

**FURUNO**

**OPERATOR'S MANUAL**

*LOUD HAILER*

Model **LH-5000**

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# IMPORTANT NOTICES

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## General

- This manual has been authored with simplified grammar, to meet the needs of international users.
- The operator of this equipment must read and follow the descriptions in this manual. Wrong operation or maintenance can cancel the warranty or cause injury.
- Do not copy any part of this manual without written permission from FURUNO.
- If this manual is lost or worn, contact your dealer about replacement.
- The contents of this manual and equipment specifications can change without notice.
- The example screens (or illustrations) shown in this manual can be different from the screens you see on your display. The screens you see depend on your system configuration and equipment settings.
- Save this manual for future reference.
- Any modification of the equipment (including software) by persons not authorized by FURUNO will cancel the warranty.
- The following concern acts as our importer in Europe, as defined in DECISION No 768/2008/EC.
  - Name: FURUNO EUROPE B.V.
  - Address: Ridderhaven 19B, 2984 BT Ridderkerk, The Netherlands
- All brand and product names are trademarks, registered trademarks or service marks of their respective holders.

## How to discard this product

Discard this product according to local regulations for the disposal of industrial waste. For disposal in the USA, see the homepage of the Electronics Industries Alliance (<http://www.eiae.org/>) for the correct method of disposal.

## How to discard a used battery

Some FURUNO products have a battery(ies). To see if your product has a battery, see the chapter on Maintenance. Follow the instructions below if a battery is used. Tape the + and - terminals of battery before disposal to prevent fire, heat generation caused by short circuit.

### In the European Union

The crossed-out trash can symbol indicates that all types of batteries must not be discarded in standard trash, or at a trash site. Take the used batteries to a battery collection site according to your national legislation and the Batteries Directive 2006/66/EU.



### In the USA

The Mobius loop symbol (three chasing arrows) indicates that Ni-Cd and lead-acid rechargeable batteries must be recycled. Take the used batteries to a battery collection site according to local laws.



### In the other countries

There are no international standards for the battery recycle symbol. The number of symbols can increase when the other countries make their own recycle symbols in the future.



# SAFETY INSTRUCTIONS

The installer and user must read the applicable safety instructions before attempting to install or operate the equipment.



## WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



## CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



Warning, Caution



Prohibitive Action



Mandatory Action



## WARNING



**Do not open the equipment.**

Only qualified personnel can work inside the equipment.



**Do not disassemble or modify the equipment.**

Fire, electrical shock or serious injury can result.



**Turn off the power immediately if the equipment is emitting smoke or fire.**

Fire or electrical shock can result if the power is left on.



**Turn off the power immediately if water leaks into the equipment or an object is dropped inside the equipment.**

Continued use can cause fire or electrical shock.



**Turn off the power immediately if you feel the equipment is acting abnormally.**

If the equipment is hot to the touch or is emitting strange noises, turn off the power immediately and contact your dealer for advice.



## WARNING



**Do not operate the equipment with wet hands.**

Electrical shock can result.



**Do not place liquid-filled containers on the top of the equipment.**

Electrical shock can result.



**Use the proper fuse.**

Use of a wrong fuse can damage the equipment and may cause fire.



**Keep heater away from equipment.**

Heat can alter equipment shape and melt the power cord, which can cause fire or electrical shock.



## CAUTION



**A magnetic compass may receive interference if it is placed too close to this unit. Observe the compass safe distances shown below to prevent interference to a magnetic compass.**

	Standard compass	Steering compass
Loud Hailer LH-5000	0.45 m	0.30 m
Intercom Speaker ISP-5000	2.25 m	1.50 m

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# Foreword

FURUNO LH-5000 loud hailer (LH-5000) is designed for a wide variety of ships, requiring high quality onboard communications under almost any circumstances.

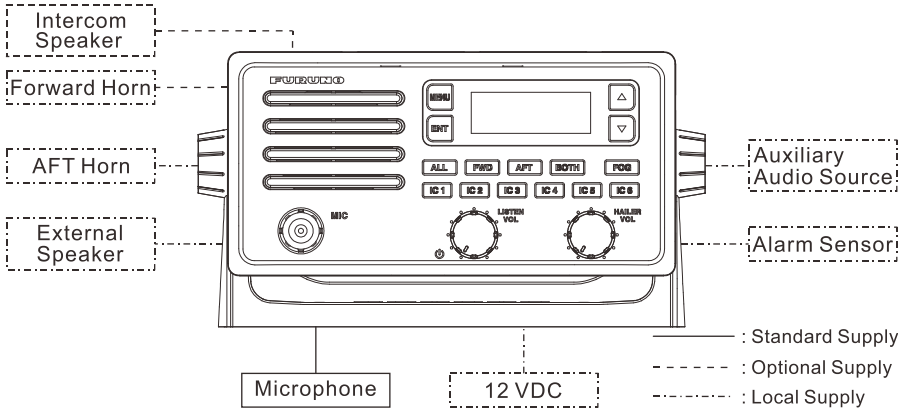
## Features

- Hail, intercom, and alarm functions available
- Built-in high quality speaker
- Eight warning signals
- Auxiliary audio input

## CE declaration

With regards to CE declarations, please refer to our website ([www.furuno.com](http://www.furuno.com)) for further information about RoHS conformity declarations.

# System Configuration



# Equipment List

## Standard Supply:

Part	Name	Type	Qty	Remarks
Main body	Loud Hailer	LH-5000	1	See packing list for details
	Microphone	MIC-5000	1	
Accessories	Hanger	/	1	
	Hanger Knob	/	2	
	Microphone Hanger	/	1	
Installation Materials	Cushion	/	1	
	Template	/	1	
	Tapping Screw (ST4.0 x 16)	/	3	
	Tapping Screw (PA4.0 x 25)	/	4	
Document	Operator's Manual	/	1	
	Packing List	/	1	
Spare parts	Fuse (250VAC 15A)	/	2	



**Optional Supply:**

<b>Part</b>	<b>Name</b>	<b>Type</b>	<b>Qty</b>	<b>Outline</b>	<b>Remarks</b>
Option	Intercom Speaker (with Hanger)	ISP-5000	1	See packing list for details	Max.6
	Extension Cable for microphone	EX-CBL-LH 5M	1		5 m

# 1. Installation

## 1.1 Installing the Loud Hailer

### For desktop mounting

**Step 1** Put the hanger in a location where it is easy to install the LH-5000 Loud Hailer.

**Step 2** Fix the hanger with four screws.

**Step 3** Set the loud hailer to the hanger.

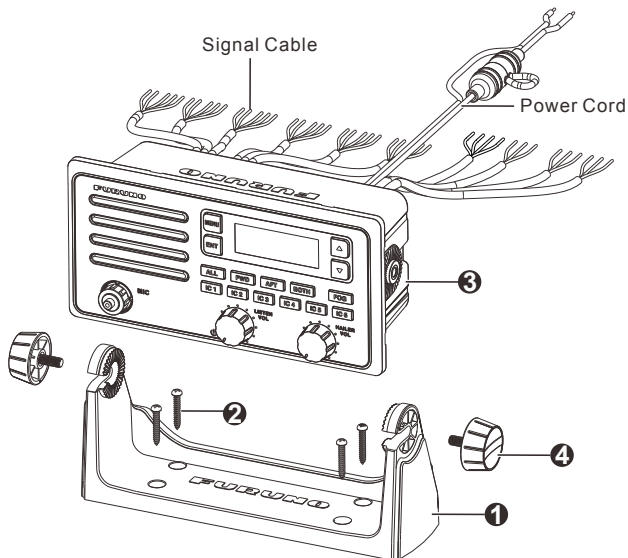
**Step 4** Tighten the knob bolts on both sides of the hanger.

**Step 5** Connect the intercom speaker to the loud hailer using the color-coded signal cable.

Make sure that every signal cable is firmly connected.

**Step 6** Attach the microphone to the front microphone connector on the loud hailer.

**Step 7** Connect the power cord properly.



1	Hanger	3	Loud hailer
2	Tapping screw(PA4.0 x 25)	4	Hanger knob

### For flush mounting

- Step 1** Determine the position of installation holes according to the marking template and drill the hole.
- Step 2** Pry off the frame from the front panel.
- Step 3** Paste the cushion on the back of the front panel with the double-side tape on the cushion.
- Step 4** Connect the intercom speaker to the loud hailer using the color-coded signal cable.

