

WFM7F05, WFM50F02, WFM50F03 Rack Adapter Instructions

Warning

The servicing instructions are for use by qualified personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries prior to performing service.

www.tektronix.com



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- In North America, call 1-800-833-9200.
- Worldwide, visit www.tektronix.com to find contacts in your area.

Service Safety Summary

Only qualified personnel should perform service procedures. Read this *Service Safety Summary* before performing any service procedures.

Do Not Service Alone. Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

Disconnect Power. To avoid electric shock, switch off the instrument power, then disconnect the power cord from the mains power.

Use Care When Servicing With Power On. Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

To avoid electric shock, do not touch exposed connections.

Terms in this Manual. These terms may appear in this manual:



WARNING. *Warning statements identify conditions or practices that could result in injury or loss of life.*



CAUTION. *Caution statements identify conditions or practices that could result in damage to this product or other property.*

Product Description

The WFM7F05, WFM50F02, and WFM50F03 are designed to house two half-rack instruments side-by-side in a rack. (See Figure 1.)

Supported Products

To accommodate different types of products, three types of sleeves are available:

- **WFM7F00 sleeve** (Tektronix part number 390-1210-XX)
- **1700F00A sleeve** (Tektronix part number 390-1211-XX)
- **WFM50F03-001 sleeve** (Tektronix part number 437-0523-XX)

The types of sleeves included with the rack adapter kit are determined by the option ordered. The available options are:

- 650-4447-02: Includes two 1700F00A sleeves
- 650-4394-03: Includes one 1700F00A sleeve and one WFM7F00 sleeve
- 650-4445-03: Includes two WFM7F00 sleeves
- WFM50F02: Includes two WFM50F03-001 sleeves
- WFM50F03: Includes one WFM7F00 sleeve and one WFM50F03-001 sleeve
- WFM50F03-001 sleeve only: If you already have a WFM7F05 rack, you can order the sleeve on its own to accommodate a WFM4000 or WFM5000

The sleeves are designed to properly fit only the following products:

WFM7F00 sleeve

- All WFM700 instruments
- WFM8200 and WFM8300
- WFM6120, WFM7020, and WFM7120
- WFM6100 Opt. MB, WFM7000 Opt. MB, and WFM7100 Opt. MB
- MTX100A and MTX100B
- RTX A Series and RTX B Series instruments

1700F00A sleeve

- 1700 Series instruments
- WFM601 Series instruments
- MTX100
- Older half rack instruments
- 760A
- 764

