# FURUNO

# INSTALLATION INSTRUCTIONS
# MCU-005 CONTROL UNIT

The following installation instructions cover how to install the MCU-005 Control Unit.

Before installation, check the notes below regarding running of the cables.

The MCU-005 is designed to be flush-mounted in a console or panel.

## Note regarding running of the cables

To reduce stress on the connectors, prevent accidental disconnection and also to prevent water intrusion, make sure that the wiring at the rear of the control unit meets the following recommendations.

• Cables should not be run upwards from the units. Make sure the cable are run downwards.
• Cables should be bundled together with sufficient slack to allow service and maintenance.
• Bundled cables should be secured in a manner that prevents stress on the connectors, caused by heave and pitch.
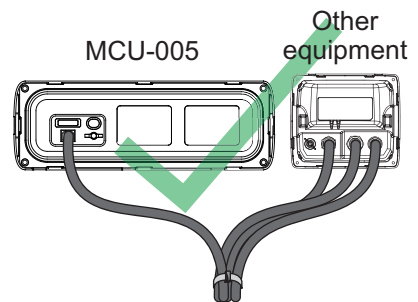
The figures below show examples of cabling, along with the above recommendations.
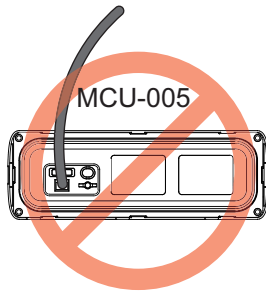


Cables should not be routed in a way that allows moisture or water to drip into the unit.
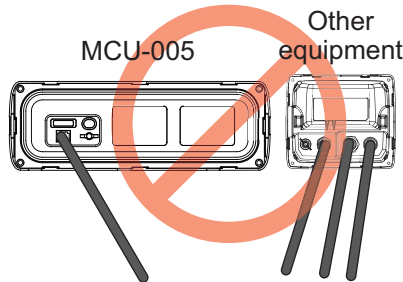
Cables should not be hung freely. This causes stress on the connectors and may cause disconnections.

Cables should be bundled with a wire-tie and secured against the inside of the console or to a bulkhead. There should be enough slack in the cables to allow service and maintenance.

## Packing list

### MCU-005 MODIFICATION KIT (Type: OP19-19, Code: 001-506-900)

| Part name | Type | Code | Amount |
|---|---|---|---|
| CONTROL UNIT | MCU-005 | | 1 |
| PANEL REMOVER | 19-028-3124 | 100-340-471-10 | 1 |
| LAN CABLE ASSEMBLY | MOD-Z072-050+ | 001-167-890-10 | 1 |
| PACKING BB | 19-028-1581 | 100-340-742-10 | 1 |
| SELF TAPPING SCREW | 4x20 SUS304 | 000-158-850-10 | 4 |
| FLUSH MOUTNING TEMPLATE | C42-00703-* | 000-167-223-1* | 1 |

