

Application Notes



Multiple X10DR Units connected to one mobile radio



The XIB interface box allows multiple X10DR's to be connected to the one mobile radio. All units can hear each others communications as well as the conversations over the network. The interface unit connects to the host radio via the XMC series interface cable.

Each X10DR connects to the XIB by way of short 50cm (20") XIB-CK connecting cables. Multiple XIBs can be connected where connection to more than 3 units are required.

Note: Antenna placement for each X10DR X-Ponder is critical. Each antenna should be ideally placed >20" (50cm) from each other to minimize inter-unit interference. The antennas should also be positioned so that individual users experience similiar coverage patterns. Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to each X10DR user. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.



Talk Around: 2 X10DR units connected to one mobile radio



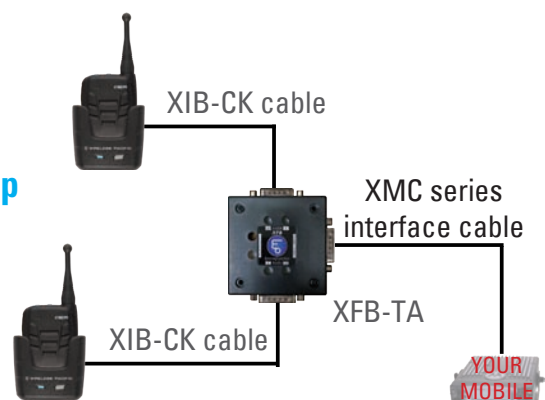
The XFB-TA allows users in a vehicle with two X10DRs connected to the mobile radio to have local (talkaround) operation where by those users can talk locally "off net" by using the orange side button as a secondary PTT. To talk over the radio channel, the normal PTT button is used. All host radio receive traffic will be heard regardless of local talkaround PTT status. To trigger the host mobile radio's emergency function, the user must first press the PTT and then the orange button for >1 second.

The XFB connects to the host radio via a XMC series interface cable. Each X10DR connects to the XFB-TA via a XIB-CK cable

Each X10DR connects to the XFB by way of short 50cm (20") XIB-CK connecting cables.

Note: Antenna placement for each X10DR X-Ponder is critical. Each antenna should be ideally placed >20" (50cm) from each other to minimize inter-unit interference. The antennas should also be positioned so that individual users experience similar coverage patterns. Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to each X10DR user. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.

Talkaround Fit-up



Talk Around Basic: Multiple X10DR units connected to one mobile radio



The XIB-TA allows users in a vehicle with multiple X10DRs connected to the mobile radio to have local (talkaround) operation where by those users can talk locally "off net" by using the orange side button as a secondary PTT. To talk over the radio channel, the normal PTT button is used. All host radio receive traffic will be heard regardless of local talkaround PTT status.

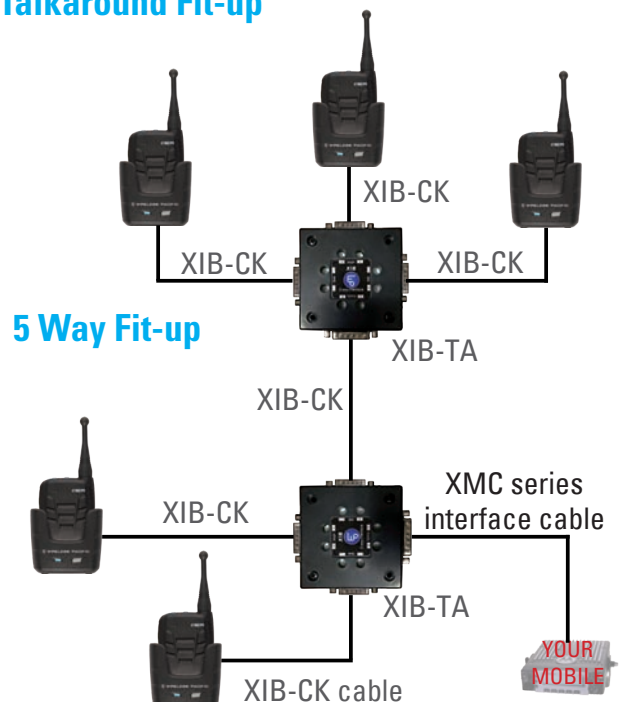
Note: No remote triggering of the host mobile radio's emergency function is possible in this configuration

