

# COBRA 5.0 BETA Overview and Release Notes

by Scott Smith, President, COBRA Firing Systems



## 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](mailto: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, why not have it early!

## What is the cost of 5.0 and the COBRA Control Panel?

The 5.0 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, you pay \$199 for a lifetime user license and free upgrades. The annual subscription fees have been removed in favor of a single lifetime license purchase. Visit the [COBRA Control Panel](#) section of our website to learn more.

# What are the features / changes in the new 5.0 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 5.0 release includes a handful of new firmware and COBRA Control Panel 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.

### **New cobra.csv header file format**

The following details the new header file format and attributes.

- Field 1: Trigger channel
- Field 2: Trigger button
- Field 3: Confirmation button, or "deadman" (case insensitive)
- Field 4: End channel (go to this channel after script is done) (may be blank)
- Field 5: Audiobox filename (may be blank)
- Field 6: Script name/description (may be blank)
- Field 7: Fire disable button (may be blank)
- Field 8: Alternate1 Firing button (may be blank)
- Field 9: Alternate2 Firing button (may be blank)

### **Force Unsync Procedure Change**

In order to force unsync an 18R2 from all modules, you need to hold the CH+ and CH- buttons on the 18R2 for 30 seconds. This has been changed from holding the SYNC button for 30 seconds, which would cause operators to accidentally force unsync if they held too long during the syncing process.



## 5.0 Firmware and Control Panel Improvements

The 5.0 release includes a handful of new hardware and control panel improvements.

### Firmware Improvements

- 1/100th Second Timing\*
- **COBRA MESH** for Manual and Scripted Firing
- Dual Alternate Firing
- Minor Improvements and Fixes

### COBRA Control Panel Improvements

- Basic version FREE (includes Device List only)
- PRO version \$199 *one-time* fee for lifetime license and unlimited upgrades (all features)
- Device List Improvements including sorting, graphing and continuity reports
- Show Control Improvements including large clock, step & alt buttons and cleaner layout
- **New!** Manual Firing Controls including cue labeling, show clock and firing history report
- **New!** Interactive Field Map with Google Earth Satellite Imagery
- **New!** Offline Mode including manual fire and field map setup
- **New!** Multilingual including English, Español, Deutsch, Italiano, and Français
- **New!** Phablet Resolution Support (5"+ devices)

\*Supported on 18M B hardware and higher shipped June, 2015 or later. 18M A hardware rounds to nearest 1/10th. [Learn more.](#)

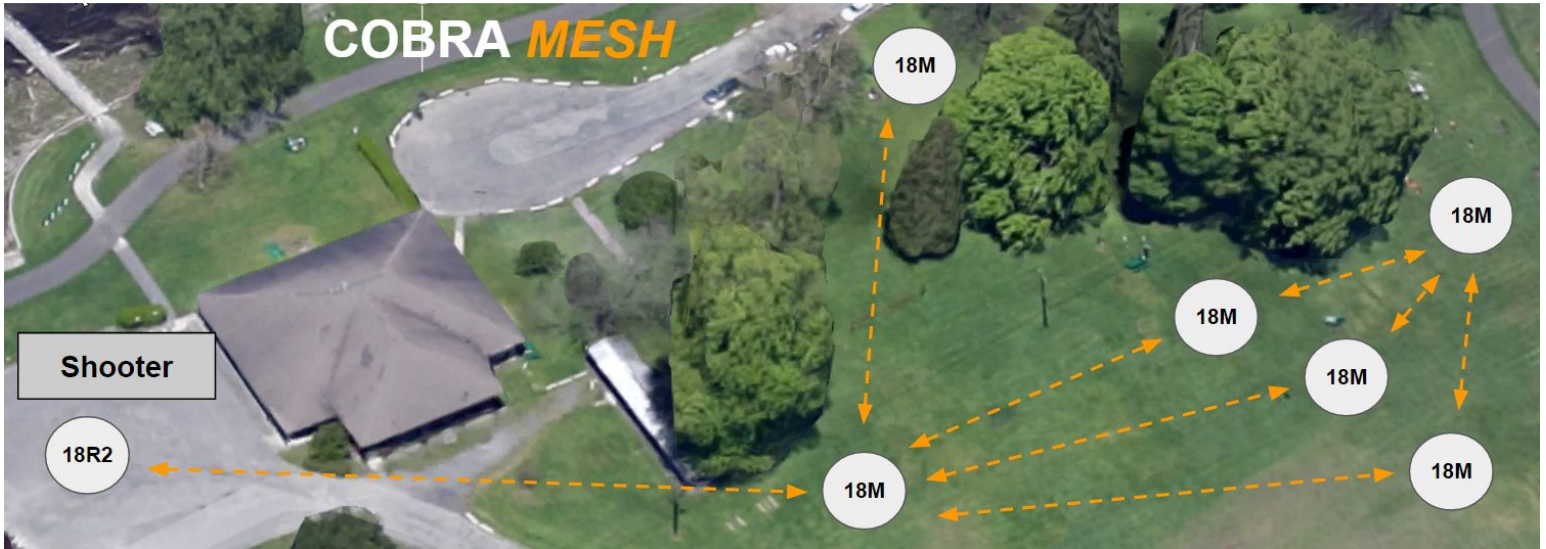
### 1/100th Second Timing

COBRA now supports 1/100th of a second timing. Same as earlier versions, you can fire unlimited cues across unlimited channels on the first script in the cobra.csv file. The new timing feature is supported on all [18M hardware B versions](#) shipped on 6/15 or later. Unfortunately, existing 18M A hardware versions cannot be upgraded. However, they are fully supported as they will round to the nearest 1/10th of a second. The new time format simply adds a second decimal space. For example, 1 minute, 30.05 seconds is: 00:01:30.05. The 2nd decimal place is optional.

The latest version of Finale Fireworks and COBRA Show Creator support the added decimal place in the export. To download the latest version of Finale Fireworks, please visit the [News and Announcements](#) forum and click on the most recent pre-release. For COBRA Show Creator, this will update automatically when launching the program with an internet connection established. If you are using Microsoft Excel, you can add a 2nd decimal place in the time event value.

