



# WIRELESS 2000 Annunciator System

CHIME BOX W/RELAY RECEIVER

## RC-20U INSTALLATION INSTRUCTIONS

Please read this manual carefully before installation.

### 1 CAUTION AND WARNING

#### WARNING

##### 1. Harsh environments

Do not use the RC-20U outdoors, severe conditions as out of warranted temperature, rapid temperature change, high humidity, or steam. This may cause the unit to malfunction.

##### 2. Tampering

Any changes or modifications not expressly approved by OPTEX could void the user's authority to operate the equipment.

##### 3. Adaptor

Do not use any other AC adaptor except what is included.

#### FEATURES

- Compatible with TD-20U (Indoor/Outdoor Sensor Transmitter), TS-10U (Hand-Held Transmitter), TR-20U (Repeater), TC-10U (Door/Window Transmitter) and any transmission units of WIRELESS1000 series.
- Identifies 4 zones by 3 different tones and LED lights (3 normal zones + 1 continuous zone).
- Able to learn 12 transmission codes (Each zone can learn 3 transmitters maximum).
- Automatic "Learning" function facilitates to preset transmission codes to RC-20U.
- Over 8 million codes possible, eliminates interference from neighbors.
- Latches into alarm with "Continuous mode" function.
- Programmed "Utility Output Mode" to inactivate chime tone (applicable for zone 3).
- Adjustable duration for terminal output.
- Adjustable volume.
- Low battery indicator to recognize transmission units' battery status.
- Powered by a 9VDC adaptor (Included).

#### CAUTION

##### 1. Impact/Shock

Impact or Shock can cause severe damage or break the RC-20U.

##### 2. Electric Devices

Use RC-20U at least 3ft (1m) away from electronic devices such as TVs, Radios, PCs, Microwave ovens, or any other devices with an electric motors. This may cause the unit to malfunction.

##### 3. Transmission range

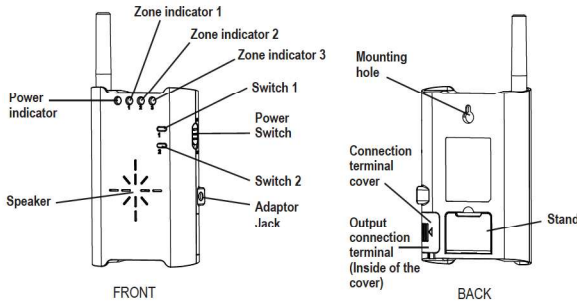
Transmission range may decrease under the following conditions:

- Either transmission units or RC-20U installed on a metal surface.
- Presence of a steel door, reinforced concrete or other metal obstructions between transmission units and RC-20U.
- Places near strong radio sources such as broadcast stations or substation.

##### 4. Cleaning

Harsh cleaners such as paint removers or benzene may ruin the surface. Use a soft wet cloth and mild soap to clean.

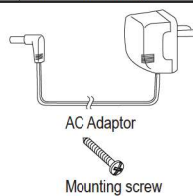
### 2 PARTS IDENTIFICATION



Note: When you recycle this product, please disassemble product and recycle according to state law.

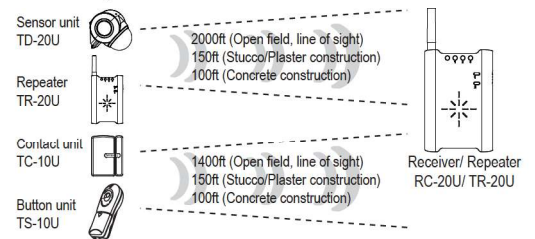
#### Function

Switch 1	Activating "LEARN MODE" and "TERMINAL OUTPUT DURATION MODE".
Switch 2	Activating "VOLUME ADJUSTMENT MODE" and making selection.



### 3 TRANSMISSION RANGE (REFERENCE)

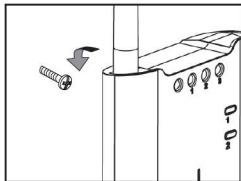
Transmission range must be changed according to environment. Please check if system works properly for the site. In the case of insufficient transmission range, use TR-20U (Repeater unit) to extend range.



