MP-FS100 PAK

FreeSpeech® Single-Channel Wireless Mic System

1 **System Components**

The following items are included in the MP-FS100 PAK kit:

- One single-channel receiver, MP-FS-RX1
- One dual docking station/charger, MP-FSDS2
- One IR beacon sensor, MP-FSIR
- One wireless microphone, MP-FSMIC, with lanyard and LED code chart
- One power pack: 2.0 Amps @ 24 Volts DC, 100-240 Volts AC, 50/60 Hz (for MP-FS-RX1)
- One power pack: 1.2 Amps @ 5 Volts DC, 100-240 Volts AC, 50/60 Hz (for MP-FSDS2)

The following items are available separately:

- PA audio sensor, MP-FS-PAS
- Tabletop mic stand, MP-FSTTS
- Ceiling-mount speakers, FSDI8 (Pair)
- Surface-mount speakers, FS6 (Pair)
- Speaker wire, CBL-SPK-P-35
- CBL-PWR-CTRL-P-TL-50

2 **Install MP-FSDS2 Dual Docking Station/Charger**

Install the dual docking station/charger as follows:

1. Select an appropriate location (tabletop, desk, shelf).
2. Connect the supplied power pack to the docking station and then to line power.
3. The green LED on the docking station indicates power is applied.

Green LED

Power Pack

1.2 Amps @ 5 Volts DC

100-240 Volts AC 50/60 Hz

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3 **Install MP-FSMIC Wireless Microphone**

Install the wireless microphone (mic) as follows:

1. Make sure power is applied to the docking station/charger (the green LED is on).
2. Place the MP-FSMIC in either position of the docking station, and allow it to charge for at least two hours. When the battery is fully charged, the mic's Status LED blinks green.
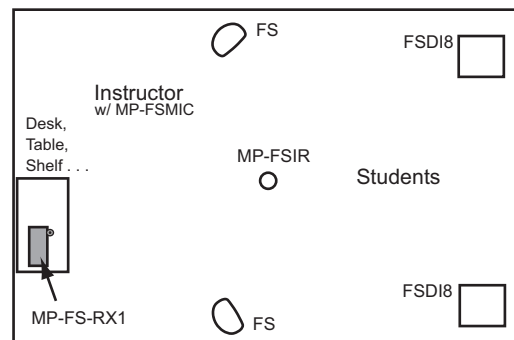
NOTE: The mic is "keyed" and only fits into the charger in the orientation shown in the following illustration.

Status LED

3. Use the included magnetic clip for lapel or lanyard attachment, or place the mic in the tabletop stand accessory (available separately).

During operation, the mic should be positioned approximately four inches (100 mm) below the speaker's chin.

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4 **Room Setup and Speaker Placement**

Use the diagram below as a guide for placing the FreeSpeech® system components in the classroom.

FS

FSDI8

Instructor w/ MP-FSMIC

Desk, Table, Shelf . . .

MP-FSIR

Students

MP-FS-RX1

FS

FSDI8

1. Locate the MP-FS-RX1 receiver on any flat surface such as a desk, table, or shelf.
2. Crestron® recommends using FS6 surface mount speakers **OR** FSDI8 ceiling mount speakers. Place FS6 speakers on the walls between the instructor's usual location and the students, aimed toward the students; place FSDI8 ceiling mount speakers at the rear of the room behind the students.
3. The MP-FSIR IR beacon sensor(s) should be centrally located on the ceiling or wall, away from fluorescent lighting and windows, with direct line of sight to the MP-FSMIC wireless microphone.

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5 **System Hookup**

Install all accessory hardware and all required interconnecting cables.

1. Install 2-conductor cables between the MP-FS-RX1 receiver and the speaker locations. Crestron recommends its plenum rated 16 AWG speaker cable CBL-SPK-P-35. Use the supplied connectors at the receiver end, and connect to the speakers following their included instructions.
2. Install any optional devices, such as the MP-FS-PAS audio sensor, following their included instructions.
3. Attach the supplied antenna to the receiver.
4. Install a 3- or 4-conductor cable (minimum 24 AWG) up to 50 feet (~15 meters) maximum, between the MP-FSIR location and the receiver. Refer to the illustration below for mounting and hookup details.

   As an alternative, use Crestron's CBL-PWR-CTRL-P-TL-50 or equivalent cable.

NOTE: Up to two MP-FSIR units can be connected in parallel to each of the two MP-FS-RX1 **BEACON SENSOR** ports, allowing for a total of four MP-FSIRs.

