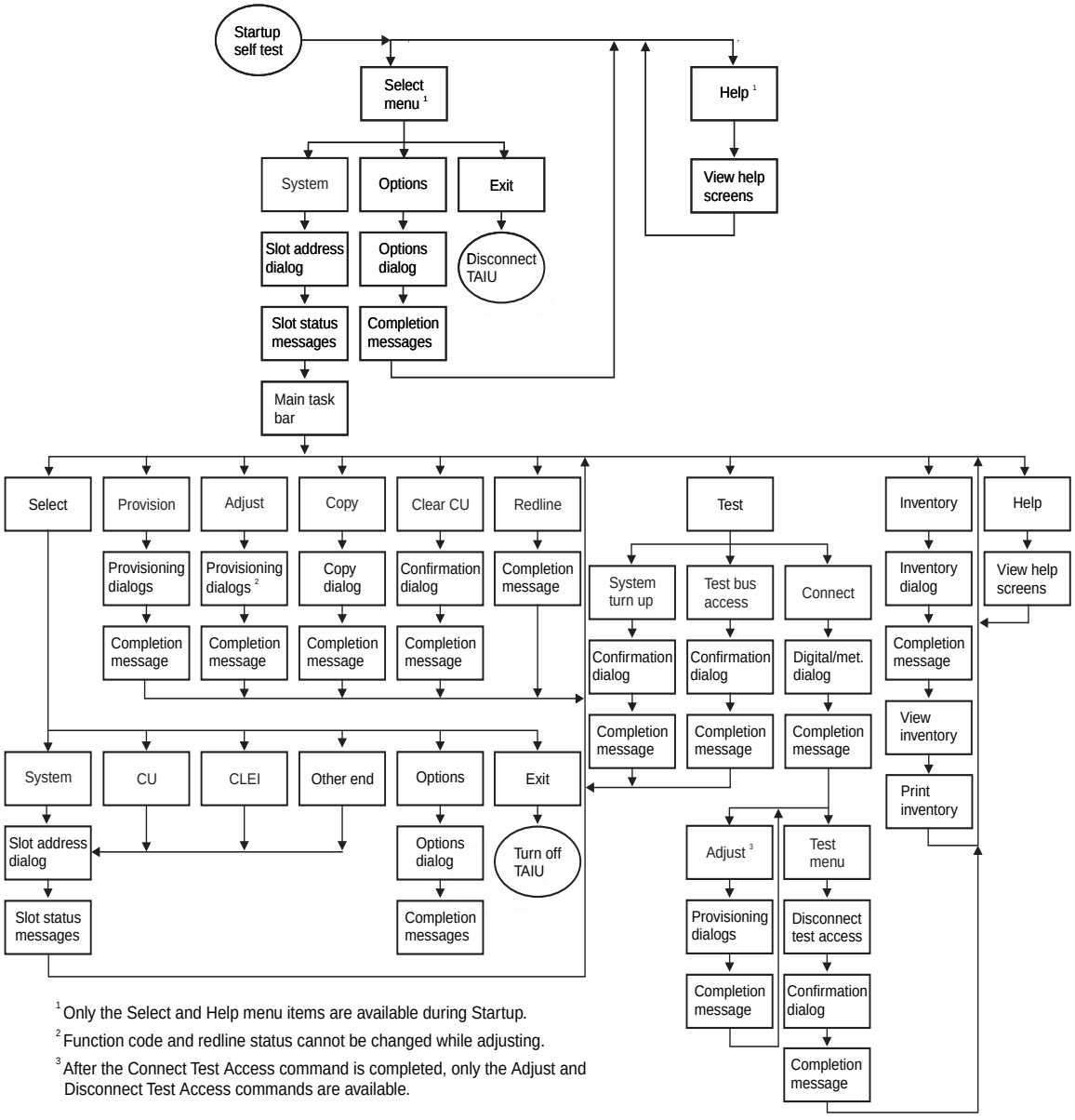
**Inventory** 4-49
- Retrieve Information 4-49

# Start Up

## Overview

### Flow Chart

This chapter contains detailed information as to making command selections and the content of dialog boxes, associated command, and parameter entry fields. Some entry fields offer a pull-down menu (choice list) to facilitate the entry process. The chapter also covers the content of various message boxes associated with the various dialogs.



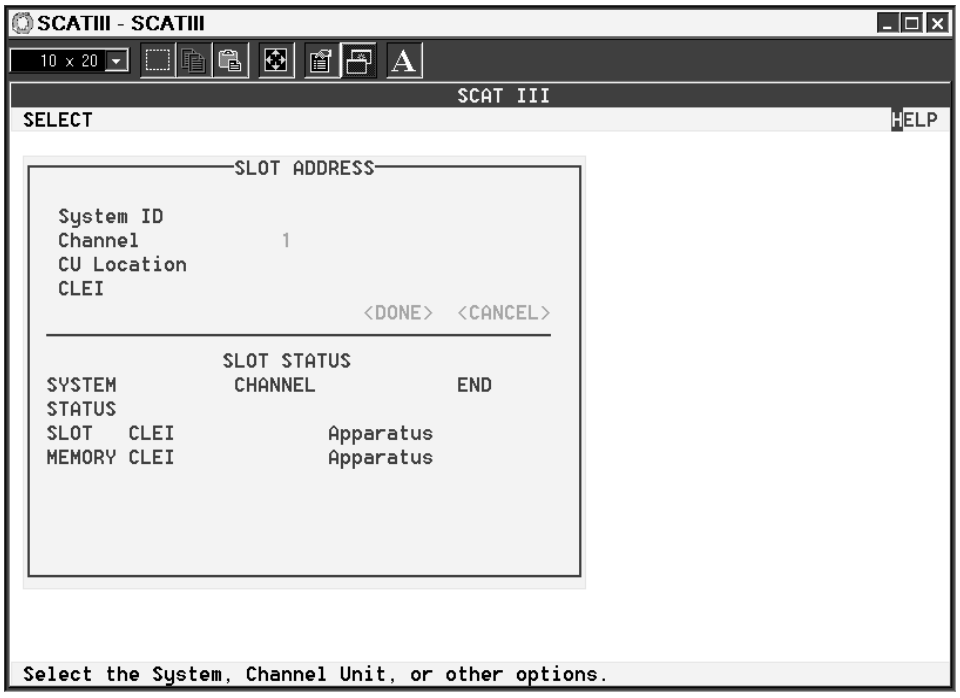
# Overview (Continued)

**Description**

You can choose actions from menus and dialog boxes. All SCAT III operations may be performed using input from either the keyboard or a mouse.

**Start up**

The main task bar is the primary entry point for initiating a SCAT III session activity. It is displayed across the top of the screen during all session activities, except when the help function is invoked. At all times one of the nine items on the main task bar will be highlighted. At start up (shown in the following figure), the task bar offers the user two possible commands, SELECT and HELP. Other functions will be available after a system has been selected.



## Overview (Continued)

**The *main* task bar**

Each main task bar command may have an additional submenu, which will be displayed when a selection is made. Also, each main task bar command or submenu selection will open (activate) a dialog box for the purpose of entering commands and parameters.

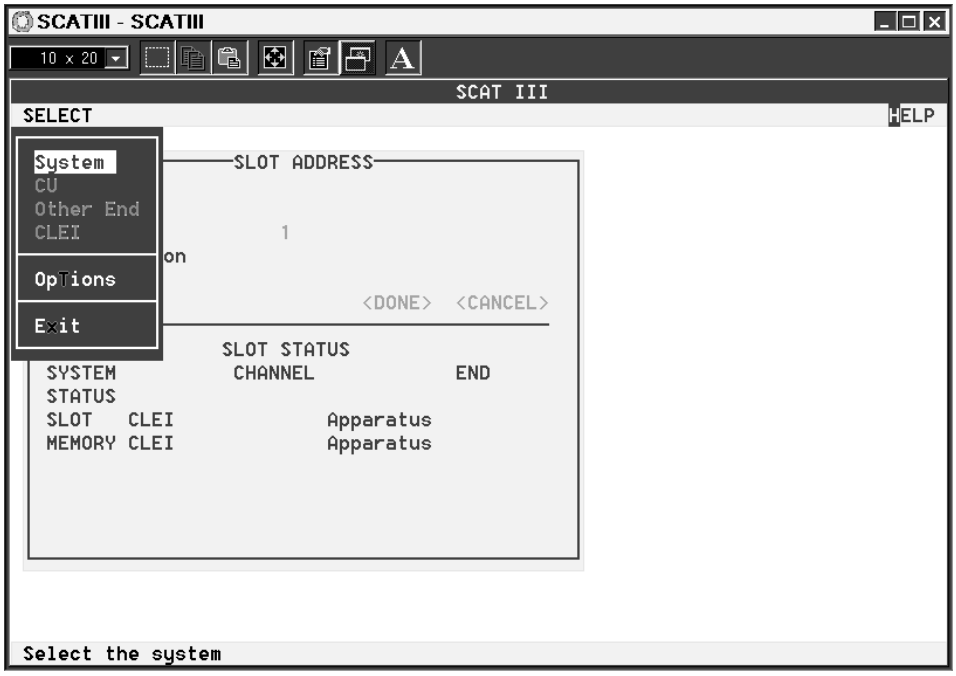
| Menu | Function |
|---|---|
| SELECT | Specify *SLC* system and CU identity parameters, to specify printer options (for Inventory print functions), and to *Exit* the SCAT III program. |
| PROVISION | Specify provisioning parameters for the selected CU. |
| ADJUST | Adjust parameters for a previously provisioned CU. |
| COPY | Copy provisioning parameters from one CU to another CU. |
| CLEAR-CU | Clear the provisioning parameters for the selected CU. |
| REDLINE | Set or clear the Redline condition for the selected CU. |
| TEST | Initialize (clear) the provisioning data for all CUs during turn up or to reset the *SLC* system. Also, used to access the test bus for the purpose of connecting external test equipment to a CU under test |
| INVENTORY | Access the Inventory dialog box for initiating an inventory |
| HELP | Access the Help menu. The Help menu may be accessed at any time by pressing the **F1** function key. |

# Select

## Introduction

**Where is the SELECT command?**

The SELECT command is located on the *Main* task bar and opens a submenu.




**Submenus**

The SELECT submenu contains the following commands.

- System
- CU
- Other End
- CLEI
- Options
- Exit.

## Introduction (Continued)

**SLOT ADDRESS dialog**

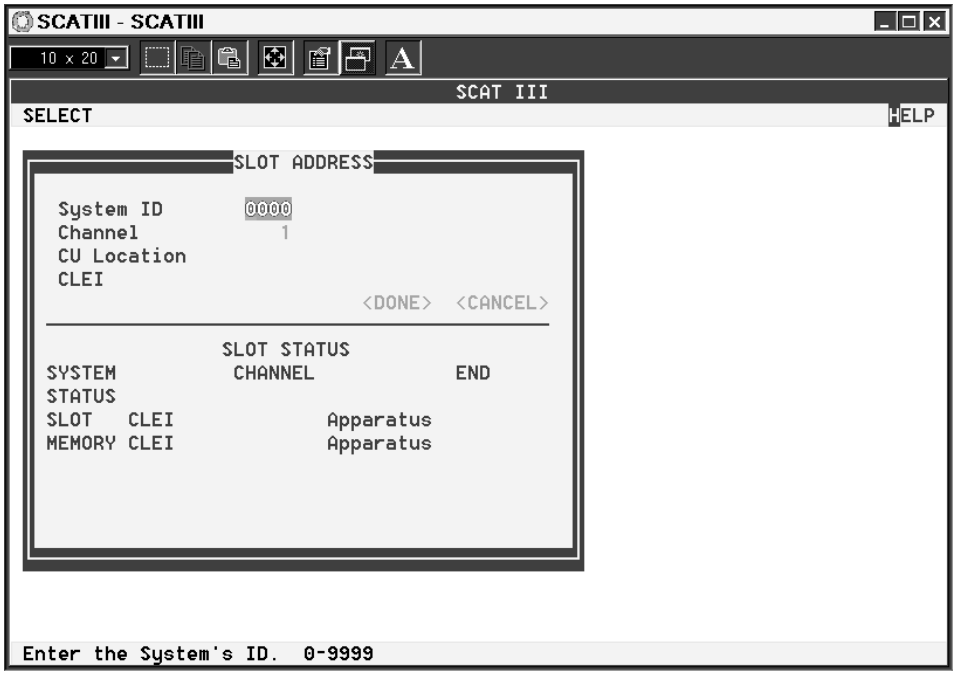
The SLOT ADDRESS dialog box opens in the System ID field. The *channel* SLOT ADDRESS dialog consists of a system identification number, channel slot number, and channel slot location. The previous entry for a slot address is displayed as the default.

| Prompt | Valid Entry | Explanation |
|---|---|---|
| **System ID** | 0 – 9999 | The number of either system in the dual bank to which SCAT III is connected. |
| **Channel** | 1 – 96 | The number of the channel slot that you want to provision. Even channel numbers are not allowed for single channel CUs (for example, 4 Wire-VF and Dataports) unless the option Single/Double is set to S. |
| **CU Location** | CO END *or* RT END | The location of the channel unit, either at the central office (CO END) or the remote terminal (RT END) |
| **CLEI** | | Usually, SCAT III needs only the first six (but will accept ten) characters in a *CLEI* code. Therefore, it displays a *CLEI* code as **SLOT=5SCU6A**. |

# System

**SELECT > System command**

The SELECT > System command starts the *channel* SLOT ADDRESS dialog. The System ID is the first entry in the SLOT ADDRESS dialog box. Use the System selection to enter the *SLC* System ID number. The dialog box will also prompt for additional required entries once a system ID is entered – Channel, CU Location, and CLEI. At any time, if you want to change the system you are addressing, choose System from the SELECT submenu. The SLOT ADDRESS dialog box opens with the System ID field active.




**Alarm display unit (ADU) switches S4–S7**

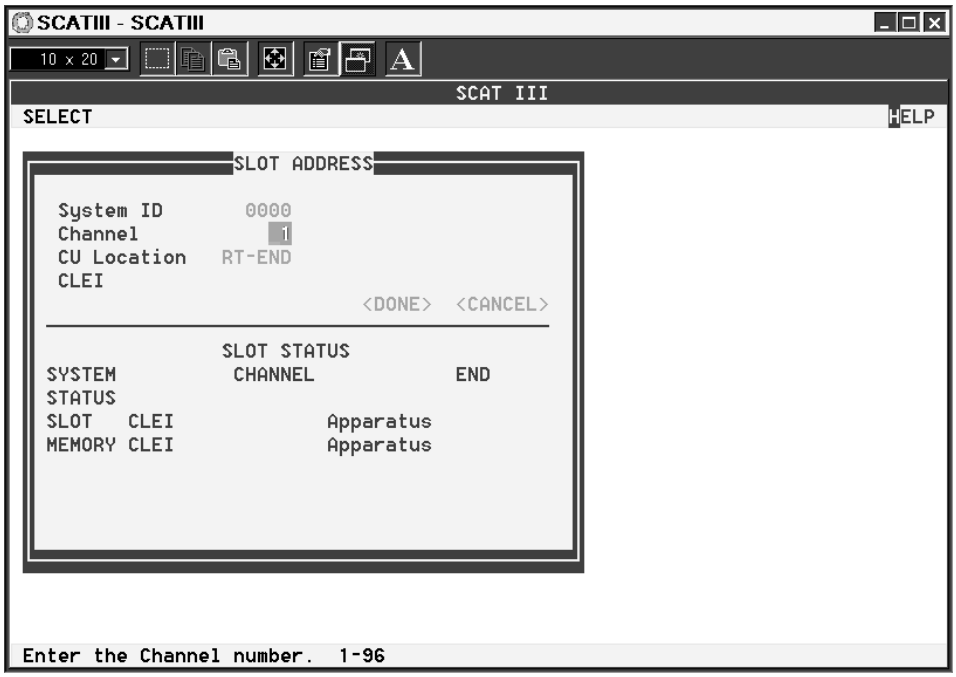
Set the System ID using switches **S4**–**S7** located on the alarm display unit (ADU). In a Feature Package C (FPC) universal system, the RT uses the system ID of the COT ADU. In a Feature Package B (FPB) universal system, with a *SLC*® 96 COT and a *SLC* Series 5 RT, an integrated network access (INA) system, or an integrated system, the system ID is found on the RT ADU.

# CU

**SELECT > CU command**

**NOTE:**
The CU command can not be accessed until the System ID has been established. Normally, the CU command is used when provisioning or testing more than one channel in a given *SLC* System.

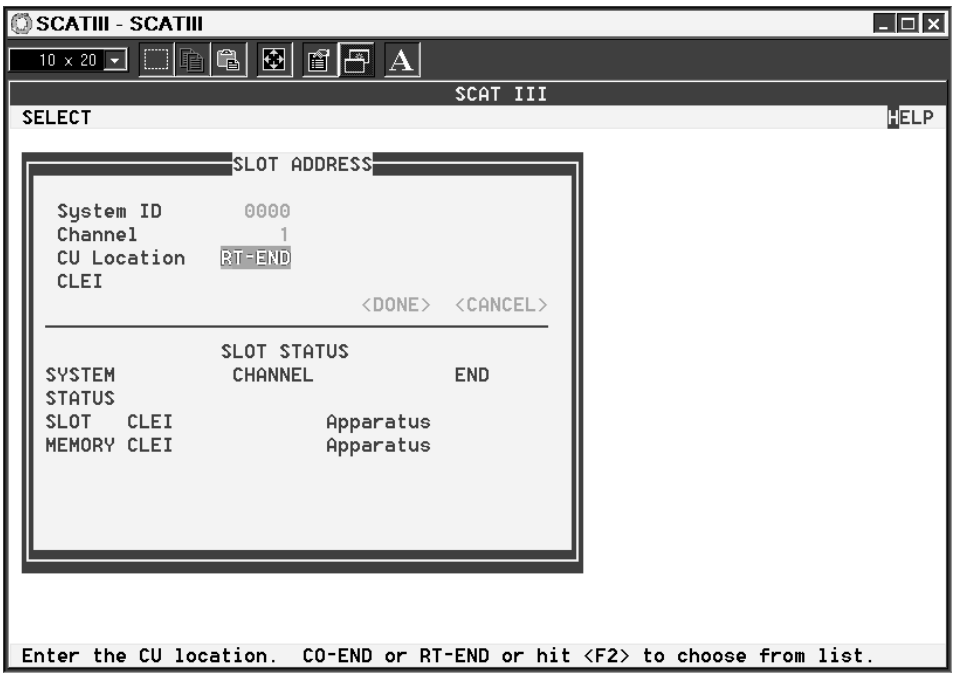
Choose the CU command from the SELECT submenu to change to a different channel. The SLOT ADDRESS dialog box opens in the Channel field.



# Other End

**SELECT > Other End**

Choose Other End from the SELECT submenu when you have chosen a system and channel, and want to change to the other end (COT or RT). The SLOT ADDRESS dialog box opens with the CU Location field automatically changed to the other end.

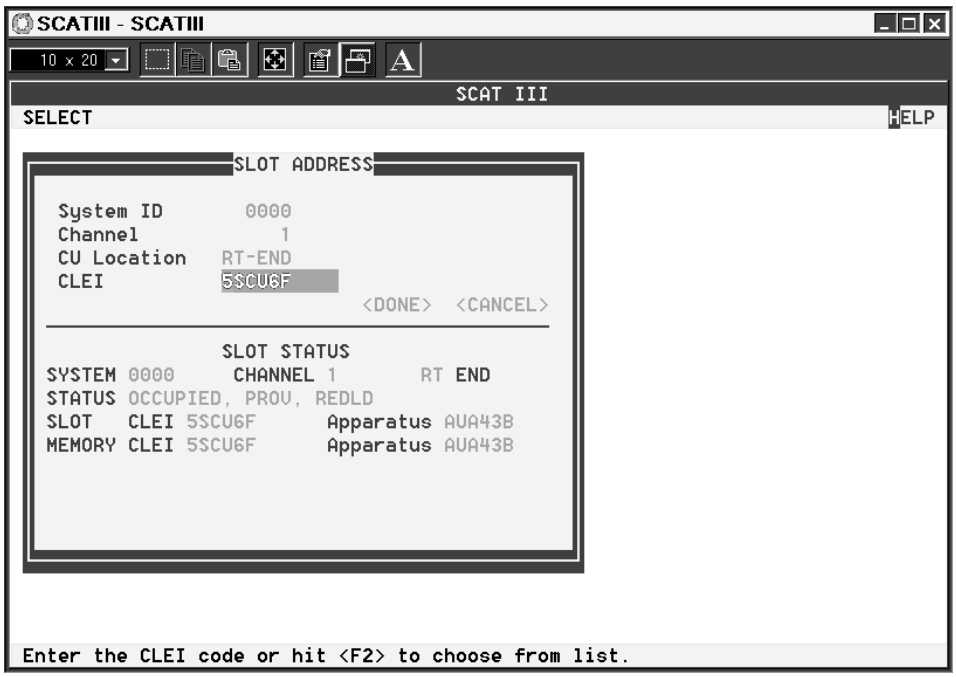


# CLEI

**SELECT > CLEI command**

**NOTE:**
The CLEI field is normally entered only during a channel selection dialog and not directly from the SELECT submenu. Use the SELECT > CLEI selection if while provisioning or possibly testing a specific channel, that you determine a wrong CLEI code has been entered during the initial CU SELECT dialog.

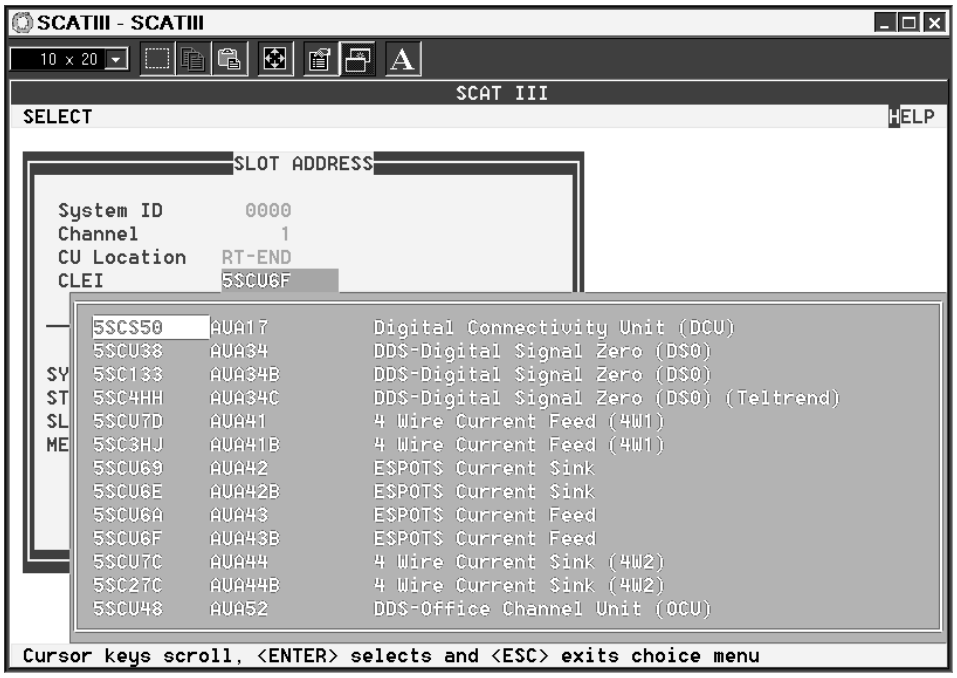
Select a system and channel (SELECT > System, or if previously selected choose SELECT > CU or SELECT > Other End) and press the **Enter** key. The CLEI field will become active and you may change the Telcordia *CLEI*® code. The *CLEI* code is an alphanumeric string identifying the type of channel unit to be used in the slot. The SLOT ADDRESS dialog box opens with the *CLEI* code of the channel unit in the slot or the *CLEI* code stored in memory (an empty, but provisioned slot). No default appears when the slot is empty and memory contains no provisioning data.

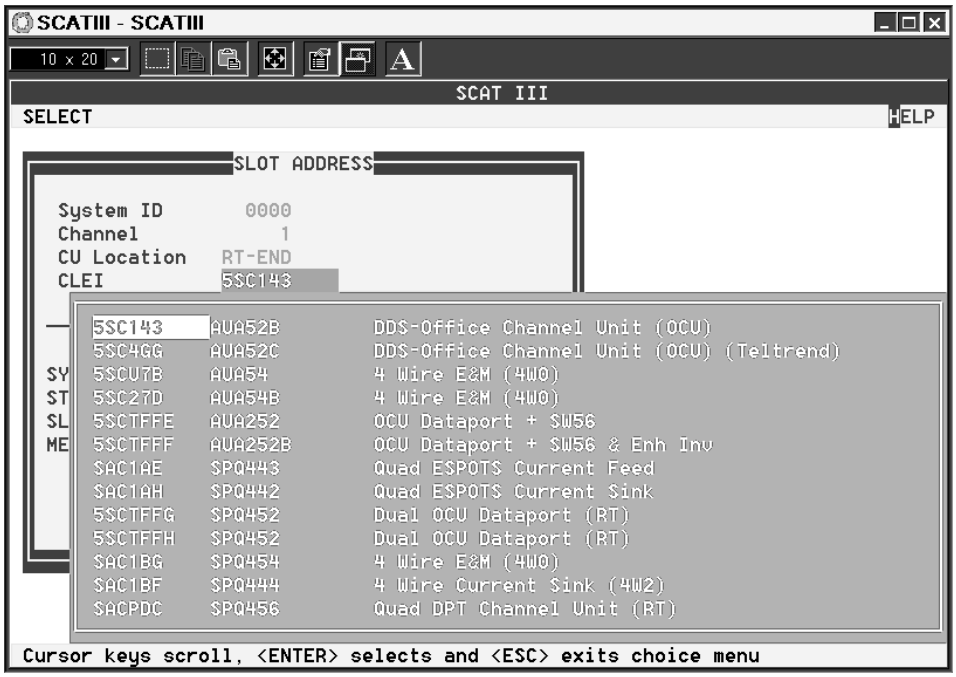


# CLEI (Continued)

**CLEI choice list**

Press the **F2** key to display a choice list of valid *CLEI* codes.



