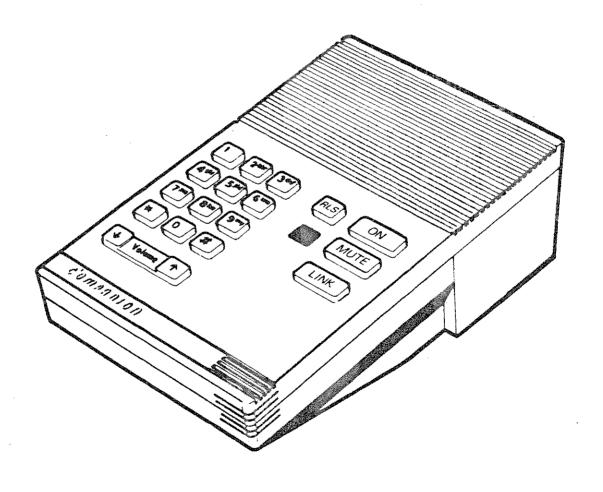
# COMPANION 4W HANDSFREE UNIT

Installation Guide





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### INTRODUCTION

The COMPANION\* 4M handsfree unit (NT1L07AA) is designed for use with traditional DIGITONE\* telephone sets to permit high-quality, voice-switched handsfree conversation. In operation with the associated telephone set, this compact unit provides the following features:

- Incoming calls received on either the handsfree unit or the telephone set.
- Automatic transfer of calls between the unit and the telephone set.
- On-hook dialing of outgoing calls on the handsfree unit dial pad.
- Automatic cut-off of the unit when the telephone handset is taken off-hook.
- Manual CO line cut-off when the Release button (RLS) on the unit is pressed.
- Voice transmission muting when the Mute button is pressed with no effect on reception.
- LINK\* button for access to telephone company custom calling features or PBX features.
- Rocker-action-type volume control for receive volume control.
- On/Release/Mute visual indicator.

**CAUTION:** To eliminate the possibility of accidental damage to the cords, plug and jacks, do not use tools or sharp instruments during installation.

**NOTE:** This handsfree unit is for digitone service. Pulse (rotary) telephone sets may be connected; however, dialing cannot be from the handsfree unit.

<sup>\*</sup>Companion, Digitone, Link and Unity are trademarks of Northern Telecom

## INSTALLATION PROCEDURE

LOCATION GUIDELINES. For best operation, the COMPANION 4M should be located on a hard surface (e.g., table, or desk top) and as far as possible from noise sources, such as typewriters. Do not locate the handsfree unit between parallel hard surfaces less than 1.8 m (6 ft.) apart, in hard surface corners or under low, hard surfaced shelves less than .6 m (2 ft.) in height. In addition, the front edge of the unit should be at least 51 mm (2 in.) from the edge of the desk or table top, and no obstacles should be placed close to the microphone.

POWER CONNECTION. Each handsfree unit may be powered by an NE-2012B transformer (or equivalent) or in the case of a multiple installation by a common power supply. Select a commercial transformer that will supply an open circuit voltage not exceeding 25 Vac, and a fully loaded voltage, at the set terminals, not less than 16 Vac. The capacity of the common power supply is based on 110 mA as the maximum current for each unit.

Each unit must connect directly to the transformer terminals. On multiple connections to the transformer, a 70 ohm resistor should be added to one side of the power connections to each unit. Multiple connections must not be made between sets. Do not ground either side of the line connecting the power supply to the handsfree unit.

The maximum allowable lenghts of 22, 24, and 26 AWG cable for connecting the transformer to the handsfree unit are:

- 22 AWG 400 feet
- 24 AWG 250 feet
- 26 AWG 150 feet

#### INSTALLATION.

#### STEP 1

The power supply should be connected to the telephone set through spare conductors in the mounting cord of the telephone set or by installing an additional 2-conductor cord.

#### STEP 2

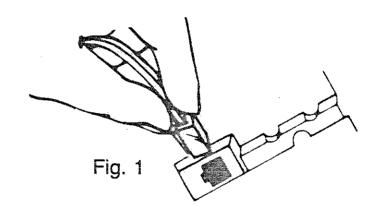
Remove the cover of the associated telephone set and connect the 2-conductor cord or spares to the TF1 and TF2 leads from the unit at the terminal strip. (If necessary, the connections may be made at an external connecting block.)

## STEP 3

Upon completing the power connections, make the connections to the telephone set (see installation diagrams). The metal fastener, for securing the conference unit cord, should be attached once electrical connections are complete.

#### STEP 4

Carefully insert the plug at either end of the COMPANION 4M line cord into the jack in the base of the unit (Fig. 1). Ensure that the plug is properly seated (audible click) and installed in the correct jack. Route cord under tabs in cord channel; continue fitting cord to edge of base.



#### STEP 5

Perform the operational checks and then replace the telephone set cover.

## **OPERATIONAL CHECKS**

**DIAL TONE.** Press the ON button. Dial tone should be heard and the red indicator LED should light.

If no dial tone is present, ensure that the plug is properly connected to the Conferencing Unit, power is present on the slate (S) and brown (BN) leads, and the other unit leads are properly connected. On traditional multiline sets, also assure that the desired line pick-up key is pressed (active) on the host set.

