INVISIO®

V60 ADVANCED TACTICAL COMMUNICATION SYSTEM

SIZE MATTERS
Up to 50% smaller than any other multi-com control unit on the market.

QUAD-COM
Listen and talk simultaneously on 4 separate com channels.

PLUG AND GO
The ultimate soldier hub for headsets, radios, mobile devices and computers

ANY HEADSET
Use with the INVISIO X5 dual in-ear headset or adapts to legacy headsets.
Efficient communication

On today's military battlefield, efficient communication is essential for reducing risk for the soldier and ensuring mission success. INVISIO V60 supports full radio functionality for different mission scenarios, for both the mounted and dismounted soldier. Radio communication and hear-thru are separate with continuous and unimpeded hear-thru in both ears, even when transmitting. Transmission using the radio's internal push-to-talk or wireless remote push-to-talk is possible as well as radio sidetone, radio warning tones, full duplex and dual net functionality.

Preventing hearing damage

Intelligent hearing protection

For soldiers, the ability to communicate clearly in high noise environments while protecting their hearing and still retaining situational awareness, is a tactical advantage and can be a life saver. Soldiers in the field often experience very high noise levels that can impede mission critical communication and damage the soldier’s hearing. Hearing impairment is the most common injury of soldiers returning from active duty. Combine this with the risk of short term hearing damage due to explosions and the risk of mission failure increases. The INVISIO V60 provides certified hearing protection solution rated at SNR 32 dB and NRR 29 dB to meet the needs of demanding users in high noise environments and is available with both universal fit and custom fit headsets.

Reducing the burden

Size, weight and power

The modern soldier is faced with a significant burden - both cognitively and physically. The soldier's mobility, sustainability and ability to communicate are adversely affected by this burden. The INVISIO V60 addresses today's soldier systems challenges of size/weight reduction, integration, power optimization and battle-field situational awareness by simplifying the system down to what the soldier needs and only what he needs. The user interface is reduced to face the real issue of mission critical communication and supplying state-of-the-art hearing protection to the soldier. As a consequence of this simplification, size and weight are significantly reduced, and the power supply is centralized. Soldier efficiency, safety and mobility increases.
IMPROVING SAFETY AND EFFICIENCY

INVISIO® comfort and fit

Soldier safety and efficiency is severely reduced by inadequate fit and uncomfortable equipment. INVISIO headsets offer unsurpassed performance, comfort and fit to professional users and are available in universal fit or custom fit versions. INVISIO Universal Fit headsets utilize a form factor that has been researched and refined over the past decade. The patented Soft Spring™ adapts perfectly to the contours of any ear offering maximum comfort and secure fit. INVISIO Custom Fit headsets are the ultimate headsets for fit and comfort. Made to fit the ear of the individual user and manufactured from an actual impression of the user’s ear. All INVISIO headsets are compatible with helmets, eyewear, breathing apparatus and ear muffs. The INVISIO V60 is the ultimate tactical communication system for performance, versatility, comfort and fit.

CLEARLY COMMUNICATE IN COMBAT

INVISIO® Bone Conduction Technology

Clear communication in the heat of battle can mean the difference between life and death. The INVISIO V60 utilizes proven and patented INVISIO Bone Conduction Technology. Instead of traditional sound wave technology, a small, comfortable in-ear microphone picks up speech vibrations from the user’s jawbone. These vibrations are converted into sound, delivering crystal clear communication under extreme and noisy conditions, even when whispering. Bone conduction also allows clear communication when using a gas mask, facial mask or re-breather.

ENHANCING SITUATIONAL AWARENESS

INVISIO® Enhanced 360° hear-thru

Full situational awareness with the ability to communicate and hear the surroundings at all times is critical. Soldiers need to maintain natural hearing and still have protection from potentially damaging impulse noises, such as gunshots or explosions, as well as continuous noise from vehicles and aircraft. The INVISIO V60 uses advanced digital signal processing, miniaturized audio components and an ergonomic headset design to provide the most natural hearing possible - even in extreme conditions.
The INVISIO V60 Tactical Headset System takes combat communications to a whole new level of control! The first of it's kind and smaller than most mobile phones, the INVISIO V60 is not only the world’s smallest advanced communication system but also the only system that allows users to connect, control and communicate across 4 separate channels all at the same time!