# CLEI (Continued)

**Valid *CLEI* codes**

The following table lists valid CU apparatus codes and associated *CLEI* codes.

**NOTE:**
The quad (*SPQ* units) and the dual OCU dataport CUs are only supported by the *SLC LineReach* Access System.

**NOTE:**
Use the associated *CLEI* codes of the AUA41 and AUA52 CUs to provision the AUA141 VF and AUA152 DDS OCU, respectively.

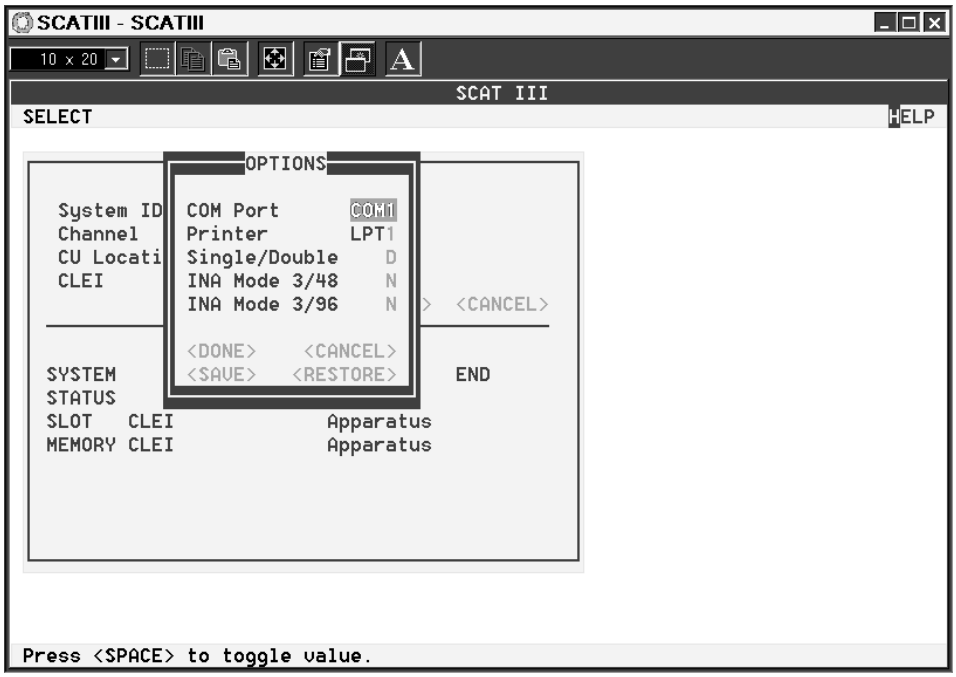
| Apparatus Code | Channel Unit | *CLEI* Code |
|---|---|---|
| AUA17 | DCU | 5SCS50 |
| AUA34 | DS0 | 5SCU38 |
| AUA34B | DS0 | 5SC133 |
| AUA34C | DS0 – Teltrend | 5SC4HH |
| AUA41 | 4-wire VF | 5SCU7D |
| AUA41B | 4-wire VF | 5SC3HJ |
| AUA141 | 4-wire VF | 5SCU7D |
| AUA42 | E*SPOTS*® CS | 5SCU69 |
| AUA42B | E*SPOTS* CS | 5SCU6E |
| AUA43 | E*SPOTS* CS | 5SCU6A |
| AUA43B | E*SPOTS* CS | 5SCU6F |
| AUA44 | 4-wire VF | 5SCU7C |
| AUA44B | 4-wire VF | 5SC27C |
| AUA52 | DDS OCU | 5SCU48 |
| AUA52B | DDS OCU | 5SC143 |
| AUA52C | DDS OCU – Teltrend | 5SC4GG |
| AUA152 | DDS OCU | 5SCU48 |
| AUA252 | DDS OCU | 5SCTFFE |
| AUA252B | DDS OCU | 5SCTFFF |
| AUA54 | 4-wire VF | 5SCU7B |
| AUA54B | 4-wire VF | 5SC27D |
| *SPQ*®442 | Quad CS E*SPOTS* | SAC1AH |
| *SPQ*443 | Quad CF E*SPOTS* | SAC1AE |
| *SPQ*444 | 4-wire VF | SAC1BF |
| *SPQ*452 | DDS dual OCU DPT (RT) | 5SCTFFG, 5SCTFFH |
| *SPQ*454 | 4-wire VF E&M | SAC1BG |
| *SPQ*456 | Quad DPT (RT) | SACPDC |

# Options

**SELECT > Options command**

**NOTE:**
The OPTIONS dialog is not associated with accessing the *SLC* System, but rather with configuring the capabilities of the SCAT III.

Choose Options from the SELECT submenu to change options using SCAT III. The Options dialog box will open.



# Options (Continued)

**Available options** The following table lists available *options*.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **COM port** | Depends on configuration of your computer. | Select the COM port (COM1 or COM2) you wish to use. Press the **Space** bar to toggle the COM port. |
| **Printer** | Depends on configuration of your computer. | Enter the Printer port you wish to use. Generally, LPT1 is used, but some computers can use other ports. |
| **Single/Double** | S | INA Mode 3 only. Set to the same position as on the Single/Double option switch located on the ADU of the *SLC* System being accessed. Allow selection of single channel CUs (for example, 4-wire VF and dataports) in even channel slots. Overrides the SCAT III automatic checking feature and is useful for provisioning a *SLC*® System INA mode 3 with 48 channels configuration. |
| | D | Normal operation. Check to make sure that single channel CUs do not try to access even channels. |
| **INA Mode 3/48** | Yes | Connected to an INA in Mode 3 with 48 channel configuration. SCAT III will use channel slots only in the range 1 to 48. |
| | No | Normal operation. Any other configuration or feature package. |
| **INA Mode 3/96** | Yes | Connected to an INA in Mode 3 with 96 channel configuration. SCAT III will only use *odd* channel slots (range=1 to 96). |
| | No | Normal operation. Any other configuration or feature package. |

## Options (Continued)

**Complete entry** Choose one of the following to complete entering options.

| Prompt | Explanation |
|---|---|
| **DONE** | Use the options just entered. DONE does not save the options, rather instructs the SCAT III to use the options during the current session. The options will default to the *saved* values at the next session. |
| **CANCEL** | Do not use the options just entered |
| **SAVE** | Save these options for the next session |
| **RESTORE** | Restore the options to last saved values |

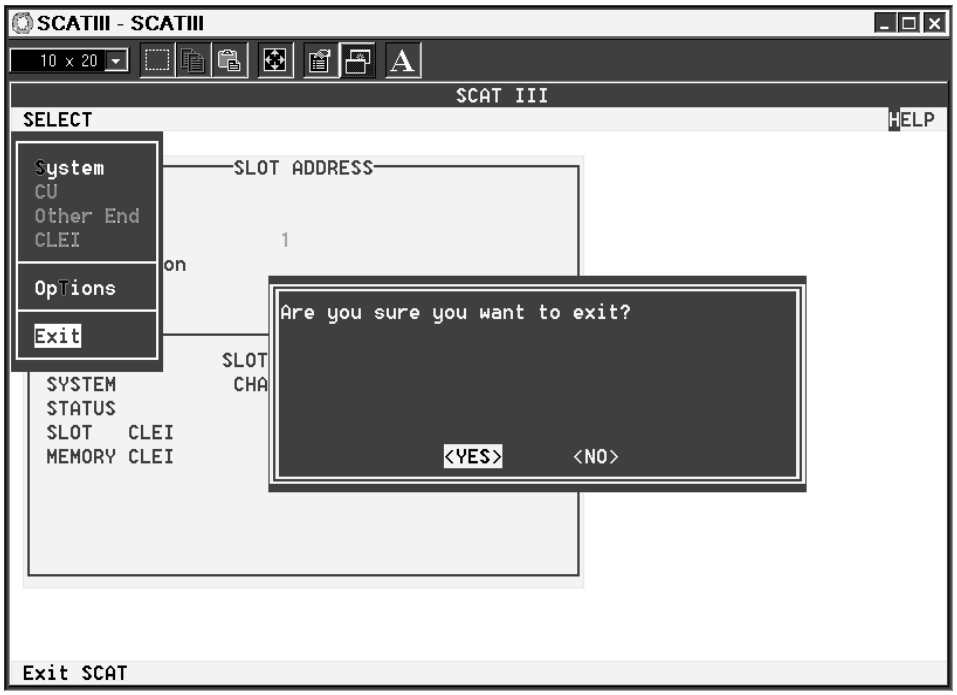
# Exit

**SELECT > Exit command**

**WARNING:**
*Always use the EXIT command to close the SCAT III session. Do not simply close the SCAT III window and the disconnect the CTU cable.*

**NOTE:**
When you select Connect Test Access, you must select Disconnect Test Access prior to exit from SCAT III.

Choose Exit from the SELECT command to exit SCAT III. SCAT III will confirm that you want to exit SCAT III.

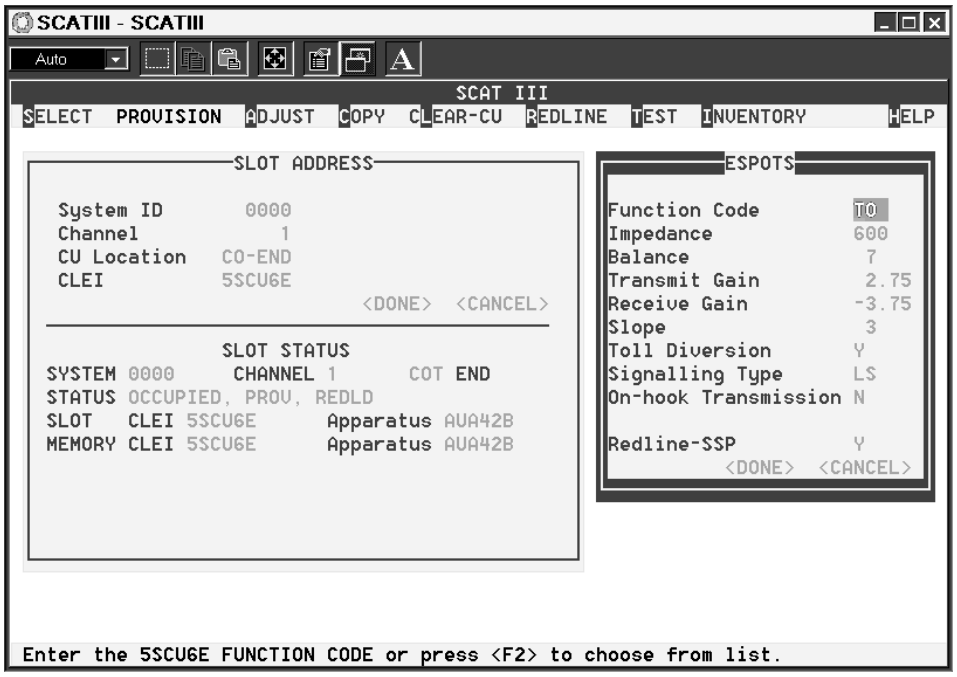


# Provisioning

## Provision

### Specify settings for options

The PROVISION command opens the *Provision* dialog. The *Provision* dialog allows the user to specify settings for options so that special service channel units can be used in the *SLC* Series 5 Carrier System or *SLC LineReach* Access System. The options vary for each type of channel unit and are normally provided in the work order record and details (WORD) document for the customer service being installed. When you select the PROVISION command, the provisioning dialog box which corresponds to the selected *CLEI* code will open with an active Function Code field.




### Pre-provision an empty channel slot

An empty channel slot (no channel unit installed) can be provisioned. The information is stored in the memory of the bank controller (BC) and is transferred to the CU when the channel unit is installed. The *CLEI* code identifies the type of channel unit that will be used and the options that must be specified to use that channel unit.

# Channel Units

## Provisionable CUs

The following table lists the types of CUs that can be provisioned.

| Channel Unit | Apparatus Code | *CLEI* Code |
|---|---|---|
| 4-wire VF | AUA41 | 5SCU7D |
| | AUA41B | 5SC3HJ |
| | AUA141 | 5SCU7D |
| | AUA44 | 5SCU7C |
| | AUA44B | 5SC27C |
| | AUA54 | 5SCU7B |
| | AUA54B | 5SC27D |
| | *SPQ*® 444 | SAC1BF (*SLC*® *LineReach*™ only) |
| 4-wire VF E&M | *SPQ*454 | SAC1BG (*SLC LineReach* only) |
| Dataport | AUA34 | 5SCU38 |
| | AUA34B | 5SC133 |
| | AUA34C | 5SC4HH (Teltrend) |
| | AUA52 | 5SCU48 |
| | AUA52B | 5SC143 |
| | AUA52C | 5SC4GG (Teltrend) |
| | AUA152 | 5SCU48 |
| | AUA252 | 5SCTFFE |
| | AUA252B | 5SCTFFF |
| | *SPQ*452 | 5SCTFFG (*SLC LineReach* only) |
| | *SPQ*452 | 5SCTFFH (*SLC LineReach* only) |
| DCU | AUA17 | 5SCS50 |
| E*SPOTS*® | AUA42 | 5SCU69 |
| | AUA42B | 5SCU6E |
| | AUA43 | 5SCU6A |
| | AUA43B | 5SCU6F |
| | *SPQ*442 | SAC1AH (*SLC LineReach* only) |
| | *SPQ*443 | SAC1AE (*SLC LineReach* only) |
| Quad DPT (RT) | *SPQ*456 | SACPDC (*SLC LineReach* only) |

# Dialogs

**Description**

Provisioning dialogs are provided for each of the channel unit types and function codes. Different options are available depending on the CU and function code. Press the **F2** function key to display a choice list of available entries. The selection of a specific function code opens the appropriate set of provisioning fields which must then be populated for the required service.

**4-wire VF CUs**

The following tables list the 4-wire VF CUs and the associated function codes that can be provisioned using the SCAT III.

**NOTE:**
The *SPQ* units are only supported by the *SLC LineReach* Access System.

| Apparatus Code | Function Code | Type of Signaling |
|---|---|---|
| AUA141, | DX4N | Duplex signaling, normal simplex |
| AUA41, | DX4R | Duplex signaling, reversed simplex |
| AUA41B | ETO4 | Equalized transmission only (no DC signaling) |
| | TO4 | Transmission only (no DC signaling) |
| | FXS1 | Loop-Start signaling, normal simplex, toll diversion not in effect |
| | FXS2 | Loop-Start signaling, reversed simplex, toll diversion not in effect |
| | FXS3 | Ground-Start signaling, normal simplex, toll diversion not in effect |
| | FXS5 | Ground-Start signaling, reversed simplex, toll diversion not in effect |
| | FXT1 | Loop-Start signaling, normal simplex, toll diversion in effect |
| | FXT2 | Loop-Start signaling, reversed simplex, toll diversion in effect |
| | FXT3 | Ground-Start signaling, normal simplex, toll diversion in effect |
| | FXT5 | Ground-Start signaling, reversed simplex, toll diversion in effect |

*Continued on next page*

# Dialogs (Continued)

**4-wire VF CUs (continued)**

| Apparatus Code | Function Code | Type of Signaling |
|---|---|---|
| AUA44, AUA44B, *SPQ*®444 | FXO1 | Loop-start signaling, normal simplex, toll diversion not in effect |
| | FXO2 | Loop-start signaling, reversed simplex, toll diversion not in effect |
| | FXO3 | Ground-start signaling, normal simplex, toll diversion not in effect |
| | FXO5 | Ground-start signaling, reversed simplex, toll diversion not in effect |
| | FXP1 | Loop-start signaling, normal simplex, toll diversion in effect |
| | FXP2 | Loop-start signaling, reversed simplex, toll diversion in effect |
| | FXP3 | Ground-start signaling, normal simplex, toll diversion in effect |
| | FXP5 | Ground-start signaling, reversed simplex, toll diversion in effect |
| | TDOA | 4-state signaling, office beyond far end of Series 5, leads looped |
| | TDOB | 4-state signaling, office beyond far end of *SLC* System, leads not looped |
| | TDOC | 2-state signaling, leads looped |
| | TDOD | 2-state signaling, leads not looped |
| | TDSA | 4-state signaling, subscriber beyond far end of *SLC* System, leads looped |
| | TDSB | 4-state signaling, subscriber beyond far end of *SLC* System, leads not looped |
| | TDSC | 2-state signaling, leads looped |
| | TDSD | 2-state signaling, leads not looped |
| AUA54, AUA54B, *SPQ*454 | EM4C | E&M signaling type I (non-looped) |
| | EM4H | E&M signaling type II (looped) |
| | PLR1 | PLR signaling type I (PLR signaling is the complement of E&M) |
| | PLR2 | PLR signaling type II |

(Continued on next page)

## Dialogs (Continued)

**4-wire VF CUs (continued)**

**Function Code=EM4C, EM4H, PLR1, PLR2**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | EM4C, EM4H, PLR1, PLR2 | Specifies the function of the 4-wire VF. |
| **TRMT Attenuator** | 0 to 25.5 (in steps of 0.1) | Sets the desired gain for the signal transmitted from the channel unit onto the carrier. |
| **RCV Attenuator** | 0 to 25.5 (in steps of 0.1) | Sets the desired gain for the signal received from the carrier. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

**Function Code=TDOA, TDOB, TDOC, TDOD, TDSA, TDSB, TDSC, TDSD**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | TDOA, TDOB, TDOC, TDOD, TDSA, TDSB, TDSC, TDSD | Specifies the function of the 4-wire VF. |
| **TRMT Attenuator** | 0 to 11.6 (in steps of 0.1) | Sets the desired gain for the signal transmitted from the channel unit onto the carrier. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

(Continued on next page)

## Dialogs (Continued)

**4-wire VF CUs (continued)**

**Function Code=DX4N, DX4R, ETO4, FXS1, FXS2, FXS3, FXS5, FXT1, FXT2, FXT3, FXT5**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | DX4N, DX4R, ETO4, FXS1, FXS2, FXS3, FXS5, FXT1, FXT2, FXT3, FXT5 | Specifies the function of the 4-wire VF. |
| **TRMT Attenuator** | 0 to 16.5 (in steps of 0.1) | Sets the desired gain for the signal transmitted from the channel unit onto the carrier. |
| **RCV Attenuator** | 0 to 16.5 (in steps of 0.1) | Sets the desired gain for the signal received from the carrier. |
| **–7DB (J3)** | WH or BK | Prompt for –7 DB (J3) is only received when function code ETO4 is specified. Sets the gain correction for the transmitted signal. WH or BK corresponds to the white or black side, respectively, of the physical switch on the equivalent D4 CU. |
| **NONLOADED/ LOADED** | N | The cable connected to the CU is not loaded. |
| | L | The cable connected to the CU is loaded. |
| **Slope** | 0 to 15 (in steps of 1) | Sets the value of the slope used for equalization. |
| **Bandwidth** | 0 to 15 (in steps of 1) | Sets the bandwidth of the equalization characteristic. |
| **Height** | 0 to 15 (in steps of 1) | Sets the height of the equalization characteristic. |
| **TRMT&RCV Impedance** | 150, 600, 1200 ohms | Sets the structural impedance for the CU. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

(Continued on next page)

## Dialogs (Continued)

**4-wire VF CUs (continued)**

**Function Code=TO4**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | TO4 | Specifies the function of the 4-wire VF. |
| **TRMT Attenuator** | 0 to 16.5 (in steps of 0.1) | Sets the desired gain for the signal transmitted from the channel unit onto the carrier. |
| **RCV Attenuator** | 0 to 16.5 (in steps of 0.1) | Sets the desired gain for the signal received from the carrier. |
| **–7DB TRMT** | WH or BK | Sets the gain correction for the transmitted signal. WH or BK corresponds to the white or black side, respectively, of the physical switch on the equivalent D4 CU. |
| **–7DB RCV** | WH or BK | Sets the gain correction for the received signal. WH or BK corresponds to the white or black side, respectively, of the physical switch on the equivalent D4 CU. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

(Continued on next page)

## Dialogs (Continued)

**4-wire VF CUs (continued)**

**Function Code=FXO1, FXO2, FXO3, FXO5, FXP1, FXP2, FXP3, FXP5**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | FXO1, FXO2, FXO3, FXO5, FXP1, FXP2, FXP3, FXP5 | Specifies the function of the 4-wire VF. |
| **TRMT Attenuator** | 0 to 16.5 (in steps of 0.1) | Sets the desired gain for the signal transmitted from the channel unit onto the carrier. |
| **RCV Attenuator** | 0 to 16.5 (in steps of 0.1) | Sets the desired gain for the signal received from the carrier. |
| **NONLOADED/ LOADED** | N | The cable connected to the CU is not loaded. |
| | L | The cable connected to the CU is loaded. |
| **Slope** | 0 to 15 (in steps of 1) | Sets the value of the slope used for equalization. |
| **Bandwidth** | 0 to 15 (in steps of 1) | Sets the bandwidth of the equalization characteristic. |
| **Height** | 0 to 15 (in steps of 1) | Sets the height of the equalization characteristic. |
| **TRMT&RCV Impedance** | 150, 600, 1200 ohms | Sets the structural impedance for the CU. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

## Dialogs (Continued)

### E *SPOTS* channel units

The following tables list the function codes for E *SPOTS* CUs.

**NOTE:**
The *SPQ* units are only supported by the *SLC LineReach* Access System.

| Channel Unit | Apparatus Code | Function Code | Type of Signaling |
|---|---|---|---|
| Current sink (CS) E *SPOTS*® | AUA42, AUA42B, *SPQ*®442 | DPT | Dial pulse terminate |
| | | FXO | Foreign exchange office end |
| | | TO | Transmission only |
| Current feed (CF) E *SPOTS* | AUA43, AUA43B, *SPQ*443 | DPO | Dial pulse originate |
| | | FXS | Foreign exchange station end |
| | | TO | Transmission only |

**NOTE:**
The following parameters can be provisioned for E *SPOTS* CUs. Prompts are not received for *toll diversion*, *signaling type*, and *on-hook transmission* when the function code is DPT, DPO, or TO. The prompts for *toll diversion* and *signaling type* will not appear when the function code is FXS.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | DPT, FXO, TO | Specifies the function of the current sink E *SPOTS*® CU. |
| | DPO, FXS, TO | Specifies the function of the current feed E *SPOTS* CU. |
| **Impedance** | 600 or 900 ohms | Sets the structural impedance for the channel unit. |
| **Balance** | 0 to 15 (in steps of 1) | Sets networks used to prevent echo and singing in the circuit. |

*Continued on next page*

## Dialogs (Continued)

**E *SPOTS* channel units (continued)**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Transmit Gain** | –1 to 6.75 (in steps of 0.25) | Sets the desired gain for the signal transmitted from the channel unit onto the carrier. |
| **Receive Gain** | –8 to 1.5 (in steps of 0.25) | Sets the desired gain for the signal received from the carrier. |
| **Slope** | 0 to 7 | Sets the value of the slope used for equalization. |
| **Toll Diversion** | Yes | Customer wants restricted toll call service. |
| | No | Customer wants regular long distance service. |
| **Signaling Type** | GS | Ground start |
| | LS | Loop start |
| **On-Hook Transmission** | Yes | Transmission provided toward an on-hook telephone (OHT). |
| | No | Transmission provided only toward an off-hook telephone. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

# Dialogs (Continued)

## OCU dataports

The following table lists the function codes for office channel unit (OCU) dataports.

| Apparatus Code | Function Code | Type of Signaling |
|---|---|---|
| AUA52, AUA52B, AUA52C, AUA152, AUA252, AUA252B | OCU | Office channel unit |
| *SPQ*®452 | OCU | Office channel unit |
| | SW56 | Switched 56 service |

The following parameters can be provisioned for OCU dataports.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | OCU | Specifies the function of the office channel unit. |
| | SW56 | Switched 56 service. Software provisioning for SW56 is only available for *SPQ*®452 in a *SLC*® *LineReach* system. |
| **Subscriber Data Rate** | 2.4, 4.8, 9.6, 19.2, 56, 64 kb/s | The rate of data transmission for the customer. 19.2 and 64 kb/s are available for AUA52B. |
| **Error Correction** | SCEC, NONE, MVEC | Valid error correction values when the data rate is 2.4, 4.8, or 9.6 kb/s. Entries are secondary channel error correction (SCEC), majority vote error correction (MVEC), and no error correction (NONE). |
| | SCEC, 19.2, NONE, MVEC | Valid error correction values when the data rate is 19.2 kb/s. |
| | SCEC, NONE | Valid error correction values when the data rate is 56- or 64-kb/s. |

*Continued on next page*

## Dialogs (Continued)

**OCU dataports (continued)**

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **All-Zero Code Allowed** | Yes | The dataport can transmit an all-zero digital signal. *Required* for 64-kb/s service. |
| | No | The dataport substitutes enough 1s in an all-zero signal to enable digital line repeaters to correctly operate. This does not affect the signal. |
| **Secondary Channel Used** | Yes | Secondary data channel transmission is used. *Required* for 64-kb/s service. |
| | No | Secondary data channel transmission is not used. |
| **Quality Monitoring** | Yes | Quality monitoring is used. Available only for *SPQ*452 (*SLC LineReach* system). |
| | No | Quality monitoring is not used. |
| **AB Signaling** | Yes | AB signaling is used. Available only for *SPQ*452 (*SLC LineReach* system) provisioned with *function code* SW56. |
| | No | AB signaling is not used. |
| **Enhanced SW56** | Yes | Enhanced SW56 is enabled. Available only for *SPQ*452 (*SLC LineReach* system) provisioned with *function code* SW56. |
| | No | Enhanced SW56 is not enabled. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

# Dialogs (Continued)

## DS0 dataports

The following tables list the function codes for DS0 dataports.

| Apparatus Code | Function Code | Type of Signaling |
|---|---|---|
| AUA34 | DS0A | The dataport carries a signal from one subrate customer (2.4, 4.8, or 9.6 kb/s). |
| | DS0B | The dataport carries a signal from one 56 kb/s customer or the multiplex of several subrate customers. |
| AUA34B, AUA34C | DS0A | The dataport carries a signal from one subrate customer (2.4, 4.8, 9.6, or 19.2 kb/s). |
| | DS0B | The dataport carries a signal from one (56 or 64 kb/s) customer or the multiplex of several subrate customers. |

The following parameters can be provisioned for DS0 dataports.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | DS0A | The dataport carries a signal from one subrate (2.4, 4.8, 9.6, 19.2 kb/s) customer. Subrate of 19.2 kb/s is available for AUA34B. |
| | DS0B | The dataport carries a signal from one (56 or 64 kb/s) customer or is the multiplex of several subrate customers. 64 kb/s is available for AUA34B. |
| **Error Correction** | SCEC, NONE, MVEC | Valid error correction values when the *function code* is DS0A. Entries are second channel error correction (SCEC), majority vote error correction (MVEC), and no error correction (NONE). |
| | SCEC, NONE | Valid error correction values when the *function code* is DS0B. |

*Continued on next page*

## Dialogs (Continued)

### DS0 dataports (continued)

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **All-Zero Code Allowed** | Yes | The dataport can transmit an all-zero digital signal. |
| | No | The dataport substitutes enough 1s in an all-zero signal to enable digital line repeaters to correctly operate. This does not affect the signal. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

### Quad DID dial pulse terminate (DPT) unit

The following table lists the function codes for Quad DID DPTs.

| Apparatus Code | Function Code | Type of Signaling |
|---|---|---|
| *SPQ*®456 | RVT | Reverse battery |

The following parameters can be provisioned for the *SPQ*456 DPT.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Function Code** | RVT | The channel serves as a DID DPT channel with reverse battery signaling. |
| **Transmission Loss** | 0 | No additional bidirectional transmission loss. |
| | 2.5 | Sets the slot for an additional 2.5 dB of transmission loss in both directions. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

# Dialogs (Continued)

### Digital connectivity unit

The following table lists the *operation* modes for the AUA17 digital connectivity unit (DCU).

| Apparatus Code | Operation Mode | Type of Signaling |
|---|---|---|
| AUA17 | VF | Voice frequency |
| | DDS | Digital data service |

The following parameters can be provisioned for the AUA17 DCU.

| Prompt | Valid Entries | Explanation |
|---|---|---|
| **Operation Mode** | VF | The channel served by the DCU provides voice frequency service. |
| | DDS | The channel served by the DCU provides dataport (DDS) service. |
| **Redline SSP** | Yes | Sets the slot to *redline* status. |
| | No | Does not set the slot to *redline* status. |

### Special service protection

After you enter the option settings for the channel unit, SCAT III will prompt REDLINE-SSP (special service protection). Your WORD document will include the letters PRQ SSP on the Work Authorization page if the channel unit should have special service protection. If the channel slot should have a redlined status, you can set this status here by answering YES.