**VOLUME CONTROL.** Press and hold the volume 1 (up) and then the volume 4 (down) control while dial tone is present. The speaker volume should rise and fall accordingly.

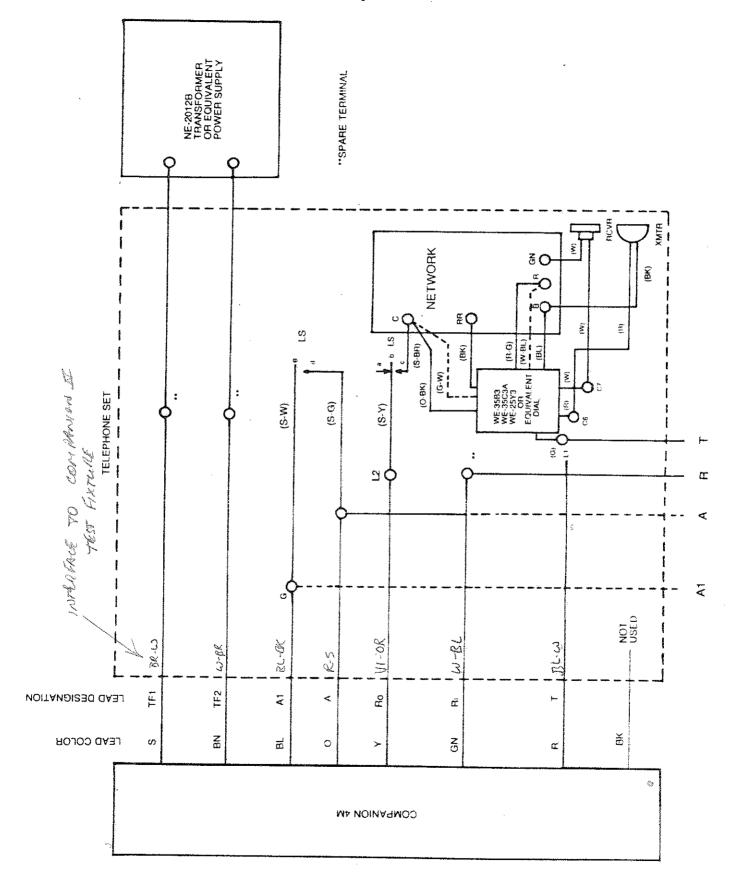
**PLACING A CALL.** Call the test center using the conferencing unit dial pad. Once reached, confirm the Mute button operation (LED should blink), transfer to handset (LED should go off) and transfer back to Conference Unit (LED should light). See Note.

**RELEASING A CALL.** Press the Release button (RLS). The line connection should be dropped and the LED go off.

**NOTE:** Some traditional multiline sets automatically release the line pick-up key or turn on an integrated speaker when the handset is returned to the telephone set cradle. To transfer from the telephone to the Conference Unit, these features need to be disabled.

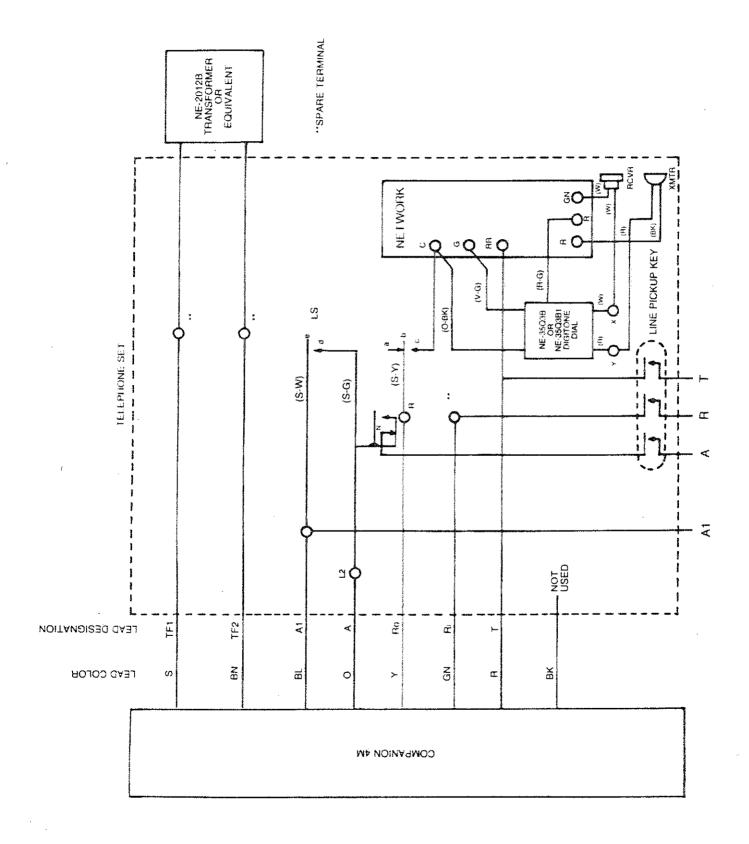
# **INSTALLATION DIAGRAM**

# **Traditional Single Line Telephone Set**



## **INSTALLATION DIAGRAM**

# **Traditional Multiline Telephone Set**





ADVANCED COMMUNICATIONS TERMINALS 640 MASSMAN DRIVE, NASHVILLE, TENNESSEE 37210 615-883-9220 TWX: 810-371-1341