AT&T

Call Accounting Terminal Plus

CAT Plus for Business

Installation and Use

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Introduction

The AT&T CAT Plus for Business provides a simple-to-use interface to a sophisticated, in-house call costing and reporting system. The CAT Plus collects call activity data directly from the Station Message Detail Recording (SMDR) output of your Communications System and automatically stores, processes, and organizes the data into meaningful reports for effective cost management.

Capabilities

The AT&T CAT Plus offers a comprehensive variety of applications:

Control Misuse and Abuse: Usage reports for each extension show if long distance facilities are being used economically. Personal calls are reduced because employees know that calling patterns are monitored.

Client Billback: Telephone costs identified by extension and account code allow easy billback to clients for calls made on their behalf.

Market Analysis: Use of account codes keyed to advertisements, and/or customer zip codes can pinpoint the media and geographic areas where your marketing is most effective.

Employee Productivity: The code and length of calls handled by each employee can be related to the code and amount of sales. This is an excellent way to evaluate employee performance.

Cost Allocation: Extension and/or account code summary reports provide easy tracking of company-wide telephone usage to accurately allocate telephone costs by department, division, or product.

Network Optimization: Records of call patterns help optimize network facilities for better cost effectiveness and lower long distance costs.

System Diagnostics: The Summary by Facility report helps identify out-of-order lines and failure of your Communications System's Automatic Route Selection (ARS) to place long distance calls over the most economical route available.

Resale of Telephone Services: In dedicated resale and sharing operations, call reporting by extension can help to make the Communications System one of your most profitable investments.

Report Printing

You can print reports:

- on demand

- automatically, when the system reaches 90% capacity

- automatically, once each day

- automatically, once each week

You can print, individual call records on-the-fly as each call is completed.

Report Information

There are four basic reports and nine management reports available. The four basic reports (available in various groupings by menu selection) are:

- **Detail by Extension —** lists the detail of each call in a separate report for each extension.

- **Summary by Extension —** lists the code of calls, total duration, and total cost for each extension.

- **Detail by Account —** lists the detail of each call in a seperate report for each account.

- **Summary by Account —** lists the code of calls, total duration, and total cost for each account code.

The nine management reports are:

- **Time of Day (Summary by Hour) —** generates either a 24-hour summary matrix or a summary or detailed report for a single hour.

- **Cost Greater Than Amount —** a summary or detailed report of calls costing more than a specified amount.

- **Calls Longer Than Specified Duration —** a summary or detailed report of calls lasting longer than a specified duration.

- **One Facility (Summary by Facility) —** a summary report for all facilities, or a summary or detailed report for one facility or trunk.

- All **Local Calls —** a summary or detailed report for all calls having seven or fewer dialed digits.

- All **Incoming Calls —** a summary or detailed report of all incoming calls.

- **1+ or 0+ 7-Digit Calls —** a summary or detailed report of long distance calls within your area code.

- **Exchange Search —** a summary or detailed report of all calls to a specified exchange within your area code.

- **Area Code Search —** a summary of detailed report of all calls made to a specified area code.

Custom Features

Some of the many custom features are:

- **Percentage Markup:** Markups can be added to either long distance calls or to both local and long distance calls.

- **Print On-the-Fly:** Individual call records can be printed as each call is completed, or saved until daily reports.

- New **Page Option:** For reports that will be distributed, each extension or account code can begin on a new page. For reports that will not be distributed, printing continuously can save paper.

- **Minimum Duration of Calls:** To detect extreme abuse, or just to avoid billing for very short calls, call printing can be eliminated for calls less than a user specified minimum duration.

- **Print Local Calls:** Printing of outgoing call records can be limited to long distance only, or can include local calls.

- **Print Inbound Calls: Printing** of call records can be limited to outgoing calls only, or can include inbound calls.

- **Night Discounts:** Evening and night discounts can be applied to local and long distance calls. Discounts can also be applied across-the-board when necessary.

- **Call Costing:** The Read Only Memory (ROM) contains AT&T long distance tariffs for the location of the Communications System. You can set a mark-up for calls to make profit on reselling calls to clients or guests.

- **Special Call Pricing: Prices** for special calls can be assigned as follows:

    — Operator Assisted Calls: by the call

    — 411 Calls (local directory assistance): by the call

    — 555 Calls (long distance directory assistance): by the call

    — 800 Calls: by the call

    — 900 and 700 Calls: by the minute

    — Flat Surcharge: by the call for local and/or long distance

Installing the Call Accounting Terminal and Printer

2

The AT&T CAT Plus for Business can be used with the following Communications Systems:

- MERLIN LEGEND™ Communications System
- MERLIN® II Communications System
- MERLIN® PLUS Communications System
- MERLIN® 1030/3070 Communications System
- System 25 Communications System
- SPIRIT® 1224/2448 Communications System
- PARTNER® II Communications System

This chapter provides complete instructions for installing the CAT Plus with each of these systems, and also provides complete instructions for installing the CAT Printer.

General Description

The AT&T CAT Plus for Business is a small, self-contained unit that operates with an existing Communications System to provide cost accounting information. It requires connections to power, to the Station Message Detail Recording (SMDR) output of the Communications system, and to the CAT Printer. It collects, stores, organizes, and prints data about telephone calls in convenient reports that can be used for many administrative and billing purposes. The unit is shown in Figure **2-1.**
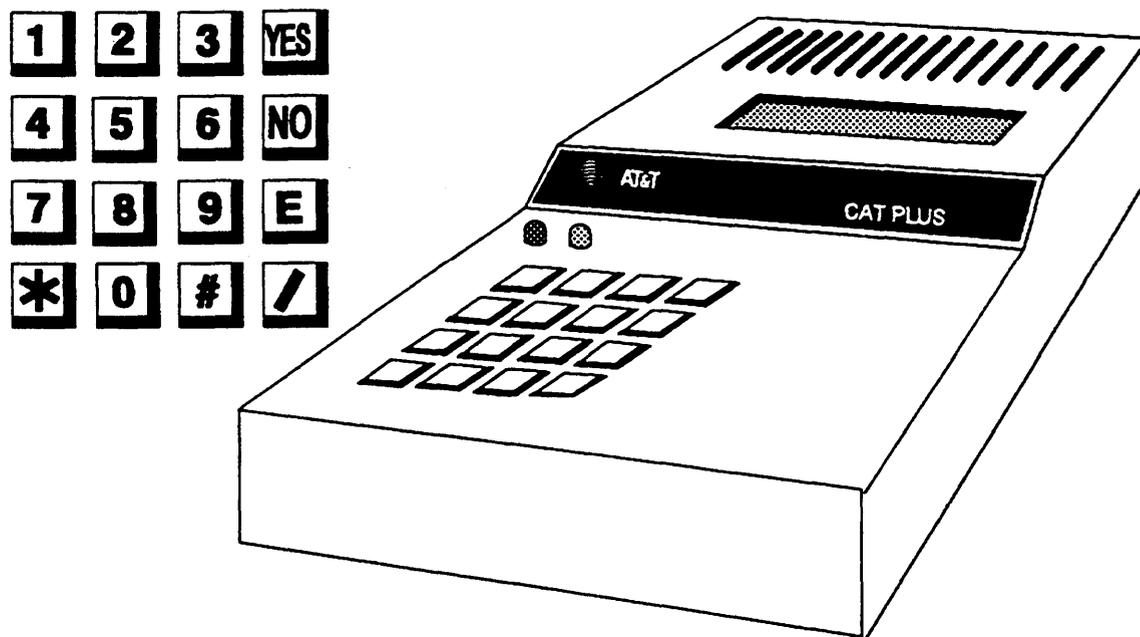
Figure 2-1. AT&T CAT Plus

Lamps

Two Light Emitting Diodes (LEDs) are located above the keypad. The green LED indicates that power is connected. The yellow LED indicates that data is being received from the Communications System SMDR output.

Keypad

Use the sixteen-key keypad to make selections from the system menus and to enter data for the system setup options and parameters. There are six "special" keys that are shown in Figure 2-1 and described as follows:

YES Used in response to Yes/No questions.

NO Used in response to Yes/No questions.

E Not used in the Business system.

/ Used as a field delimiter to indicate the end of an extension, account, trunk, or special number.

Used to "escape" from any report, option, or Y/N question back to the main menu.

✱ Not used in the Business system.

LCD Display

The top of the CAT Plus has a two line by 24 character Liquid Crystal Display (LCD). Messages, menus, and input data are presented on this display to help you operate the CAT Plus. Messages on the display are shown as follows in this document:

```
Line 1 of LCD display xx
Line 2 of LCD display xx
```

Alarms

The CAT Plus has three alarms that indicate situations requiring attention. The alarms are signalled by an audible beeping signal:

■ **No SMDR Data:** A solid beep indicates that no SMDR data has been received for an hour. The alarm is only received if enabled by a setup option, and is only received during the hours from 9:00 am to 4:00 pm, Monday through Friday. It is reset when a call is received.

■ **Printer Stalled:** A continuous beeping sound indicates that the printer is not responding properly because of an out-of-paper condition or another printer problem.

■ **85% Full:** A single beep for each call indicates that the storage capacity of the CAT Plus is 85% used. (5525 calls have been stored in the system.) This is an indication that the management and system reports should be run. When 90% of the storage capacity is used, four standard reports and two management reports run automatically. (See Chapter 5, *Standard Reports* for more information.)

Capacities

The CAT Plus has the following capacities:

■ **Call Detail:** 6500 automatically collected call detail records

■ **Extensions:** 125 automatically collected four-digit extensions numbers

■ **Account Codes:** 200 automatically collected nine-digit account codes

■ **Lines or Trunks:** 49 lines or trunks plus four special facilities that can be independently priced

■ **Battery Backup:** 24-hour battery-backed call record storage (battery must be fully charged)

Rear Panel

The rear panel contains connections for the printer and the Communications System, and a reset switch.
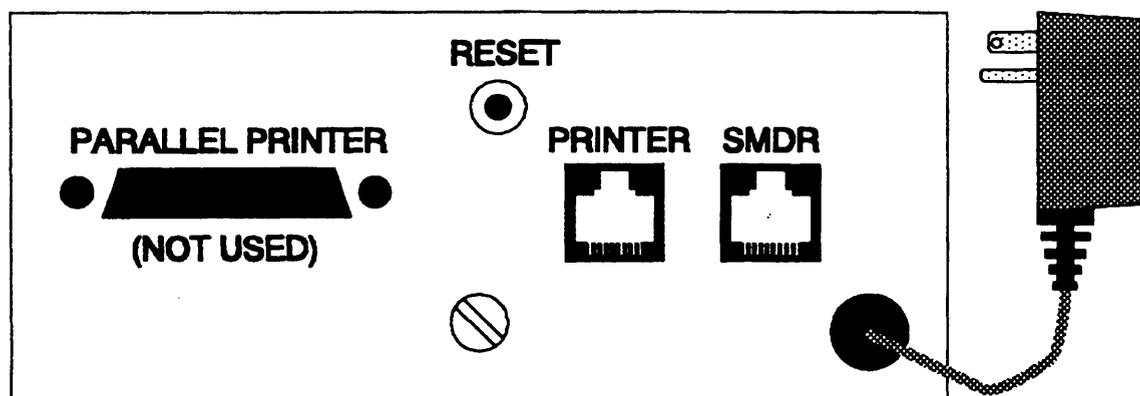
Figure 2-2. CAT Plus Rear Panel

The reset switch is used only during initial installation, or when you cannot obtain a response through the keyboard.

Both the serial printer and the SMDR connect through 8-position modular jacks.

Pre-Installation Steps

Installing the AT&T CAT Plus for Business is very easy. No special tools are needed except a small (1/8 inch), flat-blade screwdriver.

Before you start:

- select the place where the CAT Plus will be installed

- make sure that your Communications System SMDR output has been activated

- make sure that you have a *non-swtiched* 110 volt AC outlet with sufficient power available to plug in the CAT Plus and the CAT Printer

Selecting a Site

If possible, the CAT Plus should be located very near the Communications
System. The limits are as follows:

Table 2-1. CAT Plus Location Requirements

Communications System	Maximum Distance
MERLIN 1030/3070 MERLIN II MERLIN LEGEND System 25 SPIRIT 1224/2448 PARTNER II	Up to 50 feet with direct connection, but only if CAT is plugged into the same AC power outlet.
	Z3A series Asynchronous Data Units are required when CAT is more than 50 feet (1000 feet maximum using building wiring) away, or if CAT is plugged in to a different AC power outlet.
MERLIN PLUS	14 feet from Data Collector. The Data Collector may be 1000 feet from the Communication System

Unpacking and Inventorying Equipment

Unpack the CAT unit, the CAT Printer, and any associated packages. You should have the following items:

- the AT&T CAT Plus for Business unit with attached power transformer
- the AT&T CAT Printer — do not plug in at this time
- a 355A 8-position modular to DB-25P adapter
- two (2) 14 foot D8W-87 8-position modular cords
- any additional equipment required for your specific installation

Verifying Switch Settings and EPROM

Before installing the CAT Plus, verify that the internal switches have been properly set and that the EPROM containing the rate tables has been installed. Refer to Figure 2-3 while following these steps:

1. Turn the CAT Pius unit over so that the access cover is visible.

2. Remove the screw holding the access cover and swivel the access cover out of the way.

3. Turn switch 10 *ON* to connect the battery.

4. Verify that the remaining switches are set as shown in Figure 2-3. If necessary, change the switches to match Figure 2-3.

5. Verify that the EPROM is installed in the socket with the notched end of the EPROM toward the handle. If necessary, reseat the EPROM using the instructions in Figure 2-3.

6. Swivel the access cover back into place and secure it with the screw removed previously.
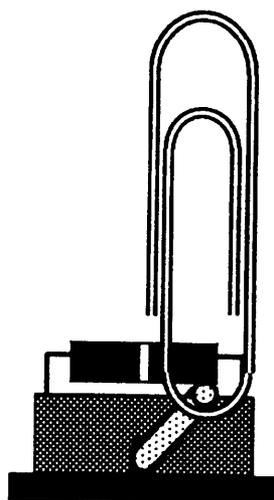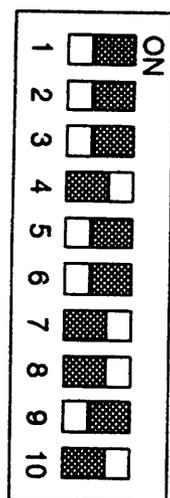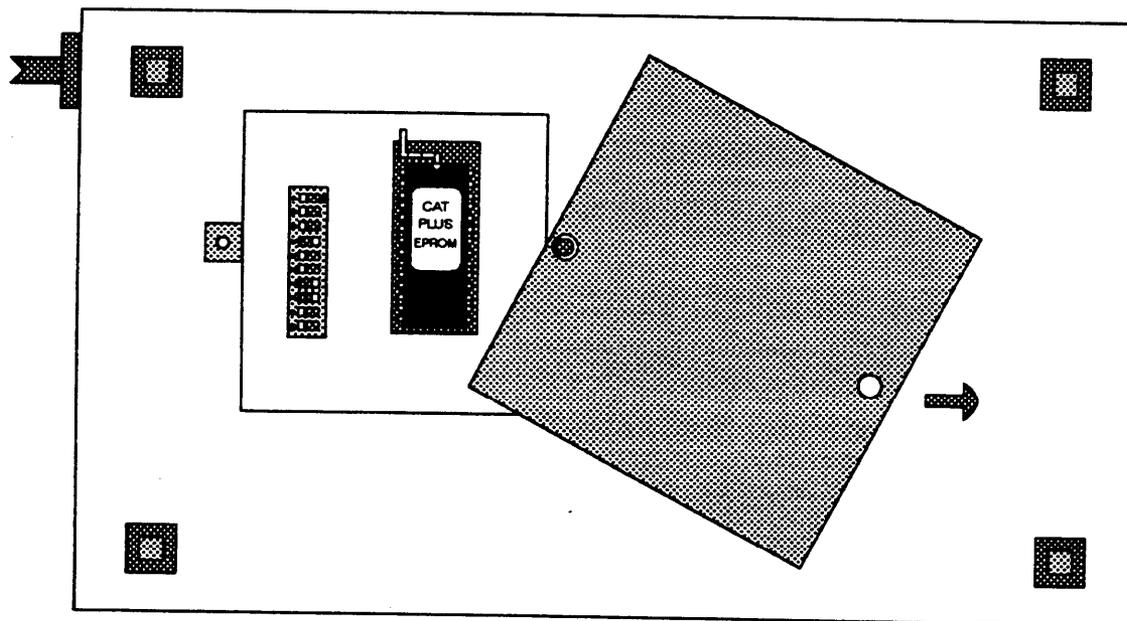
Figure 2-3. Location and Settings for Switches and Location of EPROM

To Remove EPROM, hook
handle with paperclip and lift
until handle is vertical. Then
turn unit over and EPROM
should fall out. Install new
EPROM with notch towards
handle and press handle
back to horizontal position.