### Ending the provisioning dialog

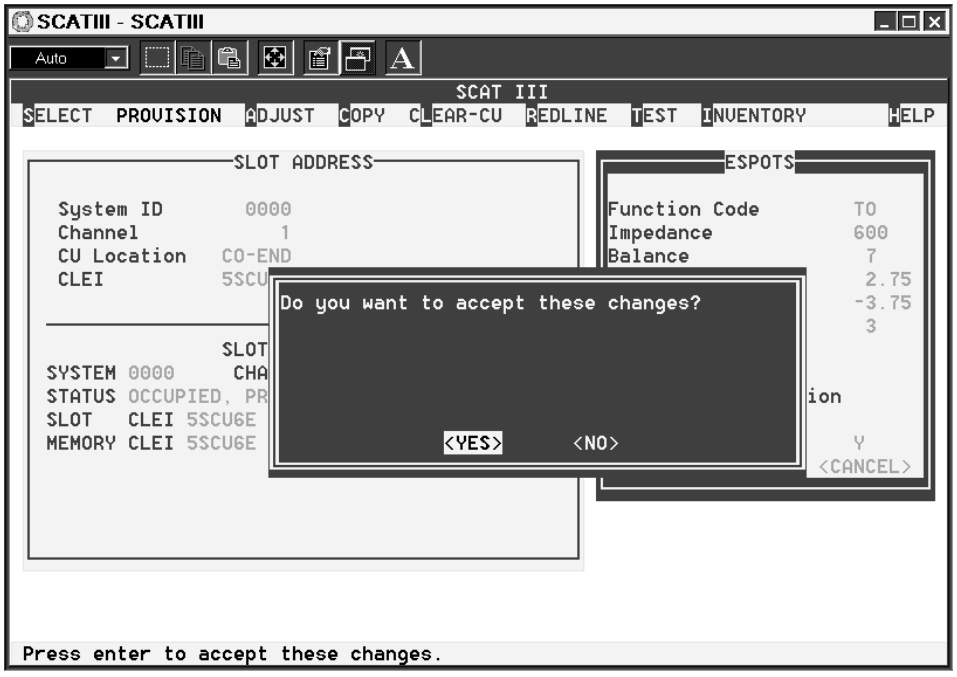
Choose one of the following to complete entering options.

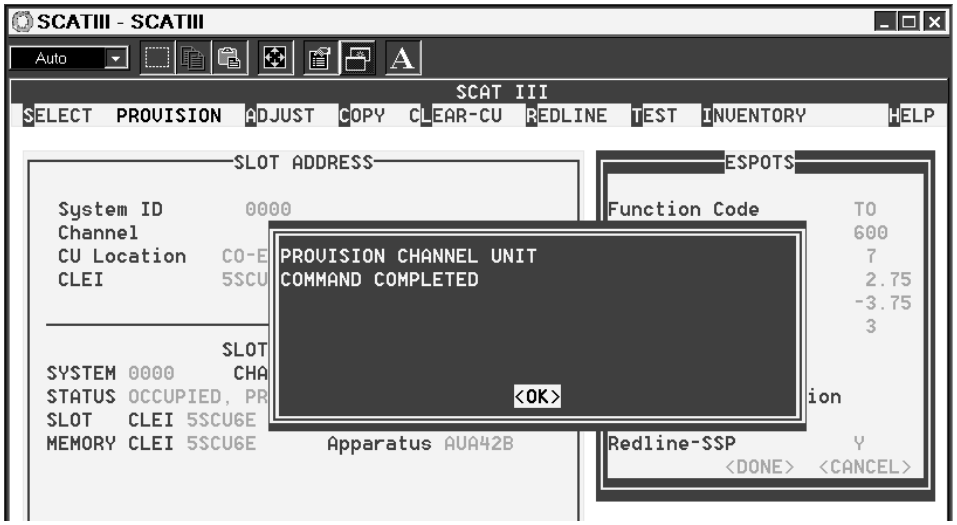
| Prompt | Explanation |
|---|---|
| DONE | SCAT III informs the BC to provision the slot |
| CANCEL | Do not provision the slot with values just entered |

# Dialogs (Continued)

**Complete the dialog**

When you have completed the provisioning dialog, SCAT III will complete the command and display the completion message. (This may take several seconds.) Make sure the completion message shows a COMPLETED status. After the completion message, you are returned to the *Main* task bar. Select your next operation.



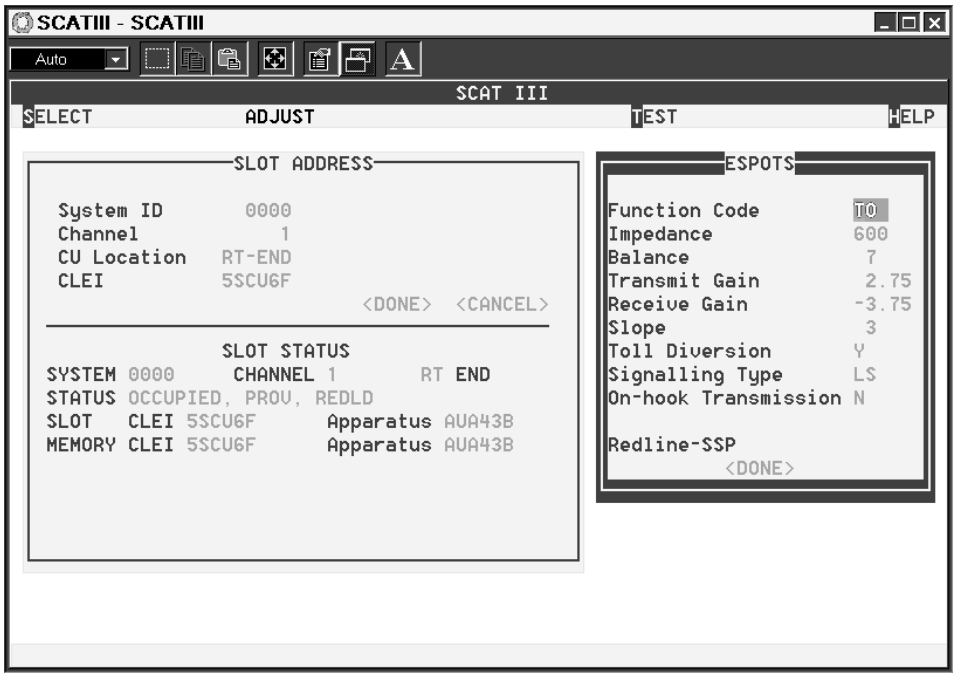



# Adjust

### Adjust provisioning parameters

**CAUTION:**
*When a parameter is changed during* ADJUST*, the new value is passed to the BCU and CU as soon as the* **Enter** *key is pressed. The change can only be undone by manually reentering the correct value. The* **Esc** *key will not restore the previous value. There is no cancel function for an* ADJUST *change once it has been submitted to the system.*

The ADJUST command permits the user to change the provisioning parameters for a channel unit on an entry by entry basis. This feature is often used with test access to perform channel unit alignment procedures. The provisioning parameters for a channel slot containing a digital connectivity unit (DCU) cannot be adjusted.




### Does not adjust the function code

The adjust procedure will not change the function code for a channel unit. SCAT III will display the current function code when ADJUST is selected. The function code can only be changed using the Provision dialog.

### Does not adjust Redline

The adjust procedure will not change the Redline status for a channel unit. Use the REDLINE or PROVISION commands to toggle the redline status.

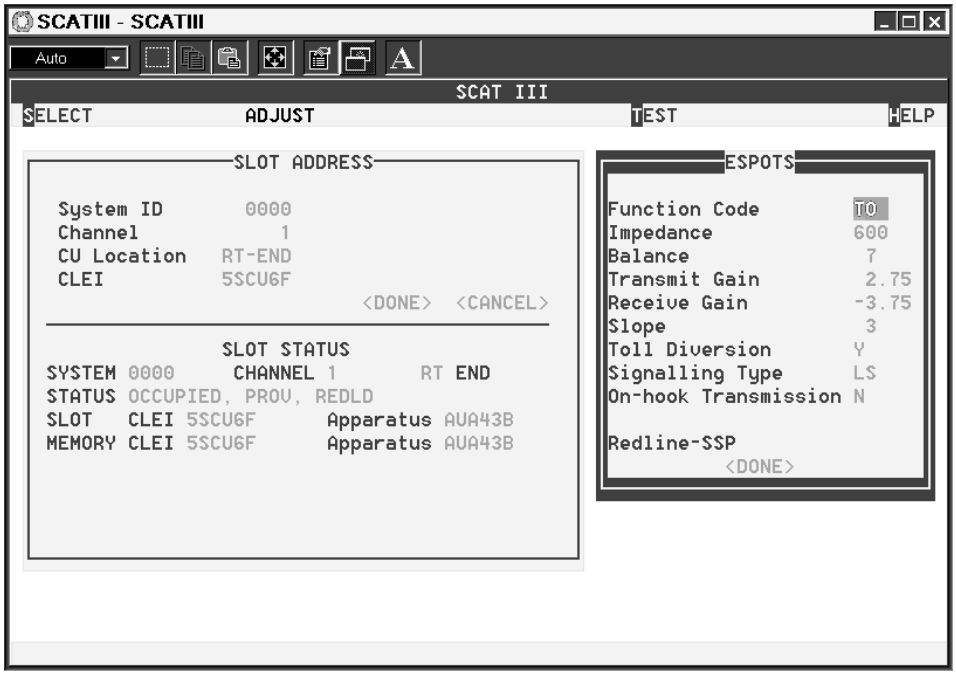
# Adjust (Continued)

**Default**

The provisioned parameters appear as the default. When you change a value, SCAT III prompts you with the new value as the default. Press the **Enter** key to confirm the new setting with the BC and the BC updates the CU to the adjusted channel unit provisioning parameters. The new values are simultaneously stored in EEPROM memory.

**Prompts and entries**

The ADJUST command uses the same prompts and entries as the Provision dialog. When the ADJUST command is selected, the corresponding provisioning dialog box opens in the Function Code field (although the function code can not be changed). Changes are immediately entered into the system when the **Enter** key is pressed. Select the <DONE> command to end the activity.

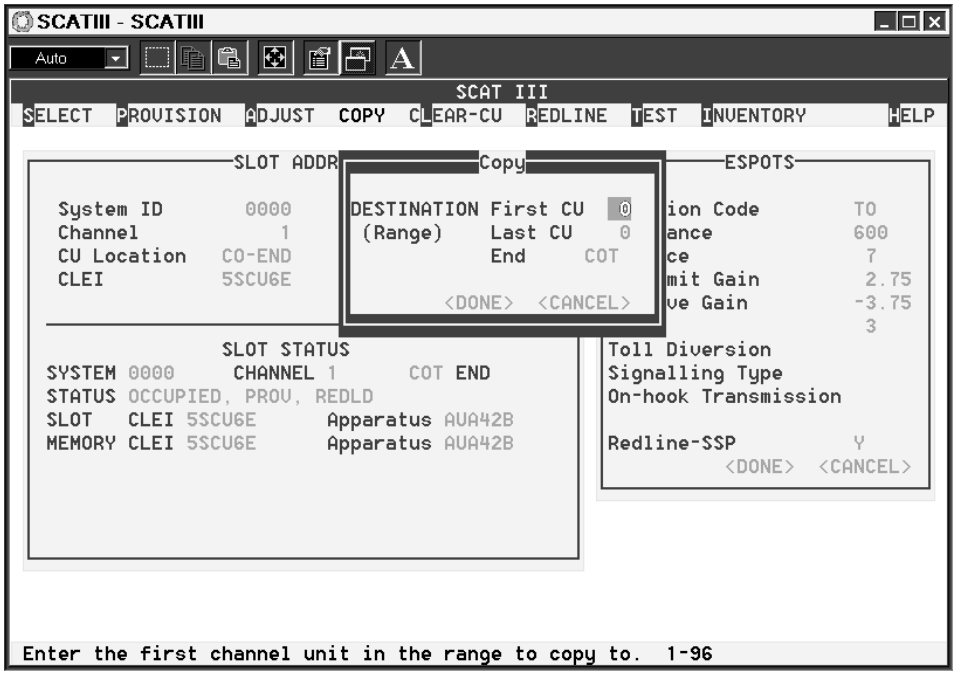


# Copy

**Copy provisioning parameters**

**NOTE:**
The COPY command can take several minutes to complete. When the copy is complete, ensure that the completion message displays a COMPLETED status.

The COPY command copies the provisioned parameters from an existing channel unit. This feature is used to duplicate additional channel units with the same provisioning parameters as previously provisioned slots.




**Copies EEPROM memory**

The COPY command copies the settings stored in EEPROM memory of a provisioned channel slot (the *source channel*) to the memory of a second channel slot (the *destination channel*) or to the memory of a range of channels.

**Same system**

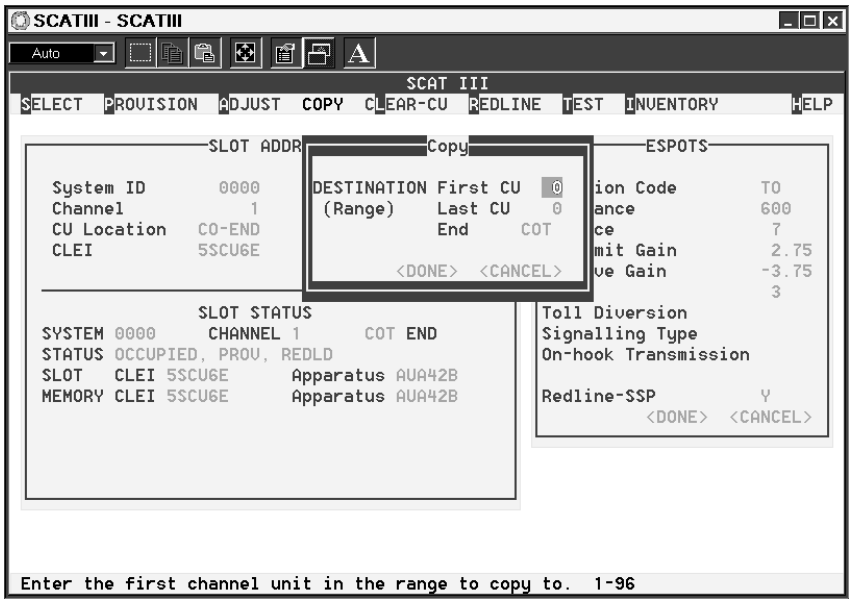
Both *destination* and *source* slots must be in the same system. Enter BOTH in the End field to provision channel units at both ends of the system (CO and RT).

# Copy (Continued)

**Procedure**

You tell SCAT III the location of the *source* channel slot (the one being copied) during the SLOT ADDRESS *dialog*. Specify the number of the destination channel slot (the *first* slot being copied to), or the range of slots being provisioned, using the dialog listed in the following procedure.

| Step | Procedure |
|---|---|
| 1 | Select COPY from the SELECT command. |




**Results:** SCAT III displays the prompt DESTINATION First CU.

2

**NOTE:**
The range of slots being copied *to* cannot contain the source channel being copied *from*.

Enter the number (1 to 96) of the *first* channel that you are provisioning by copy (channel must be in the same system as the source channel) and press **Enter**.

**Results:** SCAT III displays the prompt DESTINATION Last CU.

3 Enter the number (1 to 96) of the *last* channel that you are provisioning by copy and press **Enter**.

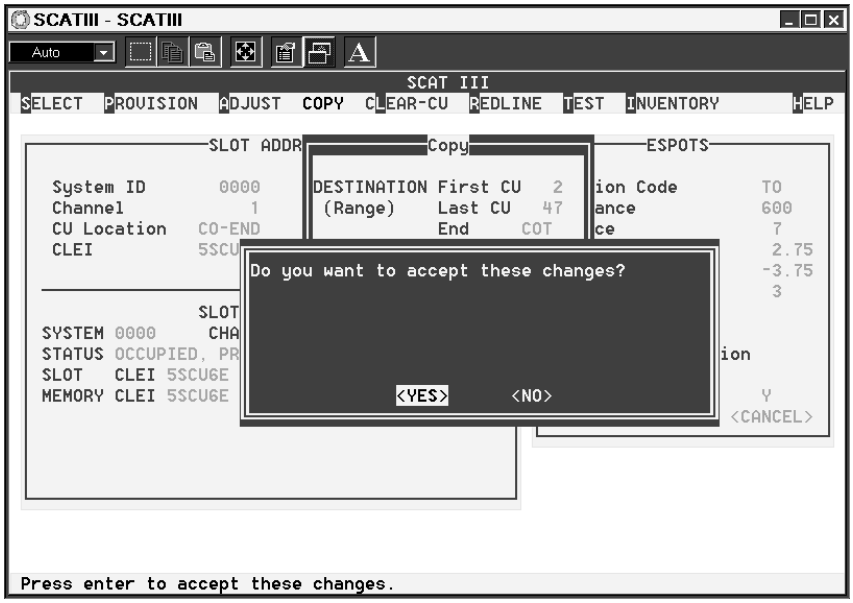
4 Enter the end (COT, RT, or BOTH) to copy and press **Enter**. Choose either the same end as the source channel or *both* to copy at both ends.

*Continued on next page*

# Copy (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 5 | Select DONE and press **Enter**.<br><br>**Results:** SCAT III requests confirmation to make the changes. |

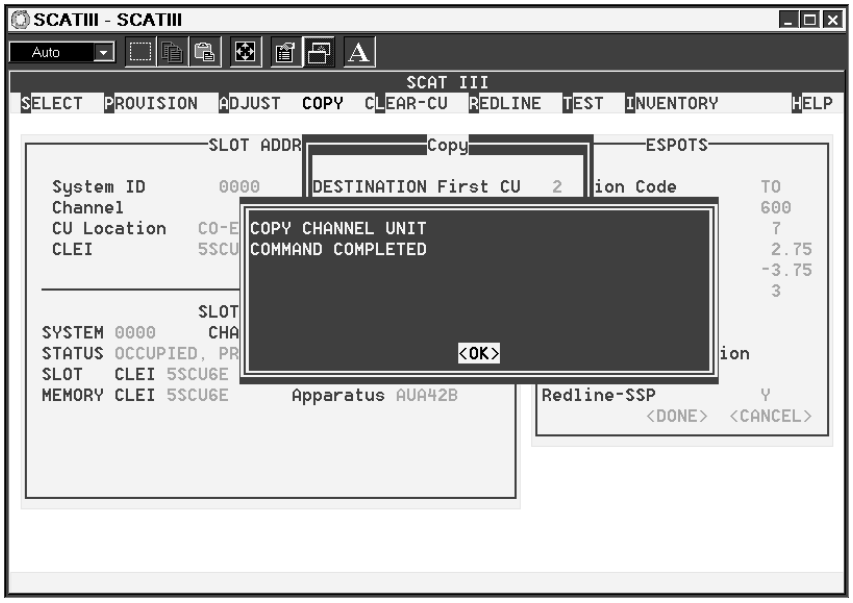



*Continued on next page*

# Copy (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 6 | Select YES or NO and press **Enter**.<br><br>**Results:** SCAT III displays COMPLETED when the COPY command completes. The *Main* task bar is displayed. |




**Stop! End of Procedure.**

# Clear-CU

**Clear provisioning parameters**

**WARNING:**
*The* CLEAR-CU *command will destroy CU settings and terminate customer service.*

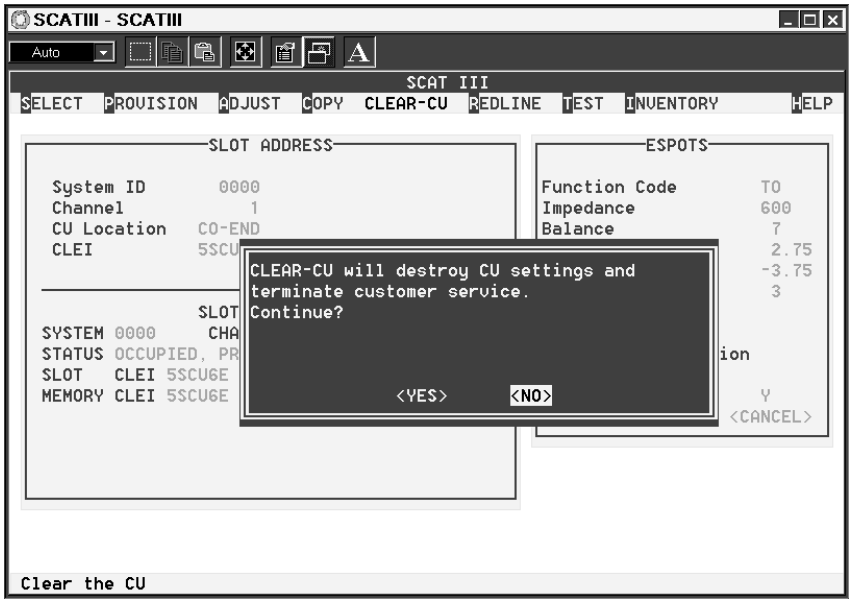
The CLEAR-CU command removes provisioning data from a channel unit. This command erases the provisioning parameters stored in system memory.

**Restore service**

Since the CLEAR-CU command removes provisioning data from memory, you must provision or copy to restore service for that channel unit. Provision using the parameters listed on the WORD document.

**Procedure**

Identify the channel slot to be deprovisioned during the SLOT ADDRESS dialog. Clear the provisioning memory using the following procedure.

