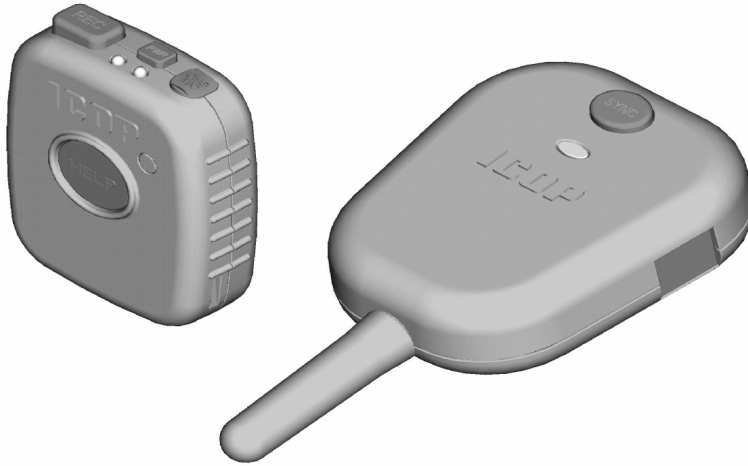


## Operating Instructions ICOP 2020WMIC



Items included in this package with part numbers

No.	Quantity	Model No.	Description	ICOP Part No.
1	1	2020ICT	In-Car Transceiver	600-00111-00
2	1	2020RHT	Remote Transceiver	600-00110-00
3	1	2020BC	Belt Clip	600-00116-00
4	1	2020ICC	In-Car Charger	600-00115-00
5	1	N/A	Cable - In-Car Charger	600-00119-00
6	1	2020CPC	Cigar Plug Charger	600-00112-00
7	1	2020HOC	Home Office Charger	600-00114-00
8	1	N/A	Instruction Manual	700-00100-00

System description:

The ICOP 2020WMIC wireless microphone system operates as part of ICOP's in-car DVR (digital video recorder) system.

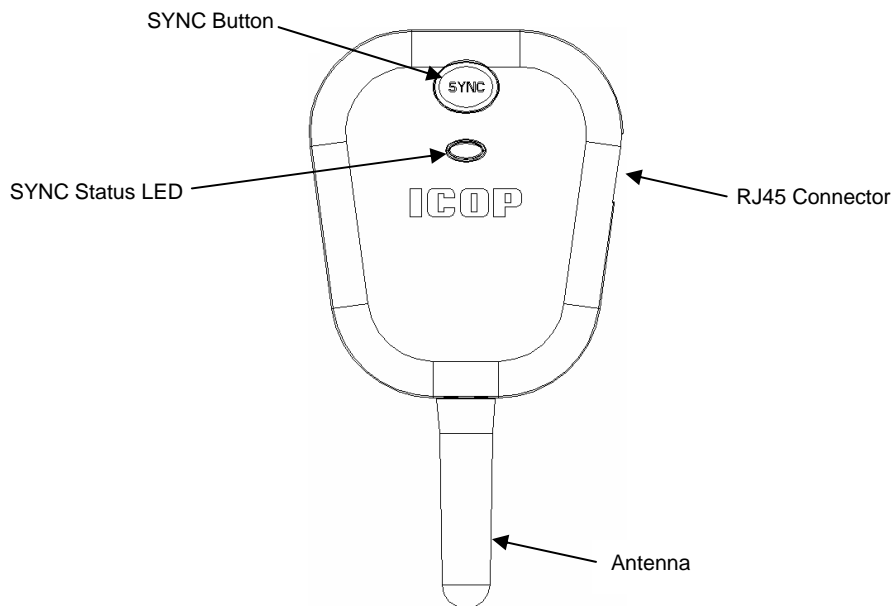
The ICOP 2020 Wireless Microphone System consists of 2 transceivers. The first transceiver, called the In-Car Transceiver (2020ICT), is mounted inside the vehicle. The In-Car Transceiver must be connected to the JBOX (junction box) to interface audio and control signals to the DVR. The In-Car Transceiver consists of two receivers and one transmitter, a fixed antenna, an RJ-45 connector, and a push button for synchronization with the Remote Transceivers.

