

# NT1P-220 Installation & Mounting Instructions

## Introduction

This information is to be used in the installation of the circuit pack version of the AT&T 2B1Q NT1 (NT1P-220). Some typical installation examples are given. Details and other possible installation configurations can be found in the ISDN Customer Premises Planning Guide (AT&T Practice 533-700-100).

## Installation Restrictions and warnings

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch un-insulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone wires.
- The circuit pack contains electrostatic sensitive devices. During the installation process precautions should be taken to avoid damage caused by electrostatic discharge.
- The NT1P-220 should only be installed in restricted access areas in accordance with articles 110-16, 110-17, and 110-18 of the National Electric Code, ANSI/NFPA No. 70.

## General

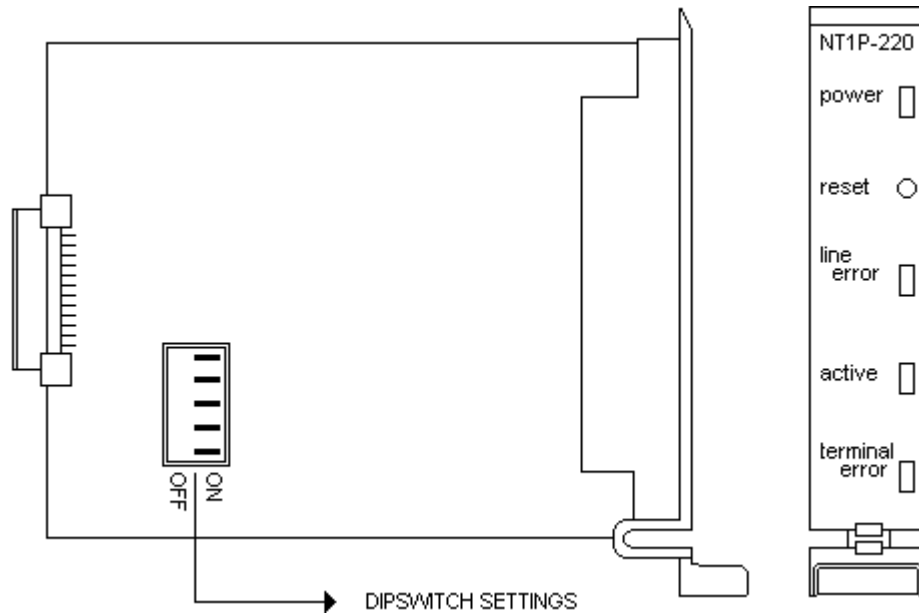
- The NT1P-220 should only be installed in combination with module frame NT1M-210 (Cc. 406404038).
- The NT1M-210 module frame must be ordered separately.
- Before inserting the NT1P-220 into the module frame check that the dipswitch settings are in accordance with the premises wiring configuration (see *Wiring Configurations* for examples).
- The NT1P-220 circuit pack can be inserted and removed from an operational NT1M-210 without affecting the performance of the other units.

## Mounting Installation

Insertion: Slide the NT1P-220 into the mounting frame until it locks.

Removal: Lift lever and pull back on the NT1P-220.

## Connectors and Switches



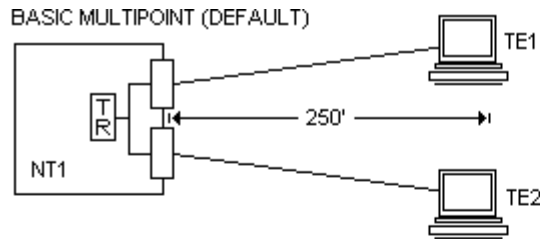
SWITCH	OFF FUNCTION	ON FUNCTION
1, 2	No termination	Termination present
3, 4	100 Ohm termination	50 Ohm termination
5	Point To Point (PTP)	Passive Bus (PB)

Default setting is for 50 Ohm and Passive Bus. This option is compatible with “Basic Multipoint” configurations (see *Wiring Configurations*).