The XIB-TA connects to the host radio via a XMC series interface cable. Each X10DR connects to the XIB-TA by way of short 50cm (20") XIB-CK connecting cables.

Note: Antenna placement for each X10DR X-Ponder is critical. Each antenna should be ideally placed >20" (50cm) from each other to minimize inter-unit interference. The antennas should also be positioned so that individual users experience similar coverage patterns.

Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to each X10DR user. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.

Talkaround Fit-up



5 Way Fit-up

Antenna connections not shown

Application Note 4

Dual radio connected to one X10DR

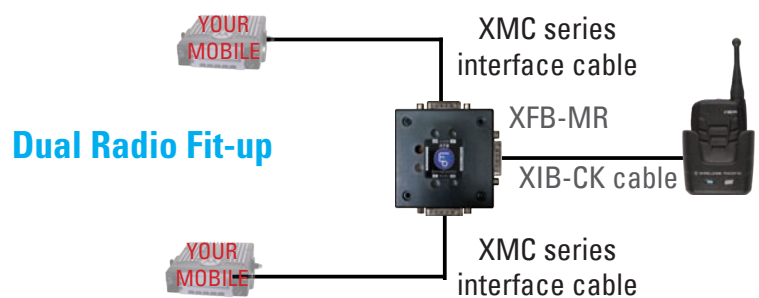


The XFB-MR can be used to allow 2 mobile radios to be connected to the one X10DR unit. A unique marker tone* is attached to the tail of each secondary radio reception to inform the user which radio's audio they have just heard. The XFB-MR unit can be configured by way of a dip switch to either A/ maintain the secure microphone's emergency functionality on its orange button, or to B/ use that button as a PTT to transmit on the secondary radio's channel.

To activate emergency in either of these two modes, the user must first press the PTT and then press the orange button for >1 second.

The XFB-MR connects to the host radios via two radio model specific XMC series interface cables. The X10DR connects to the XFB-TA via a XIB-CK cable

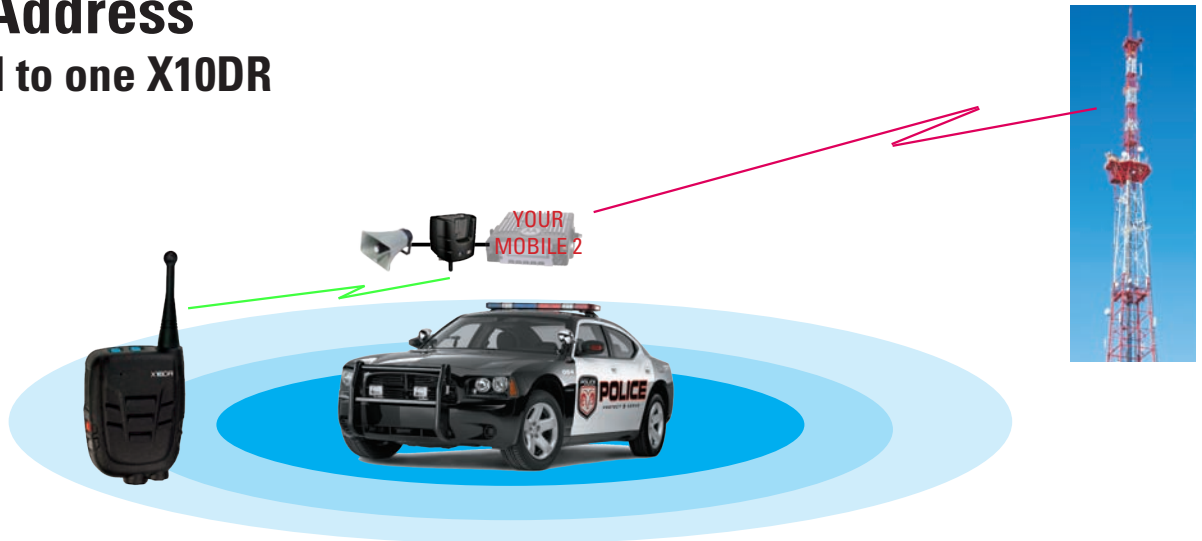
Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to the X10DR user. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.



