Quick Guide

GRAS RA0530 and RA0531 ¼" Microphone Flush-mount Adaptors with RA0533 Removal Tool

1. Flush-mount adaptors for 1/4" microphones

This guide describes how to mount GRAS flush-mount adaptors for $1\!/\!4''$ standard cylindric microphones.

These adaptors are designed to be used with front-vented microphones. An inner O-ring ensures no leakage between the front of the microphone and the rear. To prevent ground loops, the inner part of the adaptor is electrically insulated from the outer part.

Each adaptor type listed below comprises the adaptor body and an SK4008 Locking Nut (M10×0.75).

RA0530	Adaptor with wire mesh for flush mount of 1/4" microphone
RA0531	Adaptor with open diaphragm for flush mount of 1/4" microphone

1.1 Mounting requirements

The adaptor can be mounted in a wall or a test item. To do so, the mounting wall must be 5 – 12 mm thick. The wall must be prepared with a hole and thread as illustrated in the figure below.



1.2 To mount the adaptor

1. Insert the adaptor into the wall or test item.

NOTE: Ensure that the adaptor is flush with the surface of the wall/test item

- 2. Lock the adaptor in the correct position:
- Use a 14 mm wrench to tighten the locking nut-torque=5 Nm.

1.3 To mount the microphone in the adaptor

- 1. Remove the microphone protection grid.
- 2. Screw the Microphone Set into the adaptor: Gently "finger tighten" the microphone–approximate torque=0.1 Nm.

1.4 To verify the mounting

In situ verification of the microphone set mounted in the adaptor can easily be done with a GRAS 42AG Multifunction Calibrator and RA4800 Adaptor for Sensitivity Verification of Flush/Surface Microphones using the following procedure:

1. Ensure that the microphone is properly connected and powered up.

2. Turn on the calibrator and press it down over the microphone as described in the calibrator instruction manual. Keep it in place until the reading is stable.

Frequency (Hz)	Correction Factor (dB)	Tolerances (dB)
250	-0,8	+/- 0,2
1000	-2,0	+/- 0,2



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1.5 To remove the microphone from the adaptor



Unscrew the microphone set from the adaptor.

NOTE: If the microphone capsule is still in the adaptor, use RA0533 Removal Tool for $\frac{1}{2}$ " microphones to remove the microphone capsule.

2. Using the removal tool

GRAS RA0533 is a removal tool for extracting $\ensuremath{{14''}}$ microphones from flush-mounted conditions while using GRAS RA0530 or RA0531 flush-mount adaptors.

2.1 How to remove the microphone from the flush-mount adaptor

1. Loosen the **double-pinned nut** (A):

Hold the **double-pinned nut** (A) and turn the single-pinned **body** (B) of the removal tool two to three turns clockwise.

WARNING: Do not over tighten.

- 2. Connect the removal tool to the microphone capsule: Insert the **threaded tip** (C) of the removal tool into the **microphone capsule threads** (D) and use the **single-pinned body** (B) of the removal tool to screw it in "finger tight"–approximately four turns clockwise–and then one-quarter turn back (counterclockwise).
- 3. Bind the microphone capsule to the tool: Hold the **double-pinned nut** (A) and turn the **single-pinned body** (B) of the removal tool counterclockwise until snug.
- 4. Unscrew the microphone capsule from the flush-mount adaptor: Hold the shaft (E) of the flush-mount adaptor and use the single-pinned body (B) to rotate the removal tool counterclockwise.
- 5. Unbind the microphone capsule: Hold the **double-pinned nut** (A) and turn the **single-pinned body** (B) of the removal tool a few turns clockwise.
- 6. Unscrew the microphone capsule from the removal tool: Hold the **single-pinned body** (B) and turn the capsule counterclockwise.

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