

OPERATING MANUAL



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CrewPlex, LLC
205 Technology Parkway
Auburn, Alabama 36830 USA

Phone +1.334.321.1400
Fax +1.334.321.1162

 CrewPlex®
www.crewplex.com

CONTENTS

INTRODUCTION.....	1
WHAT'S INCLUDED WITH DR5-900?.....	2
CONTROLS.....	2
DISPLAY INDICATORS.....	3
SETUP.....	4
BATTERY.....	4
OPERATION.....	5
MENU SETTINGS.....	6
DEVICE SPECIFICATIONS.....	8
PRODUCT CARE AND MAINTENANCE.....	9
PRODUCT SUPPORT.....	9
LICENSE INFORMATION.....	10
CREWPLEX WARRANTY STATEMENT.....	11

INTRODUCTION

We at CrewPlex™ want to thank you for purchasing DR5-900. Full-duplex, hands-free wireless communication is at its simplest with the CrewPlex DR5. Ease of set-up, ease of use, and the compact size make the DR5 ideal for small to medium-sized teams across a range of applications. With up to 5 full-duplex users as well as the capability to provide unlimited listeners and unlimited shared talk users without the need for a basestation, the DR5 has the flexibility to keep crews connected in real-time and without pushing buttons. For those jobs where budget and quality are critical, the DR5 delivers in both price and performance.

In order to get the most out of your new DR5-900, please take a few moments to read this manual completely so that you better understand the operation of this product. This document applies to model CP-DR5-900. For questions not addressed in this manual, feel free to contact the CrewPlex Customer Support Department using the information on page 9.

PRODUCT FEATURES

- Economical Single-Channel System
- Simple to Operate
- Up to 5 Full-Duplex Users
- Unlimited Listen-Only Users
- Unlimited Shared Users
- 900MHz Frequency Band
- Encrypted FHSS Technology
- Small and Lightweight
- Water-Resistant Construction
- Approx. 8-Hour Battery Life
- Multiple Headset and Earset Options

WHAT'S INCLUDED WITH DR5-900?

- Holster
- Lanyard
- USB Charging Cable
- Quick Start Guide
- Product Registration Card

OPTIONAL ACCESSORIES

Part Number	Description
CrewPlex Accessories	
CAC-USB6-CHG	CrewPlex 6-Port USB Charger for DR5 and DR10 BeltPacks
ACC-USB2-CHG	Two-Port USB Vehicle Charger
CAC-HOLSTER-M	Holster for CrewPlex DR5 Wireless BeltPack
CAC-CPDR-5CASE	IP67-rated Hard Travel Case with custom foam to hold up to 5 CrewPlex DR5 or DR10 BeltPacks along with multiple headsets, charger, and accessories
CAC-CP-SFTCASE	CrewPlex Soft Travel Case
BT-11	Replacement Li-Ion Battery
Headsets	
CHS-SB11LE-DMG	SmartBoom® LITE Single-Ear CrewPlex Headset with Dual Mini Connector
CHS-SB110E-DMG	SmartBoom PRO Single-Ear CrewPlex Headset with Dual Mini Connector
CHS-SB210E-DMG	SmartBoom PRO Dual-Ear CrewPlex Headset with Dual Mini Connector
CHS-IEL-M	CrewPlex In-Ear Headset, Single-Ear Left Only with Single Mini Connector
CHS-IER-M	CrewPlex In-Ear Headset, Single-Ear Right Only with Single Mini Connector
CHS-IELPTT-M	CrewPlex In-Ear Headset with Push-To-Talk (PTT) Button, Single-Ear Left Only with Single Mini Connector
CHS-LAV-DM	CrewPlex Lavalier Microphone and Eartube with Dual Mini Connector
CHS-LAVPTT-DM	CrewPlex Lavalier Microphone and Eartube with Push-To-Talk (PTT) Button with Dual Mini Connector
CHS-HH210R-DMG	CrewPlex Hard Hat/Helmet Headset with Dual Mini Connector
CHS-HHCLIP-DMG	CrewPlex Hard Hat Clip-On Headset with Dual Mini Connector
CHS-HHLTL-DMG	CrewPlex Under the Helmet Headset, Left-Side Mounted Microphone Boom
CHS-HHLTR-DMG	CrewPlex Under the Helmet Headset, Right-Side Mounted Microphone Boom

