

# TeamTalk™

## Model 100-SAV

### WIRELESS SCBA MASK COMMUNICATORS

For the Scott® AV-2000™ Facepiece



**Manufactured by:**

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# TEAMTALK™

## Model 100-SAV

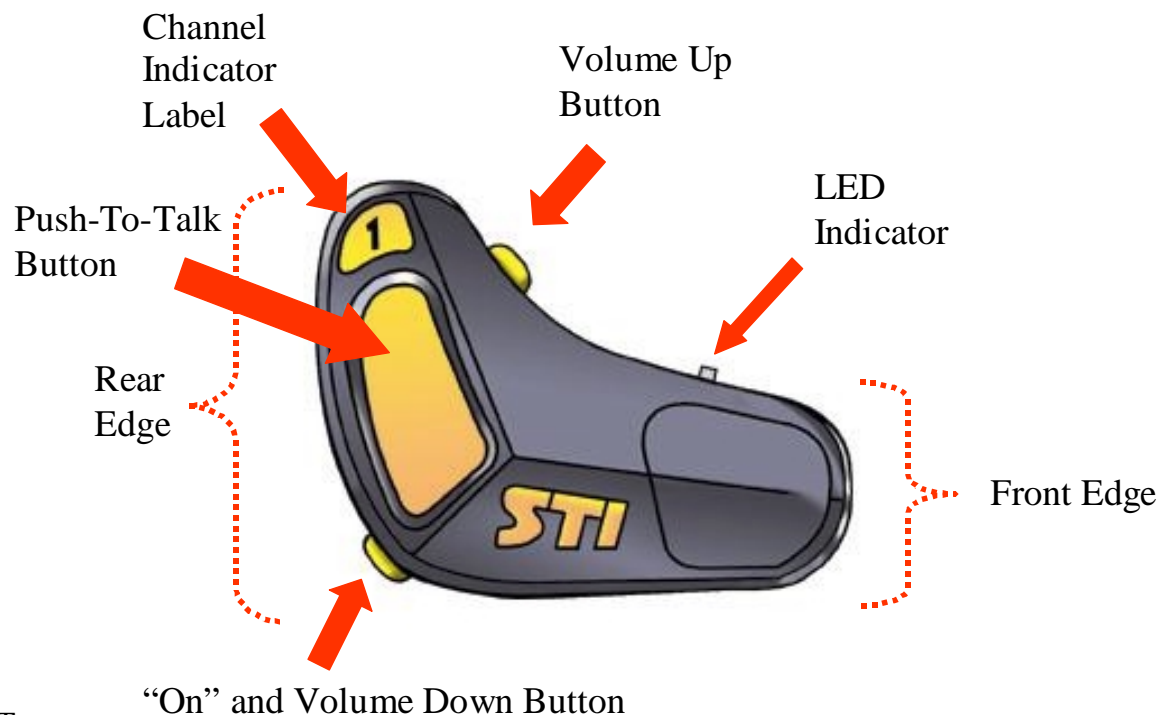
### Wireless SCBA Mask Communicator

#### GENERAL DESCRIPTION

TeamTalk™ mask communicators are designed to provide wireless communications among members of a fire fighting team (or other team involved in operations in a hazardous environment) while wearing Scott® Airpacks equipped with the AV-2000™ facepiece. The TeamTalk™ assembly attaches to the right voice emitter of the AV-2000™ face-piece by means of a cam locking mechanism. When properly attached to the right voice emitter, TeamTalk™ will pick up voice sounds spoken by the wearer and transmit the sound to other TeamTalk™ units within a range of at least 400 feet (line-of-site) by engagement of a push-to-talk (PTT) button.