Preparing the CAT Printer

⚠ CAUTION

*Do not plug the printer in until preparations have been completed.
Attempting to operate the printer with the retainer installed can damage
the printer.*

Unpacking

1. Your AT&T CAT Printer is packed in a protective container along with
    some supplies and accessories. Lift the printer together with the
    Styrofoam packing materials from the box and place it on a convenient
    table, desk, or printer stand. Remove the styrofoam side pieces and
    check the box for these contents:

    - ☐ Ribbon Cartridge

    - ☐ Platen Knob

    - ☐ Power Cord

    - ☐ Paper Separator

    - ☐ Access Cover (on the printer)

2.   Lift off the access cover and remove the clear smudge strip from the
cover.
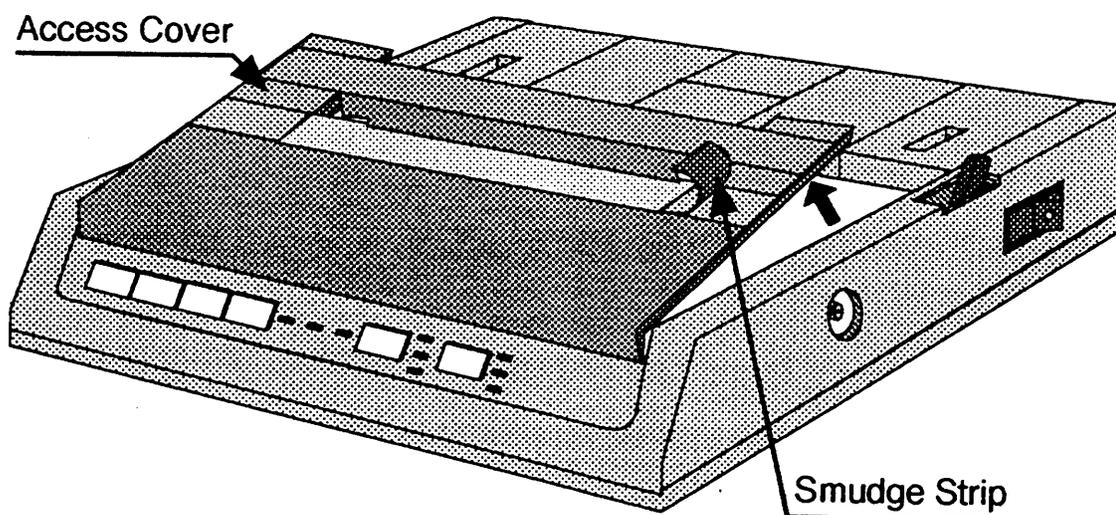
Figure 2-4. Removing Access Cover and Smudge Strips

3. Remove the plastic
    Save it in case you
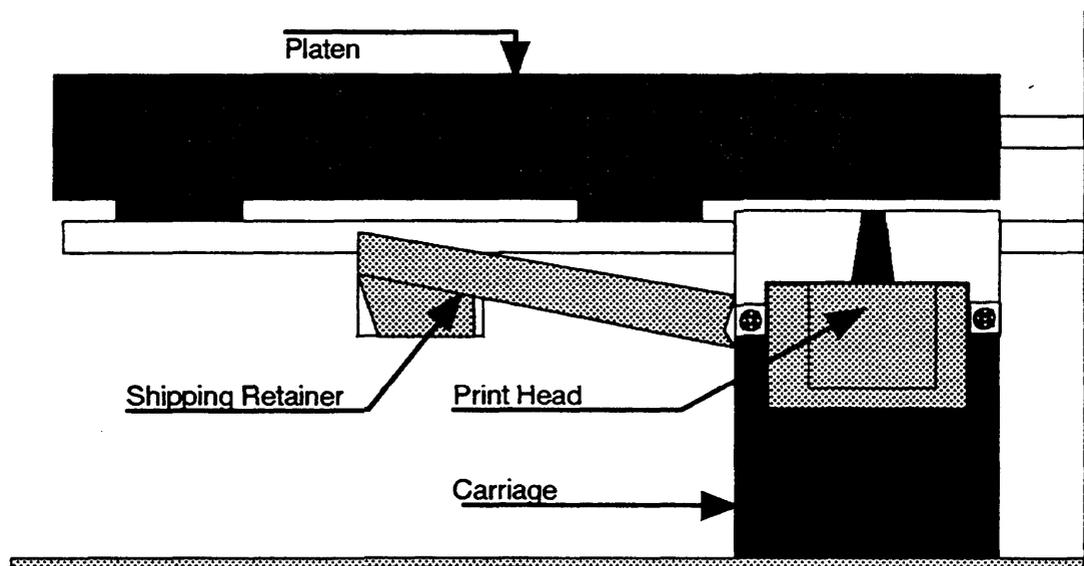
Figure 2-5. Location of Shipping Retainer

4.   Insert the platen knob in the hole on the right side of the printer, lining up the notch in the knob with the pin on the shaft.
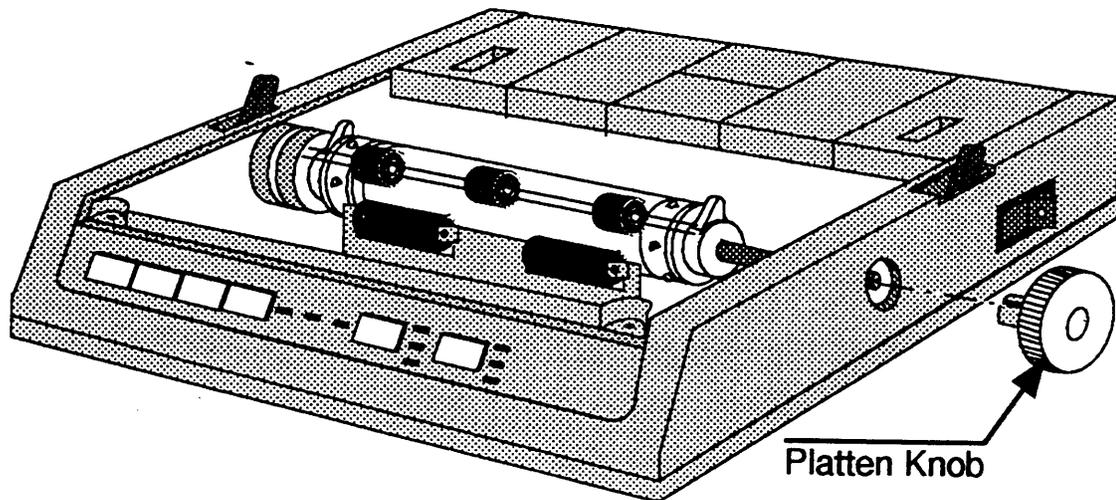
Platen Knob

Figure 2-6. Inserting Platen Knob

Verifying the Internal Switches

1. Turn the printer around and remove the screw holding the switch cover in place. Remove the switch cover.
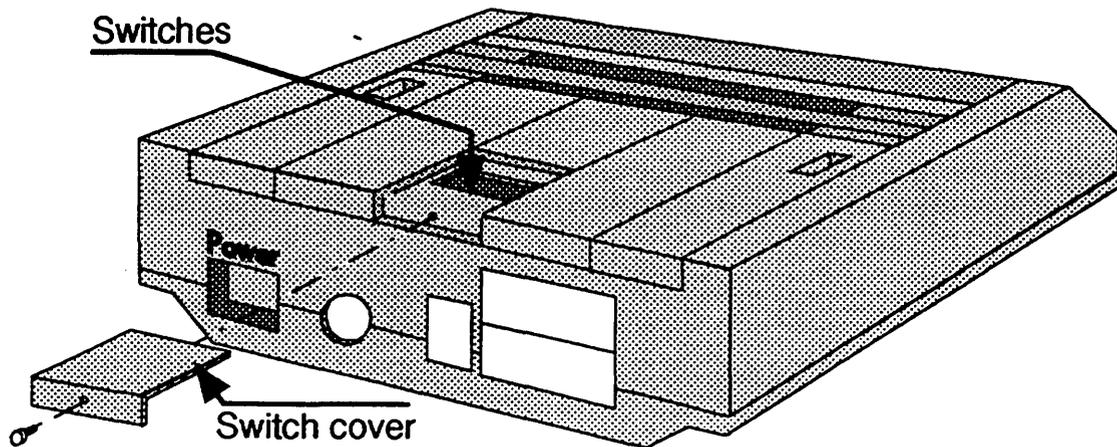
Figure 2-7. Removing the Switch Cover

2. Verify that the switches are set as shown in Figure 2-8. If necessary, change the switches to correspond to the settings shown in Figure 2-8. Refer to Appendix C for swutch meanings.

3. Replace the switch cover and tighten screw.

Back of Printer
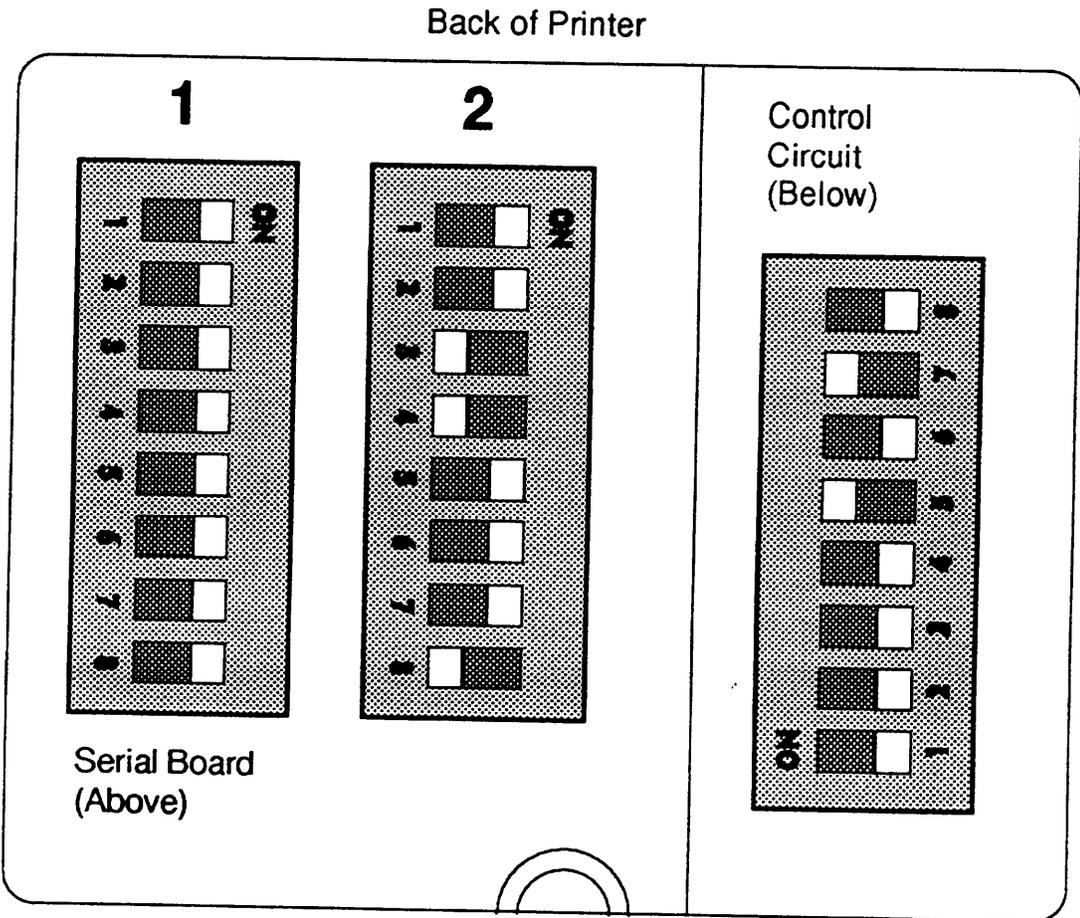
Figure 2-8. CAT Printer Switch Settings

Installing the Paper Separator

1. Holding the paper separator at an angle to the top of the printer, insert the tabs into the slots on the top of the printer as shown in the detail blow-up in Figure 2-9.

2. Slide the paper separator towards the back of the printer so that the tabs fit securely in the slots.
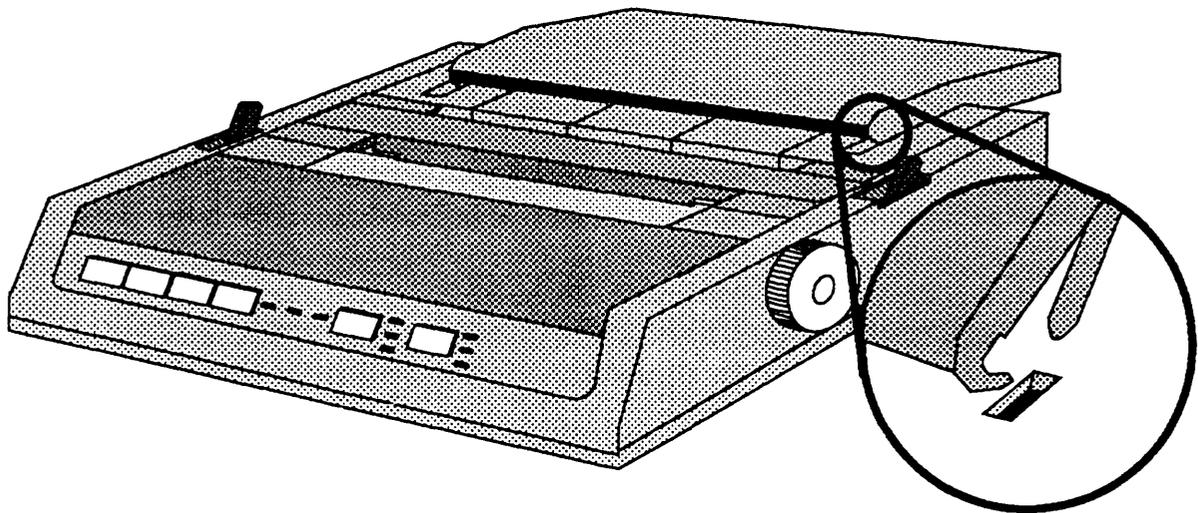
Figure 2-9. Installing the Paper Separator

3. Press the back of the paper separator down so that it lies flat on top of the printer.

Installing the Ribbon Cartridge

1. Center the print head so that it is away from the bail rollers. Make sure that the bail is closed. (The lever on the left side of the printer should be pushed towards the back.)

> ⚠ **CAUTION**
>
> *If the ribbon cartridge is inserted when the print head is at either end of the platen, or is directly opposite a bail roller, the ribbon shield may be damaged.*

2. With the knob side up, tilt the back of the ribbon cartridge onto the carriage so that the pins on the sides at the back of the carriage slip into the slots on the sides at the back of the ribbon cartridge.

> ⇒ **NOTE:**
>
> If the ribbon will not load easily, turn the blue knob slightly until the x-shaped notch on the bottom of the ribbon cartridge aligns with the x-shaped insert on the ribbon plate.

Ribbon Shield

Ribbon
Cartridge
(bottom)

Print Head
Gap
Control
Lever

Knot

Snap-in Latch

Locating Pin

Carriage

Rear Pin
goes in Slot
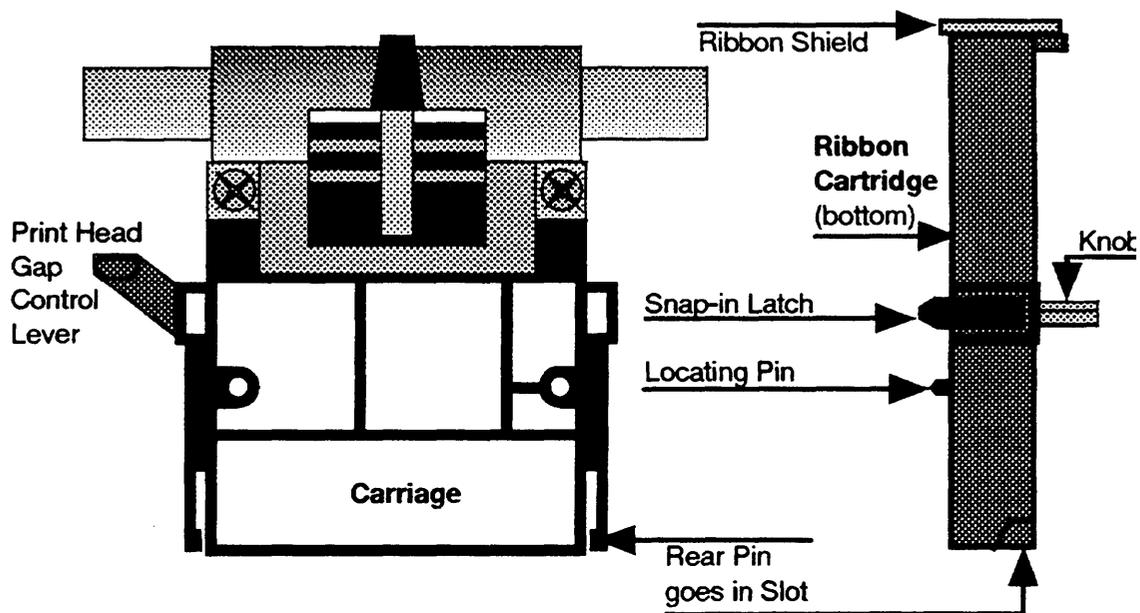
Figure 2-10. Inserting the Ribbon Cartridge

3.   To seat the ribbon cartridge, press down on the cartridge at the two
arrow heads at the sides of the print head opening.