Versatility is a key feature of the new V60 and it’s ability to work with almost any type of headset as well as any com device such as 2-way radios, vehicle/aircraft/watercraft intercoms, mobile phones, tablets, and even computers. The next major evolution in tactical communications is here!
INVISIO® V60
AT A GLANCE

Headset

COM 3

PTT 3

PTT 4 or ICS Latch

Hear-Thru Controller

PTT 1

PTT 2

Top View

Bottom View
Reduced Size and Weight

Reducing the burden on the soldier or operator

The INVISIO V60 is the world’s smallest and lightest multi-com control unit, with its volume and weight reduced by more than half compared to most other multi-com control units on the market. The control unit measures 70 x 63 x 25 mm and weighs only 145g.

Submersible to 20 Meters

Resistant to water, dirt and sand

The INVISIO V60 is submersible to 20 meters, even with open plugs. The control unit can be cleaned in fresh water to remove dust, dirt and sand. The INVISIO V60 is so light it even floats.

MIL SPEC Tested and Proven

Compliance and safety

The INVISIO V60 has been tested extensively to meet MIL STD and has total EMC shielding from the metalized housing and connectors.

The INVISIO V60 uses breakaway connectors to improve safety especially for the dismounting soldier or in case of entanglement.
**Open Microphone**

*In-ear headset with hot-mic without cross-talk*

The INVISIO V60 can operate with all radio communication microphone lines open at all times – even to multiple com sources. This makes it possible to maintain full radio functionality like full-duplex communication, radio sidetone, priority voice, VOX and keying the radios on board PTT buttons.

**Split Ear Audio**

*Dynamic audio assignment to both ears*

The INVISIO V60 features split ear received audio so that different talk groups can be assigned between left and right ear to improve intelligibility and battlefield situational awareness. Received audio is automatically and dynamically assigned when connecting or disconnecting a radio.

**Independent Audio Streams**

*Four separate audio streams*

The INVISIO V60 has four separate and independent input audio (Rx) streams that can be directed to either ear with different audio amplification. The three output audio streams (Tx) are also separate and independent with different audio amplification for each device connected.

**Advanced Mode Settings**

*User configurable*

The INVISIO V60 can be configured to meet different operational requirements through preset key combinations, enabling users to set up the system as required for their mission.
**Multi-Headset Interface**  
*Adapt to legacy and future headsets*

The V60 System has the ability to operate multiple types of headsets including dual in-ear, submersible in-ear, ear-cups with boom mics, lightweight boom and mics and wireless earpieces. An adapter cable is also available so an existing installed base of headsets can be utilized.

**Data Connection**  
*Direct connectivity to devices*

The INVISIO V60 has a data connection on all com ports, enabling data communication between the control unit and another device. This enables software upgrades and control of other devices.

**Cable Detection**  
*Automated exchange*

The INVISIO V60 enables automatic detection of hot-swap devices such as radios, intercom systems, mobile phones, computers and remote PTT's and sets the audio and system parameters instantaneously. A key benefit is being able to deploy new equipment (headsets and radios) without having to reprogram the INVISIO V60.

**Multi-Com Interface Unit**  
*Quad-Com*

Connect either a radio, intercom system, mobile phone, computer, remote PTT or power supply to any of the INVISIO V60 com ports and the system will automatically sense it and change the settings. All of the com ports feature dual audio input (stereo) as well as dual PTT to enable the use of the latest software-designed personal radios and platform intercom systems. For the mounted soldier using a platform intercom there is a microphone latching function for turning the microphone on and off, as well as a PTT for the platform radio.
Centralized Power

Simplified with no internal battery

The INVISIO V60 has no internal battery and powers directly from an attached radio or other central power supply. This not only reduces the size/weight of the system, it also reduces the system’s complexity, the number of batteries to be changed during or after missions as well as life cycle and operational costs. The system turns on and off automatically with the radio and removing a radio does not interfere with operation, as long as power remains from another source. The system can also be powered from the platform intercom system, enabling the mounted soldier to have all man worn radios turned off.

Four Push-to-Talk (PTT) Buttons

4 dynamically assigned PTT's

Four PTT buttons are assigned dynamically depending on the attached radios and the user configuration. The two side buttons are designated as primary use and the two front buttons are designated as secondary use.

<table>
<thead>
<tr>
<th>PTT</th>
<th>Single net</th>
<th>Dual Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTT1</td>
<td>COM 1</td>
<td>COM 1/NET 1</td>
</tr>
<tr>
<td>PTT 2</td>
<td>COM 2</td>
<td>COM 1/NET 2</td>
</tr>
<tr>
<td>PTT 3</td>
<td>COM 3</td>
<td>COM 2</td>
</tr>
<tr>
<td>PTT 4</td>
<td></td>
<td>COM 3</td>
</tr>
</tbody>
</table>

Hear-Thru Control

Simplified ambient volume control

The INVISIO V60 uses a single button volume control for hear-thru that reduces the number of buttons required and makes it simpler to get the amplification required for a situation. The hear-thru starts automatically when the radio is turned on and can be turned off by pressing and holding the hear-thru controller. A short press of the hear-thru controller then scrolls between different hear-thru levels.

