

## Introduction

**WARNING** *These procedures must be performed by qualified service personnel. Failure to recognize and observe normal safety precautions may result in equipment damage, personal injury, or even death.*

This document provides installation instructions for the Keithley PreAmp Base Models 4200-MAG-BASE, 4200-VAC-BASE, and the 4225-RPM. Read through this document and make sure all components required to complete the installation are available before proceeding.

**NOTE** The Model 4200-SCS comes with a toolkit containing all the tools required to properly install the PreAmp to the base as described in this document. Also, the Model 4225-RPM comes with a TL-32 (3/32" hex key L-wrench) to mount the base as described in this document.

The Model 4200-MAG-BASE and 4200-VAC-BASE are intended to provide a secure mounting surface for locating a Model 4200-PA PreAmp or a Model 4225-RPM on a probe station platen.

## PreAmp Installation

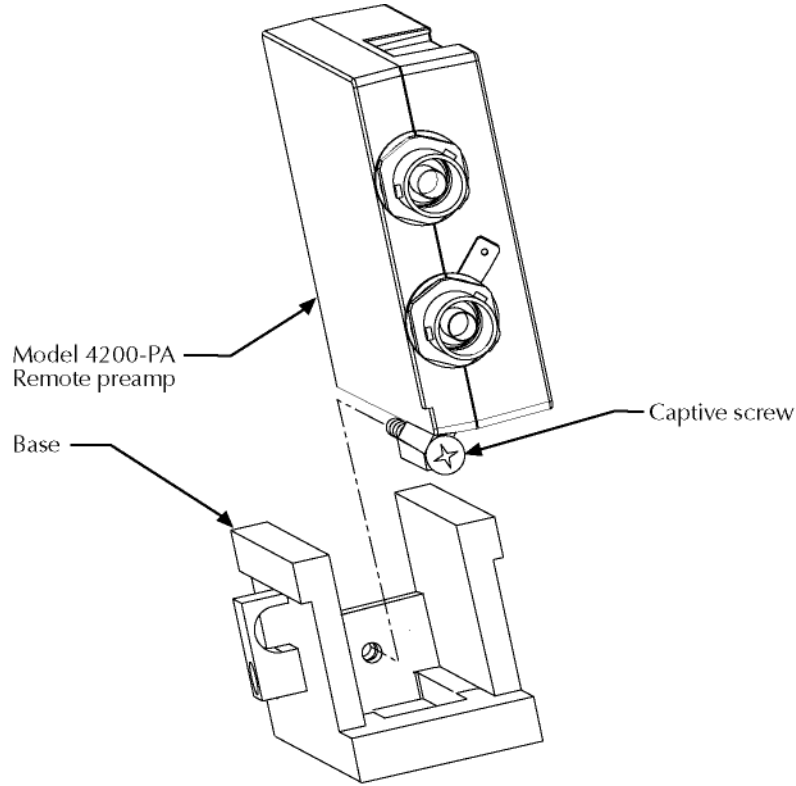
Use the following procedure for installing each PreAmp onto the MAG base.

**WARNING** *Turn off the power from all the connected instruments and disconnect power cords. Make sure all power is removed and stored energy in external circuitry is discharged. Failure to remove all the power from the instruments may result in equipment damage, personal injury, or even death.*

### Step 1

Install the Remote PreAmp (Model 4200-PA) onto the base by securing it with the captive screw (see Figure 1).

**Figure 1: PreAmp and base assembly**



**Step 2**

Place the PreAmp and the base assembly on the probe station platen.

**Step 3**

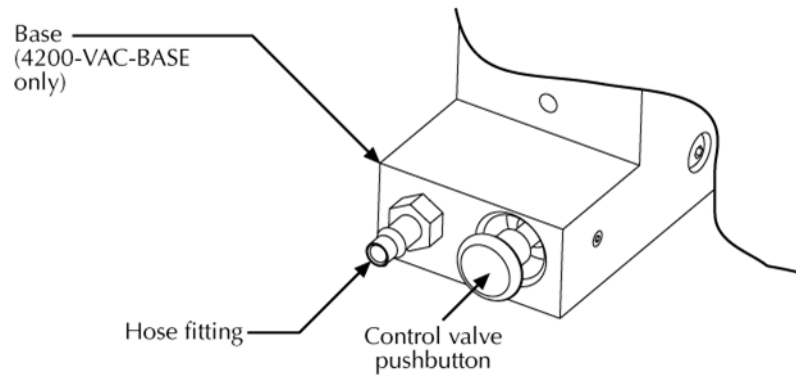
For the Model 4200-VAC-BASE only, route the vacuum hose to the hose fitting on the base (see Figure 2). Apply a vacuum to the base. If the base does not securely hold in position, reposition the base on a clean flat surface.

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**NOTE** To remove the vacuum base, press the Control valve pushbutton (see Figure 2).

