COBRA 4.0 BETA Overview and Release Notes

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What is a BETA?

The BETA is a trial of the current software functionality. As part of the BETA process, we expect to find defects in functionality. We also ask to receive feedback on both function and interface to help improve the software prior to production use. The BETA is extremely important for a safe and reliable production release. It also allows us to better understand our customer's needs to improve the system.

Is the BETA confidential?

For security and confidentiality, we ask that any feedback / bugs are reported directly to Scott Smith at COBRA Firing Systems at ssmith@cobrafiringsystems.com or 518-222-7410. This is a loose confidentiality as of course you can share any information with friends and peers, however we just ask you to report any issues or feedback to us. We are sponges for this and really want to know the good and bad.

How will bug fixes / improvements be released?

Being involved in the BETA program will give you access to new releases including fixes, usability and functional improvements. Updates will be performed by updating your 18R2, 18M and the Control Panel app itself. We don't expect any hardware improvements, but only updates to the app and COBRA firmware.

What are the benefits of participating in the BETA release?

Be involved on the ground level and get your feedback heard! While we'll always accept and make changes based on customer feedback, the BETA process is unique in that it really helps shape the function of the Control Panel. Plus, it's such a cool product and why not have it early!

What is the cost of 4.0 and the COBRA Control Panel?

The 4.0 firmware release is free! However, you do require the wireless reprogrammer to perform updates. Visit the Software Versions & Upgrades section on our website to learn more about firmware updates. For the COBRA Control Panel, a $199 / 2 year license fee applies. Visit the COBRA Control Panel section of our website to learn more.

What are the features / changes in the new 4.0 firmware release?

We have organized the document into three sections. Please read the **Important Changes** section first as it affects basic operation.

- **Important Changes** - Important changes to basic operation.
- **New Features** - The 4.0 release includes a handful of new minor features and small improvements.
- **More Goodies!** - A number of smaller changes suggested by existing customers.

Important Changes, please read!

The following lists important changes to basic operation. We have created a separate list of these items to ensure proper communication and warning of these changes.

Loading script requires USB to be inserted at time of 18R2 power up

To load scripts into the 18R2, the USB thumb drive must be inserted into the 18R2 before power up. Once the 18R2 displays the channel, the script will begin to load properly. If you insert the USB thumb drive after the start-up process, the script will not load and you will be required to re-start the 18R2., This change was required to support integration to the new **COBRA Control Panel** explained later in this document. Following the BETA release, we may improve this to support loading scripts at any time.

Script header arguments changed

In order to support new features, we have made changes to the cobra.csv script file header line. The following shows the old and new format. The changes are highlighted in **red** and explained below.

Old format: Trigger Channel, Trigger Button, Confirmation Button, Return Channel, Audio Box
New format: Trigger Channel, Trigger Button, Deadman Button, Return Channel, Audio Box Filename, Script Name, Disable Firing Button, Alternate Firing Button

1. **Confirmation button has been replaced by a Deadman button** - In previous versions, the user could define a confirmation button. By defining this button, the user was required to press the trigger button followed by the confirmation button to start the show. In the 4.0 release, the confirmation button has been replaced by the Deadman button. You can specify any number button (1-18) or the word "deadman" into this argument. By specifying "deadman", the script assumes you are using the COBRA Deadman Control explained later in this document. When the script is started, the user is required to press and hold the Deadman button in order for the script to fire. If the button is not pressed, "Pau" is displayed on the 18R2 telling the user the script is paused. By pressing the Deadman button, the script will resume. COBRA has also introduced a hand-held **Deadman Control** explained later in this document. By using the hand-held Deadman Control, a user also has access to the new **Alternate Firing** features also explained later in this document.

2. **Audio Box Filename** - In order to play the Audio Box, you must now specify the name of the audio box file. For example, **myshow.mp3**. The filename has a maximum of 12 characters and only alpha numeric characters [a-z] and [0-9] are supported. The .mp3 file extension is optional.

3. **Script Name** - You can define an optional Script Name for display within the COBRA Control Panel. The script name has a maximum of 35 supported characters.

4. **Disable Firing Button** - You can define an optional Disable Firing Button to support disabling firing while a script is running. You can specify any number button (1-18). When pressed, all 18M firing modules will stop firing and "nO Fir" will display on the 18R2. To re-enable firing, you can press the Disable Firing button again. While firing is disabled, the audio box will continue to play audio.

5. **Alternate Firing Button** - You can define an optional button (1-18) to fire alternate events to fill unwanted black sky while your script is running. You don't need to specify a value if your using the COBRA Deadman Control explained later in this document.

New features!