WFM50F03-001 sleeve

- WFM4000 Series instruments
- WFM5000 Series instruments

Flexible Configuration

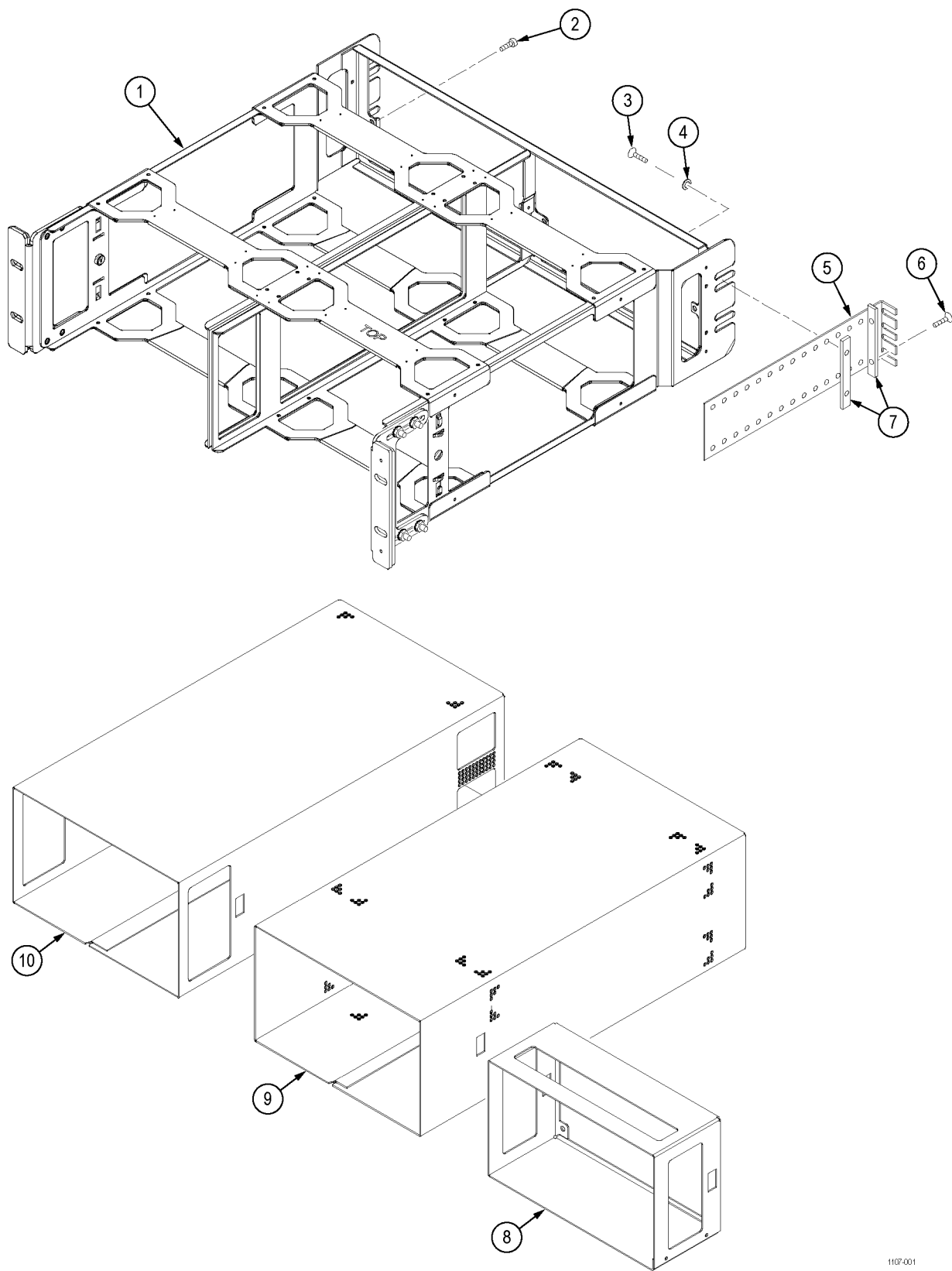
You can install any of the following combinations in the rack adapter:

- Two WFM7F00 sleeves.
- Two 1700F00A sleeves.
- Two WFM50F03-001 sleeves.
- One WFM7F00 sleeve and one 1700F00A sleeve, in either side of the adapter.
- One WFM50F03-001 sleeve and one WFM7F00 sleeve, in either side of the adapter.
- A sleeve in one side of the rack adapter and a blank panel (1700F06) or an utility drawer (Tektronix part number 075-0978-XX) in the other side to improve airflow and appearance.

Parts List

This kit contains of the following parts, which correspond to the circled numbers in the figure. (See Figure 1.)

Number	Quantity	Part number	Description
1	1 EA	407-4892-XX	BRACKET:RACKMOUNT,DUAL SIDE-BY-SIDE,FOR WRAP-AROUND CABINETS
	1 EA	016-1908-XX	HDW KIT, RACK MOUNT, CONSISTING OF:
2	4 EA	211-0540-XX	SCREW,MACHINE:6-32 x 0.5,TRH.STL
2	4 EA	212-0008-XX	SCREW,MACHINE:8-32 x 0.5,PNH.STL
3	4 EA	213-0090-XX	SCREW,MACHINE:10-32 X 0.5,HEX HD,STL
4	4 EA	210-1061-XX	WASHER,FLAT:0.203 ID X 0.625 OD X 0.062
5	2 EA	407-3752-XX	BRACKET,GUIDE:LEFT & RIGHT REAR
6	4 EA	212-0509-XX	SCREW,MACHINE:10-32 X 0.625,PNH,STL CDP
7	4 EA	381-0251-XX	NUT BAR:10-32 X 3.0 X 0.375 X 0.125
8	-	437-0523-XX	CABINET, RACK, SLEEVE; FOR WFM4000 SERIES AND WFM5000 SERIES INSTRUMENTS (QUANTITY DETERMINED BY OPTION)
9	-	390-1211-XX	CABINET:WRAP-AROUND, FOR 1700 SERIES (QUANTITY DETERMINED BY OPTION)
10	-	390-1210-XX	CABINET:WRAP-AROUND, FOR WFM700 (QUANTITY DETERMINED BY OPTION)
	4 EA	210-1298-01	WASHER; SHOULDER & RETAINER,0.195 ID X 0.195 THK,PLASTIC,TV GRAY,6.575 OD
	1 EA	071-1107-XX	MANUAL,TECH:INSTRUCTIONS,WFM7F05, WFM50F03, and 650-4393-06