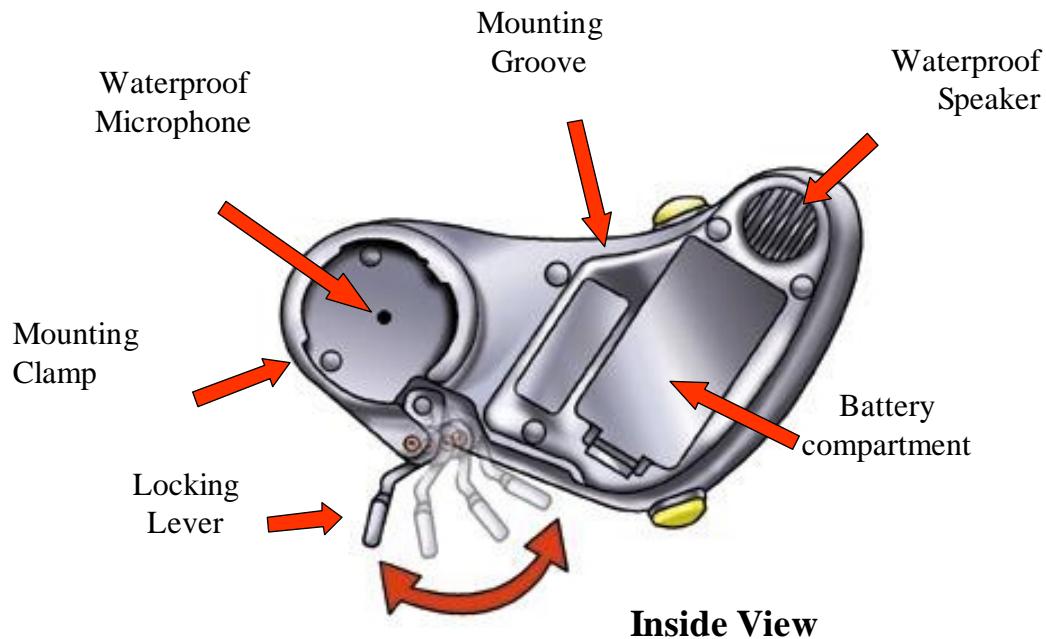
The TeamTalk™ mask communicator's speaker is located directly near the wearer's right ear providing clear, unobstructed sound. TeamTalk™ is also equipped with two buttons to raise and lower speaker volume.

**FIGURE 1**  
Outside View of the TeamTalk™ Unit



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eamTalk™ provides eight factory pre-set channels. Different teams can be assigned separate channels to avoid cross talking between the teams. TeamTalk™ also has an alternate channel that can be selected while the mask communicator is in use. This allows a user to speak directly to members of other teams so long as they are also on the alternate channel.



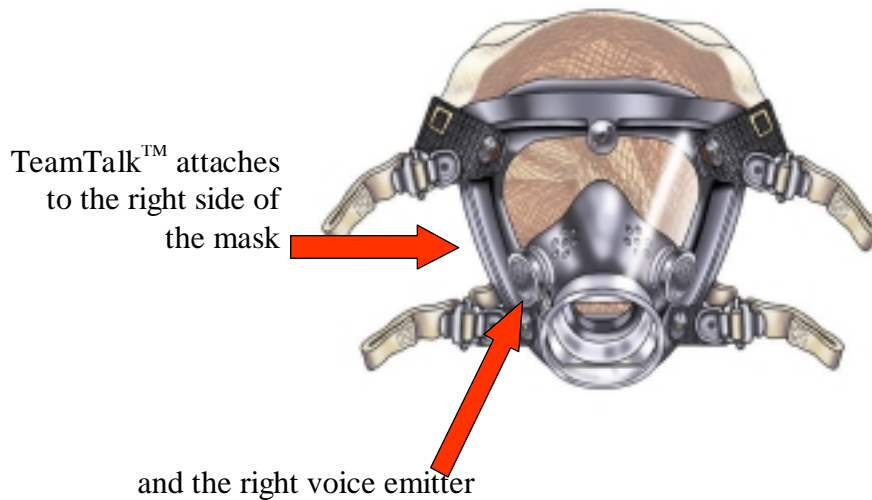
**FIGURE 2**  
Back of TeamTalk™ Unit

### List of Equipment Features

Item	Description
<b><i>LED Indicator Light</i></b>	This is a multiple function item. It will flash briefly when the TeamTalk™ mask communicator is first turned on; it will light up when you are transmitting; and it will stay on when the alternate channel is selected. In the alternate channel, the LED goes out to indicate you are transmitting.
<b><i>Volume UP Button</i></b>	This round yellow button on the top edge of the TeamTalk™ mask communicator enables the user to easily raise the volume by a series of presses on the button. Each press of the button will increase volume approximately 10 decibels to a maximum of 100 decibels.

<b><i>“ON” and Volume DOWN Button</i></b>	This round yellow button is located on the bottom edge of the TeamTalk™ mask communicator and performs several functions. When the TeamTalk™ mask communicator is “OFF”, the user can turn it on by pressing and holding the button until he/she sees the LED indicator light flash and hears a brief transmission. After the unit has been turned “ON”, this button enables the user to easily lower the volume by a series of presses on the button. Each press will lower the volume approximately 10 decibels. When pressed and held simultaneously with the Volume Up button, it will enable the user to switch to or from the “alternate” channel.
<b><i>Channel Indicator Label</i></b>	This label is applied by the factory to indicate which channel the TeamTalk™ mask communicator has been set (Channels 1 through 8). It is numbered and color-coded to give easy recognition to the preset channel.
<b><i>Push-to-Talk Button</i></b>	Also called the PTT button, this large yellow pad is easily pressed and held when the user wants to transmit to other users.
<b><i>Microphone</i></b>	The waterproof microphone is located directly over the right voice emitter.
<b><i>Speaker</i></b>	Located directly over your right ear, the waterproof speaker provides clear transmission of messages.
<b><i>Battery compartment</i></b>	Located on the back of the TeamTalk™ mask communicator, the battery compartment holds a 9-volt battery.
<b><i>Mounting groove</i></b>	The mounting groove slides over the frame of the Scott® AV-2000™ facemask to provide stability to the TeamTalk™ mask communicator.
<b><i>Locking lever</i></b>	This lever forces open the mounting clamp when attaching the unit to the facemask and then closes to securely lock the mounting clamp onto the voice emitter.
<b><i>Mounting clamp</i></b>	The mounting clamp goes around the voice emitter to securely attach the TeamTalk™ mask communicator to the facemask.

