

# Instructions



**016-1674-00**  
**AFG310 & AFG320**  
**Rackmount Kit**  
**075-0288-01**



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# Service Safety Summary



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**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 the General Safety Summary in the Service Manual of each instrument before performing any service.*

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**WARNING.** *Dangerous shock hazards may be exposed when the instrument covers are removed. Before proceeding, ensure the mainframe power switch is in the off position. Then, disconnect the instrument from the power source.*

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**CAUTION.** *Many components within this instrument are extremely susceptible to static-discharge damage. Service the instrument only in a static-free environment. Observe standard handling precautions for static-sensitive devices while installing this kit. Always wear a grounded wrist and foot strap while installing this kit.*

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## **Do Not Service Alone**

Do not perform internal service on this product unless another person capable of rendering first aid and resuscitation is present.

## **Avoid Exposed Circuitry**

To avoid injury, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.

## **Disconnect Power**

Dangerous voltages or currents may exist in this product. Disconnect power cord from the power source, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

## **Provide Proper Ventilation**

To prevent product overheating, provide proper ventilation.



## Kit Description

This kit includes parts and instructions for upgrading your **AFG310/AFG320** instrument.

When newly installing Rackmount Kit, no special performance check is required.

## Minimum Tool and Equipment List

The following table lists the tools you will need to upgrade the 016-1674-00 Rackmount Kit.

Tool	Description
#2 Phillips tip Screwdriver	Standard tool for M3 and M4 screws
Flat-bladed screwdriver	For removing the plastic cover on the handle bracket

## Kit Parts List

The following table lists the parts included in the 016-1674-00 Rackmount Kit.

Number	Quantity	Part Number	Description
1	1 ea	407-4575-00	BRACKET, RACK: EIA, STL
2	1 ea	333-4276-00	PANEL, FILTER: AFG300, STL
3	9 ea	211-0905-00	SCREW, MACHINE: M3 × 6MM L, PNH, STL, MFZN-C, CROSS REC
4	1 ea	211-0959-00	SCREW, MACHINE: M4 × 5MM L, PNH, STL, MFZN-C, CROSS REC
5	1 ea	075-0288-00	Rackmount Instruction Sheet





# Installation Instructions

This section contains the following information:

- how to prepare your instrument to attach the rack adapter
- how to attach the rack adapter to your instrument
- Installation into equipment rack

## Preparing the Instrument

This sub-section contains the following information:

- Handle Removal
- Feet Removal
- Rear Cover Removal

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**NOTE.** *All parts removed from the instrument in this procedure should be saved. You will need some of them to reconvert the instrument to a standard version at a later time.*

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### Handle Removal

1. Insert the flat-bladed screwdriver into the slit between the block and the cover. See Figure 1.
2. Release the latch of the cover using the flat-bladed screwdriver. See Figure 2 and refer to ①.



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**CAUTION.** *The latch of the cover can be released by lifting it up ward about 5 mm. Do not lift the cover more than necessary when releasing the latch. If so the nail at the opposite side of the cover can be broken.*

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3. Remove the cover by sliding it sideways to the handle. See Figure 2 and refer to ②.
4. Repeat step 1 through 3 for another cover to remove.
5. Using a #2 phillips tip screwdriver, remove the one screw (M4 × 10 mm) securing the block and handle to the cabinet.