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**Figure 2: Vacuum connection (Model 4200-VAC-BASE only)**



## Step 4

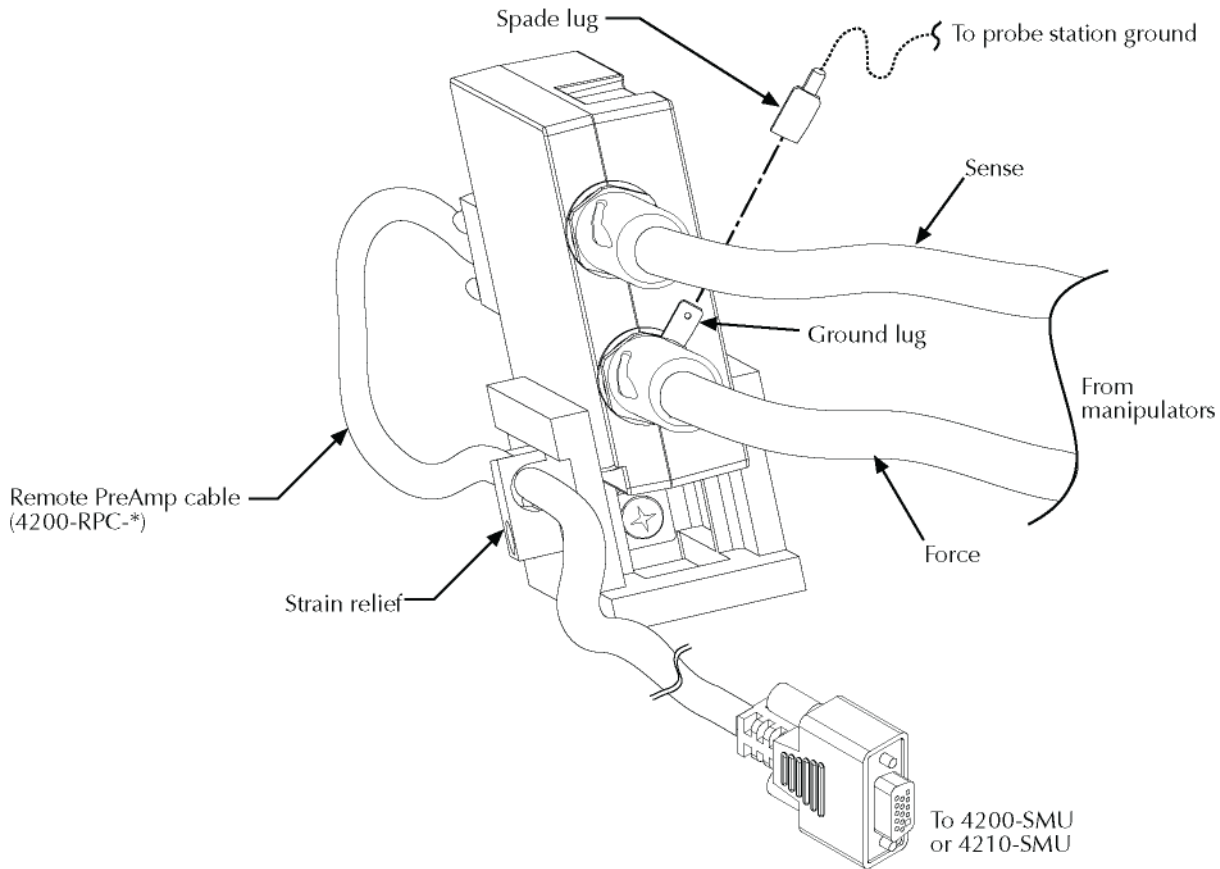
Connect the manipulator's FORCE and SENSE cables to the FORCE and SENSE triax connectors on the PreAmp (see Figure 3).

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**NOTE** The SENSE connection is optional.

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**Figure 3: Cable connections**



## Step 5

Connect, route, and strain relieve the Model 4200-RPC-\* cable as shown in Figure 3.

## Step 6 (optional)

Attach the PreAmp Ground lug to the probe station ground using the supplied Spade lug (see Figure 3). See the Model 4200-SCS Reference manual for more details if necessary on Source Measure concepts (manual number: 4200-901-01).