## COBRA Signal MESH for Manual and Scripted Firing

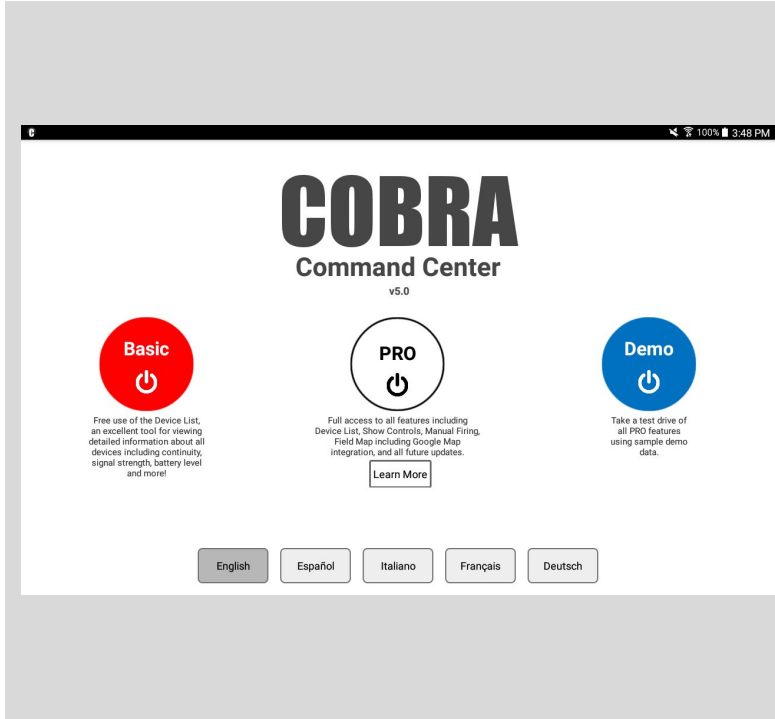
A signal miracle worker, signal MESH allows all devices to participate in signal communications. Every module now repeats all communications to all devices minimizing or eliminating the need to raise modules or use extension cables. For example, modules assist to repeat communications over hills and around buildings to produce a worry-free signal environment. Once upgraded to 5.0, the MESH network functions automatically for all devices including module hardware revisions A and B. No user action is required, simply operate on version 5.0 and you will leverage this shared network.



# COBRA 5.0 Control Panel Improvements

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 continues to expand and improve with new features alongside our core product expansion. To use the Basic version, you need an [Android device](#) and an [OTG USB cable](#).

## Control Panel General Changes



### New Pricing Model!

COBRA now offers a free **Basic** version with access to the COBRA device list. The new **PRO** version gives access to all features for a one-time \$199 fee. This includes free upgrades.

### Basic (FREE)

Free access to the Device List, a feature which gives you a detailed view into all devices including each module's channel, address, battery level, key position, signal strength, and continuity information. Using simple filtering and sorting options, you can quickly find and resolve setup issues. In addition, a new continuity report gives you access to all open continuity issues. As issues are resolved, the report is updated in real-time providing a quick tool for perfecting continuity on the shoot site.

### PRO (\$199 lifetime fee including free upgrades)

The PRO version gives you access to all features including the Device List, Show Controls, Manual Firing, and Google Earth Interactive Field Map. The \$199 fee includes a lifetime license including free upgrades. This is a one-time, non recurring fee.

### Translated into Five Languages

On the startup menu, choose from one of five languages including English, Español, Deutsch, Italiano, and Français. If you are interested in contributing to a new language translation, please email [ssmith@cobrafiringsystems.com](mailto:ssmith@cobrafiringsystems.com).



# Control Panel New Features!

The following details each of the new features.

- Device List Improvements including sorting, graphing and continuity reports
- Show Control Improvements including large clock, step & alt buttons and cleaner layout
- **New!** Manual Firing Controls including cue labeling, show clock and firing history report
- **New!** Interactive Field Map with Google Earth Satellite Imagery
- **New!** Offline Mode including manual fire and field map setup
- **New!** Multilingual including English, Español, Deutsch, Italiano, and Français
- **New!** Phablet Resolution Support (5"+ devices)

## Device List Improvements

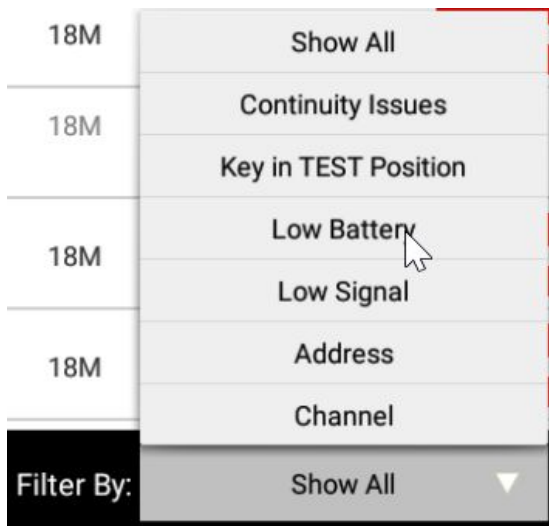
The device list gives you a detailed view into all devices including each module's channel, address, battery level, key position, signal strength, and continuity information.

Please see below for a list of new improvements to the Device List feature.

Device	Addr.	Ch.	Key Pos.	Mode	Sig.	1P	2P	Continuity	Exc.
18M	A58	01	ARM	eMatch   9V	-18	9	5	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	View Exceptions
18M	A59	02	ARM	eMatch   9V	-66	9	6	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	View Exceptions
18M	A60	03	ARM	eMatch   9V	-52	8	6	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
18M	A62	04	ARM	eMatch   9V	-27	8	8	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
18M	A61	05	ARM	eMatch   9V	-18	9	9	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
18M		06		Channel in script, but no module found.				1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	View Exceptions
18M	A63	07	ARM	eMatch   9V	-21	7	8	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	
18M	A64	08	ARM	eMatch   9V	-66	2	8	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	View Exceptions

## Improved Look and Feel

The overall UI has been improved to offer a cleaner, easy to understand layout. For example, when toggling between TEST and ARM mode, the background color changes to red or green to indicate the state of your remote. In addition, many areas now include informational icons to learn more about the feature.

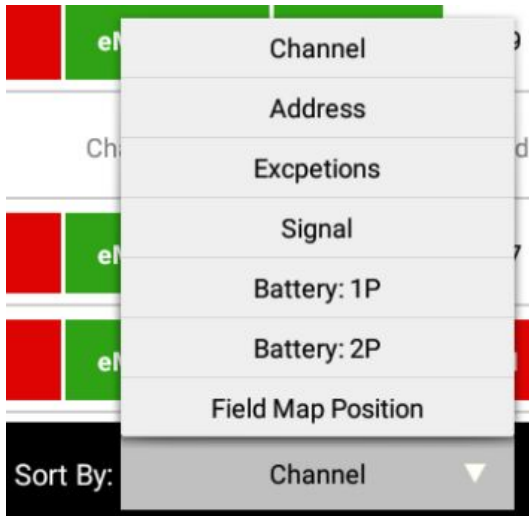


## New Filtering Options

The following filters are now available to assist in quick identification of desired modules. All filtering and sorting buttons are larger and easier to tap.

- Show All
- Continuity Issues
- Key in TEST Position
- Low Battery (P2 or lower)
- Low Signal (-75 to -99 dB)
- Address
- Channel





### New Sorting Options

By default, all modules are sorted by channel. However, you can also sort by field map position to allow operators to work issues position-by-position. Use combinations of filtering and sorting to quickly identify and solve problems.

- Channel (default on startup)
- Address
- Exceptions
- Signal
- Battery: 1P
- Battery: 2P
- Field Map Position

18M	A62	04	ARM	eMatch   9V	-27	8
18M	A61	05	ARM	eMatch   9V	-18	9
18M		06	Channel in script, but no module found.			
18M	A63	07	ARM	eMatch   9V	-21	7

### Missing Module Displayed

Module channels that are in the script, but missing or not powered on will display on the device list. For these modules, you can also click the continuity grid to display event descriptions.

