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# unityplus

featured telephone set

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## INSTALLATION AND PROGRAMMING GUIDE

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### IMPORTANT

This booklet contains detailed step-by-step procedures; to ensure trouble-free operation, please follow these instructions carefully.

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# INTRODUCTION

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The new Series 8000 UNITY\* PLUS single-line featured telephone set is designed and manufactured with care by the craftsmen of Northern Telecom. Once installed, this versatile unit will give many years of reliable service, as well as many convenience benefits. The easy-to-follow instructions which follow **must** be carried out in the correct sequence; read each step **carefully** and retain this information for later use.

Essential desk-top or wall-mount installation information for the UNITY PLUS is provided on pages 8 to 13; **initial installation** must of course be completed before programming the set.

**Caution:** To eliminate the possibility of accidental damage to cords, plugs and jacks, do **not** use tools or sharp instruments during the assembly procedures.

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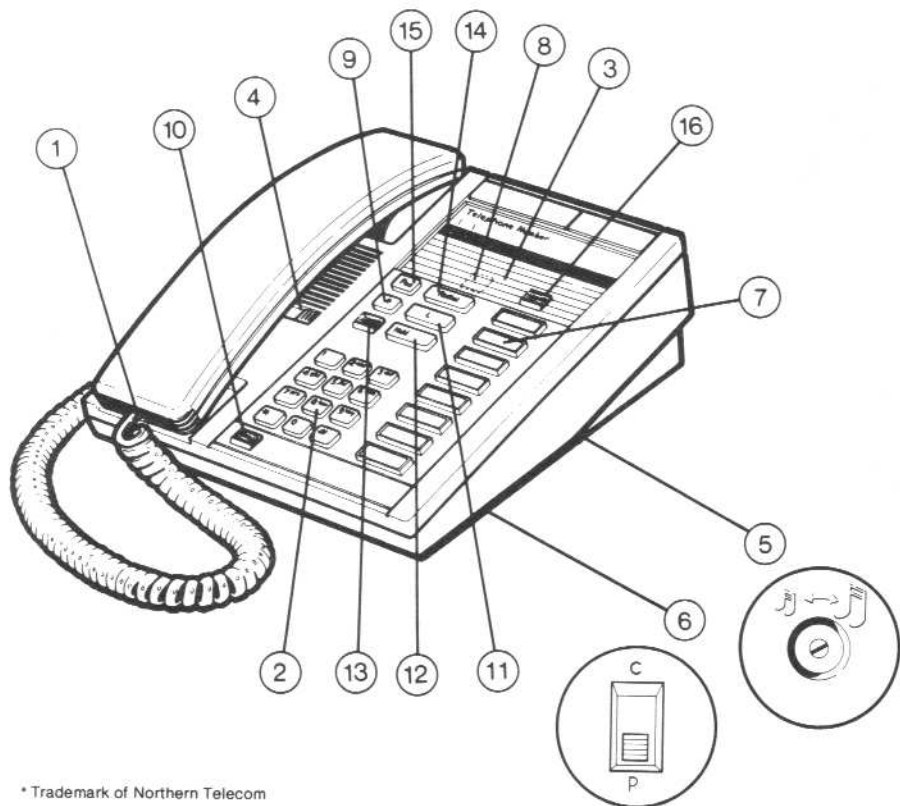
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**WARNING:** The non-rechargeable power cell in this product should **not** be recharged, forced open, heated or disposed of by burning. A risk of bursting and/or fire exists.

\* Trademark of Northern Telecom

## OPERATING FEATURES

- 1 **Plug-ended Cords.** This telephone is equipped with plug-ended (TELADAPT\*) handset and line cords which allow for easy installation, repair and maintenance.
- 2 **Pushbutton Dial.** The UNITY PLUS has a convenient pushbutton DIGITONE\* dial. Press each button in the sequence of your desired number for fast, accurate dialing.
- 3 **Directory Number/Index Card.** The telephone set has a directory number/ index card located under the plastic faceplate cover which can be used to record personal phone numbers. Programming instructions are printed on the reverse side of the card for your convenience.
- 4 **Tone Alerter Volume Control.** The UNITY PLUS is equipped with a pleasant sounding tone alerter. A slide switch, located beneath the handset, allows you to set the volume level to High-Medium-Low-Off positions.