## Remote Pulse Measure (RPM) Installation

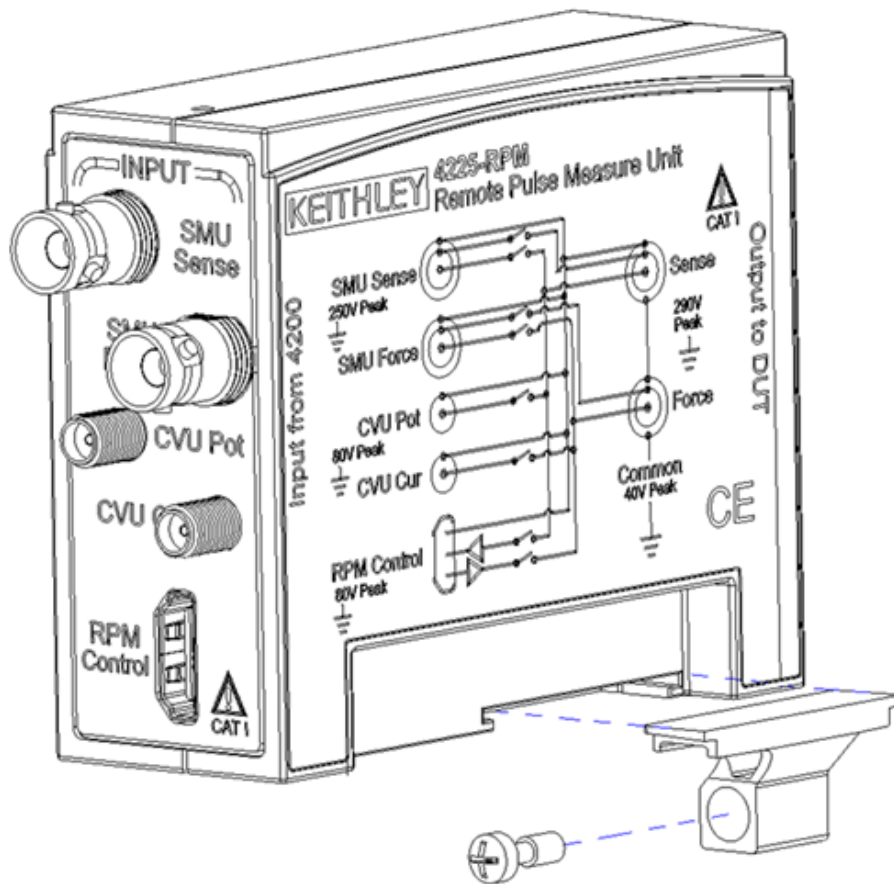
Use the following procedure for installing each RPM onto the MAG base.

**WARNING** Turn off the power from all the connected instruments and disconnect power cords. Make sure all power is removed and stored energy in external circuitry is discharged. Failure to remove all the power from the instruments may result in equipment damage, personal injury, or even death.

### Step 1

Install the Remote Pulse Measure unit (Model 4225-RPM) onto the base by securing it with the captive screw (see Figure 4).

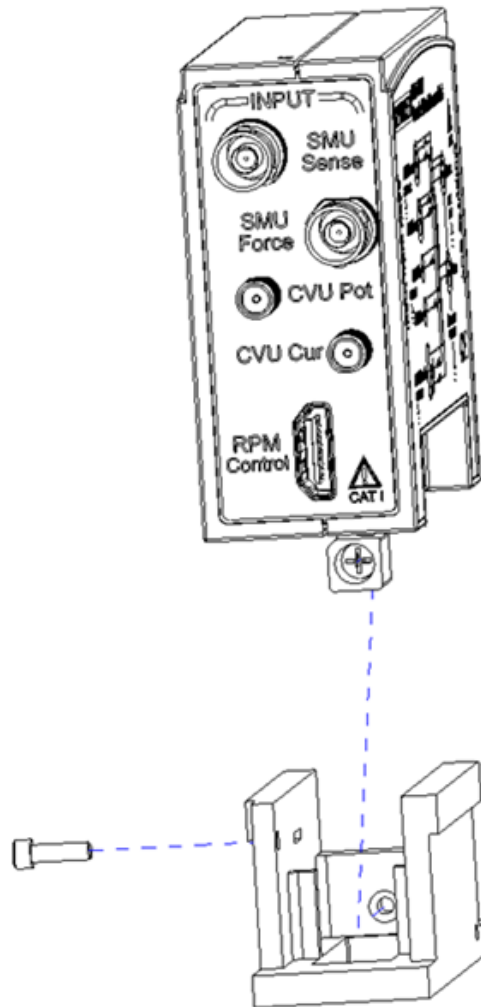
Figure 4: Captive screw and base assembly



## Step 2

Fasten the RPM to the base with the socket head screw located on the side of the base (see Figure 4).

**Figure 5: Socket head screw and base assembly**



## Step 3

Place the RPM base assembly on the probe station platen.

**WARNING** *During final placement of the RPM base assembly, if the MAG base is used, make sure that there is a minimum of two inches (2 in.) or five centimeters (5 cm) of space between multiple RPM base assemblies.*

## Step 4

For the Model 4200-VAC-BASE only, route the vacuum hose to the hose fitting on the base (see Figure 2). Apply a vacuum to the base. If the base does not securely hold in position, reposition the base on a clean flat surface.

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NOTE To remove the vacuum base, press the Control valve pushbutton (see Figure 2).

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## Step 5

For connection to the manipulator and instruments, see the Model 4200-SCS Reference manual for more details (manual number: 4200-901-01).