

# Hardware Installation for 5ESS Switch Integration with the 3A Translator

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## Overview

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The connections required to integrate the Avaya™ INTUITY™ system with the Avaya 5ESS® switch using the 3A SMSI (simplified message desk interface) translator must be completed before programming the 3A translator. This chapter describes the:

- 3A translator
- NT1U-200, NT1U-220, NT1L-230, and NT1U-300 network terminator units
- Power supply for the NT1U-200, NT1U-220, NT1L-230, and NT1U-300 network terminator units
- Possible configurations for connecting to the multi-port serial circuit card

 **NOTE:**

The NT1U-200 network terminator unit is an older version of the unit, no longer supplied. It can be used for some integrations in upgrade situations.

Hardware configurations differ, depending upon the distance between the 3A translator and the 5ESS switch.

## Purpose

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This chapter provides procedures to install the hardware necessary to integrate a 5ESS switch with any MAP (multi-application platform) of the Avaya INTUITY system using a 3A translator.

## Configuration

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The 5ESS switch supports the applications processor interface (API) protocol. Data must be converted from simplified message service interface (SMSI) to API protocol before it reaches the integrated services digital network (ISDN) switching module on the 5ESS switch. To translate API to SMSI protocol, a 3A SMSI translator is used. The 3A translator can be connected to the multi-port serial circuit card on any INTUITY multi-application platform (MAP).

## Distance Requirements

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Different hardware configurations are possible depending on the distance between the 3A translator and the switch. If this distance is over 1 km (0.62 mi), a network terminator unit (NT1U-200, NT1U-220, NT1L-230, or NT1U-300) is required:

- NT1L-230 network terminator unit can be used in any configuration.
- NT1U-220, NT1L-230, or NT1U-300 network terminator unit is required if the U-card on the 5ESS switch uses 2B1Q encoding (5ESS switch Version 6 or later). Under these conditions, do *not* use an older version NT1U-200 network terminator unit.

The following configurations are supported for connection to the multi-port serial circuit card with the 3A translator:

- Less than 1 km (0.62 mi) from the 5ESS switch
- 1 km (0.62 mi) or more from the 5ESS switch with NT1U-220, NT1L-230, or NT1U-300 network terminator unit
- Less than 1 km (0.62 mi) from the 5ESS switch with NT1U-200 or NT1L-230 network terminator unit

### NOTE:

At distances of 9.7 km (6 mi) or greater the 3A translator *cannot* be used. A modem must be used instead.

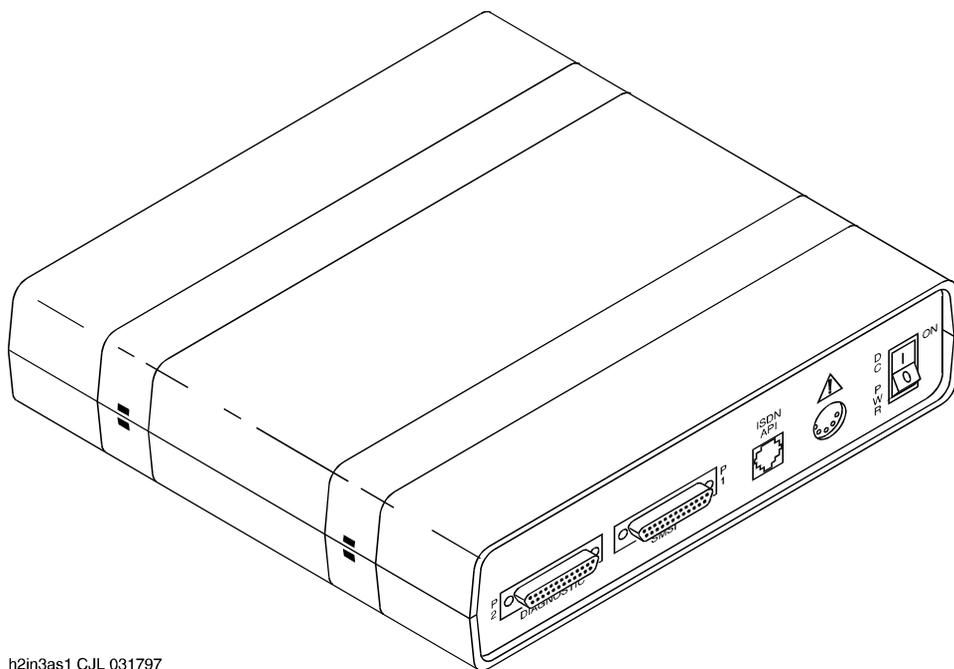
## Hardware Devices

See the following illustrations when installing the 5ESS integration hardware:

- 3A translator ([Figure 4-1](#) and [Figure 4-2](#))
- NT1U-220 network terminator unit ([Figure 4-3](#))
- NT1L-230 network terminator unit ([Figure 4-4](#))
- Power supply for NT1U-220, NT1U-220, NT1L-230, and NT1U-300 network terminator units ([Figure 4-5](#))

**⇒ NOTE:**

The NT1U-200 network terminator unit is not illustrated. It resembles the NT1U-220 network terminator unit. The NT1U-300 is also not illustrated. It also resembles the NT1U-200, but uses 2B1Q signaling.