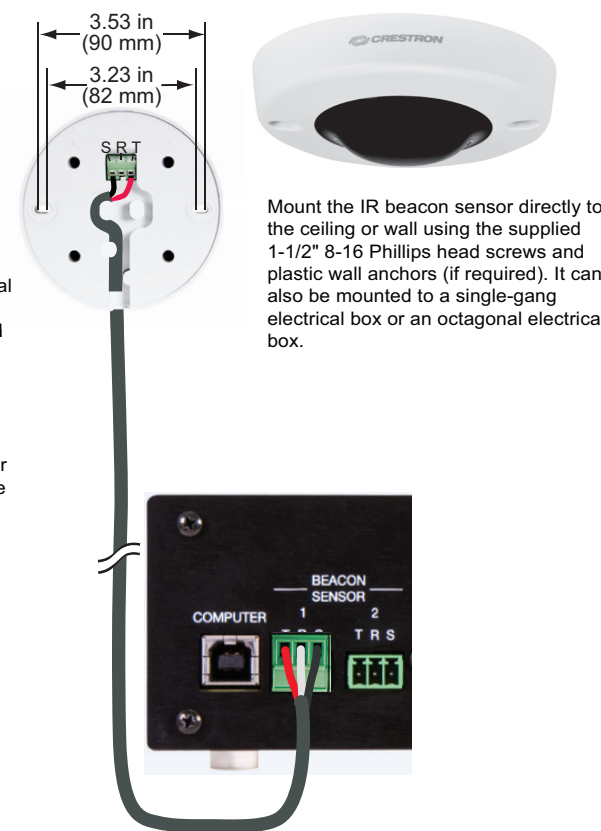5. Connect the included power supply to the receiver and then to line power.

MP-FSIR Hookup & Mounting

3.53 in (90 mm)

3.23 in (82 mm)

S R T

The outer jacket of the cable must extend into the molded plastic channel of the MP-FSIR and under the wire retaining guides, as shown.

Connect the **T**, **R**, and **S** terminals of the MP-FSIR to the **T**, **R**, and **S** terminal positions of the supplied 3-pin detachable connector for the **BEACON SENSOR T**, **R**, and **S** terminals of the MP-FS-RX1 receiver, and plug in the connector.

If using the CBL-PWR-CTRL-P-TL-50 cable, connect drain and black together to the **S** pin, connect red to **T** and white to **R.** Blunt cut both ends of the blue conductor and do not use.

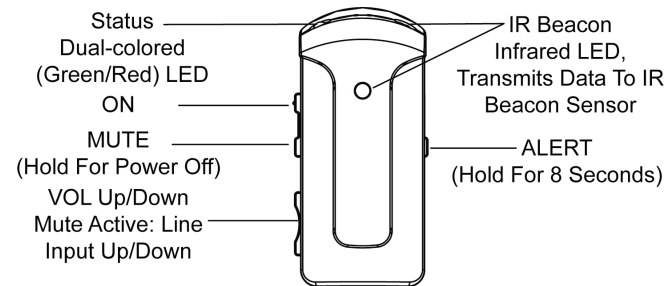If using a shielded cable, also connect the shield to the **S** pin at the receiver end only.

Mount the IR beacon sensor directly to the ceiling or wall using the supplied 1-1/2" 8-16 Phillips head screws and plastic wall anchors (if required). It can also be mounted to a single-gang electrical box or an octagonal electrical box.

COMPUTER

BEACON SENSOR 1 2

T R S

For details, refer to the latest version of the **MP-FS-RX1/RX2** Operations Guide, Doc. 7164.

QUICKSTART DOC. 7161B (2030815)   08.11

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Specifications subject to change without notice.

FreeSpeech®

quickstart guide

6 **Basic Operation**

Ensure that the MP-FS-RX1 receiver is installed and connected as instructed on page 1, that power is on (the green LED is on), that line level audio is supplied from a DVD player, a laptop computer, or other device, and that the MP-FSMIC microphone has been fully charged.

Status
Dual-colored
(Green/Red) LED
ON

IR Beacon
Infrared LED,
Transmits Data To IR
Beacon Sensor

MUTE
(Hold For Power Off)

ALERT
(Hold For 8 Seconds)

VOL Up/Down
Mute Active: Line
Input Up/Down

During the following procedures, refer to the above illustration and to the included Microphone LED Code Reference Guide (Doc. 7165).

A.   Pair Microphone with Receiver

1.   Hold the MP-FSMIC **ON** button until the mic Status LED rapidly flashes green.

2.   The mic will begin pairing with the receiver. Make sure the mic has line of sight to the MP-FSIR. When pairing is complete, the Status LED will slowly blink green. Time to pair is typically between five and ten seconds.

     The mic must be turned off and turned on again to pair to another receiver.

