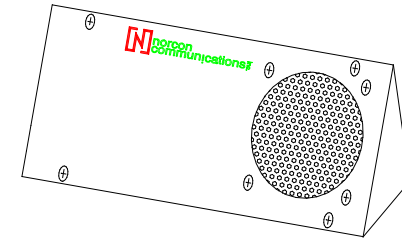


## TTU®-3 JSD



### Installation & Operating Instructions

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TTU®-3 JSD Outside Unit

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6. Connect the two positions terminal block to the ceiling speaker (option) or UA35TII (Option) amplifier's AUX IN, GREEN to AUX IN(+) and BLACK to AUX IN(-).
7. The sound absorbing material in the housing may be removed during installation but should be replaced for normal operation.
8. For best result separate inside and outside units as far as possible.

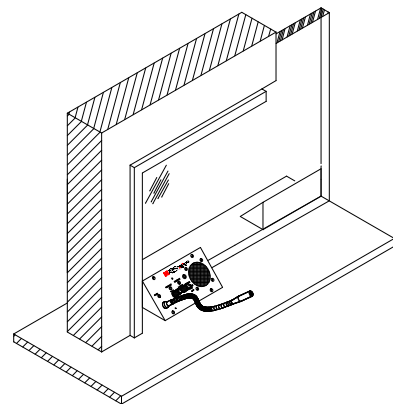


Fig. 1

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

1. With power switch off, turn **Talk** and **Listen** controls completely counter clockwise.
2. Turn power switch on.
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.
5. When a headset is plugged into "HEADSET A" jack, the headset is connected to the TALK channel, and the speaker and mic. on the attendant side will be disconnected, communication will be allowed from headset A (and headset B, if connected). When a headset is plugged into "HEADSET B" jack only. The communication will be allowed both the headset and the attendant's microphone and speaker.
6. Push and hold the PAGE switch for paging through the ceiling speaker
7. When the Mic. ON/OFF switch is on the OFF position, the gooseneck mic, headset mic or the clip-on mic will be turned off for keeping the inside conversation private.

### TTU®-3 JSD

#### 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.

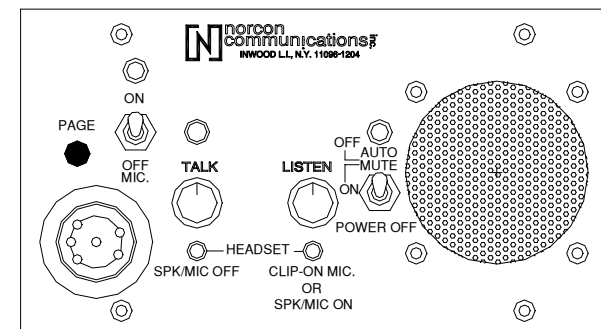
Norcon's Patented TTU®-3 JSD Talk-Thru Communicator is a 2-way, hands-free audio system that provides high-quality personal communication between people separated by security or isolation barriers.

#### 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 JSD 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.

#### 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.**



The TTU®-3 JSD 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 controls, power switch, power indicator LED and speaker. The "Outside" unit has no electronics, a speaker and a microphone is 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.

#### Clip-on microphone (Option)

You can have the option of using a clip-on microphone in conjunction with the inside gooseneck microphone and speaker when using headset jack B.

Type .....	Electret
Directivity .....	Omnidirectional
Frequency Response .....	70 – 16,000 Hz
Sensitivity (@1000Hz) .....	-65dB ±3dB
Size .....	Dia. 1/4" x 5/8"
Cord Length .....	4.5 feet



#### Speakers For Paging (Option)

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) **SD-72 WV** Indoor Ceiling Speaker with 25V/70V transformer for uses with UA 35T II Amplifier. It is good for more than 2 speakers application.
- 3) **VT158** High Efficiency Outdoor Water Proof Horn Speaker good for outdoor application.

**Accessories and Options for TTU®  
TTU-NCHS Headset (Option)**

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



**Professional Wireless 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 ear-loop
- **Extended Use:** Ten hours continuous talk time on rechargeable battery.

