

## Norcon TTU® -1 Series

### Installation & Operating Instructions



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## **TTU® -1 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® -1 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. It is the most widely used system of its type in the U.S., and the world.

## **FEATURES**

- Clear 2-way hands-free voice communication.
- Quality electronic design and engineering.
- Avoids shouting, repetition, and misunderstanding.
- Simple, one-person installation.
- Rugged, tamper-resistant materials. Anodized aluminum
- Self-powered with fast rechargeable battery option.
- Bullet-resistant option ( UL level 3).
- 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®-1 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® -1 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 ...**

Installation of the TTU® -1 is a very simple, one-person operation. All that's needed is a 3" to 4" cutout in the barrier. Four fasteners and two rubber gaskets for mounting are supplied.

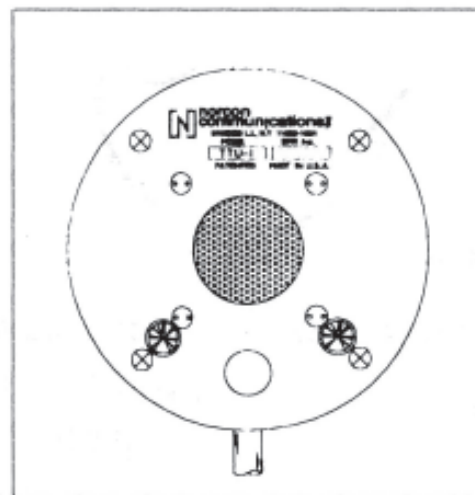
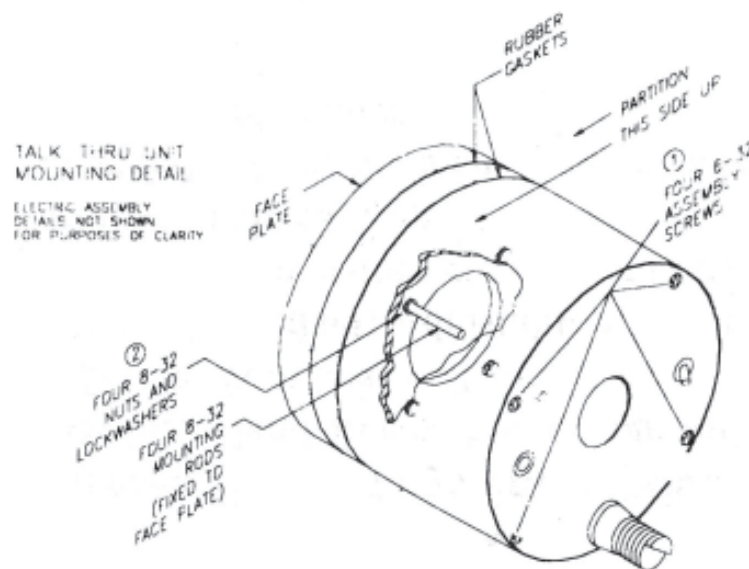
The front face and housing are easily mounted on opposite sides of the barrier using the fasteners. The rubber gaskets prevent slippage and protect the barrier surface. The electronic section is then inserted into the housing and fastened in place.

### **Installation Instructions**

1. Remove the four (4) 6-32 assembly screws. ①
2. Separate the housing and electronics assembly. Unplug electronic assembly from the faceplate and housing.
3. Set the electronic assembly aside, carefully.
4. Remove the four (4) 8-32 mounting nuts from the mounting rods.②
5. Separate the faceplate and housing.
6. Discard the shipping spacers located between the faceplate and housing if there are any.
7. Hold the faceplate over the partition opening. Carefully center the faceplate and align the lettering horizontally. Masking tape can be used to temporarily hold the faceplate to the outside of the partition.
8. On the inside of the partition mount the housing over the four (4) 8-32 mounting rods. Be certain to position the housing so that the threaded hole is positioned properly. If using tubing, orient the hole in the direction which the tubing is to exit (left, right, top, and bottom). If tubing is not being used, place the plugged hole at the bottom.