DEVICE LIST								Total: 8 ARM: 0 TEST: 8 Audio Box: 0		
Device	Addr.	Ch.	Key Pos.	Mode	Sig.	1P				
18M Center	A60	03	ARM	eMatch   9V	-30	6				
18M Center	A62	04	ARM	eMatch   9V	-28	1				
18M Center	A61	05	ARM	eMatch   9V	-31	8				
18M Front Left	A58	01	ARM	eMatch   9V	-27	8				
18M Front Left	A63	07	ARM	eMatch   9V	-43	5				
18M Front Right	A59	02	ARM	eMatch   9V	-31	8				

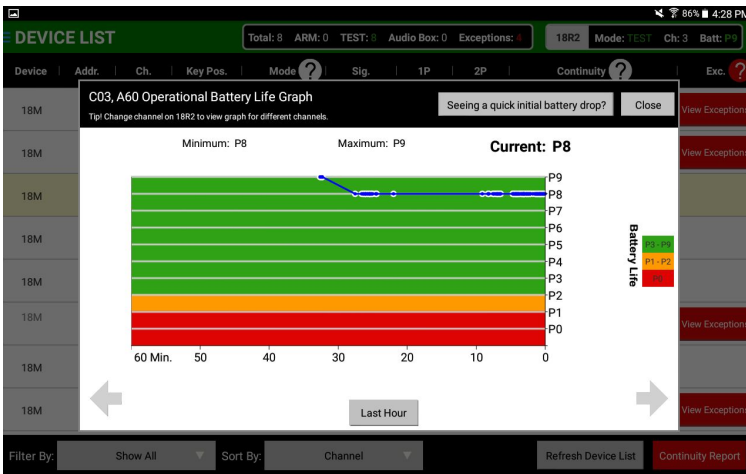
### Field Map Position Displayed for Each Module

Using the new Google Earth Field Map feature, you can assign modules to field positions. The field map position name is now displayed in the Device List. This allows you to quickly identify where a module exists physically on the shoot site.



## Signal Graphing

Signal strength is now tracked for each module. By pressing the icon on the module's signal, a graph appears displaying the current real-time plotted signal. The signal from the controller is displayed separately from signal received from other devices in the mesh to help you see the benefit of the mesh communications.



## Battery Graphing

Battery level is now graphed for each module. By graphing battery life, you can easily see how your batteries are performing over time. For example, if your module is at a P4 and you're concerned about battery life. If the graph displays it's been P4 for the last hour, you will have little concern. Give yourself peace of mind in those situations where you may have concern.

**DEVICE LIST**

Device	Addr.	Ch.	Key Pos.	Mode	Sig.	1P	2P	Continuity	Exc.
18M	A58	01	ARM	eMatch   9V	-18	9	5		
18M	A59	02	ARM	eMatch   9V	-66	6	4		
18M	A60	03	ARM	eMatch   9V	-66	6	4		
18M	A62	04	ARM	eMatch   9V	-66	6	4		
18M	A61	05	ARM	eMatch   9V	-66	6	4		
18M	A63	07	ARM	eMatch   9V	-21	7	8		
18M	A64	08	ARM	eMatch   9V	-30	1	8		

**C03, A60** Modal Window:

- Change Firing Mode: Talon, eMatch
- Change Voltage Mode: 9v, 12v, 14.8v, 18v, 24v

## View / Change Voltage & Firing Mode

You can now change the module's voltage or firing mode directly from the Control Panel. Realize a module is in e-match mode, but is firing Talons? No problem, simply toggle this directly from the UI without physically being at the module.



Continuity Good	The cue has good continuity. If you have a script loaded in the remote, this cue is also in a script.
Continuity Good, Not in Script	The cue has good continuity, but is not in your script.
No Continuity, In Script	The cue does not have good continuity and is also in your script.
No Continuity	The cue does not have any continuity and is not in your script.
No continuity, module on same channel has continuity	The cue does not have continuity, however, a different module on the same channel does have continuity.

## Mirrored Module Continuity Display

In some cases, you may choose to place multiple modules on the same channel to avoid lengthy wiring or incorrect shoot site planning. In 5.0, modules on the same channel complement each other when satisfying script continuity requirements. These modules no longer show as an exception. In addition, these cues are displayed as Orange and are noted to the operator accordingly.

**Solution:** Close

- Raise the modules by at least 1 meter or 3 ft. Common techniques include a 5-gallon bucket, milk crate, or you can use our COBRA antenna extension cables along with a wooden dowel, fiberglass driveway marker, or other pole with the antenna attached to the end using tape, a zip tie, or other methods. You can purchase the antenna extension cables from the Accessories section of [www.cobrafiringsystems.com](http://www.cobrafiringsystems.com)
- Confirm antennas are pointing straight up towards the sky. Directly above the antenna is a dead zone. If your position is higher or lower in altitude, you want the antenna directions to be in parallel. For example, // or \\.
- Confirm the antennas on both the remote and the modules are screwed down tightly.
- Confirm the module has line of sight to the remote. Make sure the module is not behind any racks or other obstacles that might be obstructing line of sight to the remote.

## “How to Fix?” Exception Instructions

All device exceptions now include instructions / recommendations on how to fix issues. All instructions are translated into the selected language including English, Español, Deutsch, Italiano, and Français.

Device	Position	Channel	Address	Cue #	Description	Exception	How to fix?
18M	18M	C01	A58	Cue 15	36's lidu col crack XC (LE/-/-) DBL TIE	Cue missing continuity, but in script	
18M	18M	C02	A59	Cue 8		Cue has continuity, but not in script	
18M	18M	C08	A64	Cue 6	4*X4- thunder mine (-/-/RM/-)	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 1	104's Poison spider (-/RE) DBL TIE	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 2	100's crackle mine to fall leaves (-/RE) DBL TIE	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 3	49's Lidu B-495 (-/-/RE) DBL TIE	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 4	49's Quick salute X 4 (-/-/RE)	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 5	6X5's Gold/silver crackle X2 (-/RM)	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 6	19's Silver tail to yellow fish X 4 (-/-/RE)	Cue missing continuity, but in script	
18M	18M	C09	A72	Cue 7	RWV candle barrage X 4 (-/-/RE)	Cue missing continuity, but in script	

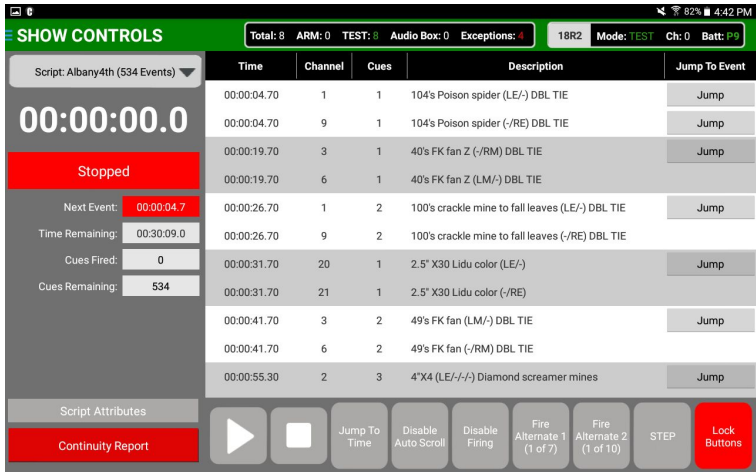
## New! Continuity Exception Report

A brand new Continuity Report is now available for the quick identification and resolving of continuity issues. This report is faster than going through each module and clicking on the continuity grid. Instead, the module's channel, cue, description, and field map position are displayed to the operator. The report is updated in real-time as issues are resolved. This eliminates the need to manually refresh the report.