6. Repeat step 5 for another screw to remove. Lift off the blocks and handle.

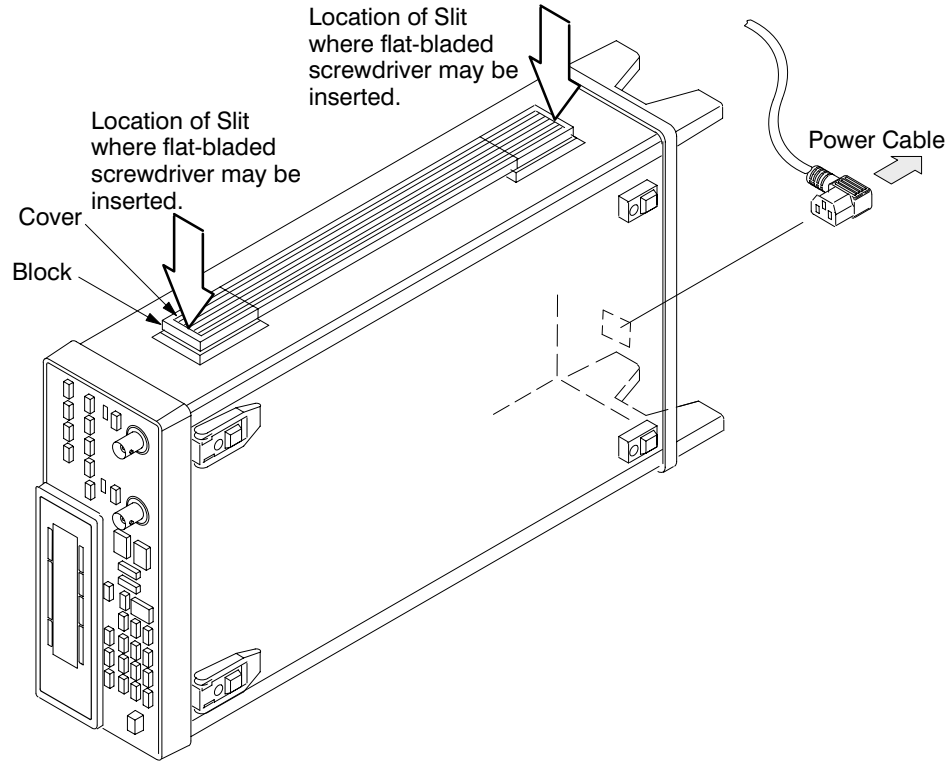


Figure 1: Location of slit where flat-bladed screwdriver may be inserted



**CAUTION.** The latch of the cover can be released by lifting it up ward about 5 mm. Do not lift the cover more than necessary when releasing the latch. If so the nail at the opposite side of the cover can be broken.