➡ NOTE:
Do not remove the clear plastic ribbon shield from the ribbon
cartridge.
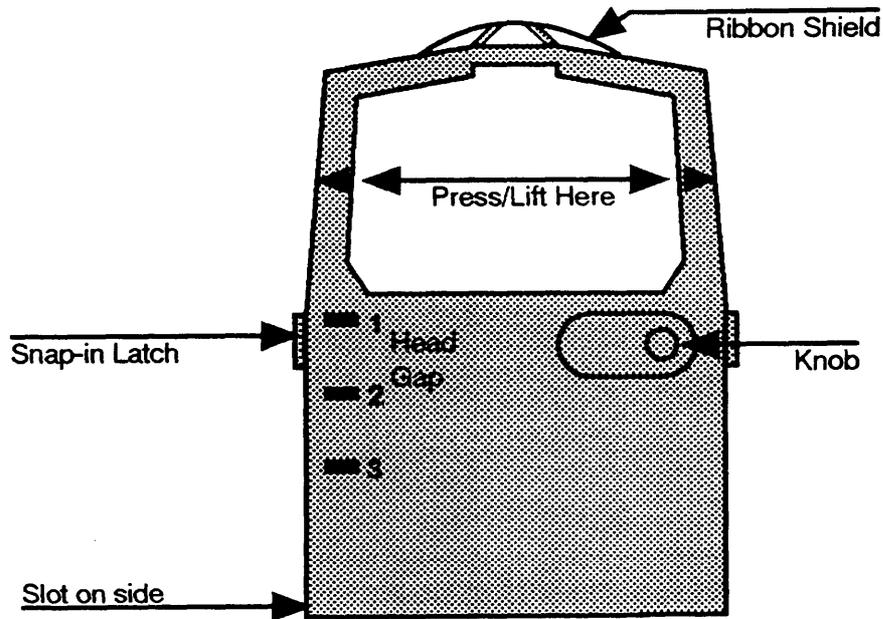
Figure 2-11. Ribbon Cartridge, Top View

4. To remove the cartridge, slide the print head away from the rollers, grasp the cartridge on both sides at the arrow heads, and lift off.

Setting the Print Head Gap Lever

Before you load paper, be sure to set the blue print head gap level (located to the left side of the print head and shown in Figure 2-11) to the correct position as shown in Table 2-2.

Table 2-2. Print Head Gap Lever Setting

Paper Type	Print Head Gap Lever Setting
1-part or 2-part	1
3-part or 4-part	2
extra thick	3

Loading Paper for Bottom Feed

You can use bottom feed only if you have a slotted printer stand that is designed for bottom feed. To load paper for bottom feed, follow these steps:

⇛ **NOTE:**
Use only fan-fold, pin-feed paper with the CAT Printer.

1. Set the printer on a slotted printer stand with the opening in the base of the printer aligned with the slot on the printer stand.

2. Place the paper under the printer stand.

3. Lift off the access cover.

4. Move both the paper lever (on the right side of the printer) and the bail lever (on the left side of the printer) forward.

5. Slide the first sheet of paper through the opening in the base of the printer.

6. Using the platen knob, engage the sprocket holes with the pins. If the pins need adjusting, pull the tabs forward and slide the pins left or right to accommodate the width of the paper. Lock the tabs when the pins are the proper distance apart.

⇛ **NOTE:**
Do not stretch the paper. If the sprocket holes stretch or tear during printing, readjust the pins.
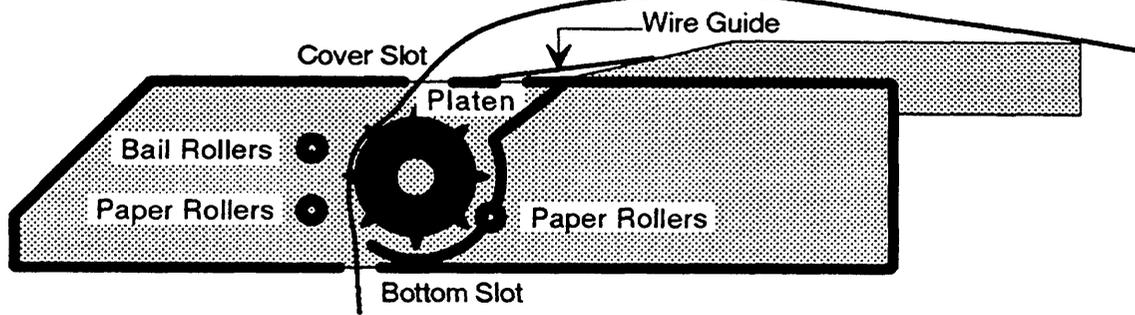
Figure 2-12. Loading Paper for Bottom Feed

7. Close the bail by moving the bail lever (on the left side of the printer) towards the back.

⚠ CAUTION:

The paper lever (on the right side of the printer) must be left forward or the sprocket holes will tear.

8. the platen knob, advance the paper to the first line where printing is to begin.

9. Replace the access cover making sure that the paper exits through the opening. Then lower the wire guide on the paper separator to prevent exiting paper from reentering the printer.

Loading Paper for Rear Feed

You can use rear feed with or without a printer stand. To load paper for rear feed, follow these steps:

⇒ NOTE:
Use only fan-fold, pin-feed paper with the CAT Printer.

1. Place the paper behind the printer.

2. With the paper separator laying flat on the printer, slide the guides to their widest position.

3. Lift off the access cover.

4. Move the bail lever (on the left side of the printer) and the paper lever (on the right side of the printer) forward.

5. Insert the paper in the slot in the paper separator.

6. Push the paper forward until it reaches the platen.

7. Using the platen knob, engage the sprocket holes with the pins. If the pins need adjusting, pull the tabs forward and slide the pins left or right to accommodate the width of the paper. Lock the tabs when the pins are the proper distance apart.

⇒ NOTE:
Do not stretch the paper. If the sprocket holes stretch or tear during printing, readjust the pins.
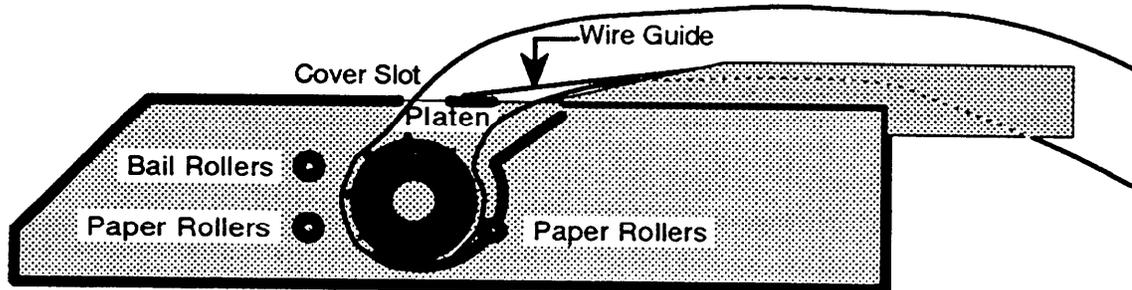
Figure 2-13. Loading Paper for Rear Feed

8.   Continue advancing the paper until it reaches the front of the platen, behind the bail.

9.   Close the bail by moving the bail lever (on the left side of the printer) towards the back.

⚠ CAUTION

The paper lever (on the right side of the printer) must be left forward or the sprocket holes will tear.

10.   Using the platen knob, advance the paper to the first line where printing is to begin.

11.   Replace the access cover making sure that the paper exits through the opening. Then lower the wire guide on the paper separator to prevent exiting paper from reentering the printer.

Connecting the Printer Cable

To connect the printer cable, follow these steps:

1.   Slide the 355A adapter into the serial connector on the rear of the
      printer.
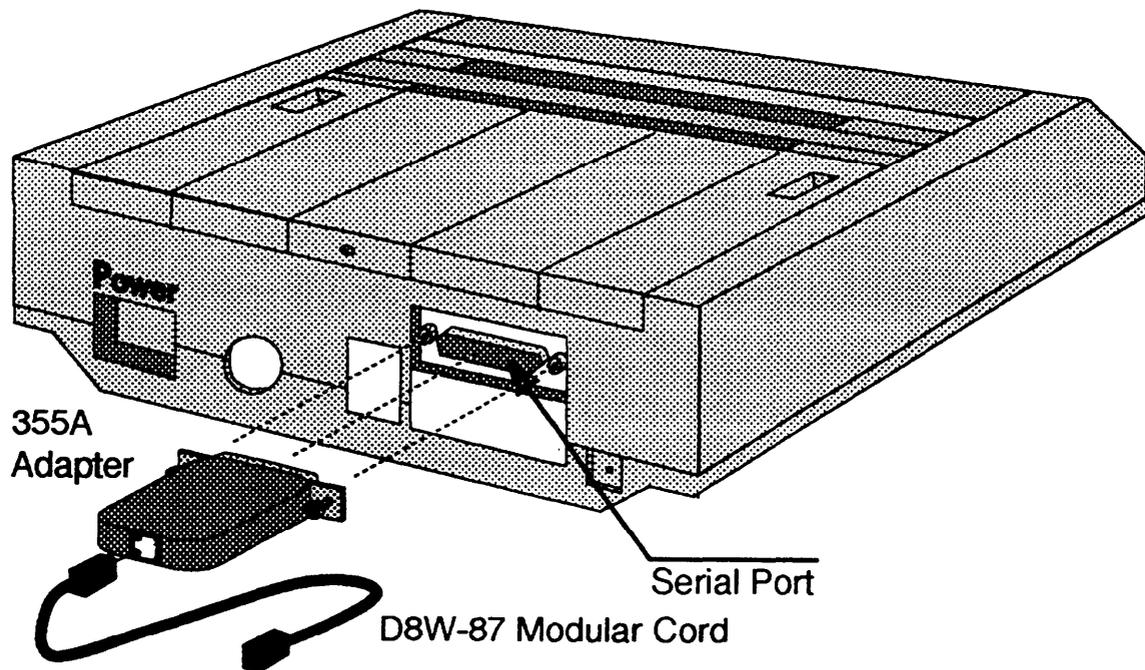
Figure 2-14. Connecting the Printer Cable

2.   Using a small screwdriver, tighten down the screws on each side of the
      355A adapter.

3.   Connect one end of a D8W-87 8-position modular cord to the modular
      jack at the back of the 355A adapter.

2-25

4.   At the appropriate time, connect the other end of the D8W-87 modular
      cord to the printer modular jack on the back of the CAT PLUS.

5.   At the appropriate time, connect the power cord to the back of the
      printer and plug the printer in.

⚠ CAUTION

Be sure the printer is turned off (switch on the right side of the
printer) *before connecting the power cord.*

Testing the Printer

To check the printer's operation, hold down the [**LINE FEED**] button while turning
on the printer. The printer should respond by printing its entire character set
several times at different sizes and quality levels.

Operating the Printer

The printer control panel is shown in Figure 2-15.
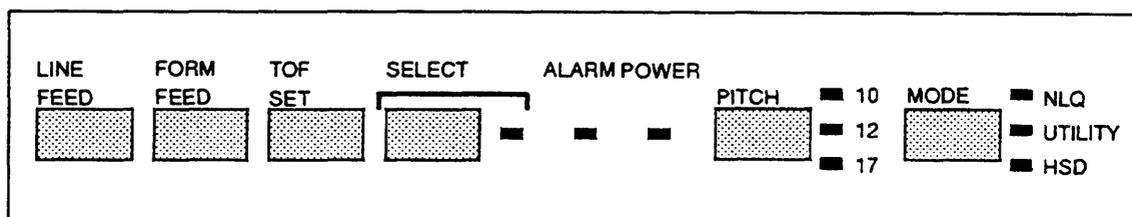
Figure 2-15. Printer Control Panel

- The **[SELECT]** button controls communications with the computer. Pressing this button turns the **[SELECT]** lamp on and off. When the lamp is on, the printer is on-line and is ready to receive data. When the lamp is out, the printer is off-line and cannot receive data from the computer.

    NOTE:

    If the printer is off-line for more than a few minutes, the CAT sounds an alarm. Be sure to put the printer back on-line after making adjustments.

- The **[LINE FEED]** button moves the paper up one line. The **[LINE FEED]** button works only when the printer is off-line.

- The **[FORM FEED]** button advances the paper to the top margin of the next page. The **[FORM FEED]** button works only when the printer is off-line.

■ The **[TOP SET]** button sets the top margin at the current location of the paper. To set the top of form, use the platen knob to position the paper correctly and then press the **[TOP SET]** button. The **[TOP SET]** button works only when the printer is off-line.

■ The red **[ALARM]** lamp indicates that the printer has run out of paper or that there is an internal problem with the printer.

■ The **[POWER]** lamp is on when the printer is plugged in and turned on.

■ The **[PITCH]** button controls the character size. Pressing it cycles between 10, 12, and 17 characters per inch. The corresponding lamps indicate which size is selected.

■ The **[MODE]** button controls the print quality and speed. Pressing it cycles between Near Letter Quality (NLQ, slow), Utility (good quality, medium speed), and High Speed Draft (HSD, fast but low quality). The corresponding lamps indicate which quality/speed combination is selected.

The default settings are 10 characters per inch and Utility print quality (medium speed).

Installing the CAT

Before installing the CAT, be sure that the following preparations have been completed:

- set up the CAT according to the instructions given earlier in this chapter

- set up the CAT printer according to the instructions given earlier in this chapter

- administer the Call Reporting options for your Cormmunications System

After all preparations have been completed, install the CAT according one of the procedures indicated in Table 2-3 as is appropriate for your Communication System and the location of the CAT.

Table 2-3. CAT Installation Procedures

Communications System	Procedure	Maximum Distance
MERLIN PLUS	1	14 feet from Data Collector. The Data Collector may be 1000 feet from the Communication System
MERLIN 1030/3070 MERLIN II MERLIN LEGEND System 25 SPIRIT 1224/2448 PARTNER II	2	Up to 50 feet with direct connection, but only if CAT is plugged in to the same AC power outlet.
	3	Z3A series Asynchronous Data Units are required when CAT is more than 50 feet (1000 feet maximum using building wiring) away, or if CAT is plugged in to a different AC power outlet.

1. Installation With MERLIN PLUS

Refer to Figure 2-16. To install the CAT, follow these instructions:

1. Remove the cord connecting the Data Collector to the printer. Plug one end of a D8W-87 modular cord into the modular jack labeled *Printer* on the back of the Data Collector.