\* Trademark of Northern Telecom

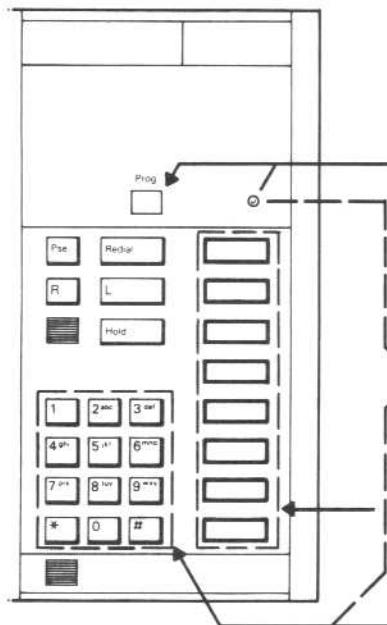
- ⑤ **Alerter Tone Control.** This feature, located on the base, allows the users of sets located in close proximity to one another to vary the alerter tones for rapid identification of the ringing set. The alerter tone is modified by using a small screwdriver (or equivalent) to adjust the tone differentiation control; turning counter-clockwise lowers the tone, turning clockwise raises the tone.
- ⑥ **PBX/CO Switch.** This two-position (P,C) base located switch permits the user to match the performance of the set to the specific system in use (i.e., PBX or CO/CENTREX services). **Refer to OPERATION CHECKS section for details.**
- ⑦ **Programmable Feature Buttons (8).** These buttons provide one button access to system feature access codes or frequently called numbers. **Refer to PROGRAMMING THE FEATURE-IN-USE LAMP section for information on programmable button pair groupings.**
- ⑧ **Program (Prog) Button.** This button, located under the directory number/index card, is used in conjunction with the eight programmable feature buttons, item ⑦, to store system feature access codes and frequently called numbers.
- ⑨ **Release (R) Button.** When activated the release button interrupts the line with an approximate 2 second delay before returning dial tone to permit you to place another call, without replacing the handset.
- ⑩ **Message Waiting and Visual Ringing Indicator.** This lamp, located below the left side of the dial pad, provides indication of a message waiting. Message waiting service can be provided in PBX applications where message waiting is a PBX feature. This lamp also flashes when the phone rings, even if the alerter is in 'off' position.
- ⑪ **LINK (L) Button.** When activated this button interrupts the line with a 1/2 second pause to give you access to switch features.
- ⑫ **Hold Button.** A call in progress can be placed on hold by depressing the Hold button and placing the handset on-hook. To continue with the call, lift the handset off-hook and resume the conversation. **Note:** To ensure proper operation of the hold feature, depress the Hold button and hang up **prior** to lifting the handset on another telephone set on that line. To resume the held call, access can be attained by lifting the handset on **any** telephone set connected to that telephone line. When a call has been placed on hold, **do not** depress any other feature (e.g., LINK) or dial pad buttons. Such action could result in disconnect of the held telephone call.
- ⑬ **Hold Indicator Lamp.** The hold indicator lamp, located to the left of the Hold button, flashes while a call is on hold.
- ⑭ **Redial Button.** This button automatically saves in memory the last number dialed (up to 16 digits) from the dial pad. To call that number again, lift the handset, listen for dial tone and press the Redial button. The last saved number is automatically dialed.
- ⑮ **Pause (Pse) Button.** The pause button allows the user to program a pause into any feature access code or frequently called number being stored to memory. A pause should be used in any programming sequence where you must wait for dial tone or a confirmation tone.
- ⑯ **Feature-in-use Lamp (program mode lamp).** Located in the directory area, this lamp can be programmed to flash when a feature button is activated. The purpose of this lamp is to remind the user that a system feature (e.g., Call Forward) has been activated. **The lamp flashes for 5 seconds only when the handset is taken off-hook as a reminder that the feature is in use.**
- ⑰ **Program Mode Lamp (feature-in-use lamp).** This lamp lights whenever the program (Prog) button is depressed and remains lit during the programming operation to provide visual assurance that the program mode is in use.