Antenna connections not shown

Application Note 5

Public Address connected to one X10DR

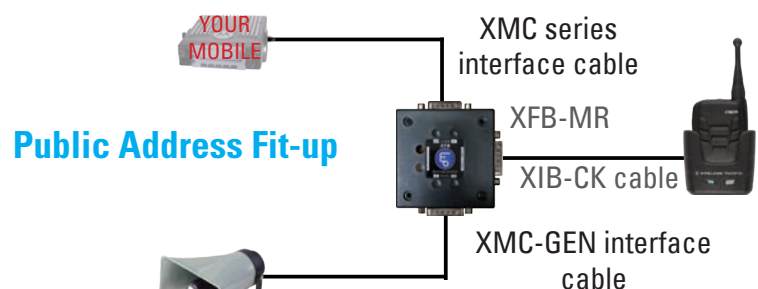


The XFB-MR can also be used to allow the XFB-MR second port to be attached to the vehicle's Public Address system to allow the user to talk over the vehicle's public address system by pressing the X10DR microphone's orange button.

To activate emergency, the user must first press the PTT and then press the orange button for >1 second.

The XFB-MR connects to the host radio via a radio model specific XMC series interface cable. The XFB-MR connects to the vehicle PA system via an XMC-GEN generic interface cable. The XMC -GEN cable provides adjustable mic level audio to the input to the vehicle public address system along with a switched ground output to enable the public address. The X10DR connects to the XFB-MR via a XIB-CK cable

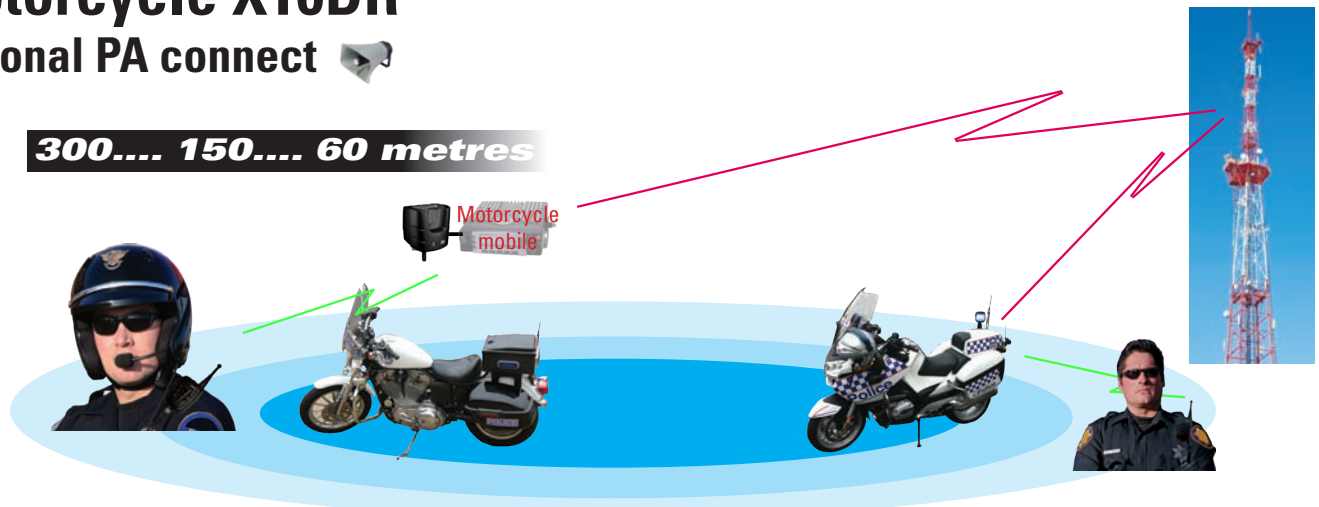
Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to the X10DR user. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.



