FCA3000 and FCA3100 Series, MCA3000 Series, DMM4000 Series, PWS2000 and PWS4000 Series, AFG2021 Rackmount Kit RMU2U

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 before performing service.

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Service safety summary

Only qualified personnel should perform service procedures. Read this *Service safety summary* and the *General 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.

Kit Description

The RMU2U rackmount kit is a collection of parts that let you install one or two supported instruments into a standard 19-inch equipment rack. You can install any combination of two supported instruments.

CAUTION. *This rackmount is intended for use in fixed installations only. It is not intended for mobile applications, or any other application where the rack mount and mounted instruments are subject to vibration or shock.*

Supported Products

This rackmount kit supports the following Tektronix bench instruments:

FCA3000, FCA3003, FCA3020, FCA3100, FCA3103, FCA3120,
MCA3027, MCA3040
PWS2185, PWS2323, PWS2326, PWS2721
PWS4204, PWS4305, PWS4323, PWS4602, PWS4721
DMM4020, DMM4040, DMM4050
AFG2021

Warranted Characteristics

When the instruments are installed according to the instructions in this document, the rackmounted instruments meet all warranted requirements listed in the instrument specification. Instruments mounted using methods other than those described in these instructions may not meet their warranted requirements.

See the *Specifications* section in the relevant document of your instrument for information about the warranted characteristics.

Clearance Requirements

The rack in which the rack adapted instrument is mounted must provide 51 mm (2 in) of clearance on at least one side of the instrument, and 51 mm (2 in) at the rear of the instrument. For example, if two instruments are installed in the rack, the outer sides must have 51 mm (2 in) of clearance.

CAUTION. *Adhering to these requirements mounts the rack-adapted instrument with enough clearance for air circulation and accommodation of the power cord and mounting hardware. Failure to provide these clearances can result in overheating and can cause the instrument to operate improperly or fail.*

Minimum Tool and Equipment List

Required tools and equipment	Part number
Screwdriver, Phillips, #2	Standard tool
11/32 inch nut driver	Standard tool