## ATTACHING THE TEAMTALK™ MASK COMMUNICATOR TO YOUR FACE PIECE



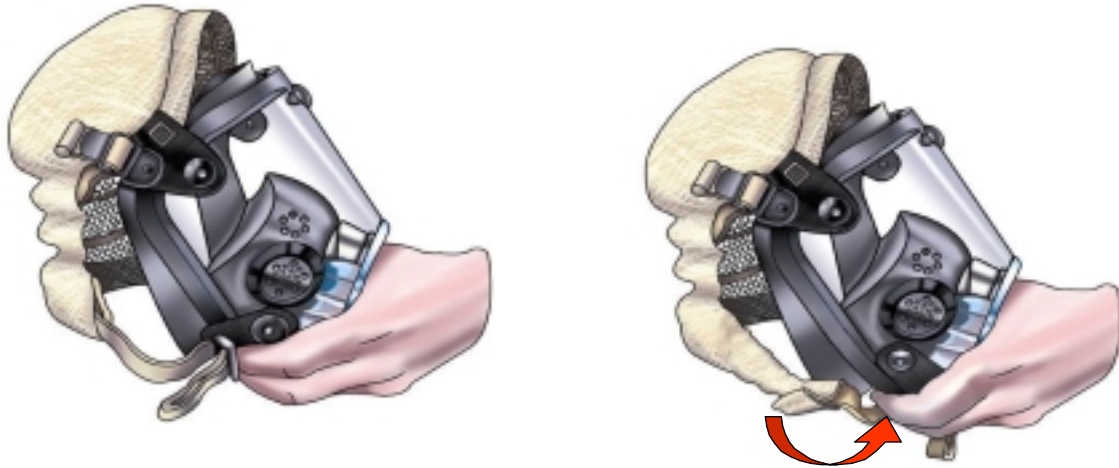
**FIGURE 3**  
Scott® AV-2000™ Face Mask

The TeamTalk™ mask communicator attaches to the voice emitter on the right side of the Scott® AV-2000™ face-piece (See Figure 3). Prior to attaching the mask communicator, inspect it for exterior damage. If any damage is found do not use the mask communicator; tag it for repair and remove from service. To attach and secure the unit to the facepiece please follow the steps below as shown in Figures 4 through 9.



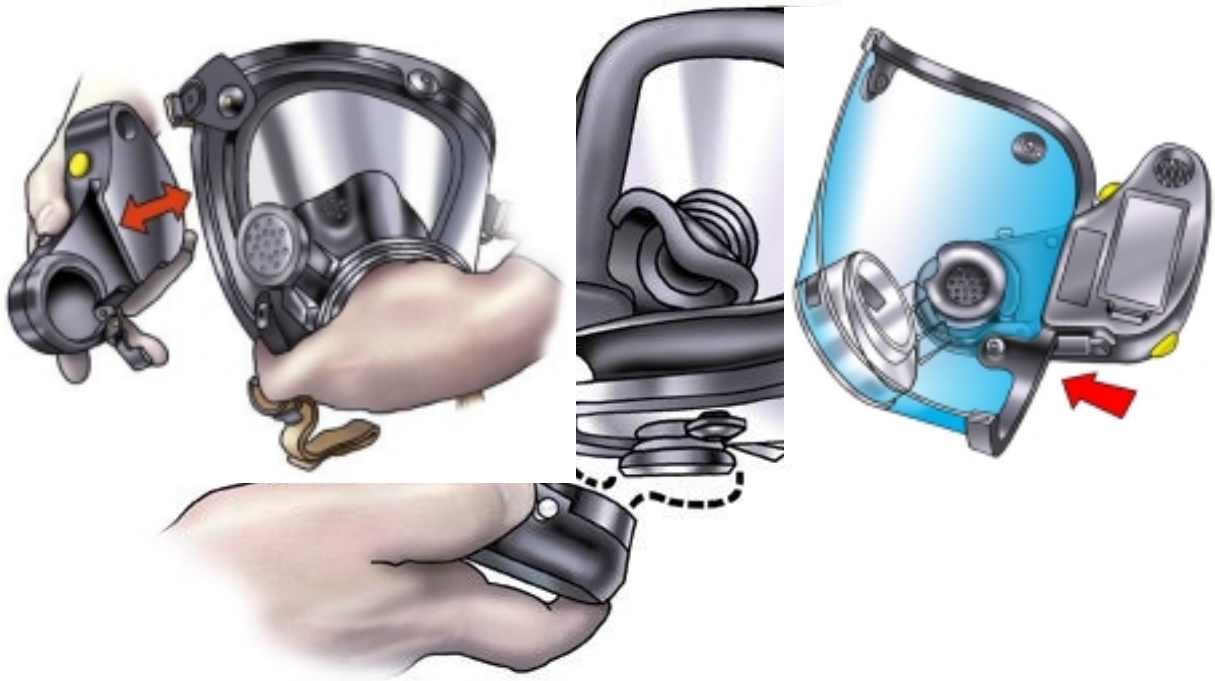
1. Hold the TeamTalk™ unit in your right hand so that the large yellow Push-To-Talk button is in your right palm. Open the lever 90° and hold it wide open using your right middle finger.