2. Plug the other end of the cord into the modular jack labeled *SMDR* on the back of the CAT.

3. Connect another D8W-87 modular cord from the printer to the modular jack labeled *Printer* on the back of the CAT.

Busy Buster
(BB) Jack

Control Unit

Printer

355A
Adapter

D8W-87
14-Foot
Modular
Cord

Jack 19 (Default
for Data Collector)

450F
Adapter

D8W-87 Modular
Cord or up to 1000 Feet of Building Wiring

CU   PRINTER   ● READY   POWER   DATA
COLLECTOR

③

②   D8W-87 Modular
Cord up to 50 Feet   ①
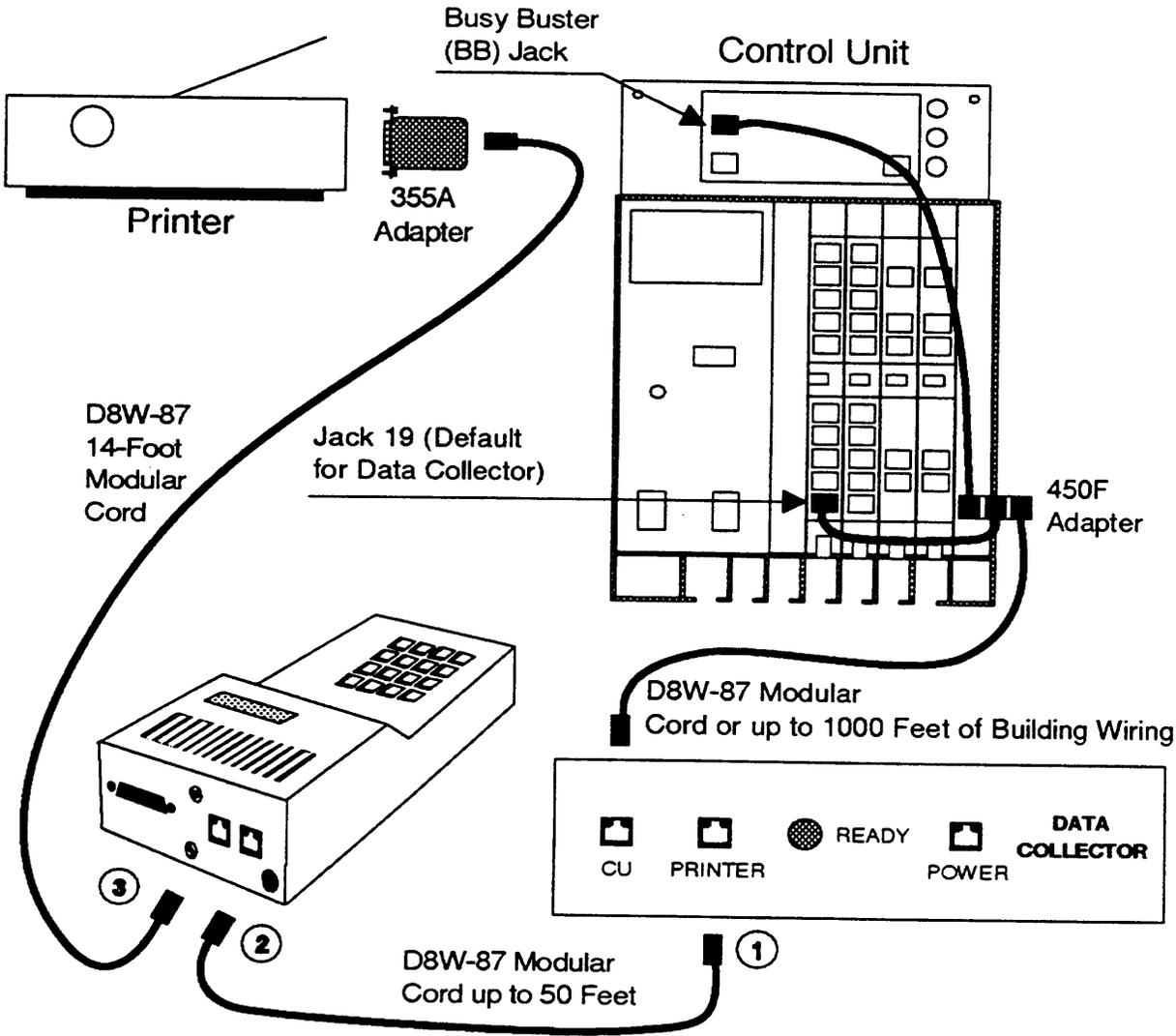
Figure 2-16. Installation With MERLIN PLUS

2. Installation on the Same AC Outlet

Refer to Figure 2-17. To install the CAT, follow these instructions:

1. For MERLIN 1030/3070, MERLIN II, and MERLIN LEGEND, use a
   Z200A EMI filtered cord. For System 25 and SPIRIT 1224/2448, use a
   D8W-87 modular cord. Plug one end of the modular cord into the SMDR
   jack on the Processor Module, in the Jack Field, or in the Station
   Interconnect Panel.

2. Plug the other end of the modular cord into the modular jack labeled
   SMDR on the back of the CAT.

3. Connect another D8W-87 modular cord from the printer to the modular
   jack labeled Printer on the back of the CAT.
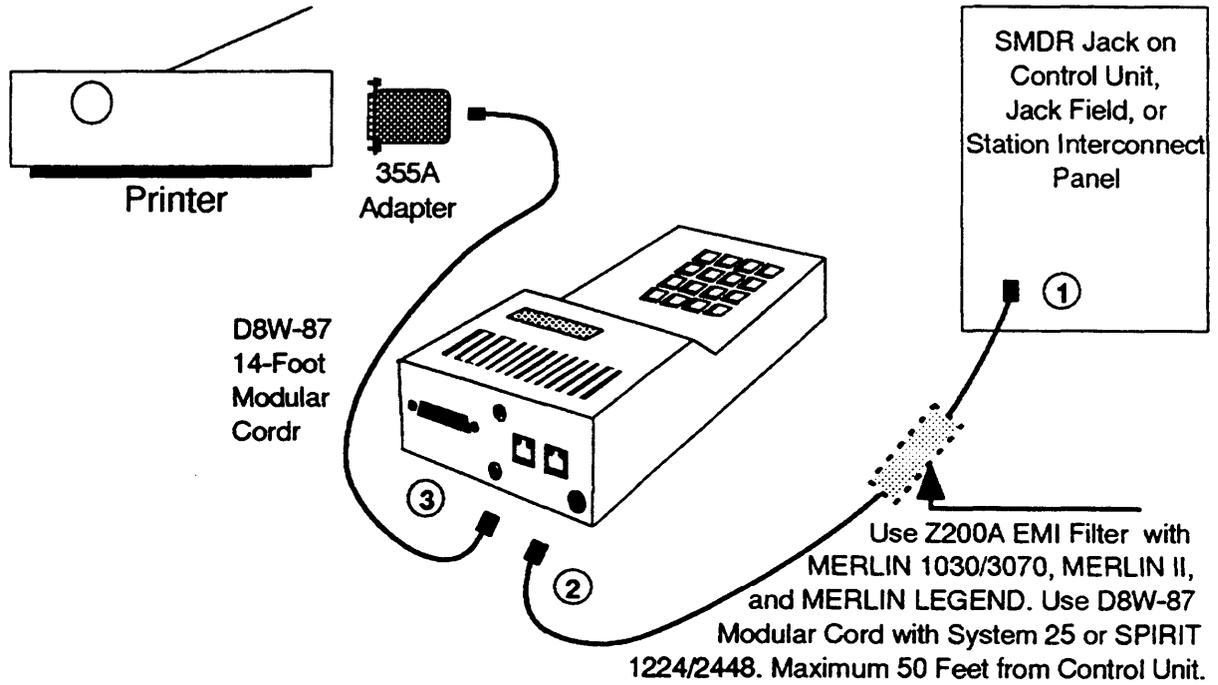
Figure 2-17. Installation on the Same AC Outlet

3. Installation on a Different AC Outlet

For this installation, you need the following items which should have been
ordered at the same time as your CAT:

☐ two 2486 adapters

☐ two 355AF adapters

☐ two 400B2 adapters

☐ three (addtional) D8W-87 modular cords

☐ two D6AP-87 modular cord

☐ one D8AM-87 modular cross over cable

☐ one M7-U87 EIA cross over cable

☐ one Z3A2 Tip Ring Asynchronous Data Unit (ADU)

☐ one Z3A4 ADU

☐ two 2012D power transformers

☐ for MERLIN 1030/3070, MERLIN II, and MERLIN LEGEND only, one
Z200A EMI filtered modular cord

To prepare the wall jack to receive the CAT, follow instruction steps 1 through
13 illustrated in Figure 2-18. To connect the CAT to the wall jack, follow
instructions steps 15 through 25 illustrated in Figure 2-19.

1. Make sure that the building wiring was installed from the Communication System to the location of the CAT. Locate the appropriate wall jack, position in the jack field, or position in the Station Interconnect Panel (SIP) that represents these wires.

2. For MERLIN 1030/3070, MERLIN II, and MERLIN LEGEND, use a Z200A EMI filtered cord. For System 25 and SPIRIT 1224/2448, use a D8W-87 modular cord. Plug one end of the modular cord into the SMDR jack on the Processor Module, in the Jack Field, or in the Station Interconnect Panel.

3. Plug the other end of the modular cord into the modular jack on one of the 355AF adapters.

4. Connect the 355AF to one end of the M7-U87 EIA cross-over cable. Tighten the screws.

5. Plug the other end of the M7-U87 EIA cross-over cable into the matching socket on the Z3A4 ADU. Tighten the screws.

6. Plug one end of a D8W-87 modular cord into the modular jack on the ADU labeled *Wall Jack.*

7. Plug the other end of the D8W-87 modular cord into the modular jack of the D8AM-87 cross-over cable.

8. Plug the other end of the D8AM-87 cross-over cable into the top modular jack of one of the 400B2 adapters.

9. Plug the 400B2 adapter into the wall jack, jack field, or SIP at the position connected to the building wiring leading to your CAT location.

10. Attach the spade lugs of one of the 248B adapters to the two screw terminals of the 2012D power transformer.

11. Plug one end of a D6AP-87 modular cord into the modular jack on the 248B adapter.

12.   Plug the other end of the D6AP-87 modular cord into the lower modular jack of the 400B2 adapter in the SIP.

13.   Plug the 2012D power transformer into a standard ac power outlet.

14.   Take your remaining cables and adapters to the CAT location.
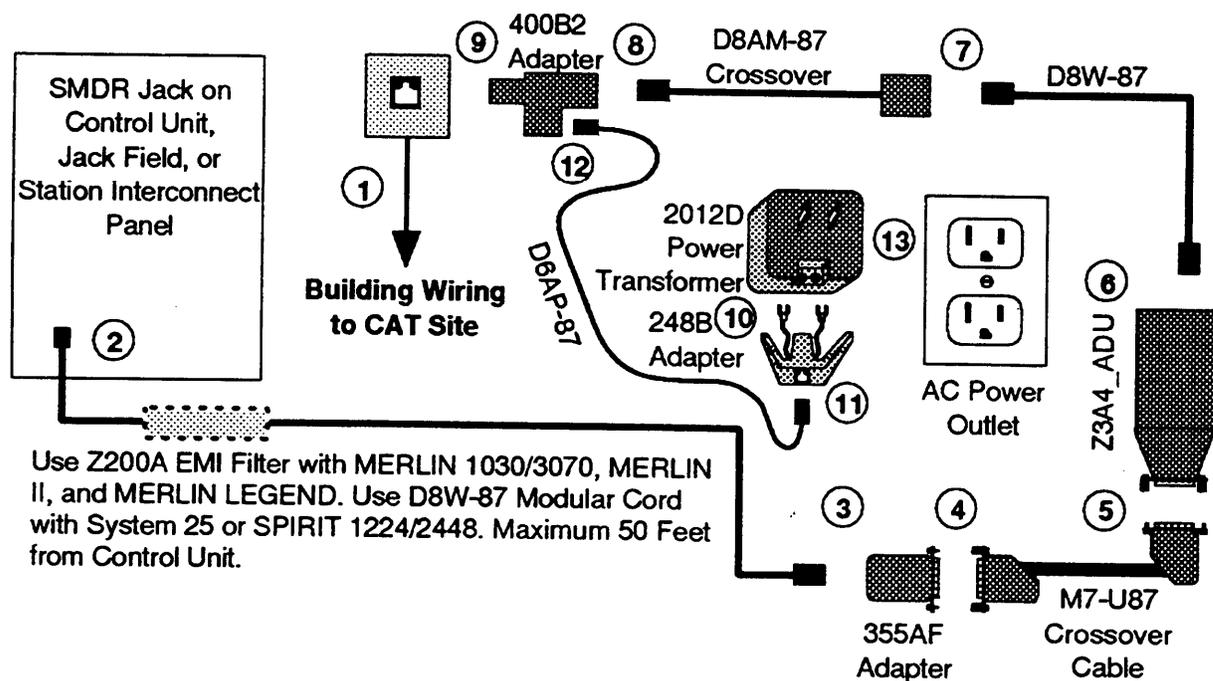
Figure 2-18. Preparing the Wall Jack for Installation
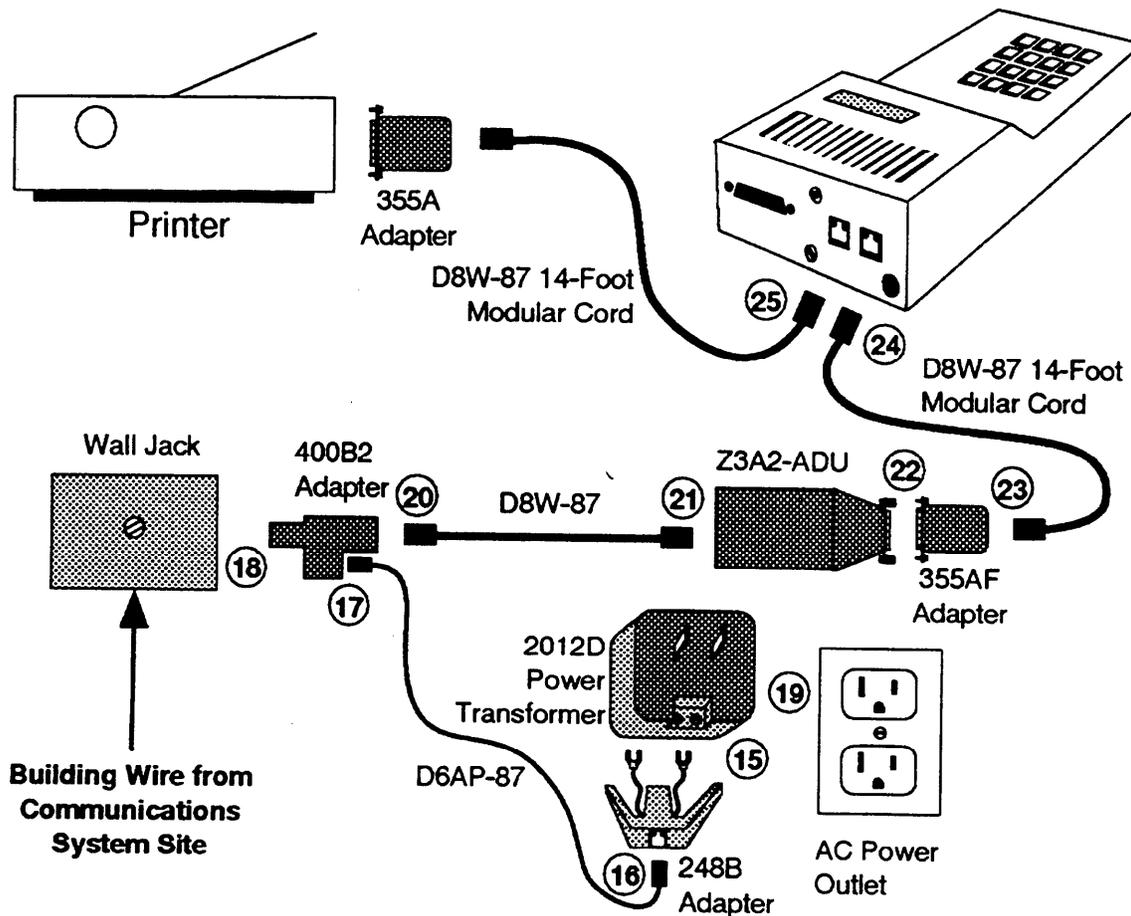
Figure 2-19. Installing the CAT From the Wall Jack

15. Attach the second 248B adapter's spade lugs to the two screw terminals
     on the second 2012D power transformer.

16. Plug one end of the second D6AP-87 modular cord into the modular
     jack on the 248B adapter.

17. Plug the other end of the D6AP-87 modular cord into the modular
     jack on the second 400B2 adapter.

18.   Plug the second 400B2 adapter into the modular wall jack.

19.   Plug the 2012D power transformer into a standard ac power outlet.

20.   Plug one end of the third D8W-87 modular cord into the top modular jack on the 40082 adapter.

21.   Plug the other end of the D8W-87 modular cord into the modular jack on the Z3A2 ADU labeled *Wall Jack.*

22.   Connect the second 355AF adapter to the matching connector on the Z3A2 ADU. Tighten the screws.

23.   Plug one of the D8W-87 modular cords that came with the CAT into the modular jack on the 355AF adapter.

24.   Plug the other end of the D8W-87 modular cord into the modular jack labeled *SMDR* on the back of the CAT.

25.   Connect the D8W-87 modular cord from the printer to the modular jack labeled *Printer* on the back of the CAT.

System Initialization

After the CAT has been installed, follow these steps to initialize the system:

1. Plug the printer line cord into a standard ac power outlet.

2. Turn on the printer. The switch is on the right side.

3. Plug the power module for the CAT into a standard ac power outlet.

4. Check the green LED on the CAT to verify that power is on. If the green LED is not on:

    ■ verify that the ac outlet has power

    ■ verify that the EPROM is properly installed with the notch toward the lever

    If the green LED is still not on, unplug the CAT power module and call for technical assistance.

5. Press the *RESET* switch on the back of the CAT.

    The system responds:

    ┌─────────────────────────────┐
    │ **INITIALIZE SYSTEM Y/N?** │
    └─────────────────────────────┘

If it does not:

- verify that power to the CAT is on

- verify that the printer has been installed properly, is plugged in, is turned on, and is on-line

- wait about two minutes and then if the display shows *PRINTER STALLED*

    — check the printer cables

    — verify that the ribbon is installed properly

    — verify that the paper is loaded and is not jammed

If there is still a problem, call for technical assistance.

6. Press the **[YES]** function key.

The printer should print a line of "I'"s, followed by a line of "*'"s, followed by the Diagnostics shown in Form 2-1.