### 4 INSTALLATION

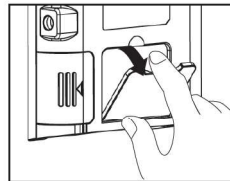
#### Wall Mounting

Use the mounting screw on a wall. Leave some length of the screw out for mounting hole of the RC-20U.



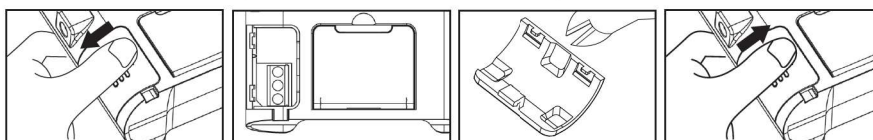
#### Desktop

Pull out the stand on the back of the RC-20U and place it on any flat surface.



#### Terminal connection

Any device with a zero voltage input terminal can be connected to this terminal. This may include electronic locks, emergency sounding devices, and automatic reporting equipment.



Remove the connection terminal cover.

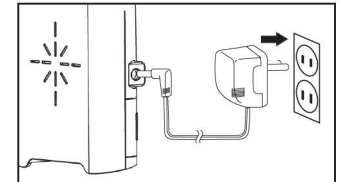
Use the terminal marked "COM-N.O." for N.O. devices and "COM-N.C." for N.C. devices.

Remove knockouts according to wiring needs.

Close the connection terminal cover.

### 5 POWER CONNECTION

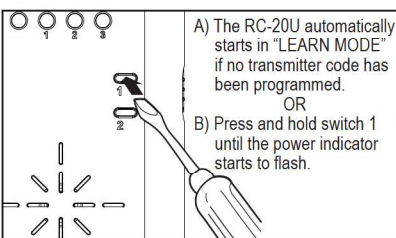
Use only the power adaptor supplied with the product.



### 6 TEACH TRANSMITTER CODES TO RC-20U "LEARN MODE"

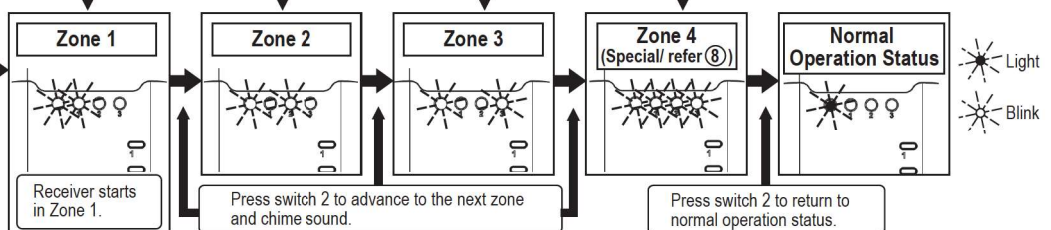
Each transmitter has a unique transmitter code which can be automatically learned by RC-20U. The RC-20U's zones must be taught to respond to the appropriate transmitter. (No transmitter is taught on default setting.)

#### Activate "LEARN MODE"



#### Teach the transmitter code to RC-20U

Activate the transmitter you wish to teach the receiver. (The corresponding zone indicator flash rapidly at intervals of 1 sec according to the related transmitter.)



#### Note:

- Verify that each transmitter has been successfully learned by RC-20U by triggering them.
- Each zone can learn max. 3 transmitters.
- Zone indicator shows the activated transmitter by the number of flash. (e.g. If learned second transmitter in zone 1 is activated, zone 1 indicator flashes twice.)
- Single transmitter cannot be learned by multiple zones
- RC-20U learned code will keep memorized even if turning OFF the power.

#### Erasing codes from RC-20U's memory.

- 1) Hold down switch 1 until the power indicator starts to flash.
- 2) Press switch 2 until the appropriate zone indicator is lit.
- 3) Press switch 1 to erase. The zone indicator will start to flash. (Note: All programming in that particular zone will be erased.)
- 4) Press switch 2 a few times until the power indicator stops flashing and remains lit.