CONTROLS



DISPLAY INDICATORS



SETUP

1. **Connect a headset to the beltpack.** The beltpack headset connection supports dual mini and single mini headsets. Dual mini connectors can be inserted in either direction. Single mini connectors can be inserted in either port of the headset connection.
2. **Power on.** Press and hold the **POWER** button for three (3) seconds, until the screen turns on.
3. **Select a Group.** Press and hold the **MODE** button for 3 seconds, until the “GRP” symbol is blinking on the LCD. Then, use the **VOLUME +/-** buttons to select a group number from 0-51. Short-press **MODE** to save your selection and proceed to ID setting.

Important: Radios must have the same group number to communicate.

4. **Select an ID.** When “ID” begins to blink on the LCD, use the **VOLUME +/-** buttons to select a unique ID number. Press and hold **MODE** to save your selection and exit the menu.
 - a. BeltPack IDs range from 00-04.
 - b. One beltpack *must always* use the “00” ID and serve as the master beltpack for proper system function. “MR” designates the master beltpack on its LCD.
 - c. Listen-only beltpacks must use the “L” ID. You may duplicate ID “L” on multiple beltpacks if setting up listen-only users. (See “Receiving Mode Selection” on page 6 for more information about that process.)
 - d. Shared Talk beltpacks must use the “Sh” ID. You may duplicate ID “Sh” on multiple beltpacks if setting up shared users. The “Sh” ID cannot be used at the same time as the last full-duplex ID (“04”).



Figure 1: Group Edit Screen



Figure 2: ID Edit Screen



Figure 3: ID Edit Screen (Master ID)

BATTERY

The rechargeable Lithium-ion battery is installed in the device. Plug the USB charging cable into the USB port to recharge the battery. The charging LED in the right top corner of the device will illuminate solid red while the battery is charging and will turn off once the battery is fully charged. The battery charge time is approximately 3.5 hours from empty. The beltpack may be used while charging, but doing so may lengthen battery charge time.

OPERATION

- **Talk** - Use the **TALK** button to enable or disable talk for the device. “TK” appears on the LCD when enabled.
 - » For full-duplex users, use a single, short press to toggle talk on and off.
 - » For Shared Talk users (“Sh”), press and hold while talking to enable it for the device. (Only one Shared Talk user can talk at a time.)
- **Volume Up and Down** - Use the **+** and **-** buttons to control the volume. “VOL” and a numerical value from 00-09 appear on the LCD when volume is adjusted.
- **LED Modes** -
 - » Left-hand Talk/State LED is blue and double blinks when logged in and single blinks when logged out.
 - » Right-hand Charging LED is red when battery is low and also red when charging in progress. LED turns off when charging is complete.

OPERATING MULTIPLE DR5-900 SYSTEMS IN ONE LOCATION

Each separate DR5-900 system should use the same Group for all beltpacks in that system. CrewPlex recommends that systems operating in proximity to one another set their Groups to be at least ten (10) values apart. For example, if one system is using Group 03, another system nearby should use Group 13.

MENU SETTINGS

The following settings are adjustable from the beltpack menu.

To access the menu, press and hold the **MODE** button for 3 seconds, until the “GRP” symbol is blinking on the LCD. Then, short-press the **MODE** button the specified number of times to access the setting you wish to change. Once you have finished your changes, press and hold **MODE** to save your selection and exit the menu.

