

# Mini RFID Pad Model 210

## Owner's Manual



Copyright © 2008, 3M. All rights reserved.

Mini RFID Pad Model 210 Owner's Manual, 78-8129-3405-3A

# Contents

- Safety ..... 1**
- EMC compliance ..... 3**
- Overview..... 5**
  - Model 210 components..... 5
  - Specifications..... 5
  - Cleaning the Mini RFID Pad Model 210 ..... 5
- Install the Model 210..... 7**
  - Determine the best placement for the pad ..... 7
  - Connect the hardware ..... 8
- Troubleshooting ..... 9**
- 3M Service ..... 11**



Contents

# Safety


## Intended use

The 3M Mini RFID Pad Model 210 is designed and tested for use with other equipment and software to read and/or program 3M RFID tags. These tags are used to identify files, folders, and other items such as books. When used in conjunction with software, the unit can track, monitor, and assist in locating various items equipped with RFID tags. The product has not been evaluated for other uses.

## Explanation of signal word consequences

 <b>WARNING</b>	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.
 <b>CAUTION</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.

## Explanation of product safety labels

	Do <i>not</i> throw away in normal trash. Dispose of the product according to federal, state, and local requirements.
--	---

### **WARNING**

To reduce the risks associated with hazardous voltage:

- Do not use the Mini RFID Pad Model 210 if the case or cord are damaged;
- Do not use Mini RFID Pad Model 210 in outdoor or wet environments;
- Do not attempt to service or repair the RFID circuitry — no user serviceable parts inside.

### **CAUTION**

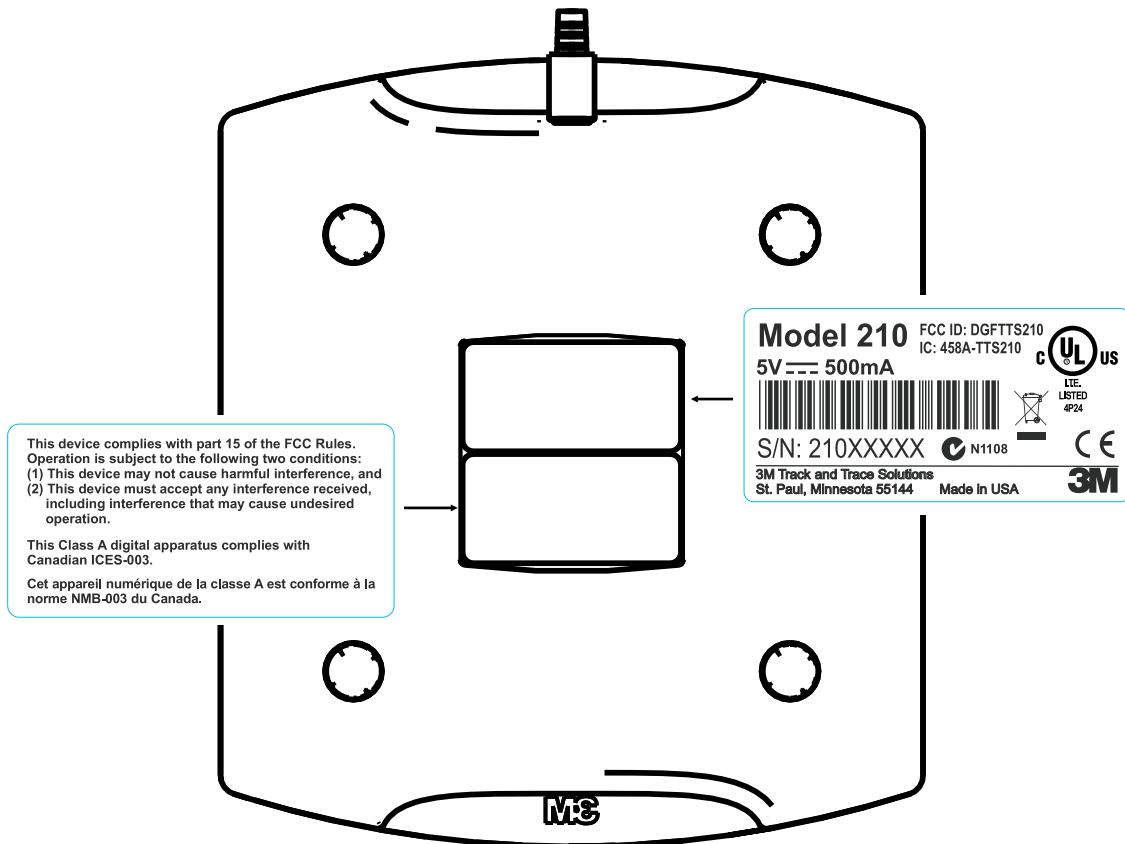
- **To reduce the risks associated with repeated body movement:** Operation of the pad may involve repeated body movements. To minimize possibility of Repetitive Stress Injury, avoid prolonged repetitive movements, rest when becoming fatigued, and when possible, alternate job functions with other people. It is recommended that the user avoid awkward reaching for items.
- **To help ensure maximum pad performance:** Place the pad at least 2 in. from any metal surface.

