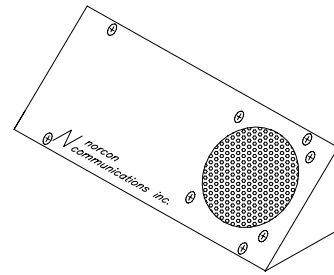


Norcon TTU®-3 Series

Installation & Operating Instructions

For Information:
 Phone: (800) 421-6144
 Email: transaction@crlaurence.com
www.crlaurence.com



TTU®-3 Outside Unit

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TTU®-3 Series

2-Way Talk-Thru

Electronic Communication System

A voice communications system for High-Security and Isolation Booth Situations

Today's security and isolation booths are often the best step you can take to protect your employees. But do they protect or help maintain your very important good will? Not if clerks and customers have to shout and growl and repeat themselves to be heard or understood.

Norcon's Patented TTU®-3 Talk-Thru Communicator is a 2-way, hands-free audio system that provides high-quality personal communication between people separated by security or isolation barriers.

FEATURES

- Clear 2-way hands-free voice communication.
- Quality electronic design and engineering.
- Avoids shouting, repetition, and misunderstanding.
- Simple, one-person installation. No need to cut a hole in the barrier.
- Rugged, tamper-resistant materials. Anodized aluminum
- Units available for ADA applications.
- Headset jack equipped on all models. Headset can be ordered separately.
- Export models available. .

HOW IT WORKS ...

The Norcon TTU® system permits hands-free, 2-way communication between the booth attendant and the customer. Unique circuitry facilitates ongoing, clear, 2-way conversation at all times – as if the two parties were together in the same room.

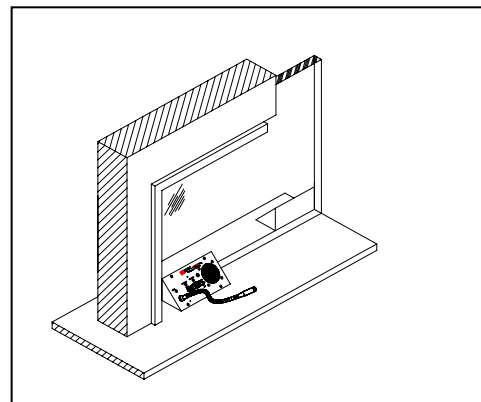
The TTU®-3 Talk-Thru Communicator now incorporates circuitry to automatically attenuate the outside channel. If the gooseneck microphone is not used for a period of 30 seconds, the outside channel volume will be reduced approximately 70%. Normal operation is restored as soon as the attendant speaks into the gooseneck microphone. The automatic volume attenuation circuit prevents outside noise from bothering the attendant.

The TTU®-3 provides clear communication even in environments with high ambient noise by shaping the sound for maximum intelligibility. Its compression circuitry decreases loud, annoying sounds.

HOW TO INSTALL ...

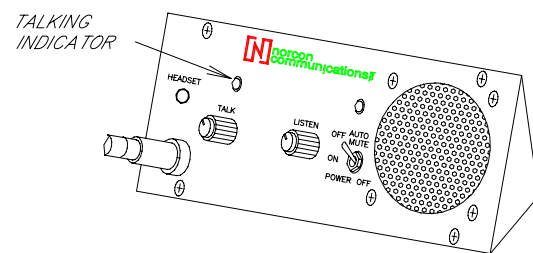
1. Mount the TTU® unit using the method shown in figure (1).
2. Remove the control panel from the prism-shaped housing. The "Inside" unit houses the circuit board for the system, the gooseneck microphone, volume control, power switch, power indicator LED and speaker. The "Outside" unit has no electronics. A speaker and a microphone are attached to the "Outside" unit.
3. Use holes on the housing where required for installation.

4. Route the two pair cable (with connector on one end) FROM the inside unit TO the outside unit. Make sure the connector is in the inside unit. Attach the cable to the terminal block on the outside unit, color to color. Connect shield to black wire. Join the connector with the wire harness from the printed circuit board so the colors line up.
5. For power connection, route one pair cable (with the connector on one end) FROM the inside unit TO the location of the PS-1 Power supply. Connect the conductors to the power supply (RED to +, BLACK to -). Plug the connector to its mate from the printed circuit board.
6. The sound absorbing material in the housing may be removed during installation but should be replaced for normal operation.
7. For best result separate inside and outside units as far as possible.