The second transceiver, called the Remote Transceiver (2020RHT), is carried by the patrolman either on his belt or lapel. The Remote Transceiver is a self-contained unit, which includes an internal microphone, external microphone/charge jack, battery charge terminals, internal rechargeable battery, internal antenna, and 3 buttons for Standby/Off, Help and Transmit Record On/Off.

The system operates in the 900 MHz ISM (Instrument Scientific Medical) band and is license free. The system range is 1000 feet. The ICOP 2020 Wireless Microphone System uses Frequency Hopping Spread Spectrum (FHSS) Narrow Band FM, which provides excellent privacy, security and avoidance of interference.

Three chargers are included with the 2020WMIC system. These are the In-Car Charger (2020ICC), the Cigar Plug Charger (2020CPC) and the Home Office Charger (2020HOC).

### **In-Car Transceiver Model Number 2020ICT**



#### **Operating Instructions:**

Depending on the installation, the In-Car Transceiver will have power applied at all times or only when the ignition switch is on. The In-Car Transceiver (ICT) may be used with one or two Remote Transceivers. Upon application of power, the In-Car Transceiver will turn on

its red SYNC Status LED and attempt a link confirmation with the first Remote Transceiver unit on its currently assigned channels. The In-Car Transceiver will then attempt a link confirmation with a second Remote Transceiver. After the attempts are completed, the In-Car Transceiver's red SYNC Status LED will blink one or two times every five seconds for three minutes to indicate the number of Remote Transceiver units found. If no units are found, the SYNC Status LED will remain off.

To synchronize or resynchronize the In-Car Transceiver to one or two Remote Transceivers, place the Remote Transceiver unit(s) into the In-Car Chargers or plug into the Cigar Plug Charger and press the SYNC button on the In-Car Transceiver. The In-Car Transceiver will first attempt a link confirmation with assigned Remote Transceiver units in or out of their charging bases. Assigned Remote Transceivers that are not in use should be turned off or placed in an Office Charger to avoid unintentional resynchronization with units not in use.

The In-Car Transceiver SYNC Status LED will light for the duration of the synchronization and confirmation operation. If two Remote Transceiver units are found and confirmed, the process is completed and the SYNC Status LED will blink two times every five seconds for three minutes to indicate that two Remote Transceivers are synchronized to the In-Car Transceiver.

If only one Remote Transceiver unit is found and confirmed, the In-Car Transceiver will enter programming mode on the special low-power synchronization channel and attempt to program the current security and channel information into the next Remote Transceiver unit available in charge mode that it can find. If the programming attempt fails to find a second Remote Transceiver, the SYNC Status LED will blink one time every five seconds for three minutes to indicate that one remote is synchronized to the In-Car Transceiver. Only two Remote Transceivers can be synchronized to an In-Car Transceiver at one time.

The In-Car Transceiver will add together the audio from the two Remote Transceivers synced to it into a single audio path to be sent to the DVR. If one unit is out of range or is not transmitting, that audio path will be muted.

#### General Specifications:

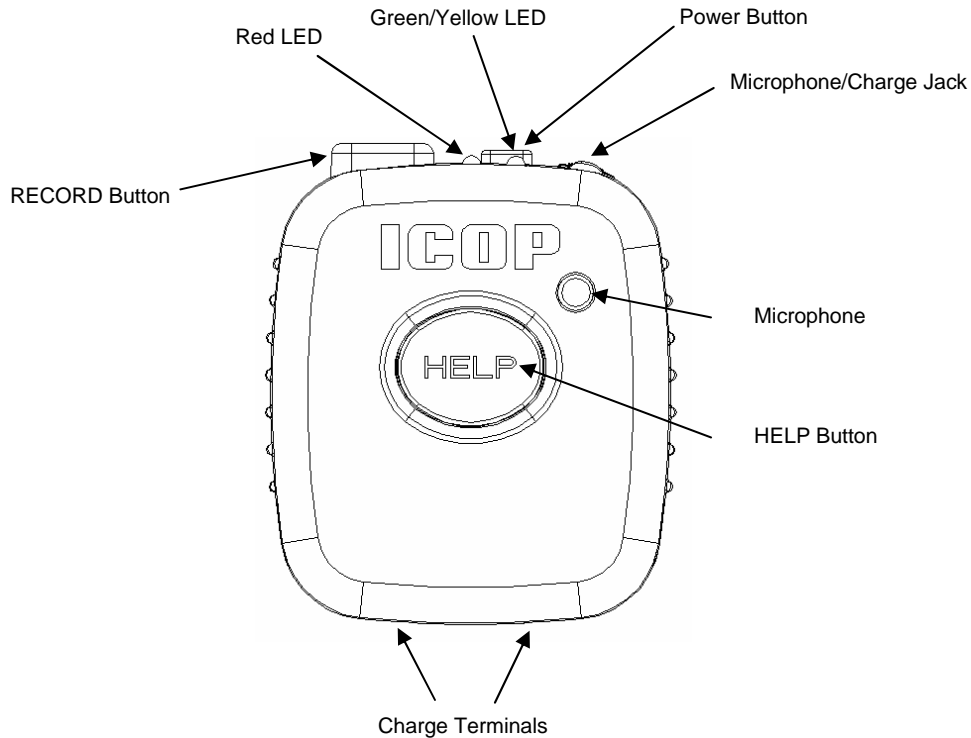
Operating Frequency Range	902 – 928 MHz
Operating Voltage	9 to 15 VDC
Frequency Hopping Sequences	32,768
Frequencies per Sequence	16
Audio Output	250 mV RMS
Range	1000 ft