**Note:** "*" indicates revision/version number.

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## Installation procedure

1. Referring to the flushmount template, included with the MCU-005, prepare a cutout at the mounting location.
2. Referring to the figure below, remove the front panel of the control unit.
   **Note:** The catches should be unfastened in the indicated numerical order to prevent damage or breakage.
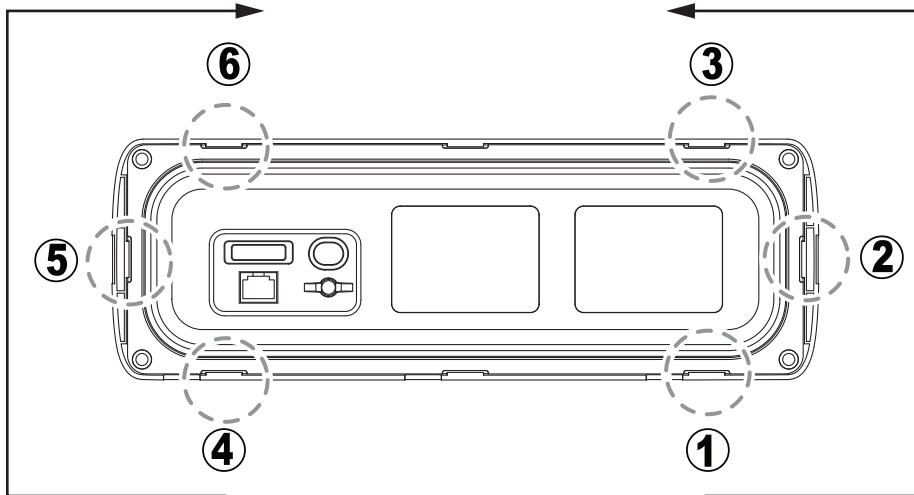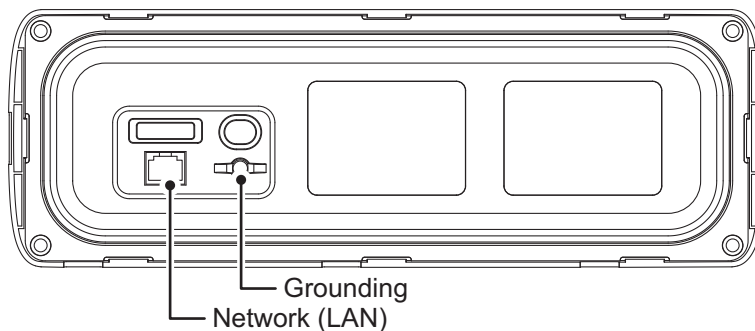
MCU-005, rear view
(Location of catches and order to unfasten them)

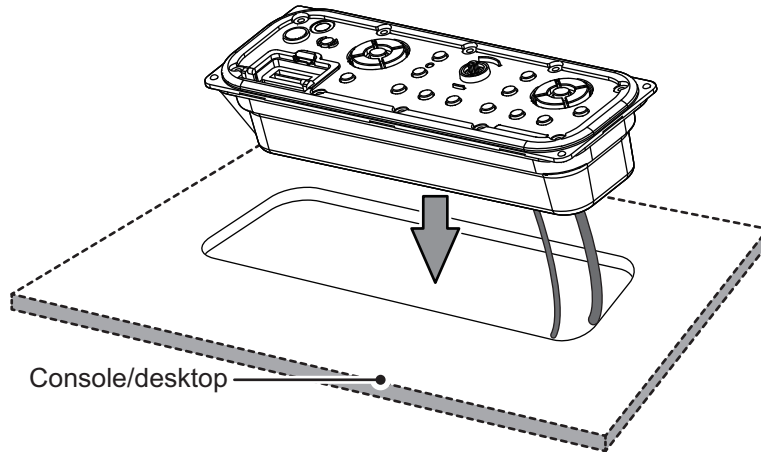3. Attach the mounting sponge (PACKING BB) to rear of the control unit.
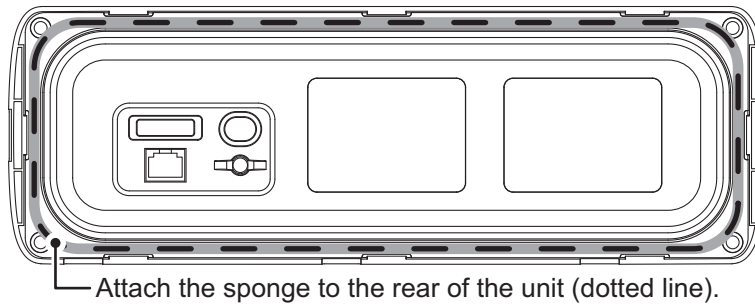
Attach the sponge to the rear of the unit (dotted line).

4. Connect the LAN cable (supplied) and grounding cables (IV-1.25sq., local supply) to the rear of the control unit.

Grounding
Network (LAN)

5.  Fit the control unit to the cutout.
    **Note:** Take care that the cables are not pinched or squashed.

Console/desktop

6.  Referring to the figure below, secure the control unit to the mounting location with four self-tapping screws (supplied as installation materials).