Automatic Start-Up

Starts with radio - no calibration required!

The INVISIO V60 starts automatically when the first connected radio is turned on and then shuts down again when the last connected radio is turned off.

Once the system is turned on, the communications and hear-thru are fully functional and there is no need for any calibration of the system (it even works without the foam plugs on).
PROVEN TECHNOLOGY
INVISIO bone conduction headsets have been in use for more than a decade with proven results.

ENHANCED HEARING
The X5 gives you the ability to amplify your hearing and also provides extremely accurate situational awareness.

MAXIMUM PROTECTION
At 29NRR/32SNR the X5 provides the highest level of hearing protection against impulse and continuous noise.

Designed specifically for use with the INVISIO V60, the INVISIO X5 headset is a dual sided in-ear hearing protection headset that utilizes the patented INVISIO Bone Conduction Microphone Technology. The INVISIO X5 headset has industry leading hearing protection, audio quality and situational awareness in a small and comfortable in-ear wearing style.
**How Bone Conduction Works**

Instead of traditional sound wave technology, the patented INVISIO Bone Conduction Technology uses a small and comfortable in-ear microphone that picks up vibrations from the user’s jawbone. The vibrations are converted into sound, delivering crystal clear communication under extreme conditions, even when whispering.

**Other Headsets**

**INVISIO X6 Custom**
Dual sided custom fit headset with hear-thru and hearing protection of 32SNR.

**Assault**
A lightweight noise canceling boom microphone headset, perfect for use on aircraft.

**INVISIO M3s**
Single sided lightweight headset submersible down to 60 meters (IP68)

**Hi-Threat**
Dual ear noise canceling boom headset with hear-thru and hearing protection. (19-25NRR)

**ComTac III**
The ComTac III ACH headset is the third generation of ComTac. The ComTac III provides hear-pro and hearing protection.

**BROAD HEADSET COMPATIBILITY**
The INVISIO V60 is able to operate a wide range of headset types including dual sided in-ear, single sided in-ear, ear cups, lightweight single sided and even wireless earpieces. Using the submersible INVISIO M3s headset, the entire system becomes fully submersible down to 20 meters. An adapter cable is also available so an existing installed base of headsets can be utilized.
ACCESSORIES & REMOTE PTT OPTIONS

**M15 Chest Mounted PTT**
Remote PTT for mounting on chest. Tactile and easy to key button perfect for HAZMAT.

**M30 Finger Mounted PTT**
Remote finger mounted PTT with velcro strap. Perfect for snipers or drivers. (IP68)

**M80 Dual-Com Wireless PTT**
Dual-Com wireless PTT that mounts to the rifle rail. Stay hands on weapon while keying. (IP68)

**PS30 Aux Power Supply**
Power supply for mounting on radio cable or direct connection. Uses standard AA battery.

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**MOLLE Clip**
The MOLLE Clip has a low profile designed specifically for attachment to the MOLLE webbing on tactical vests.

**Alligator Clip**
The alligator clip is used for rapid attachment to or detachment from a belt or vest and stays secure even during high impact.

**Malice Clip**
A standard malice clip that can be used with the universal clip or screwed directly into the V60 control unit.

**Universal Plate**
The universal plate makes it possible to use flexible fasteners like velcro, zip-ties or elastic straps.

The photos above show the different attachment methods for the control unit using the INVISIO 4-point attachment, which is a 4-screw system that is modular and interchangeable. No matter which solution is chosen, quality, size/weight and usability have all been optimized. Examples include MOLLE clip, Alligator clip, Malice clip and Universal Plate.
**Common User Configurations**

**Single Radio User**
Using a single net radio audio from this radio will be in both ears. If a dual net radio is used the two nets will be split between the left and right ear.

**Dual Radio User**
Using a two single net radios, the audio from the primary radio is in the left ear and audio from the secondary radio is in the right ear.

**Multi-Com User**
Like the dual radio configuration the audio is also split into the right and left ear, the intercom is received in both ears.