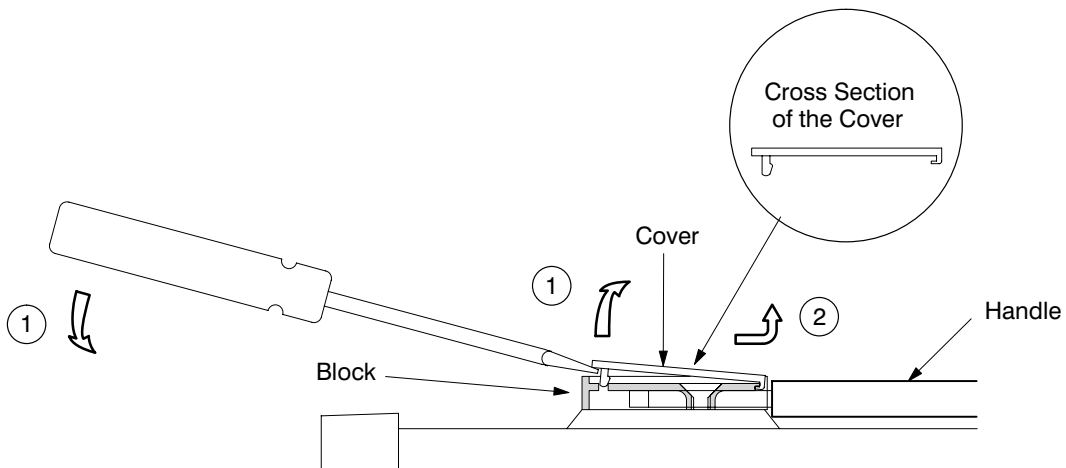
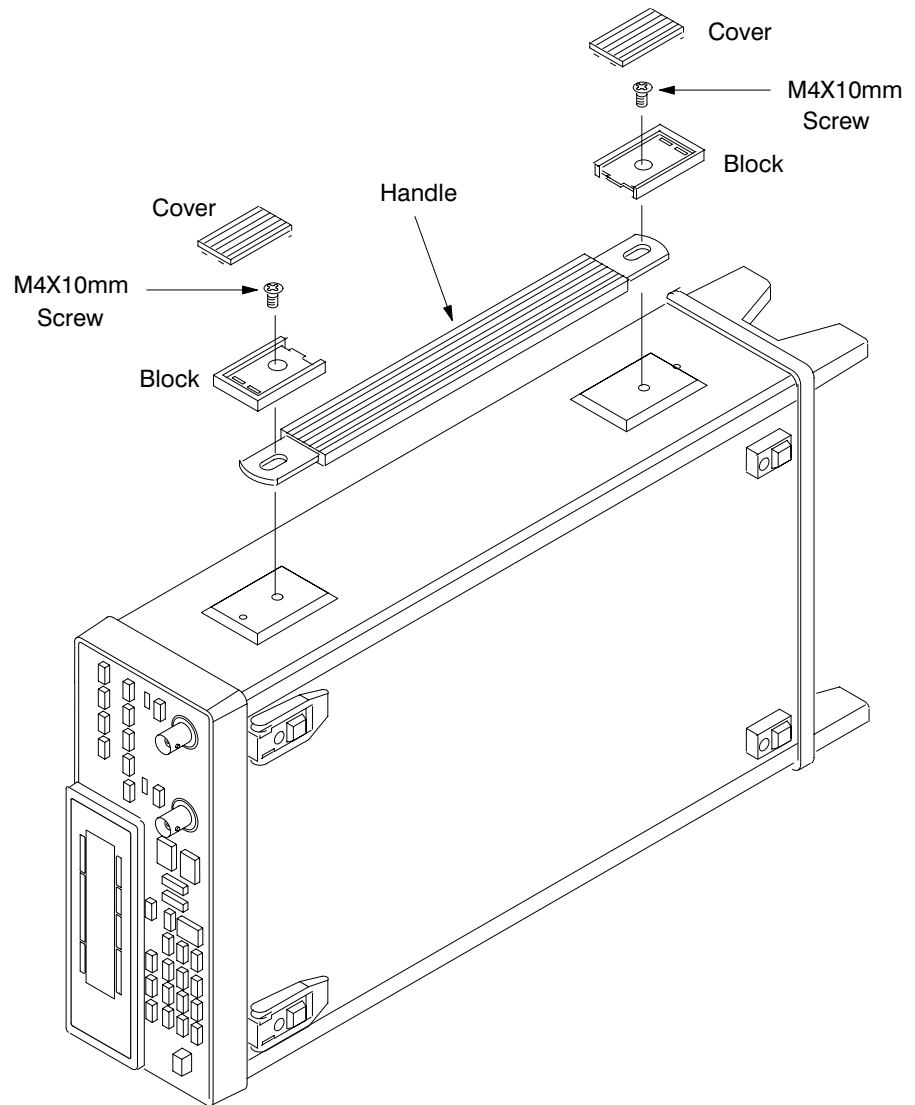


Figure 2: Construction of the handle retainer (cross section)



**Figure 3: Construction of the handle retainer (cross section)**

### Feet Removal

1. Using a #2 phillips tip screwdriver, remove the four screws (M3 × 8 mm) securing the four feet to the cabinet. Lift off the four feet. See Figure 4.

### Rear Cover Removal

1. Using a #2 phillips tip screwdriver, remove the two screws (M4 × 8 mm) securing the rear cover to the instrument. See Figure 4.
2. Remove the rear cover.
3. Install the two screws removed in step 1 to its former screw holes and fix the cabinet to the instrument.