1107-001

Figure 1: Rack adapter parts, exploded view

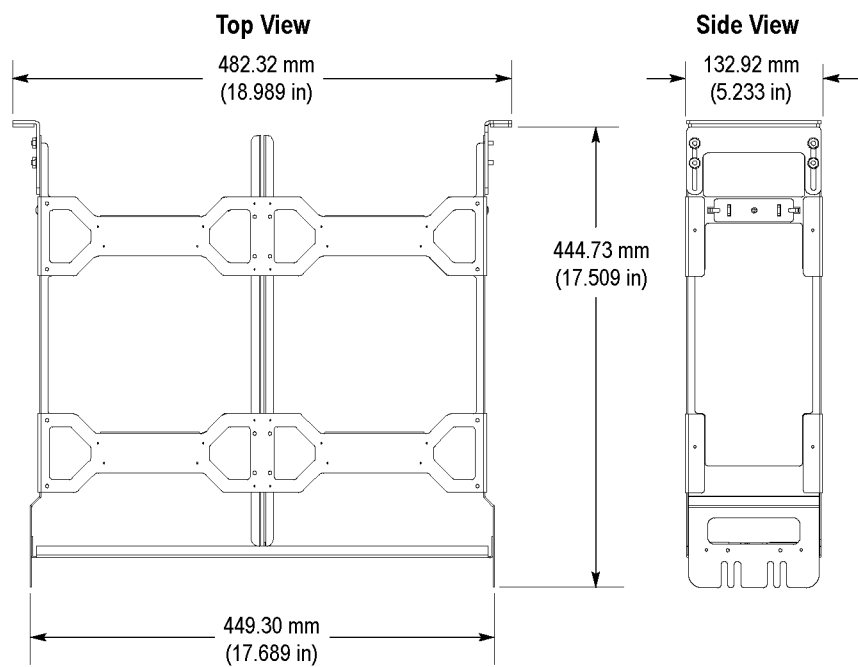


Figure 2: Rack adapter dimensions

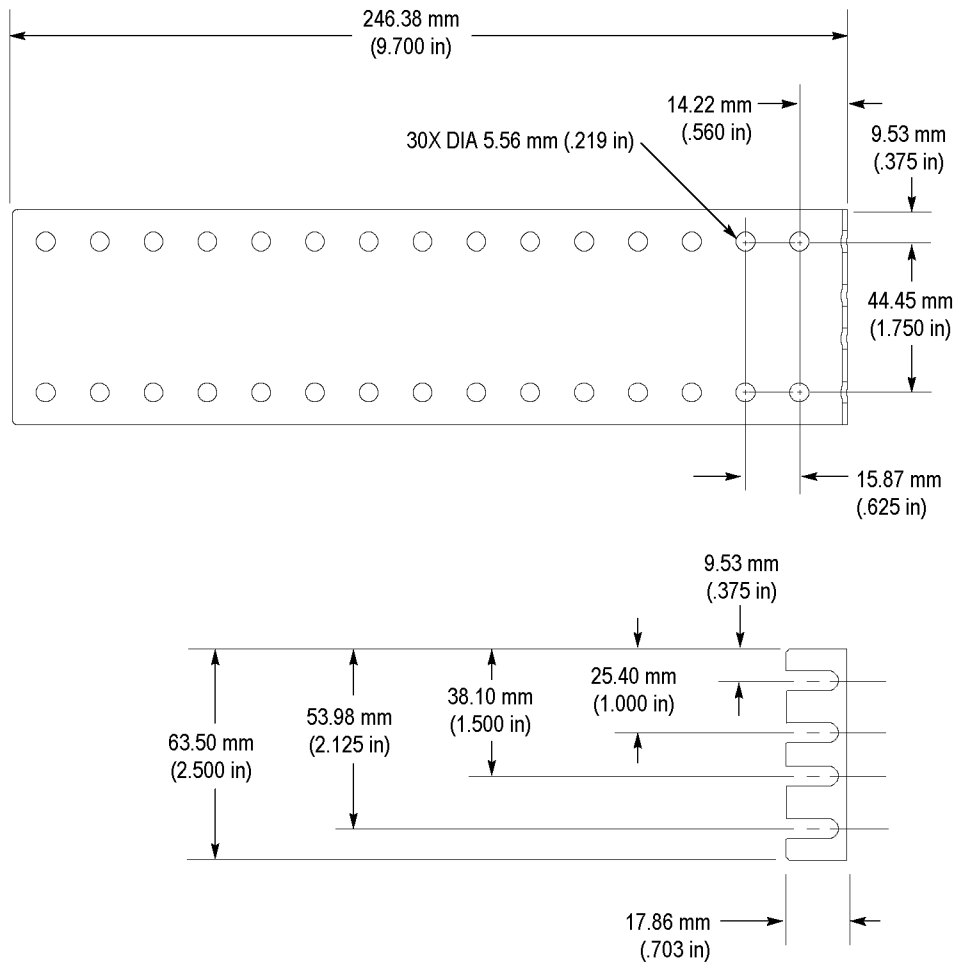


Figure 3: Rear bracket guide dimensions