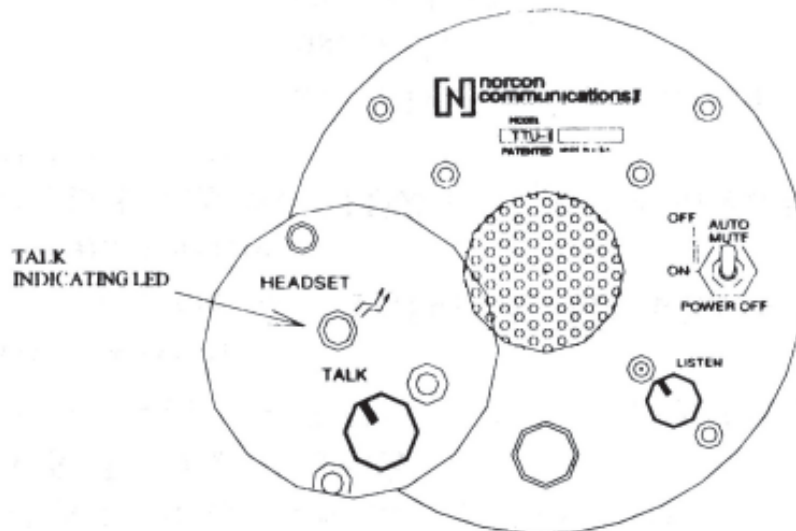


9. For power connection, route the one pair cable (with the connector on one end) FROM the inside unit TO the location of the PS-1 power supply. Connect the conductors to the power supply (RED to +, BLACK to -). Plug the connector to its mate from the printed circuit board.
10. Connect 4 -pin polarized connectors and reassemble units.



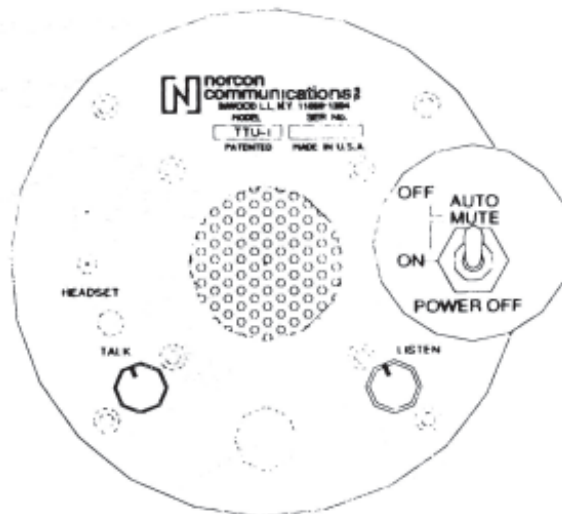
## HOW TO USE THE TALK-THRU COMMUNICATOR ...

1. With power switch off, turn **Talk** and **Listen** controls completely counter clockwise.
2. Turn on the unit by switching the AUTO MUTE to it's center position. In this position, the unit is 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 the 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.



## OPERATION HINTS

1. Increasing the talk volume control allows the attendant to speak further from the microphone as well as increasing the talk channel volume. The optimum distance from the microphone should be maintained at approximately 3" or conversations not directed to customers may be heard outside the booth. Watch the green LED above the TALK volume control, it should be on ONLY when talking into the gooseneck microphone.
2. Installing a headset into the Headset jack will allow communications from the headset and disconnect the speaker and the gooseneck microphone.
3. The unit will decrease the incoming volume level by approximately 70% some 30 seconds after the attendant stops speaking into the microphone. The purpose of this feature is to decrease the amount of extraneous noise entering the booth. Normal volume level is restored when the attendant speaks into the microphone. The muting function can be defeated by switching the AUTO MUTE switch to the OFF position.





## **SPECIFICATIONS**

### **MECHANICAL**

- Outside faceplate: Solid aluminum, anodized finish, tamper-resistant.
- Control housing (inside): Machined aluminum, anodized finish, tamper-resistant.
- Size: Outside faceplate 5" Dia. x 1/2" D.  
Inside control housing:  
5" Dia. x 2-1/2" D (TTU®-1 A) (TTU®-1 AJ)  
5" Dia. x 3-1/2" D (TTU®-1 D) (TTU®-1 AB)
- Weight: ~ 5 LB.
- Mounting: Partition hole 3 to 4" Dia. ( 3-1/2" recommended)  
Specify barrier thickness when ordering. Norcon will adjust the length of the mounting rods to meet your need.
- Panel Controls:  
LISTEN volume, TALK volume  
POWER On/Off, AUTO MUTE On/Off.

### **ELECTRONIC**

- Audio frequency response: Selectively shaped for maximum voice intelligibility.
- Audio power: 2 watts per amplifier.
- Distortion: Less than 2%.
- Listen mode: 20dB compression.
- Microphone: Electret.
- Power Supply: Input – 120V AC, 60 Hz. Output 15V DC, 200mA.  
(220V version for export also available)

Specifications are subject to change without notice.

## **Accessories and Options for TTU®**

### **H51 Headset (Option)**

- Superior sound quality
- Long wearing comfort
- Quick Disconnect cable, let you walk away with the headset.



### **900 MHz Wireless Headset System (Option)**

- **Mobile:** Hand-free mobile design with range of up to 150 feet from base unit
- **DuoSet Headset:** Adjustable for over-the-head stability or over-the-ear convenience with new conformable earloop
- **Extended Use:** Six hours continuous talk time on rechargeable battery.