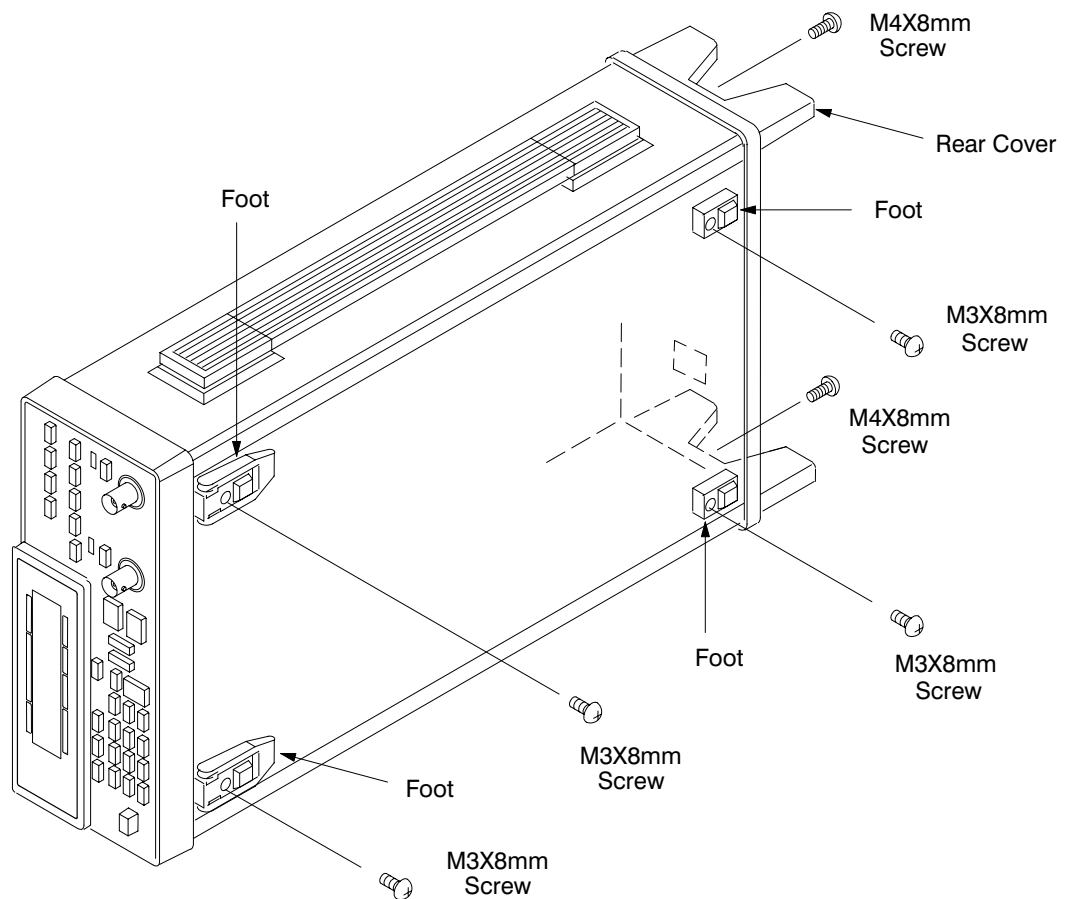


Figure 4: Feet and rear cover removal

## Installing the Instrument into the Rack Adapter

The following steps describe how to attach the Rack Adapter to the instrument in preparation for installing it into a rack.

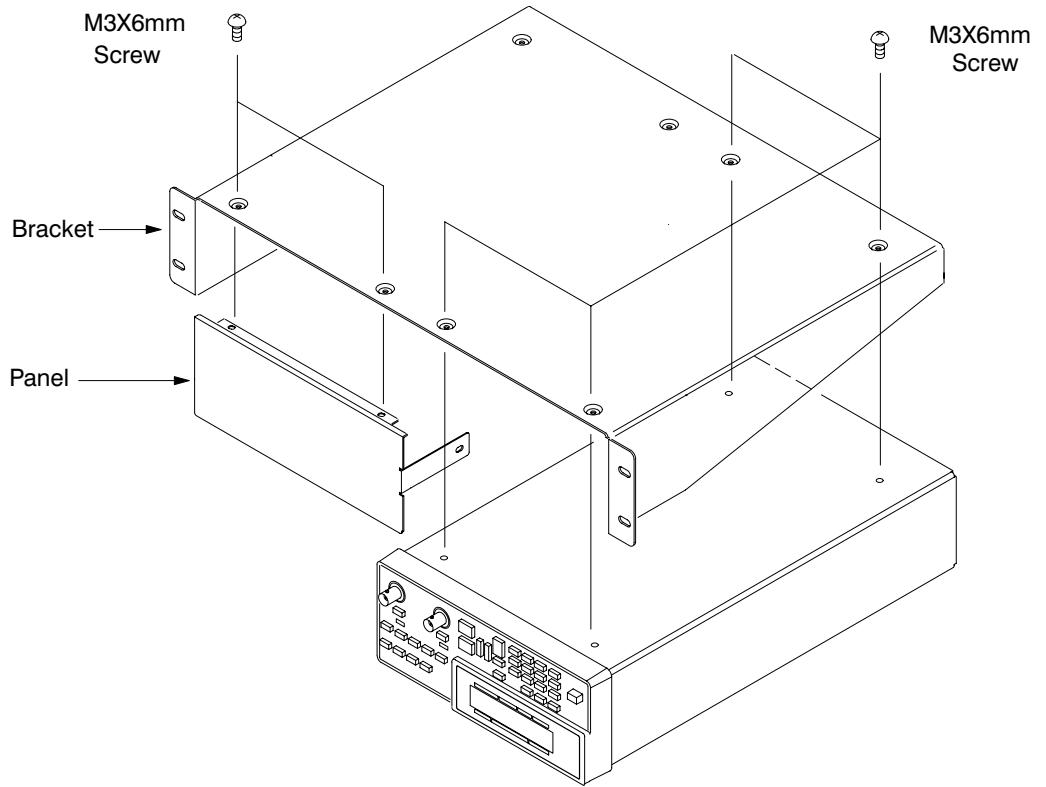
These procedures include two installation methods.