# PROGRAMMING THE UNITY PLUS

(Refer to PROGRAMMING THE FEATURE-IN-USE LAMP section for information on programmable button pair groupings **before** starting any programming procedures.)

The UNITY PLUS is designed to provide easy one button access to PBX/CO/CENTREX based system features or automatic dialing of any frequently used number. A sheet of button labels consisting of preprinted labels for common features and blank labels for designating custom features, is included with each UNITY PLUS telephone set.

## STORING NUMBERS/CODES IN PROGRAMMABLE FEATURE BUTTONS



PUSHBUTTON DIAL  
AND FEATURE BUTTONS

### STEP 1

Remove the plastic faceplate cover and number/index card as detailed in DIRECTORY NUMBER/INDEX CARD INSTALLATION.

### STEP 2

Lift the handset and listen for dial tone.

### STEP 3

Press the program button (located under the number/index card). The program mode/feature-in-use lamp comes on (steady).

### STEP 4 (OPTIONAL)

Press dial pad digit 1 to program the activation of feature-in-use lamp when pressing a programmed feature button, or digit 0 to program the deactivation of this lamp when pressing the adjacent feature button.

### STEP 5

Press the selected feature button. (If you wish to clear the selected feature button, proceed to Step 7.)

### STEP 6

Dial the feature access code or telephone number you wish to store (up to 16 digits).

**Note:** Selectable programmable features include LINK (L), Pause (Pse) and all numbers on the dial pad. For any system requiring a confirmation tone (e.g., LINK) following a feature activation, a pause (press Pse button) should be inserted in the programming step to ensure feature activation.

#### STEP 7

Replace the handset.

#### STEP 8

Remove the button cap from the selected feature button by grasping the tabs on each side and pulling upwards. Place the feature designating label on top of the button and replace the cap.

#### STEP 9

Repeat Steps 2 to 8 for each button to be programmed.

#### STEP 10

Replace the directory number/index card and plastic faceplate cover.

**Note:** To change the feature access code or telephone number at any location, repeat Steps 1 to 10 using a new feature access code or telephone number in Step 6.

### TO USE PROGRAMMED FEATURES

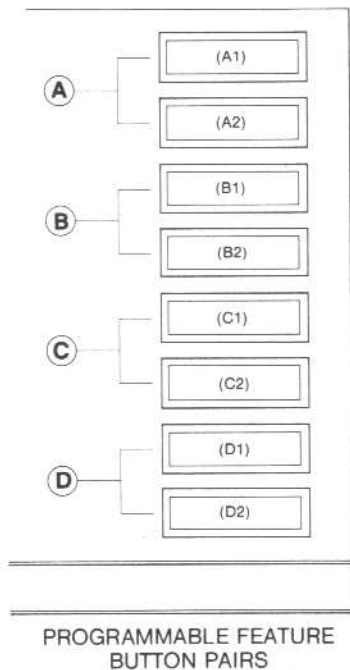
To activate or deactivate features which you have just programmed, you must exit programming mode and press the appropriate programmable button associated with that specific feature.

### PROGRAMMING THE FEATURE-IN-USE LAMP

It is recommended that the feature-in-use lamp, located in the directory number/index card area, be programmed to operate with certain features such as Call Forward. This lamp serves as a reminder that one of these features has been activated and your UNITY PLUS telephone may not receive incoming calls.