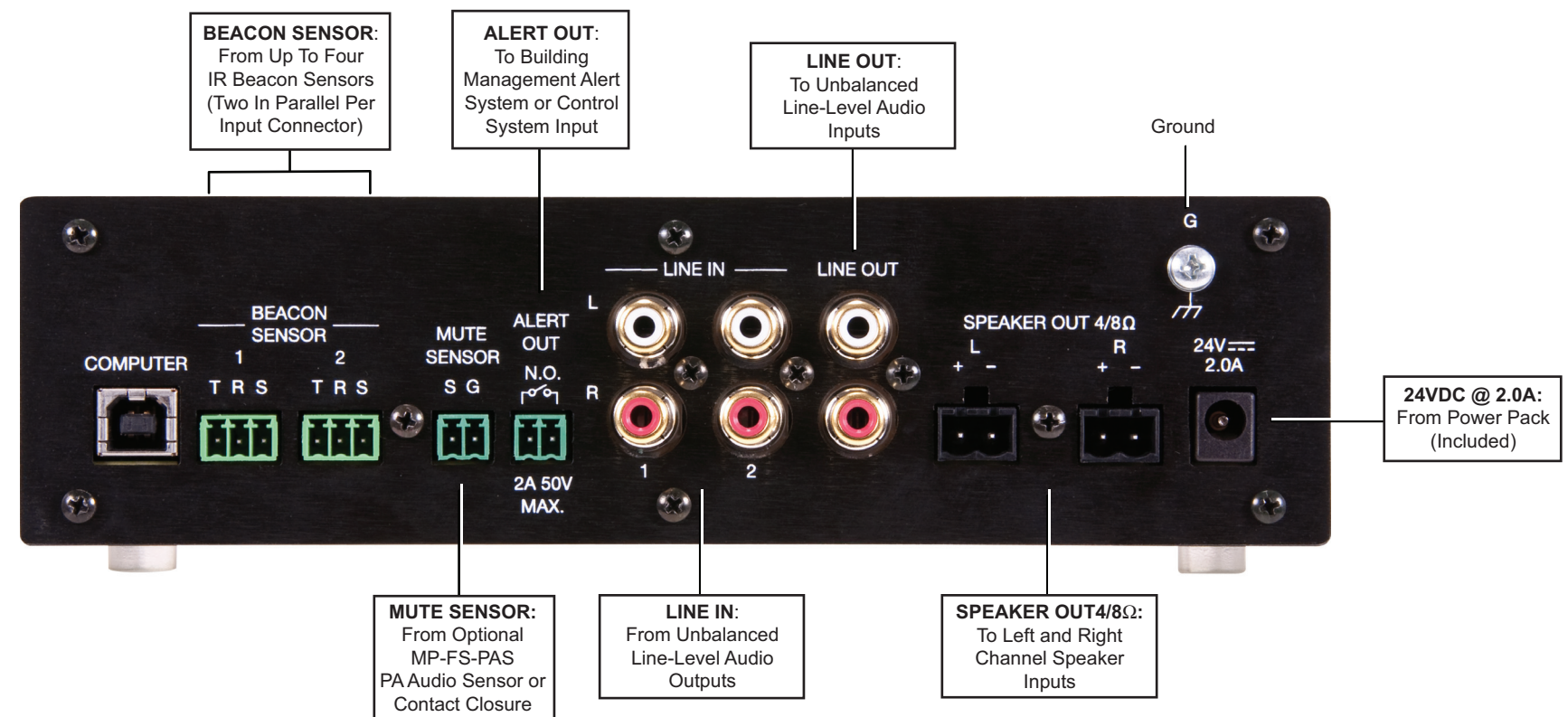**B.   Mute and Volume Adjustments**

1.   Press the **MUTE** button to mute the mic (observe the blink pattern); press it again to un-mute. When muted, the mic automatically turns off after two minutes.

2.   When the mic is not muted, the **VOL** button can be used to adjust the mic volume.

3.   When the mic is muted, the **VOL** button adjusts the line level audio volume.

4.   Line volume is automatically "ducked" (reduced) when the user talks into the mic.

5.   Hold the **MUTE** button for five seconds to turn off the mic (turns off automatically if muted for two minutes, or when placed in the charger.)

6.   If the mic loses sight of the MP-FSIR for seven seconds, the mic will automatically mute (turns off automatically if muted for two minutes).

7.   If the RF link is lost for 10 seconds, the mic turns off.

C.   Emergency Trigger

Hold the **ALERT** button for eight seconds to generate two beeps from the speakers and close the alert relay contacts until the button is released.

D.   Receiver Controls - Default Settings

1.   **BASS** and **TREBLE**: Typically, set these controls to their center detent positions. Slightly reducing treble can help to reduce feedback.

2.   **MASTER VOLUME**: With the control in its center detent position, have the instructor speak from the most likely position in the room and adjust this control clockwise so that the speakers just begin to exhibit feedback, and then reduce the setting by turning counterclockwise.

BEACON SENSOR:
From Up To Four
IR Beacon Sensors
(Two In Parallel Per
Input Connector)

ALERT OUT:
To Building
Management Alert
System or Control
System Input

LINE OUT:
To Unbalanced
Line-Level Audio
Inputs

Ground

24VDC @ 2.0A:
From Power Pack
(Included)

MUTE SENSOR:
From Optional
MP-FS-PAS
PA Audio Sensor or
Contact Closure

LINE IN:
From Unbalanced
Line-Level Audio
Outputs

SPEAKER OUT4/8Ω:
To Left and Right
Channel Speaker
Inputs

For details, refer to the latest version of the
MP-FS-RX1/RX2 Operations Guide, Doc. 7164.

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