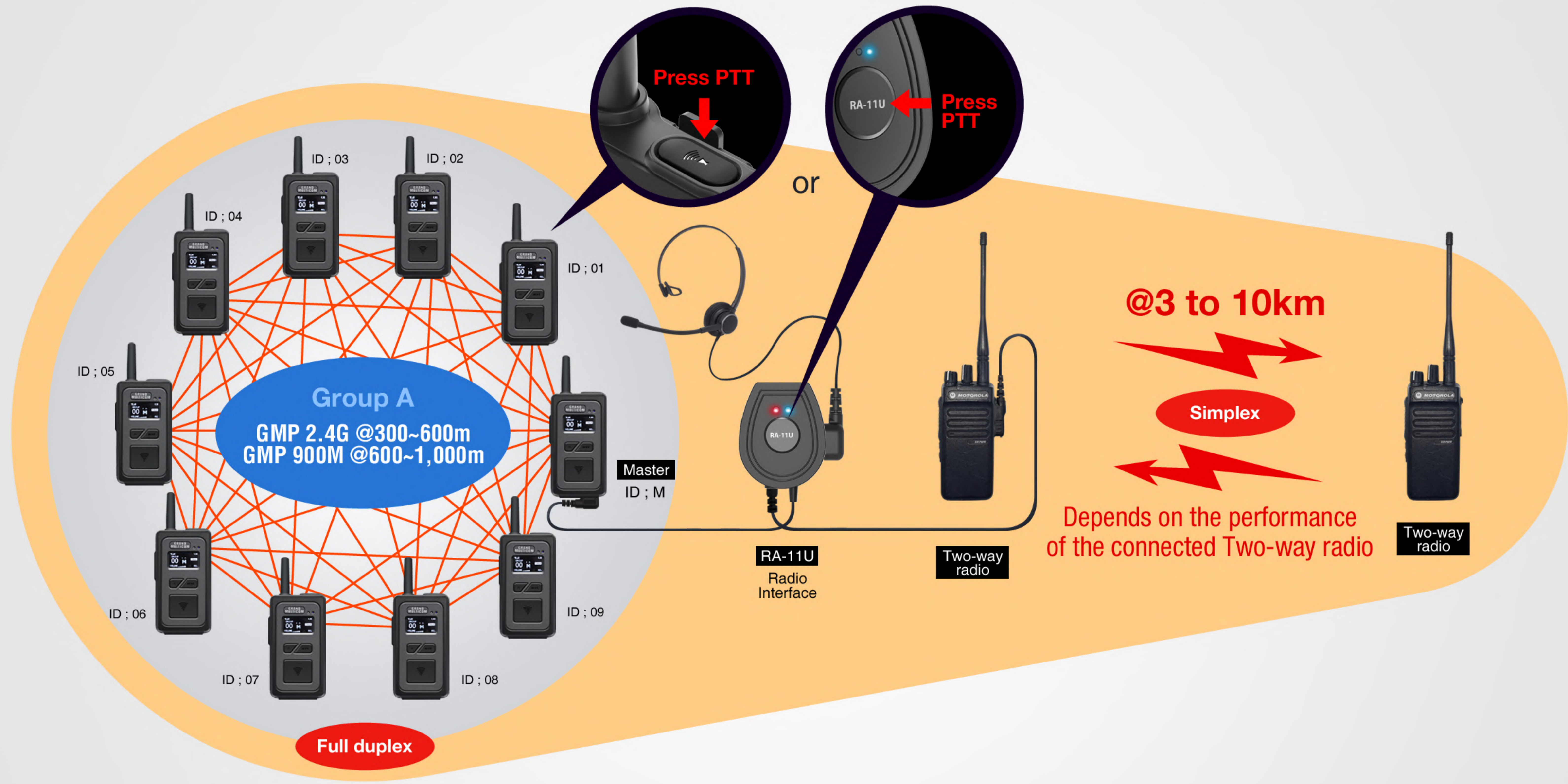


# Full duplex wireless intercom Gateway solution using Relay mode of Grand Multicom PRO

An innovative application that enables long-distance transmission and reception by connecting the communication of a wireless intercom group consisting of up to 10 users per group of Grand Multicom PRO to a Two-way radio through the Radio Interface Kit, RA-11U.

# I. SYSTEM OVERVIEW



Transmission and reception of group communication of 10 people to another group at a distance by connecting to Two-way radio through Radio Interface Kit, RA-11U

## II. SYSTEM MODE

System or Local mode can be selected on the RA-11U



In System mode, any one of 10 users can trigger PTT of Two-way radio and talk, Master presses the PTT button of RA-11U and other users press the top button on GMP

All talks transmitted and received through Two-way radio are shared with 10 users

While Group A's talks is being transferred, Group B's user must press PTT to transfer after Group A's talks is over. Otherwise, PTT will not be activated.