- **Sidetone On/Off** - Sidetone allows you to hear yourself while talking. Louder environments may require you to increase your sidetone.
 - » To adjust sidetone, access the beltpack menu, then press the **MODE** button twice. When the “S_” value is blinking on the LCD, use the **VOLUME +/-** buttons to select an option from S0-S5.
 - » “S0” is off. The icon in Figure 4 will appear on the top right of the beltpack screen when Sidetone is off. “S1” is the lowest sidetone level. “S5” is the highest.
 - » The default sidetone setting is “S3.”
- **Receiving Mode Selection** - This setting allows you to set the beltpack to full duplex mode (both receiving and transmitting) or set it to receive only (i.e., listen only, which disables the beltpack’s talk function).
 - » To switch the receiving mode setting, access the beltpack menu, then press the **MODE** button three (3) times. When the “P_” value is blinking on the LCD, use the **VOLUME +/-** buttons to select between “PO” and “PF.”
 - » “PO” is full duplex (both receiving and transmitting). This mode may only be used with beltpack IDs 00-04.
 - » “PF” is receive only (i.e., listen only). This mode may be used with any beltpack ID, but if you wish to set up multiple listen-only users, you may do so by repeating ID “L” as needed, and setting each beltpack to “PF” mode. This is an exception to the rule that all beltpacks must have a unique ID number.
 - » The default mode setting is “PO.”
- **Microphone Sensitivity Level Control** - Set microphone sensitivity based on your environment and headset capabilities. Louder environments may require you to reduce the mic sensitivity, while quieter environments may require you to increase it.
 - » To adjust the mic sensitivity setting, access the beltpack menu, then press the **MODE** button four (4) times. When the “C_” value is blinking on the LCD, use the **VOLUME +/-** buttons to select an option from C1-C5.
 - » “C1” is the lowest sensitivity level. “C5” is the highest.
 - » The default microphone sensitivity level setting is “C1.”

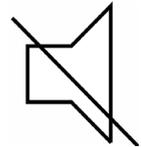


Figure 5:
Sidetone
Off Icon

- **Audio Output High/Low** - Higher audio output is recommended for louder environments. Changing the output setting here results in a gain increase or decrease of 3 dB.
 - » To switch the audio output setting, access the beltpack menu, then press the **MODE** button five (5) times. When the “U_” value is blinking on the LCD, use the **VOLUME +/-** buttons to select between “UL” and “UH.”
 - » “UL” is audio output low. “UH” is audio output high.
 - » The default audio output setting is “UH” (audio output high).

MENU OPTIONS

Menu Setting	Options	Description
Sidetone	S0 S1, S2, S3*, S4, S5	Sidetone Off Sidetone Levels 1-5
Receiving Mode	PO* PF	Receiving and Transmitting Mode Receive-Only Mode (Listen-Only)
Mic Sensitivity Level	C1*, C2, C3, C4, C5	Mic Sensitivity Levels 1-5
Audio Output Level	UL UH*	Audio Output Low Audio Output High

* Default Settings Noted with Asterisk

RECOMMENDED SETTINGS BY HEADSET

The following table provides recommended MicroCom settings for several common headset models.

Headset Model	Recommended Setting	
	Mic Sensitivity Level	Audio Output Level
Headset with boom mic	C1	UH
Headset with lavalier mic	C3	UH

Use the diagram of the wiring for the beltpack’s TRRS connector if you choose to connect your own headphones. The microphone bias voltage range is 1.9V DC unloaded and 1.3V DC loaded.

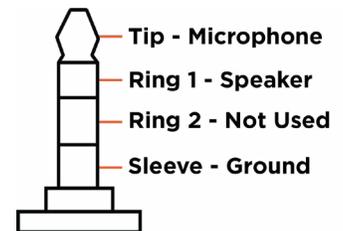


Figure 4: TRRS Connector

DEVICE SPECIFICATIONS

Specification*	CP-DR5-900
Radio Frequency Type	ISM 902–928 MHz
Radio Interface	FSK with Frequency Hopping
Voice Codec	16 bit / 16 kHz
Tx Max Output Power	100 mW
Rx Sensitivity	-95 dBm
Frequency Channels	78 channels
Channel Spacing	2 MHz
Maximum Full-Duplex Users	5
Data Rate	2 Mbps
Battery Type	Rechargeable 3.7 V, 1,100 mA Li-ion fixed battery
Battery Life	Approx. 8 hours
Charge Type	USB Micro, 5V 1-2A
Power Consumption Average	10 mA at Class 1 (100 mW)
Frequency Response	50 Hz - 7 kHz
Dimension	3.9 in. (H) × 1.9 in. (W) × 0.7 in. (D) [98 mm (H) × 49 mm (W) × 17 mm (D)]
Weight	3.1 oz. (88 g)
Display	7-segment LCD

**Notice about Specifications: While CrewPlex makes every attempt to maintain the accuracy of the information contained in its product manuals, that information is subject to change without notice. Performance specifications included in this manual are design-centered specifications and are included for customer guidance and to facilitate system installation. Actual operating performance may vary. Manufacturer reserves the right to change specifications to reflect latest changes in technology and improvements at any time without notice.*

PRODUCT CARE AND MAINTENANCE

Clean using a soft, damp cloth.