---

**Note:** At the end of service life, dispose of the Mini RFID Pad Model 210 according to federal, state, and local requirements.

---

# Label location



GR\_210\_label\_Location

# EMC compliance

## FCC Intentional Radiator Certification

<b>Mini RFID Pad Model 210</b>	FCC ID:DGFTTS210.
--------------------------------	-------------------

This equipment contains an intentional radiator approved by the FCC under the FCC ID numbers shown above. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesirable operation.

NO MODIFICATION: Modifications to this device shall not be made without the written consent of the 3M Company. Unauthorized modifications may void the authority granted under Federal Communications Commission rules permitting the operation of this device.

## Industry Canada radio frequency rules and regulations

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

CANADA : 458A-TTS210

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

## EMC compliance Europe

This equipment complies with the requirements of the RTTE and EMC directives.





# Overview

The Mini RFID Pad Model 210 is used with other equipment and software to read and/or program RFID tags. These tags are used to identify files, folders, and other items such as books. When used in conjunction with pad software, the unit can track, monitor, and assist in locating various items equipped with RFID tags.

## Model 210 components

The Model 210 includes the following components:

- 3M Mini RFID Pad Model 210
- USB cable - connects the Mini RFID Pad Model 210 to a customer-supplied computer

## Specifications

### Mini RFID Pad Model 210

<b>Dimensions</b>	Length: 7.21 in. (18.3 cm) Width: 6.44 in. (16.3 cm) Height: 0.6 in. (1.5 cm)
<b>Read Range</b>	At least 6 in. (15.2 cm) with the tag in the center of the pad <hr/> <b>Tip:</b> Metal surfaces within two inches of the pad will reduce the pad's read range. <hr/>
<b>Weight</b>	16 oz. (454 g)
<b>Environmental</b>	Operating temperature range: 50°F to 104°F (10°C to 40°C) Storage temperature range: -40°F to 131°F (-40°C to 55°C) Humidity: 0% to 85% RH, non-condensing

## Cleaning the Mini RFID Pad Model 210

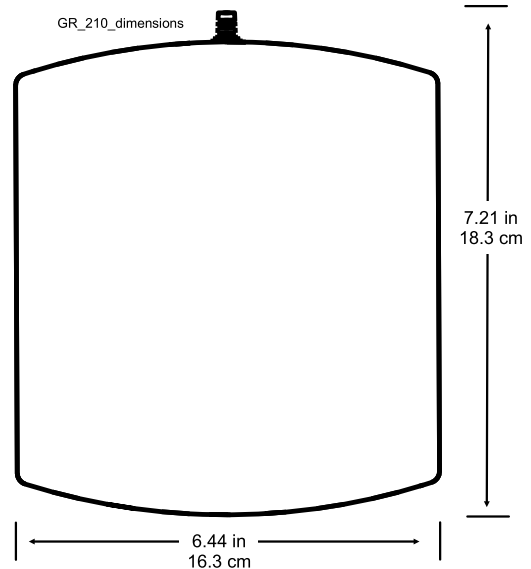
DO *not* use any abrasive cleaners on the pad. Gently rub the pad with a soft cloth dampened with a mild cleaning solution.

## Overview

# Install the Model 210

## Determine the best placement for the pad

- Place the pad on a flat, non-metallic surface in a convenient location. For best performance, make sure that the pad is at least 2 in. (5 cm) away from any metal surface, keeping in mind that some desks and tables may have metal parts underneath the surface. If necessary, the pad can be as close as 1.0 in. (2.5 cm) to a metal surface. This will reduce the read range.
- Place the pad close enough to the computer so that the user can hear the verification sounds. The computer generates the pad's audible and visual cues.