# III. LOCAL MODE

System or Local mode can be selected on the RA-11U



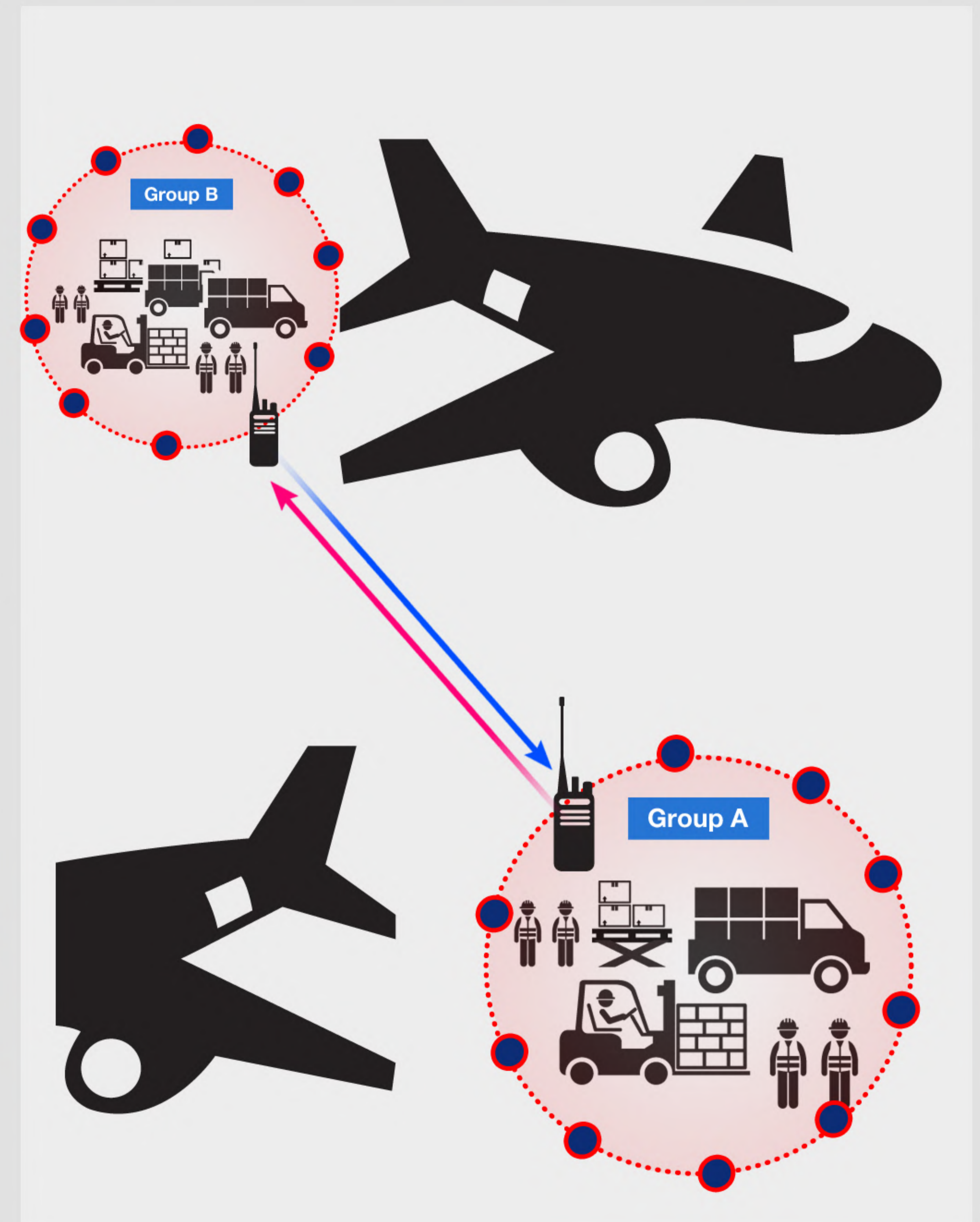
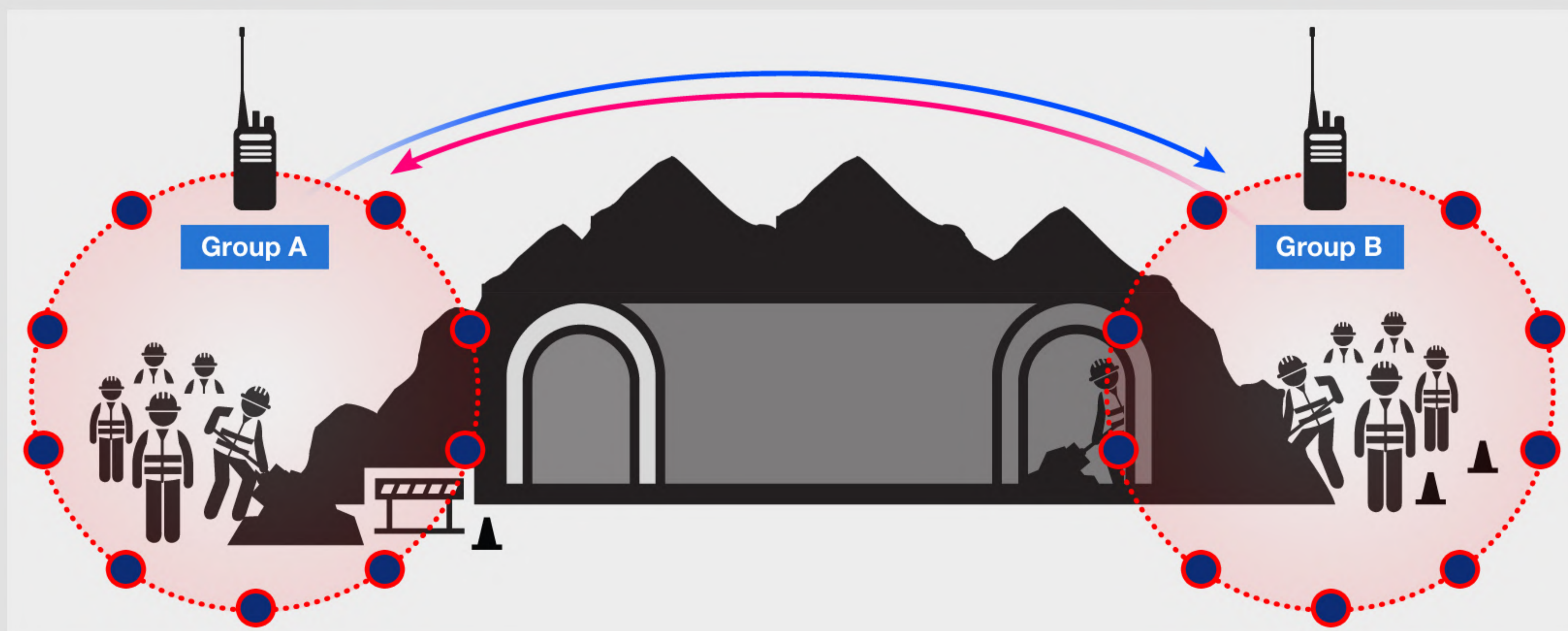
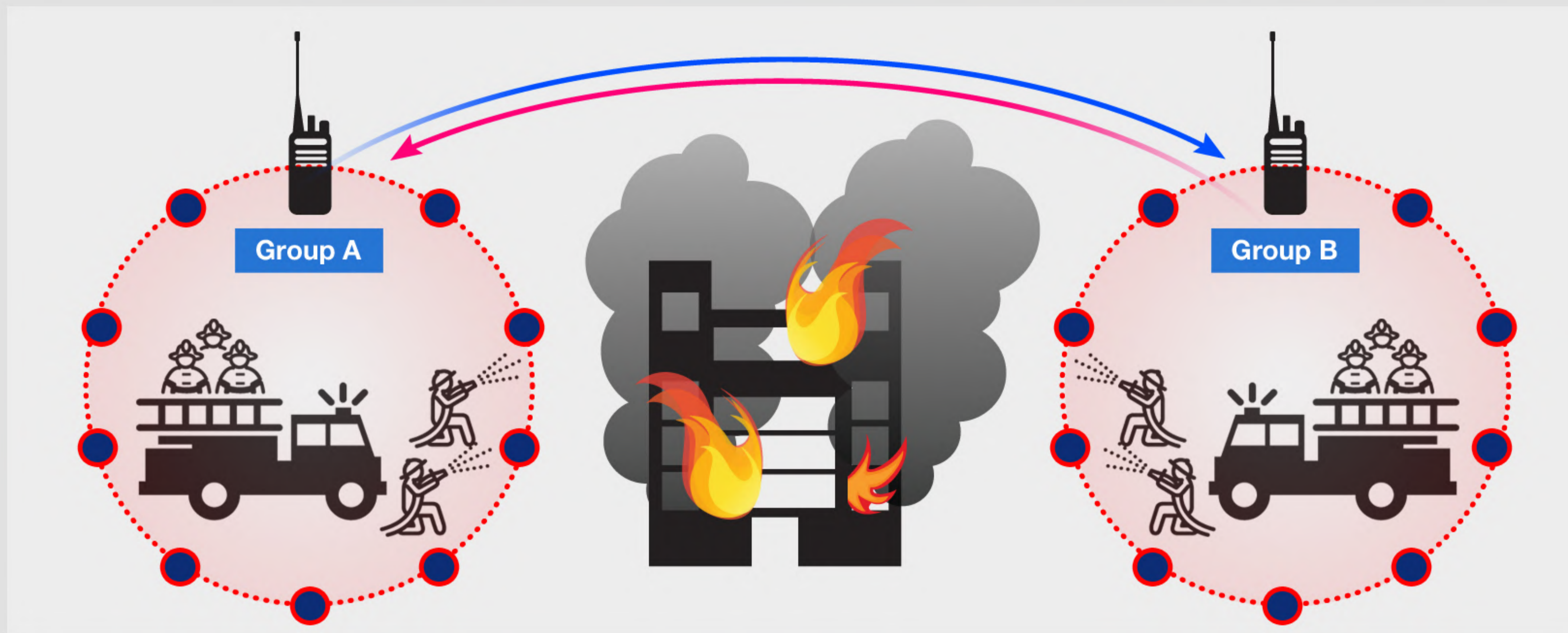
In Local mode, talks through Two-way are possible only between Masters in each group