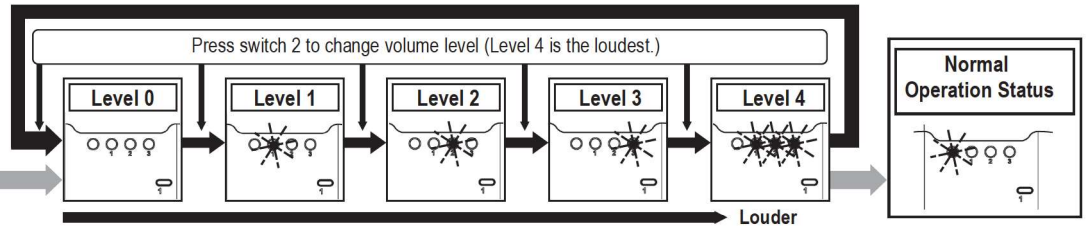
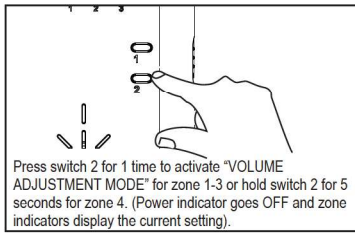
#### Erasing all codes from RC-20U. (Return to the factory default)

To erase all programming, turn on power while holding switch 1.

## ⑦ VOLUME ADJUSTMENT

This adjustment is applicable for zone 1 to 3 as a group and zone 4 independently.  
There are volume setting from Level 0 to 4. (Default setting for zone 1-3 is level 3, for zone 4 is level 4.)

RC-20U will automatically return to normal operation status after 5 seconds without any operation. (Zone indicators will go OFF and power indicator will remain lit.)



## ⑧ TERMINAL OUTPUT DURATION ADJUSTMENT

2 modes can be set according to the application.

### Regular mode

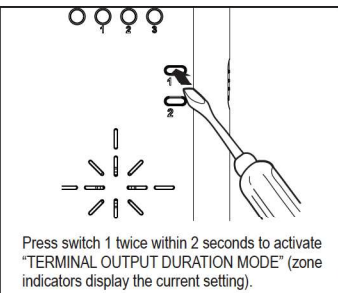
Zone 1	Chime tone 1	Terminal output (Time duration according to setting)
Zone 2	Chime tone 2	
Zone 3	Chime tone 3	
Zone 4	Continuous tone and terminal output (Latches until switch 2 is presses to inactivate.)	

Note: Time of the chime will not change according to terminal output duration adjustment.

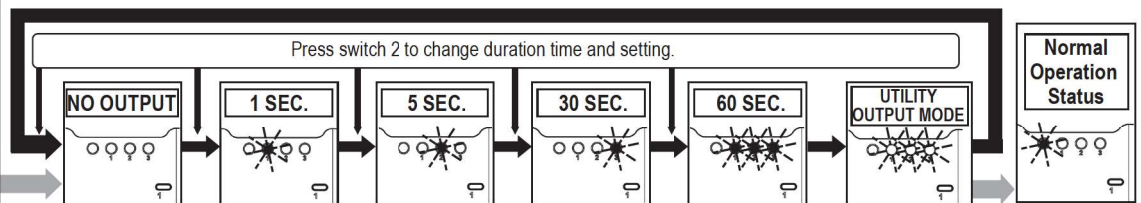
### Utility Output mode

Zone 1	Chime tone 1	No terminal output
Zone 2	Chime tone 2	
Zone 3	No chime	Terminal output for only 5 sec.
Zone 4	Continuous tone and terminal output (Latches until switch 2 is presses to inactivate.)	

Note: Time of the chime will not change according to terminal output duration adjustment.



RC-20U will automatically return to normal operation status after 5 seconds without any operation. (Zone indicators will go OFF and power indicator will remain lit.)



## ⑨ TROUBLESHOOTING

### 1. The system is not operating

#### Check the transmitter.

- Does the status indicator light up when you trigger the transmitter? → Check to see whether the battery is inserted correctly. If the battery is old, replace it with a new one.
- Is the status indicator of the transmitter flashing? → The battery is old. Replace the battery.

