

## DRX Range Extender Kit Installation Guide

The DTR Range Extender (DRX) kit uses two Motorola DTR™ Series digital radios to receive (RX) and retransmit (TX) a single public or private group. Additional DTR repeater kits are required to repeat each additional public or private group.

**CAUTION!** The radios used in the DRX kit contains special programming and settings to allow it to operate as a repeater. Do NOT replace the radios in the DRX RX and TX units with standard DTR radios!

***Note: The DTR Range Extender kit will only repeat ONE Public or Private group (Private contacts will NOT be repeated but can still connect directly from radio to radio). Additional DRX kits will be needed to extend coverage coverage or to repeat additional groups.***

### GETTING STARTED

Your unit contains LiION batteries that need to be charged before use. These batteries power the units and allow for approximately 10 hrs of battery back-up in the event of a power outage. **If the batteries are depleted they will need to be recharged or replaced and the units reset to resume operation.**

**Installing and charging the battery** (skip steps 1 to 3 if battery is already installed)

1. Remove the back cover of the DTR repeater kits by unscrewing the four self tapping screws.
2. Remove the battery door cover from the radio in the Repeater kit (remember to unlock the latch on the battery door).
3. Insert the included LiION battery into the battery compartment of the radio in the DTR Repeater kit.
4. Plug the power supply into the Power/programming port and the A/C connector to the wall outlet to begin charging the unit (Green LED will turn on). Charge the unit for at least 3hrs before using.

**NOTE:** *The LiION batteries should be replaced every two years for optimal performance.*

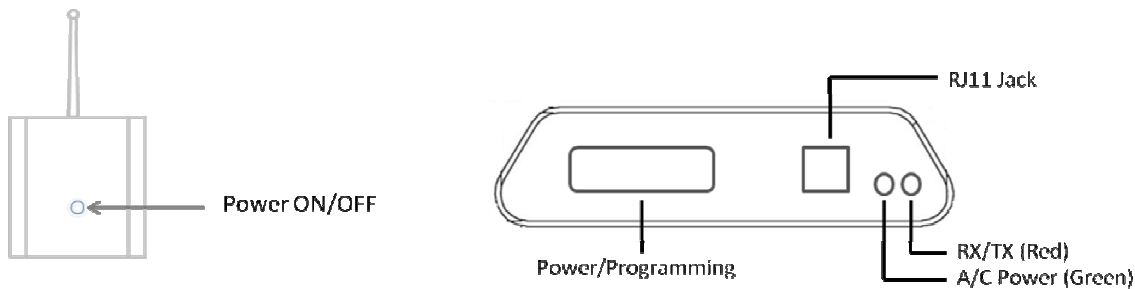
### PROGRAMMING

***Note: The DTR Range Extender kits are default programmed to operate on Public 5 (Channel 1; Group 5). You do not need to program the DTR repeater kits if your portable units are also set to use the default Public 5 Group.***

The DRX kit can be programmed using the standard DTR radio Computer Programming Software (CPS) available from Motorola at <http://www.motorolasolutions.com>

***Note: You will need a DTR programming cable p/n 0105950U15 to connect the unit to your computer for programming.***

The following instructions assume you already have a working knowledge of using the DTR CPS tool. To learn more about using the DTR CPS tool please read the help file from the CPS menu or instructions from the DTR radio user manual.



**CAUTION:** *Do not write the portable radio profile to the repeater kit as this will change the settings and may affect the performance of the repeater kit.*

1. Connect the power supply to the repeater kit units. Make sure both RX and TX repeater kit units are fully charged (see charging instructions).
2. Turn ON the repeater unit you wish to program by pressing and holding the power reset button for five seconds (the unit will vibrate when turned on).
3. Disconnect the power supply from the repeater unit.
4. Start the DTR CPS program and connect the CPS programming cable to your computer.
5. Connect the DRX unit to the computer using the DTR programming cable.
6. Select the “Read” tab from the CPS to read the profile of the DTR unit in the DTR Range Extender kit.
7. Add the Public or Private group you wish to repeat to the DRX kit radio profile (Use the same group name, Channel and Group ID number as stored in the portable DTR radio).

**Hint:** *You only need to add one private contact with the same Private Group ID as the Private Group in the portable DTR radio you wish to repeat to be able to create a Private Group.*

8. Delete all other groups! Only keep the group you wish to have repeated.

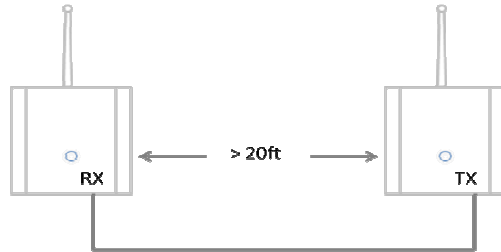
**Note:** *There should be only ONE group programmed in the repeater kit.*

9. Select the repeater unit ID from the private contact list (contact that is checked).
10. Set the “Channel” to the same channel number as the one used for the repeater Group.
11. Set “Home Group” to the group you want to repeat (there should only be one group in the list).
12. Select “Group only” box.
13. Verify that the group you want to repeat is present in the scroll list (should be the only group).
14. Select the “Save” tab to save the repeater unit profile to your computer.
15. Select the “Write” tab from the CPS to program the new profile to the repeater unit.
16. Reset the repeater unit by selecting the “DEVICE” pull down tab then “RESET” from the CPS tool (or cycle the power on the repeater unit by turning the unit OFF then ON again).
17. Disconnect the programming cable from the repeater unit (programming complete!).