Form 2-1. CAT Diagnostics

```
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
**************************************************

DIAGNOSTICS DATE        WED 11/14/90 13:36

AT&T CAT PLUS 06/04/91 BUS.6500

MER+01.201217.011908.609215.10331900


  01 PERCENTAGE MARKUP         00
  02 LINE SPACING              00
  03 MIN. DUR. TO PRINT CALL   00
  04 NIGHT DISCOUNT LOCAL      N
  05 PRINT LOCAL CALLS         Y
  06 PRINT CALLS WITHOUT ACCT  Y
  07 PRINT INCOMING CALLS      Y
  08 PRINT REPORTS DAILY       N
  09 SUPPRESS LOCAL CALLS      N
  10 SUPPRESS CALLS W/O ACCT   N
  11 SUPPRESS INC CALLS        N
  12 PRINT ON THE FLY          N
  13 PUT CALL IN ACC REP ONLY  N
  14 NEW PAGE OPTION           N
  15 ZERO COST LOCAL CALLS     Y
  16 SMDR DATA ALARM ON        N
  17 DAY OF WK. TO PRT. REPTS. INV
  18 FREE TIME                 0.0
  19 COST FOR O+ CALLS         0.00
  20 COST FOR 555 CALLS        0.50
  21 COST FOR 800 CALLS        0.00
  22 COST FOR 900 CALLS        0.50
  23 LOCAL SURCHARGE           0.00
  24 LONG DISTANCE SURCHARGE   0.00
  25 COST FOR 411 CALLS        0.00
  26 ACCOUNT CODE LENGTH       1-9
  27 NIGHT DISCOUNT TABLE      00 00 00 00 00 24 00
```

NOTE:
If the row of "I"'s does not appear, repeat steps 5 and 6.

Then the "MAIN MENU" shown in Form 2-2 prints.

Form 2-2. CAT Main Menu

```
AT&T "CAT PLUS" MENU
      CALLS /DATE /TIME    0000 SUN 01/01/90 00:00

1-ALL EXT. + ACCT.
2-ALL EXT.
3-ALL ACCT.
4-ONE EXT.
5-ONE ACCT.
6 -MANAGEMENT  REPORTS
7- SETUP
8-DIAGNOSTICS
```

⟹ **NOTE:**
In the event of a power failure, the internal battery maintains the call information. If the outage is so long that the battery cannot maintain the call information, the system resets as described above when the power comes on. Always verify the date and time following a reset.

Setting the Real Time Clock

After the system initializes, the LCD displays the day, date, and time.

```
SUN  01/01/90  00:00  0000
CALLS . PRESS # FOR MENU!
```

To set real time clock, follow these instructions:

1. The *main menu* has already printed. Press **[7]** for *SETUP.*

```
REAL  TIME  CLOCK  SETUP  ?
ENTER  A  "YES"  OR  "NO"
```

2. Press **[YES]**

```
SUN/01/90  00:00
IS  DATE/TIME  CORRECT  Y/N
```

3. Press **[NO]**

```
ENTER  DAY  OF  WK.  SUN=1
```

4.   Press the button that corresponds to the day of the week:

   [1]   Sunday

   [2]   Monday

   [3]   Tuesday

   [4]   Wednesday

   [5]   Thursday

   [6]   Friday

   [7]   Saturday

```
ENTER DAY OF WK. SUN= 1
ENTER MM DD YY HH MM
```

5.   Enter the month, day, year, hour, and minute using two digits for each.
     After the 10th digit is entered, the system responds with your entry:

   ⇒ **NOTE:**

   You must enter the hour based on a 24 hour clock (military time).
   Use 01 for 1:00 am, 12 for noon, 13 for 1:00 pm, 00 for midnight,
   etc.

```
WED  10/23/91  23:00
IS  DATE/TIME  CORRECT  Y/N
```

6.   If the date and time are correct, press **[YES].** If they are not correct, press
     [NO] and repeat the setup. The system displays the following message:

```
WED  10/23/91  23:00   0000
CALLS . PRESS # FOR MENU!
```

Testing the System

The system is now ready to receive calls. Test the system by following these instructions:

1. Place several calls on different extensions and stay on the line for at least one minute, then hang up. When a call reaches the CAT (after you hang up), the yellow led on the top of the CAT flashes, and the call counter on the LCD display increments.

    If the number of calls on the display remains at zero:

    - Verify that the SMDR option has been administered on your Communications System.

    - Verify that the SMDR communication speed has been set to 1200 baud on the CAT. Switches 1, 2, and 3 should be off. Switch 4 should be on.

    If this does not solve the problem, call for technical assistance.

2. Select the *All Extension Report* from the menu by pressing **[2]**. The system responds:

    ```
    PRINT CALL DETAIL IN RPT
    ENTER A "YES" OR "NO"
    ```

3. Press **[YES].** The system prints the details of the test calls that you made similar to those shown in Form 2-3.

Form 2-3. Test Call Detail Report

```
ALL EXTENSION              REPORT  DATE        WED 11/14/90 03:37

EXTENSION                  0020


  DATE   TIME   EXT    DIALED#      ST DUR COST     FAC
  11/14  09:34 0020 12346565       NJ  024 $002.86  01
  11/14  10:35 0020 15551212       I#  012 $000.50  01


  TOTAL       CALLS DURATION    COST
              000002 00000036 000003.36
```

Running Diagnostics

Occasionally, you may want to run the CAT diagnostic routines to verify that the CAT is operating properly. You can access the diagnostic function from main menu option 8, *DIAGNOSTICS.*

Most of the time, the LCD displays the day, date, time, and number of calls stored, and indicates that you can press **[#]** to print the main menu.

```
SUN  01/01/90  00:00    0000
CALLS . PRESS # FOR MENU!
```

When you press **[#]** , *MAIN MENU* shown in Form *2-4* prints.

Form 2-4. CAT Main Menu

```
AT&T "CAT PLUS" MENU
     CALLS /DATE /TIME    0000 SUN 01/01/90 00:00

1 - ALL EXT. + ACCT.
2 - ALL EXT.
3 - ALL ACCT.
4 - ONE EXT.
5 - ONE ACCT.
6 - MANAGEMENT REPORTS
7 - SETUP
8 - DIAGNOSTICS
```

To start the diagnostic routines, when the main menu has printed, press **[8]** for *DIAGNOSTICS.*

The CAT pauses for about 30 seconds while it runs memory tests. It reports any memory errors by printing the error address as a six-digit number. If there are no memory errors, the CAT prints the diagnostic results and setup values

as shown in Form 2-5. The CAT then returns to the regular display and main
menu prompt.

Form 2-5. CAT Diagnostics

```
DIAGNOSTICS DATE          WED 11/14/90 13:36

AT&T CAT PLUS 06/04/91 BUS. 6500

MER+O1.201217.011908.609215.103190.


  01   PERCENTAGE  MARKUP         00
  02   LINE  SPACING              00
  03   MIN.  DUR.  TO PRINT CALL   00
  04   NIGHT  DISCOUNT  LOCAL     N
  05   PRINT  LOCAL  CALLS        Y
  06   PRINT  CALLS  WITHOUT  ACCT Y
  07   PRINT  INCOMING  CALLS     Y
  08   PRINT  REPORTS  DAILY      N
  09   SUPPRESS  LOCAL  CALLS     N
  10   SUPPRESS  CALLS  W/O  ACCT  N
  11   SUPPRESS  INC  CALLS       N
  12   PRINT  ON  THE  FLY        N
  13   PUT  CALL  IN  ACC  REP  ONLY  N
  14   NEW  PAGE  OPTION          N
  15   ZERO  COST  LOCAL  CALLS   Y
  16   SMDR  DATA  ALARM  ON      N
  17   DAY  OF  WK.  TO  PRT.  REPTS.  I NV
  18   FREE  TIME                 0.0
  19   COST  FOR  O+  CALLS       0.00
  20   COST  FOR  555  CALLS      0.50
  21   COST  FOR  800  CALLS      0.00
  22   COST  FOR  900  CALLS      0.50
  23   LOCAL  SURCHARGE           0.00
  24   LONG  DISTANCE  SURCHARGE  0.00
  25   COST  FOR  411  CALLS      0.00
  26   ACCOUNT  CODE  LENGTH      1-9
  27   NIGHT  DISCOUNT  TABLE     00 00 00 00 00 24 00
```

T e x t

- The first line indicates the date and time that the diagnostics were requested.

- The second line indicates the CAT type and capacity.

- The third line indicates the Communications System type, EPROM creation date, and the values of the four special numbers (area code and exchange).

- The remainder of the report shows the current values of the setup options and parameters.

Setting Options and Parameters

3

There are 27 options and parameters that you can set. The first part of this chapter describes how to enter the setup mode and change any of the parameters. The remainder of the chapter describes each option and parameter in detail to help you choose settings and values that are optimum for your company's needs.

Setup Mode

Most of the time, the LCD displays the day, date, time, and number of calls stored, and indicates that you can press **[#]** to print the main menu.

```
SUN 01/01/90 00:00   0000
CALLS . PRESS # FOR MENU!
```

When you press **[#]** , the *main menu* shown in Form **3-1** prints.

Form 3-1. CAT Main Menu

```
AT&T "CAT PLUS" MENU
     CALLS /DATE /TIME    0000 SUN 01/01/90 00:00

1 - ALL EXT. + ACCT.
2 - ALL EXT.
3 - ALL ACCT.
4 - ONE EXT.
5 - ONE ACCT.
6 - MANAGEMENT REPORTS
7 - SETUP
8 - DIAGNOSTICS
```

To set the options and parameters, follow these instructions:

1.   When the main menu prints, press **[7]** for *SETUP.*

```
REAL TIME CLOCK SETUP ?
ENTER A "YES" OR "NO"
```

2.   Press **[NO]**

```
SETUP SYSTEM PARAMETERS?
ENTER A "YES" OR "NO"
```

3.   Press **[YES]**

The current option settings and parameter values print as shown in
Form 3-2. These options and parameters are explained in detail later in
the chapter.

Form 3-2. Setup Option Settings and Parameter Values

```
01   PERCENTAGE  MARKUP          00
02   LINE  SPACING               00
03   MIN.  DUR.  TO  PRINT  CALL  00
04   NIGHT  DISCOUNT  LOCAL      N
05   PRINT  LOCAL  CALLS         Y
06   PRINT  CALLS  WITHOUT  ACCT  Y
07   PRINT  INCOMING  CALLS      Y
08   PRINT  REPORTS  DAILY       N
09   SUPPRESS  LOCAL  CALLS      N
10   SUPPRESS  CALLS  W/O  ACCT  N
11   SUPPRESS  INC  CALLS        N
12   PRINT  ON  THE  FLY         N
13   PUT  CALL  IN  ACC  REP  ONLY  N
14   NEW  PAGE  OPTION           N
15   ZERO  COST  LOCAL  CALLS    Y
16   SMDR  DATA  ALARM  ON       N
17   DAY  OF  WK.  TO  PRT.  REPTS.  I NV
18   FREE  TIME                  0.0
19   COST  FOR  0+  CALLS        0.00
20   COST  FOR  555  CALLS       0.50
21   COST  FOR  800  CALLS       0.00
22   COST  FOR  900  CALLS       0.50
23   LOCAL  SURCHARGE            0.00
24   LONG  DISTANCE  SURCHARGE   0.00
25   COST  FOR  411  CALLS       0.00
26   ACCOUNT  CODE  LENGTH       1-9
27   NIGHT  DISCOUNT  TABLE      00 00 00 00 00 24 00
```

The LCD display then requests:

```
ENTER  TWO  DIGIT  CODE  FOR
OPTION  OR  #  TO  EXIT
```

4.   To change an option or set a parameter value, enter the two digit
     number corresponding to the option or parameter.

5. Follow the instructions on the display. Typically, they are:

```
              XX
   IS THIS THE OPTION Y/N?
```

```
              XX
   IS THIS VALUE OK Y/N?
```

if no:

```
   ENTER NEW VALUE XX
```

```
              XX
   IS THIS VALUE OK Y/N?
```

if yes:

```
   ENTER TWO DIGIT CODE FOR
   OPTION   OR   # TO EXIT
```

6. When you are finished changing option settings and paremeter values, press **[#]** to return to the main menu.

Options and Parameters

This section discusses each option and parameter.

01 PERCENTAGE MARKUP

This parameter specifies the percentage to mark up the cost tables when pricing calls. To change the value enter in the new percentage. If the value is less than 10 enter a leading zero. For no markup, use 00. The default value is 00%. The value of this parameter interacts with *NIGHT DISCOUNT LOCAL.*

02 LINE SPACING

This parameter controls the number of lines that are skipped between calls printed when *ON THE FLY* call printing is active. If you require spacing between printed calls, enter the two digit value from 01 to 99. The default value of 00 prints calls on consecutive lines with no extra space.

03 MINIMUM DURATION TO PRINT CALLS

This parameter specifies the minimum duration in minutes that a call must have to be printed either in the reports or when *ON THE FLY* call printing is active. Enter the 2-digit value from 00 to 99. The default value of 00 causes all calls to print.

➡ NOTE:

All calls are stored and can be printed later if the duration is reduced. Non-printing calls are included in summary totals.

04 NIGHT DISCOUNT LOCAL

This option controls whether or not local calls are discounted by hour of the day and marked up by the *PERCENTAGE MARKUP* option. The default is no. This option also interacts with *NIGHT DISCOUNT.*

05 PRINT LOCAL CALLS

This option controls whether or not calls having 7 or fewer digits are printed in reports or when *ON THE FLY* call printing is active. The default is yes.

> **NOTE:**
> These calls are stored and can be printed later if the option is reset to yes. Non-printing calls are included in summary totals.

06 PRINT CALLS WITHOUT ACCOUNT NO.

This option controls whether or not calls without account codes are printed in the reports or when *ON THE FLY* call printing is active. The default is yes.

> **NOTE:**
> These calls are stored and can be printed later if the option is reset to yes. Non-printing calls are included in summary totals.

07 PRINT INCOMING CALLS

This option controls whether or not incoming calls are printed in the reports or when *ON THE FLY* call printing is active. The default is yes.

> ➭ **NOTE:**
>
> These calls are stored and can be printed later if the option is reset to yes. Non-printing calls are included in summary totals.

08 PRINT REPORTS DAILY

This option controls whether or not ALL EXTENSION, ALL ACCOUNT, SUMMARY BY HOUR, AND SUMMARY BY FACILITY reports are run on a daily basis. When the reports run, the call records are automatically deleted. The default value is no.

- If there are no calls for the day, no reports are run.

- When you activate this option the CAT runs reports for the calls it has stored up until this time. From then on, reports run every midnight when there is call data in the CAT.

- When the CAT reaches 90% full, it automatically runs the reports and deletes the call records. This option cannot be changed.

09 SUPPRESS LOCAL CALLS

This option controls whether or not local calls are stored. Not storing local calls increases the storage capacity of the CAT. The default is no (do not suppress).

> ➭ **NOTE:**
>
> Suppressing calls causes them not to be stored in the CAT and they cannot be retrieved at a later time.

10 SUPPRESS CALLS W/O ACCT

This option controls whether or not calls without account codes are stored. Use this option when you are only interested in those calls that can be billed back to an account code. The default is no (do not suppress).

> **NOTE:**
> Suppressing calls causes them not to be stored in the CAT and they cannot be retrieved at a later time.

11 SUPPRESS INC CALLS

This option controls whether or not incoming calls are stored. Not storing incoming calls increases the storage capacity of the CAT. The default is no (do not suppress).

> **NOTE:**
> Suppressing calls causes them not to be stored in the CAT and they cannot be retrieved at a later time.

12 PRINT ON THE FLY

This option controls whether or not call records are printed "on the fly," that is, as soon as the call record is received from the Communications System. The default is no. This option interacts with *LINE SPACING, PRINT LOCAL CALLS, PRINT CALLS W/O ACCT, MIN DURATION TO PRINT* and *PRINT INC CALLS.*

13 PUT CALLS IN ACCT REP ONLY

This option controls whether calls with account codes appear in only the account code report (yes), or in both the account code and extension reports (no). The default is no (print both places).

14 NEW PAGE OPTION

This option controls whether or not the report for each extension and account code appears on a separate page. The default is no. If the reports will, be distributed, the option should be specified as yes. When this option is selected a dash is printed on the first line following a top of form command. Use this to determine if the papers is properly aligned.

15 ZERO COST LOCAL CALLS

This option controls whether or not local calls (7 or fewer digits) are free. If you charge for local calls, set this option to no. The default is yes. You may use the *LOCAL CALL SURCHARGE* parameter to apply a fixed cost per call on 7-digit calls, or message units in your cost database to apply a cost per minute.

> ➡ **NOTE:**
> If you have ordered message units with your cost database (in the EPROM) you must set this option to no. If you use *LOCAL CALL SURCHARGE* you must set this option to no.

