REFCOM®
Manual

2-set
3-set
4-set

TwistLock Headset with custom ear-piece

REFCOM

Arm bag

3.4.1

3.4.3
1. **Pairing of two units**

   *If the units are already paired, continue to section 2.*

1.1 Mark-up the two units with “MASTER” and “A1”.

1.2 Pairing:
   1.2.1 Start-up both units by pressing down the ON-button until they activate.
   1.2.2 Erase any current pairing connection by pressing down the + and – buttons simultaneously until the LED emits a red flash.
   1.2.3 Restart both units.
   1.2.4 Press down A button on both units until the LED starts flashing rapidly in red and blue colours.
   1.2.5 Make a short key-press on button A on the A1 unit.
   1.2.6 Wait a moment until both units stop flashing in a rapid manner.
   1.2.7 Once again make a short key-press on button A on the A1 unit. After a moment the LEDs on both units will flash slowly in red colour and communication is established.
   1.2.8 Shut down both units by pressing the OFF button.

   1.3 Pairing is stored after shut down.

2. **Start-up two units**

2.1 Note! If the units before start-up have been paired as a 3-set or 4-set it is strongly recommended to make a new pairing between two of the units to form a new 2-set. This is to ensure proper audio connections and system audio levels.

2.2 Connect headsets and start-up both units by pressing down the ON button until they activate.

2.3 Make a short key-press on button A on one of the two units.

2.4 Communication is established When LEDs on both units flash slowly in red colour.

2.5 If speaking between the two units does not work, test the following:
   1. Press A button once again. 2. Restart both units and press A button. 3. Pair the units once again according to section 1, 4. Check for faulty headset by connecting another headset to the radio.

3. **Handling**

3.1 Make sure the radios are fully charged before use.

3.2 Use SPINTSO arm bag or belt clip to attach REFCOM®. The radio shall not be worn behind your back or by the belt when the distance between referees are great. REFCOM® shall never be worn upside down in rainy conditions.

3.3 Speak between each other through the system for 10-20 seconds before adjusting the earphone volume to a comfortable level. This is so that the microphone automatic gain will have had time to set.

3.4 Microcom/TwistLock headset:
   3.4.1 Make sure that the microphone is positioned in height with your mouth and has a distance of around one cm. The “TALK” side of the microphone shall not be positioned flat against the skin.
   3.4.2 If necessary, use transparent medical tape on your cheek to secure the microphone position.
   3.4.3 Attach the headset cord to the arm bag and to the sweater using clip.

4. **Matches using 2-sets near each other**

   *If two matches close by are refereed at the same time, It would be beneficial to use the B-channel on the second 2-set.*

4.1 Mark-up the other 2-set with “MASTER B” and “A2”.

4.2 Pair according to section 1.2, but instead use B button on MASTER B and A button on the A2 unit.

4.3 Make a short key-press on button A on the A2 unit after start-up of both units.

5. **Charging**

Charge the radio after use. The LED will emit red light while charging. When fully charged, the LED shut down.
1. **Pairing of three units**  
*If the units are already paired, continue to section 2.*  

1.1 Mark-up the three units with “MASTER” “A1” and “A2”. The referee shall use the MASTER unit and the assisting referees use A1 and A2. The MASTER and A1 units are paired first and after that the MASTER and A2 units are paired. The MASTER unit will mix the audio between all three units.

1.2 **Pairing:**  
1.2.1 Start-up the MASTER, A1 and A2 units by pressing down the ON-button until they activate.  
1.2.2 Erase any current pairing connection by pressing down the + and – buttons simultaneously until the LED emits a red flash.  
1.2.3 Restart all units.  
1.2.4 Simultaneously press down A button on the Master and A1 units until the LED on both units starts flashing rapidly in red and blue colours.  
1.2.5 Make a short key-press on button A on the A1 unit.  
1.2.6 Wait a moment until both units stop flashing in a rapid manner.  
1.2.7 Once again make a short key-press on button A on the A1 unit. After a moment the LEDs on both units will flash slowly in red colour and communication is established.  
1.2.8 Simultaneously Press down B button on the Master and A button on the A2 units until the LED on both units starts flashing rapidly in red and blue colours.  
1.2.9 Make a short key-press on button A on the A2 unit.  
1.2.10 Wait a moment until both units stop flashing in a rapid manner.  
1.2.11 Once again make a short key-press on button A on the A2 unit. After a moment the LEDs on all units will flash slowly and communication is established. (MASTER in red/blue colour and A1, A2 in red colour)  
1.2.12 Shut down all units by pressing the OFF button.  
1.3 Pairing is stored after shut down.

2. **Start-up three units**  

2.1 Note! If the units before start-up have been paired as a 4-set it is strongly recommended to make a new pairing between three of the units to form a new 3-set. This is to ensure proper audio connections and system audio levels.