**NOTE:** *Both Repeater RX and TX units must be programmed with the same group settings as the portable radio for the repeater kit to function properly.*

**NOTE:** *The repeater RX and TX unit IDs should be set to operate on the same channel number as the group. Ex: If the Repeater Group is set to CH3 and Group ID56, then the repeater unit ID (RPTR RX/TX contact) should also be set to operate on CH3.*

## INSTALLATION



**Note:** The Rx and TX units should be separated by >20ft for optimal performance. An optional 50ft RJ11 patch cable (p/n: MP-52RJ11UNNE-050) is available if needed.

The Range Extender kits should be installed at the location where you can receive coverage from all desired locations (this will not necessarily be the central location). For example, in a 15 floor hotel, if you have coverage only from the lobby to the sixth floor but can communicate from the third floor to the 15<sup>th</sup> floor, the Range Extender kit should be placed on the fourth or fifth floor to cover from the lobby to the 15<sup>th</sup> floor.

1. Measure the distance between the two top or bottom keyholes on the back of the unit using a ruler or marking their location on a piece of paper to use as a template to place the mounting screws. **NOTE: the keyholes are placed such that the unit can be mounted facing up or down on a vertical axis.**
2. Attach the antenna to the antenna connector located at the top of the unit by screwing it clockwise (you may need to align the antenna connector to the opening in the housing). Make sure the antenna is fully secured to the radio.
3. With the power supply connected, turn ON the repeater units by using a Q-tip or similar tool to press the reset button located at the front of the unit for 5 seconds. The unit will VIBRATE when turned ON (no vibration indicates the unit is powered OFF).
4. Place the mounting screws at the desired location and mount the repeater unit to the wall with the antenna in a vertical position (up or down).
5. Connect the RX and TX units together by inserting each end of the patch cable into the RJ11 (telephone type) jack on each of the repeater units.
6. Use a portable unit to transmit on the repeater group. The RED LED on both the RX and TX units should illuminate indicating activity on the repeater group.

**Note:** If the RED LED does not illuminate check to make sure each unit is powered ON and is set to the SAME Channel and Group ID as in the portable radios.

**Note:** Multiple repeater kits can be programmed on the same talk group for increased coverage or different talk groups to repeat multiple conversations. When installing multiple DTR repeater kits they should be separated at least 20ft from each other for optimal performance. “Daisy-chaining” repeater kits, although possible, is not recommended as this degrades audio quality and increases the audio delay.

## TIPS & TROUBLESHOOTING

- ❑ **Make sure the DRX unit is accessible**
  - Do not install behind sealed panels or where inaccessible for maintenance.
  - Batteries will need to be replaced periodically.
  - Unit may need to be reset if there is a power outage for extended periods.
- ❑ **Make sure both DRX units are charged fully**
  - Units will not stay powered ON if not charged (even when plugged into A/C).
  - If units are charged overnight but still do not stay powered on, replace the batteries.
  - If units are locked up (Red LED always on or blinking) charge or replace the batteries.
- ❑ **Make sure both DRX units are turned on!**
  - Green LED only indicates A/C power to unit, NOT that it is turned ON.
  - Press and Hold Power button for 5 seconds.
  - Unit VIBRATES when turned ON!
  - Unit does NOT VIBRATE when turned OFF!
- ❑ **Make sure Radios are set to the same talkgroup**
  - Sounds simple enough but happens all the time!
  - Default talkgroup on DRX extender is **Public 5 (CH 1, ID 5)**
  - Go to “Public 5” under “Contacts” on DTR radio and select “View” to check.
  - If using custom programming make sure the DRX “Private ID” is set to the same channel as the group.
  - Key/PTT your radio and check that the Red LED on both the DRX RX and TX units turns ON to verify activity on the talkgroup.
- ❑ **Make sure DRX unit is within range of transmitting radio**
  - If the Red LED does not come on when transmitting from the radio the signal is not reaching the extender. You will need to relocate the extender to where it is receiving the signal.
  - Place the DRX unit where you currently have reliable radio to radio coverage from all areas on-site.
- ❑ **Make sure RJ11 Patch cable is connected properly**
  - Red LED on both RX and TX units will turn ON when communicating.
  - Do not replace RJ11 Cable with standard phone cable.
  - Check that the cable is not damaged or pinched.

## WARRANTY

Your DRX extender unit comes with a one year limited warranty against manufacturing defects. Units will be repaired or replaced at manufacturer's sole discretion. Does not cover for abuse and normal wear. Maximum liability is limited to the purchase price of product. Customer is responsible for all shipping cost to manufacturer.

For more information and to order additional accessories visit us at [www.canewirelesspro.com](http://www.canewirelesspro.com)

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