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**Connectivity Options**

**Radio**
Connect to any radio including full-duplex and multiple networks simultaneously.

**Computer**
Allows situational awareness information from soldier-worn computers.

**Smart Phone**
Use mobile or smart phone simultaneously with tactical communication equipment.

**Intercom System**
Connect to any platform intercom, with full operation of the intercoms platform radio.

**Mine Sweeper**
The mine sweeper audio response is heard in the headset and not transmitted to the surroundings.

**iPod/MP3 Player**
Audio playback from audio devices for mission notes. Alternatively music playback for headset training.

**Medic Cable**
Medic to soldier intercom mode for direct and unimpeded communication in combat.

**Power Supply**
Use a centralized power supply or an optional INVISIO power pack, connected to the V60.
## TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>V60 Control Unit</th>
<th>X5 Headset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Material</td>
<td>Plastic with soft overlay</td>
</tr>
<tr>
<td>Weight</td>
<td>145 grams (incl. caps and clip)</td>
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<tr>
<td>Dimensions</td>
<td>70 x 63 x 25 mm (excl. connectors)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>X5 Headset Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
</tr>
<tr>
<td>Material</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>Dimensions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>V60 Power Supply</th>
<th>X5 Headset Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>From centralized power source</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>3.6 to 36 Volts</td>
</tr>
<tr>
<td>Internal Battery</td>
<td>None</td>
</tr>
<tr>
<td>Length</td>
<td>1150 mm</td>
</tr>
<tr>
<td>Pull Strength</td>
<td>Kevlar reinforced with 20 kg pull</td>
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<tr>
<td>Connector</td>
<td>ODU AMC Quick Disconnect</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
</tr>
<tr>
<td>Operating Temperature</td>
</tr>
<tr>
<td>Storage Temperature</td>
</tr>
<tr>
<td>Humidity</td>
</tr>
<tr>
<td>Mechanical Drop</td>
</tr>
<tr>
<td>EMI</td>
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</tbody>
</table>

### X5 Test Results (EN 352-2:2002)

L=27 dB, M=29 dB, H=34 dB & SNR=32 dB

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>63</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Attenuation dB</td>
<td>30</td>
<td>30</td>
<td>32</td>
<td>33</td>
<td>34.7</td>
<td>36.2</td>
<td>40.8</td>
<td>44.7</td>
</tr>
<tr>
<td>Mean Attenuation dB</td>
<td>5.4</td>
<td>7.3</td>
<td>6.1</td>
<td>6.6</td>
<td>5.9</td>
<td>3.5</td>
<td>3.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Assumed Protection in dB (APV)</td>
<td>24</td>
<td>23</td>
<td>26</td>
<td>26</td>
<td>28.8</td>
<td>32.7</td>
<td>37.2</td>
<td>39.3</td>
</tr>
</tbody>
</table>

### X5 Test results (ANSI S12.6-1997)

NRR 29 (ANSI S3.19-1974)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Attenuation (dB)</td>
<td>32.1</td>
<td>34.2</td>
<td>35.9</td>
<td>36.7</td>
<td>38.7</td>
<td>43.5</td>
<td>45.9</td>
</tr>
</tbody>
</table>

These results were obtained and certified at a certified test institute ref. ANSI S3.19-1974.
This is in compliance with MIL-STD-1474D Appendix B Hearing Protector Noise Attenuation.

CE Personal Protection Equipment.
Be heard the first time with TEA Headsets...

You've made an excellent decision to consider a product from TEA Headsets. For more than 45 years we have set the standard in designing and providing the highest quality of headsets and communication products to specialized teams and individuals within military, government agencies and law enforcement. We continue to build up our outstanding relationship with the SOF community which over the years has helped lead to breakthroughs in tactical communication equipment.

With our motto being “I Heard You The First Time...®”, we go to every effort to ensure our products allow you to effectively communicate within the extreme environments and specifications tactical operators require. At TEA we strictly adhere to the standards of a quality management system known as ISO 9008 to ensure the highest level of product quality and customer satisfaction. We encourage you to “hear” for yourself why you should order tactical headsets from TEA.

INVISIO® V60 Product Page
You can find additional information such as diagrams, user guides, quick guides, pictures, training videos and other useful tools on the V60 web page.

Try then buy with our 30 day evaluation program...
If you are considering TEA headsets to outfit a team, we offer a no obligation 30-day product evaluation program, (qualified US Military, Government and Law Enforcement Teams/Units only). Individual or personal requests may purchase a sample for a 14-day trial and return for full refund (valid credit card required).
TRY THEN BUY WITH OUR 30 DAY EVAL PROGRAM


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