Full duplex communication for each group up to 10 users which the Master belongs is possible as usual

# IV. APPLICATION

## IV-1-1. SYSTEM MODE

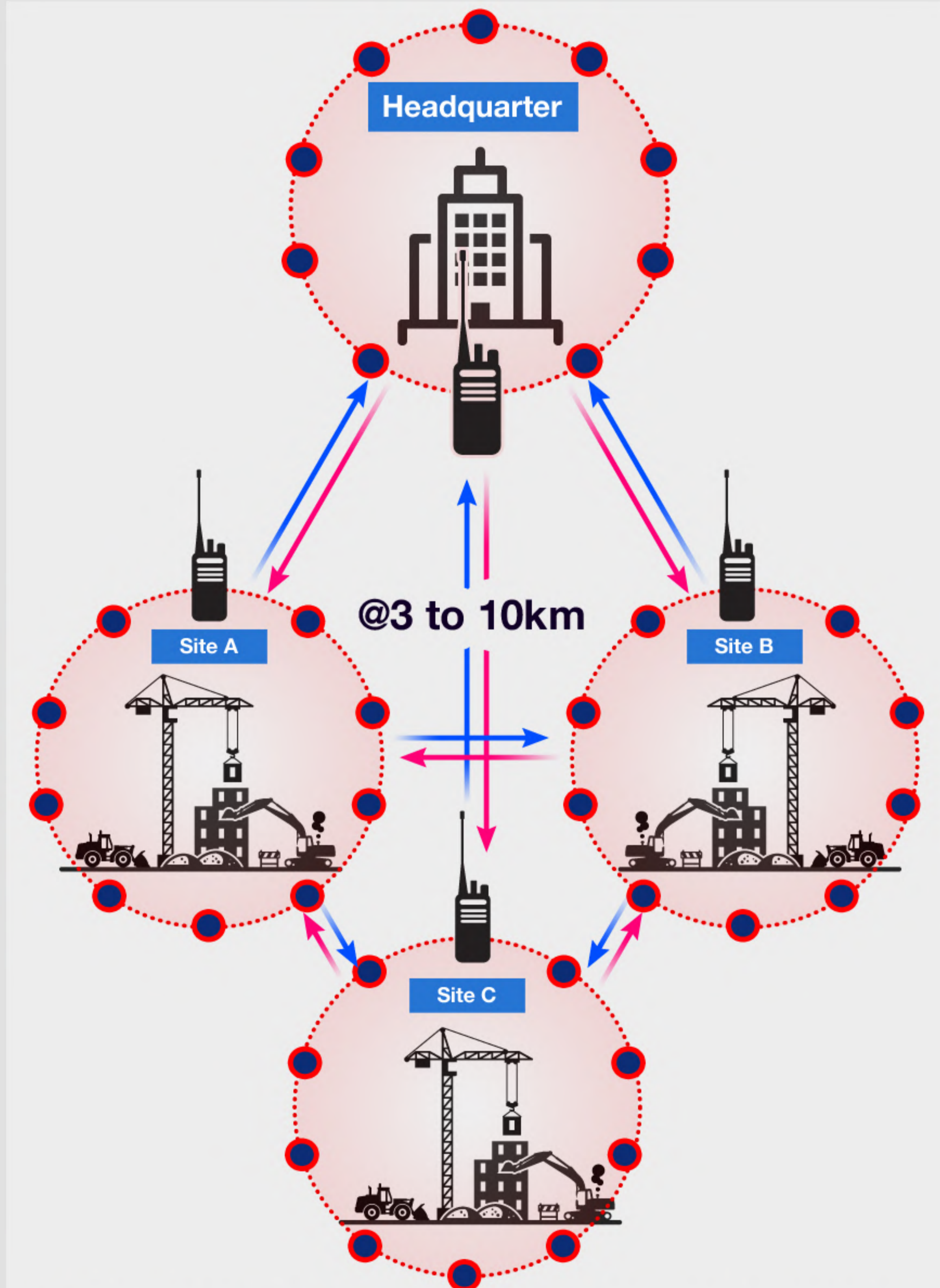