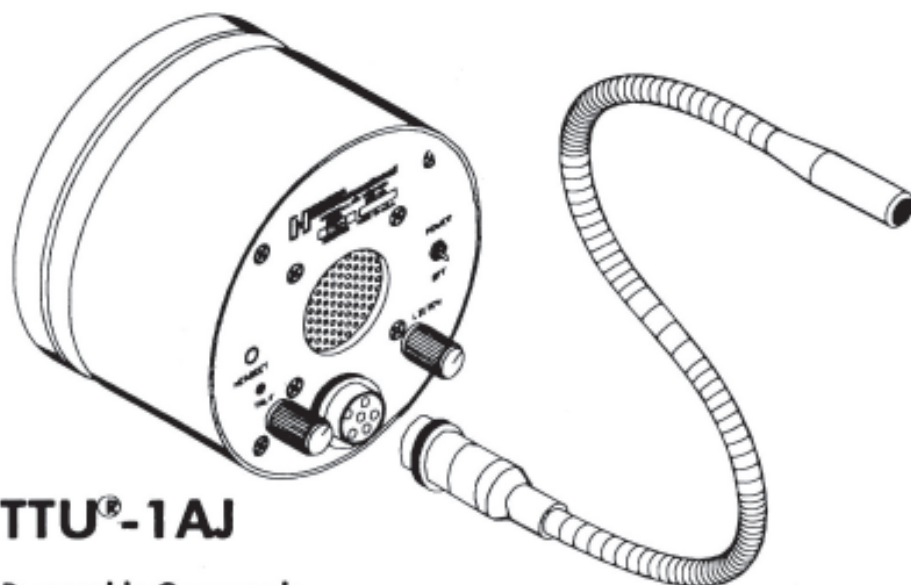


## **TTU®-1 Series:**

Select from 11 Available Models

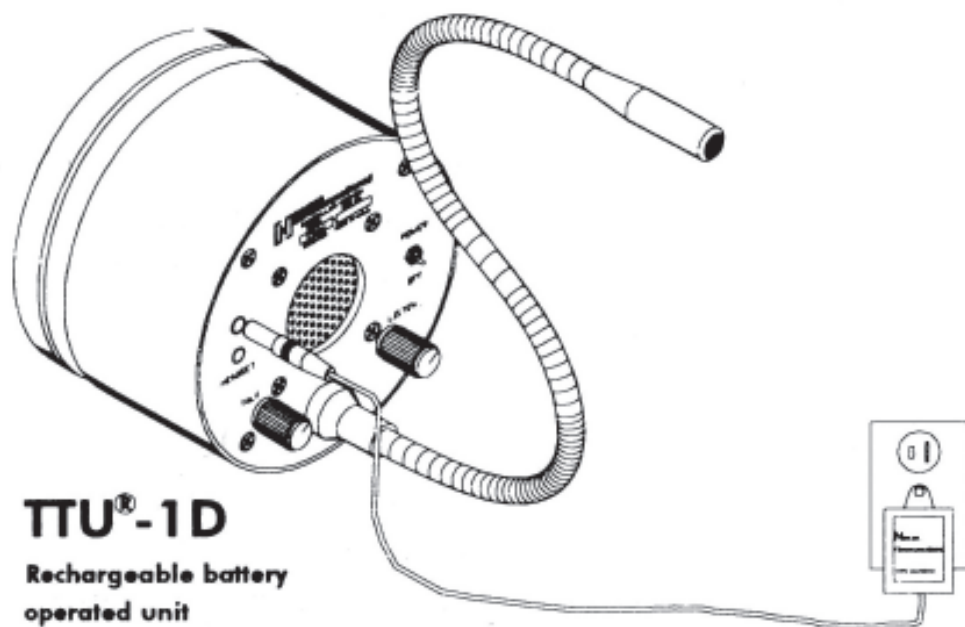
- TTU® -1 A Continuous power unit complete.  
Housing 5" Dia x 2 ½" depth.
- TTU®-1 AB same as TTU®-1 A, but with bullet-resistant option (UL Level 3).
- TTU®-1 AJ same as TTU®-1 A, but with a removable gooseneck microphone.
- TTU®-1 AJB same as TTU®-1 AJ, but with bullet-resistant option (UL Level 3).
- TTU®-1 AC same as TTU®-1 A without gooseneck microphone for use headset only.
- TTU®-1 AJC same as TTU®-1 AJ
- TTU®-1 D Battery operated unit without gooseneck microphone for use headset only.
- Complete with rechargeable batteries and charger. Housing 5" Dia x 3 ½" depth.
- TTU®-1 DB same as TTU®-1 D, but with bullet-resistant option (UL Level 3).
- TTU®-1 DJ same as TTU®-1 D, but with a removable gooseneck microphone.
- TTU®-1 DJB same as TTU®-1 DJ, but with bullet-resistant option (UL Level 3).