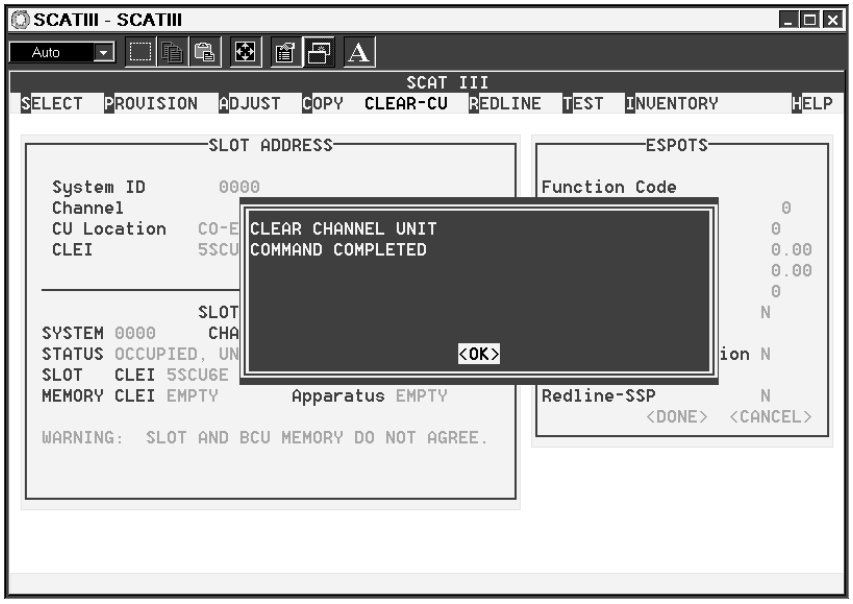
| Step | Procedure |
|---|---|
| 1 | Select CLEAR-CU from the Main task bar.<br><br>**Results:** SCAT III displays the following message box.<br><br>  |

*Continued on next page*

# Clear-CU (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 2 | Select YES to clear. Yes deprovisions the channel slot. No returns to the *Main* task bar.<br><br>**Results:** If *Yes*, SCAT III displays COMPLETED when the CLEAR-CU command completes. After the completion message, the *Main* task bar is displayed. |



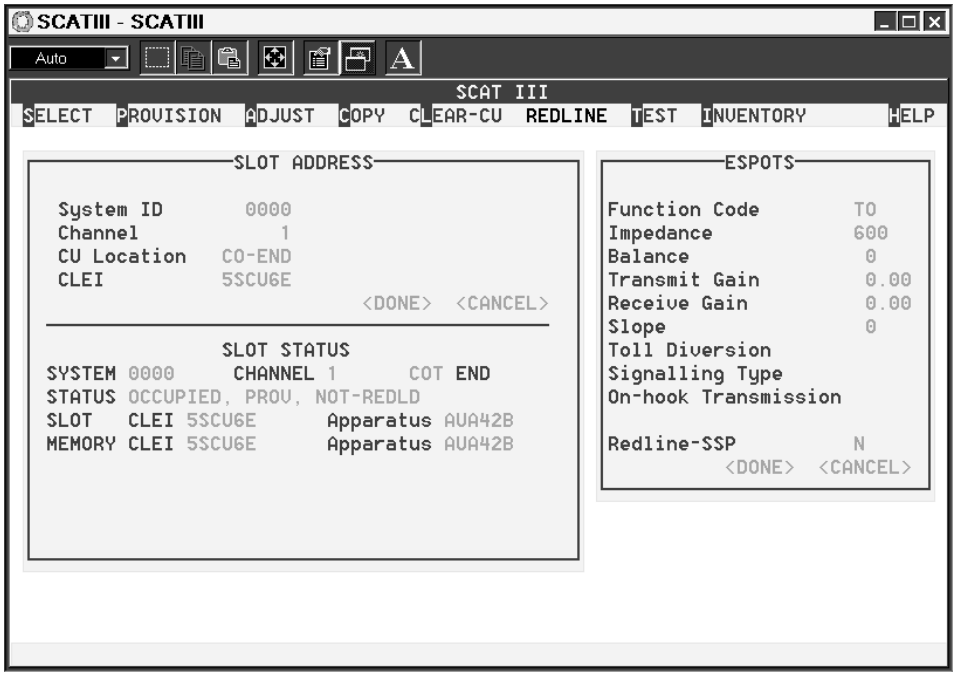

**Stop! End of Procedure.**

# Redline

**Redline status**

**NOTE:**
The redlined status may also be set during the Provision dialogs.

The REDLINE command sets or removes the redlined status or special service protection (SSP) of a channel unit.




**Redlined channel**

A redlined channel provides a critical service to a customer need. If you interrupt that service, the customer may have severe problems. Always follow local company practices when a channel has Redlined status.

**REDLD**

When a channel slot is redlined, the abbreviation REDLD is displayed in the SLOT STATUS message. You can designate a channel slot as redlined even when it is not provisioned.

**Prompts and entries**

You tell SCAT III which channel slot will be redlined during the *channel* SLOT ADDRESS dialog. The REDLINE command acts on the currently selected channel in the SLOT ADDRESS dialog box. When the REDLINE command completes, the SCAT III displays COMPLETED. Select OK to return to the *Main* task bar.

# Test

## Overview

**TOP, 363-205-402**

Refer to *SLC Series 5 Carrier System, Channel Unit Installation (TOP),* 363-205-402 for a complete description of installation and testing.

**Functions**

TEST is a submenu located on the *Main* task bar. The TEST command in conjunction with the switch settings and test access jacks on the TAIU allow *SLC* System turn up and the following functions.

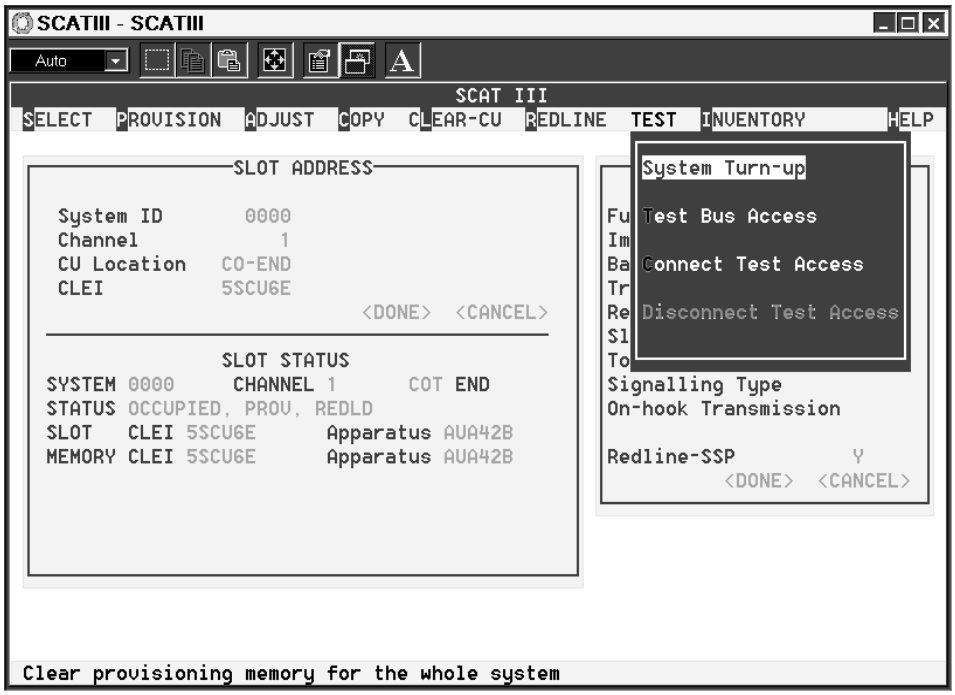
- Perform system turnup (for example, clear all provisioning memory for the whole system).
- Connect to the test bus on the channel test unit (CTU) to check test bus continuity without gaining test access or interrupting service on a channel in the channel bank.
- Gain full-splitting metallic test access to a channel.
- Get test access toward the line and/or to the customer drop.
- Perform analog half channel measurements on a channel through metallic and digital test access to the PCM bit stream of a channel converted from digital (D) to analog (A). Digital test access is *not* possible to *SLC*® *LineReach* channel units because the *SLC LineReach* channel bank does not support digital test units (DTUs). Only metallic test access is possible in *SLC LineReach*.
- Test either voice frequency (VF) or digital data service (DDS) channel units.
- Perform hitless monitoring on VF channel units using the built-in speaker.
- Get digital test access to either the near end (NE) or the far end (FE) channel unit (only in the *SLC* Series 5 channel bank). No digital test access is available in a *SLC LineReach* channel bank.
- Disconnect test access.

# System turnup

### Clear all provisioning information for all CU slots in the selected *SLC* System

**CAUTION:**
*The user must select the* YES *command to confirm clearing of all provisioning information from the system. A selection of YES will clear the memory (no undo is available). Otherwise, the TEST > System Turn-up command is not performed.*

Selecting System Turn up opens a dialog box that will clear all of the provisioning information for all CU slots in the selected system. This function may be used during initial turn up of the *SLC* system or where a system failure or other activity requires complete system re-provisioning.

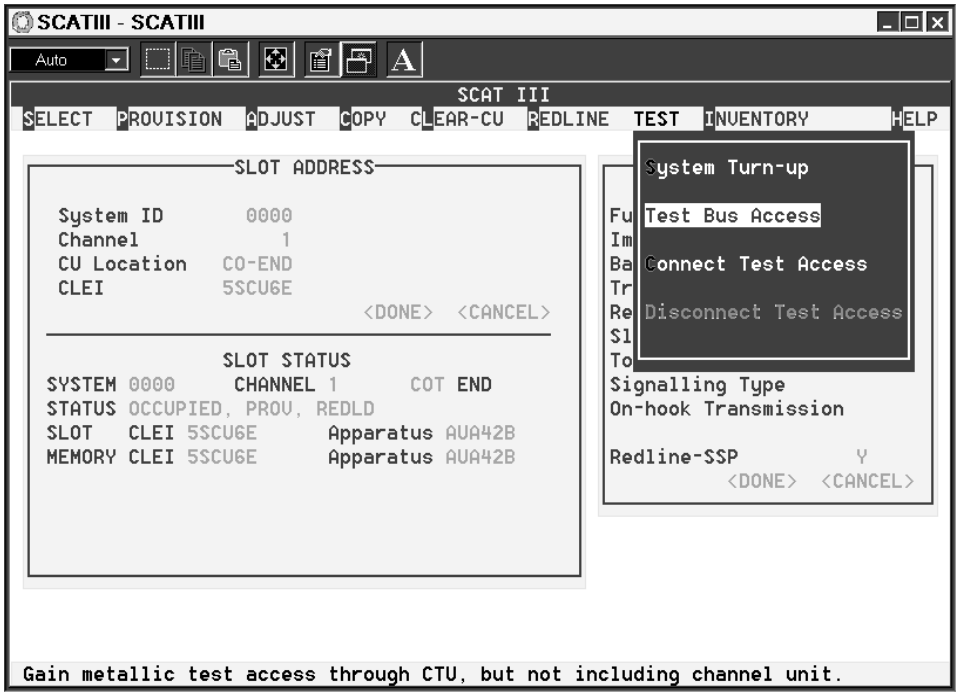


# Test Bus Access

**Access the test bus**

**NOTE:**
When Test Bus Access is selected, no other commands are available until the test bus is released.

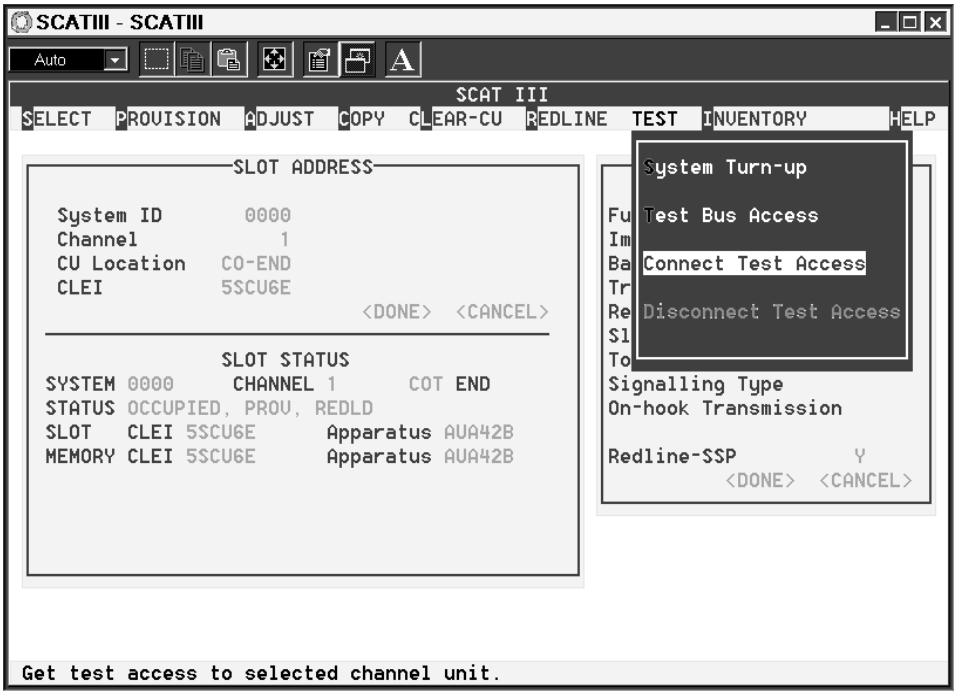
The Test Bus Access command offers access to the test access bus within the *SLC* system, using the TAIU, to verify its availability for accessing a selected CU. This command instructs the SCAT III to establish communication between the TAIU and the Test Access Bus in the selected *SLC* System. SCAT III first verifies the availability of the test bus prior to making the connection and opens a dialog box to offer the user selection options. This command does not make a test access to the selected channel only to the test bus. Once you gain test bus access, you can use a test instrument [for example, volt-ohm-meter (VOM)] connected using the **TEST ACCESS** jacks on the TAIU to test for shorted leads or foreign battery and ground on the test bus. This connecting bus should be tested before testing a newly installed system or when having problems gaining or using test access.



# Connect Test Access

### Connect the selected CU to the test bus and TAIU

The Connect Test Access command connects the selected CU to the test bus and to the TAIU for manual testing activity. This command instructs the system to make a test bus connection to the selected *SLC* system and to access the selected channel. This command does not have to be preceded by the Test Bus Access command. Once this command has implemented test access, the TAIU features can be used to execute manual testing of selected circuit parameters through external locally provided test equipment.




### Connect test access

**NOTE:**
Digital test access is *not* possible at the *SLC LineReach* bank because the *SLC LineReach* channel bank does not support digital test units (DTUs). Only metallic test access is possible at the *SLC LineReach* bank.

Use connect test access to establish digital, metallic, or both (digital and metallic) access to the selected channel unit.

- Metallic access seizes the system test bus and activates the test relay on the selected channel unit.
- Digital access sets the DTU in test mode and converts the digital bit stream into an analog signal for output at the **BIT STREAM ACCESS** jacks located on the TAIU.

## Connect Test Access (Continued)

**Digital only**

Use *digital only* to test or monitor the digital PCM bit stream. Select digital test access to cause the digital test unit (DTU) to be set to test mode to extract the digital PCM for the selected channel and route the data through the CTU to the TAIU. The TAIU converts the digital signal into an analog signal for output at the **BIT STREAM ACCESS** jacks located on the TAIU. Set the **NE/FE** switch on the TAIU to access either the near end or the far end channel unit.

**Metallic only**

Use *metallic only* to test or monitor the tip/ring pairs. Select metallic test access to cause the CTU to connect the system test bus to the TAIU and activate the test relay on the selected channel unit. Access can be obtained to 2- or 4-wire channel units and is full splitting. Access is simultaneously available both to the line and drop at the bantam jacks on the front of the TAIU.

**Both (digital and metallic)**

Use to obtain simultaneous digital and metallic access. Do not attempt half-channel measurements in a *SLC LineReach* system. It will not hurt anything, but the measurements will be meaningless.

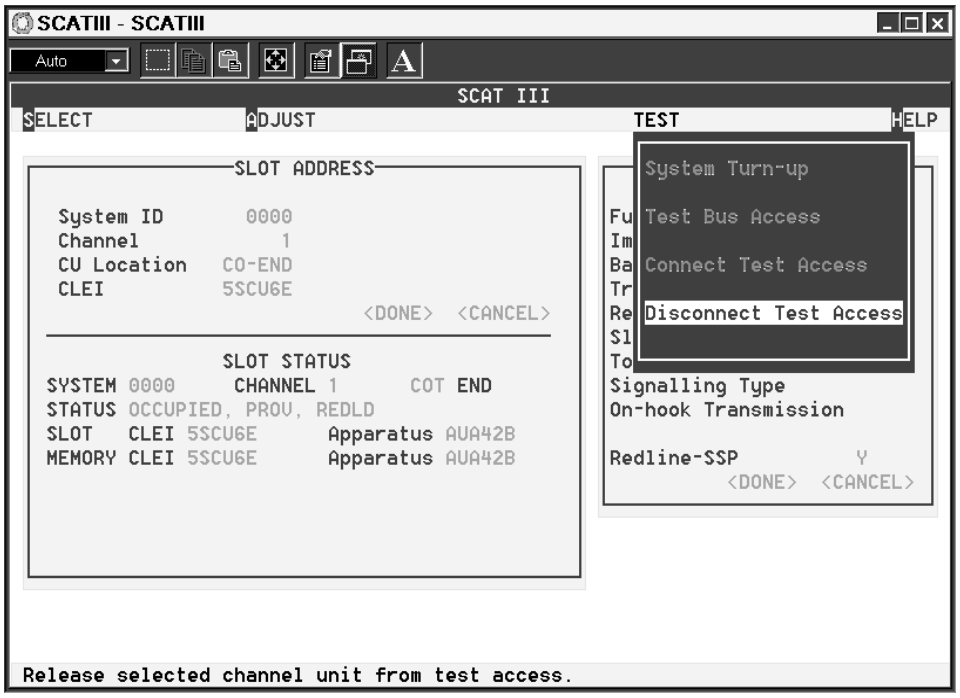
**No test access**

Use the No Test Access command to take you out of test access mode and return to the *Main* task bar. The result is the same as pressing the **Esc** key.

# Disconnect Test Access

**Disconnect the test bus from the CU and TAIU interface**

The Disconnect Test Access command disconnects the test bus from the CU and from the TAIU interface, thereby restoring the CU to service. This command instructs the system to drop the test bus access connection and the associated connection to the selected channel. The disconnect is confirmed using a dialog box.




**Disconnect test access**

When you have completed testing, use disconnect test access to remove digital, metallic, or both (digital and metallic) access to the selected channel unit. SCAT III will not allow any other activity except the ADJUST command until the Disconnect Test Access command has been selected. The Disconnect Test Access command informs the BC to open the test access relays.

# Inventory

## Retrieve Information

**What is inventory?**

**NOTE:**
Do not confuse the term *inventory* with *enhanced inventory.* Enhanced inventory is a feature of the *SLC*®-2000 Access System. Enhanced inventory can retrieve the specific series and serial number of an individual channel unit (when the CU supports enhanced inventory).

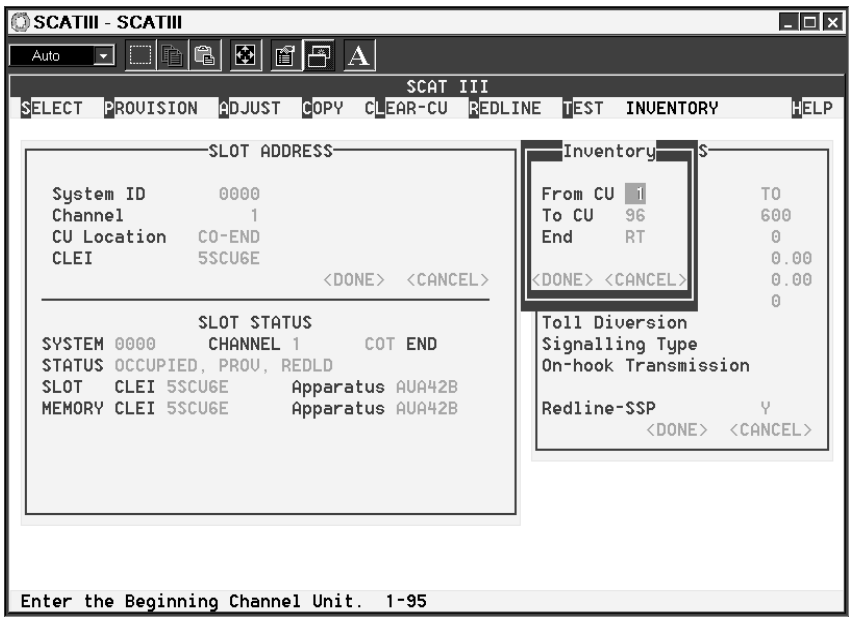
The INVENTORY command is located on the main task bar and opens an Inventory dialog. The dialog permits the user to create an inventory of channel units located on either end of a system. The inventory can be all or a subset of the channel slots in a system.

**Print a copy of the inventory report**

The inventory report is saved in an ASCII disk file (the file is named for the current system ID) using an *INV* extension (for example, 0123.INV). This file is overwritten each time an inventory is run for the system ID (you can access the file outside of SCAT III). To print you must have a printer connected to the printer port of your computer. To choose a different printer port (the default is LPT1), enter the new port in the options dialog box (accessed from the SELECT command).

# Retrieve Information (Continued)

**Procedure**

| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>This command can take several minutes to complete.<br><br>Select the INVENTORY command.<br><br>**Results:** The Inventory dialog box opens.<br><br>  |

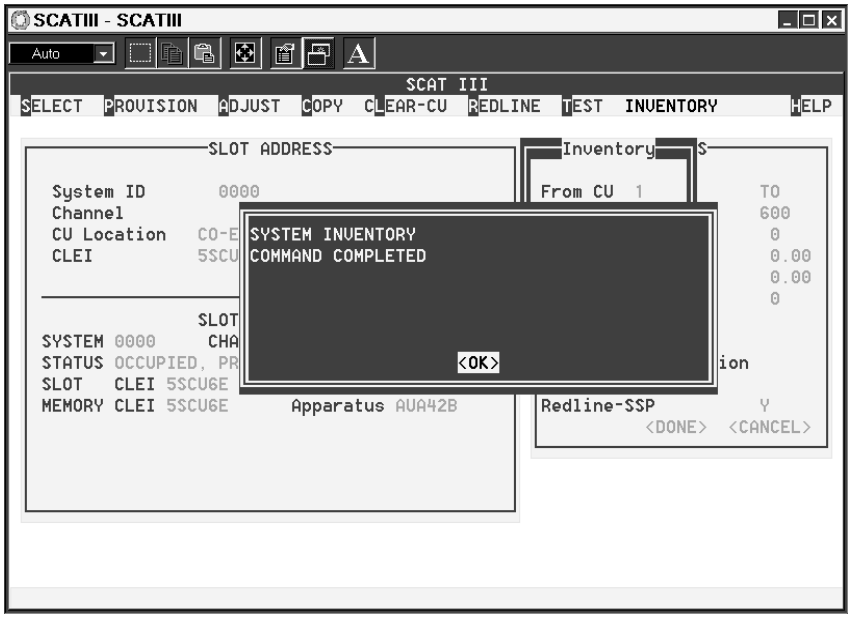


*Continued on next page*

# Retrieve Information (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 2 | Enter the following information and press **Enter** after each entry.<br>a. From CU (beginning)<br>b. To CU (ending)<br>c. End (COT, RT, or BOTH)<br><br>**Results:** The following completion message is displayed when the inventory of the specified CU slots has been completed (this command can take several minutes to complete). |

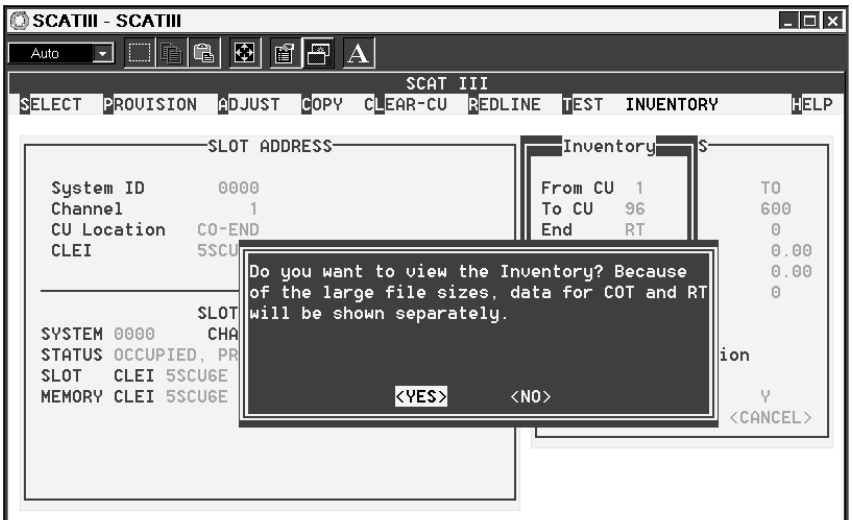



*Continued on next page*

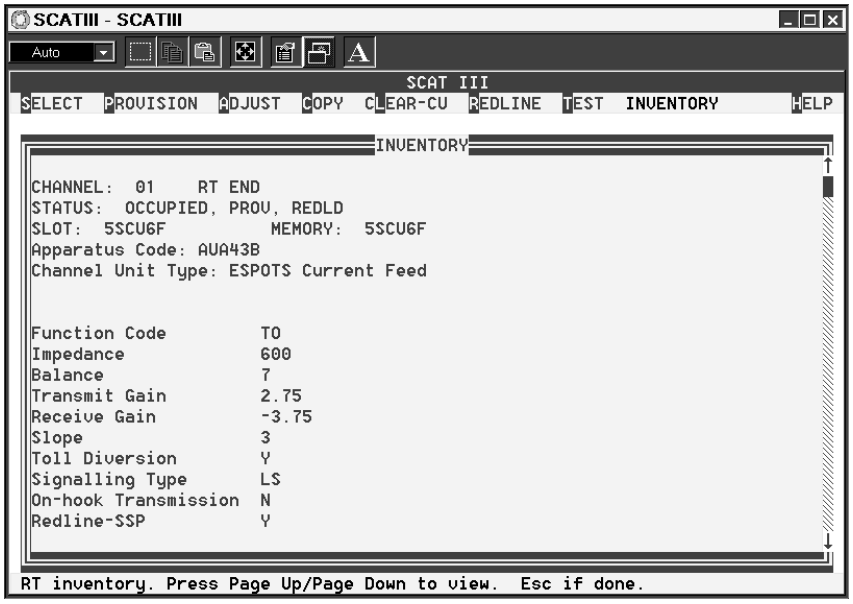
# Retrieve Information (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 3 | Select <OK>.<br><br>**Results:** SCAT III asks if you want to *view* the inventory report [saved in an ASCII disk file using an *INV* extension (for example, 0123.INV)]. The file is located in the SCAT3 directory or wherever the system software was loaded. |