Public address amplifier and antennas not shown

Application Note 6

Motorcycle X10DR Optional PA connect



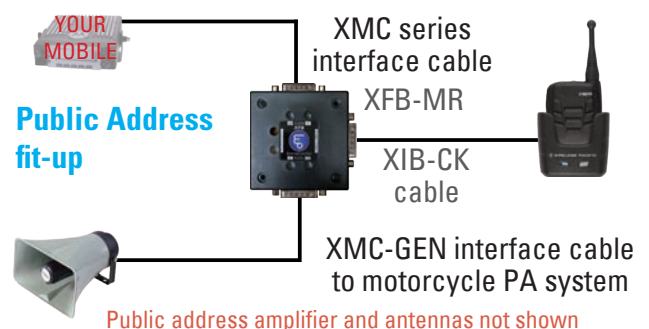
One of X10DR key design criteria was to ensure motorcycle users would be able to enjoy the full benefit of the secure wireless microphone whether on, or off the bike. When on the bike, the officer need only press the traditional handle bar PTT button to talk thru the helmet's microphone connected to the X10DR speaker mic which then wirelessly connects to the X-ponder connected to the mobile radio mounted on the bike. When the officer leaves the bike, they can choose to leave their helmets on and press the X10DR Mic's side PTT button to talk. Nothing to un-plug! Alternatively, the officer can unplug their helmet, remove, and use the X10DR Mic like a tradition remote speaker microphone. No longer will the officer need to return to their bike to do a license check, whilst staying in complete radio contact when at their most vulnerability. Importantly they can stay ready to mount the bike and make pursuit if they need to at any time.

Additionally, a special function box can also be installed to also allow the X10DR to access the motorcycle's Public Address system so as to allow the officer to talk over the bike's PA system by simply pressing the X10DR microphone's orange button when away from the bike. This application is perfect for when an officer needs to direct traffic at an accident scene and needs at time to tell "observers" to move on.

When used with the XFB unit the officer must first press the PTT and then press the orange button for >1 second to activate the radios emergency facility if used.

