APOLLO WiComm 2
WIRELESS COMMUNICATION SYSTEM
O. M. 29043

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REVISION:

⚠ WARNING

Do not use this equipment before READING this MANUAL and UNDERSTANDING its contents.

These WARNINGS are included for the health and safety of the operator and those in the immediate vicinity. Failure to read and understand these warnings can result in injury or death.

Electronic files include a Preface containing the same important information as in the orange cover.

1.0 INTRODUCTION

1.1 Scope of manual

1.1.1 This manual covers set up, operation, and replacement parts for Clemco Apollo Wireless Communication System.

1.1.2 Read this manual, plus the radio and radio accessory manuals before setting-up and using the communication set. This manual does not contain important safety information regarding the use of equipment used with the system. Manuals that contain operation and important information for Clemco Apollo Respirators, related operator safety accessories, and abrasive blasting equipment are available on Clemco's website, www.clemcoindustries.com,

1.2 Safety Alerts

1.2.1 Clemco uses safety alert signal words, based on ANSI Z535.4-2011, to alert the user of a potentially hazardous situation that may be encountered while operating this equipment. ANSI's definitions of the signal words are as follows:

This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

NOTICE

Notice indicates information that is considered important, but not hazard-related, if not avoided, could result in property damage.

⚠ CAUTION

Caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

⚠ WARNING

Warning indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ DANGER

Danger indicates a hazardous situation that, if not avoided, will result in death or serious injury.

1.3 Components

1.3.1 Components of the WiComm 2 system are listed below and shown in Figure 1. The complete system includes:

- Headset with adjustable crown strap, bone conduction speakers, flexible boom with noise-cancelling microphone, and cable with push-to-talk (PTT) connector
- PTT switch assembly with reinforced swivel clip and two cable connections
- Detachable cable with Motorola 2-pin connector, between PTT switch and radio
- Radio chest holster

1.4 Operating Principles

1.4.1 Headset

- Adjustable crown strap positions the speakers over the bone just in front of the ear.

- The flexible boom mic lets the user place the mic in front of the mouth; this feature is especially useful to position the mic after donning the respirator.

- The PTT cable has a clip to position the cable when necessary and a 5-pin connector to connect to the PTT switch.

1.4.2 PTT Switch with Clip

- The radio is in constant receive (listen) mode unless the large arm-actuated button switch is pressed; pressing the button temporarily puts the radio in transmit (talk) mode. When released, the radio remains in receive (listen) mode.

- The rotating belt clip on the back of the switch lets the user place the switch so it can be easily pressed through protective clothing with an arm or hand.

- The 5-pin connectors on the PTT switch are identical, so either cable (headset cable or radio cable) can be attached to either connector.

1.4.3 Cable (radio to PTT) with Connector

- The screw-on 5-pin connector attaches to either of the connectors on the PTT switch. The other end is a 2-pin connector that connects to a Motorola radio with a 2-pin connector.

1.4.4 User Provided Motorola Radio

- When the radio is attached to the PTT and headset, it is used by the blast operator to talk with another person using a radio of the same frequency.

- When a separate radio is used alone, a supervisor or pot tender can communicate with the blast operator(s) or other person with a radio of the same frequency.

1.4.5 Chest Holster

- The radio fits into the holster's radio pouch.