**FIGURE 4**



**FIGURE 5**

2. Hold the Scott® AV-2000™ face-piece in your left hand (Figure 5) by placing your thumb in the respirator opening and wrapping your fingers under the chin of the mask.
3. Use your left index finger to hold the right chin adjustment strap out of the way.



**FIGURE 6**

4. While still holding the lever wide open, slide the right edge of the facepiece into the mounting groove of the TeamTalk™ unit (Figure 6).



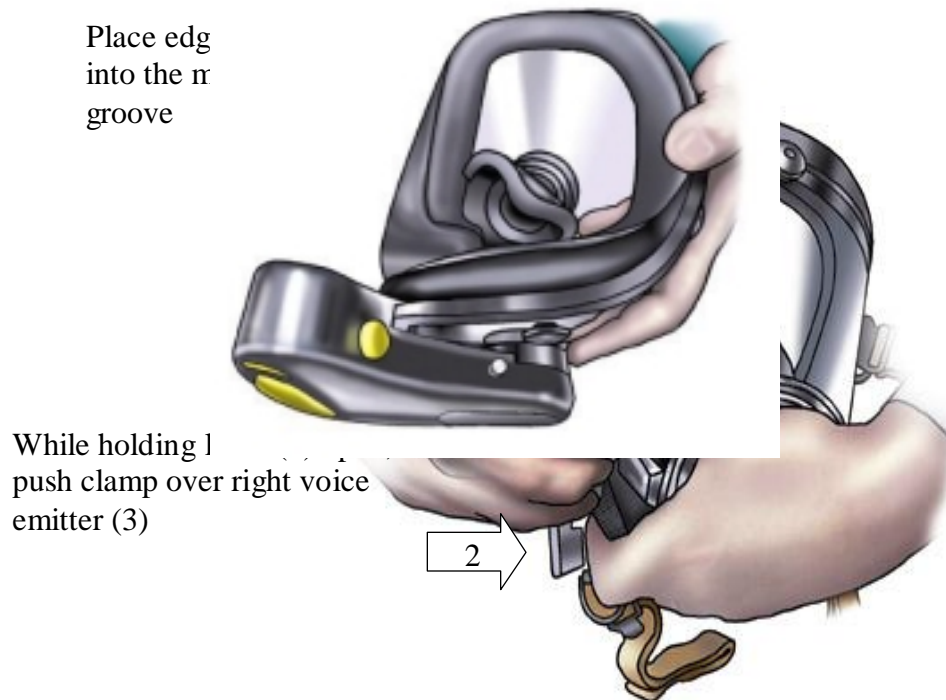
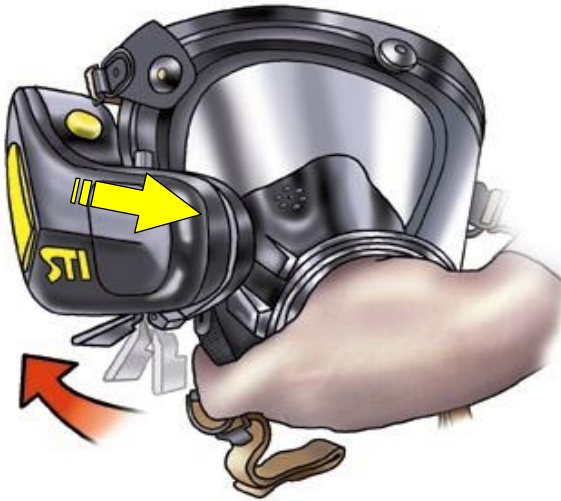


FIGURE 7

**Figure 7**

5. Now position the open mounting clamp directly over the right voice emitter (Figure 7). Press down on the entire front end of the TeamTalk™ unit to completely cover the voice emitter with the open clamp area. (The clamp should actually be touching the clear Lexan part of the facepiece.)

