
***RFT*TECHNOLOGIES™**

Omni-318 Antenna

Installation Guide

**PN: 0510-1051-B
Release Date: 01/20/06**

Installers must read this guide before using the product.

Copyright 2005, 2006 by RF Technologies, Inc.

All Rights Reserved. No Part of this work may be reproduced or copied in any form or by any means without written permission from RF Technologies, Inc.



Conforms to UL Std. 294

(3048736)

Important Warnings

It is important for your facility to implement and enforce the following warnings in order to keep all equipment functioning properly.



WARNING: Installation and Configuration

It is the responsibility of the facility to follow the installation instructions carefully and to use the components and supplies specified by RF Technologies, Inc. for all (Safe Place™ and Code Alert™) installations.

Failure to use the components and supplies specified by RF Technologies, Inc. may result in equipment and/or system failure.



WARNING: User Training

It is the responsibility of the facility to implement structured training procedures for all employees using the system. Only users who have received adequate training on the use of the system should use the system.

Failure to adequately train employees may cause system failure due to user error. In addition, incorrect use of the equipment may also result in system failure.



WARNING: System Maintenance and Testing

It is the responsibility of the facility to establish and facilitate a regular maintenance schedule for your (Safe Place™ and Code Alert™) system. This includes regular inspection, testing, and cleaning.

Failure to provide regular maintenance and testing of these products may result in equipment and/or system failure.



WARNING: Failure to follow the Warnings and Cautions in this guide voids any or all Product Warranties.

Contents

Preface	1
System Overview	1
Intended Audience	1
Additional Detailed Documentation	2
Contact Information	2
Product Warranty	2
Installing the Omni-318 Antenna	3
Introduction	3
Mounting the Omni-318 Antenna	3
Wiring a Omni-318 Antenna	5
Omni-318 Antenna Specifications	6
Specifications	6

Preface

System Overview

This guide provides detailed information about the Omni-318 Antenna, a component of the 9450 System. The 9450 System monitors doors, elevators, hallways, and stairwells, to assist staff in monitoring patients in a facility. A small transmitter is placed on the ankle or the wrist of a patient. If a transmitter is detected in an Exit Alarm Zone, an alarm sounds at the exit.

Depending on which equipment you have installed, the 9450 System can automatically lock doors and deactivate elevators. In addition, if the 9450 System in your facility includes computers, an alarm also sounds at a Central Server and its network of Client computer(s). The Central Server and Client computer(s) also identify which patient sounded the alarm and the exit where the alarm occurred.

The 9450 System Cut Band Feature option provides further security by alerting staff if a transmitter band is tampered with or cut. Additionally, if your system contain a Staff Alert Panel, a redundant alarm sounds if certain wires are cut or damaged.



WARNING: The 9450 system is designed and intended to work in conjunction with a facility's overall patient security program, including reasonable operating policies and procedures. The 9450 system, by itself, cannot prevent the mismatch, abduction, or elopement of patients.

Intended Audience

The Omni-318 Antenna Installation Guide is intended for users who install and configure the 9450 System. It includes detailed information about the 9450 System, the Exit Alarm Receiver, how to wire the Omni-318 Antenna to the 9450 System, and the specifications of a Omni-318 Antenna.

Additional Detailed Documentation

Documentation for the 9450 System is available in Portable Document Format (PDF) on the 9450 System Documentation CD-ROM. The 9450 System Documentation includes the following guides:

- Delayed Egress Exit Alarm Controller Installation Guide
- Ethernet and Device Network Installation Guide
- Central Power Supply Installation Guide
- Alarming Band Receiver Installation Guide
- CodeLock Installation Guide
- Quick Look Display and Interface Installation Guide
- Staff Alert Panel Installation Guide
- Infant Transmitter User Guide
- Adult Transmitter User Guide
- Patient Transmitter User Guide
- Model 30 Keypad Installation Guide
- Series 4.0 Software User Guide
- Series 4.0 Software Administration Guide
- Quick Response System Hardware Installation Guide
- Quick Reference Guide for Hospitals
- Quick Reference Guide for Long Term Care
- DuoLink Exit Alarm Receiver Installation Guide
- Product Warranty

Contact Information

For more information about RF Technologies, Inc. products, go to www.rft.com. For technical support, contact (800) 669-9946 or (262) 790-1771. For questions or comments about documentation, contact the RF Technologies Technical Publications team at techpubs@rft.com.

Product Warranty

Product Warranty information can be found on the 9450 System Documentation CD-ROM or with your original system proposal and invoice.

Installing the Omni-318 Antenna

Introduction

This chapter provides detailed instructions about mounting, installing, and wiring the Omni-318 Antenna to the 9450 System. The purpose of the Omni-318 Antenna is to convey UHF radio signals from patient transmitters to the Alarming Band Receiver.

Alarming Band Receivers are placed strategically throughout the monitoring area to receive signals from the alarming band transmitters worn by patients. Each Alarming Band Receiver is connected to one antenna (for more information, see the *Alarming Band Receiver Installation Guide*).