Self-tapping screws
(four places)

Console/desktop
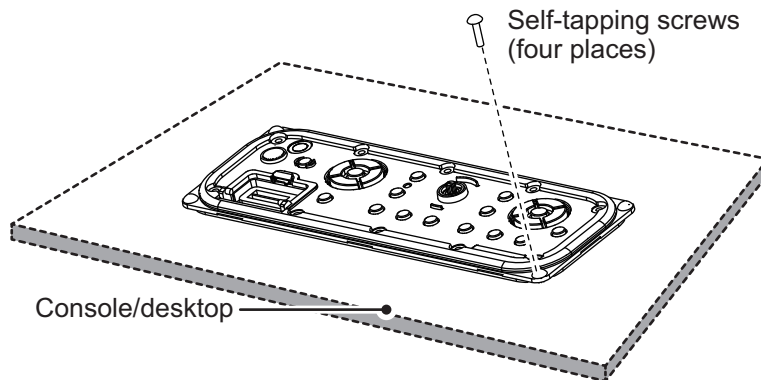
7.  Attach the front panel to the control unit.

Console/desktop
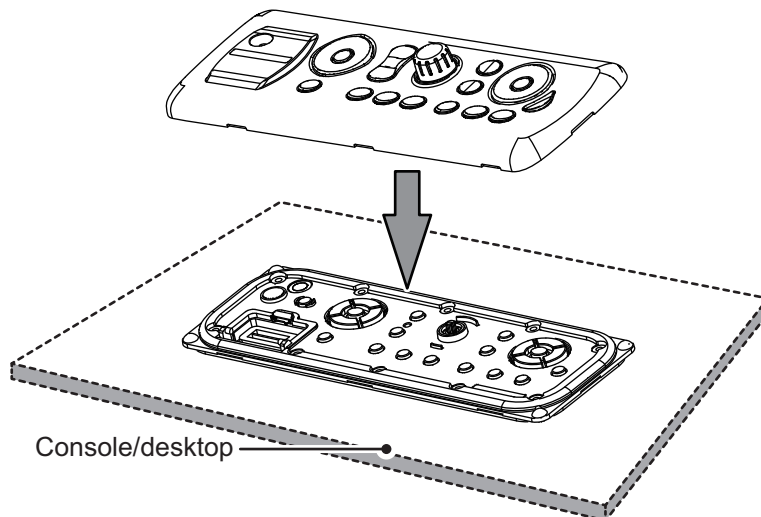
8.  After the NavNet TZtouch2/NavNet TZtouch3 is powered and ready for use, press the CTRL key on the MCU-005. The control unit is now ready for use with the NavNet TZtouch2/NavNet TZtouch3.

## How to remove the front panel after installation

You may need to remove the front panel for maintenance or service. To remove the front panel, follow the procedure below. Take care that each step is followed correctly to prevent damage to the equipment. Do not remove the front panel by any other methods.
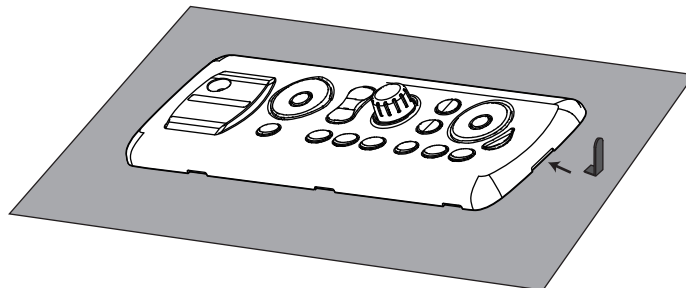
1. Insert the panel remover to the bottom-left indent of the front panel.
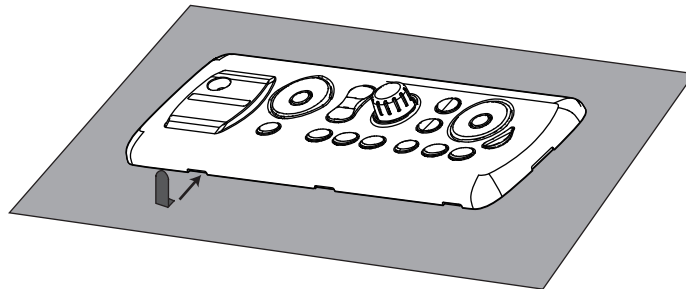
2. Gently tilt the panel remover tab away from the front panel. The bottom-left corner of the panel rises slightly.
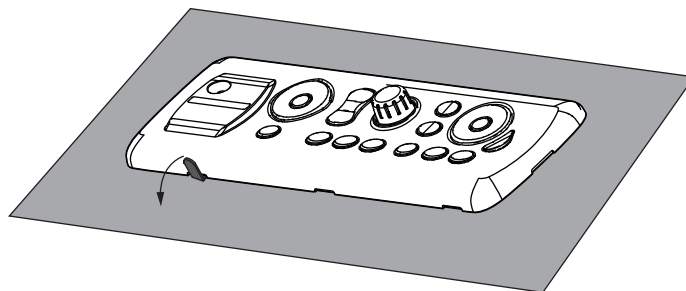
3. Using the same method, raise the bottom-right corner of the panel.