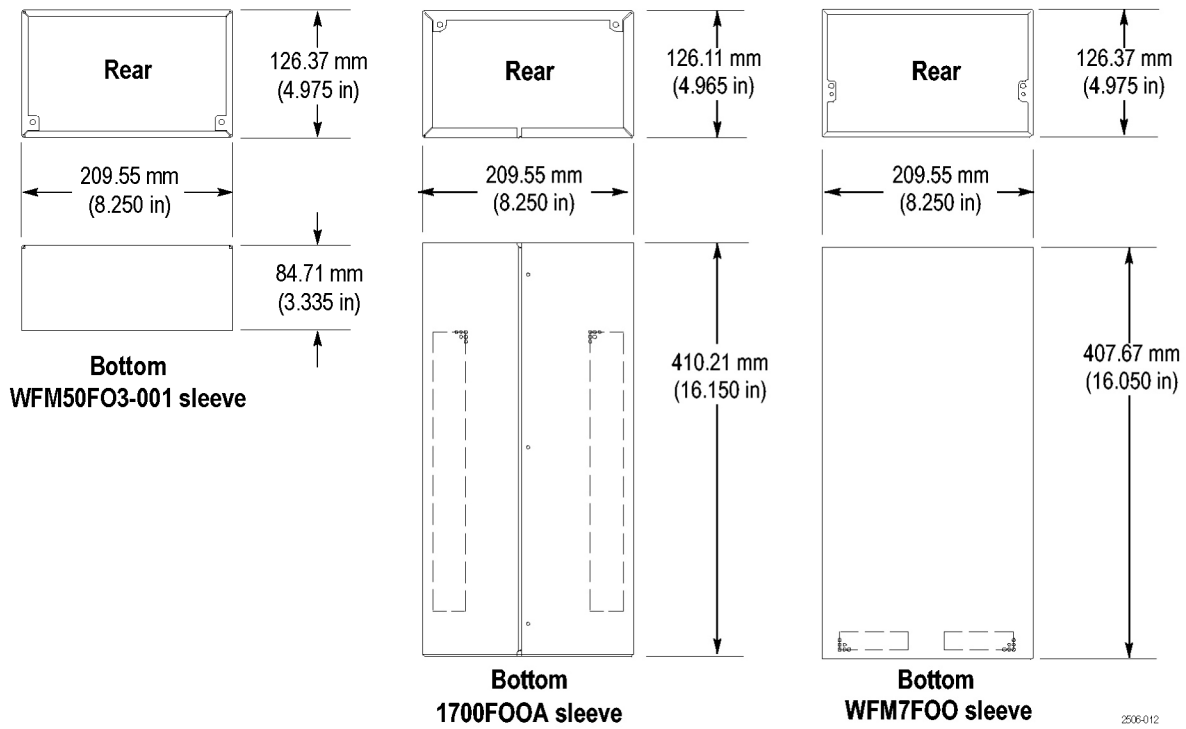


Figure 4: Sleeve dimensions

Installation

These instructions are for personnel who are familiar with the product. If you need assistance, contact your nearest Tektronix, Inc., Service Center.