**FIGURE 8**

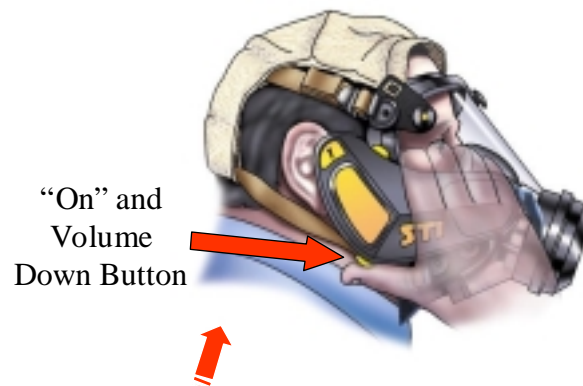
6. While still maintaining downward pressure on the front end of the unit (Figure 8), close the locking lever using your right middle and ring fingers. When properly locked down, the clamp will butt up against the clear Lexan.

**FIGURE 9**

A properly mounted TeamTalk™ mask communicator

## USING THE TeamTalk™ MASK COMMUNICATOR

1. Check to make sure that the mask communicator is undamaged and is secured to your face-piece. The TeamTalk™ must be in the mounting groove and clamped on the voice emitter before donning the face-piece. Don the face-piece by following the instructions supplied with the respirator.
2. The face-piece should always be drawn firmly to the face to assure a proper seal.
3. To turn on the mask communicator **press and hold** the small round yellow button located on the bottom of the unit (See Figure 10) until you hear a BEEP (about one second). You will hear a beep and the indicator light will briefly flash.
4. To communicate to others in your team simply **press and hold** the large yellow rubber Press-To-Talk button (See Figure 11). If the channel is clear you will hear a double beep “Beep, Beep” and the indicator light will illuminate. You will also be able to hear your own voice over your speaker, just like on a telephone.
5. While holding the PTT button down speak in a normal tone of voice. There is no need to yell. Due to the design, yelling or speaking too loudly will not result in unintelligible voice transmission.

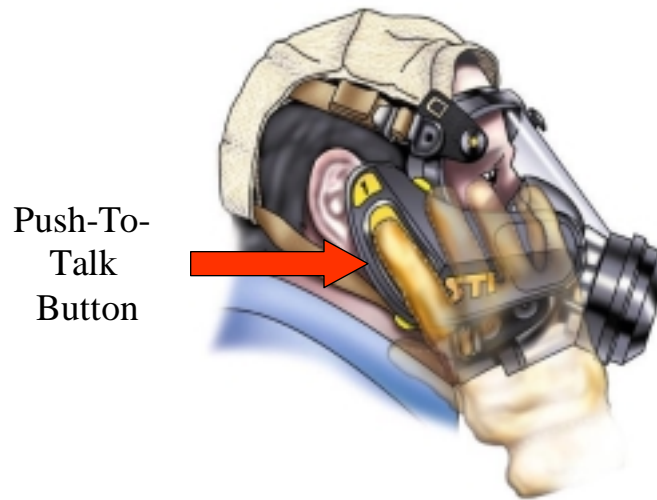


**FIGURE 10**

Turning On the TeamTalk™ Mask Communicator by Pressing and Holding the “ON” Button for one second

6. When finished speaking release the PTT button. Only press the button when you are speaking and release it as soon as you finish talking.

7. To prevent a downed firefighter or a firefighter in rehab from accidentally leaning on the push-to-talk button for an extended period, TeamTalk has a “time out” feature that terminates the unit’s transmission after 15 seconds. If the time out feature stops your transmission after 15 seconds simply release the PTT button and then press it again for an additional 15 seconds of transmission .