Mounting the Omni-318 Antenna

When mounting a Omni-318 Antenna, observe the following:

- Omni-318 Antennas must be placed at no more than 60-foot intervals. In areas where multiple sources of interference are present, such as nursing stations and nurseries, place at 30-foot intervals. The final interval placement must be finalized based on tests with an active transmitter.
- Omni-318 Antennas must be placed according to the configured floor plan provided by RF Technologies, Inc.
- Omni-318 Antennas must be mounted, using the hardware provided, no more than 25-feet from coverage boundaries (ex. outside walls).
- As with all antennae, their performance is affected by their proximity to all metal, light fixtures and cable TV wire junctions. In order to promote the best antenna performance, special attention should be taken so that the Omni-318 is mounted at the maximum distance from all metal, light fixtures and cable TV wire junctions.
- Omni-318 Antennas must be attached to the ceiling tiles using the hardware kits provided.
- Omni-318 Antennas must use the RG-6, 75 Ohm coaxial cable provided.
- Omni-318 Antennas must be mounted below ceiling tiles.

To mount the antennas.



WARNING: When installing a product, you must follow standard, accepted safety practices, such as wearing safety glasses.

1. In the center of the ceiling tile, mark the location of the Antenna bolt.
2. Make a hole (approximately $\frac{1}{4}$ " in diameter) in the tile where you made the mark.



WARNING: Before cutting openings or drilling holes through walls or ceiling tiles, you must verify that you will not strike any wiring or plumbing.

3. Using the Antenna as a guide, mark the location of the coaxial F-jack in relation to the Antenna bolt. The F-jack is $2\frac{5}{16}$ " from the Antenna bolt. Make a hole approximately $\frac{1}{2}$ " in diameter to accommodate the F-jack.
4. Feed the coaxial cable down through the $\frac{1}{2}$ " hole in the tile.
5. Attach the coaxial cable to the F-jack on the Antenna.
6. Remove the wing nut and one of the clear washers from the nylon bolt. Do not remove the first clear washer and the spacer.
7. Slide the Antenna bolt and coaxial cable up through the ceiling tile.
8. Place the second clear washer over the nylon bolt.
9. Secure the Antenna assembly with the wing nut.



Antenna to Coaxial Cable



View of Antenna Above Ceiling Tile



Installed Antenna

FIGURE 1.1: Omni-318 Antenna Assembly

Wiring a Omni-318 Antenna

Use the following steps to wire the antennas to an Alarming Band Receiver.



WARNING: You must verify that the 9450 System's Central Power Supply is OFF before wiring any system components. Failing to do this may result in injury or death.

To wire the antennas

1. Run the supplied coaxial cable above the ceiling tile from each Antenna to the location of the Alarming Band Receiver.
2. Connect the supplied coaxial cable to the F-jack on the side of the Alarming Band Receiver.

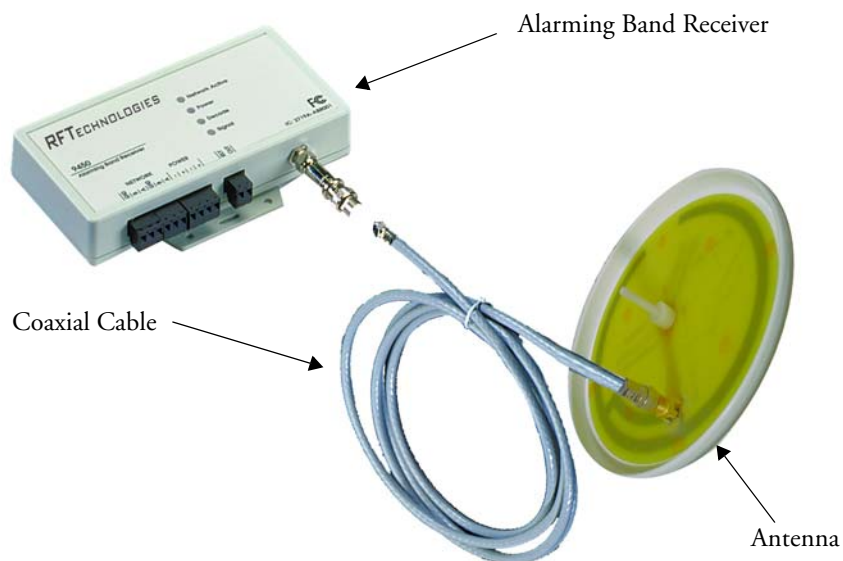


FIGURE 1.2: Omni-318 Antenna wiring diagram

3. Refer to the *Alarming Band Receiver Installation Guide* to verify that you have correct coverage.

Omni-318 Antenna Specifications

Specifications

Range	30 ft. (9.1 m), minimum per telemetry receiver antenna
Dimensions	7.25 (diameter) x 1.06 (high) inches
Color	White
Frequency	318 MHz
Weight	.30 lbs
Connection	F-Jack for RG-6 Coaxial Cable
Part Number	Antenna: 0570-0007

***RFT*TECHNOLOGIES™**

3125 N. 126th St.

Brookfield, WI 53005 USA

PH: (800) 669-9946 or (262) 790-1771

www.rft.com

info@rft.com