16 SMDR DATA ALARM ON

This option controls whether the CAT sounds the alarm if there are no calls received for an hour. The default is no. When this option is set to yes, it is only in effect from Monday through Friday from 9 am to 4 pm. (These times cannot be changed)

17 DAY OF WK. TO PRT. REPTS.

This parameter specifies the day of the week that reports are to run. The reports run automatically at midnight on the selected day. The default is not to run on a weekly basis (display shows *INV*). To specify the day of the week enter a digit from 1 for Sunday to 7 for Saturday. If this parameter is not being used, enter zero to turn weekly reporting off (the display shows *INV*).

- ■ When you set this option, the reports may be generated when you exit the setup mode.

- ■ Do not use this option if you are using the *PRINT REPORTS DAILY* option.

When the reports are run, the call records are deleted.

18 FREE TIME

This parameter specifies the time in minutes and tenths that is subtracted from each calls duration to allow for connect and ring. The value of this parameter is controlled by the type of Communications System, the type of telephone company equipment, and the type of business you are in.

The minimum free time is 30 seconds. Table 3-1 shows the relationship between the number you specify and the total free time.

Table 3-1. Free Time Values

Free Time	Entry
30	00 (default)
36	01
42	02
48	03
54	04
60	05
66	06
72	07
78	08
84	09
90	10

19 COST FOR 0+ CALLS

This parameter specifies a flat—rate charge for operator assisted calls such as credit card and 3rd party billing. Up to $9.99 can be charged for each call. The default value is zero (no charge).

20 COST FOR 555 CALLS

This parameter specifies a flat-rate charge for long distance directory assistance calls. Up to $9.99 can be charged for each call. Most telephone companies now charge 50 cents per call which is the default.

21 COST FOR 800 CALLS

This parameter specifies a flat-rate charge for *800* (toll free) calls. Up to $9.99 can be charged for each call. The default value is zero (no charge).

22 COST FOR 900 AND 700 CALLS

This parameter specifies a per-minute charge for 900 and 700 calls. Up to $9.99 can be charged for each minute. The default is 50 cents.

23 LOCAL CALL SURCHARGE

This parameter specifies a flat—rate surcharge on local calls. Up to $9.99 can be charged for each call. The default value is zero (no charge).

24 LONG DISTANCE SURCHARGE

This parameter specifies a flat-rate surcharge on long distance calls. Up to $9.99 can be charged for each call. The default value is zero (no charge).

25 COST FOR 411 CALLS

This parameter specifies a flat-rate charge for local directory assistance calls. The default is zero (no charge). Up to $9.99 can be charged for each call.

26 ACCOUNT CODE LENGTH

This parameter specifies the minimum and maximum length for a valid account code. The first digit is the minimum number of digits and the second digit is the maximum number of digits for the account code. The default is 1-9 (any code from 1 to 9 digits in length).

➡ **NOTE:**

> A call with any number of digits shows up on the extension report but only calls whose account code matches this parameter appear in the account report.

27 NIGHT DISCOUNT

This series of seven parameters specifies the time periods and discount amounts for discounting long distance calls based upon hour of the day. Seven-digit local calls are also discounted if the *NIGHT DISCOUNT LOCAL* option is active. The default is no discount. To specify this parameter, seven values must be entered:

- Percent 1 = percent discount starting at midnight.
- Time 2 = ending hour for first discount.
- Percent 2 = percent discount after hour Time 1.
- Time 2 = ending hour for second discount.
- Percent 3 = percent discount after hour Time 2.
- Time 3 = ending hour for third discount.
- Percent 4 = percent discount after Time 3 until following midnight.

The normal AT&T discount would be as follows:

53	53% discount night rate.
08	ends at 8.00 am.
00	00% discount day rate.
17	ends at 5.00 pm.
38	38% discount evening rate.
23	ends at 11 pm.
53	53% discount night rate until midnight.

Facility Update, Delete, and Print

4

The Facility Table defines the type of facilities that you have and how calls placed using those facilities are priced. Each facility is defined by a 2-digit code as follows:

Table 4-1. Facility Definitions

Facility	Used For	Considerations
01-49	Trunks (lines)	For MERLIN (except MERLIN LEGEND), SPIRIT, and PARTNER Communications Systems, the facility numbers must match the system line numbers. For System 25 and MERLIN LEGEND, the line number is assigned to the facility.
50	Equal Access	Equal Access calls (to other long distance carriers) can be billed at toll rates or at a per minute rate.
51-54	Special Numbers	A Special Number is a specific area code or area code and exchange that is priced at a special rate. You may create facilities for up to four Special Numbers.

The Facility Table also contains the pricing method for each facility. There are two methods for pricing calls:

- Calls may be priced according to the telephone company rates. This type of pricing is based on the rate tables that you received with your CAT. (Rate tables are contained in the EPROM.)

- Calls may be priced by the minute. If you price calls at a per minute rate, you must enter an initial period and cost, as well as a secondary period and cost to be used for pricing. The initial cost is charged for the initial period and the secondary cost is charged for each additional period for the duration of the call.

Selecting Update, Delete, or Print

You can access the facility delete, update, and print functions from main menu option 7, *SETUP.*

Most of the time, the LCD displays the day, date, time, and number of calls stored, and indicates that you can press **[#]** to print the main menu.

```
SUN 01/01/90 00:00   0000
CALLS . PRESS # FOR MENU!
```

When you press **[#]** , the *main menu* shown in Form 4-1 prints.

Form 4-1. CAT Main Menu

```
AT&T " CAT PLUS" MENU
    CALLS /DATE /TIME   0000 SUN 01/01/90 00:00

1 - ALL EXT. + ACCT.
2 - ALL EXT.
3 - All Acct.
4 - ONE EXT.
5 - ONE ACCT.
6 - MANAGEMENT REPORTS
7 - SETUP
8 - DIAGNOSTICS
```

To enter the facility delete, update, and print routines, follow these instructions:

1. When the main menu has printed, press **[7]** for SETUP

```
REAL TIME CLOCK SETUP ?
ENTER A "YES" OR "NO"
```

2.   Press **[NO]**

> SETUP SYSTEM PARAMETERS?
> ENTER A "YES" OR "NO"

3.   Press **[NO]**

> FACILITY DELETE ?
> ENTER A "YES" OR "NO"

4.   To delete the Facility Table, press **[YES]** and follow the instructions on the LCD display. To continue to the next option, press **[NO]**

> FACILITY UPDATE ?
> ENTER A "YES" OR "NO"

5.   To update the Facility Table, press **[YES]** and follow the instructions on the LCD display. To continue to the next option, press **[NO]**

> FACILITY PRINT ?
> ENTER A "YES " OR "NO"

6.   To print the Facility Table, press **[YES]** and follow the instructions on the LCD display. To continue to the next option (not related to Facility Table), press **[NO]**

Deleting the Facility Table

When the system is initialized upon installation, the Facility Table is automatically deleted. The only other time you need to delete the Facility Table is when the setup changes are so drastic that it is easier to delete the table and start over.

To delete the Facility Table, follow these instructions:

1. When you see:

    ```
    FACILITY  DELETE  ?
    ENTER  A  "YES "  OR  "NO"
    ```

    press **[YES].** The CAT asks for verification:

    ```
    ARE  YOU  SURE          Y/N
    ```

2. Press **[YES]**

    The CAT deletes the Facility Table and returns to the main menu prompt.

    ```
    SUN  01/01/90  00:00   0000
    CALLS . PRESS # FOR MENU!
    ```

Printing the Facility Table

You should print the Facility Table before making changes, and also after changes have been made for your records.

To print the Facility Table, follow these instructions.

1. When you see:

```
FACILITY  PRINT  ?
ENTER  A  "YES "  OR  "NO"
```

press **[YES]** The CAT prints a Facility Report similar to that shown in Form **4-2**

Form 4-2. Facility report

```
FAC TRUNK TOL # PRI PRI   SEC SEC
NUM ACCESS PRI A PER COST PER COST
01    01        P  o  1  0.50  1  0.25
02    02        T  o  0  0.00  0  0.00
03    03        T  o  0  0.00  0  0.00
```

> **NOTE:**
> The facility number must match the trunk number in all cases except System 25 and MERLIN LEGEND. For MERLIN LEGEND, the facility

After printing the report, the CAT returns to the main menu prompt.

Updating the Facility Table

The Facility Table or *trunk file* is used to generate usage reporls by trunk and to indicate which trunk was used in placing a call. In the case of the SPIRIT, PARTNER II, and MERLIN systems (except MERLIN LEGEND), the facility defaults to the line number. For example, if placing a call on line 2 the facility will be 02. For System 25 and MERLIN LEGEND systems, you must set up a facility table if you wish to generate trunk usage reports. In all cases, if the switch is behind a centrex, you must set up the facility table to strip off the access digits. The Facility Table is also used for Other Common Carriers (OCCs). Unless your Communications System is one of those requiring the Facility Table, it is recommended that one not be setup until you have had a chance to store several calls, and have become familiar with the CAT.

The Facility Update allows the user to add or delete trunk numbers. Facility numbers must be assigned in sequence, starting with 01 and ending with 49. Facility 50 is resewed for OCC lines or equal access. Facility 51 to 54 are reserved for special numbers and adding, area codes. Each of these sections are explained below. After the update has been completed, print

Adding Trunks

Before you start, obtain a list of the telephone numbers assigned from the company that installed your Communications System.

To enter the facility update routines, follow these instructions:

1.   When the main menu has printed, press **[7]** for *SETUP.*

```
┌─────────────────────────────┐
│ REAL TIME CLOCK SETUP ?      │
│ ENTER A " YES " OR "NO "     │
└─────────────────────────────┘
```

2.   Press **[NO]**

> SETUP SYSTEM PARAMETERS?
> ENTER A "YES" OR "NO"

3.   Press **[NO]**

> FACILITY DELETE ?
> ENTER A "YES" OR "NO"

4.   Press **[NO]**

> FACILITY UPDATE ?
> ENTER A "YES" OR "NO"

5.   Press **[Yes]**

> EXIT FACILITY UPDATE Y/N

6.   Press **[NO]**

> FACILITY NUMBER   x x

7.   For the MERLIN (except MERLIN LEGEND), SPIRIT, or PARTNER II
     Communications Systems, the facility number must be the same as the
     line number (entered next). For the System 25 and MERLIN LEGEND,
     the line numbers will be different from the facility numbers, but it is
     essential that you enter the Facility Table in sequence without any
     skipped facility numbers.

     Enter the 2-digit facility number. Facility numbers for trunks start at 01
     and go to 49.

```
            01
     IS  THIS  VALUE  OK  Y/N?
```

8.   If the facility number is correct, press **[YES].** If the facility number is
     incorrect, press **[NO]** and you will be asked to reenter the facility number.

```
     TRUNK/ACCESS  #  XXXXXX
```

     For MERLIN (except LEGEND), SPIRIT, or PARTNER II
     Communications Systems, enter a 2-digit line number that is exactly the
     same as the facility number followed by the q key. For the MERLIN
     LEGEND, enter the 4-digit line number (with leading zeros) assigned to
     the facility followed by the **[/]** key. For the System 25, enter the 4-digit
     line number assigned to the facility followed by the q key.

```
           1234
     IS  THIS  VALUE  OK  Y/N?
```

     (Only the number of digits entered show on the display.)

9.   If the line number is correct, press **[YES].** If the line number is incorrect, press **[NO]** and you will be asked to reenter the line number.

```
# DIGS IN ACCESS CODE X
```

10.   If your communications system is installed behind a centrex and you must dial an access code of at least 2 digits for an outside line, enter the *number* of digits that must be dialed *less one.* (For example, if you must dial q q for an outside line, that is *1* digit.) If it is not necessary to use an access code, or if the access code is only one digit, enter the digit 0.

```
            0
   IS THIS VALUE OK Y/N?
```

11.   If the number of digits shown is correct, press **[YES].** If the number of digits shown is incorrect, press **[NO]** and you will be asked to reenter the number of digits.

```
   TOLL COSTING       Y/N
```

12.   If you specify **[YES],** all calls placed over this trunk will be priced at the telephone company rates stored in the EPROM with any possible percentage markup and/or surcharges specified in the setup parameters. If you specify **[NO],** additional parameters will be requested for initial period, initial cost, secondary period, and incremental cost. These parameters are discussed in the next section. For purposes of discussion, it is assumed that you press **[YES]** at this time.

```
             Y
   IS  THIS  VALUE  OK  Y/N?
```

13.   If the choice of costing method is correct, press **[YES].** If the choice of costing method is incorrect, press **[NO]** and you will be asked to reenter the choice of costing method.

```
   EXIT FACILITY UPDATE Y/N
```

14.   If you have entered all desired facility information, press **[YES].** If you still have more facilities to enter, press **[NO]** to repeat the facility entry process.

Specifying Rates for a Facility

If you answered **[NO]** to the *TOLL COSTING Y/N* question, calls placed over the trunk will be priced at an initial cost plus an incremental rate. You specify the rates to be used by responding to the next four questions.

1. You have pressed **[NO]** in response to:

```
┌─────────────────────────────────────┐
│                                      │
│  TOLL  COSTING            Y/N        │
│                                      │
└─────────────────────────────────────┘
```

The LCD now displays:

```
┌─────────────────────────────────────┐
│                                      │
│  INITIAL  PERIOD        x            │
│                                      │
└─────────────────────────────────────┘
```

2. Enter the number of minutes in the initial period from 1 minute to 9 minutes.

```
┌─────────────────────────────────────┐
│                x                     │
│  IS  THIS  VALUE  OK  Y/N?           │
│                                      │
└─────────────────────────────────────┘
```

3.   If the number of minutes in the initial period is correct, press **[YES].** If the number of minutes in the initial period is incorrect, press **[NO]** and you will be asked to reenter the number of minutes in the initial period.

```
INITIAL  COST          x x x
```

Enter the cost for the initial period in dollars and cents with leading zeros but without a decimal point. The cost can range from 000 (none) to 999 ($9.99).

```
              x . x x
       IS  THIS  VALUE  OK  Y/N?
```

4.   If the cost for the initial period is correct, press **[YES].** IF the cost for the initial period is incorrect, press **[NO]** and you will be asked to reenter the cost for the initial period.

```
SECONDARY  PERIOD  X
```

5.   Enter the number of minutes in the secondary (incremental) period from 1 minute to 9 minutes.

```
              x
       IS  THIS  VALUE  OK  Y/N?
```

6.   If the number of minutes in the secondary period is correct, press **[YES].** If the number of minutes in the secondary period is incorrect, press **[NO]** and you will be asked to reenter the number of minutes in the secondary period.

        SECONDARY COST   x x x

        Enter the cost for the secondary (incremental) period in dollars and cents with leading zeros but without a decimal point. The cost can range from 000 (none) to 999 ($9.99).

                    X x x
            IS THIS VALUE OK Y/N?

7.   If the cost for the secondary period is correct, press **[YES].** If the cost for the secondary period is incorrect, press **[NO]** and you will be asked to reenter the cost for the secondary period.

        EXIT FACILITY UPDATE Y/N

8.   If you have entered all desired facility information, press **[YES].** If you still have more facilities to enter, press **[NO]** to repeat the facility entry process.

Other Common Carriers (OCCs) and Equal Access

Facility number 50 is used for Other Common Carriers (OOCs) and for Equal Access.

Table 4-2. Other Common Carriers and Equal Access

Type	Comments
OCC	An OCC is a second (or additional) long distance carrier. An OCC is usually accessed by dialing a local number of the form 950-XXXX. An authorization code (or password) is then required before the facility can be used.
	If you have a single OCC, enter the local OCC number and the number of digits in the authorization code.
	If you have multiple OCCs, you must have the same number of digits in all of the authorization codes. Enter zeros for the local OCC number and the number of digits in the authorization code.

Type	Comments
Equal Access	Equal access allows any long distance carrier to be used by dialing **[1] [0] [x] [x] [x]** where XXX is the carrier's equal access code. (For example, AT&T's code is **[1] [0] [A] [T] [T]** or 10288.)
	For equal access, specify the local OCC number as zeros and specify zero digits in the authorization code.

Setting Up an OCC or Equal Access

To set up for one or multiple OCCs, or for equal access, update the Facility Table and enter *50* as the facility number. The LCD display shows

```
LOCAL OCC NUMBER XXXXXXX
```

Then follow these instructions:

1. If you have a single OCC, enter the local OCC number. If you have multiple OCCs, or if you want equal access, enter seven zeros.

```
          xxxxxxx
IS THIS VALUE OK Y/N?
```

2. If the local OCC number is correct, press **[YES].** If the l ocal OCC number is incorrect, press **[NO]** and you will be asked to reenter the local OCC number.

```
 # DIGITS  IN  AUTH . CODE  X
```

3. Enter the number of digits in the authorization code. If you have multiple OCCs, all must have the same number of digits in their authorization codes. For equal access, enter zero for the number of digits.

```
               x
   IS  THIS  VALUE  OK  Y/N?
```

4. If the number of digits in the authorization code is correct, press **[YES].** If the number of digits in the authorization code is incorrect, press **[NO]** and you will be asked to reenter the number of digits in the authorization code.

```
   TOLL  COSTING         Y/N
```

5. Now proceed as you would for a normal facility by specifying standard or special rates.

Special Numbers

The CAT has the ability to use special charging for four groups of special numbers using facilities 51 through 54. These facilities may be used for calls to specific area codes or calls to specific area codes and exchanges.