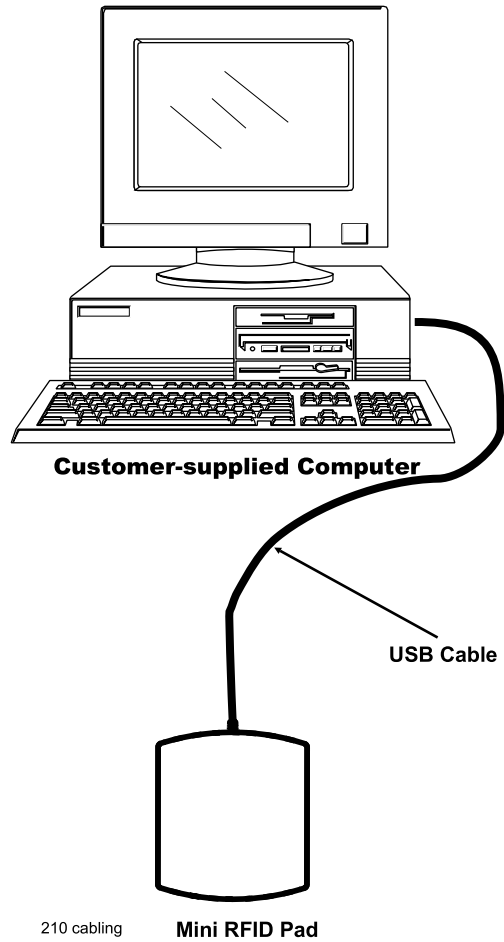
### **WARNING**

**To reduce the risks associated with hazardous voltage, which, if not avoided, could result in death or serious injury:**

- Do not use the Mini RFID Pad Model 210 if the case or cord are damaged;
- Do not use the Mini RFID Pad Model 210 in outdoor or wet environments;
- Do not attempt to service or repair the RFID circuitry — no user serviceable parts inside.

# Connect the hardware

Use the illustration to connect the hardware.

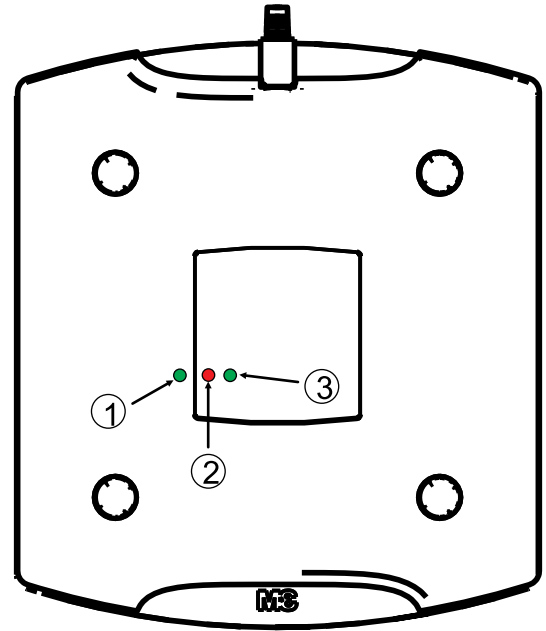


# Troubleshooting

## Introduction to the LEDs on the bottom of the unit

The following is a brief introduction to the LEDs that are located on the bottom of the unit, which will aid in troubleshooting.

1. Solid green when the unit is powered on.
2. Blinking red when communicating with software.
3. Blinking green when the firmware is working and the unit is waiting for a command.



GR\_210\_LEDs

## Pad does not read tags

Here are some things to try:

- Make sure that the items that you are trying to read are equipped with 3M RFID tags.
- Make sure that the RFID Reader's green power light is flashing, indicating that the reader has power. If the power light is NOT flashing, check the USB connection.
- Make sure that the reader's red communications light is flashing to indicate that it is communicating with the software. If the communications light is not flashing, make sure the software (delivered with your system) is installed and running on your computer.

## Pad read range is reduced (less than 4 in.)

- Check to make sure that the pad is at least two inches (15 cm) from any metal surfaces. Some locations may have hidden metal surfaces and components. Try moving the pad to a different location to see if the read range improves.
- Make sure that the item's tags are placed in the center of the pad.

## Pad does not always read all tags placed on it

- Make sure that you are not trying to read blank, invalid, or disabled tags.
- Make sure that the tags are within the pad's read range.
- Make sure that the item's tags are placed near the center of the pad (not hanging off the side of the pad).



# 3M Service

To locate service telephone numbers, see your 3M software manual.

**Track and Trace Solutions  
3M Center, Building 225-4N-14  
St. Paul, Minnesota  
55144-1000**