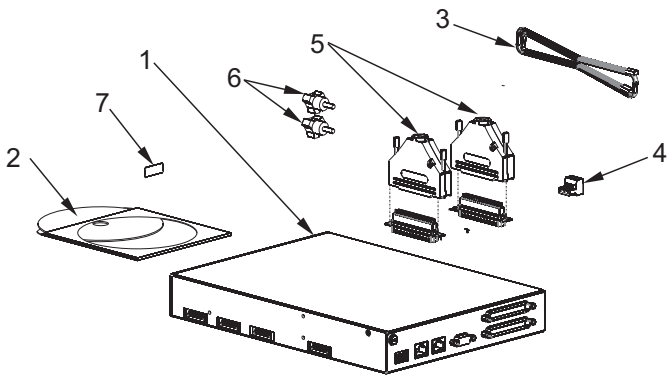
TELEX
RADIO DISPATCH PRODUCTS

Quick Start Guide
IP-224 Remote Adapter Panel

Packing List

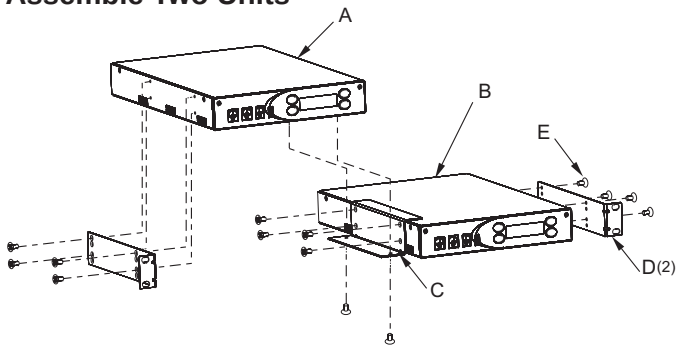


1. IP-224 no Options (IP224 BEACON)
   OR
   IP-224 with Options (IP224 WOPS @PI)
2. CD
3. 10/100 CAT-5e Ethernet Cable
4. 3-Pole Terminal Strip Connector
5. DB-37 Connector Kit
6. Knob, #8 x 32 x .5 inch
7. Code Label (Optional)

Required, Not Included

- Computers
- Switches
- 10/100 CAT-5e Ethernet Cable for backup

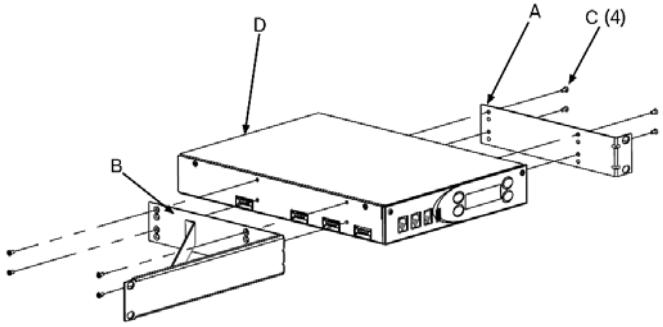
Assemble Two Units



To **assemble two (2) units**, do the following:

1. Using four (4) screws (E), attach the **middle bracket** (C) to the left side of IP-224 #2 (B).
2. Using four (4) screws, attach the **side bracket** (D) to the right side right side of the IP-224 #2 (B).
3. Using the two (2) screws, attach the **middle bracket** (C) to the bottom of the IP-224 #1 (A).
4. Using four (4) screws, attach the **side bracket** (D) to the left side of the IP-224 #1 (A).
5. Place the **assembly** in the rack and secure.

Single Mount Assmebly



To **assemble a single unit**, do the following:

1. Using four (4) screws (C), attach the **short side bracket** (A) to one side of the IP-224 (D).
2. Using four (4) screws (C), attach the **long side bracket** (B) to the right side of the IP-224 (D).
3. Place the **assembly** in the rack and secure.

Prepare Cables

To **prepare the cables**, do the following:

1. Using the DB-37 pin out table, assemble the **DB-37 connector(s) kit** (5) to the radio cable (not supplied) or separately purchased option cable.
2. Using the 3-Pole Terminal Strip (4), connect the **power supply** (not supplied).