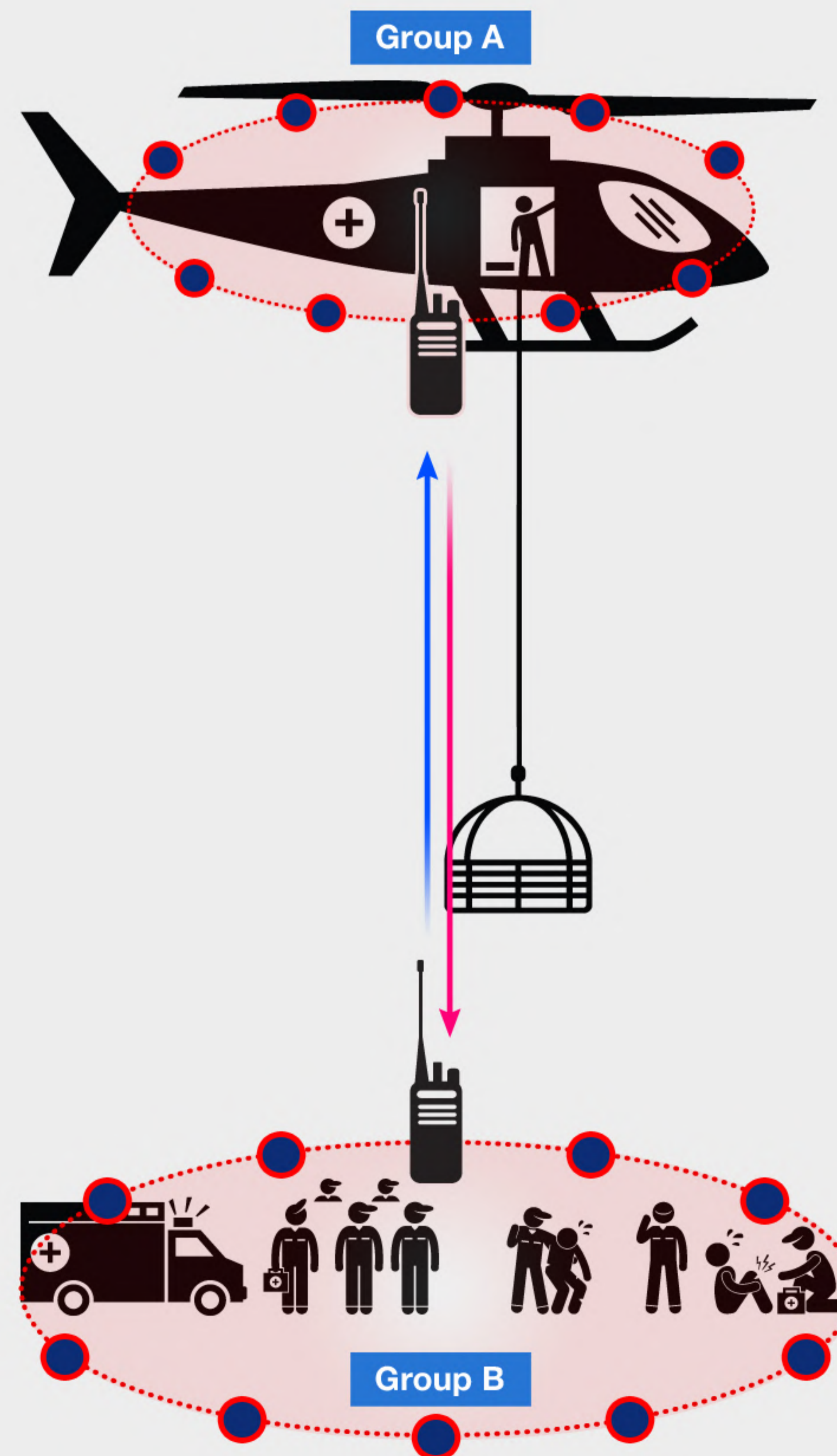
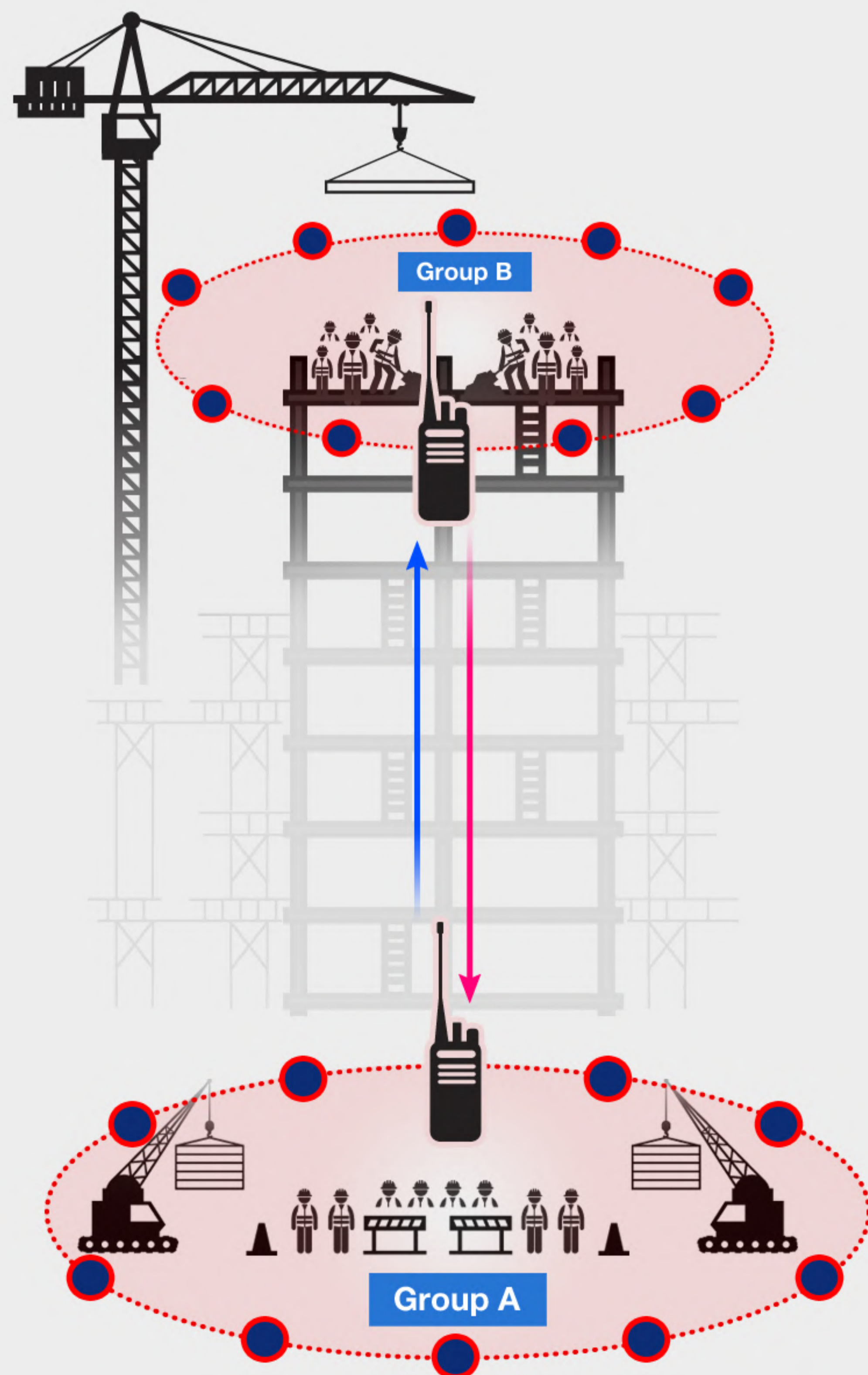
When all users belonging to each group need to share the situation with other groups in real time at their own discretion