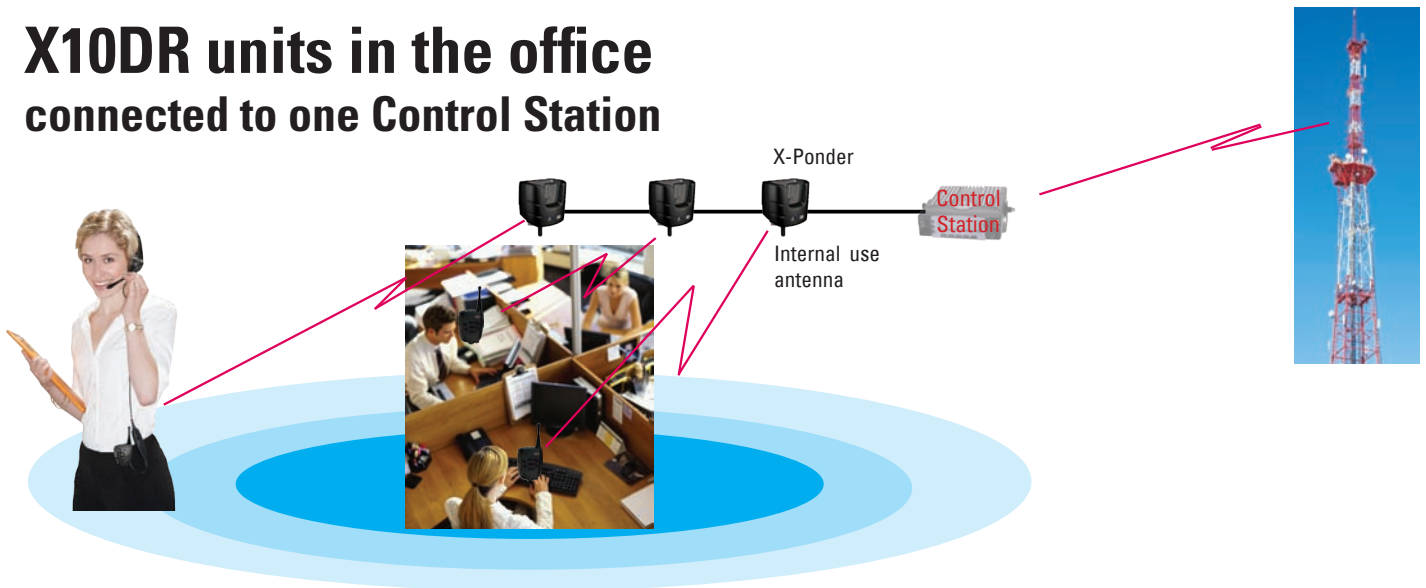
The XFB-MR special function box connects to the host radio via a radio model specific XMC series interface cable. The XFB-MR connects to the vehicle PA system via an XMC-GEN generic interface cable. The XMC-GEN cable provides adjustable mic level audio to the input to the vehicle public address system along with a switched ground output to enable the public address. The X10DR connects to the XFB-MR via a XIB-CK cable

Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to the X10DR user. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.



Application Note 7

X10DR units in the office connected to one Control Station



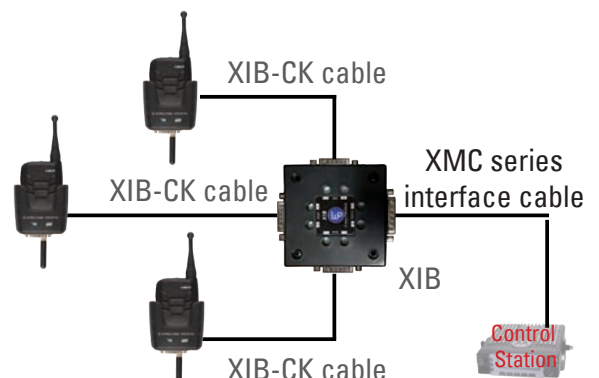
X10DR is ideal for helping free up deskbound radio operator personnel whose other job responsibilities often cause them to leave the radio control station unattended. A radio dispatcher equipped with an X10DR is now free to move around the office. Additionally, in situations where a number of staff share radio dispatch responsibilities, or where a shift supervisor, or the office in charge may also need to monitor radio traffic, use of a XIB interface box connected to the control station will allow all users to hear each others communications as well as all conversations over the network. Equipping control room staff with X10DR ensures someone will always be available to take an urgent or emergency call even when taking a rest break. For many office situations use of the standard supplied X-Ponder internal use antenna will provide sufficient coverage helping reduce initial installation costs.

To further compliment the office environment, using an X10DR equipped with the Hirose® audio port allows use of lightweight noise cancelling headsets to minimize ambient noise in the control room.