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1	TX+ Audio	20mVpp to 40Vpp Adjustable (Balanced)
2	TX- Audio	20mVpp to 40Vpp Adjustable (Balanced)
3	CTCSS/Spare Audio Output	10mVpp to 10mVpp Adjustable
4	RSSI Input	User selectable 5/10 Vdc Maximum
5	PTT Relay Common Contact	1 Amp @ 63V AC/DC
6	MON Relay N.C. Contact	1 Amp @ 63V AC/DC
7	MON Relay N.O. Contact	1 Amp @ 63V AC/DC
8	Function #1 Relay Common Contact	1 Amp @ 63V AC/DC
9	Function #2 Relay N.C. Contact	1 Amp @ 63V AC/DC
10	Function #3 Relay N.O. Contact	1 Amp @ 63V AC/DC
11	Digital I/O #0	±36Vdc Withstand Rating
12	Digital I/O #2	±36Vdc Withstand Rating
13	Digital I/O #4	±36Vdc Withstand Rating
14	Digital I/O #6	±36Vdc Withstand Rating
15	COR Input	±36Vdc Withstand Rating
16	RS-485/CAN D+	+5 to 0 V Maximum
17	RS-232/TLL TXD	RS-232—Voltage Range ±25V Maximum TTL—Voltage Range =5 to 0 V Maximum
18	USB V Bus/+5Vdc	+5 to 0 V Maximum
19	USB D+	+5 to 0 V Maximum

20	RX+ Audio	20mVpp to 40Vpp Adjustable (Balanced)
21	RX- Audio	20mVpp to 40Vpp Adjustable (Balanced)
22	Spare Audio Input	10mVpp to 10mVpp Adjustable
23	PTT Relay N.C. Contact	1 Amp @ 63V AC/DC
24	PTT Relay N.O. Contact	1 Amp @ 63V AC/DC
25	MON Relay Common Contact	1 Amp @ 63V AC/DC
26	Function #1 Relay N.C. Contact	1 Amp @ 63V AC/DC
27	Function #3 Relay N.O. Contcat	1 Amp @ 63V AC/DC
28	Function #2 Relay Common Contact	1 Amp @ 63V AC/DC
29	Ground	
30	Digital I/O #1	±36Vdc Withstand Rating
31	Digital I/O #3	±36Vdc Withstand Rating
32	Digital I/O #5	±36Vdc Withstand Rating
33	Digital I/O #7	±36Vdc Withstand Rating
34	RS-485 Busy	+5 to 0 V Maximum
35	RS-485/CAN D-	+5 to 0 V Maximum
36	RS-232/TTL RXD	RS-232—Voltage Range ±25V Maximum TTL—Voltage Range =5 to 0 V Maximum
37	USB D-	+5 to 0 V Maximum

DB-37 Pin Out Table

TELEX
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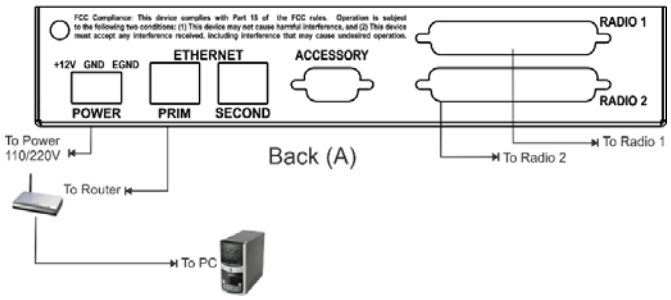
IP-224 Remote Adapter Panel

Connect the IP-224 to the Ethernet



To **connect the IP-224 to the radio and Ethernet**, do the following:

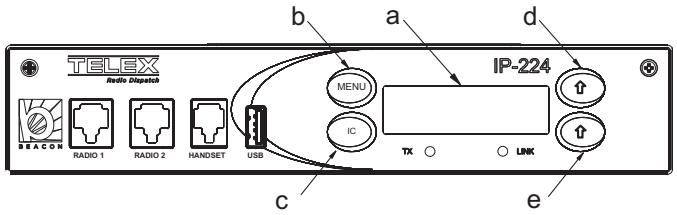
1. Plug the supplied **10/100 CAT-5e Ethernet cable** (D) into the PRIME Ethernet port on the back of the IP-224 and the other end into a **switch**.