- Adjustable shoulder and waist straps position the holster at the chest area where the radio is protected by the respirator cape and blast suit.
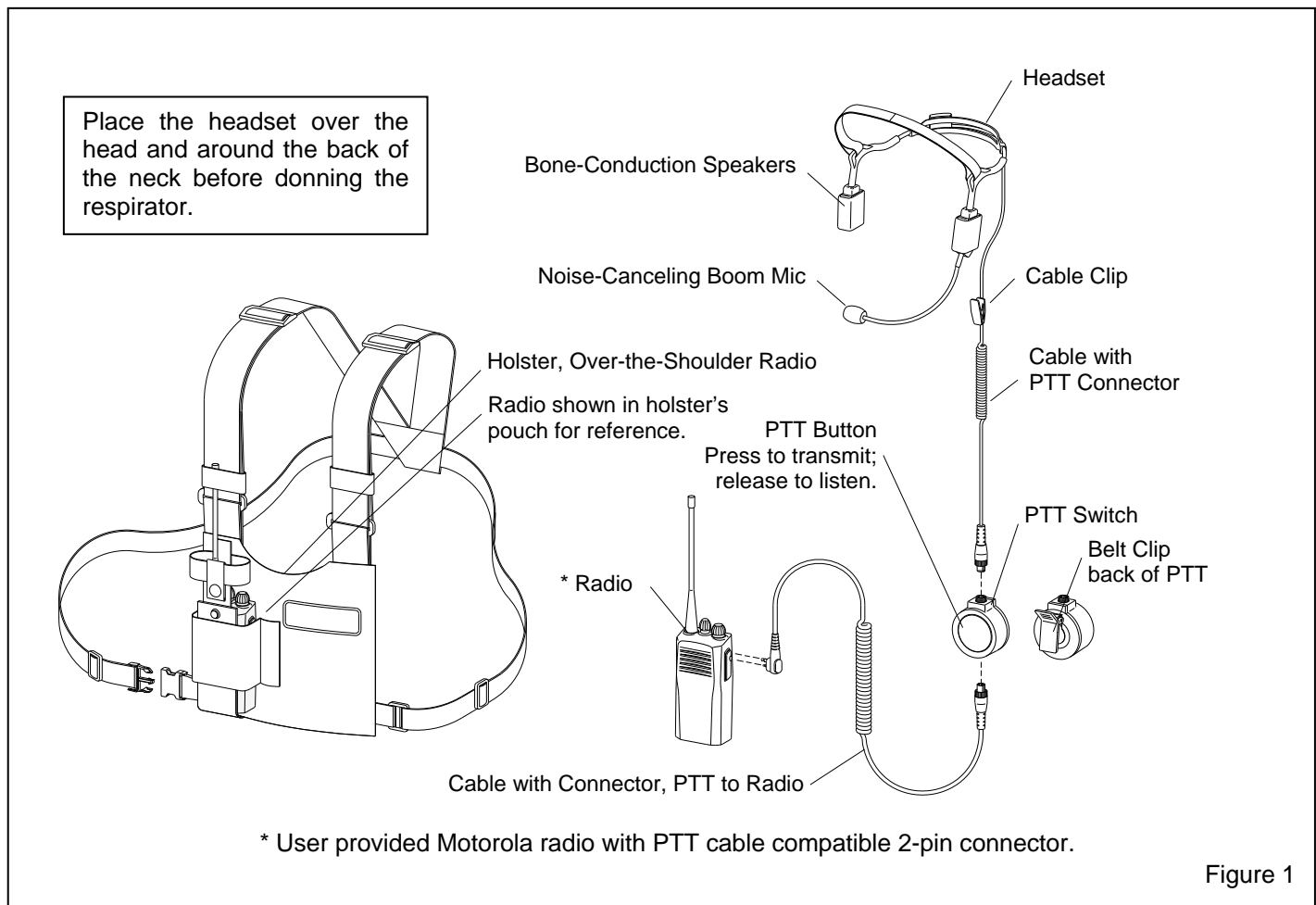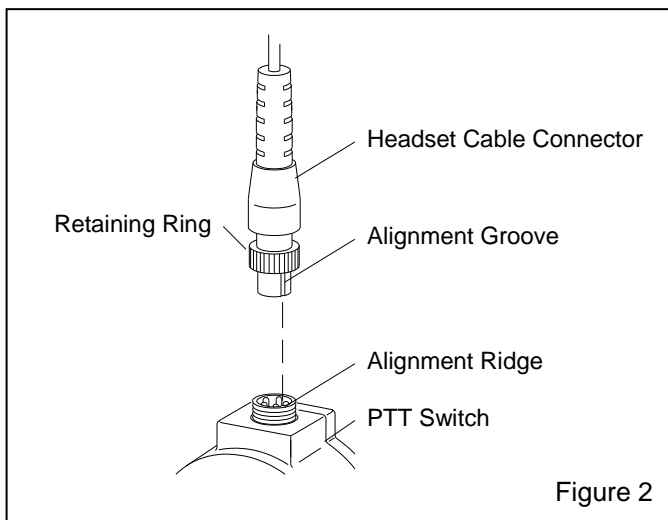

Place the headset over the head and around the back of the neck before donning the respirator.

