

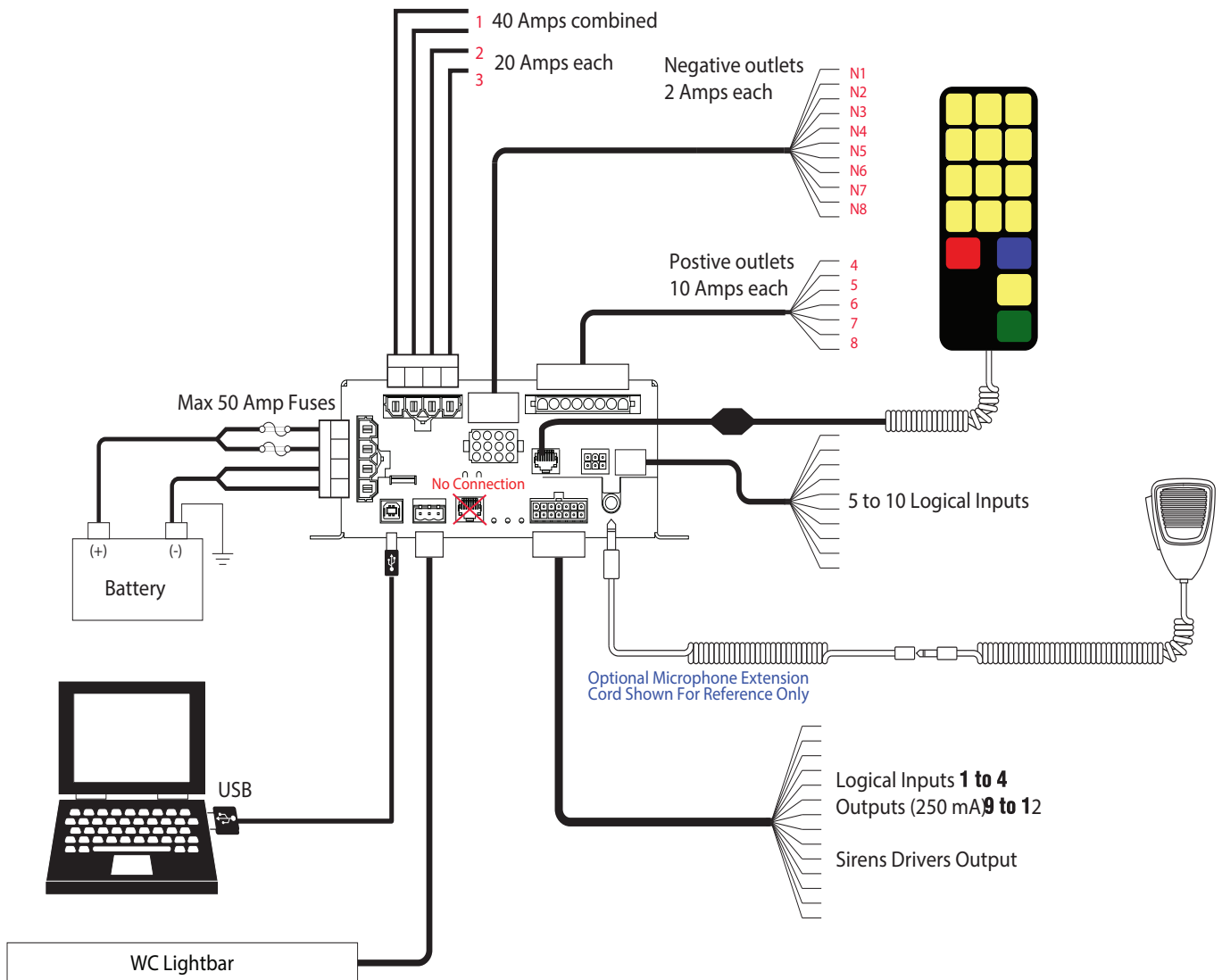
# INSTALLATION GUIDE

## CenCom Sapphire™



**Please note:** At Woodway we strive to provide accurate up to date information on the products we offer. Despite vigorous proofing there may be inadvertent technical inaccuracies and typography errors within this guide. If you spot any errors, please email [marketingsupport@woodwayengineering.com](mailto:marketingsupport@woodwayengineering.com) and this will be amended for future editions of this guide.

## System Wiring Layout



## Quick Installation Guide

Before installing the 12 Volt CenCom Sapphire™ UK in to a vehicle, it is always advisable to disconnect the battery earth.

The CenCom Sapphire™ UK has 12 Positive outlets and 8 Negative steady outlets.