Kit Parts List

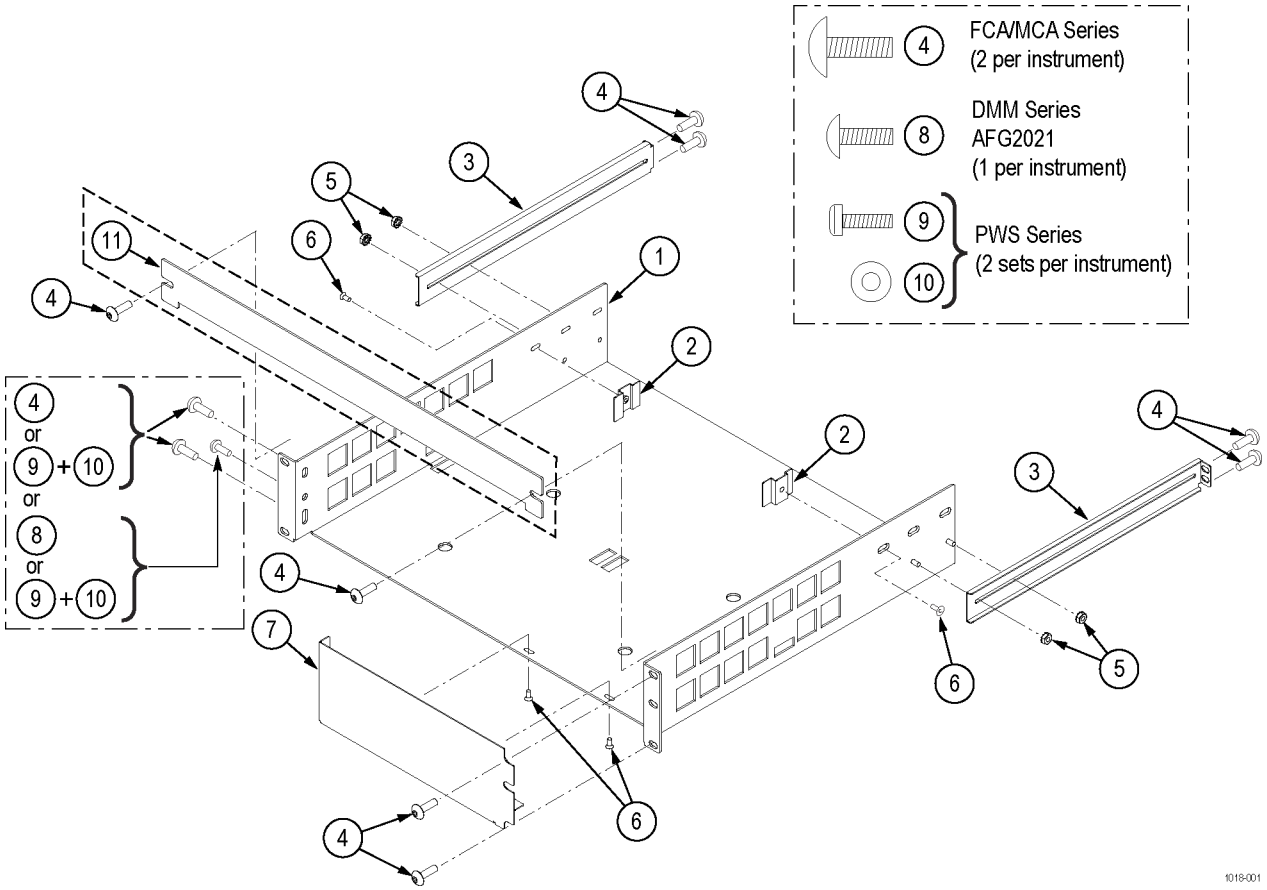


Figure 1: Rackmount kit parts diagram

Table 1: Rackmount kit parts list

Item	Part number	Quantity	Description
1	407-5551-01	1	Tray, Rackmount
2	407-5552-00	2	Bracket, Lock
3	407-5553-00	2	Bracket, Extended
4	212-0251-00	14	Screw, Machine 10-32 X .500l, Truss Head, Phil
5	210-0458-00	4	Hex Nut, 8-32 X .344, With Lock Washer
6	211-1351-00	4	Screw, Machine 6-32 X .312l, Flat Head, Phil
7	386-7597-00	1	Front Panel, Cover (covers 1/2 of bay when only one instrument is installed)
8	212-0252-00	2	Screw, Machine 8-32 X .437l, Truss Head, Phil (for DMM4000 Series and AFG2021 instruments only) (one per instrument)
9	211-0458-00	4	Screw, Machine M4 X 10 mm L, Pan Head, Phil (for installing PWS2000 and PWS4000 Series instruments only) (two per instrument)
10	210-0864-00	4	Washer, Flat (for installing PWS2000 and PWS4000 Series instruments only) (two per instrument)

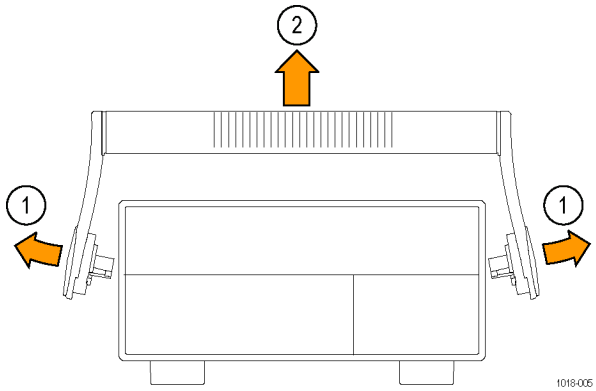
Optional Part for PWS2000, PWS4000 Series Instruments

Item	Part number	Quantity	Description
11	386-7598-00	1	Front panel, 3U (long rack cover). For PWS2000, PWS4000 Series instruments only. ***NOTE.*** *This part is not included in this kit. You must order this part separately. This part is cosmetic and is not required for proper installation or operation of the power supplies in the rack.*