- Attaching Bracket
- Attaching Panel

### Attaching Bracket

#### Procedure for Attaching Bracket to one Instrument

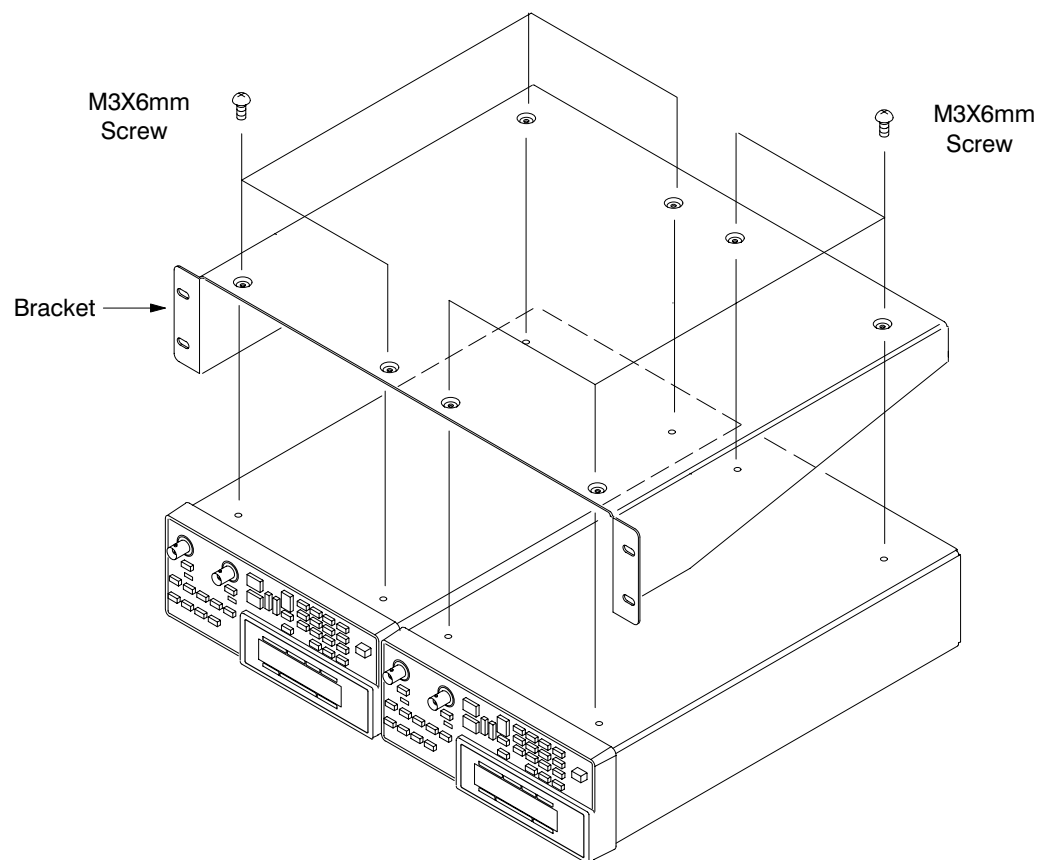
1. Set the instrument with the top down on the work surface and the front facing you.
2. Put the bracket on the instrument and align the bracket screw holes with the instrument screw holes. See Figure 5.
3. Attach the bracket to the instrument with four screws (M3 × 6 mm) using a #2 phillips tip screwdriver.