To set up special numbers, update the Facility Table and enter *51, 52, 53,* or *54* as the facility number. The LCD display shows:

```
SPECIAL  NUMBER        x x x x x
```

Then follow these instructions:

1. If you want to use an area code for a special number, enter the area code and press the **[/]** key.

    If you want to use both an area code and an exchange for a special number, enter the area code and the exchange **(6** digits). It is not necessary to use the **[/]** key in this case.

```
            x x x x x x
    IS  THIS  VALUE  OK  Y/N?
```

2.   If the special number is correct, press **[YES]** If the special number is incorrect, press **[NO]** and you will be asked to reenter the special number.

```
┌─────────────────────────────┐
│  INITIAL  PERIOD     Y/N     │
└─────────────────────────────┘
```

3.   Now proceed as you would for a normal facility by specifying special rates.

Standard Reports

5

The CAT reports can be activated in four ways:

- on-request
- automatically on a daily basis
- automatically on a weekly basis
- automatically when CAT reaches 90% of memory capacity (5750 calls)

Automatic reporting generates a fixed series of reports including two management reports (discussed in the next chapter) and four standard reports The automatic reports are:

- Summary by Hour — a management report
- Summary by Facility — a management report
- All Extension Detail — a standard report
- Summary by Extension — a variation of the above report
- All Account Detail — a standard report
- Summary by Account — a variation of the above report

There is no way of altering this list of reports. Following an automatic report, the CAT deletes all call records that were used to generate the reports. Calls that were received by the CAT while it was printing reports, are not included on the report, but are saved for the next report.

> **NOTE:**
> The 90% capacity automatic report overrides all options. It is intended for your protection so that no data is lost. The CAT beeps its alarm for each call received after 85% (5525) calls to notify you that an automatic report and data deletion will occur soon.

The number of calls is very handy in determining when to run on-request reports. Standard reports can be run at any time by entering the report number through the keypad whenever the main menu is displayed.

Running Standard Reports

Most of the time, the LCD displays the day, date, time, and number of calls stored, and indicates that you can press **[#]** to print the main menu.

```
SUN  01/01/90  00:00    0000
CALLS . PRESS # FOR  MENU!
```

When you press **[#],** the *main menu* shown in Form 5-1 prints.

Form 5-1. CAT Main Menu

```
AT&T "CAT PLUS" MENU
    CALLS /DATE /TIME   0000 SUN 01/01/90 00:00

l - ALL EXT. + ACCT.
2 - ALL EXT.
3 - ALL. ACCT.
4 - ONE EXT.
5 - ONE ACCT.
6 - MANAGEMENT REPORTS
7 - SETUP
8 - Diagnostics
```

To select the standard reports, press **[1], [2] , [3] , [4],** or **[5]** depending on the report to be selected.

Special Codes

The state (ST) field normally contains the state or Canadian province abbreviation for the area code called. There are a number of other possibilities which are shown in Table E-1.

Table E-1. Special Codes in the State Field

Code	Stands For	Means
TF	Toll Free	800 call
SP	Special Purpose	900 or 700 call
IS	Islands	809 calls (Virgin Is/Puerto Rico)
OV	Overseas	011 calls
OP	Operator Assisted	0+ calls
I#	Information	555-1212 or 411 calls
FD	Forward Disconnect	PABX or key system function

Equal Access

The dialed number (DIALED#) field may contain an "=" at the front of the number shown. The "=" indicates that an equal access code was dialed (for example, 10288 for AT&T) to access a long distance carrier.

1 ALL EXT. + ACCT.

This selection generates both the *All Extensions Report* and the *All Accounts Report.* The first is a report by extension with the calls sorted in chronological order. The second is a report by account code with the calls sorted in chronological order.

To select these reports, follow these instructions:

1.   Press **[1]** at the main menu.

```
PRINT CALL DETAIL IN RPT
ENTER A "YES " OR "NO"
```

2.   For all call detail, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 5-2. All Extensions and Accounts Report

```
ALL EXTENSION & ACCOUNT REPORT DATE        WED 11/14/90 03:36


ALL EXTENSION              REPORT  DATE              WED 11/14/90  13:36


EXTENSION                  0020

  DATE    TIME    EXT    DIALED#      ST  DUR  COST       ACCOUNT  FAC
  11/14  09:34  0020  12346565      NJ  024  $002.86   234         01
  11/14  10:35  0020  15551212      I#  012  $000.50               01
  11/14  12:10  0020  04561000      OP  070  $000.00   456         02
  11/14  09:35  0020  2346565       NJ  024  $000.00   234         01

   TOTAL       CALLS DURATION     COST
             000004 00000130  000003.36



ALL  ACCOUNT               REPORT DATE          WED 11/14/90 13:36


ACCOUNT                    567

  DATE    TIME    EXT    DIALED#      ST  DUR  COST       ACCOUNT  FAC
  11/14  10:22  0022  =6178901212 MA  005  $001.15  567         50
  11/14  10:22  0022  17008901212 SP  005  $002.50  567         02

   TOTAL       CALLS DURATION     COST
             000002 00000010  000003.65
```

Following the report the LCD display shows:

```
DELETE  ALL  CALLS  IN  CAT
ENTER  A  "YES"  OR  "NO"
```

3. Press **[YES]** if you are finished with the data. Press **[NO]** if you still need the data for additional reports. If you press **[YES],** the LCD display shows:

```
ARE YOU SURE         Y/N
ENTER A "YES" OR "NO"
```

4. Press **[YES]** to delete the call records.

2 ALL EXT.

This selection generates a report listing all extensions that placed calls during the reporting period. The extension reports are printed in numeric order, with the calls in each extension sorted in chronological order. At the end of the report a total lines are printed listing the number of calls, the total duration in minutes, and the total cost. The call detail can be eliminated so that only the totals print.

To select this report, follow these instructions:

1. Press **[2]** at the main menu.

    ```
    PRINT CALL DETAIL IN RPT
    ENTER A "YES " OR "NO "
    ```

2. For all call detail, press **[YES].** For summary totals only, press **[NO]**. The CAT prints:

Form 5-3. All Extensions Report

```
ALL  EXTENSION            REPORT   DATE          WED 11/14/90 13:36


EXTENSION                    0020

  DATE    TIME    EXT    DIALED#      ST  DUR COST        ACCOUNT    FAC
  11/14   09:34   0020  12346565      NJ  024 $002.86 234            01
  11/14   10:35  0020  15551212       I#  012 $000.50               01
  11/14   12:10  0020  04561000       OP  070 $000.00   456          02
  11/14   09:35  0020  2346565        NJ  024 $000.00 234            01

   TOTAL      CALLS  DURATION    COST
              000004  00000130  000003.36
```

Following the report the LCD display shows:

```
DELETE  ALL  CALLS  IN  CAT
ENTER  A  "YES  "  OR  "NO"
```

3. Press **[YES]** if you are finished with the data. Press **[NO]** if you still need the data for additional reports. If you press **[YES],** the LCD display shows:

```
ARE  YOU  SURE         Y/N
ENTER  A  "  YES  "  OR  "NO  "
```

4. Press **[YES]** to delete the call records.

3 ALL ACCT.

This selection generates a report listing all account codes that have calls during the reporting period. The account code reports are in printed in numeric order, with the calls in each account code sorted in chronological order. At the end of the report a total lines are printed listing the number of calls, the total duration in minutes, and the total cost. The call detail can be eliminated so that only the totals print.

To select this report, follow these instructions:

1.   Press **[3]** at the main menu.

```
PRINT CALL DETAIL IN RPT
ENTER A "YES " OR "NO"
```

2.   For all call detail, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 5-4. All Account Report

```
ALL ACCOUNT                 REPORT DATE          WED 11/14/90 13:36


ACCOUNT                   567

  DATE    TIME    EXT    DIALED#       ST  DUR  COST       ACCOUNT  FAC
  11/14   10:22   0022  =6178901212   MA  005  $001.15  567           50
  11/14   10:22   0022   17008901212  SP  005  $002.50  567           02

  TOTAL      CALLS  DURATION     COST
             000002  00000010  000003.65
```

Following the report the LCD display shows:

```
DELETE  ALL  CALLS  IN  CAT
ENTER  A  "YES"  OR  "NO"
```

3.   Press **[YES]** if you are finished with the data. Press **[NO]** if you still need the
      data for additional reports. If you press **[YES],** the LCD display shows:

```
ARE  YOU  SURE          Y/N
ENTER  A  "YES"  OR  "NO"
```

4.   Press **[YES]** to delete the call records.

4 ONE EXT.

This selection generates a report for one extension. The CAT prompts you for the extension number and ask you whether or not you want detail information or summary data.

To select this report, follow these instructions:

1. Press **[4]** at the main menu.

```
PRINT CALL DETAIL IN RPT
ENTER A "YES " OR "NO"
```

2. For all call detail, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 5-5. One Extension Report Heading

```
ONE  EXTENSION          REPORT DATE        WED 11/14/90 13:37
```

and the LCD display shows:

```
ENTER  EXTENSION  XXXX
```

3. Enter up to four digits to specify the extension to be reported. If the extension number has less then four digits, enter the digits and then press the **[/]** key. The CAT verifies your entry and prints the selected report or prints NOT FOUND if there are no calls for that extension.

Form 5-6. One Extension Report Detail

```
EXTENSION                     0020

  DATE    TIME    EXT    DIALED#       ST   DUR   COST              FAC
                                                         ACCOUNT
  11/14   09:34  0020  12346565       NJ   024  $002.86  234
                                                                    01
  11/14   10:35  0020  15551212       I#   012  $000.50
                                                                    01
  11/14   12:10  0020  04561000       OP   070  $000.00  456
                                                                    02
  11/14   09:35  0020   2346565       NJ   024  $000.00  234
                                                                    01

  TOTAL         CALLS  DURATION     COST
               000004  00000130  000003.36
```

> **NOTE:**
> The CAT does not allow you to delete call records after a single
> extension report.

5 ONE ACCT

This selection generates a report for one account code. The CAT prompts you for the account code and ask you whether or not you want detail information or summary data.

To select this report,

1.   Press **[5]** at the main menu.

```
PRINT CALL DETAIL IN RPT
ENTER A "YES" OR "NO"
```

2.   For all call detail, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 5-7. One Account Report Header

```
ONE ACCOUNT              REPORT DATE        WED 11/14/90 14:19
```

and the LCD display shows:

```
ENTER ACCT NO XXXXXXXXX
```

3.   Enter up to nine digits to specify the account code to be reported. If the account code has less then nine digits, enter the digits and then press the q key. The CAT verifies your entry and prints the selected report or prints NOT FOUND if there are no calls for that account code.

Form 5-8. One Account Report Detail

```
ACCOUNT                    234

  DATE    TIME    EXT    DIALED#      ST  DUR   COST     ACCOUNT    FAC
  11/14  09:34  0020  12346565       NJ  024  $002.86   234          01
  11/14  09:35  0020   2346565       NJ  024  $000.00   234          01

  TOTAL        CALLS  DURATION     COST
              000002 00000048  000002.86
```

 NOTE:
The CAT does not allow you to delete call records after a single
account code report.

Management Reports

6

Use the Management Reports to analyze or study the calling patterns or habits of your company. The Management Reports analyze those calls currently stored in the system — we recommended that you wait until you have a good sampling of calls to analyze.

Running Management Reports

Most of the time, the LCD displays the day, date, time, and number of calls stored, and indicates that you can press **[#]** to print the main menu.

```
SUN  01/01/90  00:00    0000
CALLS.  PRESS  #  FOR  MENU!
```

When you press **[#]** , the *main menu* shown in Form 6-1 prints.

Form 6-1. CAT Main Menu

```
AT&T "CAT PLUS" MENU
    CALLS /DATE /TIME   0000 SUN 01/01/90 00:00

l-ALL EXT. + ACCT.
2-ALL EXT.
3-ALL ACCT.
4-ONE EXT.
5-ONE ACCT.
6-MANAGEMENT REPORTS
7- SETUP
8-Diagnostics
```

To select the management reports, press **[6]** . The LCD display shows:

```
6 - MANAGEMENT REPORTS
```

and the CAT prints the *Management Reports* submenu shown in Form 6-2.

Form 6-2. Management Reports Submenu

```
MANAGEMENT REPORTS


l - TIME OF DAY
2 - COST > XX.XX
3 - DURATION > xxx
4 - FACILITY
5 - ALL LOCAL CALLS
6 - ALL INCOMING CALLS
7 - 1 OR 0 + 7 DIGIT CALLS
8 - EXCHANGE SEARCH
9 - AREA CODE SEARCH
PRESS "#" TO EXIT
```

Press the selection number on the keypad to select each report. Press **[#]** to return to the main menu.

1 TIME OF DAY

This selection generates either a 24-hour summary matrix or a summary or detail report for a single hour.

To select this report, follow these instructions:

1. Press **[1]** at the *Management Reports* submenu. The CAT prints:

Form 6-3. Time-of-Day Report Heading

```
HOURLY    USAGE              REPORT DATE       WED 11/14/90 13:42
```

and the display shows:

```
PRINT  CALL  DETAIL  IN  RPT
ENTER A "YES " OR "NO"
```

2. For all call detail single hour report, press **[YES].** For summary totals only in the single hour report, press **[NO].** This choice does not affect the 24-Hour Summary report.

```
24  HOUR  SUMMARY  Y/N
```

3. If you want the 24-Hour Summary report, press **[YES].** If you want the single hour report, press **[NO].** If you press **[YES]** for the 24- hour Summary report, the CAT prints:

Form 6-4. Summary by Hour Report

```
      SUMMARY  BY  HOUR

HOUR      CALLS     DURATION     COST
 00       0001       000001     0000.54
  .         .           .
  .         .           .          .

 07       0006       000122     0058.99

 23       0000       000000     0000.00
```

and the CAT returns to the Management Reports submenu.

4.   If you press **[NO]** for the single hour report, the LCD display shows:

```
ENTER  START  HOUR  XX
```

5.   Enter two digits to specify the hour to be reported. Use military time
      from 00 to 23 to specify the hour. The CAT prints:

Form 6-5. Hourly Usage Report

```
HOURLY  USAGE  FOR      15

  DATE    TIME    EXT    DIALED#        ST   DUR   COST        ACCOUNT   FAC
  11/14   15:14   0023   411            I#   006   $000.50               03
  11/14   15:22   0023   IN                  010   $000.00  1            21
  11/14   15:39   0023   06178902000    OP   007   $000.00               03
  11/14   15:44   0023   16479190       NJ   006   $002.37               03

   TOTAL      CALLS  DURATION     COST
              000004 00000029 000002.87
```

After the report has printed, the CAT returns to the Management
Reports submenu.

2 COST > XX.XX

This selection generates a summary or detailed report for all calls costing more than a specified amount.

To select this report, follow these instructions:

1.   Press **[2]** at the *Management Reports* submenu.

```
PRINT  CALL  DETAIL  IN  RPT
ENTER  A  "YES"  OR  "NO"
```

2.   For all call detail in the report, press **[YES].** For summary totals only press **[NO].**

```
ENTER  MIN.  COST  XX. XX
```

3.   Enter the minimum call cost for selection with leading zeros and without a decimal point. The CAT prints:

Form 6-6. Call Cost Report

```
CALL COSTING OVER $     01.00          REPORT  DATE          WED 11/14/90 13:42

  DATE    TIME   EXT    DIALED#      ST  DUR  COST      ACCOUNT   FAC

  11/14   09:34  0020  12346565           024  $002.86   234        01
  11/14   10:22  0022  =6178901212  NJ  005  $001.15   567        50
  11/14   01:10  0220  19003456000  SP   002  $001.00              23
  11/14   09:31  0220  17003456000  SP   002  $001.00              23
  11/14   10:22  0022  17008901212  SP  005  $002.50   567        02

   TOTAL     CALLS  DURATION     COST
             000005  00000038  000008.51
```

After the report has printed, the CAT returns to the *Management Reports* submenu.

3 DURATION > XXX

This selectiongenerates a summary or detailed report for all calls lasting longer than a specified duration.