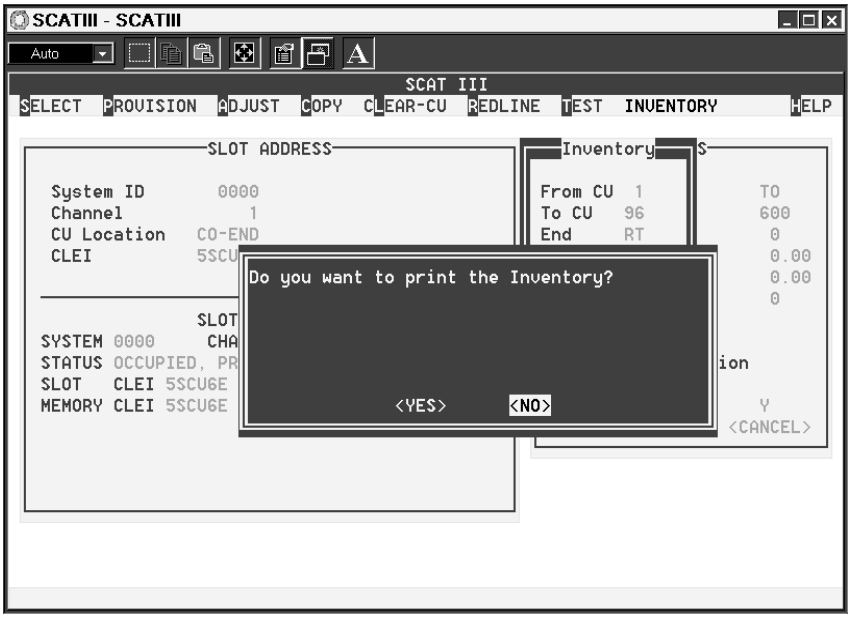

| | |
|---|---|
| 4 | SCAT asks if you want to view the Inventory? If NO, then go to **Step 6**.<br><br>**Results:** SCAT III will display the requested inventory report. |




*Continued on next page*

# Retrieve Information (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 5 | Press the **PAGE UP** or **PAGE DOWN** key to view the slots. When completed viewing the inventory report, press the **Esc** key to exit the viewing box. |
| 6 | **NOTE:**<br>To print, the correct printer port option (for example, LPT1) must have been selected using the SELECT > Options command.<br><br>SCAT III will ask if you want to *print* the inventory of the selected CU slot(s). Choose either of the commands <YES> or <NO> to print.<br><br>  <br><br><br>**Results:** If YES, SCAT III prints the completed inventory and the *Main* task bar is displayed. The inventory report is saved in an ASCII disk file using an *INV* extension (for example, 0123.INV) and can be printed later using word processing software.<br><br>**Stop! End of Procedure.** |

# Testing

# 5

## Contents


**Is the TAIU OK?** 5-2

- Initialize the TAIU (TAIU Self Test) 5-2

**The TAIU and SCAT III Software** 5-3

- Initiate Test Access 5-3

**TAIU Switches, Jacks, and LED Indicators** 5-9

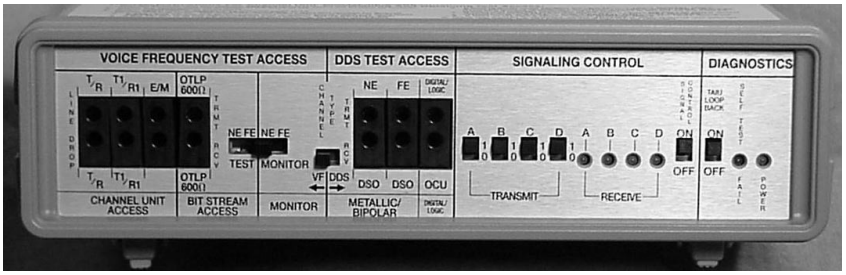
- Overview 5-9
- Voice Frequency Test Access 5-11
- DDS Test Access 5-26
- Diagnostics 5-30

# Is the TAIU OK?

## Initialize the TAIU (TAIU Self Test)

**Procedure**

Use the following procedure to ensure that the TAIU passes the self test.

| Step | Procedure |
|---|---|
| 1 | **NOTE:**<br>The TAIU does *not* have to be connected to a CTU.<br><br>Connect the provided DC power supply to a 120 V AC outlet.<br><br>  <br><br><br>**Results:** Wait a few seconds (less than 10 seconds) for the TAIU to power up and run its internal self-test.<br><br>**Requirement:**The TAIU passes the power up self test when the LED indicators light and go off in the following pattern and the **SELF TEST FAIL** LED indicator is not lighted. Observe the **SELF TEST FAIL** LED indicator. If the LED indicator blinks (in a repeating pattern), send the TAIU in for repair.<br><br>1. **DIAGNOSTICS POWER** LED indicator ON<br>2. **DIAGNOSTICS SELF TEST FAIL** LED indicator ON<br>3. **SIGNALING CONTROL RECEIVE** LED indicators ON for 3 seconds.<br>4. **SIGNALING CONTROL RECEIVE** LED indicators OFF<br>5. **DIAGNOSTICS SELF TEST FAIL** LED indicator OFF.<br><br>**Results:** You can now run the SCAT III software.<br><br>**Stop! End of Procedure.** |

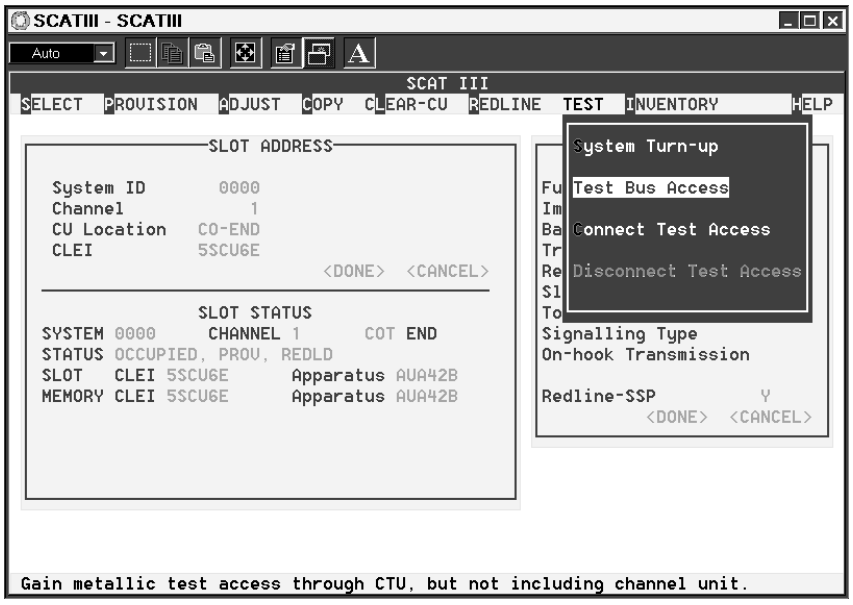
# The TAIU and SCAT III Software

## Initiate Test Access

**Procedure**

**NOTE:**
Refer to *SLC Series 5 Carrier System, Channel Unit Installation (TOP),* 363-205-402 for a complete description of testing.

Use the following procedure to gain test access to a channel unit.

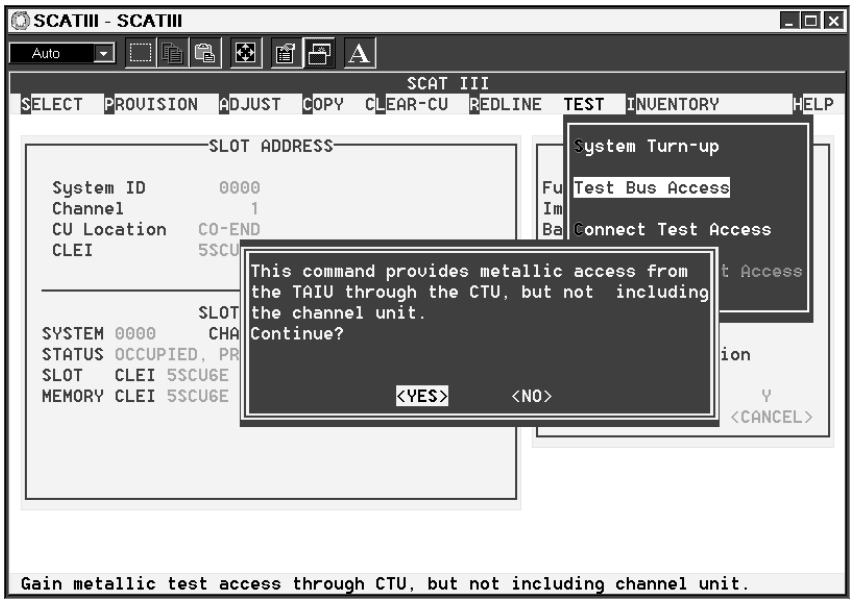
| Step | Procedure |
|---|---|
| 1 | Initiate a SCAT III dialog with a *SLC* system and a selected channel.<br><br>**Reference:**Refer to the Chapter 3, "Using the SCAT III, Select a Channel". |
| 2 | Select the command TEST > Test Bus Access. Use this command to check a newly installed system, if problems are encountered in accessing CUs, or if Trouble Reports indicate MLT or other test access problems. The Test Bus Access command instructs the TAIU to provide metallic (tip and ring) access to the test bus from the TAIU through the channel test unit (CTU) of the system under test (up to but not including the selected CU). This command does not provide access to the CUs (the command Connect Test Access provides access to the CUs). When you gain access to the test bus, you can connect a Volt-Ohm-Meter (VOM) using the **T/R**, **T1/R1**, and **E/M** jacks to test for shorted leads, foreign potentials, grounds on the test bus, or stuck CU test access relays. If no bus problems are anticipated, go to **Step 6**.<br><br>  </td></tr></table> |

*Continued on next page*

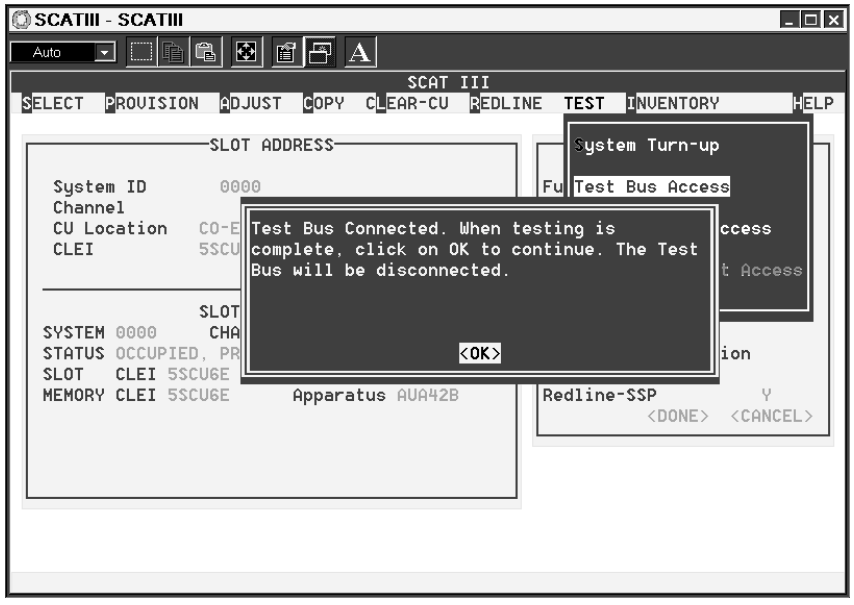
# Initiate Test Access (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 3 | Confirm the command TEST > Test Bus Access to verify that you have access to the test bus of the *SLC* system under test. |




**Results:** Test bus access is established.

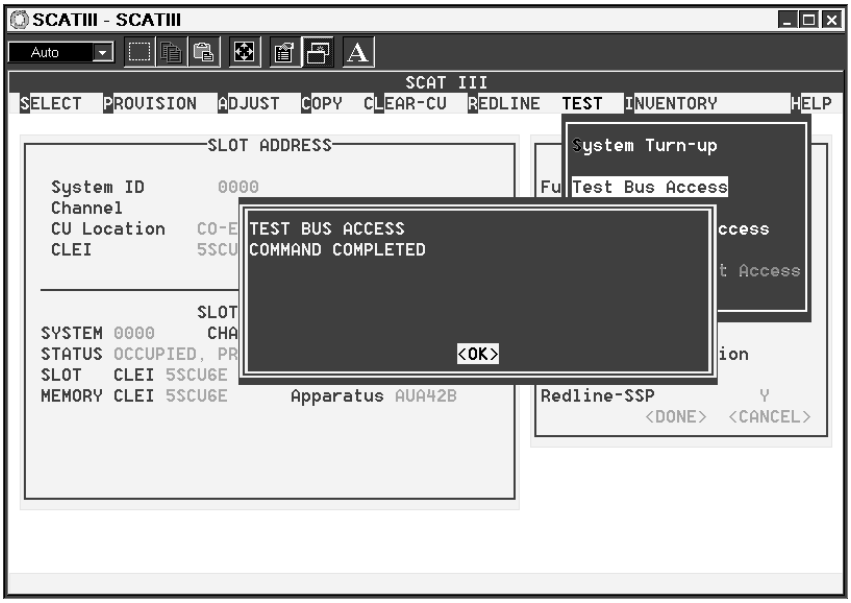



*Continued on next page*

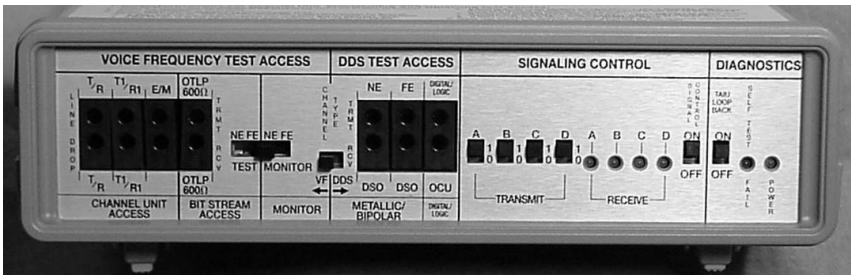
# Initiate Test Access (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 4 | Conduct tests as needed to verify the integrity of the test bus access. |
| 5 | Select OK in the message box to disconnect the test bus access.<br><br>**Results:** The command Test Bus Access is completed. |




| Step | Procedure |
|---|---|
| 6 | Proceed with CU test access. |



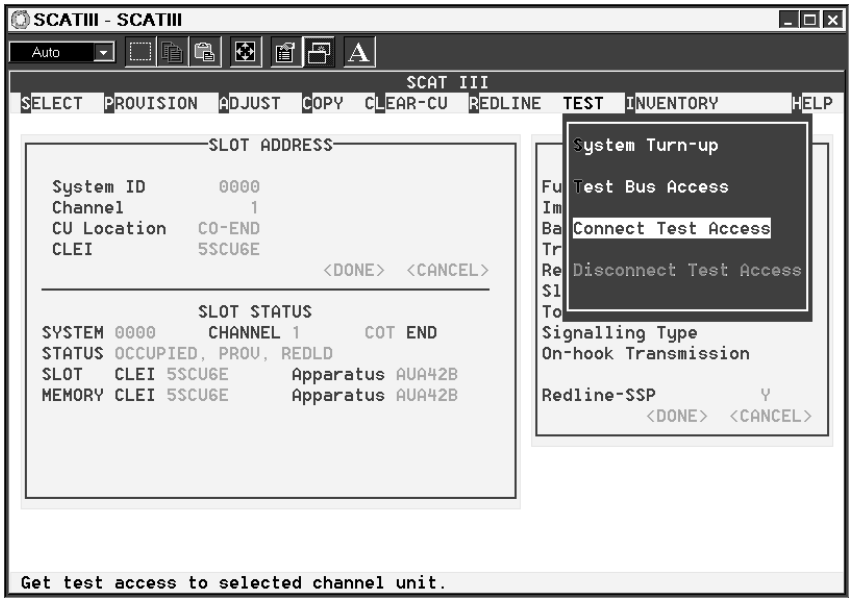

| Step | Procedure |
|---|---|
| 7 | Set the **TEST/MONITOR** select switch to **MONITOR NE**. |
| 8 | Set the **CHANNEL TYPE** switch to either **VF** or **DDS**, depending on the type of CU to be accessed. |
| 9 | Verify that the **TAIU LOOPBACK** switch is **OFF**. |
| 10 | Set the **SIGNAL CONTROL** select switch to **OFF**. |

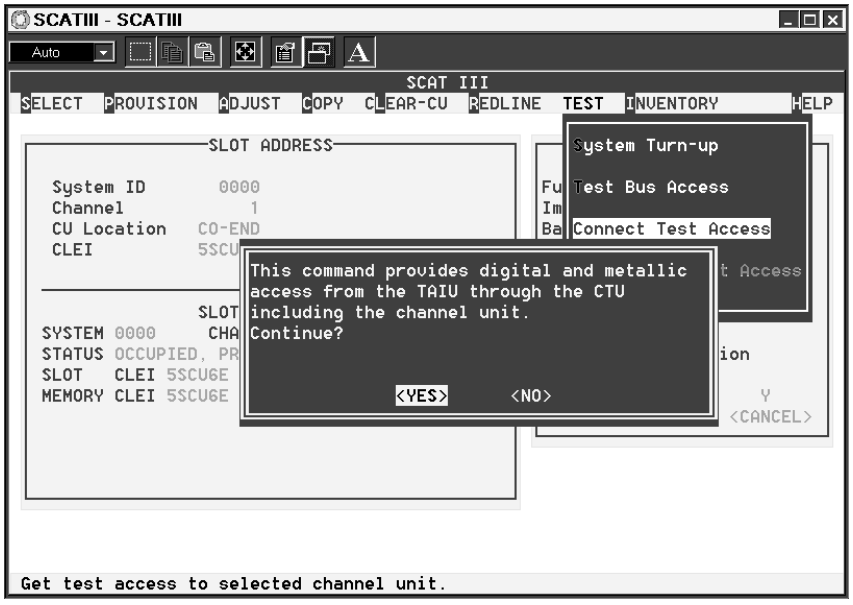
*Continued on next page*

# Initiate Test Access (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 11 | Use the command TEST > Connect Test Access to gain access to the selected CU. |



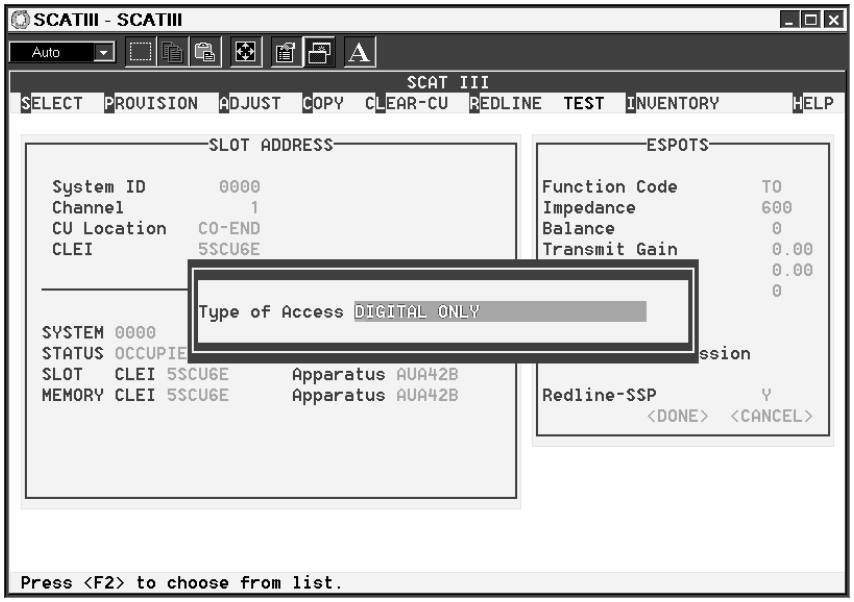




*Continued on next page*

# Initiate Test Access (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 12 | Using the Type of Access dialog, select the type of access required (use the **F2** key to open the choice list).<br>■ Metallic only – provides only metallic access to VF- and DDS-type CUs<br>■ Digital only – provides only digital bit stream access for VF- and DDS-type CUs<br>■ Both digital and metallic – provides both types of access<br>■ No test access – no access to the CU, exits the Connect Test Access dialog.<br>If conducting a DDS CU test, continue to **Step 14**. If Digital Access has not been selected, proceed with testing as needed using the VF or DDS test access capabilities of the TAIU. Go to **Step 14**. |

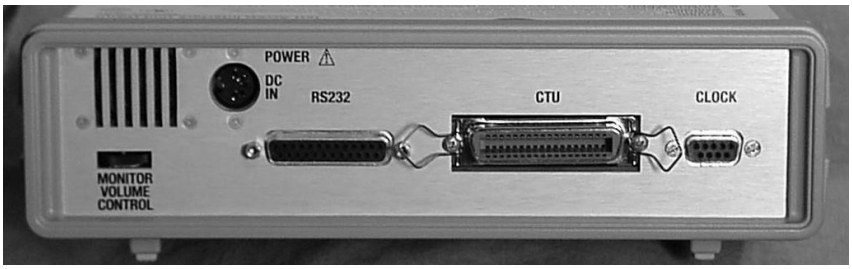



**Requirement:**If Digital Access has been selected, a VF channel may be monitored to verify that it is not in use by a customer prior to proceeding with additional tests. The monitor function is *not* supported for DDS CU testing.

*Continued on next page*

# Initiate Test Access (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 13 | Monitor the channel for customer activity (select both positions **MONITOR NE** and **MONITOR FE** of the **TEST/MONITOR** select switch) using the built-in monitor speaker. If no customer activity is present, you may proceed with further testing of the channel as needed. Adjust the volume of the monitor speaker using the **MONITOR VOLUME CONTROL** thumbwheel control located on the rear of the TAIU.   |
| 14 | Conduct VF and/or DDS tests as required by the work order. |
| 15 | Select the ADJUST command if channel provisioning parameters are to be changed (adjusted). Make any changes required and observe the effect on the circuit observed using external test equipment connected to the appropriate TAIU jacks. |
| 16 | **NOTE:**<br>Failure to disconnect test access will block further SCAT III activities and may prevent the selected channel from resuming customer service.<br><br>Test access must be disconnected by the TAIU when all testing has been completed. Select the command, TEST > Disconnect Test Access to disconnect test access from the selected channel.<br><br>**Stop! End of Procedure.** |

# TAIU Switches, Jacks, and LED Indicators

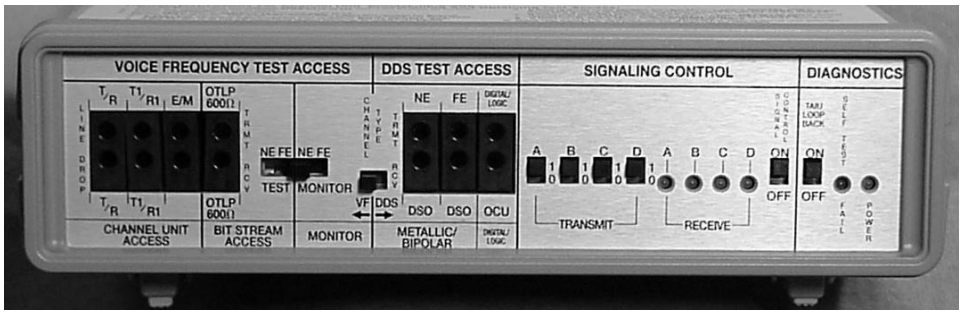
## Overview

**TAIU groups**

**NOTE:**
Set the **CHANNEL TYPE** switch to the particular type of channel unit that you are testing. Different jacks are functional depending on the test access command that you choose.

The TAIU switches, jacks, and LED indicators are divided into the following subgroups.

- Voice frequency test access (VF channel type only)
  - — Metallic, through the CHANNEL UNIT ACCESS jacks
  - — Bit stream access, through the BIT STREAM ACCESS jacks
- Signaling control (VF channel type only)
- DDS test access (DDS channel type only) DS0 and OCU
- Diagnostics



## Overview (Continued)

### Functions

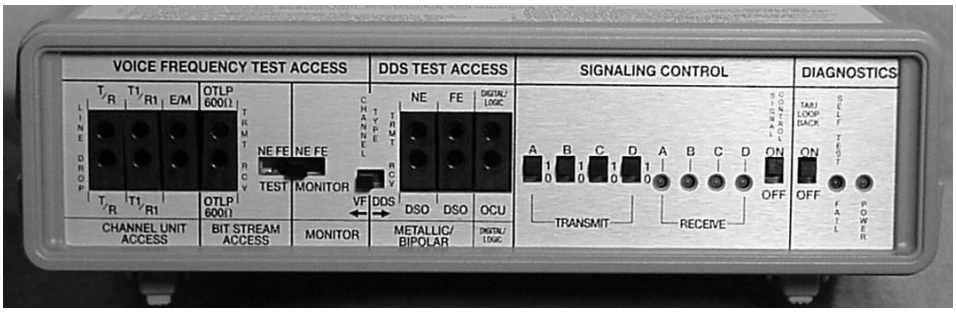
The TEST menu and Connect Test Access command in conjunction with the switch settings and test access jacks on the TAIU allow the following functions.

- Connect to the test bus through the channel test unit (CTU) to check test bus continuity without gaining test access or interrupting service on a channel.
- Gain full-splitting metallic test access to a channel.
- Establish test access toward the line and/or to the customer drop.
- Perform analog half channel measurements on a channel through metallic and digital test access to the PCM bit stream of a channel converted from digital (D) to analog (A). Digital test access is *not* possible to *SLC*® *LineReach* channel units because the *SLC LineReach* channel bank does not support digital test units (DTUs). Only metallic test access is possible in *SLC LineReach*.
- Test voice frequency (VF) or digital data service (DDS) channel units.
- Perform hitless monitoring on VF channel units using the built-in speaker. Not available in a *SLC LineReach* channel bank.
- Establish digital test access to the near end (NE) or far end (FE) channel unit. No digital test access is available in a *SLC LineReach* channel bank.
- Disconnect test access.

