

# ICOM

INSTRUCTIONS

## TRUNKING/NETWORK CONTROLLER

# UC-FR5000

### PRECAUTIONS

**⚠ WARNING!** Turn OFF the repeater while installing the controller. Otherwise a fire, electric shock may occur or cause the repeater to malfunction.

**CAUTION! NEVER** expose the repeater and controller to rain, snow or any liquids.

**CAUTION! NEVER** install the controller with bare hands. Wear gloves to avoid damaging the repeater by static electricity or cutting your hand on the sharp edges of the repeater.

**CAUTION! NEVER** let metal, wire, etc. touch any internal part of the controller.

**CAUTION!** Install the controller in only the specific repeater.

#### About CE

**CE** The UC-FR5000 complies with the essential requirements of the 2004/108/EC directive for Electromagnetic Compatibility.

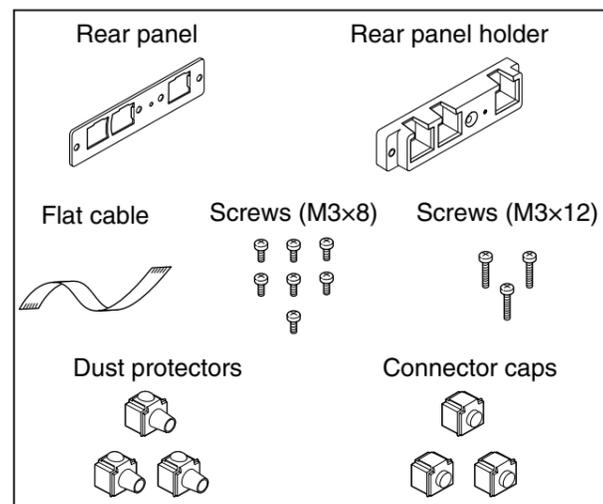
### CONFIGURATIONS

The controller enables the repeater to be used for the following modes depending on the configurations.

	Single Site Conventional	Single Site Trunking	Multi Site Conventional
UC-FR5000#01	✓	✓	n/a
UC-FR5000#02 (UC-FR5000#01+ CF-FR5000MC)	✓	✓	✓

(n/a = not applicable)

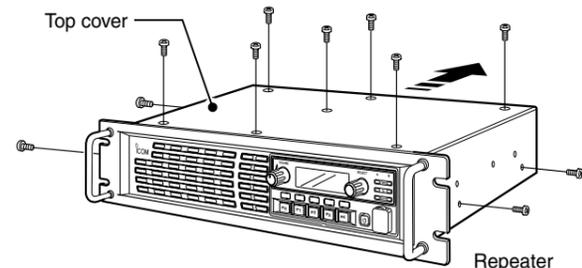
### SUPPLIED ACCESSORIES



Thank you for purchasing the UC-FR5000 TRUNKING / NETWORK CONTROLLER. The controller is designed to be installed into the IC-FR5000/IC-FR6000 series VHF /UHF FM REPEATERS and enables the on-line control and digital trunking operation on the repeater. Before installation, please read these instructions and repeater's instruction manual carefully.

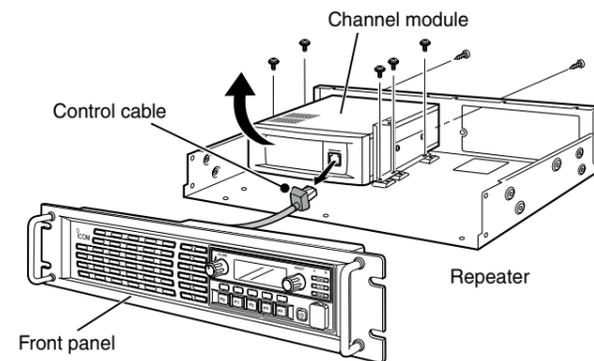
### OPENING CASE

- ① Unscrew the 7 screws from the top, and the 2 screws on both sides of the repeater, then slide the top cover off in the direction of the arrow.

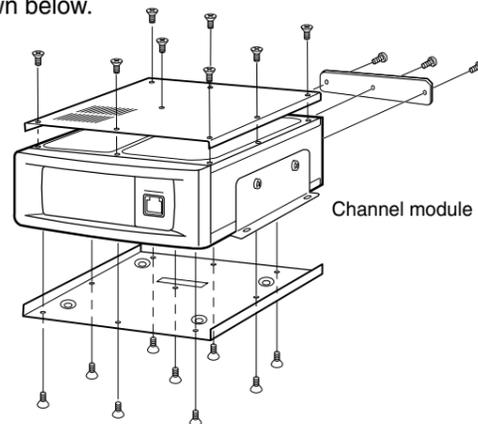


- ② Disconnect the control cable from the channel module. Then, unscrew the 7 screws which affix the channel module to the repeater chassis, and remove it, as shown below.