Headset

Bone-Conduction Speakers

Noise-Canceling Boom Mic

Cable Clip

Cable with PTT Connector

Holster, Over-the-Shoulder Radio

Radio shown in holster's pouch for reference.

PTT Button
Press to transmit; release to listen.

PTT Switch

Belt Clip back of PTT

* Radio

Cable with Connector, PTT to Radio

* User provided Motorola radio with PTT cable compatible 2-pin connector.

Figure 1

2.0   INITIAL SET UP and TEST

2.1   Set up and charge radio(s) per instructions supplied with the radio.

2.2   Refer to Figure 2 and align the groove on the headset cable connector with the mating ridge in one of the PTT connectors (the cable may be attached to either of the two PTT connectors) and insert the cable connection into the PTT switch. Screw the retaining ring onto the PTT threads to secure the connections.

2.3   Align the groove on the radio cable connector with the ridge in the remaining PTT connector and secure the connection, as noted in Paragraph 2.2.

Figure 2

2.4   Don the holster and adjust shoulder and waist straps to position the holster about the chest area.

2.5   Adjust Headset – Figure 3

2.5.1   Don the headset, placing the crown strap over the head and the rubber headband at the back.

2.5.2   Unfasten the top band on the crown strap and adjust the headset so the bone-conduction speakers are against the protruding bone in front of the ears. Press the end of the strap to latch it.

NOTE: Some readjustment may be required to find the position on the bone that provides the best reception. The speaker supports may be bent slightly to apply light pressure against the bone and attain the best reception.
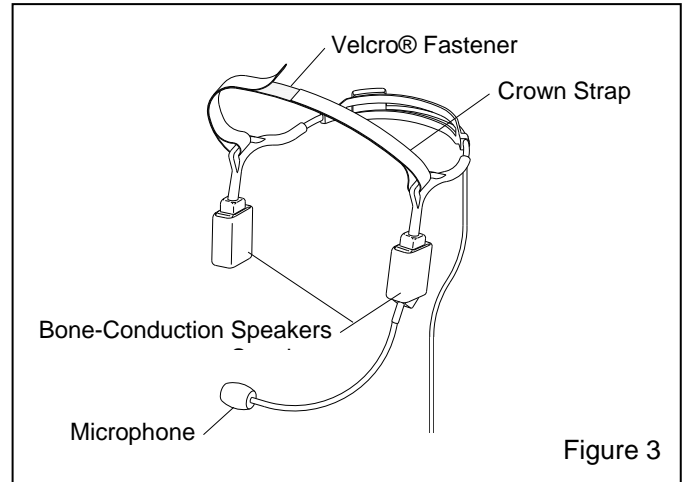

Figure 3

2.6   Attach PTT to Radio

2.6.1   Refer to Figure 4 and pull the top of the rubber cover from the radio side connector and plug in the 2-pin connector. The style of radio shown in Figure 4 is for reference only; user's radio may differ.
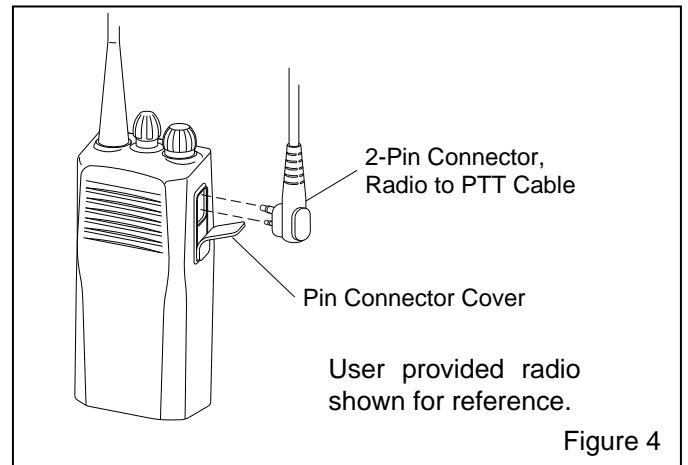

Figure 4

2.7   Turn ON radio, set volume to low, select channel to radio frequency, and place radio in chest holster or a pocket.

2.8   Temporarily clip the PTT switch onto a belt, waistband, holster, or other convenient location that allows easy access to (convenient pressing of) the switch. NOTE: The clip on the back of the switch may be rotated in 45-degree increments in any direction.