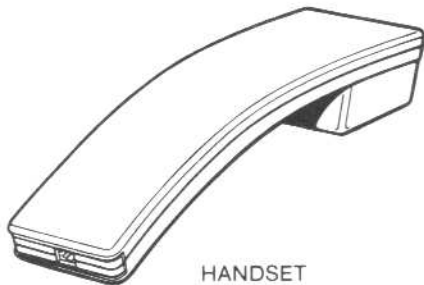
The feature-in-use lamp can be programmed to light when Call Forward which has been programmed on a feature button is activated. If so, it must be programmed to extinguish when Call Forward Cancel which has been programmed on an **adjacent** feature button is activated. See diagram opposite for adjacent button pair layout.

**Note:** There are four (4) adjacent button programmable pairs on the UNITY PLUS, identified as groups **A**, **B**, **C** and **D** in the diagram. Call Forward and Call Forward Cancel **must** be located in one of these pair groupings (e.g., if group **A** is selected, Call Forward should be programmed in position **A1** and Call Forward Cancel **must** occupy the **A2** position).



## INSTALLING THE UNITY PLUS

**IDENTIFY COMPONENTS.** Packed separately within the carton are all the items which are to be attached to the telephone set housing throughout these instructions. Remove each item from its protective packaging before beginning the installation procedures. (The wall-mount kit shown below is an optional item available from your telephone supplier.)

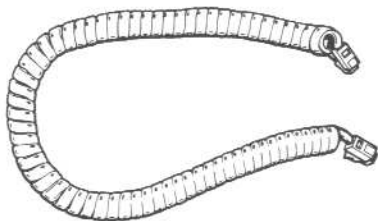


HANDSET

**WARNING:** Do **not** insert the plug at the free end of the handset cord directly into a wall or baseboard jack. Such misuse can result in unsafe sound levels.

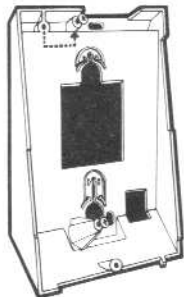


LINE CORD



HANDSET CORD

### Optional NT0C2203 Wall-Mount Kit



1. WALL-MOUNT  
BRACKET ASSEMBLY

**Note:** The standard UNITY wall-mount bracket is supplied with two attachment screws, preset at 1/10 in (2.5 mm) from the surface of their mounting posts. Prior to performing any UNITY PLUS wall-mount applications, the top screw **must** be moved, using a suitable screwdriver, to the central post indicated on this diagram. This screw should be turned in to match the preset height (i.e., 1/10 in) of the bottom screw.




2. HANDSET  
CLIP




3. TIE-WRAP

## DESK-TOP APPLICATION

### STEP 1

Place the telephone set upside down on a flat surface as shown in Fig. A and carefully insert the plug at either end of the handset cord into the bottom jack (symbol ) in the base. (An audible click indicates the plug is properly seated.) Beginning at the installed plug end, press the handset cord firmly into the base channel shown in Fig. A. Continue fitting cord into channel until edge of base is reached.

### STEP 2

Carefully insert the plug at either end of the line cord into the top jack (symbol ) in the base; see Fig. B. Ensure the plug is properly seated (audible click) and, beginning at the installed plug end, press the line cord firmly into the base channel shown in Fig. B. Continue fitting the cord into the channel until edge of base is reached.

**Note:** To ensure proper operation of the set, check that the handset and line cord plugs are properly inserted in the base.

**Check:** For optimum performance of your set, place the two-position base located PBX/CO switch to position **P**(PBX) or **C**(CO/CENTREX) as determined by the specific system in use.

### STEP 3

Grasp the handset and opposite end of the handset cord as shown in Fig. C. Fully insert the cord plug into the jack located at the end of the handset.

### STEP 4

Place fully assembled telephone set right-side up in location required and insert plug at free end of line cord into baseboard or wall jack receptacle as shown in Fig. D.

Place the handset **on-hook**. Check for dial tone by lifting handset and listening.