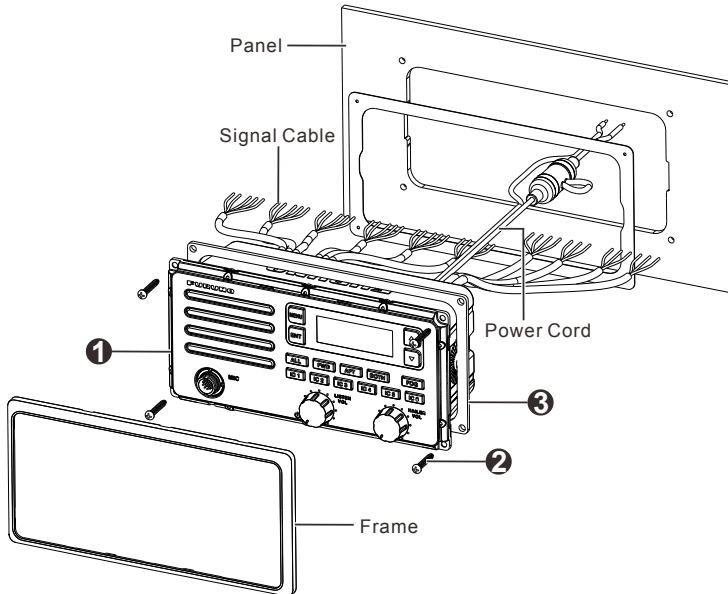
Make sure that every signal cable is firmly connected.

**Step 5** Place the LH-5000 Loud Hailer in the hole and fix it with four screws.

**Step 6** Attach the microphone to the front microphone connector on the loud hailer.

**Step 7** Connect the power cord properly.

**Step 8** Mount the frame.



1	Loud hailer	3	Cushion
2	Tapping screw (PA4.0 x 25)	\	\

**Note**

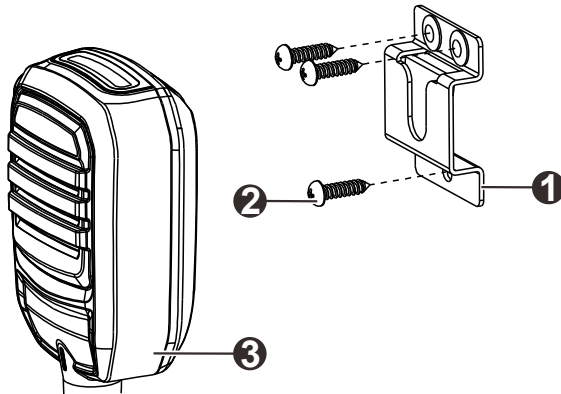
Tape the unused cables to prevent short.

# 1.2 Installing the Microphone

**Step 1** Determine a location where it is easy to install hanger.

**Step 2** Fix the hanger with three screws.

**Step 3** Place the microphone into the hanger.

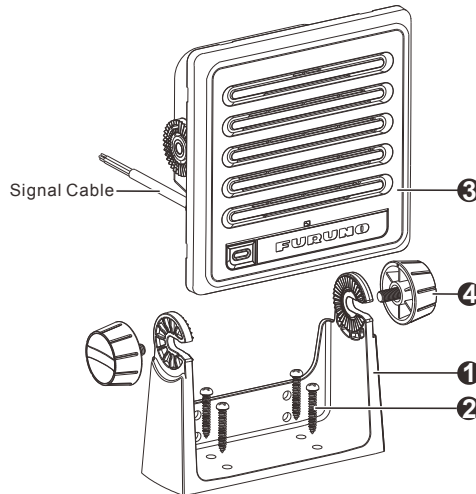


1	Microphone hanger	3	Microphone
2	Tapping screw (ST4.0 x 16)	\	\

## 1.3 Installing the Intercom Speaker (Optional)

### For desktop mounting

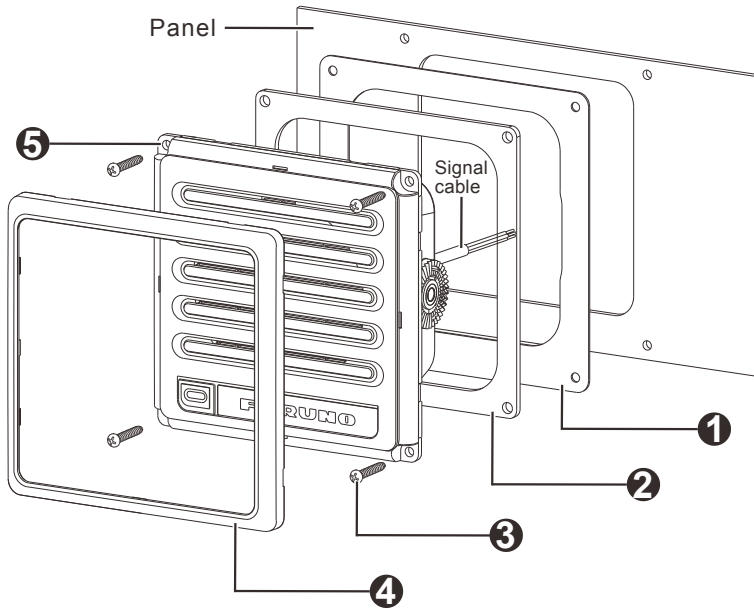
- Step 1** Put the hanger in a location where it is easy to install the intercom speaker.
- Step 2** Fix the hanger with four screws.
- Step 3** Set the intercom speaker to the hanger.
- Step 4** Tighten the knob bolts on both sides of the hanger.
- Step 5** Connect the signal cable.



1	Hanger	3	Intercom speaker
2	Tapping screw (PA4.0 x 25)	4	Hanger knob

## For flush mounting

- Step 1** Determine the position of installation holes according to the marking template and drill the hole.
- Step 2** Pry off the frame from the front panel.
- Step 3** Paste the cushion on the back of the front panel by the double-side tape on the cushion.
- Step 4** Place the intercom speaker in the hole and fix it with four screws.
- Step 5** Connect the intercom speaker to the loud hailer using the color-coded signal cable.
- Make sure that every signal cable is firmly connected.
- Step 6** Mount the frame.



1	Template	4	Frame
2	Cushion	5	Intercom speaker
3	Tapping screw (PA4.0 x 25)	\	\

## 1.4 Installing the Extension Cable (Optional)

### For thru-wall mounting

**Step 1** Drill a round or square hole on the ship panel.

The diameter of the hole ranges from 20 mm to 25 mm.



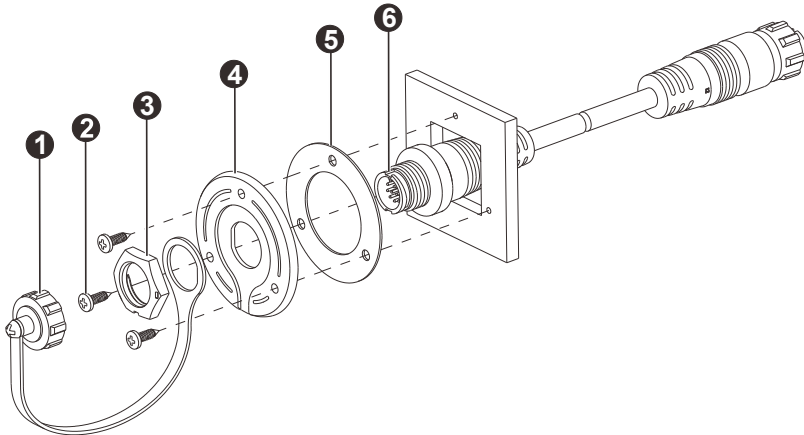
**Step 2** Thread the extension cable through the hole.