**Figure 5: Attaching bracket and panel**

### Procedure for Attaching Bracket to two Instruments

1. Set the two instruments side by side with the top down on the work surface and the front facing you.
2. Put the bracket on the two instruments and align the bracket screw holes with the instruments screw holes. See Figure 6.
3. Attach the bracket to the instruments with eight screws (four M3 × 6 mm screws per one instrument) using a #2 phillips tip screwdriver.

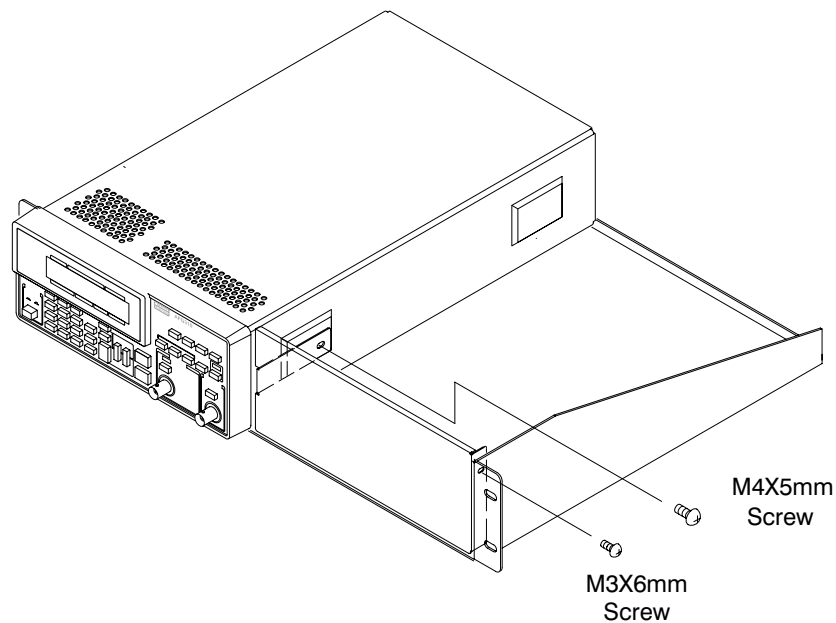


**Figure 6: Attaching bracket to two instruments**

## Attaching Panel

If the bracket is attached with two instrument, omit the following procedure for attaching panel.

1. Put the panel next to the instrument as in the Figure 5 and align the panel screw holes with the bracket screw holes.
2. Attach the panel to the bracket with two screws (M3 × 6 mm) using a #2 phillips tip screwdriver.
3. Set the instrument attached to the bracket with the bottom down on the work surface and the front facing you.
4. Attach the panel to the instrument with one screw (M4 × 5 mm) using a #2 phillips tip screwdriver. See Figure 7.
5. Install one screw (M3 × 6 mm) from the right side of the bracket to fix the panel using a #2 phillips tip screwdriver.



**Figure 7: Attaching panel**



## Installation into a Equipment Rack

This procedure provides instructions on how to install the adapter into an equipment rack.

These procedures include two installation methods.

- Installing the adapted instrument into a equipment rack.
- Rear Panel Cabling.