Rack Adapter Cooling and Clearance Requirements



CAUTION. *To prevent risk of fire, adequate airflow to instrument(s) and rack adapter must be maintained. Failure to provide adequate airflow to instrument(s) could cause an instrument to shut down. Inadequate airflow includes placing instrument(s) and rack adapter in any small, enclosed room that lacks a ventilation system, such as a closet. If the airflow is restricted or blocked and the instrument(s) do not shut down, the risk of fire is increased and the instrument(s) could be permanently damaged.*

Each instrument has specific cooling and clearance requirements. Refer to the cooling and clearance information for the individual instruments you are installing before installing them. This information is available in the user manuals and other documentation specific to those instruments. Ensure that the clearance requirements for proper airflow are met for both the rack adapter and the instrument.

Table 1: Clearance requirements for the rack adapter

Characteristic		Description
Required clearances	Top	None
	Bottom	None
	Left side	2 in (51 mm)
	Right side	2 in (51 mm)
	Front	None
	Rear	3 in (76 mm)

Installing the Rack Adapter into the Rack

Before you install an instrument into the rack adapter, install the adapter into the rack as follows:

NOTE. *The numbers in brackets in the following procedure refer to the circled numbers in the figure and in the parts list. (See Figure 1.)*

The rack adapter is marked with the word "TOP" to indicate which side of the adapter should face up. (See Figure 5.)

1. If the two sleeves are installed in the rack adapter, remove them as follows: locate the button on the inside front of the rack adapter and hold it in while pulling the sleeve forward and out of the adapter. (See Figure 5.)
2. If desired, you can adjust the position of the handle brackets to mount the adapter flush with other equipment in the rack. To do this, loosen the nuts that attach the handle brackets to the rack adapter, adjust the position of the handle brackets as desired, and then tighten the nuts securely. (See Figure 5.)
3. Secure the rack adapter assembly to the front frame of the rack using four screws and four shoulder washers.
4. Install one guide bracket to one side of the rear frame of the rack using the screws and nut bar provided in the kit.
5. Secure the guide bracket to the rack adapter, using the nut bar and attaching hardware. Use the holes in the bracket that will accommodate the depth of the instrument rack frame being used. Leave the screws loose.
6. Install the other guide bracket to the other side of the rear frame of the rack, using the screws and nut bar.
7. Secure the guide bracket to the rack adapter, using the nut bar and attaching hardware.
8. Tighten all attaching screws that were left loose in the previous steps.