The front panel is removed in this illustration so the detail is easier to see. You can remove the channel module without removing the front panel of the repeater.



- ③ Unscrew the 8 screws from the top, the 9 screws from bottom, and the 3 screws from rear of the channel module. Then remove each cover from it, as shown below.

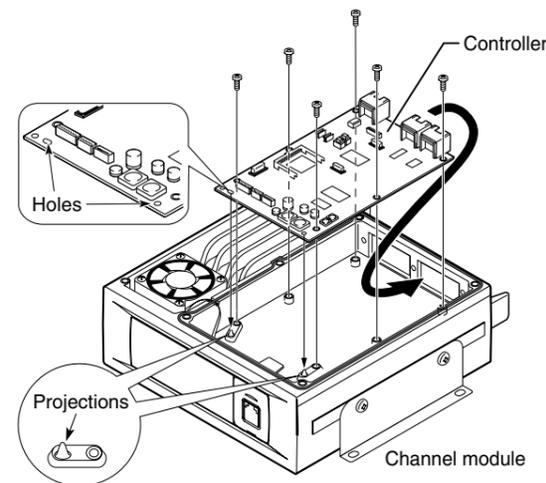


### INSTALLATION

#### • Installing the UC-FR5000

Install the controller into the channel module using 6 of the 7 supplied screws (M3x8), as shown below.

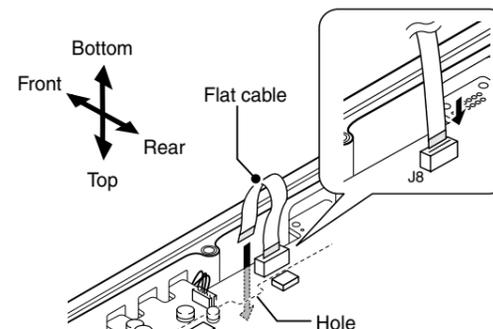
- Be sure to match the holes in the controller to the projections on the channel module's chassis.



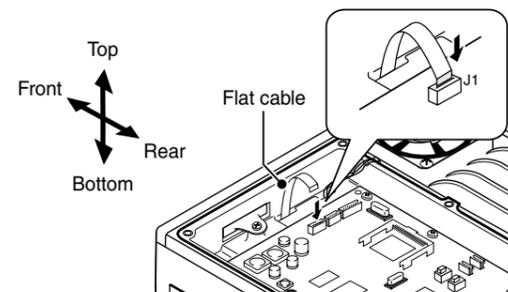
#### • Connecting the flat cable

Make sure to insert the flat cable correctly, and not upside down.

- ① Turn the channel module upside down. Insert one side of the flat cable into J8 on the PCB of the channel module. Then, carefully pass the flat cable through the hole of the channel module's chassis to the top side, as shown below.

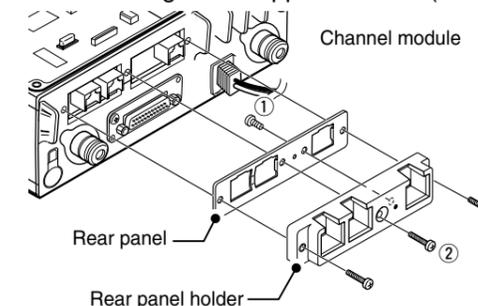


- ② Turn over the channel module. Carefully pull out the other end of the flat cable from the hole, and then insert it into J1 on the controller, as shown below.



#### • Attaching the rear panel

- ① Attach the supplied rear panel to the rear panel holder using 1 of the 7 supplied screws (M3x8).
- ② Attach the rear panel and holder set to the channel module using the 3 supplied screws (M3x12).



#### ✓ For your information

When you have installed a channel extension module (optional UR-FR5000/UR-FR6000 series), you can install up to 2 controllers in the repeater. You can then control each channel module from a console in the conventional/trunking operating mode.

### ABOUT THE CF CARD

The Multi Site Conventional version controller comes with a CF card inserted in the controller's CF card slot. Please take notice the following.

**CAUTION!** Use the CF card only in the UC-FR5000. Inserting the CF card into other equipment may corrupt the card's data.

**NEVER** turn OFF the repeater while the data is being transferred. Otherwise, the data on the CF card may become corrupted.