### Positive Outputs

- 1 x 40 Amp circuit
- 2 x 20 Amp circuits
- 5 x 10 Amp circuits
- 4 x 250 milliAmp circuits

### Negative Outputs

- 8 x 2 Amp circuits

## CenCom Sapphire UK - Fuses

You should always remember to use the appropriate rated fuse for each individual load circuit, and never purposely overload any circuit as this may cause damage to the CenCom Sapphire™ UK and void the warranty.

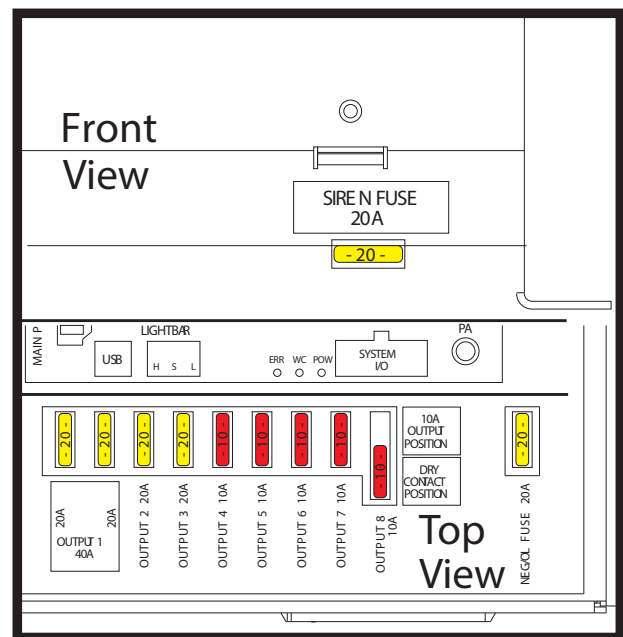
The fuses shown are the maximum allowed for each circuit, and must only be replaced with either the same rated fuse or a smaller rated fuse. If a fuse blows, check for short circuits and the load requirement for that circuit. Never insert a larger rated fuse than that specified.

## Options

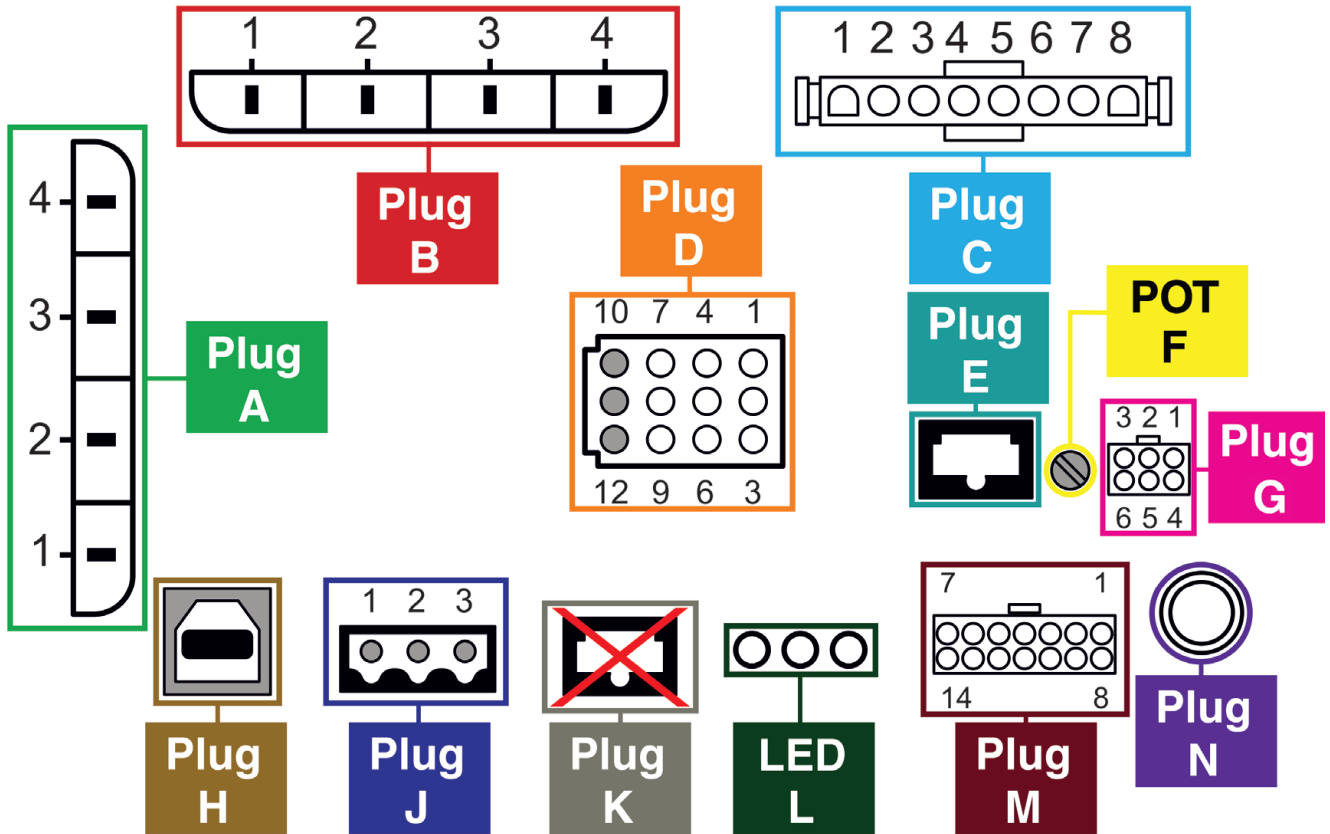
Flasher assembly module for headlights or rear foglights.