**Step 3** Place the seal, cable holder, and waterproof cover sequentially around the extension cable.

**Step 4** Fasten the nut.

**Step 5** Fasten the three screws.

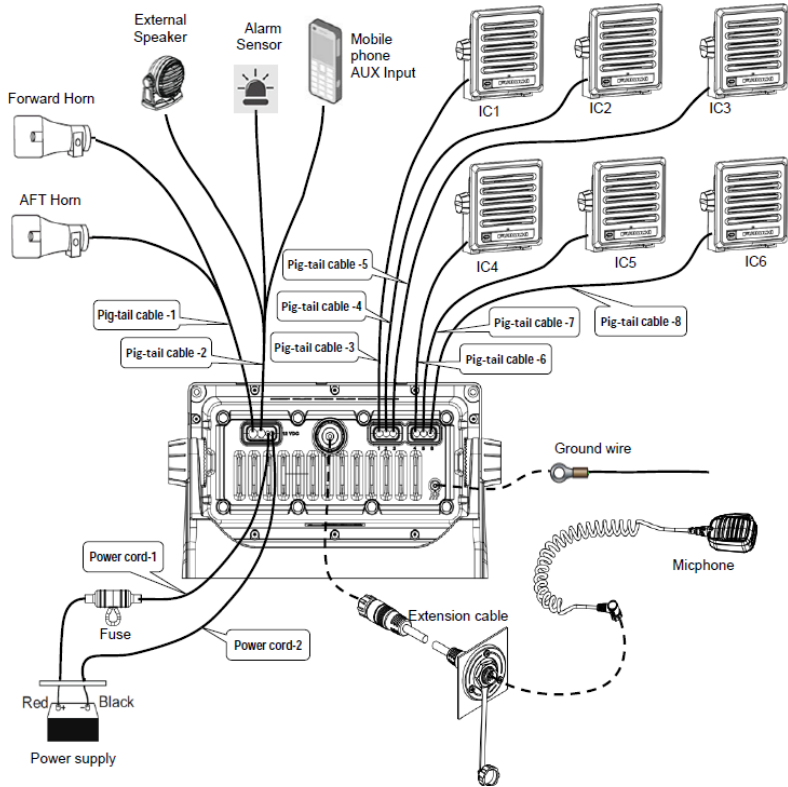
**Step 6** Put the cover on the extension cable and tighten it.



1	Waterproof cover	4	Cable holder
2	Tapping screw (PA3.0 x 10)	5	Seal
3	Nut	6	Extension cable

# 1.5 Connecting the Cable

The following diagram illustrates how to connect the cable.



## 1.5.1 Understanding the Cable

Before you connect the cable, it is recommended to know the corresponding relationship about cables.

- For pig-tail cable-1

Wire color	Function	Remark
PURPLE	FWD+	Forward horn (+) output
GRAY	FWD-	Forward horn (-) output
BROWN	Chassis GND	Forward horn chassis GND
PURPLE	AFT+	AFT horn (+) output
GRAY	AFT-	AFT horn (-) output
BROWN	Chassis GND	AFT horn chassis GND

- For pig-tail cable-2

Wire color	Function	Remark
PURPLE	EXT SPK+	External speaker (+) output
GRAY	EXT SPK -	External speaker (-) output
BROWN	Chassis GND	External speaker chassis GND
RED	ALM	Alarm signal input
WHITE	ALM GND	Alarm signal GND
YELLOW	AUX	Auxiliary signal input
GREEN	AUX GND	Auxiliary signal GND

- For pig-tail cable- 3 to 8

Wire color	Function	Remark
PURPLE	SPK+	Intercom speaker (+) output
GRAY	SPK-	Intercom speaker (-) output
BROWN	Chassis GND	Intercom speaker chassis GND
GREEN	CALL	Call signal input
WHITE	GND	Call signal GND

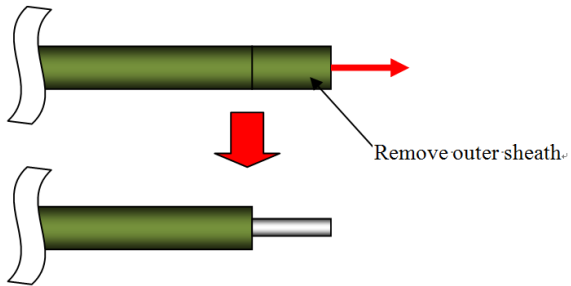
- For power cord-1 to 2

Wire color	Function	Remark
RED	DC_IN (+)	DC power (+) input, 12 V DC
BLACK	DC_IN (-)	DC power (-) output

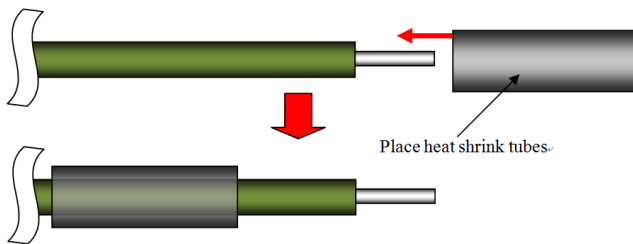
## 1.5.2 Connecting the Pig-tail Cable and Power Cord

Both the pig-tail cable and power cord are connected similarly.

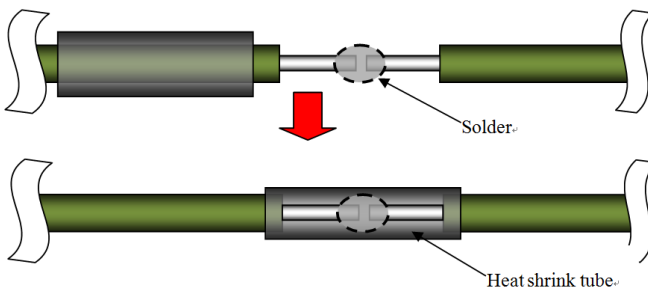
**Step 1** Remove the outer sheath at one end of the cable on the unit.



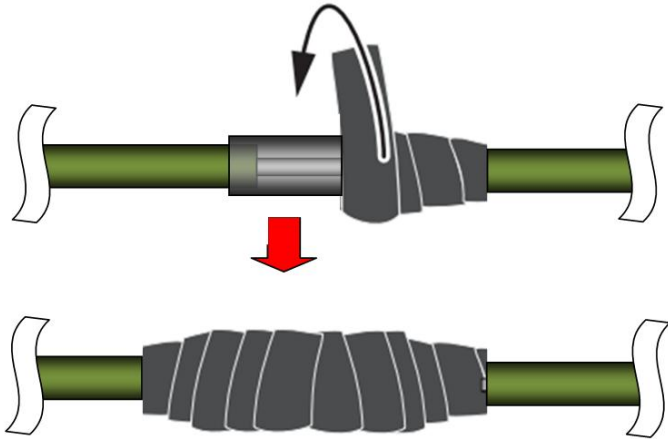
**Step 2** Referring to the figure below, place heat shrink tubes on the wires, and then solder the correction point.



**Step 3** Move the heat shrink tubes to the soldered correction, and then apply heat to the tubes.

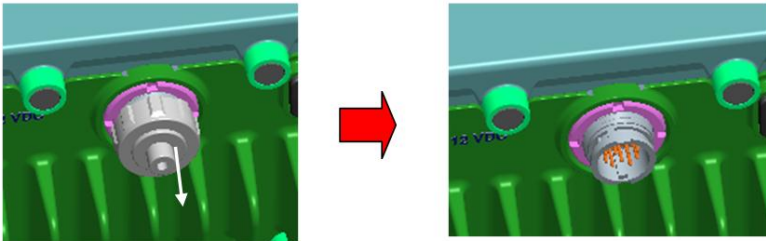


**Step 4** Secure the cable with insulation tape.

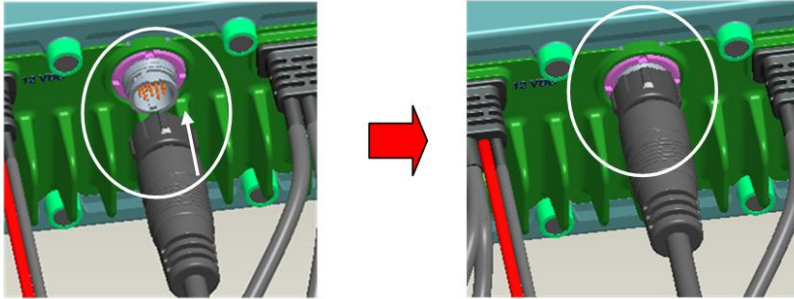


### 1.5.3 Connecting the Microphone and Extension Cable

**Step 1** Remove the protective cover of the rear microphone connector.

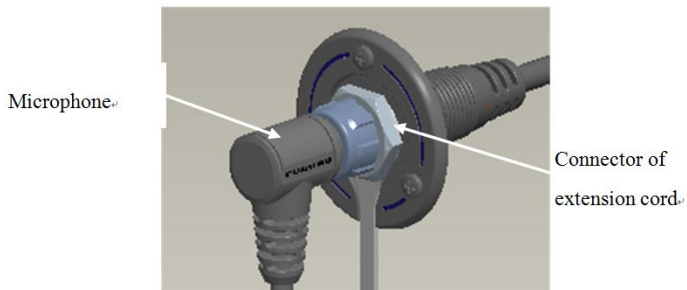


**Step 2** Connect one end of the extension cable to the connector on the unit and tighten it.



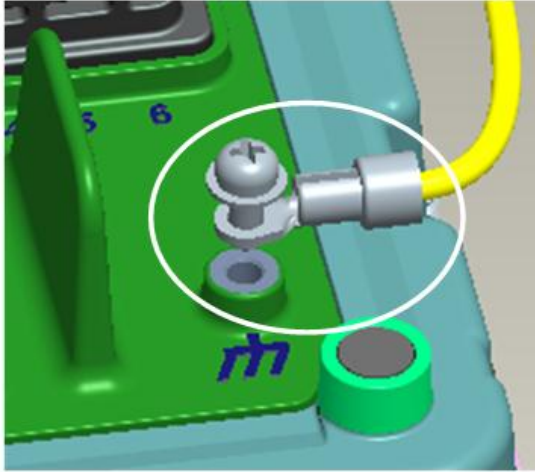
**Step 3** Secure the other end of the extension cable to the panel.