## Show Control Improvements

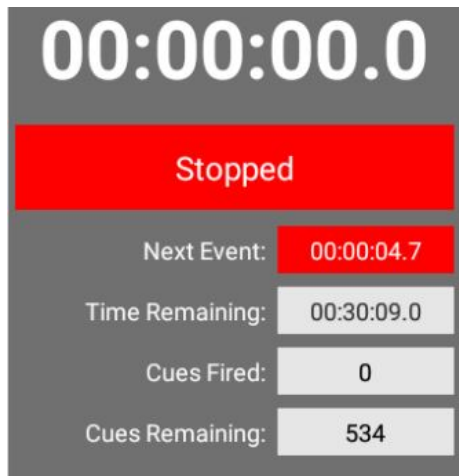
The show controls enable you to fire scripted shows directly from a detailed user interface. The show controls display a scrolling list of events as they fire beside a large show clock displaying time and events remaining. The operator also has access to the STEP and ALTERNATE firing functions while the script is running. For added manual firing control, make sure to review the Manual Firing feature which allows the operator to manually fire cues while the script is running displaying the previous and next fired events. In addition, the manual firing feature does not automatically change channels like the 18R2. This gives complete control to the operator.

Please see below for a list of new improvements to the Show Controls feature.



### Larger Show Clock

The show clock is now much larger for the operator to clearly see the show time.



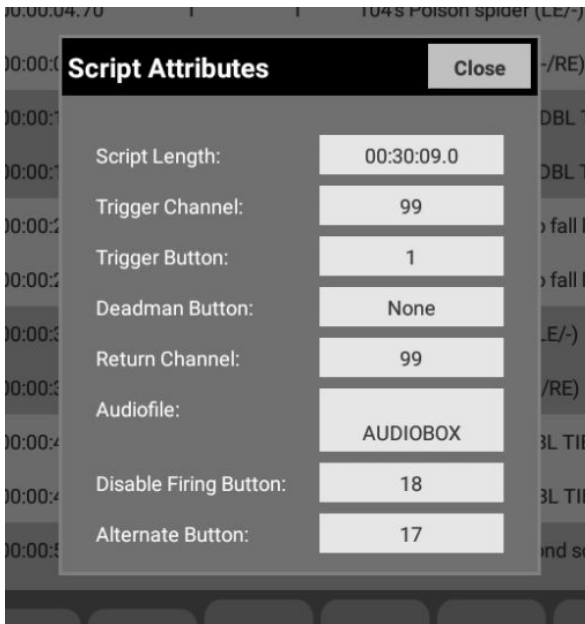
### Cleaner Display of Time / Events Remaining

The UI has been simplified to clearly display the number of cues fired, current time and time remaining.



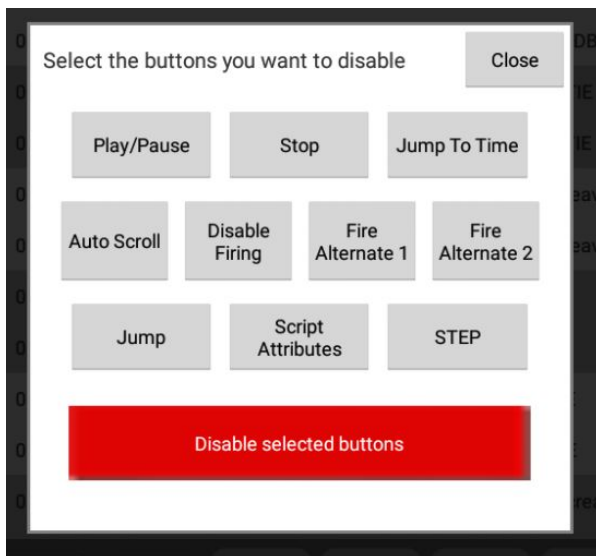
### Large Button Layout

All buttons are now positioned as larger buttons under the event list. This allows for quick, big button access to the operator.



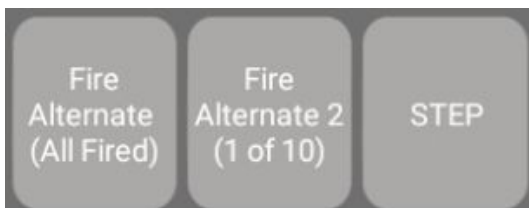
## Script Attributes

With several new additions to the script attributes, a new script attributes button is available for viewing detailed script information.



## Lock / Quick Unlock Buttons Feature

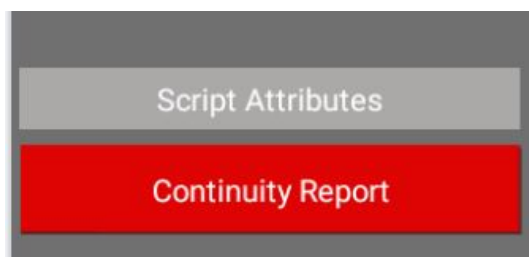
You can now lockdown all buttons or selected buttons to provide peace of mind when firing your show due to accidental button pressing by operators. Simply press Unlock Buttons once to provide quick access to all features.



## STEP & ALTERNATE Buttons Added

You can now press the STEP button directly from the Show Controls UI.

You can also press the ALT1 and ALT2 buttons directly from the Show Controls UI. For each button, the number of remaining alternates is displayed. You don't need to configure alternate buttons into your 18R2 header attributes in order to use this functionality.



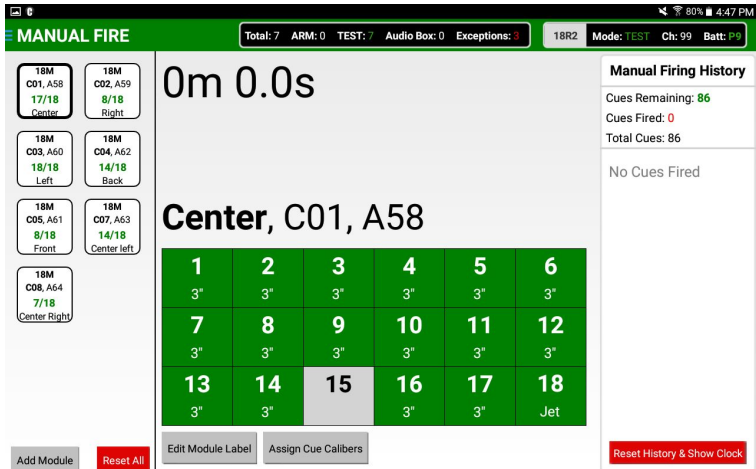
## Continuity Report Quick Access

The new Continuity Report is also available from the Show Controls feature. For last minute continuity checks, you can access this without going back to the Device List.