# IV. APPLICATION

## IV-1-2. SYSTEM MODE

When all users belonging to each group need to share the situation with other groups in real time at their own discretion

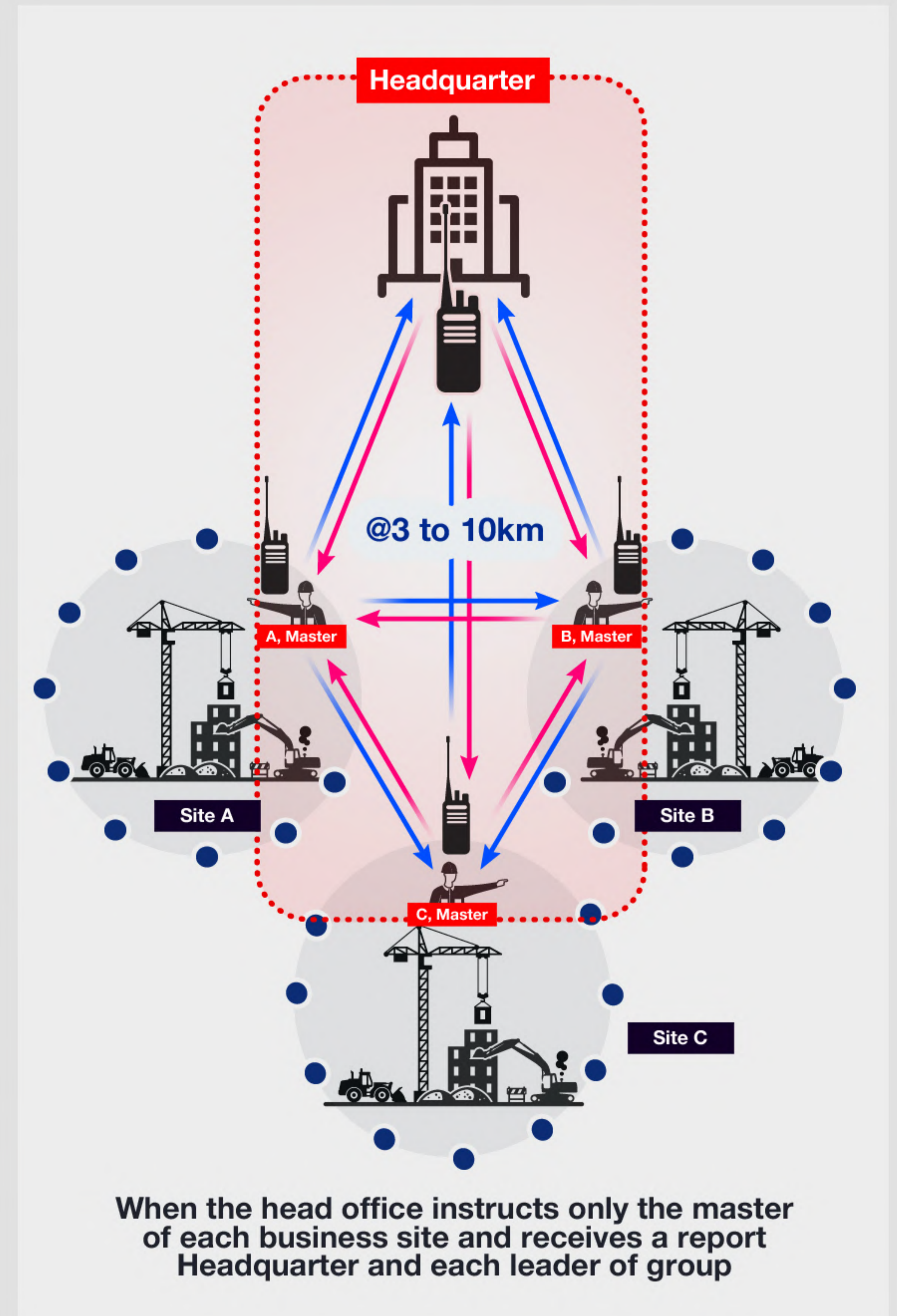
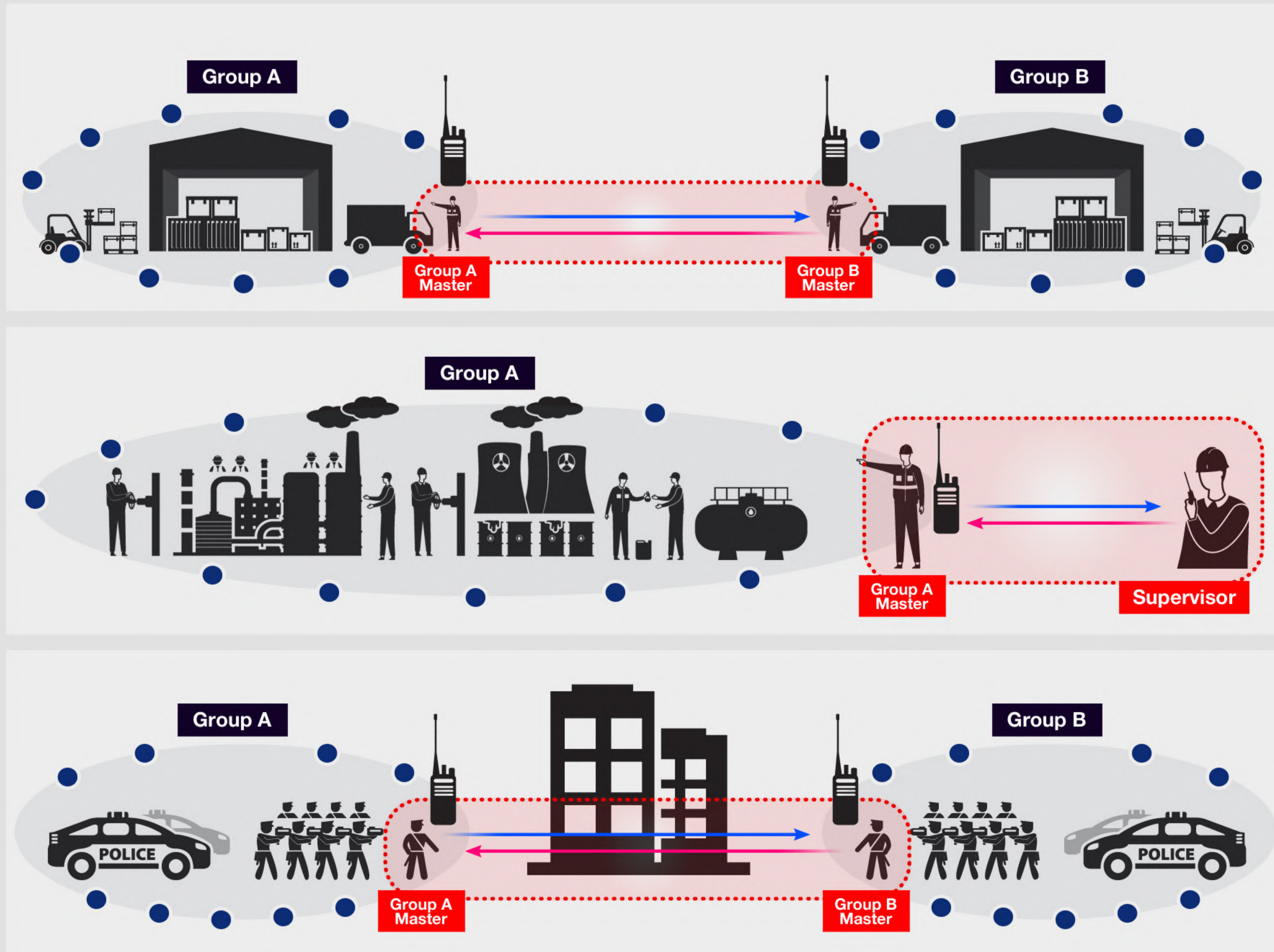