#### FCC Information:

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

An FCC license is not required for operation of this device.

## 2020RHT



### Operating instructions:

The Remote Transceiver has an internal 550 mA hour rechargeable battery pack. Prior to the first use the battery should be charged for 12 to 15 hours. The Remote Transceiver can be charged through its charge terminals located on the bottom of the unit while placed in the In-Car Charger (2020ICC) or the Multiple Office Charger (2020MOC), or through the external mic/charge jack with the Cigar Plug Charger (2020CPC) or Home Office Charger(2020HOC).

After the battery is charged, the Remote Transceiver must be synchronized to the In-Car Transceiver.

To synchronize or resynchronize the In-Car Transceiver to one or two Remote Transceivers, place the Remote Transceiver unit(s) into the In-Car Chargers or plug into the Cigar Plug Charger and press the SYNC button on the In-Car Transceiver. The In-Car Transceiver will first attempt a link confirmation with assigned Remote Transceiver units in or out of their charging bases. Assigned Remote Transceivers that are not in use should be turned off or placed in an Office Charger that is out of range of the In-Car Transceiver to avoid unintentional resynchronization with units not in use.

The In-Car Transceiver status LED will light for the duration of the synchronization and confirmation operation. If two Remote Transceiver units are found and confirmed, the process is completed and the status LED will blink two times every five seconds for three

minutes to indicate that two Remote Transceivers are synchronized to the In-Car Transceiver.

If only one Remote Transceiver unit is found and confirmed, the In-Car Transceiver will enter programming mode on the special low-power synchronization channel and attempt to program the current security and channel information into the next Remote Transceiver unit available in charge mode that it can find. If the programming attempt fails to find a second Remote Transceiver, the status LED will blink one time every five seconds for three minutes to indicate that one remote is synchronized to the In-Car Transceiver. Only two Remote Transceivers can be synchronized to an In-Car Transceiver at one time.

## Buttons and Modes of Operation

The Remote Transceiver Wireless Microphone can be switched between three modes of operation:

### 1) TRANSMIT Mode

In TRANSMIT mode the Wireless Microphone is fully operational and is transmitting and receiving continuously. Audio transmitted from the microphone can be recorded on the DVR. To select TRANSMIT mode, push the record (REC) button on the Remote Transceiver. Transmit mode can also be selected from the DVR. The Remote Transceiver will indicate that it is transmitting audio by lighting the Green LED indicator. The Remote Transceiver will indicate that it has moved out of range of the In-Car Transceiver by turning off the Green LED and lighting the Yellow LED indicator.

### 2) HELP Mode

In HELP mode the Wireless Microphone is fully operational and is transmitting and receiving continuously. In addition, a signal is activated to the DVR to indicate that the user has pressed the HELP button. To select HELP mode, push the HELP button on the front of the Remote Transceiver. The LEDs will continuously repeats the pattern green/red/yellow/red separated by longer periods of green or yellow range status indication.

After every 7<sup>th</sup> repetition of the green/red/yellow/red pattern, the red LED quickly blinks 1 or 2 times to indicate a low battery during the green or yellow range status indication.