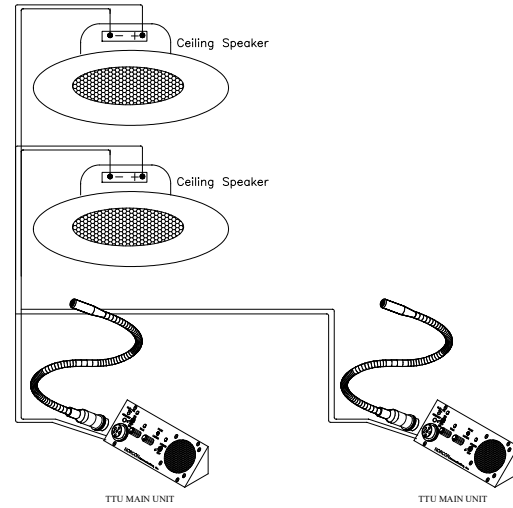


**Introducing The Norcon TTU® -1 NC**

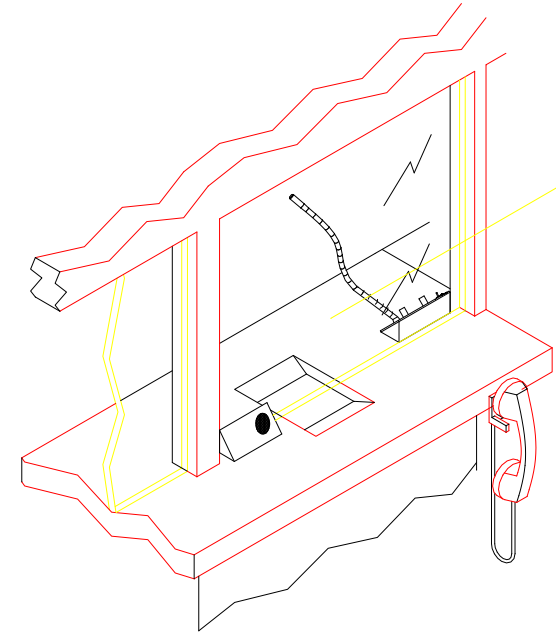
When using a Talk-thru unit in a noisy area such as heavy traffic street a crowded movie theater hall way or a gas station, the noise makes the conversation difficult. A powerful DSP inside the Norcon noise cancellation unit samples an ambient noise environment and attenuate the noise around the desired speech signals. As a result, continuous and repetitive noise is removed; a clear conversation will be even with a passing truck in the background. To take the advantage of this new technology, the existing unit can be sent to us for up-grade.

**Connecting the Ceiling Speaker To TTU-3JSD (Option)**

The TTU-3JSD can drive 1 to 2 ceiling speakers. You can just connect ceiling speaker to the terminal strip inside the TTU-3JSD main unit as shown below:



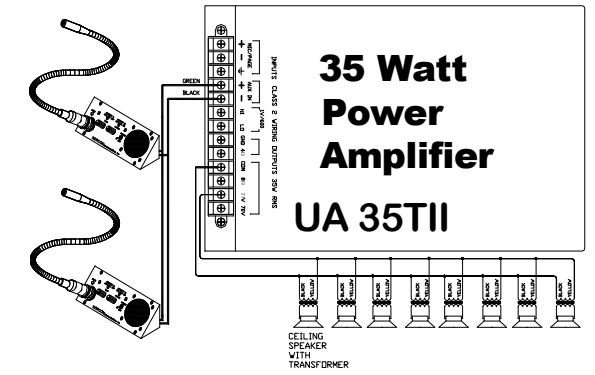
**Connecting the Hand-set To TTU®-3JSD (Option)**



**Power Amplifier for Paging (Option)**

TTU®-3 JSD allows the user to connect to a power amplifier to power up more than two ceiling speakers or for multiple room paging.

- **UA35T II 35W Amplifier**
- 35 Watt output
- 50 Hz to 20 kHz ±0.5 dB XFMR Output
- 70V, 25V, 8 or 4Ω outputs
- Mic/Page/Telephone inputs
- Bass & Treble controls
- Wall-mount chassis



**TTU®-3 JSD 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 3" H x 2-3/8" D
4. Weight: 2 lbs (6" model).
5. Mounting: Counter-top.
6. Control Panel: 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 90-240vAC / 60Hz AC  
Output 15V DC, 1 A.

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. Please contact our technical support, if any additional help is needed

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.
4. **The customer can hear the attendant but the attendant can't hear the customer**
  - Is the talk indicating green LED always on even the attendant is not talking? Turn down the talk volume, until the LED comes on only when the attendant is talking.

**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