# Voice Frequency Test Access

### VOICE FREQUENCY TEST ACCESS and SIGNALING CONTROL groups

The voice frequency (VF) group includes **CHANNEL UNIT ACCESS** jacks (metallic access), **BIT STREAM ACCESS** jacks (digital access), and a four-position bit stream access selection switch (**TEST/MONITOR**). The VF group jacks are available to test E *SPOTS*® and 4-wire VF CUs. The **SIGNALING CONTROL** group (digital access) is used with the **VOICE FREQUENCY TEST ACCESS** group to establish the desired conditions for the CU that is under test.




### CHANNEL TYPE switch

Set the **CHANNEL TYPE** switch to the particular type of channel unit that you are testing (VF or DDS). This switch activates the jacks and functions that correspond to the type of CU that is being tested. When VF is selected, the **DDS TEST ACCESS** jacks are not functional.

### Voice frequency (VF) channel units

The following table lists the relationship between the type of access selected, and the jacks and signaling controls that are functional for voice frequency (VF) CUs. The **T1/R1 DROP** and **LINE** jacks and the **E/M** jack on the TAIU are not functional when testing a 2-wire CU.

| Access Type | Functional Jacks | Signaling Control |
|---|---|---|
| BOTH, digital and metallic | All VF jacks are functional | Active |
| Digital (converted to analog) | Bit stream access jacks | Active |
| Metallic | Channel unit access jacks | Not active |

The TAIU has access capabilities for testing the following VF CUs. You can only implement VF test access to a slot occupied by a provisioned channel unit.

- AUA42( ), *SPQ*® 442, AUA43( ), and *SPQ*443
- AUA41( ), AUA141
- AUA44( ), *SPQ*444
- AUA54( ), *SPQ*454

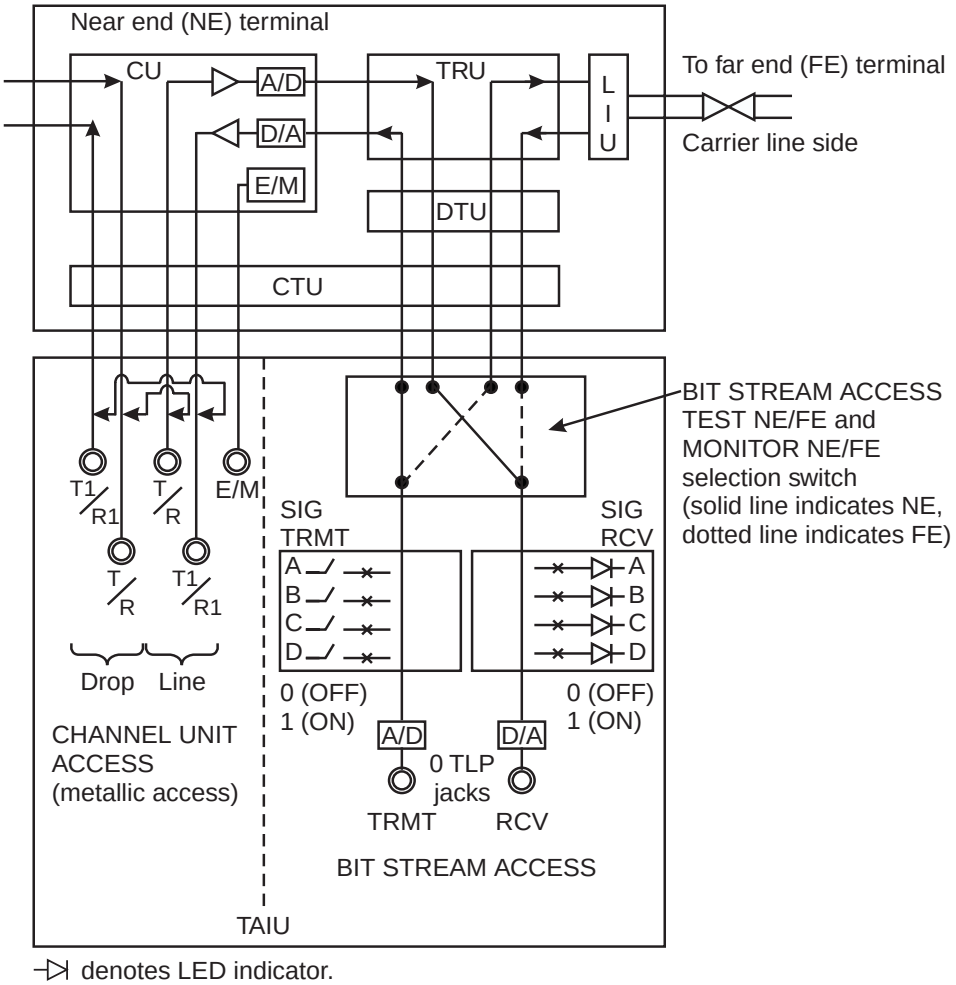
# Voice Frequency Test Access (Continued)

**VF test access paths (continued)**

## Metallic and bit stream test access (VF CU)

The following figure illustrates the paths established during metallic and bit stream (digital) test access for 4-wire VF CUs (the **E/M** or **T1/R1** jacks are not active for 2W CUs).

**NOTE:**
Drop-to-line continuity is maintained when plugs are not installed in **CHANNEL UNIT ACCESS** jacks [**LINE** (**T/R**, **T1/R1**, and **E/M)** and **DROP** (**T/R** and **T1/R1**)].




(Continued on next page)

# Voice Frequency Test Access (Continued)

**CHANNEL UNIT ACCESS jacks**

The **CHANNEL UNIT ACCESS** jacks provide test access to the metallic side of the CU.

### Line jacks

The three **LINE** jacks (**T/R**, **T1/R1**, and **E/M**) provide tip and ring access to the signal on the metallic side of the CU looking toward the carrier line.

- **LINE T/R** jack is used to test E *SPOTS* CU (2-wire) transmission
- **LINE T/R** and **T1/R1** jacks are used to test 4-wire transmission
- **LINE E/M** jack is used to test the E&M signaling capability of an E&M (or PLR) type of CU – the **E/M** jack only provides test access toward the CU.

### Drop jacks

The two **DROP** jacks (**T/R** and **T1/R1**) provide tip and ring access to the analog signal on the metallic side of the CU looking toward the drop (customer) or the central office switch.

- **DROP T/R** jack is used to gain drop access to the facility or termination associated with a CU
- **DROP T/R** and **T1/R1** jacks are used to gain drop access to the 4-wire facilities or termination associated with a 4-wire CU.

---

**Bit stream access**

The bit stream access feature provides test access to the digital signal using a CODEC built into the TAIU. The CODEC converts the digital (PCM) to VF plus associated signaling information. The VF signals are presented at the **BIT STREAM ACCESS** jacks at an equivalent of 0TLP @ 600 Ω. Signaling information is passed to the signaling control function of the TAIU.

---

**BIT STREAM ACCESS jacks**

**NOTE:**
The **BIT STREAM ACCESS** jacks on the TAIU are 600 Ω. unbalanced test points. Most test sets will provide correct measurements when set for 600 Ω operation. However, use the 600 Ω. unbalanced setting when available.

The two jacks (**TRMT** and **RCV**) provide access to the digital signal at a nominal 0TLP level. When the **BIT STREAM ACCESS** switch is set to **TEST**, you can test the analog signal at the **RCV** jack with analog test instruments and the TAIU converts the analog signal applied to the **TRMT** jack to a digital signal. Select the **NE** selection to test the operation of the local CU. Select **FE** to test the distant CU.

---

# Voice Frequency Test Access (Continued)

## Monitor mode

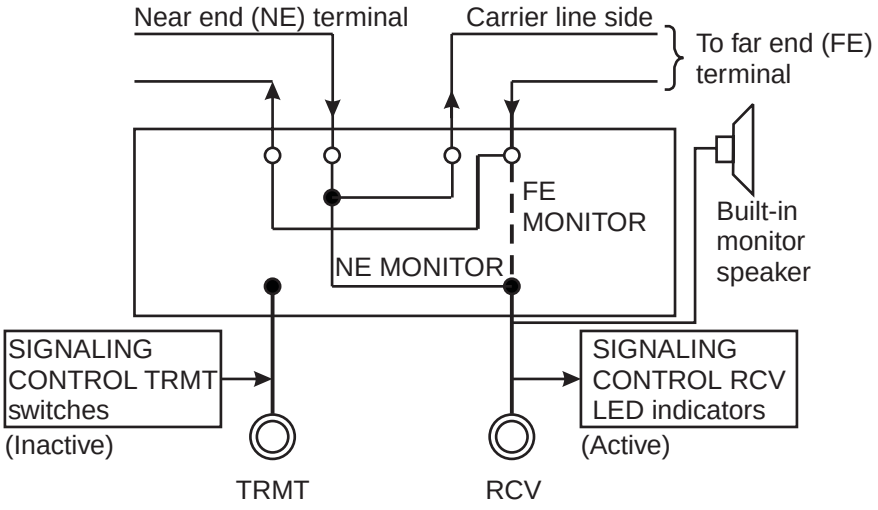
**NOTE:**
The MONITOR function is not active in the METALLIC ONLY mode.

Before you perform tests on any VF CU, use the monitor function to verify that the channel is not in use by a customer. Select the **MONITOR-FE** (far-end) switch position to monitor transmission from the distant CU. The **MONITOR-NE** (near-end) switch position allows you to monitor transmission from the local CU. The **SIGNALING RECEIVE** LED indicators are active in the monitor mode and will display the signaling bits in the selected monitor direction (from NE or FE).

**CAUTION:**
*Customer service will be interrupted if plugs are inserted in the* **T/R** *or* **T1/R1** *jacks, or if the* **BIT STREAM ACCESS** *switch is set to the* **TEST**-**NE** *or* **-FE** *positions.*

### Paths established by selecting the MONITOR-NE or -FE position of the BIT STREAM ACCESS switch

The following figure illustrates the path established when the **MONITOR**-**NE** or **-FE** position of the **BIT STREAM ACCESS** switch is selected, and Digital Only or Metallic and Digital test access are selected using the SCAT III menus.



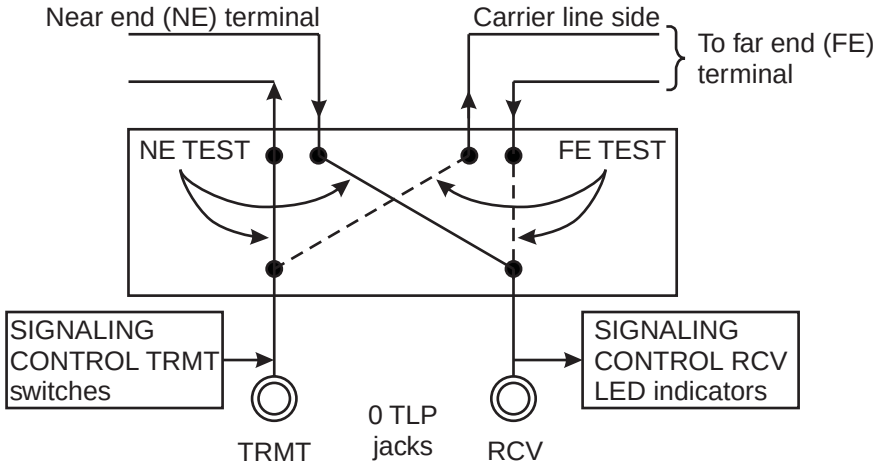
# Voice Frequency Test Access (Continued)

**Test mode**

**Paths established by selecting the TEST-NE or -FE position of the BIT STREAM ACCESS switch**

The following figure illustrates the paths established when the **TEST**-**NE** or **-FE** position of the **BIT STREAM ACCESS** switch is selected.

**NOTE:**
Both VF and Signaling control directions are selected using the access control switch.



# Voice Frequency Test Access (Continued)

**SIGNALING CONTROL group**

If digital access has been selected, the **SIGNALING CONTROL** group of **TRANSMIT** switches and **RECEIVE** LED indicators provide access to perform signaling tests on VF CUs. Also, this access allows you to condition the VF CUs as required to enable transmission tests when performing half-channel measurements.


**SIGNALING CONTROL ON/OFF switch**

**WARNING:**
*You risk interrupting customer service if you set the* **SIGNALING CONTROL ON/OFF** *switch to* **ON** *before monitoring. Set the control to* **ON** *when digital or half-channel access is to be implemented so as to permit management of the state of the channel under test.*

Setting the **ON/OFF** switch to the **OFF** position deactivates the **RECEIVE** and **TRANSMIT** signaling control functions. Set the **ON/OFF** switch to **ON** during test access.

## Voice Frequency Test Access (Continued)

### TRANSMIT switches

**NOTE:**
Refer to *SLC Series 5 Carrier System, Channel Unit Installation (TOP),* 363-205-402 for a complete listing of switch settings that you should *not* use during test access if signaling control is activated.

These four switches allow you to set the transmitted signaling bits. The **TRANSMIT** switches (**A**, **B**, **C**, and **D**) set the state (**1** or **0**) of the four signaling bits (ABCD) used during testing. The **TRANSMIT** switches control the signaling bits sent to the CU under test. Thus, the signaling bits from the other end are blocked and only the switch settings are passed to the CU.

If the **BIT STREAM ACCESS** switch is set to **TEST-NE**, these switches control the signaling information passed to the near-end CU under test (signaling from the digital line is blocked). If the **BIT STREAM ACCESS** switch is set to **TEST-FE**, these switches control the signaling information sent over the digital line to the far-end CU [or local digital switch (LDS)].

### RECEIVE LED indicators

The **RECEIVE** LED indicators (**A**, **B**, **C**, and **D**) show the state of the four signaling bits (ABCD) received during signaling tests. When a LED indicator is lighted, the signaling bit is a 1, when *not* lighted the signaling bit is a 0. The **RECEIVE** LED indicators reflect the signaling conditions being detected by the TAIU (for example, transmitted from the CU under test).

# Voice Frequency Test Access (Continued)

**Signaling codes sent from the CU under test**

The following table defines the signaling bits and metallic functions portrayed by the bit combinations. The *TAIU RECEIVE LED Indicators Lighted* column lists the signaling codes sent by the CU under test. If NE access, these bits are being sent by the local CU. If FE access, these bits are being received from the FE using the digital line. The *Option or Condition* column translates these signaling codes to the conditioning of the tip, ring, and signaling lead interfaces of that CU. The *A* and *C* bits must always be equal. The *B* and *D* bits can differ only where the toll diversion signaling feature is in effect. Toll diversion can be specified for ground start PBX/CO trunks. However, toll diversion cannot be specified where an AUA44 CU with tandem function code (TD _ _) is in the circuit.

**NOTE:**
The following table lists the abbreviations for signaling options. An **n** before one of the abbreviations means the opposite case (for example, *nTG* means *no* tip ground.

| Abbreviation | Definition |
|---|---|
| EG | E-lead ground |
| GS | Ground Start |
| LC | Loop Closure |
| LS | Loop Start |
| MB | M-lead on Battery |
| NB | Normal Battery |
| RB | Reverse Battery |
| RG | Ring Ground |
| RNG | Ringing |
| TG | Tip Ground |

(Continued on next page)

# Voice Frequency Test Access (Continued)

**Signaling codes sent from the CU under test (continued)**

| Channel Unit | Function Code | TAIU RECEIVE LED Indicators Lighted (ABCD) | Option or Condition |
|---|---|---|---|
| AUA41( ), AUA141 | DX4N/R | 0000 | Idle |
| | | 1111 | Busy |
| | FXS3/5 | 0000 | nLC, RG (GS service required) |
| | FXS1/2/3/5 | 0101 | nLC, nRG (Idle) |
| | FXT1/2/3/5 | 1111 | LC, nRG (Busy) |
| AUA42( ) | FXO | 0101 | TG, nRNG (LS idle) |
| | | 1010 | Channel test |
| | | 1111 | nTG, nRNG (GS idle) |
| | FXO, no toll diversion | 0000 | TG, RNG |
| | FXO, toll | 0001 | TG, RNG, NB |
| | diversion | 0100 | TG, nRNG, RB |
| | DPT | 0000 | NB |
| | | 1111 | RB |
| *SPQ*® 442 | FXO | 0101 | TG, nRNG (LS idle) |
| | | 1010 | Channel test |
| | | 1111 | nTG, nRNG (GS idle) |
| | FXO, no toll diversion | 0000 | TG, RNG |
| | FXO, toll | 0001 | TG, RNG, NB |
| | diversion | 0100 | TG, nRNG, RB |
| | DPT | 0000 | NB |
| | | 1111 | RB |
| AUA43( ) | FXS | 0000 | nLC, RG (GS service) |
| | | 0101 | nLC, nRG (Idle) |
| | | 1111 | LC, nRG (Busy) |
| | DPO | 0000 | nLC |
| | | 1111 | LC |

*Continued on next page*

## Voice Frequency Test Access (Continued)

**Signaling codes sent from the CU under test (continued)**

| Channel Unit | Function Code | TAIU RECEIVE LED Indicators Lighted (ABCD) | Option or Condition |
|---|---|---|---|
| *SPQ*443 | FXS | 0000 | nLC, RG (GS service) |
| | | 0101 | nLC, nRG (Idle) |
| | | 1111 | LC, nRG (Busy) |
| | DPO | 0000 | nLC |
| | | 1111 | LC |
| AUA44( ) | FXO1/2/3/5 | 0000 | TG, RNG |
| | FX( )1/2/3/5 | 0101 | TG, nRNG |
| | FXO3/5, FXP3/5 | 1111 | nTG, nRNG (GS idle) |
| | FXP1/2/3/5 | 0001 | TG, RNG, NB |
| | (toll diversion) | 0100 | TG, nRNG, RB |
| | TDOA/B | 0000 | nLC, RG |
| | | 0101 | nLC, nRG |
| | | 1111 | LC, nRG (Busy) |
| | TDSA/B | 0000 | TG, RNG |
| | | 0101 | TG, nRNG |
| | | 1111 | nTG, nRNG (GS idle) |
| | TDOC/D and | 0000 | Idle |
| | TDSC/D | 1111 | Busy |

*Continued on next page*

## Voice Frequency Test Access (Continued)

**Signaling codes sent from the CU under test (continued)**

| Channel Unit | Function Code | TAIU RECEIVE LED Indicators Lighted (ABCD) | Option or Condition |
|---|---|---|---|
| *SPQ*444 | FXO1/2/3/5 | 0000 | TG, RNG |
| | FX( )1/2/3/5 | 0101 | TG, nRNG |
| | FXO3/5, FXP3/5 | 1111 | nTG, nRNG (GS idle) |
| | FXP1/2/3/5 | 0001 | TG, RNG, NB |
| | (toll diversion) | 0100 | TG, nRNG, RB |
| | TDOA/B | 0000 | nLC, RG |
| | | 0101 | nLC, nRG |
| | | 1111 | LC, nRG (Busy) |
| | TDSA/B | 0000 | TG, RNG |
| | | 0101 | TG, nRNG |
| | | 1111 | nTG, nRNG (GS idle) |
| | TDOC/D and | 0000 | Idle |
| | TDSC/D | 1111 | Busy |
| AUA54( ) | EM4C/H | 0000 | nMB (Idle) |
| | | 1111 | MB (Busy) |
| | PLR1/2 | 0000 | nEG (Idle) |
| | | 1111 | EG (Busy) |
| *SPQ*454 | EM4C/H | 0000 | nMB (Idle) |
| | | 1111 | MB (Busy) |
| | PLR1/2 | 0000 | nEG (Idle) |
| | | 1111 | EG (Busy) |

# Voice Frequency Test Access (Continued)

**Signaling codes sent to the CU under test**

The following table defines the signaling bits and metallic functions portrayed by the bit combinations. The *TAIU TRANSMIT Switches* column lists the switch settings which effectively block the signaling information as received from the other end and impose the selected conditions on the CU under test. The *Option or Condition* column translates these signaling codes to the conditioning of the tip, ring, and signaling lead interface carried out by that CU in response. In the usual case, these conditions are the same as those that would exist at the opposite end of the carrier to create the same ABCD signaling bit pattern as is being forced by the TAIU.

**NOTE:**
The following table lists the abbreviations for signaling options. An **n** before one of the abbreviations means the opposite case (for example, *nTG* means *no* tip ground.

| Abbreviation | Definition |
|---|---|
| EG | E-lead ground |
| GS | Ground Start |
| LC | Loop Closure |
| LS | Loop Start |
| MB | M-lead on Battery |
| NB | Normal Battery |
| RB | Reverse Battery |
| RG | Ring Ground |
| RNG | Ringing |
| TG | Tip Ground |

(Continued on next page)

# Voice Frequency Test Access (Continued)

**Signaling codes sent to the CU under test (continued)**

| Channel Unit | Function Code | TAIU TRANSMIT Switches (ABCD) | Option or Condition |
|---|---|---|---|
| AUA41( ), AUA141 | DX4N/R | 0000 | Idle |
| | | 1111 | Busy |
| | FXS1/2/3/5 | 0000 | TG, RNG |
| | FX( )1/2/3/5 | 0101 | TG, nRNG |
| | FXS3/5, FXT3/5 | 1111 | nTG, nRNG (GS idle) |
| | FXT1/2/3/5, | 0001 | TG, RNG, NB |
| | toll diversion | 0100 | TG, nRNG, NB |
| AUA42( ) | FXO | 0000 | nLC, RG |
| | | 0101 | nLC, nRG |
| | | 1111 | LC, nRG |
| | DPT | 0000 | nLC |
| | | 1111 | LC |
| *SPQ*® 442 | FXO | 0000 | nLC, RG |
| | | 0101 | nLC, nRG |
| | | 1111 | LC, nRG |
| | DPT | 0000 | nLC |
| | | 1111 | LC |
| AUA43( ) | FXS | 0101 | TG, nRNG |
| | | 1010 | Channel test |
| | | 1111 | nTG, nRNG (GS idle) |
| | FXS, no toll diversion | 0000 | TG, RNG |
| | FXS, toll | 0001 | TG, RNG, NB |
| | diversion | 0100 | TG, nRNG, RB |
| | DPO | 0000 | NB |
| | | 1111 | RB |

*Continued on next page*

# Voice Frequency Test Access (Continued)

**Signaling codes sent to the CU under test (continued)**

| Channel Unit | Function Code | TAIU TRANSMIT Switches (ABCD) | Option or Condition |
|---|---|---|---|
| *SPQ*443 | FXS | 0101 | TG, nRNG |
| | | 1010 | Channel test |
| | | 1111 | nTG, nRNG (GS idle) |
| | FXS, no toll diversion | 0000 | TG, RNG |
| | FXS, toll | 0001 | TG, RNG, NB |
| | diversion | 0100 | TG, nRNG, RB |
| | DPO | 0000 | NB |
| | | 1111 | RB |
| AUA44( ) | FX( )3/5 | 0000 | RG, nLC (GS service) |
| | FXO1/2/3/5 | 0101 | nLC, nRG (Idle) |
| | FXP1/2/3/5 | 1111 | LC, nRG (Busy) |
| | TDOA/B | 0000 | TG, RNG |
| | | 0101 | TG, nRNG |
| | | 1111 | nTG, nRNG (GS idle) |
| | TDSA/B | 0000 | nLC, RG |
| | | 0101 | nLC, nRG (Idle) |
| | | 1111 | LC, nRG (Busy) |
| | TDOC/D and | 0000 | Idle |
| | TDSC/D | 1111 | Busy |

*Continued on next page*

# Voice Frequency Test Access (Continued)

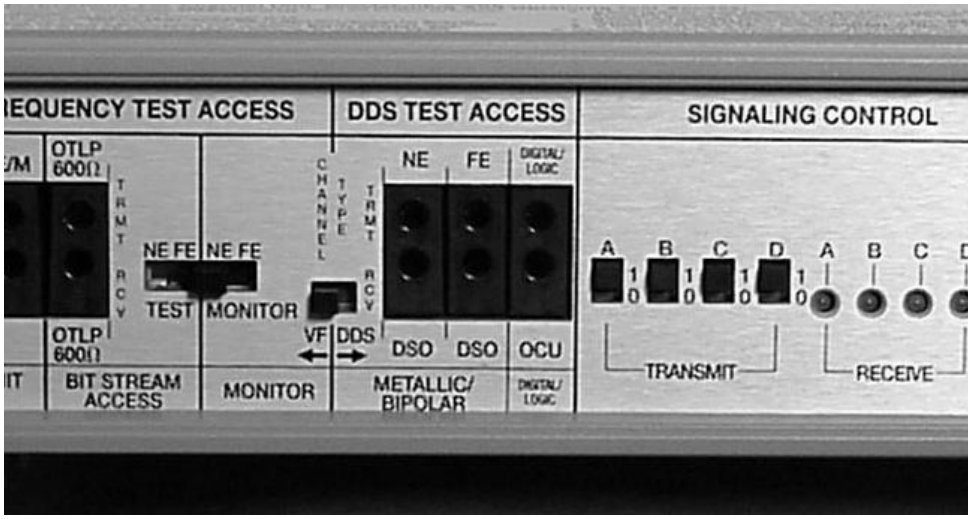
**Signaling codes sent to the CU under test (continued)**

| Channel Unit | Function Code | TAIU TRANSMIT Switches (ABCD) | Option or Condition |
|---|---|---|---|
| *SPQ*444 | FX( )3/5 | 0000 | RG, nLC (GS service) |
| | FXO1/2/3/5 | 0101 | nLC, nRG (Idle) |
| | FXP1/2/3/5 | 1111 | LC, nRG (Busy) |
| | TDOA/B | 0000 | TG, RNG |
| | | 0101 | TG, nRNG |
| | | 1111 | nTG, nRNG (GS idle) |
| | TDSA/B | 0000 | nLC, RG |
| | | 0101 | nLC, nRG (Idle) |
| | | 1111 | LC, nRG (Busy) |
| | TDOC/D and | 0000 | Idle |
| | TDSC/D | 1111 | Busy |
| AUA54( ) | EM4C/H | 0000 | nEG (Idle) |
| | | 1111 | EG (Busy) |
| | PLR1/2 | 0000 | nMB (Idle) |
| | | 1111 | MB (Busy) |
| *SPQ*454 | EM4C/H | 0000 | nEG (Idle) |
| | | 1111 | EG (Busy) |
| | PLR1/2 | 0000 | nMB (Idle) |
| | | 1111 | MB (Busy) |

# DDS Test Access

**DDS TEST ACCESS group**

The dataport (DDS) test access group includes **DS0** and **OCU** jacks, and a **CLOCK** connector (a 9-pin connector located on the rear panel of the TAIU) for testing dataport CUs. Drop-to-line continuity is maintained when plugs are not inserted in the **OCU** and **DS0** jacks.