When the head office gives instructions to the members of each work site and receives a report Headquarter and every member

# IV. APPLICATION

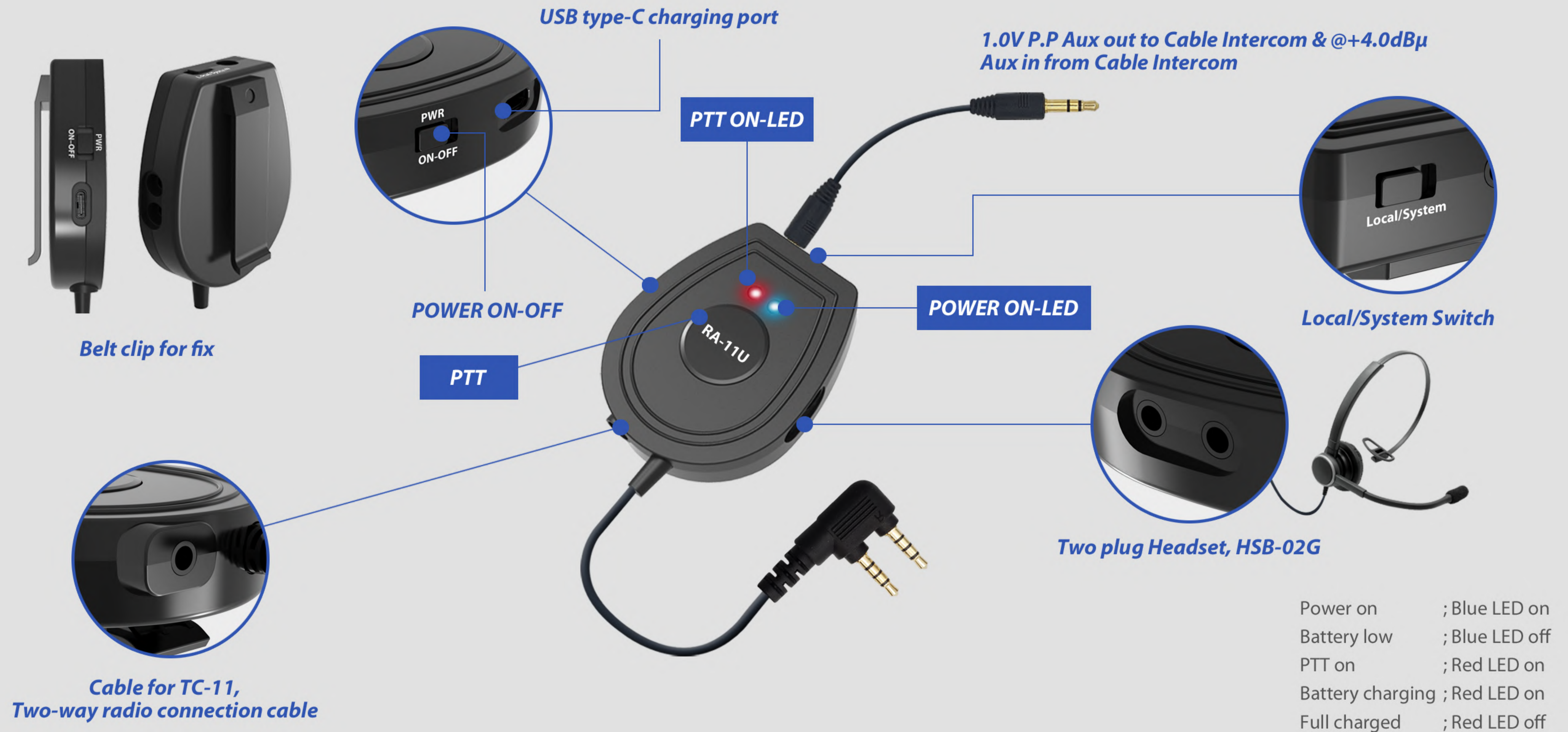
## IV-2. LOCAL MODE

When it is necessary to share instructions only between Masters



# V. RADIO INTERFACE KIT, RA-11U

## V-1. PRODUCT IMAGE & DESCRIPTION



Note. The RA-11U is operating using an internal charging battery, so in case of battery low, it is required to recharge the battery through the USB port. The Blue LED turns on when RA-11U is powered on and the Blue LED turns off when the RA-11U Battery is low.