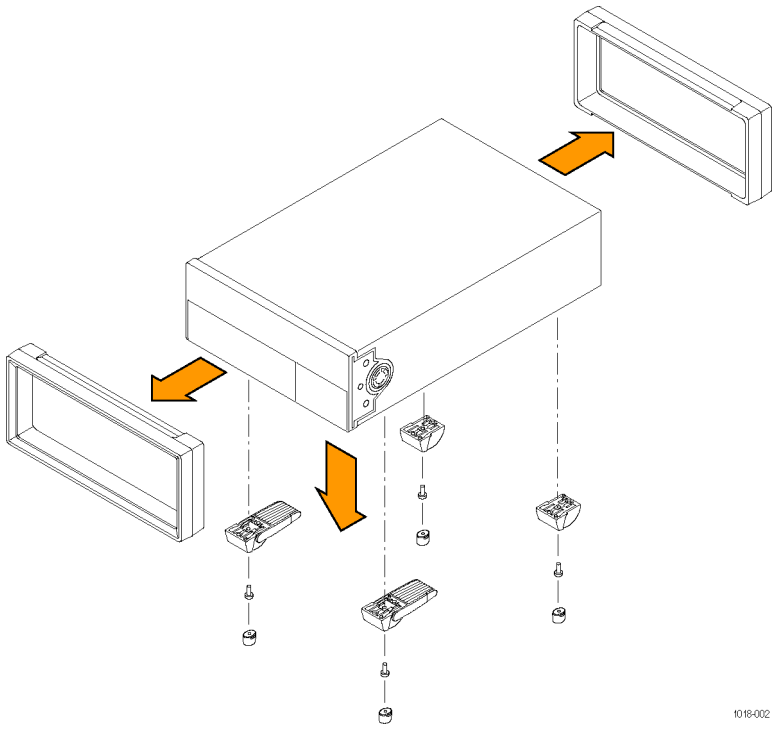
Installation

NOTE. *These instructions will work for most installations. However, the available space and access to the rack rear and sides may require you to modify the order of these installation instructions to install the instrument tray in your particular rack configuration.*

1. Remove the handle from the instrument if present. Store the item in a labeled plastic bag.



2. Remove all boots and feet from the instrument. Store these items in a labeled plastic bag.



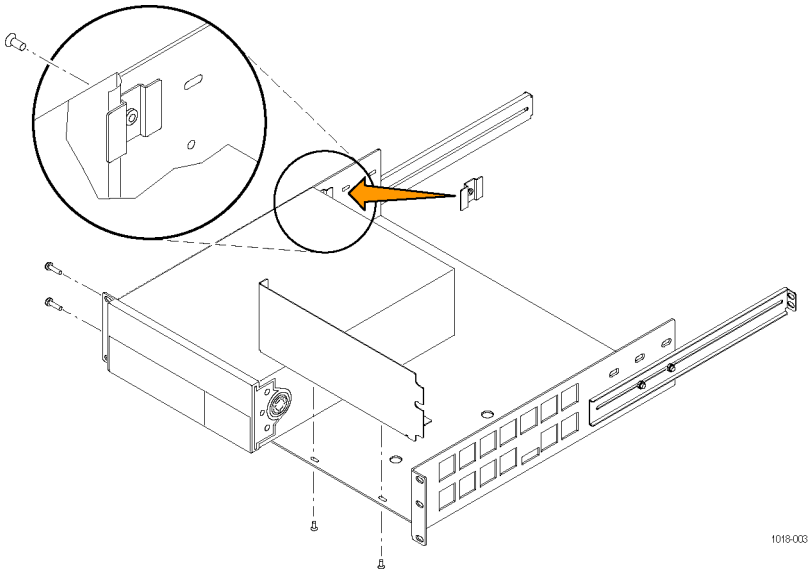
3. Install the side brackets (③) over the posts on the side of the rackmount tray (①) using the hex nuts with lock washers (⑤). Lightly tighten the nuts so that the side brackets can slide enough to allow for adjustment when installing the assembly in the rack.

4. Remove the front side screws or plugs from the appropriate side of the instrument. For example, to install an instrument on the left side of the rackmount tray, remove the front side screws or plugs from the left side of the instrument.

   The following list describes which screws or plugs to remove, by instrument:

   - FCA/MCA instruments: Remove both plugs from the appropriate side of the instrument.
   - DMM instruments: Remove the one center screw adjacent to the handle mount hole from the appropriate side of the instrument.
   - PWS instruments and AFG2021: You do not need to remove any screws from the power supply instruments or the AFG2021.

5. Place the instrument on the side of the rackmount tray where you want the instrument. If you are installing only one instrument, position the instrument on the left side of the rackmount tray. Position the instrument on the rackmount tray so that the front instrument side screw holes align with the holes on the front side of the rackmount tray.



6. Attach the front side of the instrument to the rackmount tray using the appropriate screw or screws. (See Figure 1 on page 4.)