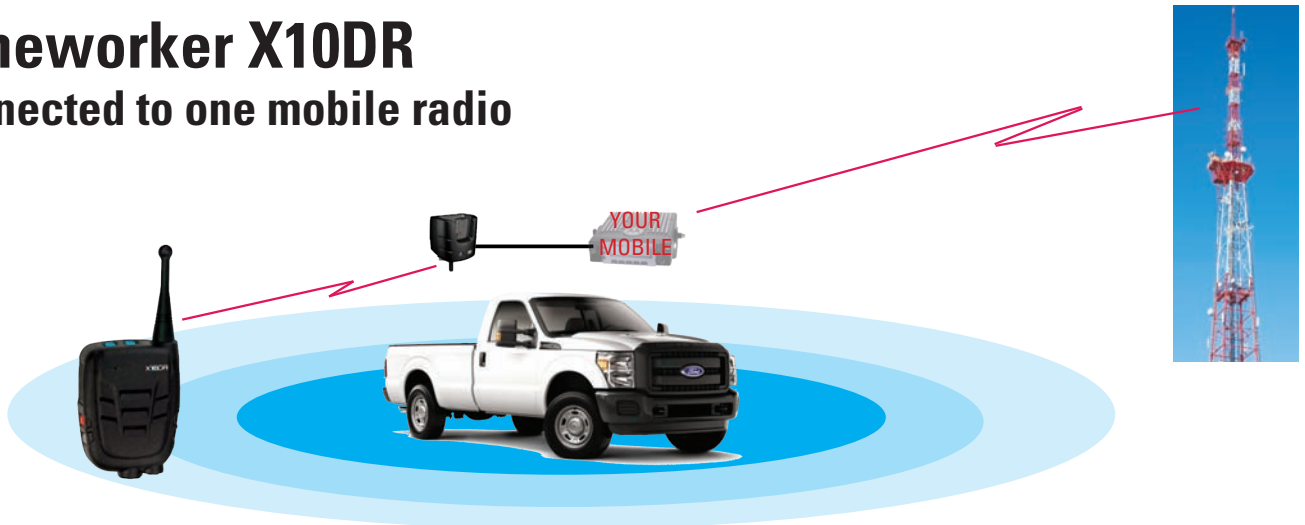
Each X10DR connects to the XIB by way of short 50cm (20") XIB-CK connecting cables. Multiple XIBs can be connected where connection to more than 3 units are required.

Note: Antenna placement for each X10DR X-Ponder is critical. Ensure each antenna whether internal or external are placed >20" (50cm) from each other to minimize inter-unit interference. The antennas should also be positioned so that individual users experience similar coverage patterns. Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to each X10DR user when longer distance communications are required. Multi-polarity antennas provide superior coverage in non 'line of sight' coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.

3 operator control station fit-up



Loneworker X10DR connected to one mobile radio



The XFB-LW provides traditional portable radio type “lone worker” functionality to the X10DR. Internal dip switches allow custom parameter setting for:

- 1/ Activity time interval (the time interval in which a user must momentarily press their PTT or Emergency button to prevent onset of duress alarm),
- 2/ User pre-alert tone interval (period where the X10DR user hears a warning tone that an emergency duress condition is imminent).
- 3/ A 10 Sec “Live Mic” feature. When enabled by an internal dip switch, the units factory default Live Mic parameters are 3 cycles of 10 seconds microphone transmit and 50 seconds of standby/receive. Alternate timing/cycle settings are available but must be factory ordered.

Momentarily pressing either the PTT or the orange emergency button will reset the imminent emergency condition including resetting a sounding pre-alert tone.

Custom versions of the X10DR secure mic are also available which provide mandown sensing.

The XFB-LW connects to the host radio via a XMC series interface cable. The X10DR connects to the XFB-LW by way of short 50cm (20”) XIB-CK connecting cable.

Note: Wireless Pacific recommend use of our **multi-polarity antennas** so that the best possible coverage is provided to each X10DR user. Multi-polarity antennas provide superior coverage in non ‘line of sight’ coverage situations, especially when talking into concrete walled buildings or around corners or other physical obstacles to line of sight communications.

Loneworker fit-up