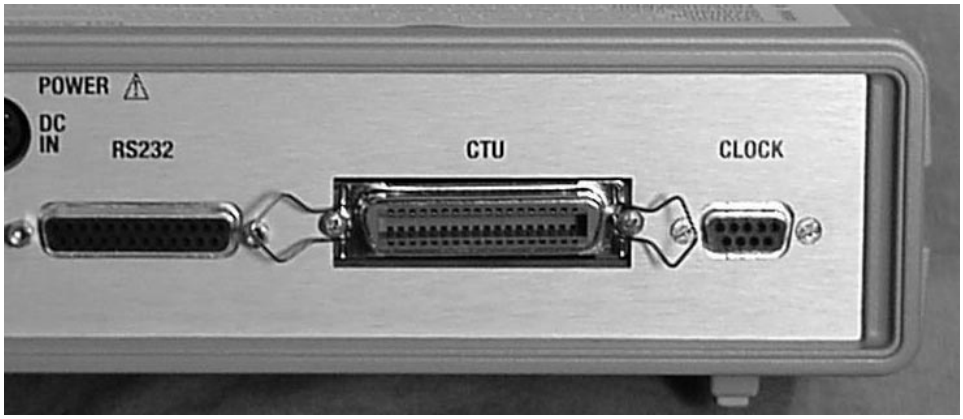



**CHANNEL TYPE switch**

Set the **CHANNEL TYPE** switch to the **DDS** position to activate the DDS testing functions.

**CLOCK connector**

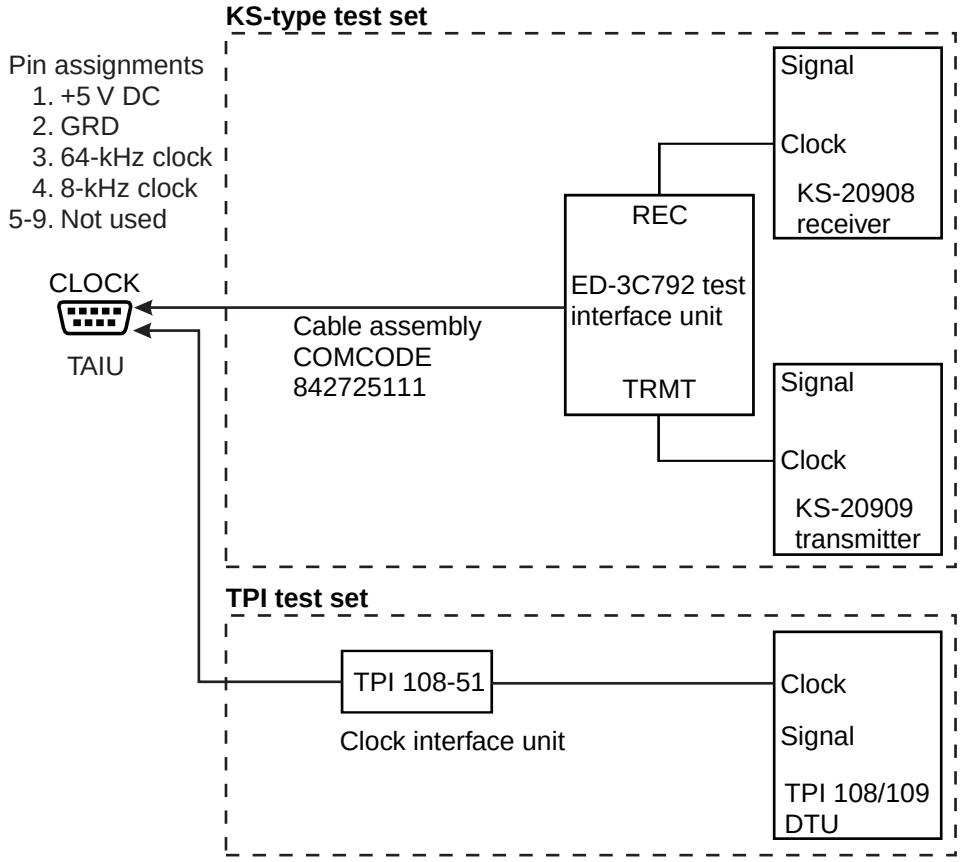
The **CLOCK** connector (a 9-pin connector located on the rear panel of the TAIU) provides 8- and 64-kHz DDS clock signals to the DDS test sets.



# DDS Test Access (Continued)

## Clock connections

The following figure illustrates the connections to the TAIU **CLOCK** connector (when used with either the KS-20908, KS20909, or TPI 108/109 test sets).

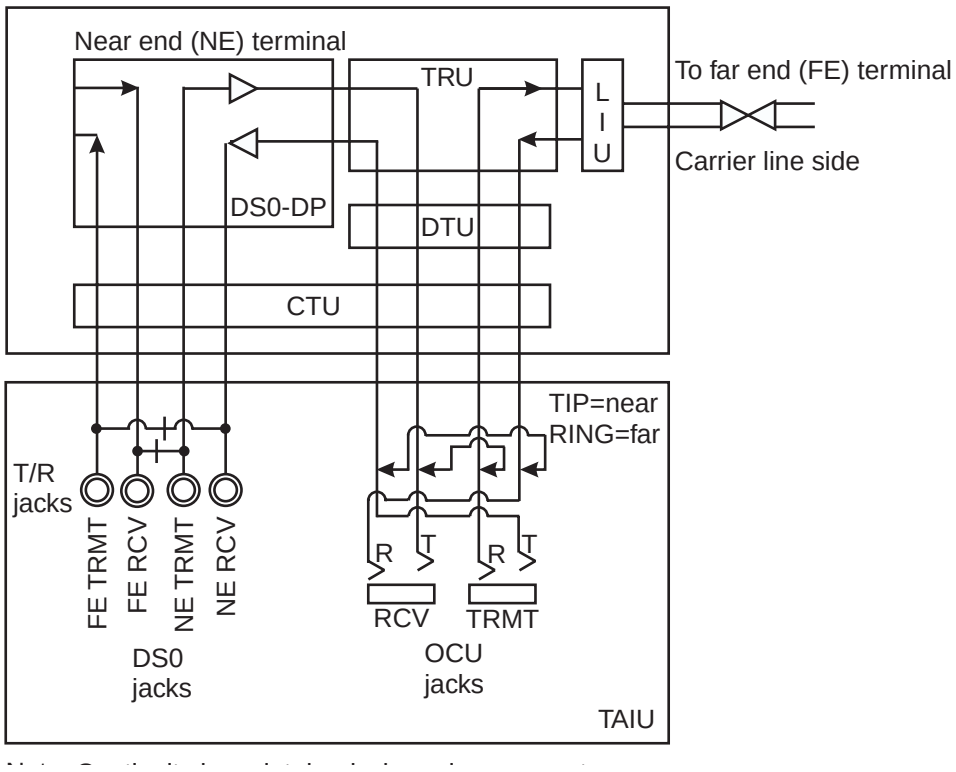


# DDS Test Access (Continued)

**DS0 jacks**

The **DS0** jacks provide a bipolar/metallic connection for DDS test sets (for example, the TPI 108/109 or the KS-20908 *receiving* and KS20909 *transmitting* data test sets). The test sets are used to test dataport channel units (CUs). Use the **DS0** jack to test digital signal zero (DS0) dataport CUs at the COT and metallic extension of office channel unit (OCU) dataport CUs of either the COT or RT. The following figure shows the correspondence between TAIU DDS jacks, channel unit tip/ring access, and digital (bit stream) access for digital signal zero (DS0) CUs.

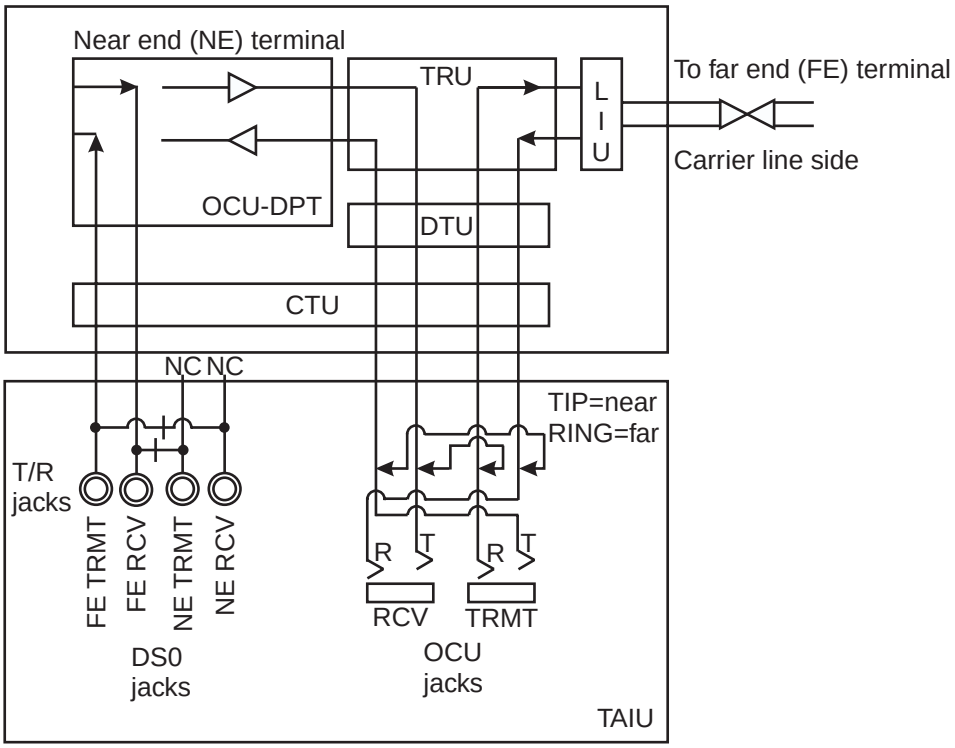
**NOTE:**
Continuity is maintained when plugs are not installed in the **DS0** and **OCU** jacks.



## DDS Test Access (Continued)

**OCU jacks**

The OCU jacks provide a digital/logic connection for DDS test sets (for example, the TPI 108/109 or the KS-20908 *receiving* and KS20909 *transmitting* data test sets). The test sets are used to test dataport CUs. Use the OCU jack to test OCU dataport CUs. The following figure shows the correspondence between TAIU DDS jacks and digital (bit stream) access for OCUs.




Note: Continuity is maintained when plugs are not installed in DS0 and OCU jacks.

# Diagnostics

**DIAGNOSTICS group**

The diagnostics group of switches and LED indicators provide access to perform loopback tests. Also, the **SELF TEST FAIL** and **POWER** LED indicators provide feedback on the status of the TAIU.


**Loopback verification**

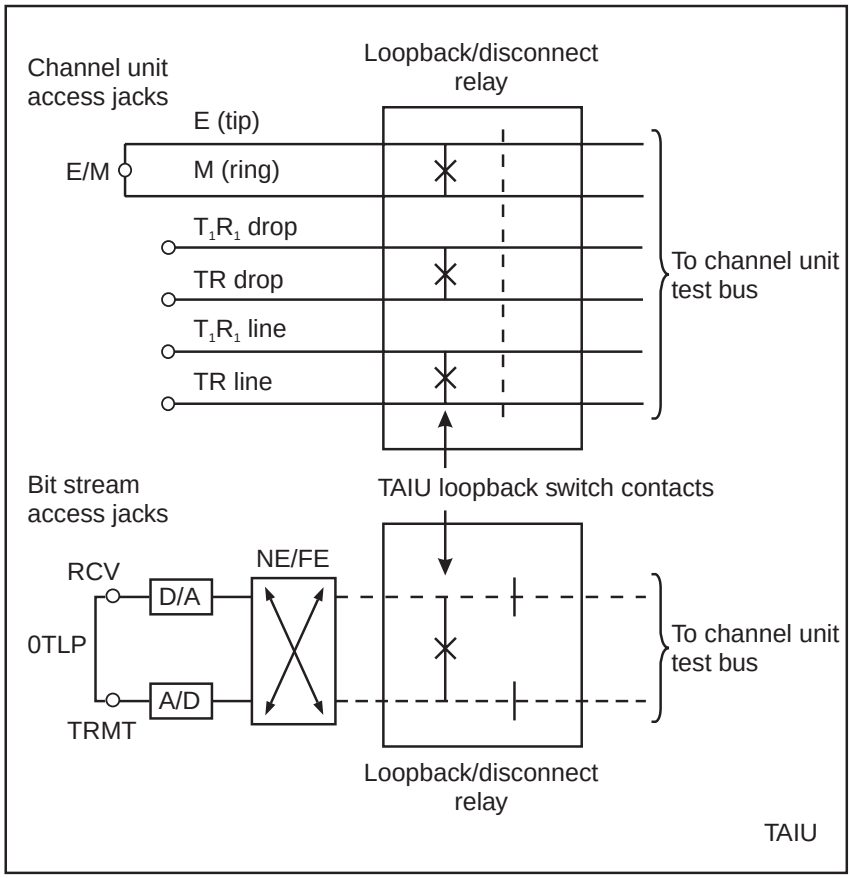
**CAUTION:**
*The SCAT III software disables loopback testing. Ensure that the TAIU is powered and you have exited SCAT III software.*

Loopback verification should be used if trouble is encountered with access or if there is reason to believe the TAIU may be defective. Loopback verification ensures that the test buses within the TAIU are continuous and the TAIU can be used for testing.

## Diagnostics (Continued)

**Procedure**

| Step | Procedure |
|---|---|
| 1 | **CAUTION:** *The SCAT III software disables loopback testing. Ensure that the TAIU is powered and you have exited SCAT III software.*<br><br>Set the **TEST ACCESS** switch to **TEST-NE**. |
| 2 | Set the TAIU **LOOPBACK** switch in the **ON** position. The TAIU does not need to be connected to the CTU to perform a loopback test.<br><br>**Results:** When the **TAIU LOOPBACK** switch is in the **ON** position, the test access leads within the TAIU are temporarily connected together (VF test access loopbacks are shown in the following figure) allowing you to check the continuity of the wiring within the TAIU. The loopback connection will be dropped if you are in loopback mode and start the SCAT III software. Loopback will be enabled when you exit the SCAT III software. |




*Continued on next page*

## Diagnostics (Continued)

**Procedure (continued)**

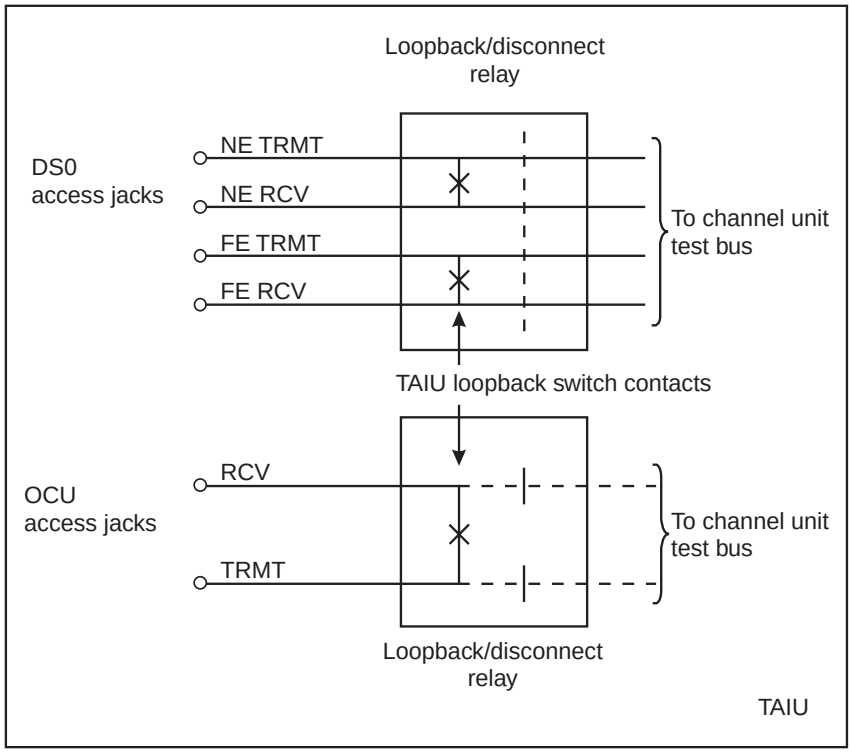
| Step | Procedure |
|---|---|
| 3 | Set the **CHANNEL TYPE** switch to **VF**. |
| 4 | Plug one cable into the **LINE T/R** jack. Plug the other cable into the **LINE T1/R1** jack.<br><br>**Requirement:**Using an ohmmeter, measure <5 ohms from tip to tip and from ring to ring. |
| 5 | Plug one cable into the **DROP T/R** jack. Plug the other cable into the **DROP T1/R1** jack.<br><br>**Requirement:**Using an ohmmeter, measure <5 ohms from tip to tip and from ring to ring. |
| 6 | Plug one cable into the **E/M** jack.<br><br>**Requirement:**Using an ohmmeter, measure <5 ohms between tip and ring. |
| 7 | Apply a tone (for example, 1000 Hz, 0 dBm, 600 ohms impedance) to the **0TLP TRMT** jack.<br><br>**Results:** The signal is looped and verified at the **0TLP RCV** jack. The transmitted and received frequency and level are equal, ±0.25 dBm. |
| 8 | Apply a tone to the **0TLP TRMT** jack with the **TEST-FE** switch position selected.<br><br>**Results:** The signal is looped and verified at the **0TLP RCV** jack. The transmitted and received frequency and level are equal, ±0.25 dBm. |
| 9 | Set the **SIGNALING CONTROL ON/OFF** switch to **ON**. Toggle each **TRANSMIT** signaling bit switch (**ABCD**) to **1** and **0**.<br><br>**Requirement:**The **RECEIVE** LED indicators (**ABCD**) should light when the corresponding bit is set to **1**, and should be off when the bit is set to **0**. You correctly receive each signal. Thus, the test buses within the TAIU are continuous and the TAIU can be used for testing. If you do not receive a correct signal, replace the TAIU or have it repaired. |

*Continued on next page*

## Diagnostics (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 10 | Loopback is also provided for the **DDS** jacks and can be verified. Set the **CHANNEL TYPE** switch to **DDS**. Use an ohmmeter to verify the continuity of the **DS0** bipolar/metallic jacks.<br><br>**Results:** When the **TAIU LOOPBACK** switch is in the **ON** position, the test access leads within the TAIU are temporarily connected together (DDS test access loopbacks are shown in the following figure) allowing you to check the continuity of the wiring within the TAIU. The loopback connection will be dropped if you are in loopback mode and start the SCAT III software. Loopback will be enabled when you exit the SCAT III software. |




*Continued on next page*

## Diagnostics (Continued)

**Procedure (continued)**

| Step | Procedure |
|---|---|
| 11 | Plug one cable into the **TRMT FE** jack. Plug the other cable into the **RCV FE** jack.<br><br>**Requirement:**Using an ohmmeter, measure <5 ohms from tip to tip and from ring to ring to verify continuity at the tip and ring of the **TRMT-FE** to **RCV-FE**. |
| 12 | Plug one cable into the **TRMT NE** jack. Plug the other cable into the **RCV NE** jack.<br><br>**Requirement:**Using an ohmmeter, measure <5 ohms from tip to tip and from ring to ring to verify continuity at the tip and ring of the **TRMT-NE** to **RCV-NE** jacks. |
| 13 | Use a DDS test set to verify the continuity of the **OCU** digital/logic jacks. The TAIU provides an internal 8- and 64-kHz clock (**CLOCK** connector).<br><br>**Requirement:**Set the DDS test set to measure bit errors. Receive the same signal as was transmitted with no bit errors. Verify both logic NE and FE operation. |
| 14 | **NOTE:**<br>If any of these tests fail, send the TAIU in for repair.<br><br>When you have completed loopback verification, place the TAIU **LOOPBACK** switch in the **OFF** position.<br><br>**Stop! End of Procedure.** |

# Glossary

## A

**A/S/C**
Alarm/status/control

**AA**
Anti-aliasing. A filter for removing out of band frequencies before digital signal processing.

**ABN**
Abnormal (LED indicator)

**ACO**
Alarm cut-off

**ADM**
Add/drop multiplexer

**AID**
Access identifier

**AIS**
Alarm indication signal. A code sent downstream in digital network as an indication that an upstream failure has been detected and alarmed.

**AIU**
Access Interface Unit. A Service Net 2000 local access unit based on the *SLC*©-2000 remote terminal design.

**ALC**
Automatic loss compensation

**ALIC5**
Analog line to integrated *SLC* carrier at *5ESS*© switch cut

**ALM**
Alarm

**AMD**
Alphanumeric message display

**AMI**
Alternate mark inversion

**AMU**
Analog measurement unit

**ANSI***
American National Standards Institute

**APG**
Applications and Planning Guide

**APOG**
Applications, Planning, and Ordering Guide

**APS**
Automatic protection switch

**ARM**
Access resource manager

**ASCII**
American Standard Code for Information Interchange

**ASIC**
Application specific integrated circuit

**ASN.1**
Abstract syntax notation.1

**ATTR**
Attribute

**ATU**
Alarm and test unit

## B

**B3ZS**
Bipolar with three zero substitution

**B8ZS**
Bipolar with eight zero substitution

**Base10**
Base 10 corporation. A telecommunications equipment vendor which provides equipment to support a derived-channel alarm service.

**BCL**
Bank control link. A 125 kb/s control link used in the metallic channel shelf.

**BER**
Bit error rate

**BIP**
Bit interleaved parity

* ANSI is a registered trademark of American National Standards Institute, Inc.

**BIP-N**
Bit interleaved parity-N. A method of error monitoring.

**BITS**
Building integrated timing supply

**BIU**
Backplane interface unit. This pack provides functionality at the DT equivalent to a bank controller, transmit-receive unit (TRU), and line interface unit (LIU).

**BMP**
Bandwidth management processor. The duplicated controller for TR-303 remote terminals.

**BOC**
Bell Operating Company

**BORSHT**
Battery, overvoltage, ringing, supervision, hybrid, and test.

**BPD**
Bulk power distribution. Centralized AC to 48-volt power conversion for all equipment in a given physical application.

**BRI**
ISDN basic rate interface.

**BRITE**
Basic rate interface transmission extension. A set of CUs which extend an ISDN BRI across a universal configuration DLC.

**BRT**
Business remote terminal. A physical arrangement of *SLC*-2000 systems in a 90-type customer premises cabinet for business applications.

## C

**CAN**
Cancel

**CATV**
Cable television

**CAU**
Craft access unit

**CB**
Common block

**CC**
Clear channel

**CCITT**
Consultative Committee on International Telegraphy and Telephony

**CD-ROM**
Compact disk, read-only memory

**CDB**
Common data block

**CDTU**
Channel and drop test unit. A circuit pack in the DT that does channel and drop testing.

**CEV**
Controlled environmental vault. An environmentally controlled remote terminal structure that is buried underground and contains multiple 7-foot bays of *SLC*-2000 (and other) systems.

**CF**
Current feed

**CIT**
Craft interface terminal

**CIU**
Craft interface unit

**CLASS**

**CLSS**

**CNVT**
Convert

**CO**
Central office

**codec**
Coder/decoder

**COFA**
Change of frame alignment

**COMCATS**
Computerized catalog system

**Command**
The complete specification of a function that the NE is required to perform.

**COT**
Central office terminal

**CP**
Circuit pack

**CPE**
Customer premises equipment

**CR**
Critical alarm

**CRC**
Cyclic redundancy check

**CRS**
Cross-connection

**CS**
Current sink

**CSA**
Carrier serving area

**CSC**
Common signaling channel. A TR-303 data link that carries path control and call control signaling messages for locally switched services.

**CTAG**
Correlation TAG

**CTRL**
Control

**CU**
Channel unit

**Cursor**
An indication in the display of the position of the next character that will appear.

**CUT**
Channel under test. The channel unit that is currently being tested.

**CV**
Code violations

## D

**DACS**
Digital Access and Cross-Connect System

**DCC**
Data communications channel. The embedded overhead communications channel in the SONET line that is used for end-to-end communications and maintenance.

**DCE**
Data circuit-terminating equipment

**DCGS**
Dialogue code generation system

**DCLU**
Digital carrier line unit

**DCS**
Digital cross-connect system

**DCU**
Digital connectivity unit

**DDS**
Digital data service

**Default value**
The value given to a parameter by the system processor in the absence of a specific value provided by the user. A default value may be the current value as it exists in the system database, or it may be static.

**DEL**
Delete

**DEMUX**
Demultiplexer

**DEMUX direction**
The direction, referenced to an NE, from the high-speed input to the low-speed output.

**DFLT**
Default

**DID**
Direct inward dial

**Digit**
A character (0 through 9).

**DLC**
Digital loop carrier system

**DLP**
Detailed level procedure

**DM**
Degraded minute

**DMA**
Direct memory access. A direct access to memory that does not require a processor instruction.

**DMU**
DDS/monitor unit. A maintenance circuit pack in the *SLC*-2000 ARM shelf.

**DP**
Data port

**DPLL**
Digital phase-locked loop

**DPO**
Dial pulse originate

**DPR**
Dual port RAM

**DPT**
Dial pulse terminate

**DS0**
Digital signal level zero (64 kb/s rate)

**DS1**
Digital signal level 1 (1.544 Mb/s rate)

**DS1V**
Circuit pack which maps the signal between a DS1 and SONET VT-G.

**DS3**
Digital signal level 3 (44.736 Mb/s rate)

**DS3CC**
Digitally switched three clear channel. A circuit pack which provides for bidirectional transport of one DS3 signal through DDM-2000 in either clear channel mode, violation monitor removal (VMR) or violation monitor (VM) mode by mapping the DS3 into an STS-1 signal.