When no CF card is inserted, the controller cannot be used for Multi Site Conventional mode operation.

### OPTION

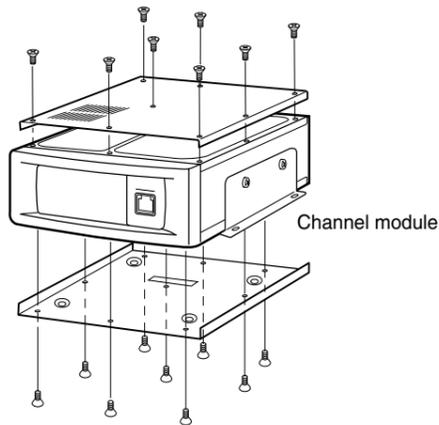
#### CF-FR5000MC CF CARD

For upgrading the UC-FR5000#01 to enable the Multi Site Conventional mode. Same as that supplied with #02.

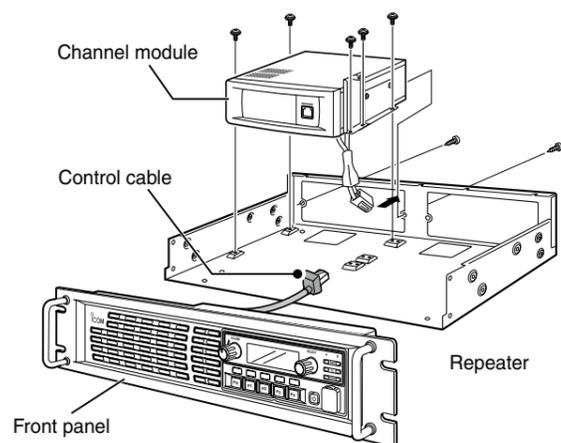
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## Assembling the unit

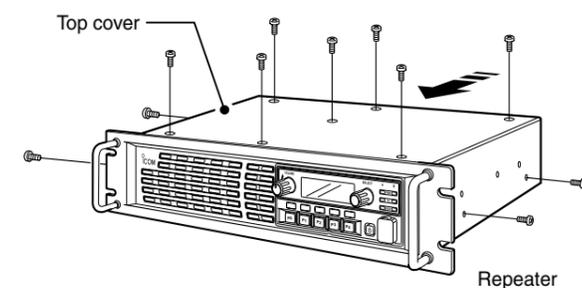
- ① Re-attach the top and bottom covers of the channel module, and then tighten all the screws, as shown below.



- ② Re-install the channel module and the screws to their original positions, and then connect the control cable of the repeater's front panel to the channel module.



- ③ Re-attach the top cover of the repeater, and then tighten the 7 screws for the top and the 2 screws on both sides of the repeater.



## Connection

CAT-5 straight cables and a Hub (or a router) are required for connection (purchase separately).

**BE SURE** to cover each connected cable with a supplied dust protector. Even if the cable has its own cover, replace it with the supplied dust protector.

**KEEP** the supplied connector caps attached when the connectors are not in use, to avoid getting bad contacts from dust and moisture.

Each controller has a LAN connector and two BUS connectors.

### ① [LAN] connector

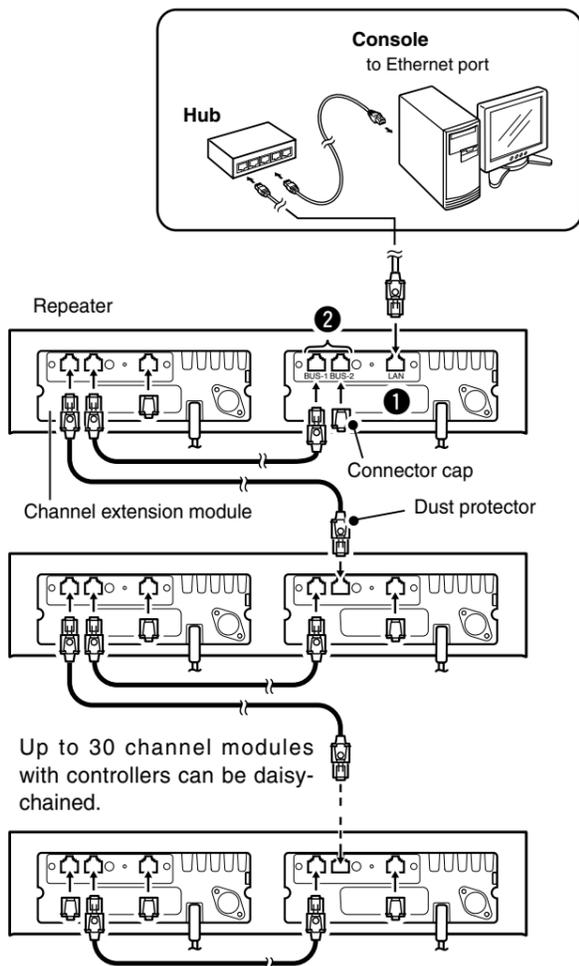
For an Ethernet connection. Connect the controller to an Ethernet (LAN) port of a console through a Hub (or a router).