#### Check the receiver.

- Is the power indicator of the RC-20U lit? → Is the receiver on? Check the wiring and connection.
- Have all the transmitter codes have been taught correctly? → Teach the transmitter codes correctly. The system will not operate without this process.
- Is the volume setting correct? → Is the volume set to "0"? If so, readjust the volume.
- Are there other high power appliances using the same electrical power outlet? → Please connect the RC-20U to a different electrical outlet.
- The zone indicator of the RC-20U is on, but nothing happens. → Check to see whether the terminal is properly connected to other devices.
- Is there anything blocking the transmission? → Relocate the receiver and/or the RC-20U. Metal objects can shorten the effective transmission range.
- Are the zone indicators flashing slowly? → Follow directions in ⑩ LOW BATTERY INDICATION.

### 2. The system is not operating correctly.

- The RC-20U does not learn the transmitter codes. → Check whether the transmitter codes have already been learned in a different zone. If so, erase the memory and teach again.
- The RC-20U gets reception in the wrong zone. → Erase memory in the zone in which the RC-20U responds and teach using the correct zone.
- The RC-20U does not respond to some of the transmitters. → You may have taught multiple transmitter codes in the same zone. Teach the transmitter codes for which no response is received using an empty zone.
- A certain zone seem to malfunction. → This is probably the transmitter's problem. Check the transmitter that corresponds to that zone.
- Before contacting the supplier! → Go through the setups again after turning on the power while holding down switch 1.

• If the above solutions do not work, please contact your supplier for services.

## ⑬ COMPLIANCE

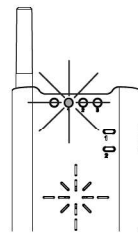
### FCC ID : DC9RC-20U

The changes or modifications not expressly approved by the OPTEX could void the user's authority to operate the equipment. To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. Note: This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help.

### IC : 4012A-00000TD20U

Operation is subject to the following two conditions. (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.  
To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

## ⑩ LOW BATTERY INDICATION



Zone indicator start slow flashing and sound a chime followed by 2 beeps whenever the corresponding transmitters have low battery. Any operation cannot be done until one of operations below are conducted.

- 1) Replace transmitter's batteries.
- 2) Press switch 2.

RC-20U will not need to relearn transmitter after replacing the batteries.

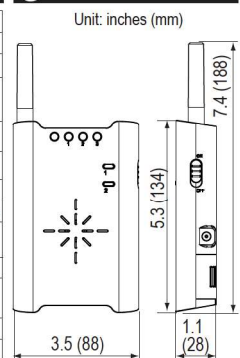
**Note:** Check low battery status at the corresponding transmitter in case several units are learned in 1 channel.

## ⑪ SPECIFICATION

Model	RC-20U
Description	Chime Box w/Relay Receiver
Power Source	9VDC (Exclusive AC Adaptor)
Power Consumption	8W Max. (Including AC Adaptor 120V, 60Hz)
Chime Tone	3 Tone & Continue Zone (Selectable)
Volume	Adjustable: 0~80dB/ 5 levels
Relay output	Form "C" MAX 1A/50VAC 24VDC
Output Timer	Selectable: Off/1/5/30/60sec/ Utility output mode
Status Indicator	Power Indicator: Green Zone Indicator: Red x 3
Frequency	418MHz
Operating Temperature	15° F ~ 105° F (-10°C ~ +40°C)
Installation location	Indoor
Weight	6.0 oz (170g)
Accessories	Mounting Screw x 1, AC Adaptor

Specifications may change without notice

## ⑫ DIMENSIONS



## ⑭ WARRANTY

1. This product is warranted under normal use for 2 years from the date of purchase. If the product proves to be defective, return it with a copy of your dated sales receipt for repairs or replacement without charge.
2. The warranty is not applicable when below circumstances will be found:
  - Mechanical or electrical modification(s) are made to the product or it is otherwise altered manually.
  - The product is already been serviced at place(s) other than the manufacturer.
  - It is determined that the product malfunction has resulted from improper use or from an accident.
  - No copy of the dated sales receipt has been submitted together with the product to be serviced.



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