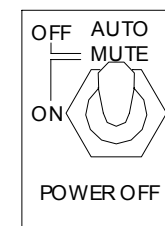
HOW TO USE THE TALK-THRU COMMUNICATOR

1. With power switch off, turn **Talk** and **Listen** controls completely counter clockwise.
2. Turn the unit on the unit by switching AUTO MUTE switch to the center position. In this position the unit also in the auto mute mode.
3. Adjust the TALK volume control until the attendant is clearly heard by the person outside the window when the attendant is speaking 2" to 4" from the gooseneck microphone at a normal speaking level. The green LED should go on when attendant starts talking and go off when the attendant stops talking. If the green LED stays lit constantly, it indicates either the TALK volume setting or the ambient noise is too high.
4. Adjust the LISTEN control until the person outside the window is clearly heard when speaking at a normal level. In most situations, both the TALK and LISTEN volume are normally set to 11 to 12 o'clock position.



Operation Hints

1. Increasing the talk volume control allows the attendant to speak further from the gooseneck microphone as well as increasing the talk channel volume. The optimum distance from the gooseneck microphone should be maintained at approximately 3" or conversations not directed to customers may be heard outside the booth.
2. The unit will decrease the incoming volume level by approximately 70% in about 30 seconds after the attendant stops speaking into the gooseneck microphone. The purpose of this feature is to decrease the amount of extraneous noise entering the booth when no one is at the booth. Normal volume level is restored when the attendant speaks into the gooseneck microphone. **The muting function can be defeated by switching the AUTO MUTE switch to AUTO MUTE OFF position.**
3. Install a headset into the headset jack will allow communications from the headset and disconnect the gooseneck microphone.



SPECIFICATIONS

MECHANICAL

1. Outside assembly: machined aluminum, anodized finish, Tamper-resistant.
2. Inside assembly: Machined aluminum, anodized finish, Tamper-resistant.
3. Size (both assembly): 6" W x 2 3/8" H x 2 3/8" D or 12" W x 2 3/8" H x 2 3/8" D
4. Weight: 5 lbs (12" model) ; 4 lbs (6" model).
5. Mounting: Countertop.
6. Panel control : Listen volume, Talk volume, power on/off, and LED power indicator.

ELECTRONIC

1. Audio frequency response: Selectively shaped for maximum voice intelligibility.
2. Audio power: 2 watts per channel.
3. Distortion: Less than 2%.
4. Listen mode: 20dB compression
5. Talk mode: VOX
6. Microphones: Electret
7. Power supply: Input 120V / 60Hz AC
Output 15V DC, 200 mA.

Talk-Thru systems are shipped complete with cables, power supply and instruction. Specifications are subject to change without notice.

TROUBLESHOOTING

You may occasionally encounter a problem with your TTU® system. If this happens, refer to the following list. If additional help is needed, please contact us.

1. No sound at all

- **Is the power supply properly plugged into a working outlet ?**

If the power supply has been plugged into a working outlet for a while, the power supply should be warm, if it is not, the power supply may be defective.

2. Howling (Feed back)

- **Is the TALK or LISTEN volume turned too high?**

Set the volume control to a proper level. In most cases, both TALK and LISTEN should be set to the position of around 11 to 12 o'clock.

3. Conversation cutting-off and breaking-up

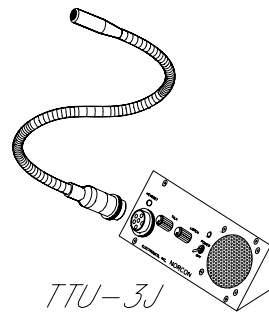
- **Is the TALK volume setting too high?**
Turn down TALK volume to a proper level.
- **Is the attendant too far from the gooseneck microphone?**
The idea distance is 3" to 4" from the gooseneck microphone.

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TTU®-3 Series

Select from 5 Available Models

- TTU®-3 / 6" Continuous power unit complete. Housing 6".
- TTU®-3 / 12" same as TTU®-3/6", but with 12" housing
- TTU®-3 / 6" J same as TTU®-3 / 6", but with a removable gooseneck microphone.
- TTU®-302 One outside unit communicates with two inside unit. It is special design for calling the back office during the off hours.
- TTU®-3C is a TTU®-3 basic without gooseneck microphone for using headset only.
- TTU®-3JC is TTU® -3J unit without J-type removable microphone.