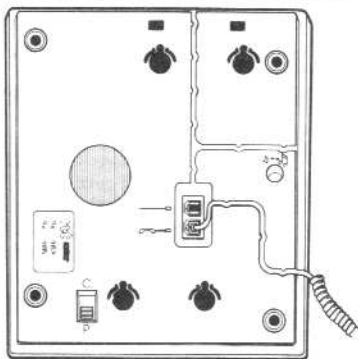


Fig. A

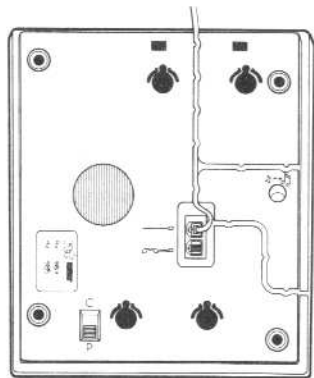


Fig. B

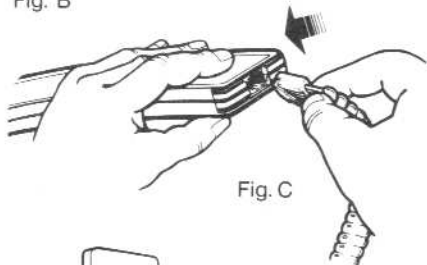


Fig. C

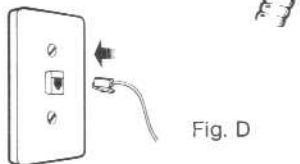


Fig. D

## WALL-MOUNT APPLICATION

Utilizing the optional NT0C2203 wall-mount kit (see page 8), your UNITY PLUS can be wall-mounted by employing either of the following procedures:

### METHOD A — WALL-MOUNTING YOUR UNITY PLUS

#### STEP 1

Check to see if you have a metal wall-mounting plate with two protruding studs (Fig. E). These wall-mounting plates are available from your telephone company.

#### STEP 2

Attach the handset cord as detailed in DESK-TOP APPLICATION, Step 1, Fig. A.

#### STEP 3

Plug the line cord into the telephone set (see Fig. B); do not route cord into channel. Orient the wall-mount bracket as shown (Fig. F) and route the line cord through the center opening in the bracket.

**Check:** For optimum performance of your set, place the two-position base located PBX/CO switch to position P(PBX) or C(CO/CENTREX) as determined by the specific system in use.

#### STEP 4

Assemble the wall-mount bracket to the set by placing both screw-heads on the bracket mounting posts into the appropriate keyholes provided in the base (Fig. F), then push the set downwards to lock the screw-heads into the top section of both keyholes. Using the tie-wrap, coil the excess line cord length and place it into the cavity of the installed bracket; leave sufficient cordage to reach the wall jack receptacle of the mounting plate (Fig. G).

#### STEP 5

Plug the line cord into the wall jack receptacle. Align the keyholes on the back of the wall-mount bracket with the studs on the wall jack mounting plate (Fig. G). Push the telephone set and wall-mount bracket assembly in and down until the studs of the mounting plate lock into the top section of both keyholes.