## Manual Firing Controls

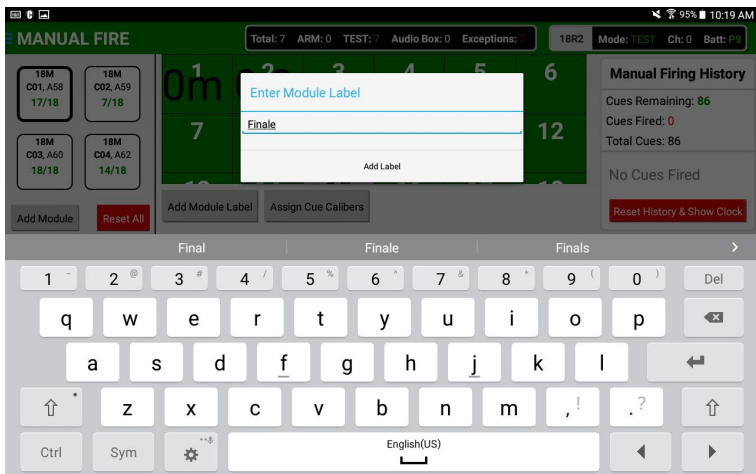
The manual firing controls copy and enhance the manual firing functionality of the 18R2. Instead of toggling CH+ and CH-, you can easily tap on any module, view previously fired cues, fire available cues, and see a manual firing history. The manual firing feature also allows you to optionally label modules and cues from a personal database of calibers and cakes. This is very helpful compared to having to remember or write down what items are on what channels or cues.

Please see below for a list of new improvements to the Manual Firing feature.



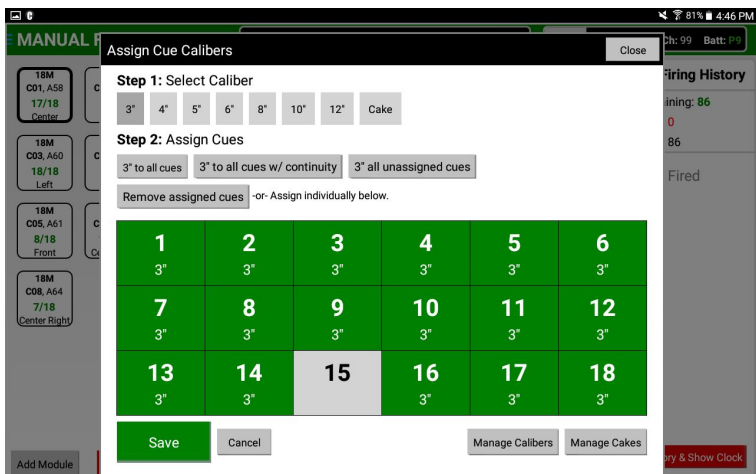
## Quick Module Access

All available modules are easily displayed and accessed from the left-hand column. For each module, the number of cues with available continuity is listed. You can also manually add modules in advance, even if the module is not powered on. This can be done when connected to the 18R2, or when in offline mode, explained below.



## Module Labels

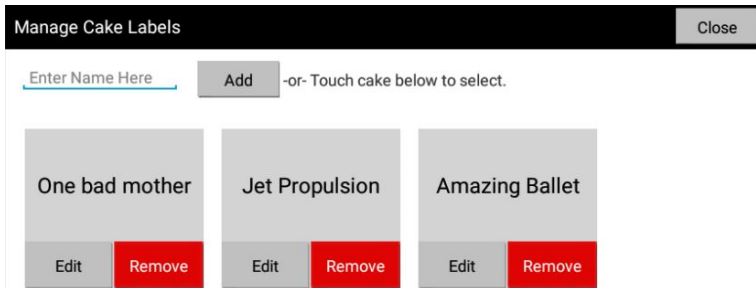
You can optionally label any module. This is a general label for the module which displays in the module listing in the left column, and on the module main UI when accessed.



## Assign Cue Calibers / Cakes

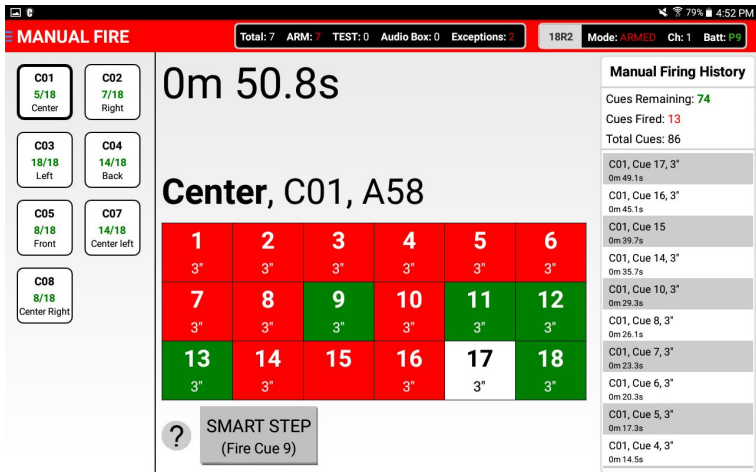
Cue labels allow you to quickly label any cue on any module. This label displays on the cue when firing the show. This helps the operator know which items have fired and which remain. The Control Panel comes with a small database of calibers including 3", 4", 5", 6", 8", 10" and 12". You can also create your own calibers and cakes as explained on page 13.

When assigning cue labels, a few quick button options are available for assigning to all cues, cues with continuity only, or unlabeled cues.



## Caliber and Cake Manager

Not seeing the caliber you want, or want to create your own personal database of cakes? Easily use our caliber and cake manager to create your own options for future use. Long term, we'll be integrating this into COBRA Show Creator and Finale Fireworks.



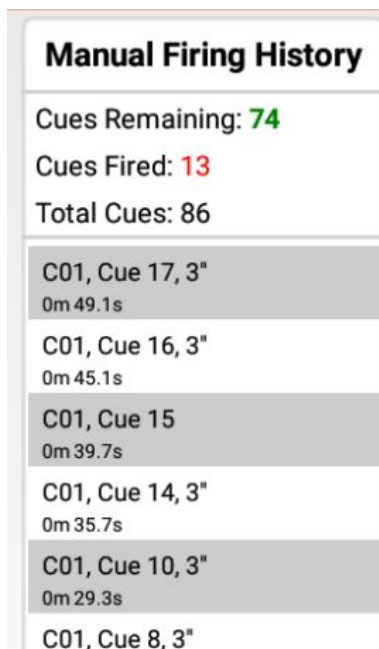
## Manual Firing

To fire your show manually, ARM the 18R2, tap the module you want to fire, and begin tapping cues. Once fired, cues go from green to red. The last cue that fired is blinking red.