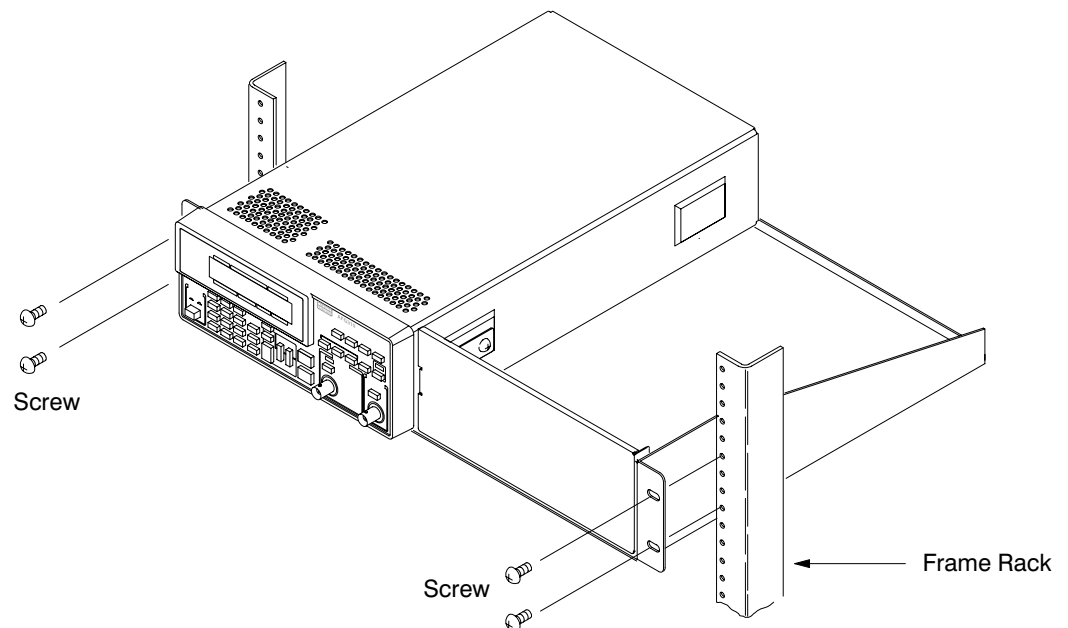
### Installing into a Equipment Rack

1. Select appropriate mounting holes on the equipment rack frame.
2. Attach the bracket to the equipment rack with four screws.

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**NOTE.** These screws are not included in the rackmount kit (016-1674-00). Use appropriate screws for your equipment rack.

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**Figure 8: Installation into the equipment rack**

## Rear Panel Cabling

1. Connect the power cord to the rear of the instrument and power source.

Proceed the following procedure as necessary.

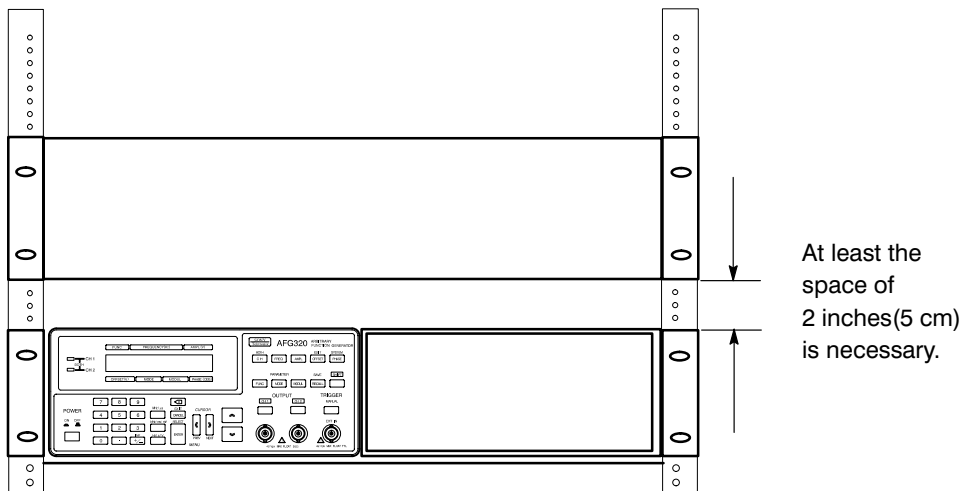
2. Connect the AM IN connector on the rear panel of the AFG310/320 through a 50  $\Omega$  coaxial cable to an appropriate signal source.
3. Connect the SYNC OUT connector on the rear panel of the AFG310/320 through a 50  $\Omega$  coaxial cable to an appropriate equipment which will receive the SYNC OUT signal.

## Cooling

The cooling air goes inside from the air intakes at top and goes outside from the rear.

Leave at least 5.1cm(2 inches) free on top when you install the another rack-mounted instrument above the instrument.

See Figure 9.