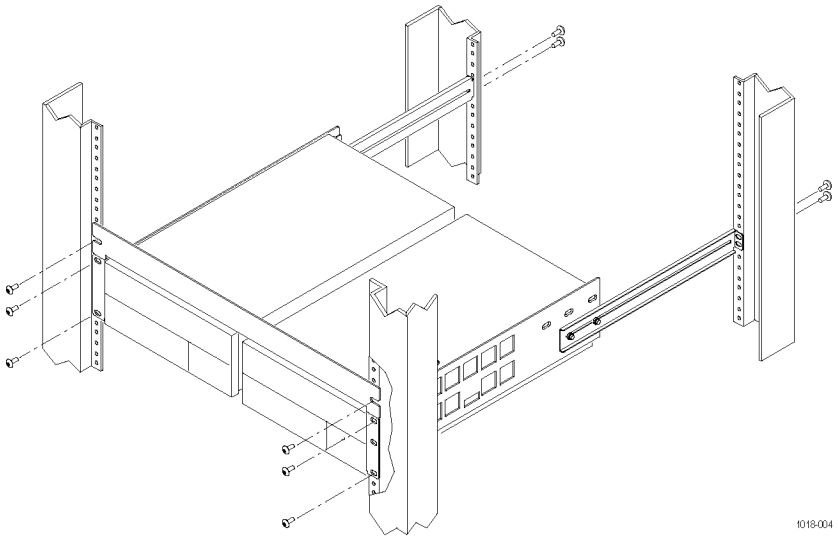
7. Attach the rear of the instrument to the edge of the rackmount tray using one locking bracket (②) and screw (⑥). Use the locking bracket hole in the rackmount tray that is best suited for the instrument.

NOTE. *The locking bracket sides have two different lengths. Install the locking bracket so that the instrument is not loose when the bracket is tightened.*

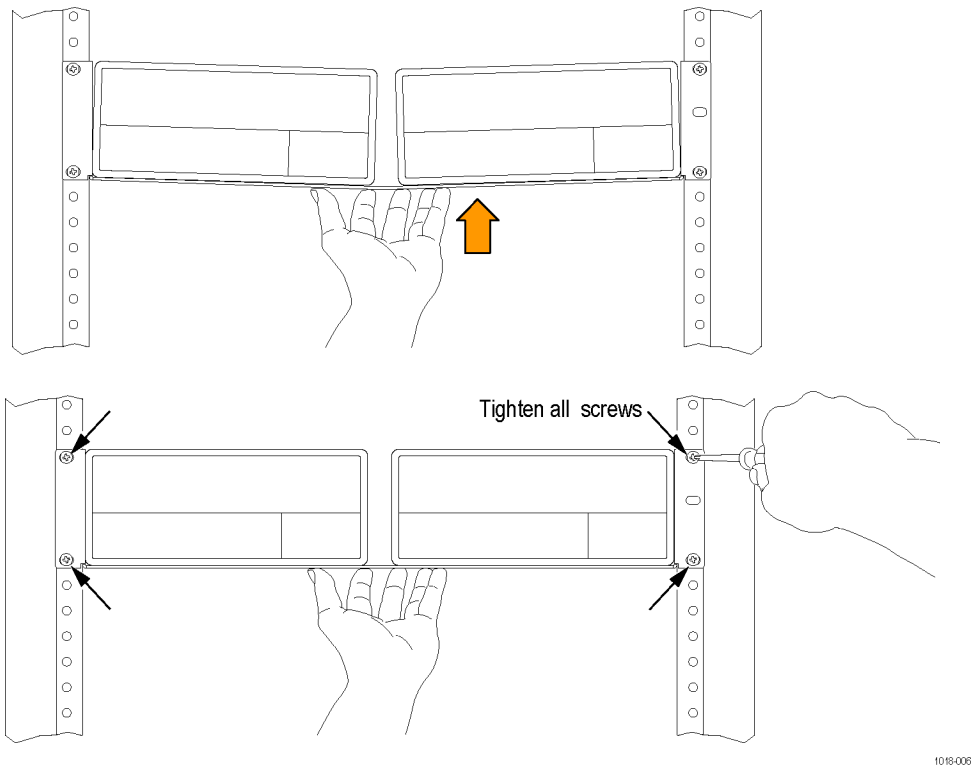
8. If you are installing two instruments, repeat steps 6 and 7 for the second instrument.

9. If you are installing one instrument on the left side of the rackmount tray, install the 1/2-bay rack cover (⑦) using two screws (⑥) from the bottom of the rackmount tray.

10. Install the assembled rackmount tray to the front and rear of the rack using screw (④). Lightly tighten the screws to keep the assembly in place. Make sure to install the screws in the 1/2-bay cover if you installed that item.



11. Lift up on the bottom of the rackmount tray so that the tray does not sag. While holding the tray, tighten the front screws, including the screws for the front 1/2-bay cover if installed. Repeat this step for the rear rack screws, and also tighten the side bracket nuts.



12. Tighten the side bracket hex nuts (⑤).

13. Connect the power, signal, and/or control cables as appropriate for the instrument.

You have completed the rackmount installation procedure.