**Figure 11**

8. As with any handheld radio system only one individual can talk at a time. When the channel is clear and you press the PTT button the indicator light will light up. You will also be able to hear yourself speaking just like on a telephone. If the light does not come on when you press the PTT button, the channel is being used and you cannot transmit. Do not press the PTT button when you do not wish to communicate, because you will close the channel for others on your team for up to 15 seconds.
9. Since the mask communicator extends approximately two inches from the face-piece, care should be taken not to strike the mask communicator against surrounding objects especially when you are not wearing the face-piece and it is dangling in front of you or at your side. If you will be working for an extended period of time with the face-piece dangling you should remove the mask communicator and place in a pocket or other secure location.
10. To switch to the alternate channel, hold the volume up and volume down buttons at the same time. Hold both buttons until you hear three beeps. When on the alternate channel, the LED stays lighted and goes out when you press the PTT button. This inverse light function insures that the user and those around him or

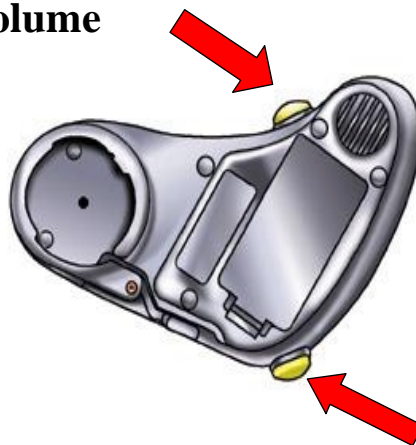
her, instantly knows whether or not the unit is on the preset or the alternate channel.

11. To switch the unit “OFF” manually, press and hold the “ON” (bottom yellow round button) button for more than three seconds. An additional beep will sound to indicate that you held the button long enough. If the user forgets to turn the power off, the unit will turn itself off after 30 minutes of total inactivity. This prevents a dead battery caused by forgetting to turn the unit off.

### VOLUME CONTROL

TeamTalk™ mask communicators are equipped with manual volume controls usable while the unit is being worn. The volume can easily be raised by repeatedly pressing the top yellow round button. To lower the volume, simply press the bottom yellow round button repeatedly (also used to turn the unit “On”). (See Figure 13.)

**Increase Volume**



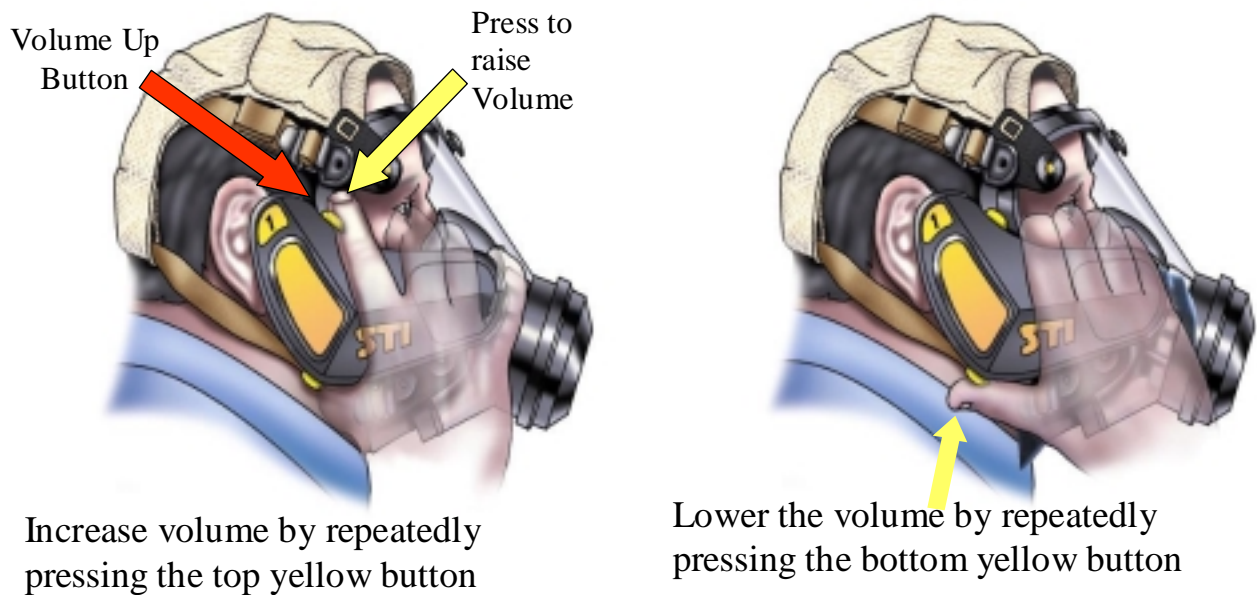
**Decrease Volume**

**FIGURE 13**

Each push of the button will raise or lower the volume approximately 10 decibels. When tones no longer change, when either raising or lowering the volume, you have

reached the limit. To prevent hearing damage, TeamTalk™ will never get louder than 100 decibels. (Audiologists warn that hearing damage can begin with sounds louder than 110 decibels.)

The location of the TeamTalk™ speaker only an inch from your ear will enable you to hear transmitted sounds even if the noise level in the room exceeds 100 decibels.