4. Insert the panel remover to the notch on either the left or right-hand side of the panel.

5. Gently tilt the panel remover tab away from the front panel. The side of the panel rises slightly. Using the same method, raise the opposite side of the panel.

6. Use the panel remover in the same manner to raise the top-end of the panel.

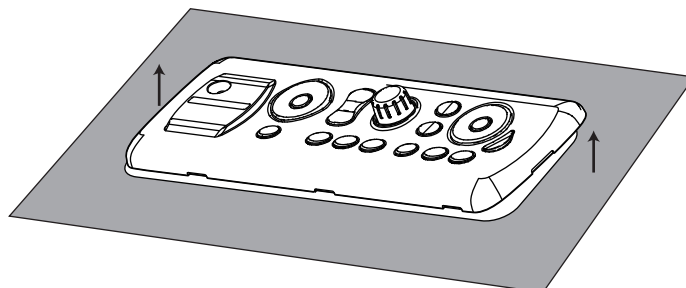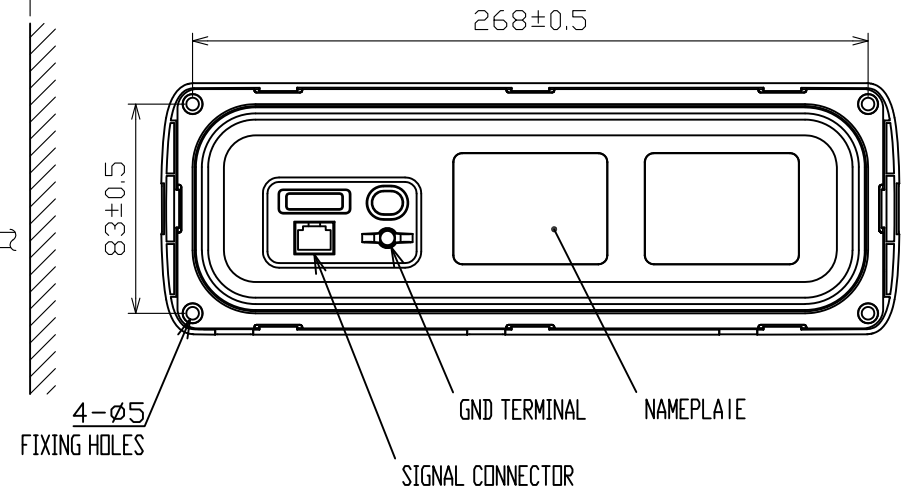7. Use your hands to detach the front panel. Grip the panel at either side to detach it.
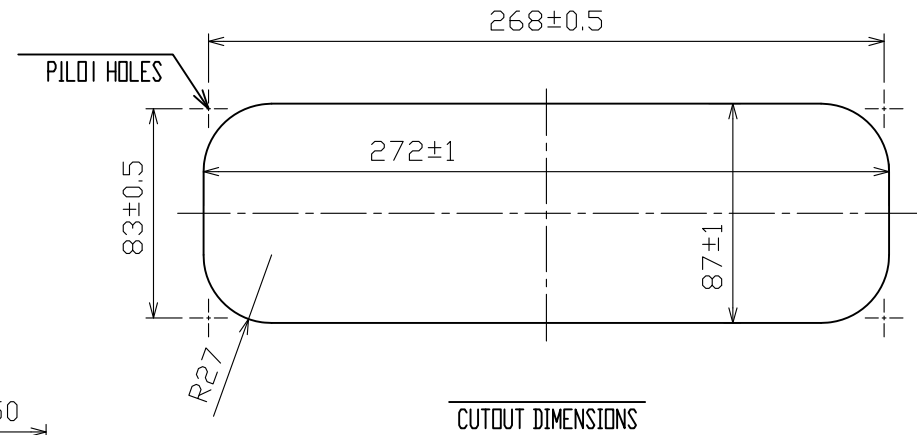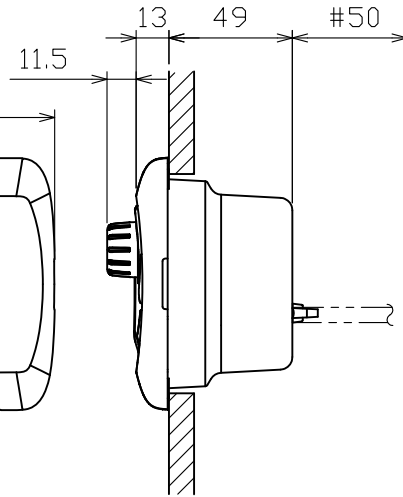
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## TABLE 1