CAUTION: Do not use cleaners that contain solvents. Keep liquid and foreign objects out of the device openings. If the product is exposed to rain, gently wipe off all surfaces, cables, and cable connections as soon as possible and allow unit to dry before storing.

PRODUCT SUPPORT

CrewPlex offers technical support via phone and email from 07:00 to 19:00 Central Time (UTC-06:00), Monday through Friday.

+1.334.321.1400
customer.support@crewplex.com

Visit www.crewplex.com for product support references and helpful documentation.

RETURNING EQUIPMENT FOR REPAIR OR MAINTENANCE

All questions and/or requests for a Return Authorization Number should be directed to the Customer Service department (customer.service@crewplex.com). Do not return any equipment directly to the factory without first obtaining a Return Material Authorization (RMA) Number. Obtaining a Return Material Authorization Number will ensure that your equipment is handled promptly.

All shipments of CrewPlex products should be made via UPS, or the best available shipper, prepaid and insured. The equipment should be shipped in the original packing carton; if that is not available, use any suitable container that is rigid and of adequate size to surround the equipment with at least four inches of shock-absorbing material. All shipments should be sent to the following address and must include a Return Material Authorization Number:

CrewPlex Customer Service Department
Attn: Return Material Authorization #
205 Technology Parkway
Auburn, AL USA 36830-0500

LICENSE INFORMATION

CREWPLEX DR5-900 FCC COMPLIANCE STATEMENT

00004130 (FCCID: YJH-MC-11)

00004130-B and 00004303 (FCCID: YJH-MCS-900)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Information: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

The antennas used for this transmitter must be installed to provide a separation distance of at least 5 mm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CANADIAN COMPLIANCE STATEMENT

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). (Specifically RSS 247 Issue 2 (2017-02) and RSS-GEN Issue 5 (2019-03)). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

CREWPLEX WARRANTY STATEMENT

CrewPlex products are warranted to be free from defects in materials and workmanship for a period of two years from the date of sale to the end user, under the following conditions:

- First year of warranty included with purchase.
- Second year of warranty requires product registration.

All headsets and accessories (including CrewPlex-branded batteries) carry a one-year warranty.

The sole obligation of CrewPlex, LLC during the warranty period is to provide, without charge, parts and labor necessary to remedy covered defects appearing in products returned prepaid to CrewPlex, LLC. This warranty does not cover any defect, malfunction, or failure caused by circumstances beyond the control of CrewPlex, LLC, including but not limited to negligent operation, abuse, accident, failure to follow instructions in the Operating Manual, defective or improper associated equipment, attempts at modification and/or repair not authorized by CrewPlex, LLC, and shipping damage. Products with their serial numbers removed or effaced are not covered by this warranty.

This limited warranty is the sole and exclusive express warranty given with respect to CrewPlex, LLC products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose. ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. NEITHER CREWPLEX, LLC NOR ANY AUTHORIZED RESELLER WHO SELLS CREWPLEX PROFESSIONAL INTERCOM PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

PARTS LIMITED WARRANTY

Replacement parts for CrewPlex, LLC products are warranted to be free from defects in materials and workmanship for 120 days from the date of sale to the end user.

This warranty does not cover any defect, malfunction, or failure caused by circumstances beyond the control of CrewPlex, LLC, including but not limited to negligent operation, abuse, accident, failure to follow instructions in the Operating Manual, defective or improper associated equipment, attempts at modification and/or repair not authorized by CrewPlex, LLC, and shipping damage. Any damage done to a replacement part during its installation voids the warranty of the replacement part.

This limited warranty is the sole and exclusive express warranty given with respect to CrewPlex, LLC products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose. ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. NEITHER CREWPLEX, LLC NOR ANY AUTHORIZED RESELLER WHO SELLS CREWPLEX PROFESSIONAL INTERCOM PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