In trunking mode operation, the controller at one end of the chain must be connected. You can control the controller and all others in the chain from the console.

### ② [BUS] connectors (BUS-1, BUS-2)

For data communication between the controllers in trunking mode operation, either BUS-1 or BUS-2 can be used. They enable the controllers to be "daisy-chained" together, and form a network that allows trunking and other data to pass among them.

\* The illustration below describes one example of a connection for trunking mode operation.



## The setting screen of the UC-FR5000

Internet Explorer 6.0 or later is required to correctly open the setting screen of the controller. The following instructions are based on using Internet Explorer 7.0.

You need to activate JavaScript to open the side menu and help window of the setting screen.

### • Accessing the setting screen

It takes 2 to 3 min. (typical) for the controller to start up the software. Please wait to launch the web browser until the operating system is up.

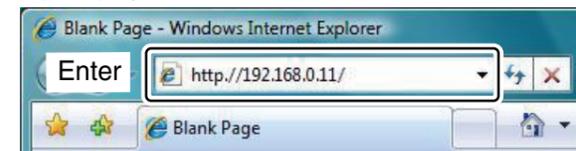
- ① Connect the controller to a console with a CAT-5 straight cable (See "Connection" to the left), and then turn ON the repeater.
- ② Before accessing the setting screen, change the IP address of the console to 192.168.0.XXX\* (Subnet mask should be 255.255.255.0).

\* Input 1 to 254 (except 11) instead of XXX.

- ③ Open your web browser, and enter "http://192.168.0.11/" (default IP address of the UC-FR5000) into the address bar.

Ask your system administrator for details.

- The login authentication screen appears after pushing the [Enter] key.



- ④ Enter "cbadmin" (default user name) and "ucfr5000" (default password) in their respective input field in the login authentication screen. If you want the screen to remember not only the user name but also the password, check the box, "Remember my password".
- The opening screen appears after clicking the [OK] button.

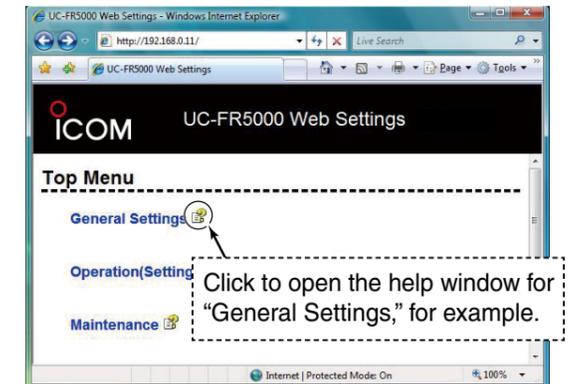


You can change the user name and password in the setting screen. Refer the help window of the setting screen for details.

### • Opening the help window

The setting screen of the controller has a help window to describe functions and settings.

When you don't understand the meaning of an item, or how to configure the controller, click a question mark icon on the screen to open the help window.



This screen differs slightly depending on the version.

### • Initialization

You can reset all set contents, including the network settings of the controller, to the factory default from a console.

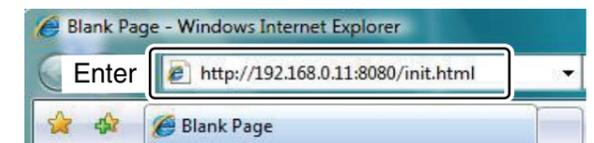
- ① Connect the controller to a console, and then turn ON the repeater.
- ② Open your web browser, and enter the initialize address into the address bar.

• **Initialize address:** http://(IP address):8080/init.html

• When the IP address of the controller is 192.168.0.11\*, enter "http://192.168.0.11:8080/init.html" as the initialize address.

\* The IP address is an example only. Check the IP address of the controller.

• The initialize screen appears after pushing the [Enter] key.



- ③ Click the [Reset] button after checking the box, "Yes, I agree." to initialize the settings.

