

Software & Firmware 1.12 Release Notes

The following document is a list of features implemented with the latest CrewCom® software and firmware release.

New Compatible Hardware

- CrewCom 8 4-Wire Control Unit (CCU-08): The CU-08 makes a complimentary addition to the CrewCom system by giving users the ability to use more 4-Wire connections when needed. By doing so, this will allow for the use of direct connectivity to industry standard wired intercom systems without the need for additional adapting hardware.

Firmware Details:

Version	1.12.0.2
Release Date	November 2022
Affected Models	CrewWare Software Application
	Radio Packs: CRP-22-900, CRP-22-900AN, CRP-44-900, CRP-44-900AN, CRP-22-2400, CRP-22-2400CE, CRP-44-2400, CRP-44-2400CE
	Radio Transceivers: CRT-900, CRT-900AN, CRT-2400, CRT-2400CE
	Control Units: CCU-22, CCU-44, CCU-08
	Hubs: CHB-8C, CHB-8C-02, CHB-8F
	Drop-In Charger: PBT-RPC-66

Compatibility Note: To work together as a system, all connected devices must have firmware that matches the first three digits of the version installed on the Master Control Unit.

Device Parameters

CrewNet supports the following:

- Up to 4 Control Units (CUs)
- Up to 72 Normal mode Radio Packs (RPs): 4 CUs x 18 RPs per CU
- Up to 256 High Density mode RPs: 4 CUs x 64 RPs per CU
- Up to 6 Normal mode RPs per Normal mode Radio Transceiver (RT)
- Up to 32 High Density mode RPs per High Density mode RT
- Up to 16 RTs: any combination of 2.4GHz and 900MHz*
- Up to 4 layers of Hubs: any combination of copper and fiber devices (The number of Hub layers is defined by how many Hubs are between the device and the Master CU.)
- Up to 32 wired intercom/audio I/O channel inputs (configuration dependent)
 - » For CCU-22 systems, a maximum of 8 2-Wire across 4 CUs and 8 4-wire across 4 CUs
 - » For CCU-44 systems, a maximum of 16 2-Wire across 4 CUs and 16 4-wire across 4 CUs
 - » For CCU-08 systems, a maximum of 32 4-Wire across 4 CUs
 - » A mix of CCUs in systems will result in different maximum 2-wire and 4-wire inputs

- Up to 125 Profiles (Any mix of Normal mode and High Density mode)
- Up to 64 Conferences (Up to four assigned specifically for High Density mode)
- Up to 160 Relay Assignments
- Aux In audio assigned to up to 10 Conferences
 - » Each CU may have a separate Aux In source, for a total of four when using four CUs.
- Aux Out audio can be assigned from any single Conference.
 - » In a multi-CU system, this is a single Conference per Control Unit.

	Normal Qty.	HiDen Qty.	System Total	Notes
Profiles			125	Any mix of Normal or HiDen
Active Pairings per CU	18	64		
Packs per RT	6	32		
Total Packs per System	72	256	328	

*The maximum number of 900MHz RTs on any single system (out of 16 total RTs) is 14. CRT-900-AN (Oceania) model operates within the 915–928MHz frequency range and the maximum number of 900MHz RTs on a single system is 7.

New Features

- RP Summary: The number of Radio Pack Pairings and Active Connections to the CU for both Normal and High Density Mode RPs now shows on the CU LCD as well as in CrewWare Advanced Settings under the Device Management tab > Control Units.
- The RT firmware version information is now displayed in the CU menu under Device Settings > Radio Transceivers > Sort By > CRT_ > Firmware Version.

Resolutions

- Random Packs Becoming Unpaired Fix: Resolves an issue where, after a battery change or on power up, Radio Packs may become unpaired and display a message such as “No pairing information available. Please Pair Radio Pack to Control Unit.”

Enhancements

- Improved System Diagram exporting and printing from CrewWare
- Improvement to High Density audio at low link qualities
- Completion time has been decreased when uploading a CCF through CrewWare
- General bug fixes and enhancements to user experience.