2.9   Test functions of the PTT, headset, and radio. Adjust volume as required. Press the PTT switch to transmit; release the switch to receive.

SET UP for OPERATION

NOTE: Wearing earplugs improves the clarity of the receiving signal by canceling ambient noise.

3.1 Set up and test radio to make sure batteries are charged and radio are functional.

3.2 Don the chest holster or determine a suitable pocket or other protected place for the radio.

⚠ WARNING

Refer to the radio instruction manual to make sure the user complies with the radio manufacturer's information regarding use of body-worn radios.

3.3 Put on blast suit or other protective clothing except for the respirator and gloves, leaving the chest holster exposed.

3.4 Assemble communication components (headset PTT switch, cables, and user's radio), as noted in Section 2.0.

3.5 Place the radio in the holster, pocket, or other place protected by the respirator cape and protective clothing.

3.6 Use the clip on the back of the PTT switch and attach it at a convenient, protected location (such as waistband, pocket, or chest holster) that allows operation by an operator wearing heavy gloves and protective clothing.

NOTICE

All parts of the communication system must be protected from dust and abrasive present in an abrasive blasting environment. Make sure that when all components are in place they are under the respirator cape, blast suit, or other protective clothing.

3.7 Turn ON radio and set volume to low.

3.8 Place the headset over the head, as noted in Figure 1.

3.9 Test function: press the PTT switch to transmit; release the switch to receive.

3.10 Don respirator and adjust headset as required.

3.11 The headset cord goes through the respirator's inner collar (neckband). Adjust the collar so that it fits snugly around the neck in turtleneck fashion and without any interference from the cable.

3.12 Make sure the respirator cape and/or other protective clothing covers and protects all communication system components from abrasive and dust.

4.0 **OPERATION**

4.1 **To Receive (listen)**

4.1.1 The radio is always in the receive mode when the PTT switch is not pressed.

4.1.2 To clearly hear the transmission in high-noise-level areas, such as abrasive blasting, the operator may need to stop blasting when a transmission is heard. Earplugs cancel some of the ambient noise, improving the reception.

4.2 **To Transmit (talk)**

4.2.1 Press the PTT switch and speak clearly and directly into the mic. As when receiving a transmission in high-noise-level applications, the operator may have to stop blasting in order to transmit clearly. Noises such as those from abrasive blasting, compressed air, motors, etc., may sound like static on the receiving radio.

4.3 **Shutdown**

4.3.1 When finished working, remove protective clothing and communication components in a clean environment outside the use area.

4.3.2 Turn OFF radio and remove the PTT cable from the radio.

4.3.4 Recharge batteries, per instructions supplied with the radio.

5.0 **MAINTENANCE**

5.1 Refer to the radio operating instructions for care and maintenance of the radio. Pay special attention to the section(s) regarding battery charging and memory effect.

5.2 Clean nonporous parts of the headset and PTT assembly with a cloth dampened with water and mild detergent. Rinse with a cloth dampened with clean water

and wipe dry. The components are water-resistant, not waterproof; do not immerse in water.

NOTICE

Do not submerge the headset or PTT assembly in water. Doing so will damage the components.

5.3 Periodically, clean the headset with disinfectant wipes.

6.0 STORAGE

6.1 Place the components in a clean container and store in a clean, dry place.

6.2 Refer to the radio instruction manual for storage requirements.

7.0 REPLACEMENT PARTS

7.1 WiComm 2 Communication Kits

Item	Description	Stock No.
(-)	Communication system Includes items 1 through 4 in Figure 5	29041

7.2 WiComm 2 Replacement Parts – Figure 5

Item	Description	Stock No.
1.	Headset assembly, with cable	29044
2.	PTT switch	29045
3.	Cable, PTT to radio with Motorola 2-pin connector	29247
4.	Holster, chest	24996

User provided radio shown for reference.

Figure 5