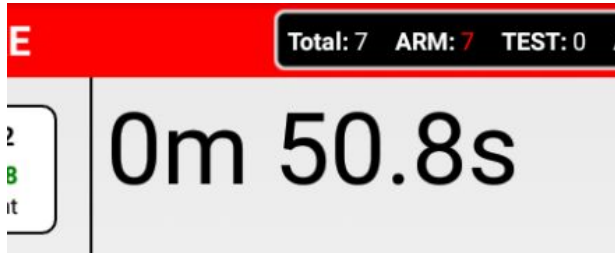
## SMART Step

Only on the Control Panel, the SMART Step feature will fire the earliest, unfired cue on the module. For example, if cues 1, 2, 3, 5, and 6 have been fired, pressing the SMART Step button will fire cue 4, followed by 7, 8, 9, 10, etc... The difference between the STEP feature in the 18R2 is that the 18R2 will always start on cue #1. The SMART Step feature will always fire the earliest unfired cue.



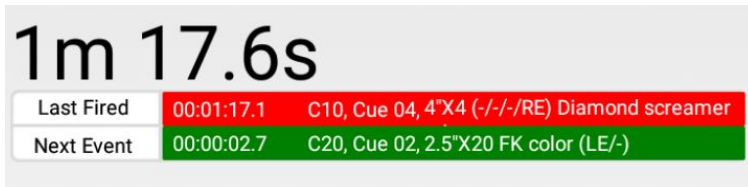
## Firing History

When firing cues, firing history is displayed in the right-hand column. This displays the channel, cue, effect (if labeled), and time fired.



## Large Show Clock

A large show clock is displayed to the operator. This clock begins when the first cue is fired. This helps the operator keep on pace and to know their current show time.



## Manual Firing During Scripted Shows

Much improved from manually firing on the 18R2, the Control Panel provides the following:

- Select any module at any time. When a channel automatically changes on the 18R2, the UI does not change to the operator.
- The current script displays to the user, directly from the manual firing UI.
- The next and previous event including time and description are displayed to the operator. As new events fire, the event information is updated in real time.



We are unable to detect your Android device

Use Offline Mode

Close

Please try the following troubleshooting steps:

- Confirm your 18R2 is powered on and connected via USB to your Android device
- Confirm your USB cable is a special USB to Micro USB OTG (on-the-go)
- Disconnect your USB cables, wait 15 seconds, then reconnect your USB cables
- If you're still not connecting, re-start your 18R2
- Still not connecting? Contact Scott Smith at 518-222-7410 or [ssmith@cobrafiringsystems.com](mailto:ssmith@cobrafiringsystems.com)

## Offline Mode

Offline Mode allows you to access some system features without being connected to the 18R2. For example, setting up your modules in advance within the Manual Fire or Field Map feature. All setup is saved on the Control Panel and available once closed and reopened at a later time. This is helpful if you wish to setup your Field Map the night before, or are assigning module / cue labels on the shoot site prior to powering on your 18R2.



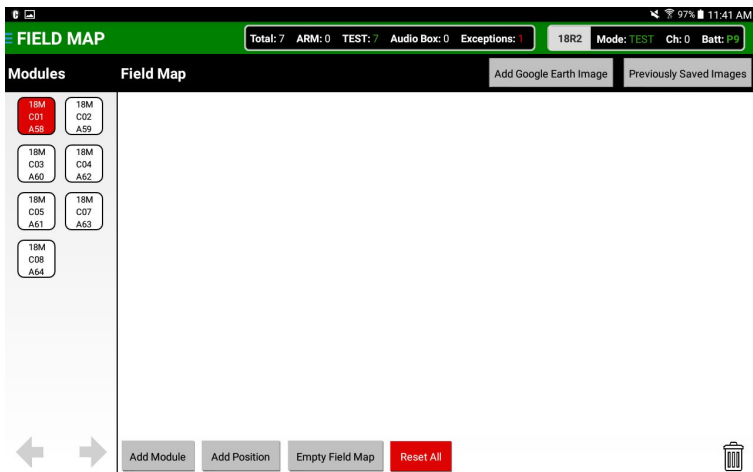
## Interactive Field Map with Google Earth Satellite Images

Do you commonly use handwritten field maps to know where specific module channels and addresses are located in the field? Do you have difficulty knowing where specific modules are located in the field when fixing issues? COBRA has introduced a new feature that allows you to easily layout your field positions and modules, making troubleshooting quick and easy when working interactively with your operators.

Using Google Earth Satellite Imagery when connected to Wifi, you can easily obtain a picture of the shoot site, including a 3D perspective view. All images can be saved and accessed from the Control Panel, even when not connected to the internet or 18R2.

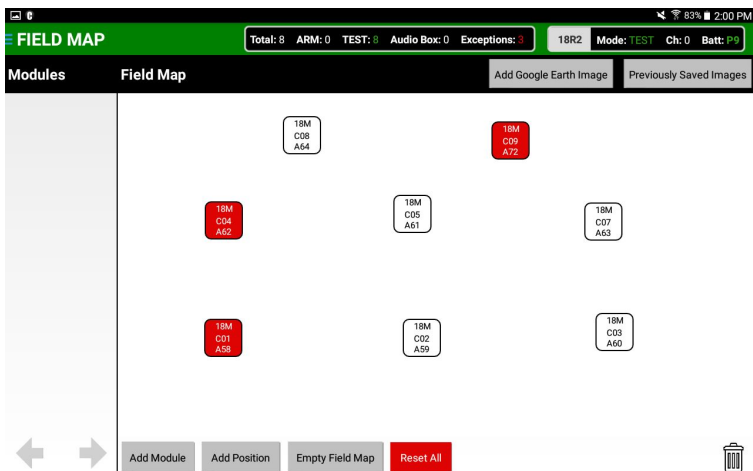
Easily create new positions, drag and drop modules onto the field, and click on modules to gain detailed information including signal, battery life, and continuity data. Any modules or positions with possible issues are highlighted in red for the user to quickly fix the issues without having to go back to the Device List.

Please see below for a list of new improvements to the Interactive Field Map feature.



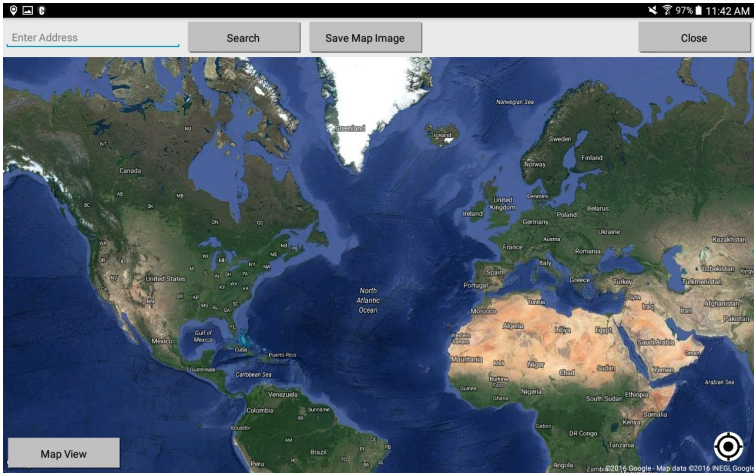
### Quick Module Access

All available modules are easily displayed and accessed from the left-hand column of the UI. For each module, the number of cues with available continuity is listed. You can also manually add modules in advance, even if the module is not powered on. This can be done when connected to the 18R2, or when in offline mode, explained below.