The 4.0 release includes a handful of new minor features and small improvements. In addition, we have also introduced a brand new product called the COBRA Control Panel. This is an Android based app that provides a full touch screen user interface to your 18R2. The Control Panel is explained briefly in this document. For detailed information, visit the COBRA Control Panel website product page.

Deadman Functionality

COBRA now has the ability to require a user to either press a defined 18R2 button (1-18), or hold a newly introduced physical deadman switch.

18R2 Button - The script confirmation button has been replaced by the Deadman button. You can specify any number button (1-18) into this argument. When the script is started, the user is required to press and hold the Deadman button in order for the script to file. If the button is not pressed, "Pau" is displayed on the 18R2 telling the user the script is paused. By pressing the Deadman button, the script will resume. To view the new script header format, please reference the *Important Changes* section earlier in this document. You can also download a sample cobra.csv file for 4.0.

Deadman Handheld Switch - You also have the option of purchasing a physical deadman switch (shown below). The deadman switch has a deadman lever and two buttons on the top of the control. Pressing the left button is the same as pressing the STEP button on the 18R2. Pressing the right button fires one of your pre-defined alternate events. Alternate events are part of a few **Alternate Firing Event** feature explained later in this document.

To purchase / participate in the testing of this new hardware, please contact Scott Smith at ssmith@cobrafiringsystems.com or 518-222-7410.

Alternate Event Firing

You can now define alternate events in your cobra.csv script file. An alternate is a specific channel and cue combination you wish to fire to produce "filler" in a black sky situation. For example, if you are firing a pyromusical and a specific effect (for example a 45 second cake) fails to fire or ends prematurely. Simply press the alternate button on the 18R2 or Deadman Handheld Switch to fire the first of your defined alternate events. By pressing the button again later in the script, the next alternate event will fire until all alternate events are fired.

To define alternate events, simply add an event line in your cobra.csv file with the word "alternate" in the event time column. Below is a simple script example with three alternate events. Using the example below, by pressing the alternate button the first time, cue #1 on channel 03 will fire first. If you pressed the button again, cue #2, channel 03.

1,1,deadman,1,,,
00:00:1.0s,1,1,Blue mine
00:00:2.0s,1,2,Red comet
00:00:3.0s,2,1,Blue mine
00:00:4.0s,2,1,Red comet
ALTERNATE,3,1,Shell
ALTERNATE,3,2,Shell
end

To fire alternate events, you have two options:

18R2 Button - To fire an alternate event from the 18R2, simply specify the Alternate Button argument in the script header row. To learn about the new header row arguments, see the **Important Changes** section earlier in this document.

Deadman Handheld Alternate Button - Press the right button on the Deadman Handheld Switch. See **Deadman Functionality** earlier in this section for a picture of this button. You do not need to modify the script header to use the alternate button on the Deadman Handheld Switch.

COBRA Control Panel

The control panel is a downloadable Android app that provides a comprehensive, digital user interface to the 18R2. The control panel is a platform for growth that will expand and improve with new features alongside our core product expansion.

The COBRA Control Panel connects to the 18R2 using an OTG USB cable.

Want more information?

Visit the COBRA Control Panel on our website!

What features are included in the initial release?

Device List

A complete list of all connected devices including the 18M Firing Module and COBRA Audio Box. For all devices, the applicable channel, address, key position, mode, signal strength, battery life and detailed continuity including event descriptions are displayed. The device list also finds any device exceptions such as low signal, low battery, or missing continuity and displays them to the user. This saves the time of having to find issues by toggling back and forth between channels on the 18R2. Filtering and color coding make the device list fun and easy to use.

Show Controls

A detailed view into your show as it's firing! Simply select your script, view event details, and press Play when ready to begin your show. As events are fired, the event list auto-scrolls and tells you exactly what will fire next. You can even disable autoscrolling and view past or future events while your show is playing. Pause, resume and even "Jump to" a specific event mid-show.

More to come!

One of the greatest benefits of the control panel is the continual improvements to features and functionality. The Device List and Show Controls are just the first step. We are currently developing comprehensive high end functionality for both the backyard consumer and most demanding professional.

More Goodies

Having fun yet? Keep reading, the small stuff is like a bag of little goodies :)

While customer feedback drives new, larger features, we are also committed to making minor improvements. The small details are very important! Please find a list of minor improvements. You can send your comments and feedback to ssmith@cobrafiringsystems.com any time!

Multiple Audio Files

You can now specify a different audio file for each script. For example, the first script in your cobra.csv file can play one audio file such as myaudio.mp3. Then, the second script can play a different audio file such as myaudio2.mp3. This is a helpful improvement for SPFX clients that may require a small sound bite for a mini-script. Unfortunately the restriction to only fire up to 2 channels in a 0.4s time period still exists. However, we are creating a solution for this in a future version. Once this change is complete, the user can specify multiple scripts and associated audio files that can be fired in any order.