**Figure 9: Cooling for Rackmounted instrument(s)**

# Exploded View and Dimensional Drawing

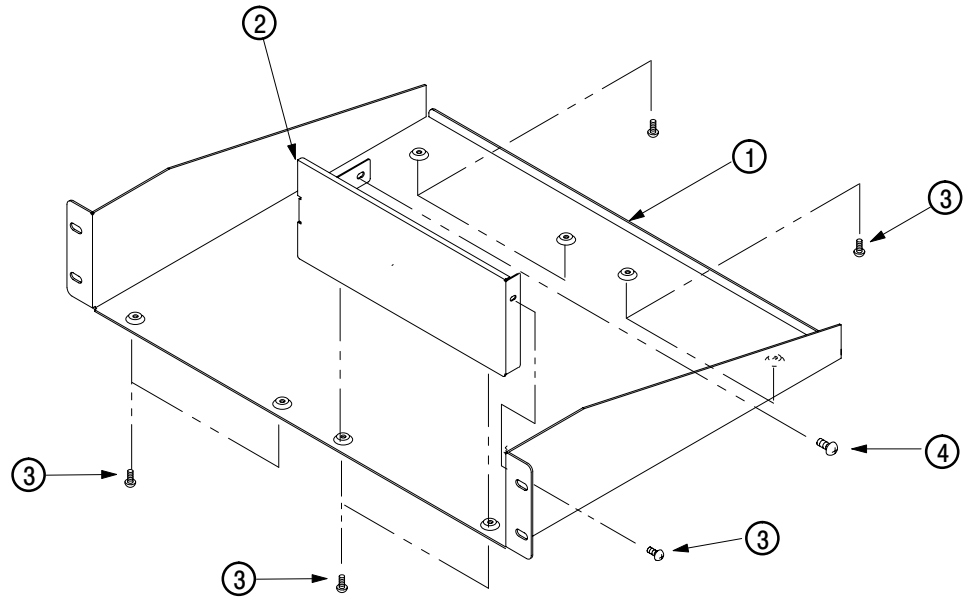
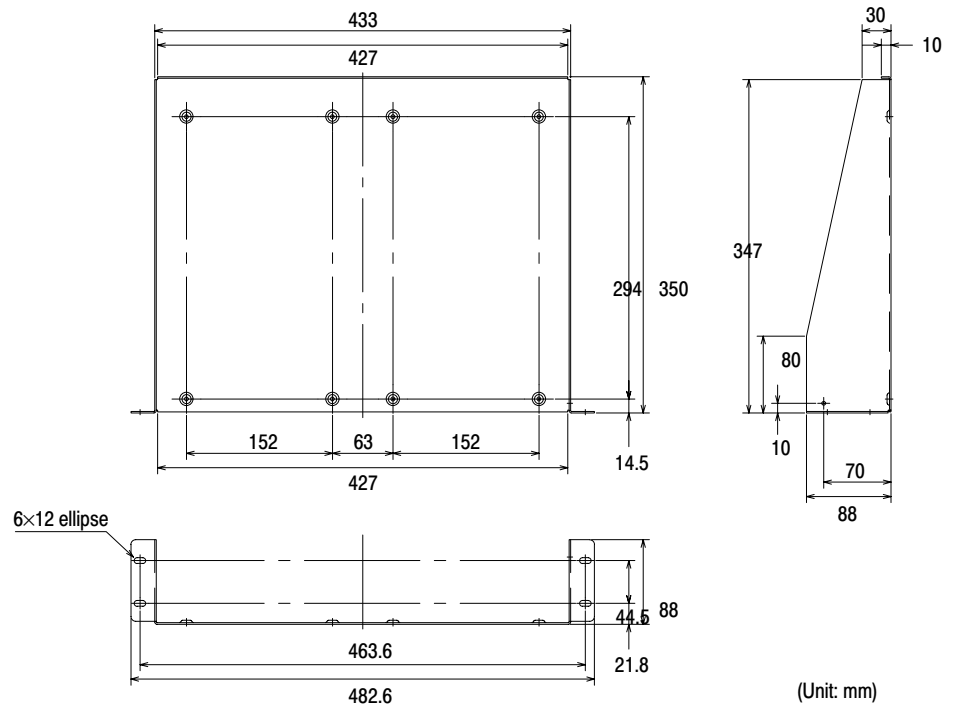


Figure 10: Rack adapter exploded view



**Figure 11: Dimensional drawing of rack adapter**