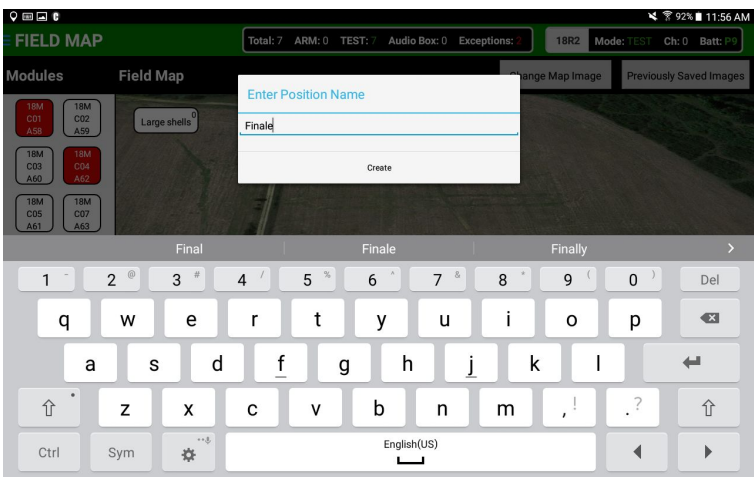
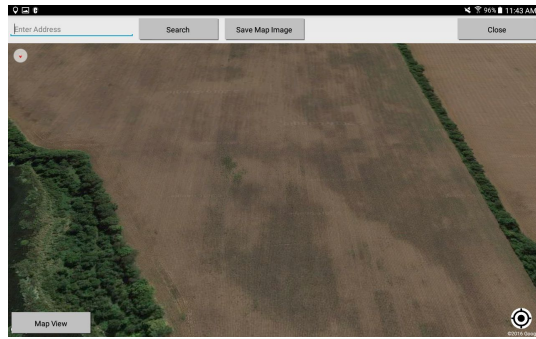
### Drag and Drop Modules

Easily drag and drop modules into the field map. For each module, the channel and address is displayed. Modules displaying as red have issues. Simply tap the module for a detailed view of continuity, signal, battery life, and any issues.



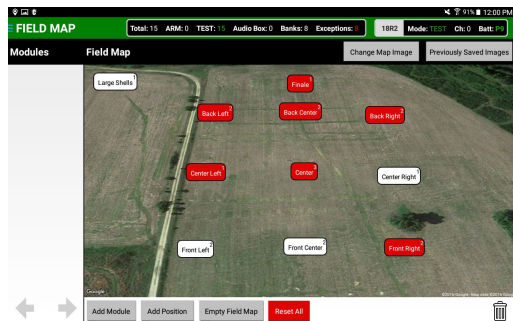
## Add an Optional Google Earth Satellite Image

Easily drag and drop modules into the field map.



## Create Positions and Assign Modules

To save space, create new positions and drag modules into the positions. Similar to modules, a position will display as red if it contains a module with any issue. Click the position to display each module. Modules can be dropped stand-alone or within positions.



## View Detailed Module Information

Tap on a module to view detailed information including continuity information, battery levels, signal strength, channel, address and position data. You can also click on the battery level or signal strength to see the associated graph.

## Dual Alternate Firing

In the 5.0 firmware release, COBRA included a new “alternate” firing function. 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. 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.

In the 5.0 release, we have added a 2nd alternate. This allows you to define different types of alternates to be fired in your show. This functionality is available both within the 18R2 by defining the alternate firing buttons, but also as a feature within the Show Controls section of the COBRA Control Panel. To access this function within the COBRA Control Panel, you don't need to assign alternate firing buttons within the cobra.csv header row.

**New cobra.csv header format:** New format: Trigger Channel, Trigger Button, Deadman Button, Return Channel, Audio Box Filename, Script Name, Disable Firing Button, Alternate Firing Button 1, **Alternate Firing Button 2**

When creating your script, use ALTERNATE1 and ALTERNATE2 in the event time column.

For example, see below for a script that has alternate buttons 17 and 18, and a few

```
1,1,,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  
ALTERNATE1,3,1,Shell  
ALTERNATE1,3,2,Shell  
ALTERNATE2,3,3,Cake  
ALTERNATE2,3,4,Cake  
end
```

The COBRA Deadman still uses the ALTERNATE button to fire the first alternate, and not the second.







## **Minor Improvements and Fixes**

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

### **18M Continuity Display Time Extended**

When pressing the TEST button on the 18M, the cue continuity displays for 4 seconds to allow the operator enough time to view continuity information. In previous versions this was only 2 seconds.

### **18M Brightness on Startup Extended to Channel Display**

When powering on the 18M, the background stays at full brightness through the entire startup process. This full brightness has been extended to the display of the channel for about 1 full second. This allows the operator to see the channel in daytime environments instead of having it dimmed immediately.

### **18R2 Signal Strength Warnings Change**

In the 4.0 BETA version, the 18R2 would display a low signal warning for modules with a signal strength between -60 and -99 dB. This became overwhelming for users as it's common to have signal in this range. We kept the feature, however, the signal warning does not show until -75 is reached.

### **18R2 Warnings Disabled When Connected to Control Panel**

When connected to the Control Panel, we have disabled any warnings from displaying on the 18R2 including battery levels and signal strength. Instead, the 18R2 is kept warning free to allow for quick access if needed. The Control Panel takes over with error reporting from the graphical user interface.

### **Audio Box Filename Length Extension**

The 18R2 can now accept audio filenames upwards of 32 characters. This has been extended from the 12 character limit in previous firmware releases.

### **Force Unsync Procedure Change**

In order to force unsync an 18R2 from all modules, you need to hold the CH+ and CH- buttons on the 18R2 for 30 seconds. This has been changed from holding the SYNC button for 30 seconds which would cause operators to accidentally force unsync if they held too long during the syncing process.

### **"No Fir" Fix**

In rare cases, the 18R2 would display "No Fir" during a STEP script when manually firing was performed. This would require the user to resume the show manually. This issue has been fixed.



## **What's Next!?**

The following details some of the new items COBRA is working on for the next firmware release. Any other ideas, please send them to us!

Module / Position / Grouping of Cue Disablement  
Re-firing of Cues / DMX Support  
18R2 SMTPE Time Code Input  
Audio Box WAV Support  
Advanced Manual Firing / On the Fly Show Functions  
Control Panel Script Editing / Cue Movement / Replacement  
Field Map Import from Finale Fireworks  
Smaller Cue Count Modules  
Larger Cue Count Modules w/ Swappable Connection Options  
Slat Cover / Protection Options  
Control Panel Armored Case Options  
200+ Channel Support  
Audio Box LiPo Kit Upgrade  
Improved Multi-lingual User Guides

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](mailto:ssmith@cobrafiringsystems.com) or 518-222-7410.



## **Feedback, Feedback**

Thank you so much for reading our 5.0 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](mailto:ssmith@cobrafiringsystems.com) or 518-222-7410.