To use this feature, simple specify the audio filename in the Audio Box argument in the script header row. See the Important Changes section earlier in this document to learn about the changes to the script header row.

Adjusted Battery Scaling, 30% More Life!

In previous versions, the 1P battery level would display as low when the battery still had 60% life remaining. At COBRA we are always very conservative with specifications, however this was way too conservative. We have changed our battery scaling to show a low warning at 20%, not 60%. From this change, you'll see your battery life drop much slower which translates to more shows and less worry about batteries. Outside of the COBRA Control Panel, this is my favorite improvement in the release.

Low Signal Warning

As a bi-directional system, we have the advantage of the modules sharing information with the 18R and 18R2 remotes. To improve warnings, we added a low signal warning. If any module has a signal beyond -70, the module will tell the remote the signal is low and report this information by displaying the word "Lo" and "Ant" followed by the signal value, module address and module channel. For example, "Lo", "Ant", "-75", "A01", "C02". Using the new COBRA Control Panel, this information is displayed clearly in a nice graphical interface. However, if you don't have the COBRA Control Panel, we still display the warning.

Low Battery Warning Now Displays Module Channel and Battery Level

In previous versions, only "Lo" followed by the module address would display to the user when a low module battery was detected. While helpful, this can create undue stress if you don't know what the actual battery level is. For example, a user may need to change the battery if the 1P value is 0. However, if a 2 or a 3, the user won't panic and will continue to fire the show. To help the user make more informed decisions on whether the battery should be changed, we now display the module channel in addition to the actual P value. This information is now displayed as "Lo" and "bAt" followed by the battery power level [0-9], the module address and module channel. For example, "Lo", "bAt", "P3", "A01", "C02".

18R2 Default Channel Changed to 00

The 18R2 now defaults to channel 00. Previously this was channel 01. Since Finale Fireworks defaults to channel 00, cue #1 for the trigger channel / trigger button combination, this change is more intuitive for starting scripts.

Force Un-Sync Removed from 18M

Ever held the SYNC button too long on the 18M causing it to force unsync from the 18R or 18R2? Don't worry, this won't happen again as this functionality has been removed entirely. Was a neat idea in the beginning, but it created more problems than benefit. Sayonara old feature!

Force Un-Sync Time Extended on 18R2 to 30 Seconds

Sensing a theme here? Ever held the SYNC button on the 18R or 18R2 too long and accidentally unsynced all your modules? Since this feature is used by operators to allow them to re-sync modules, typically to re-address the units, we had to keep the feature. <insert heckle> To reduce risk, we extended the hold time from 15 seconds to 30 seconds.

Disable Firing Functionality

You now have the ability to define a Disable Firing Button in the cobra.csv script header row. By defining this button (1-18), you can disable firing on all 18M firing modules while the script is running. If you are using the COBRA Audio Box, audio will continue to play. When pressing the Disable Firing button, "nO" and "Fir" will display on the 18R2. Simply press the Disable Firing button again to resume module firing. If you are using the COBRA Control Panel, the firing status will also display on the UI. This is our first step into disabling modules / effects. In future releases, we will extend this functionality to disable specific modules and groups of effects. Keep tuned as this is only a baby step to get our feet wet!

AUTO-FIRE Now Displays Count-Down

If you use the COBRA AUTO-FIRE feature, also known as the Sub-Sequence feature, the 18R and 18R2 now display a count-down in the lower two 7-segment displays between cues. This makes it much easier to know when the next cue will fire. Small improvement, but something we overlooked in the initial development and wanted to add.

Device Names Changed in Portal

Portal is the software used to update your equipment to new firmware releases. Previously, COBRA devices were given unintuitive names such as CFS_WiR for the 18R. We have changed this to be more intuitive. Device names are now COBRA_18R, COBRA_18R2, COBRA_18M and COBRA_AB (audio box).

What's Next!?

COBRA has a number of major and minor projects in the works. The COBRA Control Panel project was started in 2013 and has finally made the BETA cut! We have a handful of major and minor projects on the cusp of BETA release with the goal of complementing and growing on existing functionality.

Thanks for your patience as we continue to innovate our products with the highest focus on quality, ease of use, and world class customer service!

Please send all comments and feedback to Scott Smith at ssmith@cobrafiringsystems.com or 518-222-7410.

Feedback, Feedback

Thank you so much for reading our 4.0 Overview and Release Notes document. These changes represent only part of many product enhancements, additions, and feature improvements. Never hesitate to reach out and tell us what changes or improvements YOU want. Our customers are our most important asset and making them happy is our mission.

Please send all comments and feedback to Scott Smith at ssmith@cobrafiringsystems.com or 518-222-7410.