# V. RADIO INTERFACE KIT, RA-11U

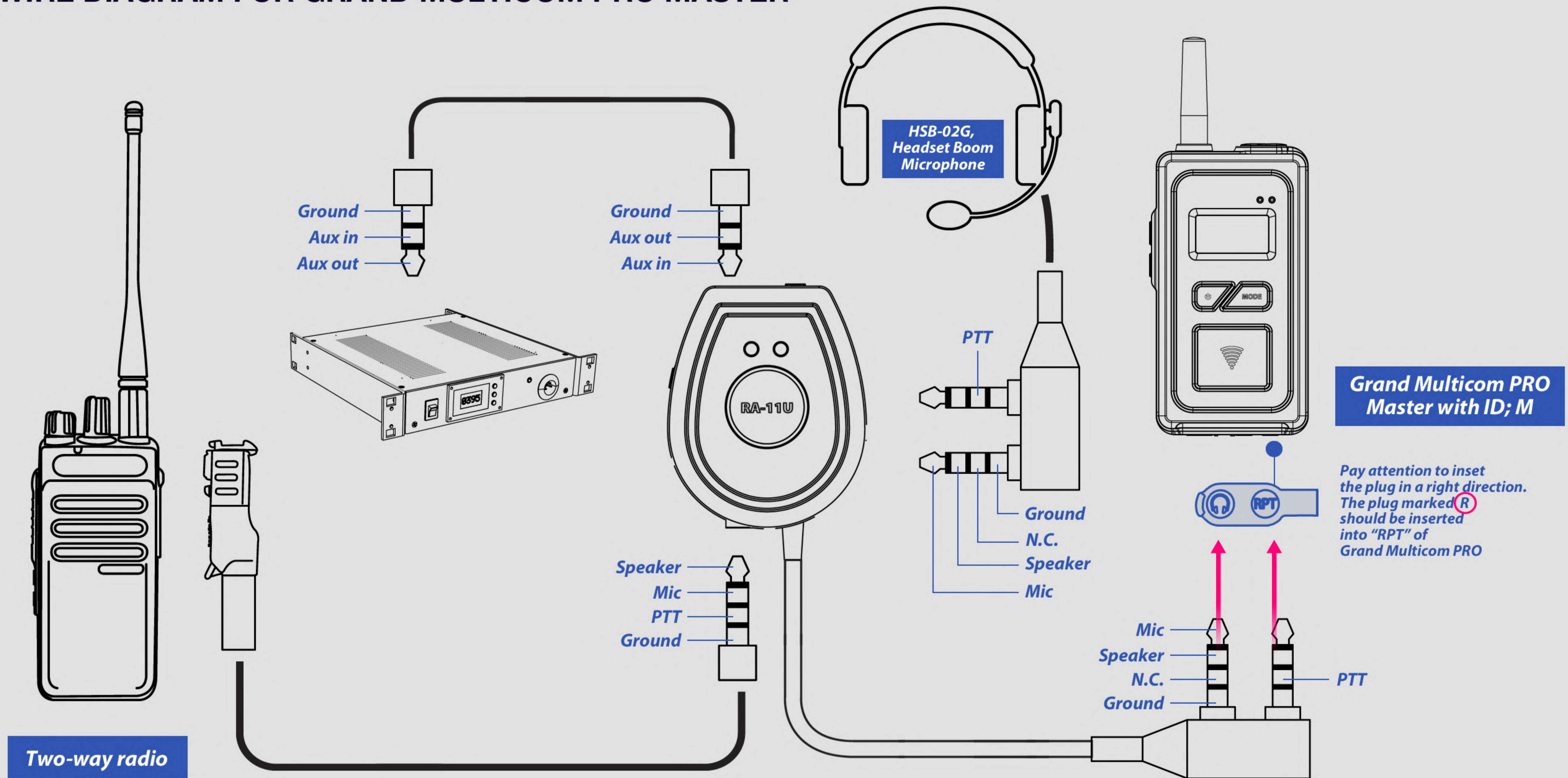
## V-2. HOW TO CONNECT GRAND MULTICOM PRO MASTER INCLUDING OTHER DEVICES TO RADIO INTERFACE KIT



*Note. When the related cables are plugged into the RA-11U or unplugged from the RA-11U, turn off the power of the equipments, Grand Multicom PRO, Two-way radio and Cable Intercom first.*

# V. RADIO INTERFACE KIT, RA-11U

## V-3. WIRE DIAGRAM FOR GRAND MULTICOM PRO MASTER



Note. When the related cables are plugged into the RA-11U or unplugged from the RA-11U, turn off the power of the equipments, Grand Multicom PRO, Two-way radio and Cable Intercom first.

# V. RADIO INTERFACE KIT, RA-11U

## V-4. HOW TO OPERATE

- Select Relay mode in every Grand Multicom PRO regardless of Master and Slave.
- Turn off the related equipments, Grand Multicom PRO, Two-way radio and Cable Intercom.
- Connect cable by referring to V-2.
- Turn on the power on all connected equipments including RA-11U.
- Press the PTT on the RA-11U to check the audio level of the relay Two-way radio and adjust the audio level to the appropriate by adjusting the volume of the Two-way radio.
- For clear communication, it is recommendable to adjust the audio output volume level as follows.
  - Two-way radio ; Center of the total volume
  - Grand Multicom PRO Master ; Level 3
  - Grand Multicom PRO Slave ; Level 5
  - Cable Intercom ; Center of the total volume
- If the Grand Multicom PRO is Slave, it is available to connect the Headset Boom Microphone for Grand Multicom PRO without RA-11U and utilize the top button on the Grand Multicom PRO as a PTT in an alternative way.