| DIMENSION | TOLERANCE |
|---|---|
| 0 < L ≤ 50 | ±1.5 |
| 50 < L ≤ 100 | ±2.5 |
| 100 < L ≤ 500 | ±3 |

CABLE

PILOT HOLES

268±0.5

272±1

83±0.5

87±1

R27

CUTOUT DIMENSIONS

268±0.5

13  49  #50

11.5

293

100

83±0.5

4-ø5
FIXING HOLES

GND TERMINAL    NAMEPLATE

SIGNAL CONNECTOR
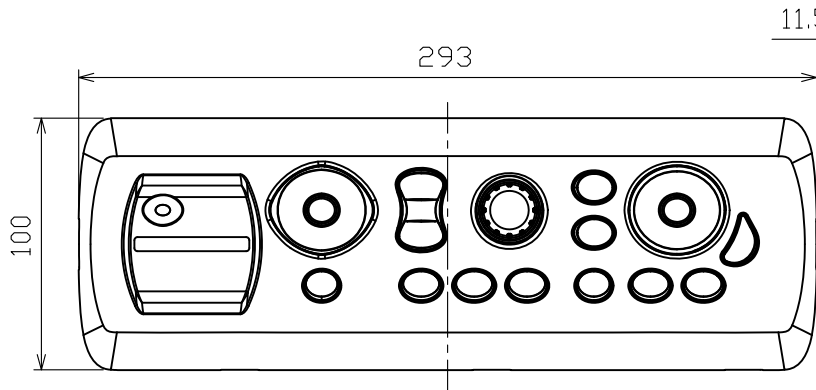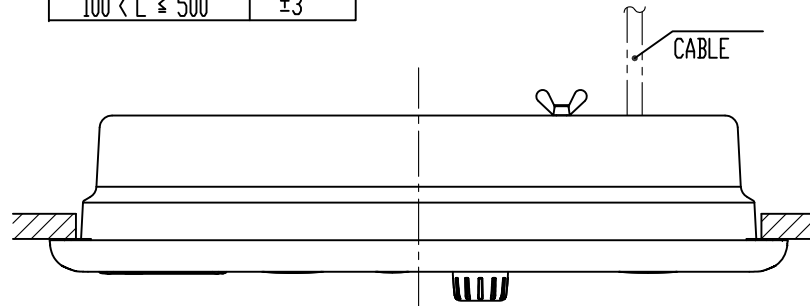
NOTE  1.  TABLE 1 INDICATES TOLERANCE OF DIMENSIONS WHICH IS NOT SPECIFIED.

2.  #: MINIMUM SERVICE CLEARNCE

3.  USE TAPPING SCREWS ø4x20 FOR FIXING THE UNIT.

| DRAWN | 12/May/2020 T. YAMASAKI | | TITLE | MCU-005 |
|---|---|---|---|---|
| CHECKED | 12/May/2020 H. MAKI | | | |
| APPROVED | 13/May/2020 H.MAKI | TZT9F/12F/16F/19F TZT2BB, TZTL12F/15F | | |
| SCALE 1/3 | MASS 0.95 ±10% kg | MASS DOES NOT INCLUDE CABLE. | NAME | CONTROL UNIT (FLUSH MOUNT) |
| DWG.No. C4496-G03- B | | REF.No. 19-032-320G-1 | | OUTLINE DRAWING |