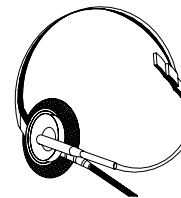


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Accessories and Options for TTU®

H51 Headset (Option)

- Superior sound quality
- Long wearing comfort
- Quick Disconnect cable



Paging Button (Option) & speakers for paging

A paging push button switch can be added to TTU®-3 for paging over a ceiling speaker

There are 3 types of speaker to meet your applications

- 1) **APF-15** High efficiency ceiling or wall mounted horn speaker for direct connect with TTU®3 JSD for 1 to 2 speakers application.
- 2) **SD72-WV** Indoor Ceiling Speaker with 25V/70V transformer for uses with UA 35T II Amplifier (Option). It is good for more than 2 speakers application.
- 3) **VT158** High Efficiency Outdoor Water Proof Horn speaker good for outdoor application

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Professional Headset System (Option)

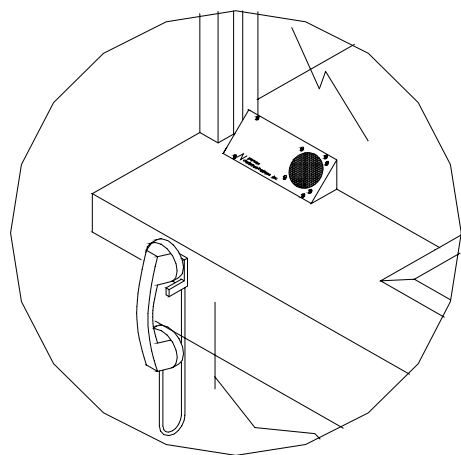
- **Mobile:** DECT 6.0 technology hand-free mobile design with range of up to 300 feet from base unit
- **DuoSet Headset:** Adjustable for over-the-head stability or over-the-ear convenience with new conformable earloop
- **Extended Use:** Ten hours continuous talk



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Handset with Hook-switch (Option)

- Amplified handset with volume control
- Heavy duty handset with 29" or 48" armored cord
- Stainless steel plate with chrome hook switch
- Automatic disconnect the speaker and microphone to keep the conversation private.

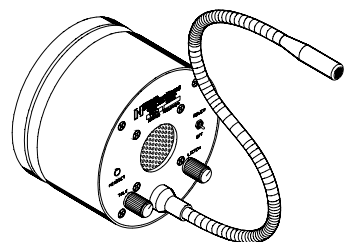


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Introducing The Norcon TTU®-1 Series

There are times, when the isolation barrier has a 3" to 4" hole on it, the Norcon TTU®-1 is special design for it.

The TTU®-1 is a 5" in diameter round unit. The front face and the housing are easily mounted on opposite sides of the barrier. They allow hand free communication through barriers. It is the most widely used system of its type in the U.S. and the world. TTU®-1 series includes TTU®-1A basic model; the TTU®-1AB UL listed level 3 bullet proof unit; the TTU®-1AJ removable gooseneck microphone unit; TTU®-1D rechargeable battery operated unit and much more.



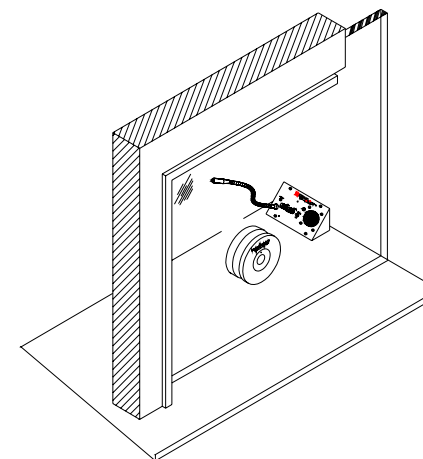
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Introducing The Norcon TTU®-7

Special design for the window with a secure pull-down gate or shade.

In some cases, when it's impractical to mount the inside control section of the TTU®-3 in a window with secure gate or shade the TTU®-7 is your choice.

The TTU®-7 incorporates the same high-quality electronics as the basic TTU®-3, but with a 1" low profile window mount section, and a prism shaped counter mounting control section.



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Service Policy

TALK-THRU SYSTEM WARRANTY REPAIRS

ETN'y cttcpw'ij gug'r tqf wew'iq'dg'ltgg'ltqo 'f ghgeu'lp'o cvgtkri' cpf 'y qtno cpuj kr 'lqt'c'r gtktf "qh'qpg"l gct'ltqo 'vj g'f cvg'qh'uj kr o gpv' 'r tqxkf gf <'

- 1) The product has not been abused, misused or improperly maintained, repaired and /or modified during such period, and
- 2) Such defect is not a result of voltage surges/ burnouts, lightning, water damage / flooding, fire, explosion, earthquakes, tornadoes, acts of aggressions / war or similar phenomenon; and
- 3) The product has been properly installed according to the appropriate Norcon Installation Guide.

Both incoming and outgoing freight charges are at customer's expenses. Domestic repair will be returned to customer by UPS Ground. International repair will be returned to customer using normal shipping arrangements. Any other shipping instructions must be made in writing and will be at the customer's expense

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