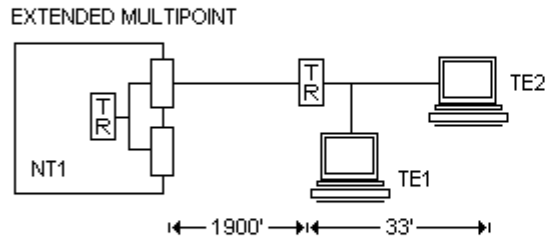
## Wiring Configurations

### Switch Settings

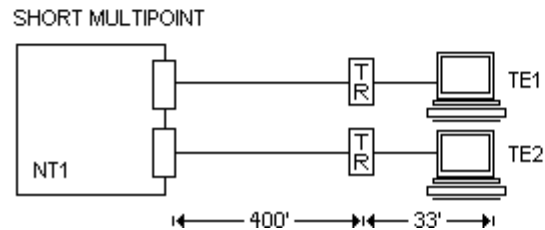
The dipswitches on the NT1 must match the premises wiring between the NT1 and terminal(s). The following figures are examples of typical wiring configurations. Dipswitch settings are shown for these examples. For more details and alternative wiring configurations refer to AT&T Practice 533-700-100.



S1 AND S2 = TERMINATION ON  
 S3 AND S4 = TR IS 50 OHM  
 S5 (PB) = FIXED TIMING  
 TR = 50 OHM



S1 AND S2 = TERMINATION ON  
 S3 AND S4 = TR IS 100 OHM  
 S5 (PTP) = ADAPTIVE TIMING  
 TR = 100 OHM



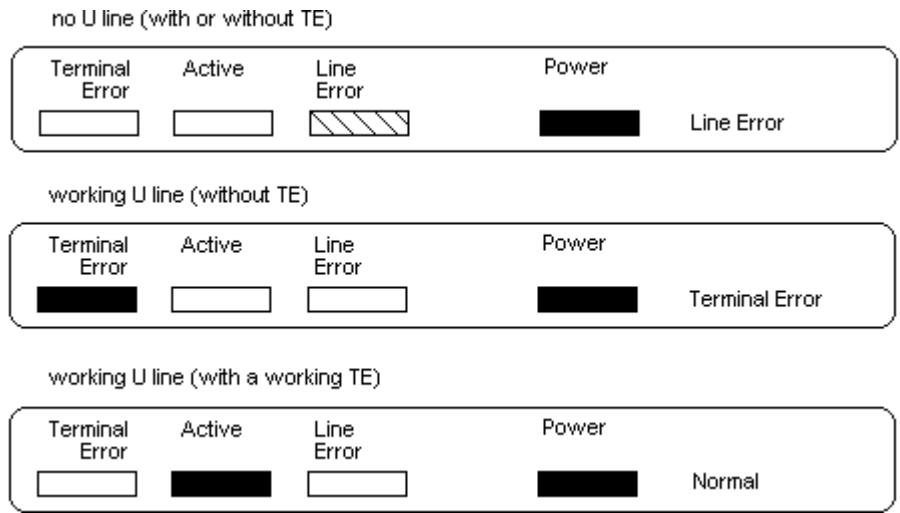
S1 AND S2 = TERMINATION OFF  
 S3 AND S4 = NOT APPLICABLE  
 S5 (PB) = FIXED TIMING  
 TR = 100 OHM

Note: Distances specified above are for 24-gauge inside wiring cable and two terminals. These distances may vary for other cable gauges and different number of terminals. For additional details refer to the AT&T Practice 533-700-100.

## Installation Check

When the NT1P-220 is completely installed, the following check should be made to ensure that the NT1P-220 is operating normally:

1. After powering up a self-test will be automatically initiated, causing all indicators to light up for about 1 second.
2. After an activation period of max. 15 seconds, a properly functioning NT1P-220 will provide one of the following status displays:



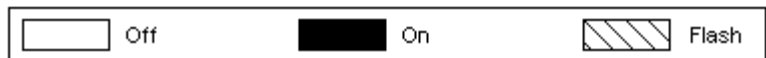
See the following diagram for status display other than those shown above for the stated condition.

## Status Indicators and Diagnostics

### NT1 Status Indication

The four NT1 indicators, when taken together, provide the following status information:

Terminal Error	Active	Line Error	Power	
				No input power
				Power-up self test (1 sec)
				Self test error
				Input power reversed or too low
				Line error w/o sealing current
				Line error w/ sealing current
				Terminal error / no TE
				Normal
				NT1 Maintenance Mode
				Loss of signal w/o TE present



Any status display other than those shown above indicates improper NT1 operation. Push the reset switch or, if no improvement is obtained, refer to AT&T Practice 533-700-100.

### NT1 Reset Switch

The reset push button switch is located just behind the faceplate between the Power and Line Error indicator. Accessible through a small hole the switch can be activated with a pencil point or other similar sharp pointed tool. Activation of the reset switch has the same result as a power-down / power-up cycle of the NT1.

Attention: Activation of the reset switch during "normal operation" of the NT1 will temporarily disrupt communication services and may result in "Loss of Call".