**Step 4** Connect the microphone to the connector of extension cable.

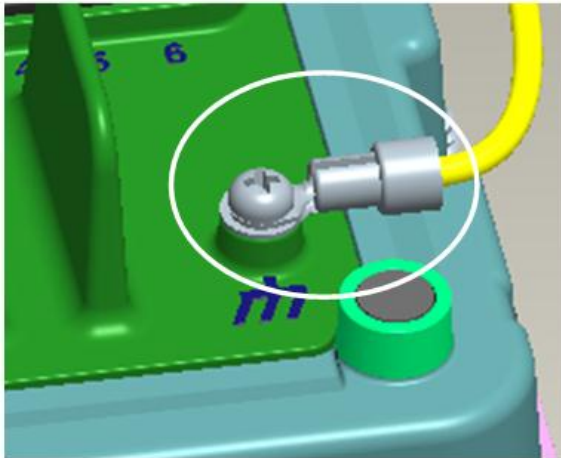


## 1.5.4 Connecting the Ground Cable

**Step 1** Loosen the screw on the rear back of the unit.



**Step 2** Place the grounding wire on the screw.



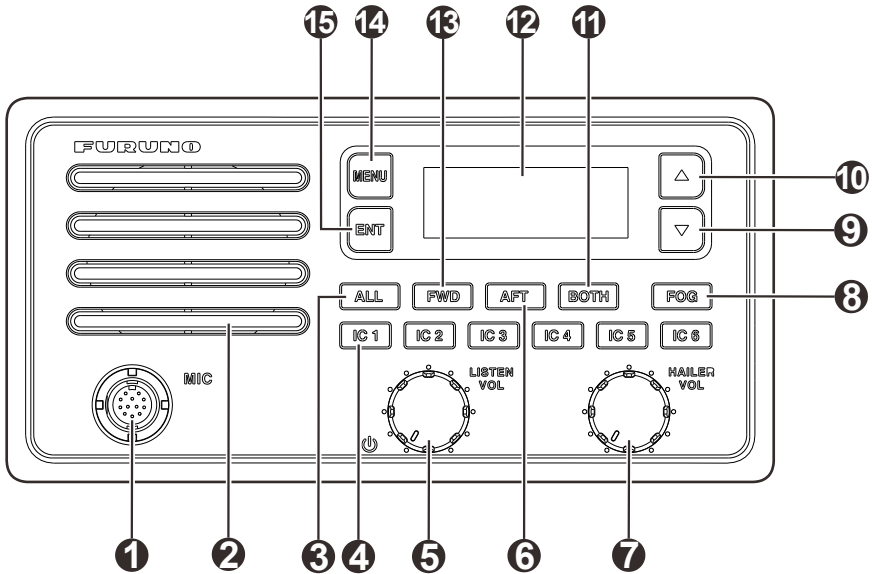
**Step 3** Tighten the screw again.



# 2. Operation Overview

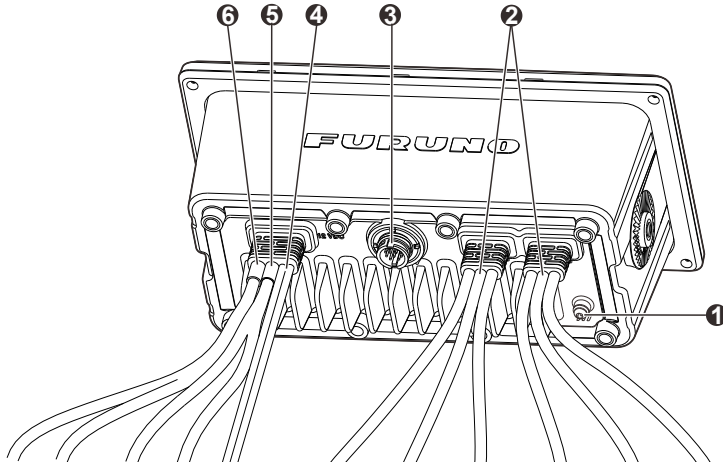
## 2.1 Product Controls

### Front Panel



No.	Part Name	No.	Part Name
1	Front Microphone Connector	9	Down Key
2	Speaker	10	Up Key
3	ALL Key	11	Both Key
4	Intercom Selector Keys (IC1-IC6)	12	LCD
5	Listen Volume Control/Power On-Off	13	Forward Key
6	AFT Key	14	Menu Key
7	Hailer Volume Control	15	Enter Key
8	Fog Key	/	/

### Rear Panel



No.	Part Name	No.	Part Name
1	Ground Terminal	4	DC Power Input
2	IC Speaker Signal Cable (IC1-IC6)	5	External Speaker/Alarm/AUX Signal Cable
3	Rear Microphone Connector	6	Hailer Speaker Cable

## 2.2 Turning the Power On/Off

To turn on the LH-5000, rotate the **Listen Volume Control/Power On-Off** knob clockwise.

To turn off the LH-5000, rotate the **Listen Volume Control/Power On-Off** knob counterclockwise.

## 2.3 Adjusting Key Backlight

- Step 1** Press **MENU** key on the front panel.
- Step 2** Press **ENT** key to access the “DIMMER” interface on the screen.
- Step 3** Press **Up** or **Down** key to increase or decrease the brightness of the keys on the front panel.
- Step 4** Press **ENT** key to confirm your settings.



If you do not adjust the brightness within 60 seconds, the LH-5000 returns to the previous mode automatically.

## 2.4 Adjusting the Contrast

- Step 1** Press the **MENU** key on the front panel.
- Step 2** Press the **Up** or **Down** key to select "CONTRAST" and press the **ENT** key.
- Step 3** Press the **Up** or **Down** key to increase or decrease the contrast of the screen.
- Step 4** Press **ENT** key to confirm your settings.

## 2.5 Adjusting the Volume

To adjust the volume from the internal or external speaker, rotate the **Listen**

**Volume Control** knob.

To adjust the volume from the intercom or horn speaker, rotate the **Hailer Volume Control** key.

## 2.6 Calling All Speakers

All speakers include all the six intercom speakers and both horn speakers.

**Step 1** Press the **ALL** key on the front panel.

The following information appears on the screen.



**Step 2** Press and hold the **PTT** key on the microphone and speak into the microphone.

The following information appears on the screen.



**Step 3** Release the **PTT** key to receive.

## 2.7 Calling All Intercom Speakers

All intercom speakers indicate the six intercom speakers including IC 1, IC 2, IC 3, IC 4, IC 5, and IC 6.

**Step 1** Press and hold any key from **IC1** to **IC6** on the front panel.

All the keys from **IC1** to **IC6** light red and the following information appears on the screen.



**Step 2** Press and hold the **PTT** key on the microphone and speak into the microphone.

The following information appears on the screen.



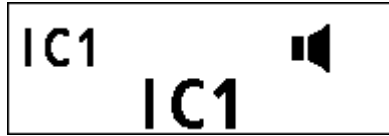
**Step 3** Release the **PTT** key to receive.

**Step 4** After finishing your conversation, press the **ALL** key to return to the home screen.

## 2.8 Calling a Specific Intercom Speaker

**Step 1** Press any key from **IC1** to **IC6** on the front panel.

The selected key lights red and a short tone sounds from the corresponding intercom speaker. Also the following information appears on the screen.