## **5.0.2 / 5.0.3 Patch Release Notes**

Please find a detailed explanation of the current 5.0 MESH technology, issues discovered in the 5.0.0 BETA, and a description of the fixes in 5.0.2 / 5.0.3 along with known issues and resolutions. The 5.0.3 version is for the 36M and 72M only and is compatible with all other equipment running 5.0.2. Any questions, please contact us at [help@cobrafiringsystems.com](mailto:help@cobrafiringsystems.com) or 518-741-4300.

### ***BETA Testing and Discovered Issues***

We would like to thank our client base for their active participation in the BETA testing process and the discovery of any issues. The purpose of this email, in addition to notifying our clients of the new 5.0 BETA release, is to release a new patch release that includes several fixes that are important for reliable operation. We estimate the new 5.0.0 firmware release has fired at least 1,000 shows without issue. However, with any BETA, we began to receive some oddities. These included the 18R2 not displaying the full armed module count, or in rare cases, having a module not fire even though it showed as armed. In addition, we received some reports of sleep wake-up issues and modules in an unresponsive state whereby the operator noticed this prior to firing, powered the module off and on, which resolved the issue.

### ***Explanation of Issues***

The current MESH technology uses a hybrid design that leverages both the native MESH function within our core Synapse network platform, and a custom secondary application layer designed by COBRA to ensure acknowledgment, timing, and security between devices and other systems. When powering on an 18R2 for the first time, we use the combination of master sessions, sub-sessions, and serialized communication between all devices to ensure "new" information is being processed, and "old" information is not. In any MESH network, it's possible to have both "old" and "new" information overlapping within the repeating infrastructure. Within our manual and automated testing, we tested proper data acknowledgment and response from all devices. However, what we found after client reports and further aggressive testing of the systems changing their "sessions" by either being power cycled, or moving from TEST to ARM on the 18R or 18R2, the "old" information was being confused with "new" information. This caused the 18R2 to become confused in thinking a module was in test mode when it was armed, or vice-versa. This confusion would cause for potential issues in the data reported to the 18R2 or 18M modules. It's important to note that of the thousand+ shows fired with 5.0, that only a few cases of modules not firing was reported. That being said, the situation we discovered is very real, and only until recently replicated through our work with our clients and further aggressive automated testing.

The summary of issues includes:

- 18R2 slow to load the final few modules in ARM mode
- 18M not waking up properly from sleep mode

- 18M becoming stuck in a state of toggling between ARM and TEST mode (test and arm LED blinking back and forth)
- 18M not properly receiving the downloaded script from the 18R2
- 18R not firing channel 00 manually
- 18R in some cases having continuity disappear and re-appear momentarily
- Audio box incorrectly aligning when pressing the + and - buttons on the 18R2
- Minor audio box distortion upon pausing and resuming script
- 18R2 displaying incorrect -99 signal for modules
- 36/72M not displaying continuity in direct sunlight

## **5.0.2 / 5.0.3 Patch Fixes**

We have currently released a new 5.0.2 / 5.0.3 patch release which addresses all of the above issues by employing an important change to our secondary application layer for filtering out and ignoring "old" non-relevant data. These changes were performed across all systems including our 18R, 18R2, 18M and Audio Box across all hardware versions. We have performed extensive testing on this with both low and high module count environments and feel confident that the issues are now resolved with the exception of two items noted below.

## **5.0.2 Known Issues**

We are currently aware of two issues. It is important to state that the issues below are uncommon and only display sometimes with larger module count shows. Please find a description of the issue below, along with how to resolve in the field if encountered.

### **Issue #1**

Symptom: This happens only to the 18M hardware version A. The 18M is in an unresponsive state when armed or being woke up by the remote. If this occurs, the 18R2 will NOT display the module as armed and alert the user of the channel and address of the unit with the issue.

How to Fix: The operator can simply power off and power on the 18M which will allow the module to report back correctly to the 18R2 and fire normally during the show. Once armed, the module has no risk going back into this state.

### **Issue #2:**

Symptom: The 18R2 does not show a module in the ARM count on the 18R2 even though the module ARM LED is lit. In this situation, assuming the module key is in the ARM position, the module WILL fire both manually and also fire a script.

How to Fix: Power off the 18M and power back on. Alternatively, if you disarm the 18R2 and re-arm the 18R2, the modules should refresh to the ARM state assuming you don't see another module not appearing in the module ARM count. Note that even though the module is not showing in the ARM count, it's actually armed and will fire.

## ***Commitment by Scott Smith at COBRA***

I wanted to let our clients know that reliability and safety are paramount for our system operations. With over 12,000 customers around the world. I have a very personal commitment to the highest level of quality, and commitment to our clients. If anyone has any questions or concerns, I provide my personal cell phone 518-222-7410 for any client who wants to call day or night. We are incredibly excited for 5.0 to be marked stable. Our 5.0.3 release will be labelled a "release candidate" and will shortly after become marked "stable".

## ***5.0.5 Patch Release Notes - 18R2 Critical Safety Alert***

On July 24th 2019, we discovered a critical safety issue affecting 18R2s w/ our new SM220 transceiver that were shipped shortly after July 4th 2019. This issue would cause the remotes running 4.0.0 or greater to, in some cases, fire an unintended cue in manual firing mode only. For example, pressing cue #1 may fire cue #1 and cue #2. Also, in rarer cases, the act of arming the 18R2 may fire a cue unintentionally if the remote is on the same channel as the module.

The issue would only affect 18R2s that are both running firmware version 4.0.0 or greater, and shipped after July 4th. All customers affected have been contacted via e-mail or phone. If you are just now becoming aware of this issue, you are not affected. Only units shipped after July 4th, using our new SM220 transceiver, and running firmware version 4.0 or greater were affected. If you have a unit with the new SM220 transceiver, you will see [U90-SM220](#) in the upper right of the face plate. Additionally, the new transceiver is [red](#), whereas the older transceiver is green.

We have fixed the issue and provided the following instructions:

- 1) Download the [4.0.1](#) or [5.0.5](#) cobra.s19 file from our website
  - 2) Save this file to a USB drive. Do not place the file within a folder.
  - 3) Place the USB drive into your 18R2.
  - 4) Hold the SYNC button and power on the 18R2 at the same time.
  - 5) The LEDs will circle around and the unit will power off.
- Note: If all red LEDs display in this step, please try a different USB drive.
- 6) Remove the USB drive
  - 7) Power on the 18R2 and either 4.0.1 or 5.0.5 will display. Your unit is now updated.

Don't worry, 5.0.5 on the 18R2 is fully compatible with 5.0.2 or 5.0.3 on the modules.

We have been in constant contact with those who purchased equipment during this period to ensure those individuals were aware of our findings. Any affected clients will also receive communication from us with the steps required to upgrade their remotes to the new firmware.

We would like to thank the COBRA community for their understanding as we worked tirelessly to ensure a complete and thorough resolution was developed, fully tested, and rolled out.

Please do not hesitate to reach out to us at [help@cobrafiringsystems.com](mailto:help@cobrafiringsystems.com) with any questions or concerns.