Battery 25%	1 Red Blink
Battery 50%	2 Red Blinks

### 3) On-STANDBY Mode

In STANDBY mode, the transmitter is turned off and the unit can only receive. Select STANDBY mode by pushing the record button on the Remote Transceiver while in TRANSMIT mode or HELP mode. STANDBY cannot be selected from the in-dash unit. The green LED blinks ON every 6 seconds to indicate RHT is able to transmit and receive communications. The red LED blinks 1 or 2 times every 6 seconds to indicate a low battery condition.

Battery 25%	1 Red Blink
Battery 50%	2 Red Blinks

### 4) OFF

When OFF, the Remote Transceiver cannot transmit or receive. The Remote Transceiver can be turned OFF by pressing and holding the power button for 1 second

until the green LED goes off. The green LED will turn ON for the duration of the Power Button, press up to 1 second. If held for 1 second when the RHT is in the OFF mode, the RHT will enter the Standby mode. If the RHT unit is currently synchronized with an In-Car Transceiver, the Remote Transceiver will rapidly flash the green LED and attempt a confirmation with the In-Car Transceiver. If it is not synchronized with an In-Car Transceiver, the green LED will flash one time and begin the normal Standby mode blinking. A momentary press and release of the Power Button will indicate the Power On status of the RHT. If the unit is in Standby mode, the green LED will flash one time after release and remain in the Standby mode. If the unit is in OFF mode, the green LED will remain off after the button release.

#### 5) CHARGE Mode

The Remote Transceiver will be in CHARGE mode while connected to any of the charger accessories. It cannot be turned off while charging. Inserting the Remote Transceiver unit into the charging cradle or connecting a plug-in charger will turn the unit ON, but it will only be capable of synchronization and confirmation operations. The unit will enter the OFF mode upon removal from the charger. The red LED turns ON while in charge mode, then periodically blinks OFF from 1 to 4 times to indicate level of battery charge.

Battery 0%-25%	1 Red Blink
Battery 50%	2 Red Blinks
Battery 75%	3 Red Blinks
Battery 100%	4 Red Blinks

#### 6) SYNCHRONIZATION MODE

While in CHARGE mode, the green LED will rapidly flash to indicate the In-Car Transceiver (ICT) has started to reprogram the RHT with the new security code and channel combination. The green LED will turn off when programming has switched to confirmation mode.

The Remote Transceiver LED indicators may be turned OFF by the user for those conditions where the bright light emitted from them is undesirable. The LEDs will always default to ON when the unit is powered on. The ON/OFF state of the LEDs can not be changed when the Remote Transceiver is OFF or connected to a charger.

The initial factory setting is for the LED indicators to be ON.

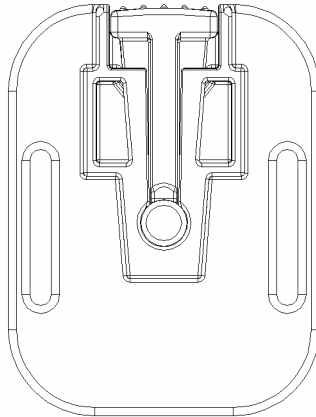
If the LEDs are ON, two quick presses of the HELP button within 2 seconds will turn the LEDs OFF.

If the LEDs are OFF, two quick presses of the HELP button within 2 seconds will turn the LEDs ON.

Pressing REC, PWR or activating the HELP function with the LEDs OFF will temporarily override the disable to allow confirmation that the communications link status has changed.

Placing the Remote Transceiver into the charge mode will turn the LEDs ON.

## Belt Clip



Insert the hook-and-loop strap through the belt clip as shown. Wrap the hook-and-loop strap around your belt and squeeze the hook portion against the loop section so that the belt clip is securely fastened to your belt.

Snap the Remote Transceiver onto the belt clip by inserting the swivel connector on the belt clip into the mounting hole on the back of the Remote Transceiver.

To Remove the Remote Transceiver from the belt clip, push the release latch on the belt clip.

### Battery Replacement:

The Remote Transceiver is equipped with an internal 550mAh NiMH battery pack that should supply **2-3 years** of use. When the battery reaches the end of its life it should be replaced with the exact ICOP replacement part. Contact the ICOP Service Department to obtain a replacement battery.