**DSDM**
DLC subsystem data memory

**DSL**
ISDN digital subscriber line

**DSNE**
Directory services network element

**DSP**
Digital signal processor. A microprocessor specially designed for processing digitized signals.

**DSX**
Digital signal cross-connect

**DSXBIU**
Digital signal cross-connect bank interface unit (for NBS).

**DT**
Distant terminal

**DTE**
Digital terminating equipment

**DTMF**
Dual tone multi-frequency

**DX**
Duplex signaling

## E

**E&M**
E&M signaling. A DC signaling system using a separate pair of wires.

**EBS**
Enhanced Business Service

**ECI**
Equipment catalog item

**ED8C500**
Equipment code of the standard bay framework used for mounting *SLC*-2000 equipment shelves.

**EMC**
Electromagnetic compatibility

**EMC**
Electromagnetic compliance

**EMF**
Electromotive force

**ENT**
Enter

**ENV**
Envelope

**EOC**
Embedded operations channel

**EQ**
Equipped (memory administrative state)

**EQPT**
Equipment

**ES**
Errored seconds

**ESA**
Errored seconds type A

**ESB**
Errored seconds type B

**ESD**
Electrostatic discharge

**ESF**
Extended superframe

**ESF/ndl**
Extended superframe/new data link

## F

**FDC**
Fiber distribution controller. Analagous to the metallic distribution controller (MDC), the FDC resides in the fiber distribution shelf (FDS) and controls fiber termination units (FTUs).

**FDM**
Frequency division multiplexing

**FDS**
Fiber distribution shelf. This shelf holds FDCs and FTUs and makes up the backbone of the fiber distribution scheme for *SLC*-2000.

**FE**
Far end

**FE ACTY**
Far-end activity (LED indicator)

**FE SEL**
Far-end select (SYSCTL pushbutton)

**FEBE**
Far-end block error

**FECOM**
Far-end communications

**FERF**
Far-end receive error

**FG**
Failure group

**FITL**
Fiber in the loop

**FLS**
Frame loss second

**FMAC**
Facility maintenance and control system

**FN**
Failure number

**FP303**
*SLC* Series 5 feature package 303. A Series 5 feature package that supports TR-303 operation.

**Free running**
An operating condition of a clock in which the local oscillator is not locked to an internal synchronization reference and is using no storage techniques to sustain accuracy.

**FS**
Forced switch

**Fs'**
A superframe synchronization pattern used in *SLC* 96 to indicate the superframe boundary. Part of the Fs´ sequence can be used for a data link.

**FSK**
Frequency shift keying. This is the current mechanism for mixing voice and cable television (CATV) on one fiber.

**FSR**
Frequency selective ringing

**FTTH**
Fiber-to-the-Home. A pair gain system over optical fiber that extends beyond the RT.

**FTU**
Fiber termination unit. This pack comprises of optics and circuitry equivalent to an AUA406 CU. One version of this pack is a dual DT terminator, the other a single DT terminator. This pack is also called an OU, OCU, DOT, and SOT.

## G

**GB**
General block

**GNE**
Gateway network element

## H

**HDIC**
High density interconnect. This is an area in a cabinet (or CEV) where the distribution fibers terminate.

**HDLC**
High-level data link control. A data link protocol characterized by flags, bit stuffing, and CRC checks.

**HDOS**
High density optics shelf

**HDT**
Host digital terminal. The remote terminal node (HDT) serving FITL optical network units (ONUs).

**HMI**
Human-Machine Interface

**Holdover**
An operating condition of a clock in which the local oscillator is not locked to an external reference but is using storage techniques to maintain accuracy with respect to the last known frequency comparison with a synchronization reference.

**HS**
High speed

**HSTY**
History

## I

**IC**
Internal clock

**ICS**
Interprocessor communication system

**ID**
Identifier. A character string that begins with a letter and contains only letters or digits.

**IDLC**
Integrated digital loop carrier

**IDT**
Integrated digital terminal. The part of a local digital switch that serves the same function as a COT in the universal configuration.

**IF**
Interface

**IIC**
Inter-intergrated circuit. IIC is a 2-wire, serial bus protocol, designed to provide the facilities of a small area network between circuit packs of one system to circuit packs between different systems.

**INA**
Integrated network access

**IOK**
I´m OK. A signal emitted by a healthy circuit pack.

**IS**
In-service (memory administrative state)

**IS-3**
Optical interconnect signal level 3

**ISDN**
Integrated services digital network

**ISO**
Organization for International Standards

**ITH**
Integral test head

## L

**LAN**
Link to alarms and networks

**LAN**
Local area network

**LAPD**
Link access procedures for D-channel

**LBO**
Line build-out

**LDS**
Local digital switch

**LED**
Light-emitting diode

**LEIM**
Loop electronics inventory module

**Letter**
A character (A through Z, a through z)

**LGN**
Login

**LIFO**
Last in first out

**Line**
An optical transmission line. A transmission medium, together with the associated high-speed equipment, required to provide the means of transporting information between two consecutive NEs, one which originates and the other terminates the line signal.

**LIU**
Line interface unit

**LOF**
Loss of frame

**Loop timing**
Timing mode in which an NE derives the transmit timing in the East direction from the received line signal in the West direction, and the transmit timing in the West direction from the received line signal in the East direction.

**LOP**
Loss of pointer

**LOS**
Loss of signal

**LPBK**
Loopback

**LS**
Low speed

**LS**
Locally-switched

**LTA**
Line terminating assembly

**LTE**
Line terminating equipment. Equipment in which the section (line) overhead is terminated (SONET terminology).

## M

**MCU**
Main control unit

**MDC**
Metallic distribution controller

**MDF**
Main distributing frame. The MDF is a central office crossconnect frame for interconnecting VF loops to central office equipment.

**MDS**
Metallic distribution shelf

**MIU**
Miscellaneous interface unit. The MIU is a maintenance circuit pack in the *SLC*-2000 ARM shelf.

**MJ**
Major (alarm)

**MLT**
Mechanized loop testing

**MML**
Man-Machine Language

**MN**
Minor (alarm)

**MOI**
Message oriented interface. The MOI is a protocol for transferring messages over bank control links.

**MP**
Multiparty

**MS**
Manual switch

**MS-DOS**
Microsoft Disk Operating System

**MSDT**
Multi-services distant terminal

**MUX**
Multiplexer

**Mux direction**
The direction, referenced to an NE, from the low-speed input to the high-speed output.

**MXRV0**
VT to STS-1 multiplexer

**MXRVE**
Multiplexer receiver virtual tributary electrical. MXRVE is a coaxial mutiplexer plug-in which will support an STS-1 electrical interface.

## N

**NA**
Not alarmed (only reported)

**NBS**
Narrowband shelf

**NBSQ**
NBS quadrant

**NDB**
Name defined block

**NE**
Near end

**NE ACTY**
Near-end activity (LED indicator)

**NE**
Network element

**NEBS**
Network equipment building systems. NEBS are Bellcore defined central office physical standards that *SLC*-2000 equipment must meet (subject of TR-63).

**NLS**
Non-locally switched

**NMA**
Network monitoring analysis

**NMAP**
Network map

**NMON**
Not monitored (memory administrative state)

**NRZ**
Non-return to zero

**NS**
Non-switched

**NSA**
Non-service affecting

**NSAP**
Network service access point

**NT1**
Network termination 1. The network terminating equipment which completes the U-interface segment of an ISDN basic rate access line.

**NTP**
Non-trouble-clearing procedure

**NVDS**
Nonvolatile data storage

**NVM**
Nonvolatile memory

# O

**OAM&P**
Operation, administration, maintenance, and provisioning

**Object entity**
A logical service or physical resource associated with an NE. A logical grouping of NE attributes from the perspective of the user. (For example, slots, ports, lines, and the user panel.)

**OC**
Optical carrier

**OC-N**
Optical carrier level N. Optical signal with an STS-N format. Used for interoffice interfaces.

**OCU**
Office channel unit

**OCU-DP**
Office channel unit-data port

**OE**
Optical extension

**OH**
Overhead

**OHCTL**
Overhead controller

**OHT**
On-hook transmission

**OI**
Operations interface

**OIP**
Operations interface processor

**OLIU**
Optical line interface unit

**ONU**
Optical network unit

**OOF**
Out-of-frame

**OPS/INE**
Operations process system/intelligent network element

**OS**
Operations system

**OS**
Operations support

**OSEG**
Operations Systems Engineering Guide

**OSI**
Open System Interface

**OTGR**
Operations technology generic requirements. A set of Bellcore TR´s that specify the operations requirements for network equipment.

**OU**
Optical unit

## P

**PAR**
Parallel (telemetry)

**Path**
At a given rate, is a logical connection between the point at which a standard frame format for the signal at the given rate is assembled, and the point at which the standard frame format for the signal is disassembled.

**Path alarm indication signal**
A path level code which is sent downstream in a digital network as an indication that an upstream failure has been detected and alarmed.

**PAU**
Power amplifier unit

**PC**
Personal computer

**PC**
Physical control

**PCN**
Peripheral communications network. The PCN is the mechanism by which *SLC*-2000 peripherals communicate with each other.

**PCU**
Power converter unit

**PCV**
P coding violations

**PDB**
Position defined block

**PDC**
Provisioning and display controller (master of the SMU)

**PGTC**
Pair gain test controller

**Phase locked**
An operating condition of a clock in which it is locked to an external reference and is using time constants that are altered to quickly bring the frequency of the local oscillator into approximate agreement with the synchronization reference frequency.

**PID**
Program identification

**PIN**
Positive-intrinsic-negative

**PJC**
Pointer justification count

**PLAR**
Private line auto ring

**PM**
Performance monitoring

**PMN**
Power minor (alarm)

**POH**
Path overhead. Overhead assigned to and transported with the payload until the payload is demultiplexed. Used for functions that are necessary to transport the payload.

**PRI**
ISDN primary rate interface

**PRS**
Primary reference source

**PSCL**
Line protection switch counts

**PT**
Physical terminal

**PTE**
Path terminating equipment. Network elements in which POH is terminated (SONET terminology).

**PTU**
Power and test unit

## Q

**QHPSCL**
Quarter hour line protection switch counts

**QLS**
Quad low-speed (ARM circuit pack)

## R

**R&R**
Remove and reinsert

**RBOC**
Regional Bell Operating Company

**RHC**
Regional holding company

**RLGN**
Remote login

**RLS**
Release

**RMS**
Remote measurement system

**RMU**
Remote measurement unit

**RT**
Remote terminal

**RTAC**
Regional Technical Assistance Center

**RTU**
Remote test unit

**RZ**
Return to zero

## S

**SA**
Service affecting

**SARTS**
Switched Access Remote Test System

**SB**
State block

**SD**
Signal degrade

**SDB**
Specific data block

**SDE**
Synchronization distribution expander

**SEFS**
Severely errored frame seconds

**Semantics**
The rules and conventions governing the interpretation and assignment of meaning to tokens (character strings).

**SES**
Severely errored seconds

**SF**
Signal fail

**SIU**
Site interface unit

**SMAS**
Switched maintenance access system. A relay switching network that allows SARTS to access the metallic pairs to be tested.

**SMU**
System memory unit

**SN-2000**
Service Net 2000

**SONET**
Synchronous optical network

**SRD**
Software release description

**SRD**
Systems requirements document

**SRQ**
System requirement

**Stability**
The systematic variation of the frequency with respect to time (synonymous with aging, drift, trends, etc.).

**STM**
Synchronous transport module

**STS**
Synchronous transport signal

**STS-1**
Synchronous transport signal level 1

**STS-N**
Synchronous transport signal level N

**STU**
System timing unit. A duplicate circuit pack that provides basic timing functionality for the DLC fraction of the *SLC*-2000 RT.

**SX**
Simplex signaling

**Synchronous**
The essential characteristic of time-scales or signals such that their corresponding significant instants occur at precisely the same average rate. For a network, refers to nodes which are timed from the references traceable to a single Stratum-1 source.

**Synchronous network**
The synchronization of synchronous transmission systems with synchronous payloads to a master (network) clock which can be traced to a single reference clock.

**Syntax**
The rules for the formation of tokens (character strings) without regard to meaning.

**SYSCTL**
System controller

## T

**T8U**
TR-08 datalink unit

**TA**
Technical advisory

**TAP**
Test access point

**TAP**
Trouble analysis procedure

**TBD**
To be determined

**TBOS**
Telemetry byte-oriented serial (protocol)

**TBRITE**
Basic rate transmission extension for ISDN T interfaces

**TCA**
Threshold crossing alert

**TCVCXO**
Temperature-compensated, voltage-controlled crystal oscillator

**TDM**
Time division multiplex

**TGS**
Synchronous timing generator

**THC**
Test head controller

**Through timing**
Timing mode in which an NE derives the transmit timing in the East direction from the received line signal in the East direction, and the transmit timing in the West direction from the received line signal in the West direction.

**TID**
Target identifier

**TL1**
Transaction Language 1

**TLB**
Timing looped back

**TLM**
Telemetry

**TMC**
Timeslot management channel

**TMS**
Test management system

**Tokens**
Character strings

**TOP**
Task-oriented practice

**TR**
Technical reference

**TRMSN**
Transmission

**TRU**
Transmit-receive unit

**TSA**
Time slot assignment: static cross-connect at a DS0, DS1, VT1.5 level, etc., that is provisioned when service is requested and remains as long as service is assigned or until the network is rearranged.

**TSI**
Time slot interchanger. The dynamic assignment of a time slot to a channel only for the duration of a call

**TSU**
Transmission signaling unit

**TSV**
Test and status verify. A SARTS call back line to allow craft to verify that a line is idle before interrupting for testing.

## U

**UART**
Universal asynchronous receiver/transmitter

**UAS**
Unavailable seconds

**UDC**
Universal digital channel. UDC is a Bellcore concept for providing a small cross-section digital loop carrier system based on ISDN UDSL technology.

**UDSL**
ISDN U-interface digital subscriber line

**UIP**
User interface panel

**UIR**
User interface requirements

**UNIFACE**
Unified interface

**UNITOOL**
Unitface software tool

**UPD**
Update

**UPD/INIT**
Update/initialization

**User channel**
Allocated to the user for input of information (for example, data communication for use in maintenance activities and remoting of alarms external to the span equipment in a proprietary fashion).

**UVG**
Universal voice grade

## V

**V-MSDT**
Virtual MSDT

**VDC**
Video controller for FTTH

**VF**
Voice frequency

**VFDE**
Voice frequency data enhancement

**VM**
Violation monitor

**VMR**
Violation monitor and removal

**VOM**
Volt-ohm-multimeter

**VRT**
Virtual remote terminal

**VSB**
Vestigal sideband

**VT**
Virtual tributary

**VT-G**
Virtual tributary group

**VTU**
Virtual tributary unit

**VTx**
Virtual tributary of size x

## W

**WORD**
Work order record detail

**WS**
Workstation

## Z

**ZCS**
Zero code suppression

# Index

## Numerics

363-205-402, TOP, 4-43

## A

Active dialog box, 3-51
Activity control, 3-47
Adjust command, 4-34
  Adjust provisioning parameters, 4-34
  Default, 4-35
  Does not adjust Redline, 4-34
  Does not adjust the function code, 4-34
  Prompts and entries, 4-35
Adjust provisioning parameters, 4-34
Available options, 4-15

## B

Bit stream access, 5-13
BIT STREAM ACCESS jacks, 5-13

## C

CHANNEL TYPE switch, 5-11, 5-26
CHANNEL UNIT ACCESS jacks, 5-13
Channel Unit Selection, 3-13
Channel Units, provisioning, 4-19
Channel Units,Voice frequency (VF) channel units, 5-11
Choice lists, 3-53
Clear provisioning parameters, 4-40
Clear-CU command, 4-40
  Clear provisioning parameters, 4-40
  Procedure, 4-40
  Restore service, 4-40
CLEI choice list, 4-12
CLEI code, 3-15
CLEI codes, valid, 4-13
CLEI field, 4-11
  CLEI choice list, 4-12
  Valid CLEI codes, 4-13
Clock connections, 5-27
CLOCK connector, 5-26
Command Completion Message, 3-60
  Complete or fail, 3-60
  Return to the Main task bar, 3-60
Command Confirmation Message
  User confirmation, 3-61
Commands, 3-52
Connect test access, 3-34
Connect Test Access command, 4-46
  Both (digital and metallic), 4-47
  Connect test access, 4-46
  Digital only, 4-47
  Metallic only, 4-47
  No test access, 4-47
  Where is the Connect Test Access command?, 4-46
Conventions used
  trademarks, ix
Copy command, 4-36
  Copies EEPROM memory, 4-36
  Copy provisioning parameters, 4-36
  Procedure, 4-37
  Same system, 4-36
Copy provisioning parameters, 4-36
CU command, 4-9
Customer assistance and technical support
  1-800-225-RTAC, xiii
  Regional Technical Assistance Center, xiii
  RTAC, xiii

## D

Data fields, 3-52
DDS Test Access, 5-25
  CHANNEL TYPE switch, 5-26
  Clock connections, 5-27
  CLOCK connector, 5-26
  DDS TEST ACCESS group, 5-26
  DS0 jacks, 5-28
  OCU jacks, 5-29
DDS TEST ACCESS group, 5-26
Diagnostics, 5-30
  DIAGNOSTICS group, 5-30
  Loopback verification, 5-30
DIAGNOSTICS group, 5-30
Dialog Boxes, 3-51
  Access to all dialog selections, 3-51
  Active dialog box, 3-51
  Choice lists, 3-53
  Commands, 3-52
  Data fields, 3-52
Dialogs, provisioning, 4-20
  4-wire VF CUs, 4-20
  Complete the dialog, 4-33
  Description, 4-20
  Digital connectivity unit, 4-32
  DS0 dataports, 4-30
  E SPOTS channel units, 4-26
  Ending the provisioning dialog, 4-32

OCU dataports, 4-28
Quad DID dial pulse terminate (DPT) unit, 4-31
Special service protection, 4-32
DID dial pulse terminate (DPT) unit, quad, 4-31
Digital connectivity unit, 4-32
Digital only (Connect Test Access), 4-47
Disconnect Test Access, 4-48
Disconnect test access, 3-37
Documentation
*SLC*-2000 Access System, xiv, xv
DONE command, 3-17
DS0 dataports, 4-30
DS0 jacks, 5-28

## E

E SPOTS channel units, 4-26
Edit display content, 3-47
EEPROM memory, 4-36
Ending the provisioning dialog, 4-32
Enter Information, 3-50
Dialog Boxes, 3-51
Menus, 3-50
Error messages, 3-62
Example of dialog, 3-51
Exit a dialog, 3-49
Exit command, 4-17

## F

Flow Chart, 4-3

## H

How to enroll in training
COMCATS, xvi
How to interact with the / box, 3-61
How to use this document
organization, vii

## I

Information products (IPs)
electronic and alternative media, xvii
how to comment on this IP, xix
how to order, xviii
Initialize the TAIU (TAIU Self Test), 5-2
Initiate Test Access, 5-3
Intended audience
customers, vi
what must I know to use this document?, vi
who uses this document?, vi
Intended use, 1-4
Inventory, 3-39
Inventory command, 4-49
Inventory command (Retrieve Information), 4-49

## K

Keyboard, 3-46
Activity control, 3-47
Choice list, 3-48
Edit display content, 3-47
Exit a dialog, 3-49
Get context sensitive help, 3-46
Move from a field to the next field in dialog boxes, 3-46
Move from a field to the previous field in dialog boxes, 3-46
Navigate on the display, 3-49
Select menu items, 3-46
keyboard or mouse, 3-45

## L

Loopback verification, 5-30

## M

Main Task Bar, 3-3
Adjust, 3-23
Clear channel unit, 3-25
Copy, 3-24
Help, 3-7 3-8
Inventory, 3-39
main task bar, 3-5
Provision, 3-22
Redline, 3-26
Select, 3-9
Slot address dialog, 3-6
Start up, 3-3
Test, 3-27
main task bar, 3-5 4-5
menu items, 3-49
Menus, 3-50
Message Line, 3-62
Error messages, 3-62
Field specific prompts, 3-62
Last line, 3-62

Metallic and bit stream test access (VF CU), 5-12
Metallic only (Connect Test Access), 4-47
Monitor mode, 5-14
Mouse, 3-49
  Enter information in a field, 3-49
  Move from field to field in dialog boxes, 3-49
  Select menu items, 3-49

## N

Navigate, 3-45
  Keyboard, 3-46
  Mouse, 3-49
  Overview, 3-45
Navigate on the display, 3-49

## O

OCU dataports, 4-28
OCU jacks, 5-29
Operations, 4-1
  Inventory, 4-49
  Provisioning, 4-18
  Select, 4-6
  Start Up, 4-3
  Test, 4-43
Operations and Features, 3-2
  Main Task Bar, 3-3
  Select a Channel, 3-41
OpTions, 3-18
Options dialog, 4-14
  Available options, 4-15
Other End command, 4-10

## P

Pre-provision an empty channel slot, 4-18
Print, 3-63
  User's Guide, 3-63
Print a copy of the inventory report, 4-49
Product safety
  electrostatic discharge (ESD), xi
  ESD, xi
  safety labels, x
Provision, 3-22
Provision command, 4-18
  Pre-provision an empty channel slot, 4-18
  Specify settings for options, 4-18
Provisionable CUs, 4-19
Provisioning, 4-18
  Adjust, 4-34
  Channel Units, 4-19
  Clear-CU, 4-40
  Copy, 4-36
  Dialogs, 4-20
  Provision, 4-18
  Redline, 4-42
provisioning parameters, clear, 4-40

## Q

Quad DID dial pulse terminate (DPT) unit, 4-31

## R

Read Displayed Information
  Command Completion Message, 3-60
  Message Line, 3-62
  Overview, 3-54
  Slot Status Message, 3-55
Reason(s) for reissue
RECEIVE LED indicators, 5-17
REDLD, 4-42
Redline command, 4-42
  Prompts and entries, 4-42
  REDLD, 4-42
  Redline status, 4-42
  Redlined channel, 4-42
Redline status, 4-42
Redlined channel, 4-42
Restore service, 4-40
Retrieve Information, 4-49

## S

Select a Channel, 3-41
  Typical procedure, 3-41
Select command, 4-6
  CLEI, 4-11
  CU, 4-9
  Exit, 4-17
  Options, 4-14
  Other End, 4-10
  SLOT ADDRESS dialog, 4-7
  Submenus, 4-6
  System, 4-8
Select function
  CLEI, 3-15
  CU, 3-13
  DONE command, 3-17
  Exit, 3-20
  OpTions, 3-18

Other End, 3-14
System, 3-12
Signaling codes sent from the CU under test, 5-18
Signaling codes sent to the CU under test, 5-22
SIGNALING CONTROL group, 5-16
SIGNALING CONTROL ON / OFF switch, 5-16
SLOT ADDRESS dialog, 4-7
Slot address dialog, 3-6
Slot Status Message, 3-55
Description, 3-55
Line five, 3-59
Line four, 3-58
Line one, 3-55
Line three, 3-57
Line two, 3-56
Special service protection, 4-32
Start Up, 4-3
Flow Chart, 4-3
main task bar, 4-5
Switches S4 - S7, 4-8
System command, 4-8
Switches S4 - S7, 4-8
System feature release
System selection, 3-12
System turn-up, 3-29
System turnup, 4-44


## T


TAIU and SCAT III Software, 5-3
Initiate Test Access, 5-3
TAIU groups, 5-9
TAIU Switches, Jacks, and LED Indicators
DDS Test Access, 5-25
Diagnostics, 5-30
Voice Frequency Test Access, 5-11
TAIU, Initialize the TAIU (TAIU Self Test), 5-2
Test Access, initiate, 5-3
Test Bus Access, 4-45
Test bus access, 3-31
Test mode, 5-15
Test Selection
Connect test access, 3-34
Disconnect test access, 3-37
System turn-up, 3-29
Test bus access, 3-31
Test submenu, 4-43
Connect Test Access, 4-46
Disconnect Test Access, 4-48
Functions, 4-43
System turnup, 4-44
Test Bus Access, 4-45
Where is the TEST command?, 4-43
Testing
Is the TAIU OK?, 5-2
TAIU Switches, Jacks, and LED Indicators, 5-9
The TAIU and SCAT III Software, 5-3
TOP, 363-205-402, 4-43
Training
1-800-TRAINER, xvi
COMCATS, xvi
how to enroll, xvi
*SLC*-2000 Access System Courses, xvii
TRANSMIT switches, 5-17


## U


Use of keyboard or mouse, 3-45
User's Guide, 3-63
Using the SCAT III, 3-1
Enter Information, 3-50
Navigate, 3-45
Print, 3-63


## V


Valid CLEI codes, 4-13
Voice frequency (VF) channel units, 5-11
Voice Frequency Test Access, 5-11
Bit stream access, 5-13
BIT STREAM ACCESS jacks, 5-13
CHANNEL TYPE switch, 5-11
CHANNEL UNIT ACCESS jacks, 5-13
Monitor mode, 5-14
RECEIVE LED indicators, 5-17
Signaling codes sent from the CU under test, 5-18
Signaling codes sent to the CU under test, 5-22
SIGNALING CONTROL group, 5-16
SIGNALING CONTROL ON / OFF switch, 5-16
Test mode, 5-15
TRANSMIT switches, 5-17
Voice frequency (VF) channel units, 5-11
VOICE FREQUENCY TEST ACCESS and SIGNALING CONTROL groups, 5-11


## W


Who uses this document?
customers, vi
what must I know to use this document?, vi