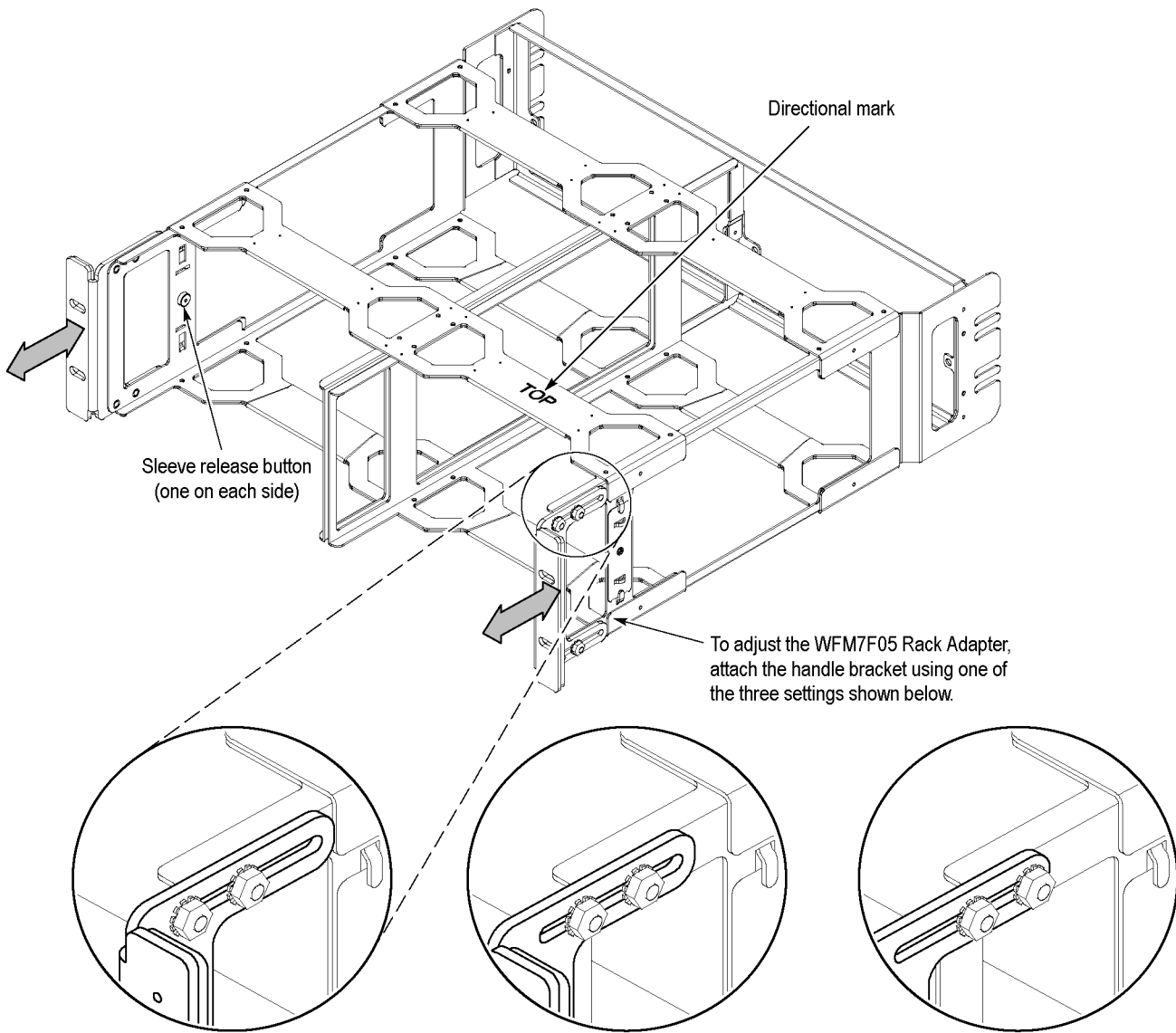


Figure 5: Adjusting the position of the handles

Installing an Instrument into the Rack Adapter

With the rack adapter already installed in the rack, install the instrument into the rack adapter as follows:



CAUTION. *When working with instruments that are not enclosed in a chassis, you must observe static precautions. You must also be careful not to damage circuit board mounted components or interconnection wiring when sliding a sleeve over these products.*

1. Refer to the figure to choose the appropriate sleeve in which to install your instrument. (See Figure 6.)
 - The WFM7F00 sleeve (Tektronix part number 390-1210-XX) and the WFM50F03-001 sleeve (Tektronix part number 437-0523-XX) are designed for the instruments listed under Supported Products. (See page 1.) The rear panel attaching tabs on these sleeves are near the vertical center of the rear frame. (See Figure 6.)
 - The 1700F00A sleeve (Tektronix part number 390-1211-XX) is designed for 1700 Series, WFM601 Series, older half rack instruments, 760A, and 764. (See page 1.) The rear panel attaching tabs on this sleeve are closer to the top of the rear frame. (See Figure 6.)