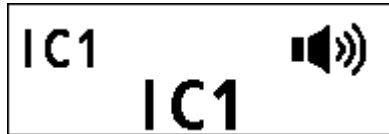
### Note

The intercom speaker name appears in the bottom line of LCD.

To rename the name, see 2.16 Renaming the Intercom Station.

**Step 2** Press and hold the **PTT** key on the microphone and speak into the microphone.

The following information appears on the screen.



**Step 3** Release the **PTT** key to receive.

**Step 4** After completing your conversation, press the **ALL** key to return to the home screen, or press the same selected key (IC1-IC6) to back to previous mode.

## 2.9 Receiving a Call from an Intercom Speaker

When one or multiple calls from an intercom speaker arrive, you can receive the call manually or automatically. If only one call was received, IC number and IC name will flash on the screen. When multiple calls arrive, the IC name and IC number will appear in turn every four seconds.

## Automatically receiving a call from a single speaker in ALL mode only

**Step 1** Press and hold the **PTT** key on the microphone to answer the call in **ALL** mode.

The LH-5000 automatically switches to the calling intercom speaker.

**Step 2** After completing your conversation, press the **ALL** key to return to the home screen, or press the same selected key (**IC1-IC6**) to back to previous mode.

## Automatically receiving calls from multiple speakers

When multiple incoming calls arrive simultaneously, the LH-5000 automatically handles the call in ascending order of the intercom station number. For example, the LH-5000 receives calls from IC1 and IC 5 at the same time, it will handle the call from IC1 first and then the call from IC 5.

**Step 1** In the home screen, press and hold the **PTT** key on the microphone to answer the call.

The LH-5000 automatically receives the call from the speaker whose number is the smallest.

**Step 2** After completing your conversation, press the **ALL** key to return to the home screen.

**Step 3** Press and hold the **PTT** key again on the microphone again.

The LH-5000 automatically receives the call from another speaker whose number is the smaller.

**Step 4** After completing your conversation, press the **ALL** key to return to the home screen, or press the same selected key (**IC1-IC6**) to back to previous mode.

### **Manually receiving a call from a single station**

**Step 1** Press the selected key (IC1–IC6) and hold the **PTT** key on the microphone to answer the call.

Only in ALL mode, you can perform this function.

**Step 2** Release the **PTT** key on the microphone to receive.

**Step 3** After completing your conversation, press the **ALL** key to return to the home screen, or press the same selected key (**IC1-IC6**) to back to previous mode.

## **2.10 Hailing by Voice**

**Step 1** Press **AFT**, **FWD**, or **BOTH** key to select the horn speaker(s).

For example, if you press the **FWD** key, this key lights red and the following information appears on the screen.



**Step 2** Press and hold the **PTT** key on the microphone and speak into the microphone.





**Step 3** Release the **PTT** key to receive.

The speaker(s) works as microphone(s).

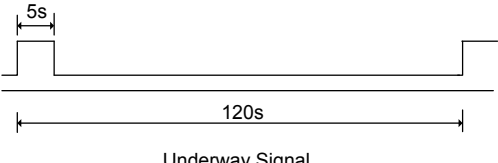
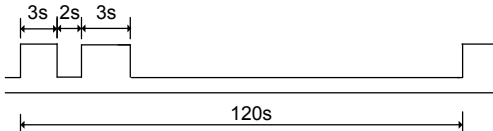
**Step 4** After speaking, press the **ALL** key to return to the home screen.

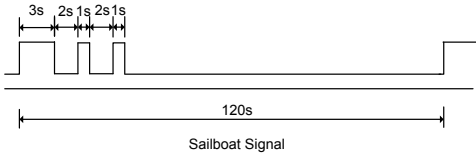
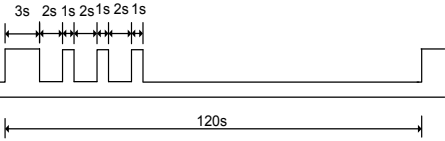
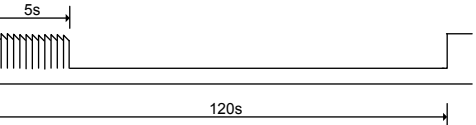
## 2.11 Sounding Warning Signals

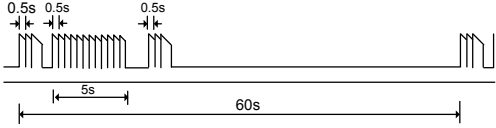
The LH-5000 has eight warning signals including manual, yelp, underway, stopped, sailboat, towed, anchored, and aground. The manual and yelp signals are sounded when you press and hold the **PTT** key on the microphone. However, the remaining warning signals are given when you press **ENT** key on the front panel.

The table lists the function of the warning signal.

Warning Signal	Function	Remarks
Manual	For ship passing.	The lengths and timing of the horn blasts are controlled by pressing and holding the <b>PTT</b> key on the microphone.
Yelp	For emergency siren.	

Warning Signal	Function	Remarks
Underway	For power-driven vessels underway.	<p>One 5-second blast at 120-second interval.</p>  <p style="text-align: center;">Underway Signal</p>
Stopped	For power-driven vessel that is stationary.	<p>Two 3-second blasts, with a 2-second interval between each blast, repeated every 120 seconds.</p>  <p style="text-align: center;">Stopped Signal</p>
Sailboat	For sailboats, tug boats and tow boats underway.	<p>One 3-second blast, followed by one 2-second interval, one 1-second blast, one 2-second interval and one 1-second blast. Repeated every 120 seconds.</p>

Warning Signal	Function	Remarks
		 <p style="text-align: center;">120s Sailboat Signal</p>
Towed	For vessels under tow.	<p>One 3-second blast, followed by one 2-second interval, one 1-second blast, one 2-second interval, one 1-second blast, one 2-second interval, and one 1-second blast. Repeated every 120 seconds.</p>  <p style="text-align: center;">120s Towed Signal</p>
Anchored	For vessels at anchor.	<p>A rapidly ringing bell tone sounds for about 5 seconds, repeated at an interval of 60 seconds.</p>  <p style="text-align: center;">120s Anchored Signal</p>

Warning Signal	Function	Remarks
Aground	For vessels aground.	<p>Two bell tones of 0.5 seconds, a bell tone of 1.5 second followed by a rapidly ringing bell tone for a duration of about 5 seconds, followed by two bell tone of 0.5 seconds and a bell tone of 1.5 seconds. Repeated once every 60seconds.</p> 

### Manually Sending a warning signal

**Step 1** Press the **FOG** key on the front panel.

The **FOG** key flashes red

**Step 2** Press the **Up** or **Down** key to select "MANUAL" or "YELP".

The following information appears on the screen.



The FOG key begins flashing.

**Step 3** Press and hold the **PTT** key on the microphone.

The following information appears on the screen.



The LH-5000 stops sounding the warning signal until the **PTT** key is released.

### Automatically Sending a warning signal

**Step 1** Press the **FOG** key on the front panel.

**Step 2** Press the **Down** key to select "UNDERWAY".

The following information appears on the screen.



**Step 3** Press the **ENT** key on the front panel to activate the automatic warning signal.

The FOG key lights red, and the following information appears on the screen.



## 2.12 Transmitting the Auxiliary Signal

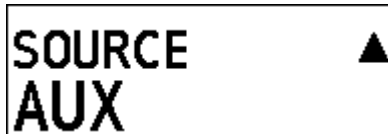
**Step 1** Press the **ALL** key on the front panel.

**Step 2** Press the **MENU** key on the front panel.

**Step 3** Press the **Up** or **Down** key to select "SOURCE" on the screen and press the **ENT** key.



**Step 4** Press the **Down** key to select "AUX" and press the **ENT** key.



In AUX mode, all the intercom speakers output the signal from the external source such as audio player, etc.

## 2.13 Setting the Alarm Mode

The LH-5000 works as a burglar alarm by connecting an external switch to the ALARM terminals on the rear panel. When the alarm mode is enabled, both horn speakers are automatically selected. If an alarm is triggered, the LH-5000 sounds the alert for two minutes and stop for five minutes in cycle.

### Enabling the alarm mode

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "ALARM" and press the **ENT** key.



**Step 3** Press the **Down** key to select "ON" and press the **ENT** key.



The **BOTH** key glows red every four second, and the following information appears on the screen. Countdown will start.



After five minutes, the LH-5000 goes to "STAND BY" mode. Then it sounds alarm tone loudly for two minutes, and then pauses for five minutes. This cycle is repeated continuously.