**Figure 14**  
Raising and Lowering Volume

### WARRANTY

All TeamTalk™ mask communicators come with a one-year warranty against manufacturing defects. Any defective mask communicator will be replaced free of charge if returned to Safety Tech within one year of the purchase date. Simply call Safety Tech at (800)-996-1942 and ask for a return authorization number. The units will be replaced upon receipt of the defective unit.

## REPAIR OF DAMAGED UNITS

While the TeamTalk™ mask communicator is designed as a rugged communication device, all situations encountered in the fire service or other hazardous environment cannot be anticipated. If a mask communication unit becomes damaged, call Safety Tech at (800)-996-1942 for a return authorization number and mail the unit to the company. You will be mailed a replacement unit to use until repair arrangements can be made. After evaluating the extent of the damage you will be contacted with an estimate of the repair cost. Repairs will be done only after you approve of the cost in writing and issue a purchase order number.

## PRODUCT SPECIFICATIONS

### Features:

- No wires of any kind; does not plug into a hand-held radio
- Large yellow rubber, press-to-talk button
- Easily mounts on your Scott® AV-2000™ SCBA face mask
- Multiple channels (1-8) for separate team operations plus a 9<sup>th</sup> alternate channel
- Separate transmission channels with squelch tones (Does not tie up department radio frequencies)
- Waterproof microphone located directly over the right voice emitter
- Waterproof speaker located directly over your right ear
- Channel clear system prevents simultaneous transmissions: one speaks, others listen
- Automatic time out after 15 seconds
- Manual volume control button
- Easy to switch from preset to alternate channel
- Automatic “OFF” after 30 minutes of non-use
- LED indicator for transmission and low battery alert
- Side-tone so users can hear their own transmissions
- Shape does not obscure vision
- Polycarbonate housing

### Performance:

- Range of at least 400 feet line-of site
- Operating temperature range of 0 to 170 F
- Storage temperature range of -40 to 180 F
- Withstands, without damage, the thermal shock of transitioning immediately from one storage temperature extreme to the other
- At input volume of 1000 Hz at 70 dB, transmits without distortion or feedback
- Maximum sound volume at speaker is 100 dB

**Approvals:**

- Certified intrinsically safe for use in Class I, II, III, Division I, Groups A through G hazardous locations
- Complies with FCC Part 15, Radio Part 15.249 Unlicensed Operation

**Battery:**

- Powered by a standard 9-volt alkaline battery. We recommend Duracell part number MN1604 or PC1604, or Energizer part number 522 batteries.
- Do not use extended life, ultra, titanium or lithium batteries in TeamTalk™, as they are intrinsically not safe in all environments.
- Under normal conditions users should get between four and six hours of life from one battery (or up to 18 bottles of air).
- When there is approximately 30 minutes of battery life remaining, the unit will emit a double beep every 6 to 10 seconds.

**Channels:**

- TeamTalk™ has eight radio channels. 1-8 for the teams and the 9<sup>th</sup> is an alternate channel used to communicate between teams.
- TeamTalk™ uses eight CTCSS squelch tones (private lines – or PL's) to minimize interference from the other users of the same channel. This allows large Departments up to 64 possible combinations

**Weight:**

- 10 ounces without battery



**FREQUENTLY ASKED QUESTIONS****Question****Answer**

***1. What is the range for TeamTalk™ communications?***

TeamTalk™ is designed for teams of firefighters working together to easily speak to one another. Since firefighter teams wearing SCBA generally work within a distance of 40 to 50 feet, TeamTalk™ is designed for this type of communication. As a margin of safety TeamTalk™ will allow firefighters at least 400 feet apart (clear, line-of-sight) to communicate. For a typical 2½ story, wood-frame residence, firefighters can easily communicate basement to attic.

***2. How many channels are available?***

TeamTalk™ has eight separate channels. The department can select channels 1-8 to be assigned to different engine companies or different task teams. Channel 9 is reserved for the alternate channel.

***3. Can the user select different channels on the fire ground?***

Users can switch from the preset channel to the alternate channel by simultaneously pressing and holding the two volume control buttons for four seconds

***4. If I switch to the alternate channel, will all other firefighters wearing TeamTalk™ hear me?***

Only those firefighters that have also switched to the alternate channel will hear you if you switch to the alternate channel. To communicate with each other, TeamTalk™ units must be on the same channel and use the same private line code.

***5. What is a private line code?***

Private line codes (or PLs) are special codes that TeamTalk™ units use to open their receivers. If another device using the same frequency as a TeamTalk™ unit transmits, but does not have the same PL, the TeamTalk™ unit will not recognize it. This prevents interference from other devices that have different PLs or no PLs at all.