NOTE: The SECOND Ethernet port is not functional in IP-224 Version 1.00.

2. Connect the **DB-37 cable (2)** or **Option cable** to the IP-224 and the other end (s) to the radio.

3. Route **DC power** to the 3-pole terminal strip
The IP-224 is powered.

Set the IP Address



To **set the IP Address**, do the following:

1. From the home state, press the **Menu softkey** (b).
Network Settings is selected.

2. Press the **Menu softkey**.
IP Address is selected.

3. Press the **Menu softkey**.
The first IP Address quad is active.

4. Press the **Menu softkey** to move the quad selection as needed.

5. Press and hold the **up (d)** or **down (e) arrow softkey** to increment the quad number at a rapid rate.
OR
Using the up or down arrow softkeys, increment the **quad numbers up or down** by a value of one (1).

6. Repeat **steps 4** and **5** until the IP Address is complete.

7. Press the **IC softkey (c)** to return to the previous menu.
The Set Subnet Mask menu appears.

8. Press the **IC softkey** to return to the Main menu.

Set the Subnet Mask

To **set the Subnet Mask**, do the following:

1. From the home state, press the **Menu (b) softkey**.
The Main menu appears. Network Settings is selected.

2. Using the up (d) or down (e) arrow softkey, select **Subnet Mask**.

3. Press the **Menu softkey**.
The Subnet Mask menu appears. The first subnet mask quad is active.

4. Press and hold the **up or down arrows softkey** to increment the quad number at a rapid rate.
OR
Using the up or down arrow softkeys, increment the **quad numbers up or down** by a value of one (1).

5. Repeat **steps 3** and **4** until the Subnet Mask is complete.

6. Press the **IC softkey (c)** to return the previous menu.
The Set Subnet Mask menu appears.

Verify Firmware

NOTE: Because the software loaded on the unit may be an older version, verify you have the most current version. To check for firmware updates, see www.telex.com.

TELEX
RADIO DISPATCH PRODUCTS

Quick Start Guide
IP-224 Remote Adaptor Panel

IP-224 Configuration Windows

To **open the IP-224 configuration window**, do the following:

1. Open a **web browser** on the PC.
2. In the web address bar, enter **IP Address** of the IP-224.
   The IP-224 configuration Login window appears.
3. In the User name field, enter **admin**.
4. In the Password field, enter **admin**.
5. Click **OK**.
   The Home window appears.
6. In the Position Name field, enter a **descriptive name** for the IP-224.
7. Click **Submit**.
   The changes are sent to the IP-224 in temporary storage.
8. From the navigation pane, click **Save Parameters**.
   The Save Parameters window appears.
9. Click **Save Parameters**.
   The entries are saved to permanent memory.

Set Up Basic IP Parameters

To **set up the basic IP Address**, do the following:

1. From the left navigation pane, click **Basic Ethernet Setup**.
   The Basic Ethernet Setup window appears.
2. In the Unit IP Address field, enter the **IP Address**.
3. In the Subnet Mask field, enter the **Subnet Mask Address**, if required.
4. In the Default Gateway field, enter the **Gateway Address**, if required.
5. In the Packet Delay before Playback field, enter the **number of packets of delay** for playback.
6. In the QOS: Precedence Bits field, enter the **number of bits**, if required.
7. In the QOS: D, T, and R Bits field, enter the **number of bits**, if required.
8. Click **Submit**.
   The changes are sent to the IP-224 in temporary storage.
9. From the navigation pane, click **Save Parameters**.
   The Save Parameters window appears.
10. Click **Save Parameters**.
    The entries are saved to permanent memory.

IP-224 Option Code (if required)

The Option Code represents a puchased software code that must be entered in the configuration windows to enable the feature. Option codes belong to specific IP-224 serial numbers and can not be transferred to another unit.

Preserve this informaiton by affixing the Option Code Label (7) to a convenient location on the IP-224 for future reference.

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