### General specifications

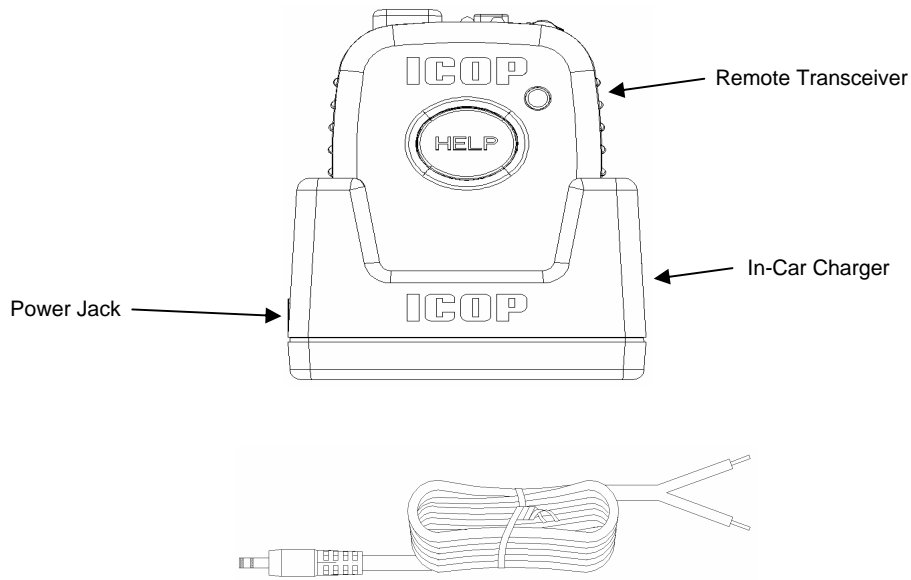
Operating Frequency Range	902 – 928 MHz
Operating Voltage	3.3 to 4.5 VDC
Frequency Hopping Sequences	32,768
Frequencies per Sequence	16
Range	1000 ft

### FCC Information:

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

An FCC license is not required for operation of this device.

## 2020ICC



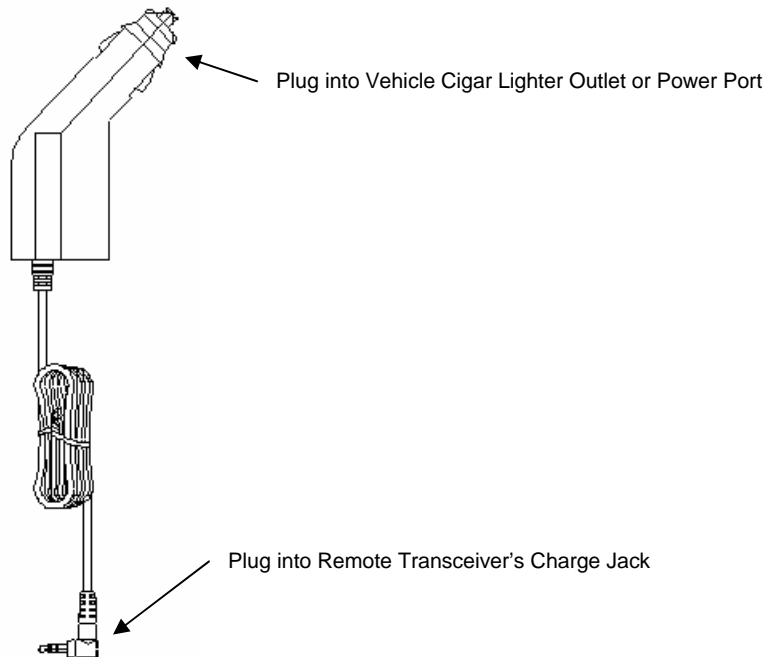
### Operating instructions:

Insert the Remote Transceiver into the In-Car Charger. The red LED on the Remote Transceiver will light and begin blinking in a few seconds. The periodic blinking of the red LED indicates the charge condition of the battery as follows:

Battery 0%-25%	1 Red Blink
Battery 50%	2 Red Blinks
Battery 75%	3 Red Blinks
Battery 100%	4 Red Blinks