***6. Do all TeamTalk™ units have to be set on the same PL code?***

Yes. Only units set to the same channel AND same PL code can communicate with each other. This provides the fire department with up to 64 usable combinations for separate communications (eight radio channels times eight different PL codes.)

***7. What type of batteries are used and how long do they last?***

A single 9-volt alkaline battery powers TeamTalk™. Do NOT use a long-life battery such as lithium or titanium as these types of batteries are not intrinsically safe. Under normal use a standard alkaline battery will last for approximately 12 to 18 bottles of air.

***8. How do I know when the battery is low?***

When there is approximately 30 minutes of battery life remaining, the unit will emit a double beep every 6 to 10 seconds. This gives ample warning and the user should replace the battery at the next change of air bottle.

***9. Does TeamTalk™ interface with the fire ground radio frequency?***

No. TeamTalk™ is designed for communication among members of a firefighter team (search team, hose team, FAST or RIT, etc.) without tying up the fire ground frequency. It removes a lot of the communication between firefighters that only pertains to the team's tasks (such as "I need more hose." "I need an axe." or "I've located a victim.") Communications between interior officers and the Incident Commander take place using a regular hand-held radio or a lapel microphone.

***10. How long can I transmit with TeamTalk™?***

TeamTalk™ has an automatic "time out" feature whereby the user can transmit for only 15 seconds. This is designed for those instances where the firefighter places his mask on the ground and accidentally keys the transmit button. The channel will only be occupied for 15 seconds. Most communications during interior firefighting are very short, lasting only a few seconds. If additional time is needed, the user simply re-keys the push-to-talk button for an additional 15-second transmission.

- 11. Can more than one person talk at the same time?*** No. TeamTalk™'s channel priority prevents more than one person talking at the same time. A common problem using handheld radios is when one person “talks over” another person. The messages cancel out and neither can communicate. TeamTalk™ virtually eliminates stepping on another person's communications.
- 12. Does TeamTalk™ work with any SCBA mask?*** The current model of TeamTalk™ (Model 100-SAV) has been designed to fit the Scott® AV2000™ facemask. Additional models to fit other SCBA masks will be developed in the future.
- 13. Will TeamTalk™ get in the way of helmet mounted thermal cameras?*** Unfortunately TeamTalk™ does get in the way of the Cairnes helmet mounted thermal camera because both are mounted on the right side. The Flir visor mounted camera does not get in the way of TeamTalk™.
- 14. Does TeamTalk™ interfere with helmets?*** TeamTalk™ does not interfere with standard helmets used in the fire service. It may interfere with the European-style helmets that extend down over the neck and ears.
- 15. Can TeamTalk™ be used in confined space rescue?*** Yes. TeamTalk™ enables members of the rescue team to communicate with each other during the rescue operation. Depending on the configuration of the rescue situation, a team member just outside of the confined space may also hear team communications. However, to be positive that external team members can hear communications from those involved with confined space rescue, it is recommended that at least one member of the rescue team be hard-wired to the external team member.
- 16. Does TeamTalk™ plug into a handheld radio?*** No. TeamTalk™ is totally wireless and self-contained. It mounts directly onto the facemask and does not require any handheld radio to function.

***17. Where is TeamTalk™ manufactured?***

TeamTalk™ is designed, tested and manufactured in the USA.

***18. What temperature can TeamTalk™ withstand?***

TeamTalk™ is manufactured out of the same type of polycarbonate material as your facemask. It will withstand the same temperatures as your handheld radio. All radios are designed so that they will operate with internal temperatures up to 176° F. With the limited time that a bottle of air permits the firefighter to work inside of a burning structure, TeamTalk™ will operate throughout the time you are inside the building.

***19. Does TeamTalk™ have a warranty?***

Yes. All TeamTalk™ units have a one-year factory warranty against manufacturing errors and will be replaced or repaired without charge. Additionally, you can purchase a three-year extended warranty for free replacement should anything happen to your TeamTalk™ unit during routine line of duty operations.

***20. What is the cost of a TeamTalk™ unit?***

TeamTalk™ units are priced at \$895.

**ORDERING INFORMATION**

To place an order or obtain further information please dial (877)-325-8008 to reach a Survival Counts, Inc. customer service representative.

<u>Description</u>	<u>Catalog #</u>	<u>Quantity</u>	<u>Price</u>
TeamTalk™	10-100-01	Each	\$895.00

**ON-SITE DEMONSTRATION**

To schedule an on-site demonstration of TeamTalk™ by a qualified instructor please dial (877)-325-8008 to reach Survival Counts, Inc. We will make arrangements for a demonstration at your Fire Station on an appropriate day and time.