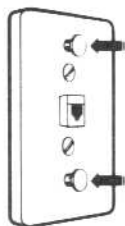


Fig. E

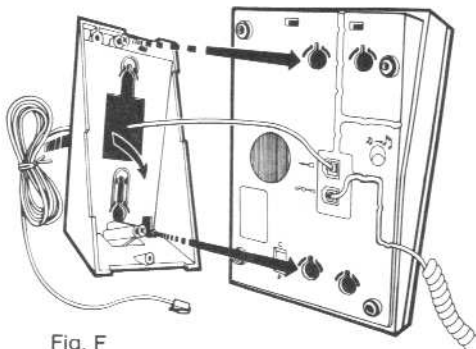


Fig. F

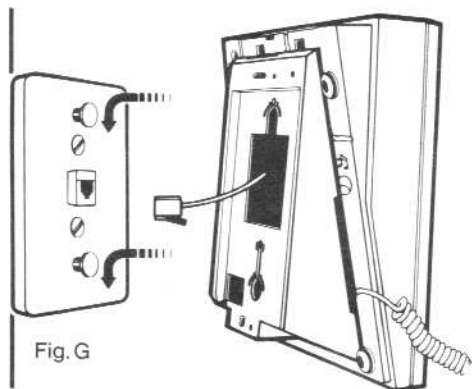


Fig. G

### STEP 6

To modify the handset for wall-mount application (Fig. H), insert the handset clip tabs into the slot located just beneath the receiver and press inward until the clip snaps into place.

### STEP 7

Attach the handset cord to the handset as detailed in DESK-TOP APPLICATION (Fig. C) and place the handset on-hook.

Place the handset **on-hook**. Check for dial tone by lifting handset and listening.

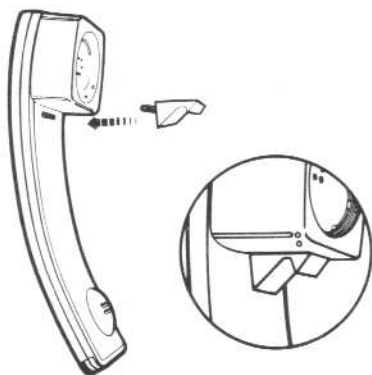


Fig. H

## METHOD B — WALL-HANGING YOUR UNITY PLUS

### STEP 1

Using the wall-mount bracket as a template, mark two screw hole locations on the wall (Fig. I). Check to ensure that the line cord will reach the required baseboard or wall jack receptacle.

### STEP 2

Drill holes and insert plastic plugs (or equivalent) into wall holes. Place the bracket back into position, then insert and tighten both screws.

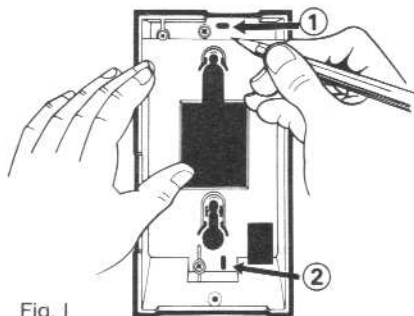


Fig. I

### STEP 3

Attach the line and handset cords as detailed in METHOD A - WALL-MOUNTING YOUR UNITY PLUS, Steps 2 and 3. Using the tie-wrap, coil any excess length in the cavity of the wall-mount bracket; route the plug end of the cord through the bottom opening in the bracket as shown in Fig. J. Align the mounting bracket and telephone set (Fig. J) and push the set in and down until the mounting bracket screw heads lock into the top section of the appropriate keyholes in the telephone base. Plug the line cord into the baseboard or wall jack receptacle (refer to Fig. D).

### STEP 4

Modify the handset for wall-hanging as detailed in Steps 6 and 7 of METHOD A - WALL-MOUNTING YOUR UNITY PLUS.

Place the handset **on-hook**. Check for dial tone by lifting handset and listening.

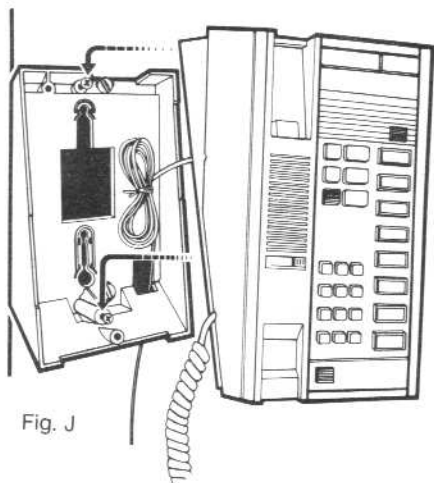


Fig. J

## DIRECTORY NUMBER/INDEX CARD INSTALLATION

Your UNITY PLUS comes equipped with a directory number/index card and a clear plastic faceplate cover assembled in place.