## 2020CPC



### Operating instructions:

Plug the Cigar Plug Charger into the vehicle's cigar lighter outlet or power port. Insert the plug on the Cigar Plug Charger into the microphone/charge jack on the top of the Remote Transceiver. The red LED on the Remote Transceiver will light and begin blinking in a few seconds. The periodic blinking of the red LED indicates the charge condition of the battery as follows:

Battery 0%-25%	1 Red Blink
Battery 50%	2 Red Blinks
Battery 75%	3 Red Blinks
Battery 100%	4 Red Blinks

## 2020HOC

### Operating instructions:

Plug the Home/Office Charger into a standard 120V AC outlet. Insert the plug on the Home/Office Charger into the microphone/charge jack on the top of the Remote Transceiver. The red LED on the Remote Transceiver will light and begin blinking in a few seconds. The periodic blinking of the red LED indicates the charge condition of the battery as follows:

Battery 0%-25%	1 Red Blink
Battery 50%	2 Red Blinks

Battery 75%	3 Red Blinks
Battery 100%	4 Red Blinks

ICOP Digital, Inc will, without charge, repair or replace, at its option, defective components of the 2020WMIC system upon delivery to the ICOP Factory Service department, accompanied by proof of the date of purchase, such as a duplicated copy of sales receipt.

You must pay any initial shipping charges required to ship the product for warranty service, but the return charges will be at ICOP Digital's expense, if the product is repaired or replaced under warranty. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Exclusions: This limited warranty does not apply: 1) To any product damaged by accident; 2) In the event of misuse or abuse of the product or as result of unauthorized alterations or repairs; 3) If the serial number has been altered, defaced, or removed; 4) If the owner of the product resides outside the U.S.A.

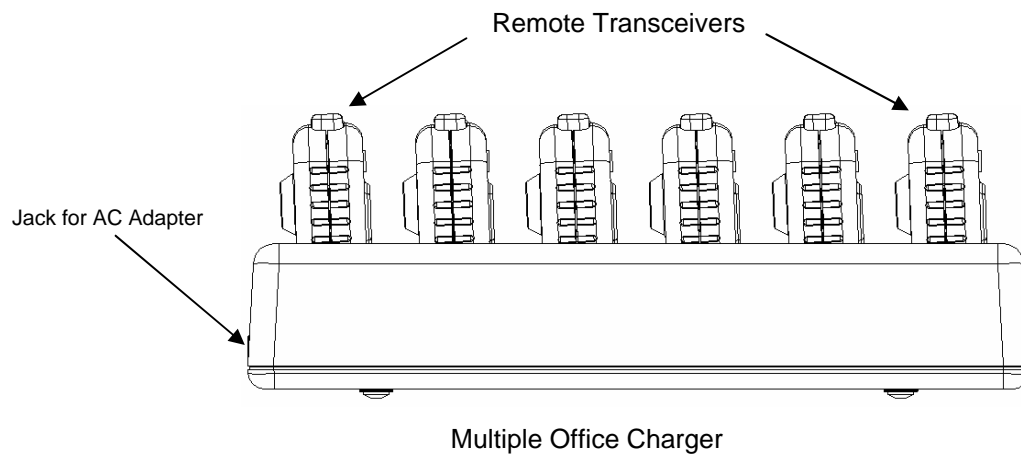
All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty. ICOP Digital, Inc shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

## Multiple Office Charger 2020MOC

Items included in package with part numbers

No.	Quantity	Model No.	Description	ICOP Part No.
1	1	2020MOC	Multiple Office Charger	600-00113-00
2	1	N/A	AC Adapter for MOC	600-00117-00
3	1	N/A	Instruction Manual	700-00101-00



### Operating instructions:

Plug the Multiple Office Charger's AC adapter into a standard 120V AC outlet. Only use the AC adapter supplied with the Multiple Office Charger. Insert the adapter output plug into the jack on the end of the Multiple Office Charger. Place a Remote Transceiver into any one of the slots in the Multiple Office Charger. The red LED on the Remote Transceiver will light and begin blinking in a few seconds. The periodic blinking of the red LED indicates the charge condition of the battery as follows:

Battery 0%-25%	1 Red Blink
Battery 50%	2 Red Blinks
Battery 75%	3 Red Blinks
Battery 100%	4 Red Blinks

Up to six Remote Transceivers can be placed in the Multiple Office Charger at one time.