Also the following information appears on the screen.



### **Disabling the alarm mode**

Press any key except **ENT**, **Up**, or **Down** key on the front panel to exit the alarm mode.

## 2.14 Setting the Siren Mode

The LH-5000 in the siren mode sounds the warning signal such as YELP through both horn speakers, alerting nearby vessels of your presence and status. To interrupt the warning signal, press and hold the **PTT** key on the microphone and speak into it.

You can communicate with intercom speakers in the siren mode by choosing the specific one.

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "SIREN" and press the **ENT** key.



**Step 3** Press the **Up** or **Down** key to select "ON" or "OFF" and press the **ENT** key.



- ON: The LH-5000 sounds the warning signal.
- OFF: The LH-5000 does not sound the warning signal.

### Talking with a specific intercom speaker in the siren mode

**Step 1** Press any key from **IC 1** to **IC 6** on the front panel.



A short tone sounds from the selected intercom speaker and the corresponding information appears on the screen.

**Step 2** Press the **PTT** key on the microphone and speak into it.

**Step 3** Release the **PTT** key to receive.

**Step 4** After finishing your conversation, press the same selected key from **IC 1** to **IC 6** to return to the siren mode.

### **Talking with all intercom speakers in the siren mode**

**Step 1** Press and hold any key from **IC 1** to **IC 6** on the front panel for two seconds.

All keys from **IC 1** to **IC 6** light red and a short one sounds from all the intercom speakers.

**Step 2** Press the **PTT** key on the microphone and speak into it.

**Step 3** Release the **PTT** key to receive.

## **2.15 Setting the Key Beep**

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "KEY BEEP" and press the **ENT** key.

**Step 3** Press the **Up** or **Down** key to select "ON" or "OFF" and press the **ENT** key.

- **ON:** You hear the beep when pressing the key on the front panel.

- OFF: You do not hear the beep when pressing the key on the front panel.

## 2.16 Renaming the Intercom Station

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "RENAME IC" and press the **ENT** key.

**Step 3** Press the **Up** or **Down** key to select the intercom station to be modified and press the **ENT** key.

**Step 4** Press the **Up** or **Down** key to toggle the character at cursor position, i.e. letters, numbers, hyphen, or space, and then press the **ENT** key to confirm your selection.



**Step 5** Press the **ENT** key to move the cursor position to the right and repeat Step 4 to change each character.

**Step 6** Press the **MENU** key to finish.

You can press any key from **IC 1** to **IC 6** to view the modification.

## 2.17 Selecting the Speaker

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "SPEAKER" and press the **ENT** key.

**Step 3** Press the **Up** or **Down** key to select "INTERNAL" or "EXTERNAL" and press the **ENT** key.

- INTERNAL: uses the built-in speaker.
- EXTERNAL: uses the external speaker.

## 2.18 Performing the Self-test

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "SELFTEST" and press the **ENT** key.

**Step 3** Press the **Up** or **Down** key to select "EEPROM" or "SW VER." and press the **ENT** key.

- EEPROM: tests whether the EEPROM works properly.
- SW VER.: displays the software version.

## 2.19 Restoring the Factory Settings

**Step 1** Press the **MENU** key on the front panel.

**Step 2** Press the **Up** or **Down** key to select "RESET ALL" and press the **ENT** key.

The following information appears on the screen.

IF OK,  
PRESS ENT

**Step 3** Press the **ENT** key.

All your customized settings such as key backlighting are restored to factory settings.

The table below lists the factory setting.

No.	Function	Default Setting
1	DIMMER	Level 3
2	CONTRAST	Level 3
3	SOURCE	MIC
4	ALARM	OFF
5	SIREN	OFF
6	KEY BEEP	ON
7	RENAME IC	IC1 Name: IC1
		IC2 Name: IC2
		IC3 Name: IC3
		IC4 Name: IC4
		IC5 Name: IC5

<b>No.</b>	<b>Function</b>	<b>Default Setting</b>
		IC6 Name: IC6
8	SPEAKER	INTERNAL

# 3. Maintenance and Troubleshooting

## 3.1 Preventive Maintenance

### Product Care

Do the following tasks monthly.

- Check all the cables. If the cable is damaged, replace it on time.
- Check connections. Re-tighten the cable if necessary.
- Measure the input voltage to be sure it is within the rated voltage (10.8 – 15.6 V DC).

### Product Cleaning

- Clean up the dust and fine particles on the product surface and charging piece with a clean and dry lint-free cloth or a brush regularly.
- Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations, so as to avoid surface case damage.
- Make sure the product is completely dry before use.

## 3.2 Replacing the Fuse

If the LH-5000 cannot be powered on, the 15 A fuse inside the power cord may be blown. In this case, only the qualified technician is allowed to check and replace the fuse.

### 3.3 Troubleshooting

When the LH-5000 does not work properly, you can follow troubleshooting procedures to fix it. If the following solution cannot solve your problems, please contact your qualified technician for more technical support.

If...	Then...
The LH-5000 cannot be turned on,	Check whether the power cord is connected tightly. Ask the qualified technician to check whether the fuse is blown.
You cannot hear the voice from the intercom stations,	Rotate the <b>LISTEN VOL</b> knob clockwise to increase the volume.
The volume of intercom station is too low,	Rotate the <b>HAILER VOL</b> knob clockwise to increase the volume.

# Specifications

General		
Dimensions (H×W×D)	1100×2200×108 mm	
Weight (with cable and knob/hanger)	1.59 kg	
Power Supply	10.8–15.6 V DC	
Power Consumption	Full Load (2 hailer& 6 intercoms)	≤11A (12V DC)
	Standard (1 hailer& 1 intercom)	≤5 A(12V DC)
	Standby & Backlight Level 3	≤280 mA (12V DC)
Audio		
Audio Output	Hailer Speaker	30 W, 8 Ω
	Intercom Speaker	5 W, 8 Ω
	External Speaker	5 W, 8 Ω
	Internal Speaker	2.5 W, 8 Ω
Input Impedance	Microphone	600±50 Ω



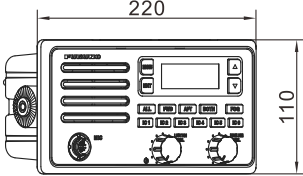
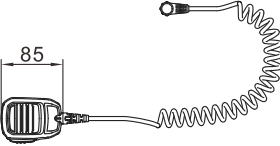
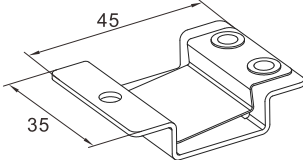
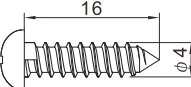
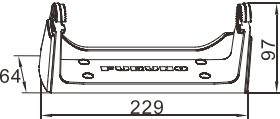
	Auxiliary	5.0±0.5 kΩ
Sensitivity	Microphone	13±3 mVrms (1 kHz)
	Auxiliary	775±50 mVrms (1 kHz)
Distortion	Hailer	≤10% (1 kHz/30 W)
	Intercom	≤10% (1 kHz/5 W)
S/N	Hailer	60 dB (1 kHz & A-weight)
	Intercom	60 dB (1 kHz& A-weight)
Frequency Response	Hailer	80 Hz–10 kHz at 3 dB
	Intercom	80 Hz–10 kHz at 3 dB
	Auxiliary	80 Hz–10 kHz at 3 dB
Horn Frequency	520 ± 50 Hz	
<b>Environment</b>		
Temperature	Operating: -15°C to 55°C (EN60945)	
	Storage: -30°C to +80°C	
Relative Humidity	95% at 40°C	
Waterproofing	IP67 (IEC 60529)	

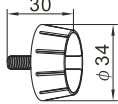
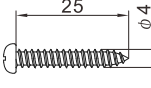
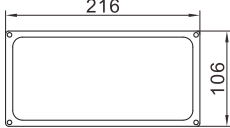
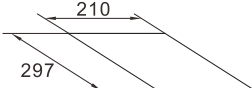
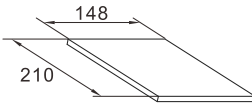
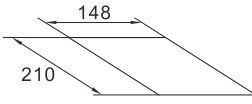
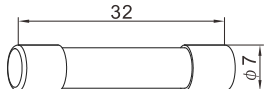
**Note**

All specifications are tested according to applicable standards, and subject to changes without notice due to continuous development.