2.2 Connect headsets and start-up the MASTER, A1 and A2 units by pressing down the ON button until they activate.

2.3 Make a short key-press on button A on the MASTER unit.

2.4 Make a short key-press on button B on the MASTER unit.

2.5 Communication is established when LEDs on all units flash slowly. (MASTER in red/blue colour and A1, A2 in red colour)

2.6 If speaking between the two units does not work, test the following: 1. Press A or B button once again on the MASTER unit. 2. Restart all units and press A/B button on the MASTER unit. 3. Pair the units once again according to section 1, 4. Check for faulty headset by connecting another headset to the radio.

3. **Handling**  
3.1 Make sure the radios are fully charged before use.

3.2 Use SPINTSO arm bag or belt clip to attach REFCOM®. The radio shall not be worn behind your back or by the belt when the distance between referees are great. REFCOM® shall never be worn upside down in rainy conditions.

3.3 Speak between each other through the system for 10-20 seconds before adjusting the earphone volume to a comfortable level. This is so that the microphone automatic gain will have had time to set.

Microcom/TwistLock headset:

3.4 Make sure that the microphone is positioned in height with your mouth and has a distance of around one cm. The “TALK” side of the microphone shall not be positioned flat against the skin.

3.4.1 If necessary, use transparent medical tape on your cheek to secure the microphone position.

3.4.2 Attach the headset cord to the arm bag and to the sweater using clip.

4. **Charging**  
Charge the radio after use. The LED will emit red light while charging. When fully charged, the LED shut down.
1. **Pairing of four units**

*If the units are already paired, continue to section 2.*

1.1 Mark-up the four units with “MASTER”, B1, “A1” and “A2”.

The referee shall use the MASTER unit, the assisting referee closest to the 4th official use the B1 unit and the other assisting referee use A1. The 4th official use the A2. The MASTER and A1 units are paired first and then the B1 and A2. Finally, the MASTER and B1 units are paired.

1.2 Pairing:

1.2.1 Start-up all four units by pressing down the ON-button until activation.

1.2.2 Erase any current pairing connection by pressing down the + and – buttons simultaneously until the LED emits a red flash.

1.2.3 Turn all units off by pressing the OFF-button.

1.2.4 Start-up the MASTER and A1 units.

1.2.5 Simultaneously press down B-button on the Master and A-button on the A1 unit until the LED on both units starts flashing rapidly in red and blue colours.

1.2.6 Make a short key-press on button A on the A1 unit.

1.2.7 Wait a moment until both units stop flashing in a rapid manner.

1.2.8 Once again make a short key-press on button A on the A1 unit. After a moment, the LEDs on both units will flash slowly and communication is established. (MASTER in blue colour and A1 in red colour.)

1.2.9 Turn off all units and start-up the B1 and A2 units.

1.2.10 Simultaneously Press down the B-button on the B1 unit and A-button on the A2 unit until the LED on both units starts flashing rapidly in red and blue colours.

1.2.11 Make a short key-press on button A on the A2 unit.

1.2.12 Wait a moment until both units stop flashing in a rapid manner.

1.2.13 Once again make a short key-press on button A on the A2 unit. After a moment, the LEDs on both units will flash slowly and communication is established. (B1 in blue colour and A2 in red colour.)

1.2.14 Turn off all units and start-up the MASTER and B1 units.

1.2.15 Simultaneously Press down the A-button on both units until the LED on both units starts flashing rapidly in red and blue colours.

1.2.16 Make a short key-press on button A on the B1 unit.

1.2.17 Wait a moment until both units stop flashing in a rapid manner.

1.2.18 Once again make a short key-press on button A on the B1 unit. After a moment, the LEDs on both units will flash slowly in red colour and communication is established.

1.2.19 Shut down all units by pressing the OFF button.

1.3 Pairing is stored after shut down.
2. **Start-up four units**

2.1 Connect headsets and start-up all four units by pressing down the ON-button until they activate.

2.2 Make a short key-press on button A on the A1 unit, button A on the A2 unit and button A on the B1 unit.

2.3 Communication is established when LEDs on all units flash slowly. (MASTER and B1 in red/blue colour and A1, A2 in red colour)

*If speaking between units does not work, test the following: 1. Press A or B button once again on the unit that does not connect, 2. Restart all units and try to connect again, 3. Pair the units again according to section 1, 4. Check for faulty headset by connecting another headset to the radio.*

3. **Handling**

3.1 Make sure the radios are fully charged before use.

3.2 Use SPINTSO arm bag or belt clip to attach REFCOM®. The radio shall not be worn behind your back or by the belt when the distance between referees are great. REFCOM® shall never be worn upside down in rainy conditions.

3.3 Speak between each other through the system for 10-20 seconds before adjusting the earphone volume to a comfortable level. This is so that the microphone automatic gain will have had time to set.

3.4 Microcom/TwistLock headset:

3.4.1 Make sure that the microphone is positioned in height with your mouth and has a distance of around one cm. The “TALK” side of the microphone shall not be positioned flat against the skin.

3.4.2 If necessary, use transparent medical tape on your cheek to secure the microphone position.

3.4.3 Attach the headset cord to the arm bag and to the sweater using clip.

4. **Charging**

Charge the radio after use. The LED will emit red light while charging. When fully charged, the LED shut down.