To select this report, follow these instructions:

1. Press **[3]** at the *Management Reports* submenu.

    ```
    PRINT  CALL  DETAIL  IN  RPT
    ENTER  A  "YES"  OR  "NO"
    ```

2. For all call detail in the report, press **[YES].** For summary totals only, press **[NO].**

    ```
    ENTER  MIN.  DURATION  XXX
    ```

3. Enter the minimum call duration in minutes for selection with leading zeros. The CAT prints:

Form 6-7. Call Duration Report

```
CALL LASTING OVER MIN.   010     REPORT  DATE            WED 11/14/90 13:42

  DATE    TIME    EXT    DIALED#        ST  DUR  COST        ACCOUNT  FAC

  11/14   09:34  0020  12346565        NJ  024  $002.86  234          01
  11/14   21:22  0023  IN                  010  $000.00  1            21
  11/14   10:35  0020  15551212        I#  012  $000.50               01
  11/14   12:10  0020  04561000        OP  070  $000.00  456          02
  11/14   09:35  0020  2346565         NJ  024  $000.00  234          01

   TOTAL       CALLS  DURATION    COST
             000005  00000140  000003.36
```

Duration is shown in minutes.

After the report has printed, the CAT returns to the *Management Reports* submenu.

4 FACILITY.

This selection generates either a summary report for all facilities or trunks, or a summary or detail report for a single facility or trunk.

To select this report, follow these instructions:

1. Press **[4]** at the *Management Reports* submenu. The CAT prints:

Form 6-8. Facility Report Heading

```
FACILITY                  REPORT DATE        WED 11/14/90 13:42
```

and the LCD shows:

```
PRINT CALL DETAIL IN RPT
ENTER A "YES " OR "NO "
```

2. For all call detail in the single facility report, press **[YES].** For summary totals only in the single facility report, press **[NO].** This choice does not affect the All Facility Summary report.

```
PRINT ALL FAC . SUMMARY
```

3. If you want the All Facility Summary report, press [**YES**]. If you want the single facility report, press **[NO].** lf you press **[YES]** for the All facility Summary report, the CAT prints:

Form 6-9. Summary by Facility Report

```
 SUMMARY BY FACILITY

 FACIL  CALLS    DURATION  COST

  01     0003      000060  0003.36
  02     0002      000075  0002.50
  03     0003      000019  0000.00
  11     0002      000002  0000.17
  21     0001      000010  0000.00
  23     0003      000012  0001.50
  50     0001      000005  0001.15
```

and the CAT returns to the *Management Reporls* submenu.

4. If you press **[NO]** for the single facility report, the LCD display shows:

```
 ENTER FAC. NUMBER XX
```

5. Enter two digits to specify the facility to be reported. Use a leading zero if necessary. The CAT prints:

Form 6-10. Selected Facility Report

```
 SELECTED FACILITY 50

  DATE    TIME    EXT    DIALED#      ST   DUR  COST      ACCOUNT   FAC
  11/14   09:34  0020   12346565     NJ   024  $002.86 234           50
  11/14   10:35  0020   15551212     I#   012  $000.50               50
  11/14   09:35  0020   2346565      NJ   024  $000.00 234           50

   TOTAL       CALLS  DURATION    COST
               000003 00000060  000003.36
```

After the report has printed, the CAT returns to the *Management Reports* submenu.

5 ALL LOCAL CALLS

This selection generates a summary or detailed report for all calls having seven or fewer dialed digits. This includes calls to directory assistance and incoming calls if they were stored by the CAT. '

To select this report, follow these instructions:

1. Press **[5]** at the *Management Reports* submenu.

```
PRINT CALL DETAIL IN RPT
ENTER A "YES" OR "NO"
```

2. For all call detail in the report, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 6-11. All Local Calls Report

```
ALL LOCAL CALLS          REPORT DATE          WED 11/14/90 13:42

 DATE    TIME    EXT    DIALED#      ST  DUR  COST       ACCOUNT    FAC
 11/14   14:34   0023   411          I#  006  $000.00                03
 11/14   08:13   2200   6334466      NJ  001  $000.00    123456789  11
 11/14   09:35   0020   2346565      NJ  024  $000.00    234         01
 11/14   14:34   0023   6479190      NJ  006  $000.00                03

  TOTAL       CALLS DURATION     COST
           000004 00000037  000000.00
```

After the report has printed, the CAT returns to the *Management Reports* submenu.

6 ALL INCOMING CALLS

This selection generates a summary or detailed report for all incoming calls.

To select this report, follow these instructions:

1. Press **[6]** at the *Management Reports* submenu.

```
PRINT CALL DETAIL IN RPT
ENTER A " YES " OR "NO "
```

2. For all call detail in the report, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 6-12. All Incoming Calls Report

```
ALL INCOMING CALLS     REPORT DATE        WED 11/14/90   13:43

 DATE   TIME   EXT    DIALED#      ST  DUR  COST      ACCOUNT    FAC
 11/14  21:22  0023   IN                010  $000.00 1              21

  TOTAL      CALLS DURATION     COST
             000001 00000010  000000.00
```

After the report has printed, the CAT returns to the *Management Reports* submenu.

7 1+ OR 0+ 7-DIGIT CALLS

This selection generates a summary or detailed report for all calls that are not local, but are still within your area code.

To select this report, follow these instructions:

1. Press **[7]** at the *Management Reports* submenu.

```
PRINT CALL DETAIL IN RPT
ENTER A "YES" OR "NO"
```

2. For all call detail in the report, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 6-13. 1+ or 0+ 7-Digit Calls Report

```
1 OR 0 + 7 DIGIT CALLS   REPORT   DATE          WED 11/14/90 13:43

   DATE    TIME    EXT    DIALED#     ST   DUR  COST      ACCOUNT FAC
   11/14   09:34  0020  12346565      NJ   024  $002.86  234          01
   11/14   10:35  0020  15551212      I#   012  $000.50               01
   11/14   12:10  0020  04561000      OP   070  $000.00  456          02

   TOTAL        CALLS DURATION    COST
                000003 00000106  000003.36
```

After the report has printed, the CAT returns to the *Management Reports* submenu.

8 EXCHANGE SEARCH

This selection generates a summary or detailed report for all calls that were made to a specified exchange within your area code. It can also be used for local directory assistance calls (411). It can not be used for in exchange in an area code other than the home area code.

To select this report, follow these instructions:

1. Press **[8]** at the Management Reports submenu.

    ```
    PRINT  CALL  DETAIL  IN  RPT
    ENTER  A  "YES"    OR  "NO"
    ```

2. For all call detail in the report, press **[YES]** For summary totals only, press **[NO].** The CAT prints:

Form 6-14. Exchange Search Report Heading

```
EXCHANGE  SEARCH          REPORT DATE          WED 11/14/90 13:42
```

and LCD display shows:

```
ENTER  EXCHANGE  XXX
```

3. Enter three digits to specify the exchange to be reported. The CAT prints:

Form 6-15. Exchange Search Report Detail

```
SELECTED  EXCHANGE     647

  DATE    TIME    EXT    DIALED#       ST  DUR  COST       ACCOUNT    FAC
  11/14   14:34  0023  6479190        NJ   006  $000.00                  03

   TOTAL       CALLS  DURATION    COST
              000001 00000006 000000.00
```

After the report has printed, the CAT returns to the Management *Reports* submenu.

9 AREA CODE SEARCH

This selection generates a summary or detailed report for all calls that were made to a specified area code. There is no way to specify an exchange within that area code.

To select this report, follow these instructions:

1. Press **[9]** at the Management Reports submenu.

```
PRINT CALL DETAIL IN RPT
ENTER A " YES " OR "NO "
```

2. For all call detail in the report, press **[YES].** For summary totals only, press **[NO].** The CAT prints:

Form 6-16. Area Code Report Heading

```
AREA CODE SEARCH      REPORT DATE        WED 11/14/90 13:42
```

and LCD display shows:

```
ENTER AREA CODE XXX
```

3. Enter three digits to specify the area code to be reported. The CAT prints:

Form 6-17. Area Code Report Detail

```
SELECTED AREA CODE 617

  DATE    TIME   EXT    DIALED#       ST  DUR  COST      ACCOUNT   FAC
  11/14   08:13  2200  16176334466   MA  001  $000.17   123456789  11

  TOTAL       CALLS  DURATION    COST
            000001  00000001  000000.17
```

After the report has printed, the CAT returns to the *Management Reports* submenu.

Appendix A: Option and Parameter Default Values

A

Table A-1. CAT PLUS for Business Default Values

#	Parameter Name	Default Value
01	Percentage Markup	00
02	Line Spacing	00
03	Minimum Duration to Print Calls	00
04	Night Discount Local	N
05	Print Local Calls	Y
06	Print Calls Without Account Numbers	Y
07	Print Incoming Calls	Y
08	Print Reports Daily	N
09	Suppress Local Calls	N

#	Parameter Name	Default Value
10	Suppress Calls Without Account Numbers	N
11	Suppress Incoming Calls	N
12	Print on the Fly	N
13	Put Calls in Account Report Only	N
14	New Page Option	Y
15	Zero Cost Local Calls	Y
16	SMDR Data Alarm ON	N
17	Day of Week to Print Reports	INV
18	Free Time	0.0
19	Cost for 0 + Calls	0.00
20	Cost for 555 Calls	0.50
21	Cost for 800 Calls	0.00
22	Cost for 900 & 700 Calls (per rein)	0.50
23	Local Surcharge	0.00
24	Long Distance Surcharge	0.00
25	Cost for 411 Calls	0.00
26	Account Code Length	1 - 9
27	Night Discount	00 00 00 00 00 24 00

Appendix B: CAT PLUS Switch Settings
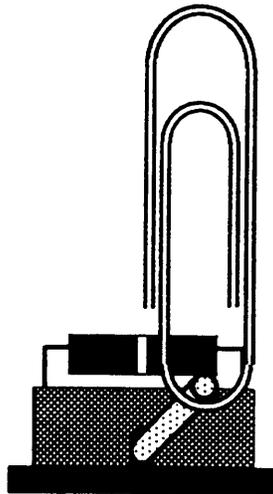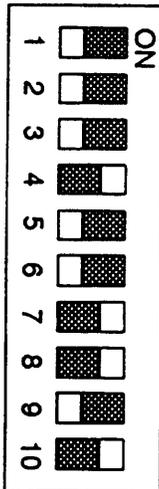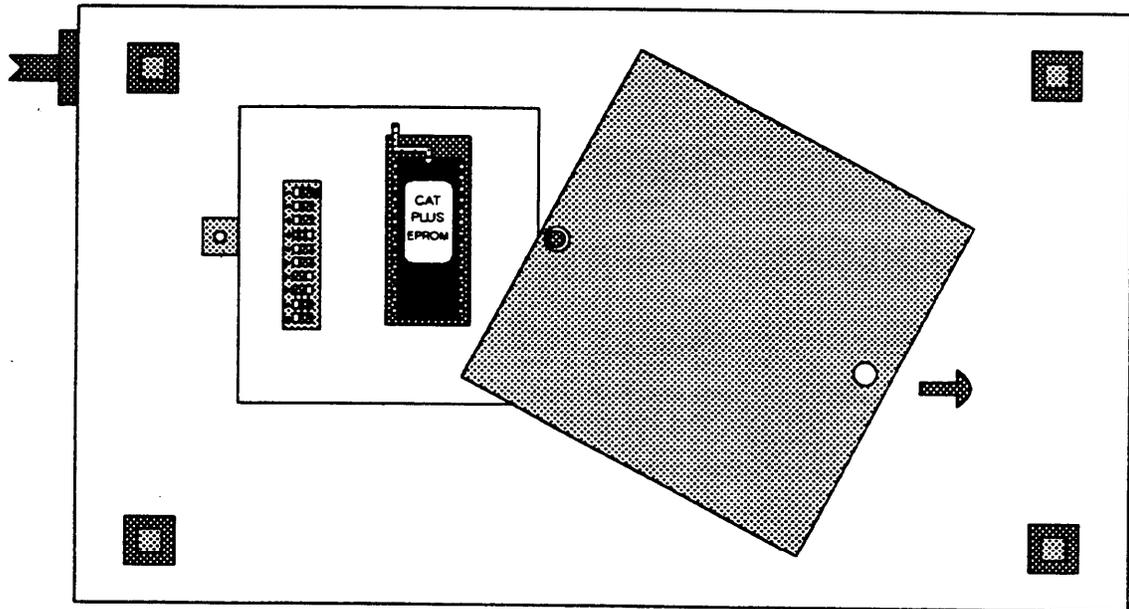
B

Number	Switch	Setting
1	110 baud PABX	off
2	300 baud PABX	off
3	600 baud PABX	off
4	1200 baud PABX	On
5	300 baud Printer	off
6	600 baud Printer	off
7	1200 baud Printer	On
8	Serial Printer	On
9	Parallel Printer	off
10	Battery	On (set when installed)

To Remove EPROM, hook handle with paperclip and lift until handle is vertical. Then turn unit over and EPROM should fall out. Install new EPROM with notch towards handle and press handle back to horizontal position.

Figure B-1. Location and Settings for Switches and Location of EPROM

Appendix C: CAT Printer DIP Switch Settings

C

Settings for Switch Bank 1

Number	Switch	Setting
1-1	On: Odd Parity Off: Even Parity	On
1-2	On: Without Parity Off: With Parity	On
1-3	On: 8 data bits off : 7 data bits	On
1-4	On: Ready/Busy Protocol Off: XON/XOFF Protocol	On
1-5	On: Circuit Test Select Off: Monitor Test Select	On
1-6	On: Print Off: Test	On
1-7 1-8	On On : DTR - Pin-20 On Off: RTS - Pin-4 Off On : SSD - Pin-11 Off Off: SSD + Pin 11	On On

Back of Printer

Figure C-1. CAT Printer Switch Settings

Settings for Switch Bank 2

Number	Switch	Setting
2-1 2-2 2-3	On On On : 19200 baud Off On On : 9600 baud On Off On : 4800 baud Off Off On : 2400 baud On On Off : 1200 baud Off On Off: 600 baud On Off Off: 300 baud Off Off Off: 110 baud	On On Off
2-4	On: DSR Input Active Off: DSR Input Inactive	Off
2-5	On: 32 byte buffer Off: 256 byte buffer	On
2-6	On: 200 ms minimum busy Off: 1 second minimum busy	On
2-7	On: Space DTR on Power On Off: Space DRT on Select	On
2-8	Not Used	Off

Settings for Control Switch Bank (Lower Level)

Number	Switch	Setting
C-1 C-2 C-3	On On On : Spanish Off On On : French Canadian On Off On : Unslashed 0 Off Off On : French On On Off: German Off On Off: British On Off Off : Unslashed 0 Off Off Off: Slashed 0	Off Off Off
C-4 C-5	Off Off: 5.5-inch Form On Off: 8.5-inch Form Off On : 11-inch Form On On : 14-inch Form	Off On
C-6	On: Auto Line Feed Off: No Auto Line Feed	Off
C-7	On: 8 data bits Off: 7 data bits	On
C-8	On: Disable Front Panel Off: Enable Front Panel	Off

Appendix D: Pinouts

D

PRINTER	SMDR
8 Gry NC	1 Blu NC
7 Brn NC	2 Org DSR (Jumper to 3)
6 Yel NC	3 Blk DTR (Jumper to 2)
5 Grn TXD (3)	4 Red Gnd (7)
4 Red GND (7)	5 Grn TXD (3)
3 BLK DTR (20)	6 Yel NC
2 Org DSR (11)	7 Brn NC
1 Blu NC	8 Gry NC
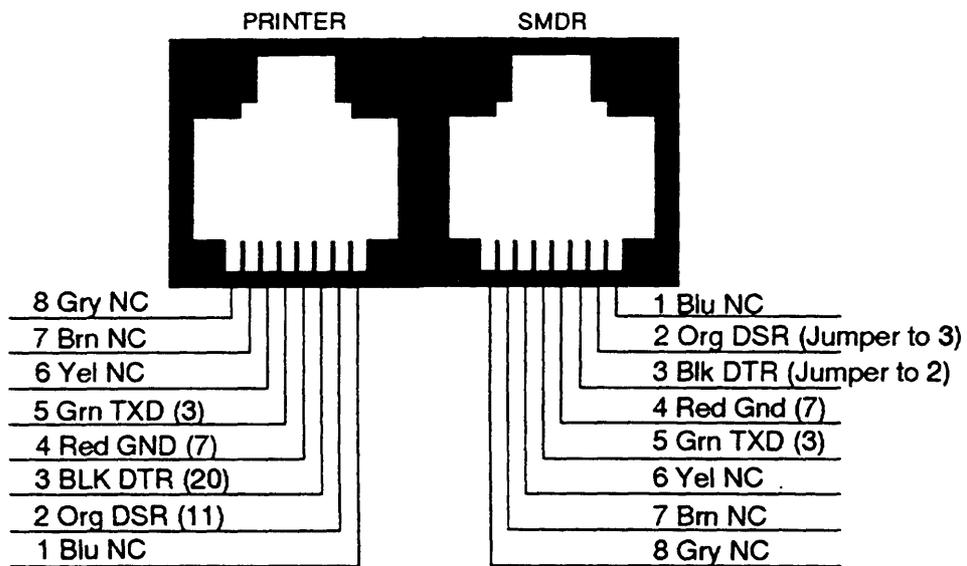
Figure D-1. CAT Plus Pinouts

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