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**Figure 4-1. Back View of the 3A SMSI Translator**

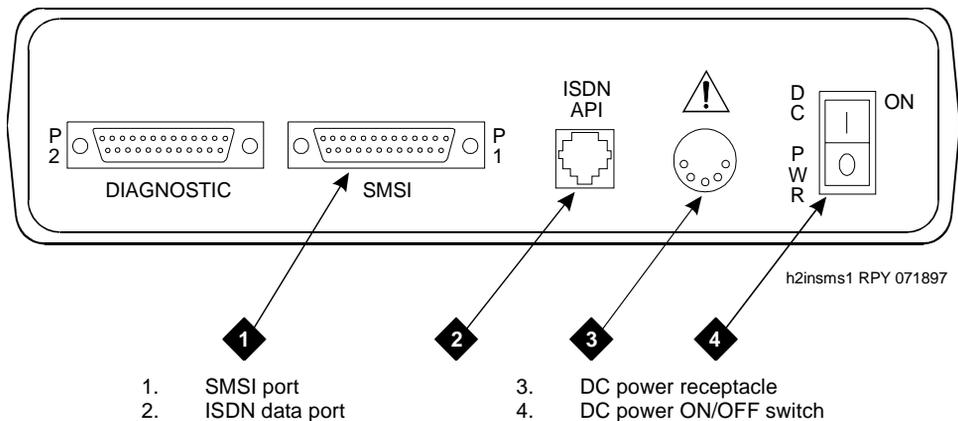


Figure 4-2. Back Panel of the 3A SMSI Translator

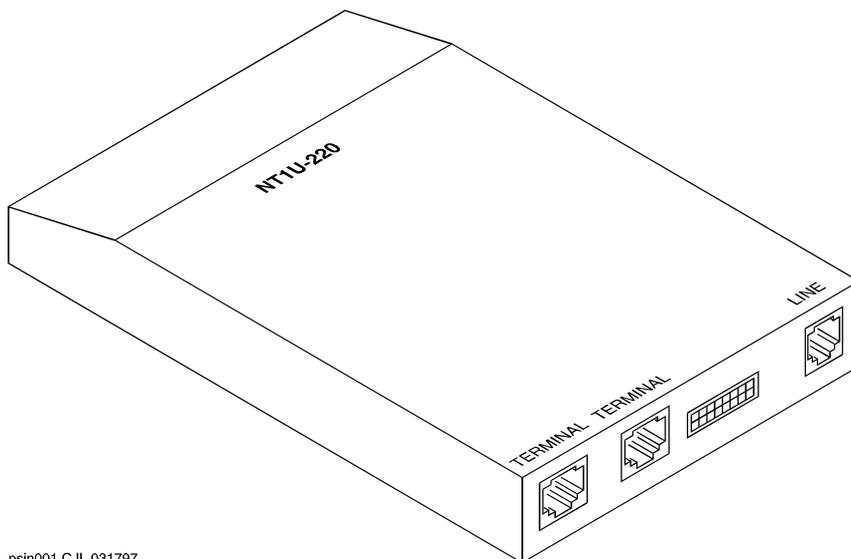


Figure 4-3. NT1U-220 Network Terminator Unit

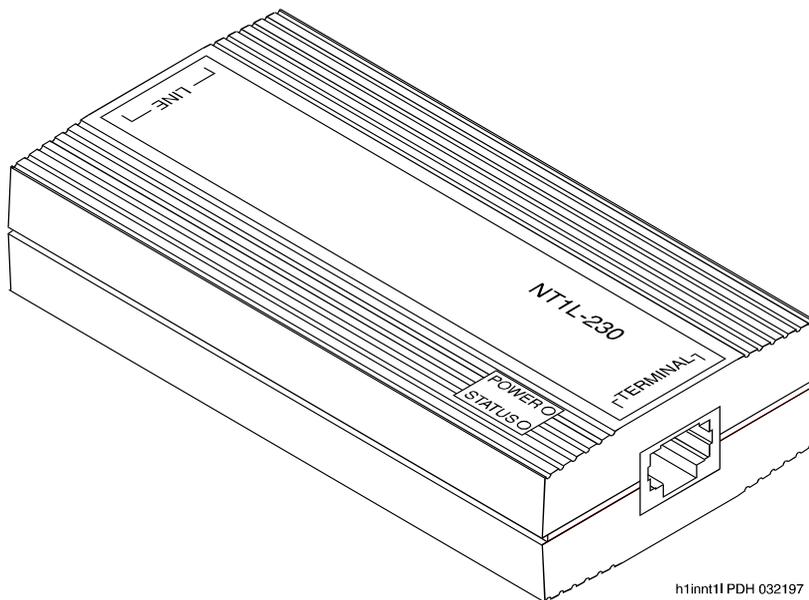


Figure 4-4. NT1L-230 Network Terminator Unit

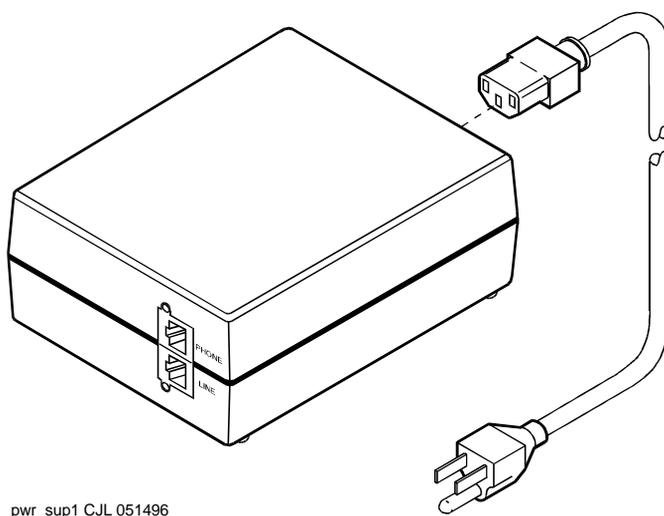


Figure 4-5. Power Supply for NT1U-200, NT1U-220, and NT1L-230 Network Terminator Units

