

## IMPORTANT INFORMATION

Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practical, notify the customer that temporary discontinuance of service may be required. However, where prior notice is not practicable, the telephone company may temporarily discontinue service forthwith, if such action is reasonable in the circumstances. In case of such discontinuance, the telephone company shall (a) promptly notify the customer of such temporary discontinuance, (b) afford the customer the opportunity to correct the situation which gave rise to the temporary discontinuance, and (c) inform the customer of his right to bring a complaint to the FCC pursuant to the procedures set forth in Subpart E of the Rules, Part 68.

If the telephone company makes changes in facilities equipment, operation or procedures which render customer equipment incompatible with the telephone company facilities, the customer must be given written notice to allow the customer an opportunity to maintain uninterrupted service.

## ADDITIONAL COMREX PRODUCTS

**Matrix** Codec - A versatile codec for ISDN, POTS and wireless operation. Configure it to meet your needs!

**BlueBox** Codec - A powerful codec with the ability to send high quality audio over POTS or wireless service.

**Vector** POTS Codec - 15 kHz two way audio on one standard dial line with built-in mixing and monitoring facilities.

**Nexus** ISDN Codec - An inexpensive ISDN solution which delivers low-delay, 15 kHz audio.

**Envoy** ISDN Codec - This G.722 codec includes NT-1, terminal adapter and mixer in a lightweight, remote studio package.

**Mix-Minus Bridge** - Creates five separate mix-minus feeds.

**LXT/R** One Line Frequency Extender - Natural sounding audio over a dial line or cellphone.

**TCB-2** - Auto answer telephone coupler.

**CTA/LPQRA** - A wireless IFB system.

## Comrex Corporation

19 Pine Road

Devens, Massachusetts 01432 USA

Tel: (978) 784-1776 Fax: (978) 784-1717

Web site: [www.comrex.com](http://www.comrex.com) Email: [info@comrex.com](mailto:info@comrex.com)



## TCB-1 Telephone Coupler

The Comrex TCB-1 Telephone Coupler provides a clean, transparent transformer connection from a telephone line to external equipment. The coupler connects to the phone line with modular plugs and program may **either** be sent **or** received. The TCB-1 is designed and FCC registered specifically for broadcast use and does not require batteries or external power.

## INSTALLATION

**Note: The telephone company must be informed of the FCC Registration Number and Ringer Equivalence Number prior to installation.**

The TCB-1 should be connected directly to the telephone line modular jack and used with a single line modular telephone set. The coupler may be placed on a desk or mounted on a wall or other vertical surface using two #6 round head screws spaced 3.9 inches apart to align with the key-hole slots on the bottom of the coupler. The existing modular cord will connect the telephone to the coupler. An extension modular cord will be needed to connect from the wall jack to the coupler.

The TCB-1 is not designed to connect "downstream" of an electronic PABX system. To connect to a key system, you will need a device to adapt the 50 pin ribbon jack to an RJ-11C modular jack. Telephone stores provide various units to interface with one or more lines on standard key equipment. The TCB-1 may not be used with party lines or coin phones.

The TCB-1 will either send or receive audio, but will not do both at the same time since it does not provide isolation between send and receive. The TCB-1 has no amplification or attenuation capability. This means that a level of approximately -9 dBm should be used to feed audio into the coupler. The receive level will be whatever the phone line delivers (usually -20 dBm).

## CONNECTIONS

*Note: You will need a telephone extension cord with RJ-11C modular plugs at both ends which is long enough to run from the modular wall telephone jack to the TCB-1 coupler.*

1. Place the HOLD/RELEASE switch in the RELEASE position (down).
2. Disconnect the telephone set modular cable from the wall jack and plug it into the modular jack on the TCB-1 marked TEL SET.
3. Plug one end of the extension cable into the TCB-1 jack marked LINE and the other end into the wall jack.
4. Connect a line level source or load to the 1/4" phone jack on the front. -9 dBm is the proper level to feed into the coupler. Receive level will depend on the telephone circuit and may vary from -15 dBm to -35 dBm.

## OPERATION

1. Establish a telephone connection by dialing or answering the telephone. (With the HOLD/RELEASE switch in the RELEASE position, there is no connection to the external equipment and the telephone functions normally.)
2. Place the HOLD/RELEASE switch in the HOLD position. This connects the external equipment to the phone line.
3. If the coupler is being used to send program material, verify that the level on the line is not excessive by listening to the telephone earpiece. The level should be the same as is normally heard on a telephone.
4. You should now hang up the telephone set to avoid room noise pickup during the feed. The coupler will continue to hold the line.
5. At the end of the feed, place the HOLD/RELEASE switch in the RELEASE position to terminate the call. If you do not place the switch in RELEASE, the result will be the same as not hanging up a telephone after a call.

## TROUBLESHOOTING

If trouble is experienced with the TCB-1, remove the coupler from the telephone network and contact Comrex Corporation for technical assistance or return authorization. Contact information can be found on the back cover of this manual.

## SPECIFICATIONS

### Connections:

Telephone line: RJ-11C 6-pin modular jack  
 Telephone set: RJ-11C 6-pin modular jack  
 Audio In/Out: 1/4" 3-conductor phone jack

**Power supply:** No batteries or AC required

**Controls:** Hold/Release switch

**Input/Output impedance:** 600 ohms, transformer balanced

**Insertion loss:** 1 dB

**Size:** 4.75" (W) x 3.00" (D) x 1.75" (H)  
 (12cm x 7.5cm x 4.4cm)

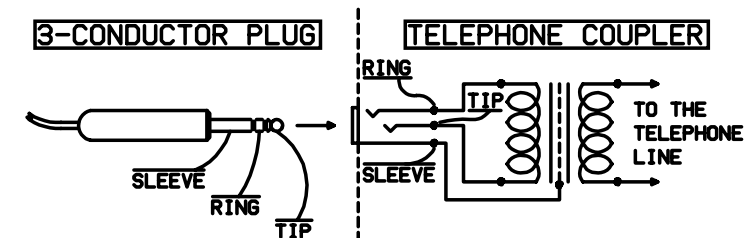
**Weight:** 9 oz; .25 Kg

**FCC Registration:** DXD6SN-13225-WP-N

**Ringer Equivalence:** 0.0B

**Equipment Description:** Protective voice coupler for radio/TV broadcast equipment.

## CONNECTOR WIRING DIAGRAM



## SCHEMATIC DIAGRAM