### TO REMOVE THE NUMBER/INDEX CARD

#### STEP 1

Insert a paper clip (or equivalent) into the hole located at the bottom center of the plastic cover (Fig. K).

#### STEP 2

Push toward the back of the set until the cover is bowed up enough to grasp with the thumb and forefinger. Remove plastic cover and number/index card.

#### STEP 3

Type or print clearly on the number/index card, your area code and telephone number, as well as other frequently called or emergency numbers.



Fig. K

## TO REPLACE THE NUMBER/INDEX CARD

### STEP 1

Place the number/index card into position in the area provided.

### STEP 2

Insert one end of plastic cover into cover recess. Bend plastic cover up slightly allowing the free end to slip into the cover recess (Fig. L). Release. The cover is automatically locked in place.

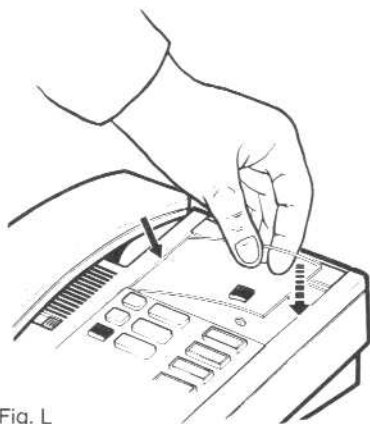


Fig. L

## OPERATION CHECKS

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1. **Dial Tone:** Lift the handset off-hook. If there is no dial tone, check to make sure all plugs are properly connected to the jacks. If the phone is still not functioning, the jack may not be properly wired or your line may be out of order. Before contacting your telephone company or telephone supplier, refer to **Operating Problems** section.
2. **Call Out:** If your phone can answer but cannot call out, check with the telephone company to verify if your line will accept tone type signalling.
3. **Ring:** Your UNITY PLUS is designed to standard "Straight Line-Bridged Ringing".

Before calling the telephone company, check to make sure the alerter is not in the "off" position. If your phone can make calls, but fails to ring for incoming calls, check with the telephone company. It may be using unusual ringing methods.

4. **PBX/CO Switch:** This two-position, base-located switch should be set to position **P**(PBX) or **C**(CO/CENTREX) whichever corresponds to the specific system in use. For optimum performance of your telephone set, check to ensure the switch position (P or C) and the application (PBX or CO/CENTREX) match.

# CARE AND USE OF YOUR PHONE

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## Keeping the telephone in good working order...

- Since the telephone is an electrical device you should avoid installations near a bathtub or in any other wet locations.
- Care should be taken during installation to see that the phone cord is not pierced with sharp instruments.
- To maintain the appearance of your telephone avoid placing the telephone in direct sunlight.
- Plastic surfaces of the phone and the cord may be wiped clean using a soft cloth dampened only with a mild, non-abrasive detergent solution.

**Please Note:** This telephone has been wired for private line service and should not be connected to a party line.

## Operating Problems

If you should experience trouble with your telephone service, take these required steps prior to contacting the telephone company.

1. Unplug your telephone and any other non-telephone company equipment you may own.
2. If the problem persists when only telephone company equipment is connected,

contact your local telephone company to arrange for repair.

3. If the problem is corrected by disconnecting all non-telephone company equipment, then the problem must lie in the equipment you own. If you own more than one telephone (or related telephone products) reconnect them one at a time until the problem is isolated. The problem telephone must be disconnected and repaired before reconnecting.
4. Do not attempt to repair the telephone yourself. **Note:** Before calling the telephone company for repairs, you should be aware that the telephone company may charge for a service call when the reason for the call is attributable to a malfunction of the equipment you own.

## Service Charges

The telephone company may impose various service charges under federal or provincial tariffs. For example, a charge for installation and a monthly fee for maintenance of the required jack. A monthly fee may also be charged for the jack already installed, provided it is being used as an extension telephone. It is suggested that you contact your telephone company prior to installation.

