

Kenwood Radio TK-863 to IP-223 Remote Adapter Panel



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1.0 General

The application note is intended to assist technical staff with cable assembly, software configuration and hardware setup of the IP-223 to control a Kenwood*¹ TK-863 radio.

2.0 Setup

2.1 TK-863 Model Cable Assembly

A KCT-19 accessory cable, supplied by Kenwood, is used to connect the IP-223 to the radio's accessory port.

Before connecting to the IP-223, the KCT-19 cable must be modified. See Table 1 for pinout information.

Signal	IP-223 DB-25	KCT-19 Accessory Connector
Ground	7	6
PTT Common	2	6
РТТ	14	8
COR	20	11
RX+	24	12
TX+	25	5 through a 100K resistor

TABLE 1. KCT-19 Accessory Cable Modification Pin Outs

2.2 IP-223 Configuration

The IP-223 configuration is accomplished in the Telex System Manager application. Set up the desired IP-223 lines for local radio control, enable COR and set the jumpers.

REFERENCE: For more information, see the Telex System Manager Technical Manual (P/N LIT000259000). This document is available for download at www.radiodispatch.com.

^{1.} See "Copyright Notice" on page 7.

2.2.1 IP-223 Software Setup

Navigation: Open Telex System Manager.

To configure the IP-223 for Local control, do the following:

- 1. In the Processed Devices pane, select the IP-223 to configure.
- 2. Click the **Multicast** tab. *The Multicast page appears.*
- 3. Select the **Enable** check box for the line to configure.
- 4. From the Type drop down menu, select Local.
- 5. In the Line Name field, enter **a name** for the line.
- 6. In the Rx Multicast Address field, enter the Rx Multicast Address.
- 7. In the Port field, enter the **port number** for receive audio.
- 8. In the Tx Multicast Address field, enter the Tx Multicast Address.
- 9. In the Port field, enter the **port number** to transmit audio.

To configure COR setup, do the following:

- 1. While in TSM, click the **Options** tab. *The Options page appears. See Figure 1*
- 2. Select the **COR Enabled** check box.
- 3. Clear the LAM Enabled check box.
- 4. Clear the **COR Active High** check box.

NOTE: Full-duplex is not required.

er Line Setup		
unction Tone CTCSS ANI D	Jder ANI Decoder Options Options	Ontinue
	LAM Setup	
COR Enabled	LAM Level -20 dB	Uich Deve Du
	LAM Time 3 set	
UIR Active High		F1 Last Call
CTCSS Setup	Delay Setup	Cross Mute
🔿 Always On	Tx Delay 0 ms	Pre-Emphasize Tx
On with PTT	Squelch Tail Delay 0 ms	Parallel Console
Onwarrin		Full Duplex
 Tape Output 	Hx Delay 80 ms	Tx Monitor
		PTT Notch Filter
PTT Setup	Monitor Helay	Rx AGC
PTT Relay Unly	Reset with PTT	2 Wire
O PIT+R1	O Un Except PTT	iR1600 Modem
O PTT + R2		15
O PTT + Both		
PTT Timeout: 0	seconds	
- Serial Port-		
Mode	Normal Sc	an List
Parameters	19200, N, 8, 1 🗸	

FIGURE 1. Per Line Setup—Options Page

2.2.2 IP-223 Jumper settings

TABLE 2. IP-223 Jumper Settings

Line 1	Jumper Settings	Line 2
J33. J34	B = 4-Wire	J5, J6
J16, J21	A = Single Ended	J19, J20
J14	A = 600	J24
J3, J9, J11	A = Single Ended	J25, J28, J29
J13	B = High	J27
J17, J22	B = 600 Ohms	J10, J15

2.3 TK-863 Configuration

Setup the radio for COR Active low.

REFERENCE: For more information, see manufacturer's configuration instructions for details specific to your radio model.

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For warranty and service information, refer to www.telex.com/ warranty.

FACTORY SERVICE CENTER

Factory Service Center Bosch Security Systems, Inc. Radio Dispatch Products 8601 East Cornhusker Highway Lincoln, Nebraska, 68507

CONTACT INFORMATION

Sales:

]	Phone	800) 752-7560
]	Fax(4	402) 467-3279
]	E-mail TelexDispatch@	us.bosch.com
Customer Service:		
]	Repair(800) 553-5992
Technica	al Support:	
]	Phone	800) 898-6723
]	E-mailTelexDispatchtechsupport@	us.bosch.com
•	Webw	ww.telex.com
•	Web www.telexradi	odispatch.com

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