Talk-Thru systems are shipped complete with cables, instructions, and power supply.



## TTU®-1AJ

Removable Gooseneck  
Microphone



## TTU®-1D

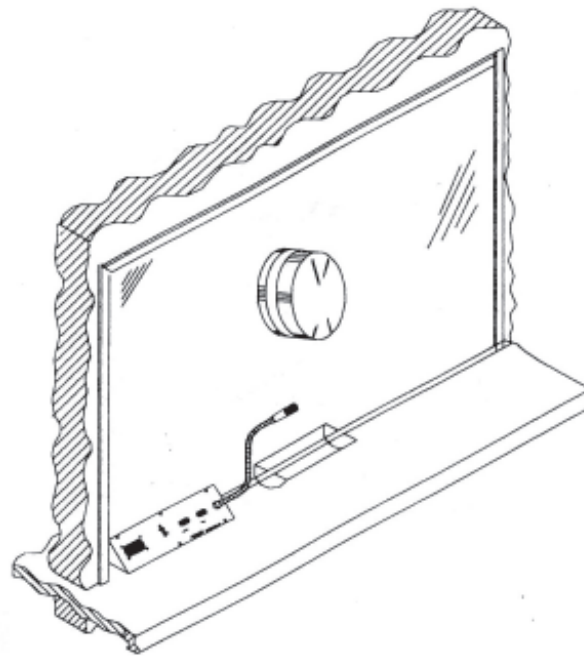
Rechargeable battery  
operated unit



**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® -1 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®-1 , but with a 1" or 1- 3/8" (TTU®-7B) low profile window mount section, and a prism shaped counter mounting control section.

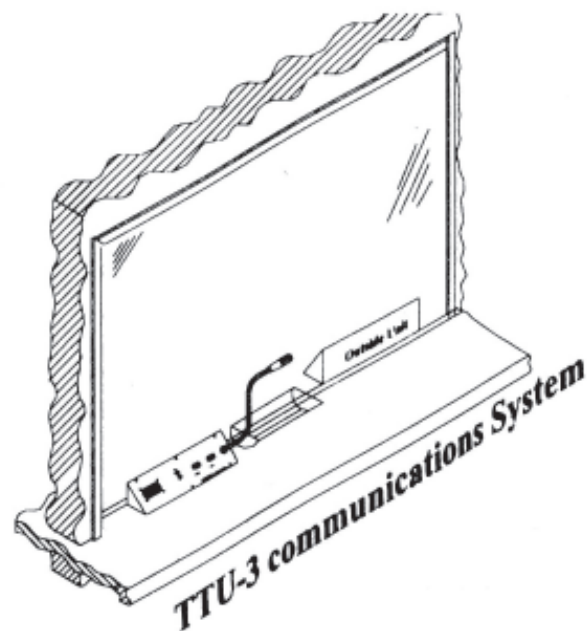


## **Introducing The Norcon TTU® -3 Series**

There are times, when it is inconvenient to cut a 3" to 4" hole through an isolation barrier; the Norcon TTU®-3 is the solution for this situation.

The TTU®-3 is a pair of 6" or 12" prism-shaped units for mounting on a counter top on both sides of a barrier. They allow hands free communication through barriers typically found in banks, cashier's booths, information booths, and similar environments.

Norcon provides audio/visual, communications, and secure talk-thru solutions for critical applications around the world. Please visit our web-site at [www.norcon.org](http://www.norcon.org) for the entire series of Norcon's high quality product. We are sure you will find one that meets your needs. **Special requirements and custom-design projects are welcome.**



## **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 talking too far from the gooseneck microphone?**

The idea distance is 3" to 4" from the gooseneck microphone.

### **4. TTU®-1 D does not work when operated by internal battery**

- **Are the batteries fully charged?**

If the unit is newly installed, allow the batteries to be charged for 10-12 Hrs before operating. The unit can be used while the batteries are being charged.

- **Is the battery charger plugged into a working outlet?**

If the battery charger is plugged into a working outlet, and the batteries are being charged, the battery charger should be warm, if it is not; the battery charger may be defective.

## **Service Policy**

### **TALK-THRU SYSTEM WARRANTY REPAIRS**

**Norcon Communications Inc.** warrants the products Manufactured by Norcon to be free from defects in material and workmanship for a period of **one year** from the date of shipment from the factory provided:

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.

**\* Extended two years warranty available.  
Please call**



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