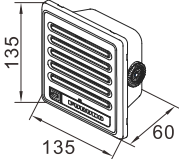
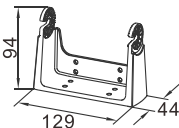
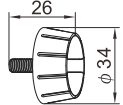
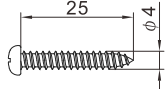
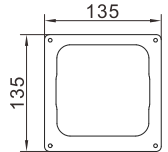
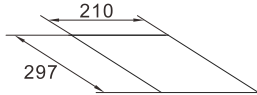
# Packing List

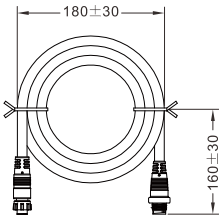
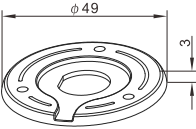
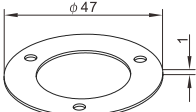
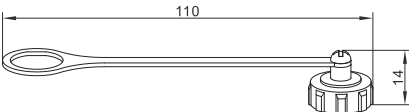
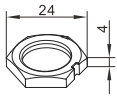
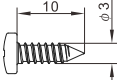
## Standard Supply

NAME	OUTLINE	DESCRIPTION	Q'TY
<b>UNIT</b>			
LOUDHAILER		LH-5000	1
<b>MICROPHONE SET</b>			
MICROPHONE		MIC-5000	1
MICROPHONE HANGER		/	1
TAPPING SCREW		/	3
<b>ACCESSORIES</b>			
HANGER		/	1

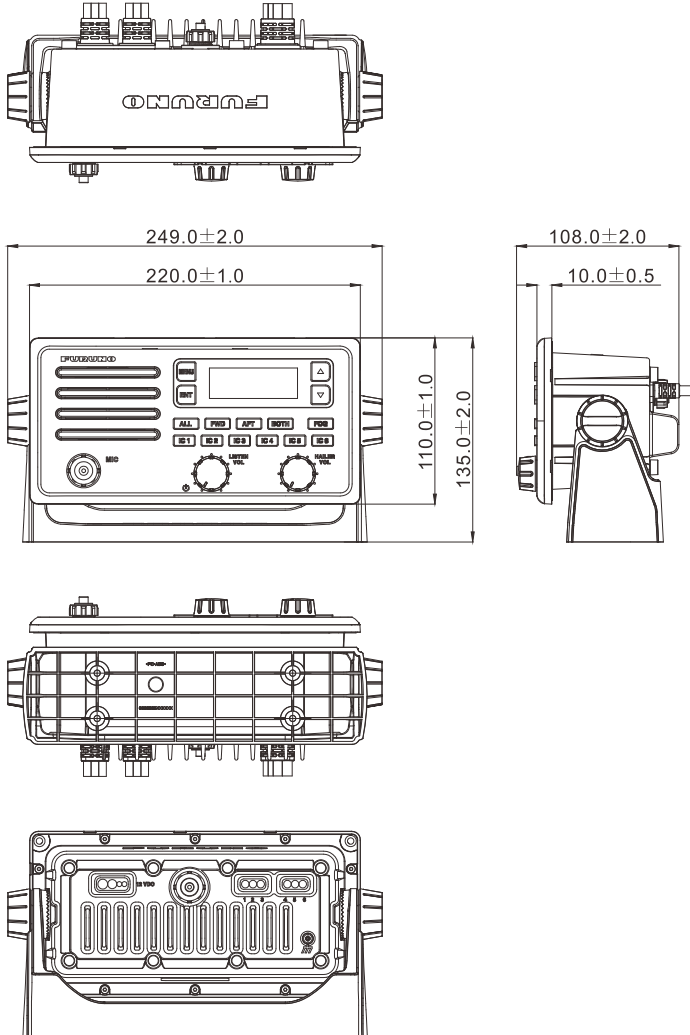
NAME	OUTLINE	DESCRIPTION	Q'TY
HANGER KNOB			2
TAPPING SCREW			4
<b>FLUSH MOUNTING MATERIALS</b>			
CUSHION			1
TEMPLATE			1
<b>DOCUMENT</b>			
OPERATOR'S MANUAL			1
Contents of Hazardous Substances or Elements of products			1
<b>SPARE PARTS</b>			
TUBE FUSE		250VAC 15A	2

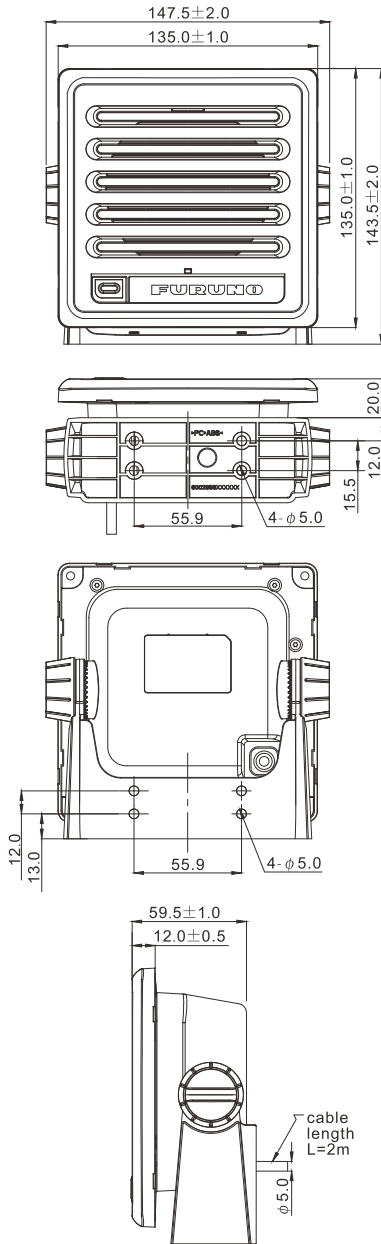
**Optional Supply**

NAME	OUTLINE	DESCRIPTION	Q'TY
<b>UNIT</b>			
INTERCOM SPEAKER		ISP-5000	1
<b>ACCESSORIES</b>			
HANGER		/	1
HANGER KNOB		/	2
TAPPING SCREW		/	4
<b>FLUSH MOUNTING MATERIALS</b>			
CUSHION		/	1
TEMPLATE		/	1

NAME	OUTLINE	DESCRIPTION	Q'TY
<b>EX-CBL-LH5M</b>			
EXTENDED CABLE		EX-CBL-LH5M	1
<b>ACCESSORIES</b>			
CABLE HOLDER		/	1
SEAL		/	1
WATERPROOF COVER		/	1
NUT		/	1
TAPPING SCREW		/	3