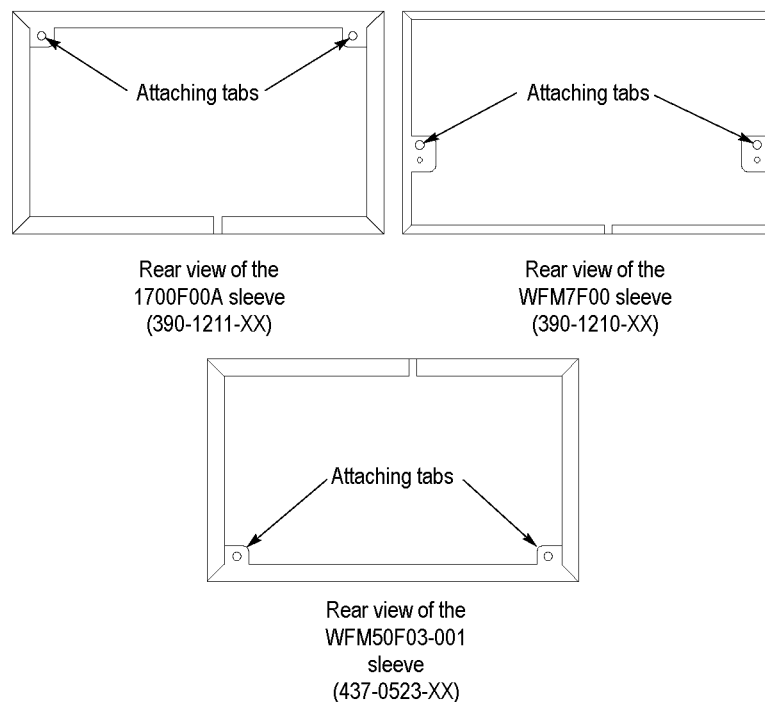


Figure 6: Rear view of three sleeves, showing the attaching tabs and screws



CAUTION. *Be sure to use the correct sleeve for your product. If you use the wrong sleeve, it could damage the instrument and cause overheating problems.*

The ventilation holes and EMI shielding on the sleeves are specially designed to meet the requirements of the instruments for which they were intended.

2. Slide the sleeve into the desired half of the rack adapter, depressing the button on the inside front of the rack adapter as needed to insert the sleeve. (See Figure 7.)

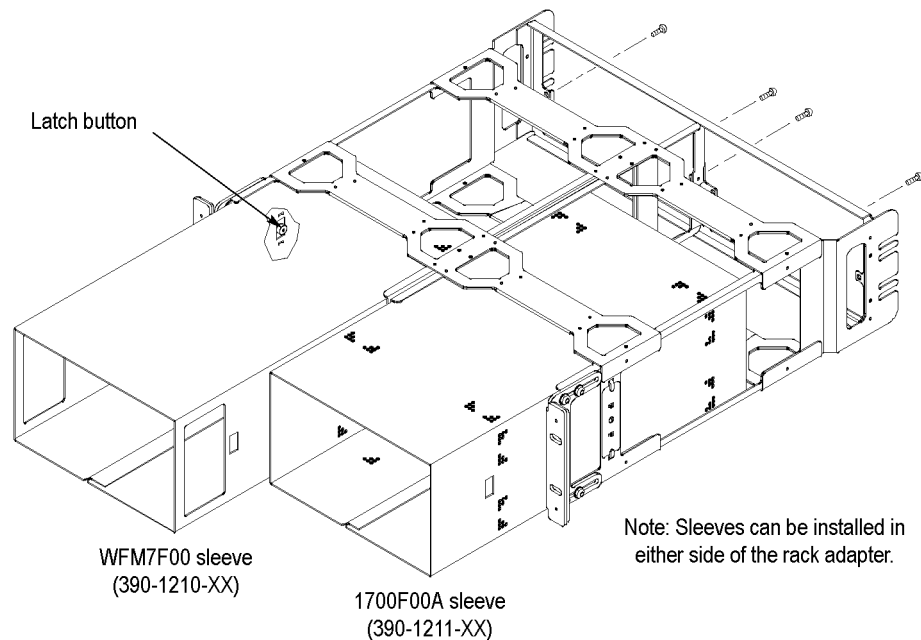


Figure 7: Installing the sleeves into the rack adapter. Only two sleeve types are shown in this example.



WARNING. *During installation, the instrument could slide out of the sleeve and cause instrument damage or personal injury. To prevent the instrument from sliding out of the sleeve, be careful to hold the instrument until it is secured.*

3. Make sure that the button pops back out and that it securely locks the sleeve in the rack adapter.



CAUTION. *Do not force the instrument into the cabinet. Keying pins on the tabs at the rear of the sleeves are designed to work only with the correct instrument. Attempting to force an instrument into the sleeve may damage the tabs.*

4. Slide the instrument into the sleeve. Be careful to keep the instrument from sliding out of the sleeve until you attach the screws in step 5.
5. On the rear panel, install and tighten the two attaching screws as follows:
 - For the WFM7F00 and WFM50F03-001, insert the screws through the rack adapter, through the tabs on the sleeve, and then into the instrument rear panel. (See Figure 6.)
 - For the 1700F00A, insert the screws through the holes on the top right and left of the sleeve and into the instrument rear panel. (See Figure 6.) The screws do not attach to the rack adapter; this sleeve is held in place by the button on the inside front of the rack adapter.