*Note. The RA-11U is operating using an internal charging battery, so in case of battery low, it is required to recharge the battery through the USB port.*

*The Blue LED turns on when RA-11U is powered on and the Blue LED turns off when the RA-11U Battery is low.*

# V. RADIO INTERFACE KIT, RA-11U

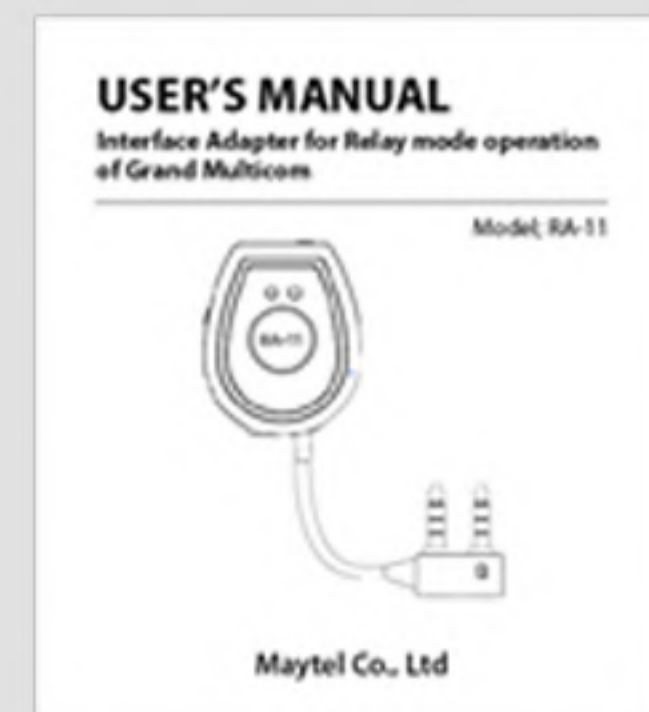
## V-5. RETAIL PACKAGE



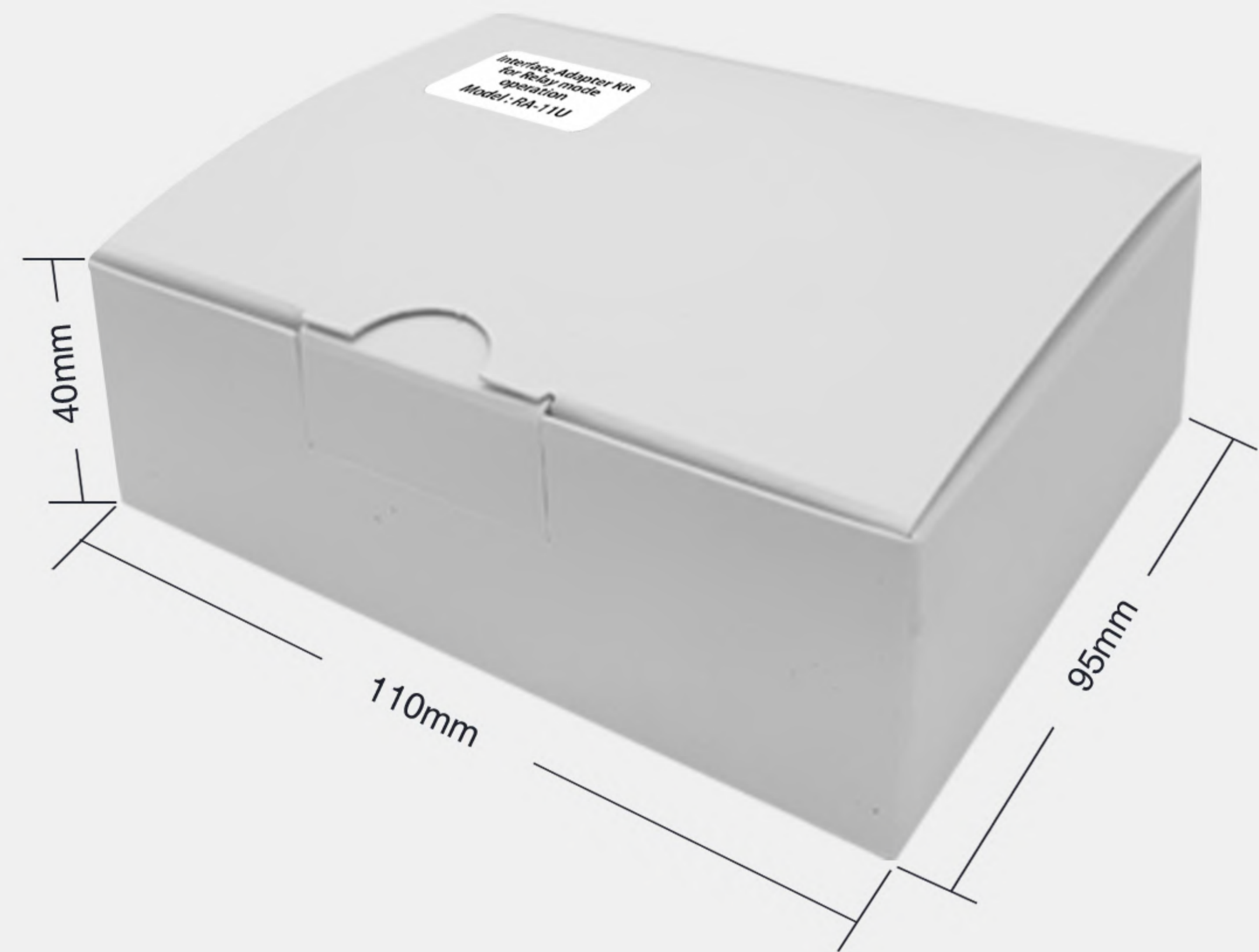
RA-11U, Main unit



USB type-C  
Charging Cable



User's Manual



Package Box Size (W x H x D)  
; 110 x 95 x 40 mm

# V. RADIO INTERFACE KIT, RA-11U

## V-6. OPTIONAL RADIO INTERFACE CABLE FOR ALL KINDS OF TWO-WAY RADIO

### For Motorola Two-way radio by each type



**Model; TC-11**

For base Motorola models  
without connecting pad



**Model; TC-11M8PIN**

Motorola Industrial  
version 8-pin



**Model; TC-11M12PIN-A**

Motorola Industrial  
version 12-pin



**Model; TC-11M13PIN**

Motorola Industrial  
version 13-pin



**Model; TC-11M12PIN-B**

Motorola Industrial  
version 12-pin

### For most Kenwood Two-way radio



**Model; TC-11KW**

Kenwood standard

### For most I-Com Two-way radio



**Model; TC-11IC**

I-Com standard