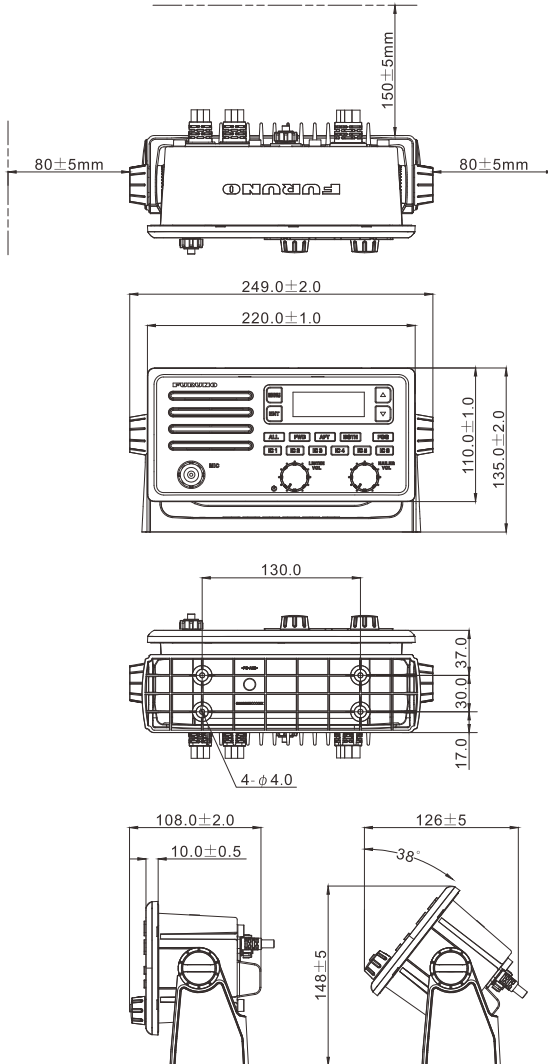
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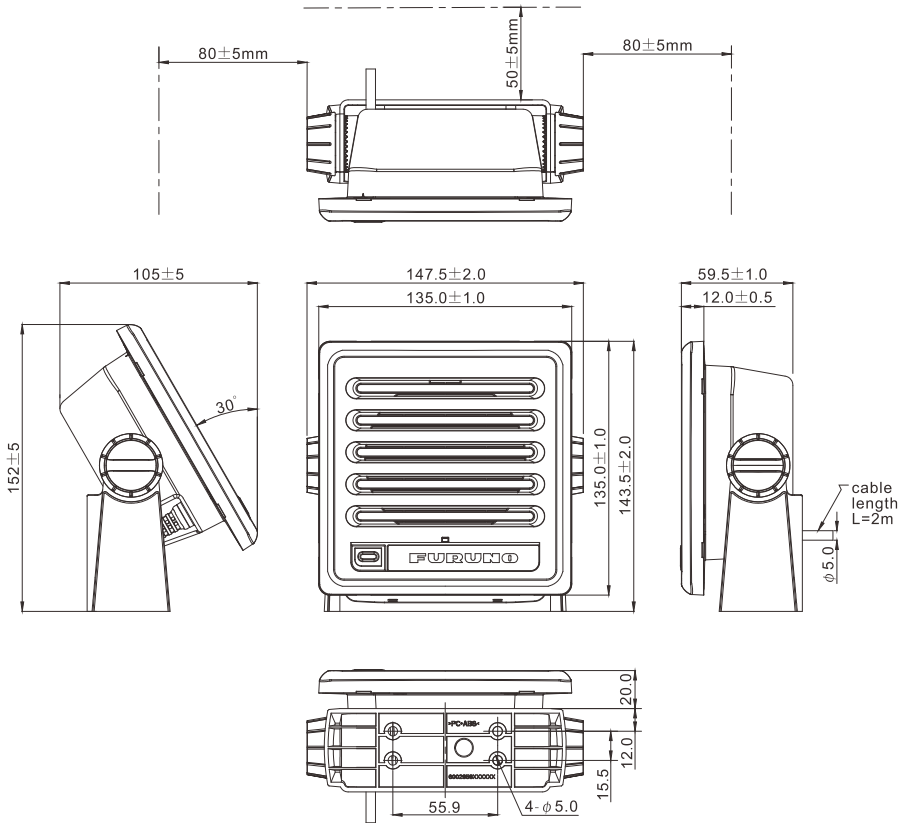




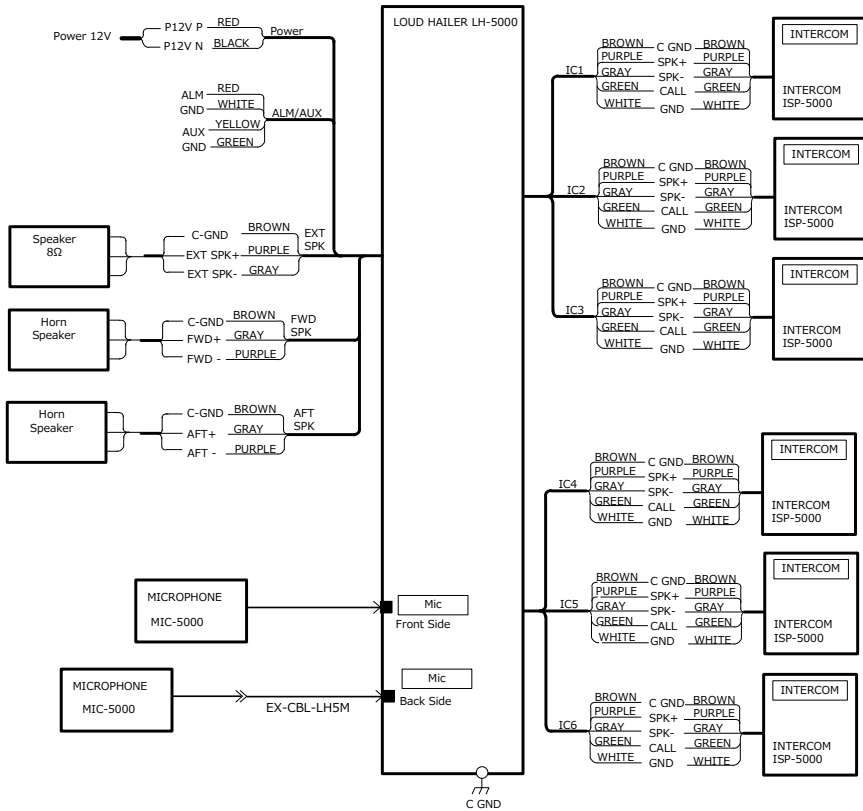


# Service Space Information

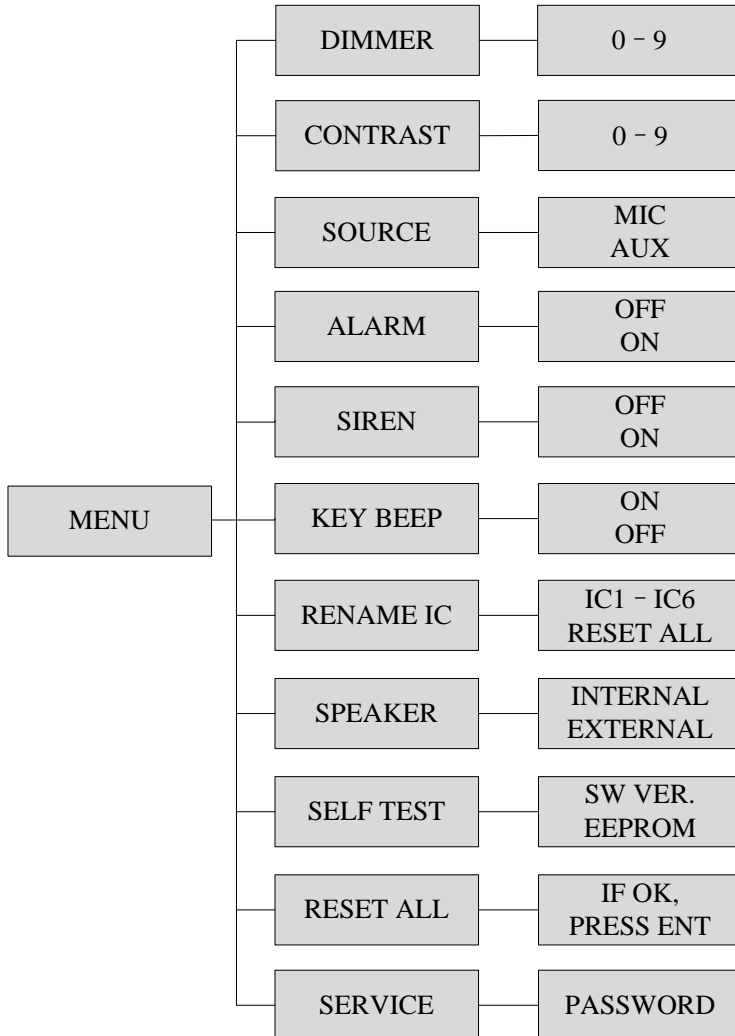




# Interconnection



# Menu Tree



## EC Declaration of Conformity



We **FURUNO ELECTRIC CO., LTD.**

(Manufacturer)

9-52 Ashihara-Cho, Nishinomiya City, 662-8580, Hyogo, Japan

(Address)

declare under our sole responsibility that the product

**LOUD HAILER LH-5000**

(Model name, type number)

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

IEC 60945 Ed.4.0: 2002, clauses 9.2, 9.3, 10.3, 10.4, 10.5, 10.8 and 10.9

(title and/or number and date of issue of the standard(s) or other normative document(s))

For assessment, see

- EMC Test Report RDG170111001-01M2, July 19, 2017 prepared by Bay Area Compliance Laboratories Corp. (BACL), China.

This declaration is issued according to the Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.

On behalf of Furuno Electric Co., Ltd.

Nishinomiya City, Japan  
July 21, 2017

(Place and date of issue)

Yoshitaka Shogaki  
Department General Manager  
Quality Assurance Department

(name and signature or equivalent marking of authorized person)



**(Elemental Chlorine Free)**

The paper used in this manual  
is elemental chlorine free.

## **FURUNO ELECTRIC CO., LTD.**

9-52, Ashihara-cho,  
Nishinomiya, 662-8580, JAPAN

·FURUNO Authorized Distributor/Dealer