Operational Notes

IMPORTANT: Firmware Updates

- The fixes included in this version of 1.12 apply to all CrewCom devices except the 6+6 Drop-In Charger; therefore, it is not required to update the charger as long as it is already using version 1.8.0.12 or higher. However, if you do choose to update the charger, no harm to the device or system functionality will occur.
- A system's configuration file (CCF) does not need to be reloaded after updating the RT(s) and RP(s) to 1.12.
- RPs do not need to be re-paired after updating to 1.12.

- When updating firmware from version 1.2 or older, Pliant recommends an incremental firmware update to version 1.4 before updating to version 1.12. Updating directly from version 1.3 to 1.12 is supported. Previous versions of CrewWare can be found here: <https://plianttechnologies.com/firmware-previous-crewcom>
- When applying this update to a CU with version 1.4 or older, an additional file upload directly to the CU (via front panel USB) will be required. Upon clicking "Scan for Devices" in CrewWare's firmware tab, you will find step-by-step instructions for this process. This additional (two-stage) update is not required when applying this update to CUs with version 1.8 or later.
- If updating from firmware version 1.2 or older, you must save your CCF in the new version to match existing settings to added features. Do so with the following steps:
 1. After updating device firmware, connect CrewWare to your CU via LAN connection, and go "live."
 2. In CrewWare, click File then Save File As...; then select a file location, name your file (8 characters or less), and save it. This CCF is now updated.
 3. In CrewWare, click File then Upload File..., then navigate to your saved file (.ccf) and choose it. Follow the CrewWare and CU prompts to upload the file and restart your system.

Configuration and Startup

- **IMPORTANT:** For best system performance with no interaction between Radio Transceivers (RTs) in a mixed (Normal & High Density) system it is recommended that Normal-mode RTs and High Density-mode RTs be separated by at least at 80 feet (24 meters) or greater for 900MHz products and 60 feet (18 meters) for 2.4GHz products. It is possible to operate with less physical separation; however, overall range may be affected as the distance of separation is decreased.
- While this release does add an auto configuration function, out-of-the-box dynamic configuration of hardware is not yet supported. CrewWare is still required to build a configuration file (.ccf) if a customized system with hubs and/or more than three RTs is needed.
- By default, the first Control Unit added to the CCF is automatically assigned the master sync priority. Every CCF must contain one Master Control Unit. Secondary and Tertiary sync priority assignments are not currently operational.
- CUs may only be daisy-chained when connected directly from the primary CU.
- Upon startup, non-primary CU(s) (if applicable) may require up to 3 minutes and 30 seconds to complete the CCF load (shorter for smaller CCFs). The LCD screen will display load progress messages during this time.
- The time required to load a CCF, push edits to multiple Profiles, and configure CrewNet devices may vary depending on configuration size.
- Any change to RF parameters such as RT operational mode (Normal/High Density), hopping pattern, or radio band may require RPs to be re-paired. This is not true for Transmit Power or Antenna Diversity.
- To avoid an RP going inactive, Pliant recommends ensuring your CUs and RTs are powered on and ready prior to powering on the RPs. An RP will enter inactive mode if it cannot establish communication with an RT. If an RT becomes available, an inactive RP can be prompted to attempt to re-establish communication by pressing the RP Menu (triangle) button.
- Pliant recommends that Hubs be externally powered with local power supply (provided).
- For Fiber Hubs, use of Port 1 (either copper or fiber) is required for downstream operation of Ports 2–8.

LAN Settings

- The Master CU is the control host for the CrewWare application via the LAN port.
- When changing LAN settings from the CU front panel, a reboot is no longer required.
- In the event the LAN cable is disconnected during use, we recommend waiting at least 60 seconds after the cable has been reconnected before reconnecting to CrewWare.

CrewWare Interface

- The Call button on CrewWare's Radio Pack list view ("Device Management" tab) is not currently implemented; however, the Call function is functional elsewhere.
- Once an RP is paired to a system, it populates in the Real-Time Pack View's inactive panel. When an RP is turned on, it moves to the active panel; these RPs remain in the active panel until CrewWare has been disconnected or closed, regardless of whether the RP is turned off.
- The following function is not yet supported: CrewWare multi-client access to one system.

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