# LOAD NUMBER

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The load number of this telephone is 10A.

Load numbers are a new concept designed to help you determine how many telephones can be connected to any one telephone line.

The total of the load numbers for all of the telephones connected to any one line should not exceed 100.

An alphabetic suffix is also specified to indicate the appropriate ringer type (A or B).

Since load numbers are new, you may not know what the load numbers are for your previous telephones. It is usually safe to assume that the load numbers for those telephones will be about 20.

This means that there should be no problems with up to five (5) telephone on one line.

If the maximum total load number of 100 is exceeded, the telephone on that line may not ring or may ring poorly. In addition, you may not be connected to the calling party when you pick up the receiver or may have dialing problems.

If you experience the above problems after the addition of a telephone to your line, you may have exceeded the maximum total load number of 100. In this case, you will have to disconnect one of the telephones to reduce your total load number below 100.

## DEPARTMENT OF COMMUNICATIONS NOTICE

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**NOTICE:** The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee that the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an approved method of connection. The method of connection approved for this equipment as designated by D.O.C. Standard CS-03 is a CA11A or CA11W connection arrangement. The A or W suffix indicates that either desk or wall mounting is approved. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified jack-plug-cord ensemble (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Existing telecommunications company requirements do not permit their equipment to be connected to customer-provided jacks except where specified by individual telecommunications company tariffs.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

**Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

## WARRANTY

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Northern Telecom Canada Limited, 304 The East Mall, Islington, Ontario, M9B 6E4, warrants this telephone set against mechanical failure for a period of 12 months from the date of original purchase. Northern Telecom shall, at no charge and at its option, repair or replace a defective telephone set or component thereof with a new or factory rebuilt telephone set or component. Proof of original purchase date is to be provided with telephone set returned for warranty repair.

### Exclusions & Limitation

This warranty does not apply to damages or failures resulting from:

- failure to comply with warranty service procedures or installation guide
- improper installation
- repair by unauthorized persons
- negligence, misuse or accident
- modifications or unauthorized attachments.

### Warranty Service

Should your telephone set fail during the 12-month warranty period, please return it to the place of purchase for repair service. Should this be inconvenient, you may ship it, at your cost, with your address, to the nearest Northern Telecom Repair Depot. We recommend that you adequately

package and insure your telephone set against loss or damage while in transit.

To avoid the inconvenience of being without your telephone, please follow procedures as outlined in Operating Problems section (page 14) to determine whether return is necessary.

### After Warranty Service

Northern Telecom provides ongoing repair support for your telephone after the warranty has expired. These services are provided at a flat rate charge which will be quoted by contacting any of our Repair Depots, or by calling our toll free number 1-800-361-7800.

Your telephone may be brought to the place of purchase for repair or, either carried-in for service or shipped, at your cost, to a Northern Telecom Repair Depot. Shipments to our Repair Depot must contain a return address and a cheque or money order to cover the charges quoted for repair. Carry-in services are to be paid for when you pick up the telephone set at our location after it has been repaired.

**Note:** If your telephone is **leased** from the telephone company, the set should be returned to their Repair Depot for any required after warranty service.

## SERVICE DEPOTS

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Calgary, Alta.  
808-53rd Avenue N.E.  
Calgary, Alta.  
T2E 6N9  
Tel.: 403-275-2772

Toronto, Ontario  
30 Norelco Drive  
Weston, Ontario  
M9L 2X6  
Tel.: 416-749-0110

Montreal, Quebec  
12345 Albert Hudon Blvd.  
Montreal North, Quebec  
H1G 3L1  
Tel.: 514-324-2020

Saint John, N.B.  
Hillyard Place  
Saint John, N.B.  
E2L 4H8  
Tel.: 506-642-1000

**OR**  
Call Toll Free  
**1-800-361-7800**