A Whelen WeCan® lightbar (Justice™ / Liberty™ / Legacy™ etc) is the preferred choice to use with the CenCom Sapphire UK for ease of fitting and functionality. Connect your lighthoods and your lightbar to the CenCom Sapphire™ UK as per the connection tables overleaf. Using the software provided configure your chosen switch panel to switch each outlet.

**For more information on installing the CenCom Sapphire™ UK, visit the Woodway Engineering website.**

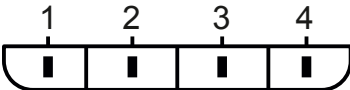


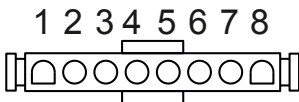
## Full Size Connector Diagram




## Plug Connection Labels


PLUG A					
Pin Number	Description	Connection			
1	Main Earth	Vehicle Chassis Ground			
2	Main Earth				
3	Main CenCom 12V Input	Vehicle or Auxiliary Battery Live. Fuse according to load.			
4	Main CenCom 12V Input				


PLUG B			
Pin Number	Description	Connection	
1	Output 1	Power Sockets	
2		Radios	
3	Output 2	Grille LEDs	
4	Output 3	Output to Headlight Flash Module Open	


PLUG C			
Pin Number	Description	Connection	
1	Output 4	Vehicle Tail Light / Rear Blues	
2	Output 5	Vehicle Tail Light / Rear Reds	
3	Output 6 (Positive Run Lock)	Run Lock	
4	Output 7 (Positive Run Lock)		
5	No Connection	No Connection	
6	Output 8 (Contact Relay - Common)	STVRU - Input from siren driver	
7	Output 8 (Contact Relay - Normally Closed)	STVRU - Output from siren driver	
8	Output 8 (Contact Relay - Normally Open)	Not used if using STVRU	

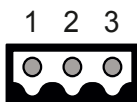
PLUG D		10 7 4 1 ● ○ ○ ○ ● ○ ○ ○ ● ○ ○ ○ 12 9 6 3
Pin Number	Description	Connection
1	N1 Output – Switched Negative	
2	N2 Output – Switched Negative	
3	N3 Output – Switched Negative	
4	N4 Output – Switched Negative	Tailgate Blue LEDs
5	N5 Output – Switched Negative	Tailgate Red LEDs
6	N6 Output – Switched Negative	
7	N7 Output – Switched Negative	
8	N8 Output – Switched Negative	
9	Solid 12 Volt Outputs	Tailgate LEDs and Tilt Switch
10	Optional Headlight flash connection if applied	(Optional) Flash Output to headlight – Switched Live
11	(Optional) Input power to Headlight flasher – can be supplied by Output 3 of CenCom	Switched Live to internal standalone headlight flasher if specified
12	Optional Headlight flash connection if applied	(Optional) Flash Output to headlight – Switched Live

PLUG E		
Description	Switch Panel Connection	


ADJUSTING POT F		
Description	PA Volume Adjustment	

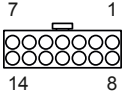
<b>PLUG G</b>		
Pin Number	Description	Suggestion
1	Input 5 - Positive	Foot Brake Input
2	Input 6 - Positive	
3	Input 7 - Positive	Remote EXT 999 activation
4	Input 8 - Negative	
5	Input 9 - Negative	
6	Input 10 - Negative	Remote Air Horn activation

<b>PLUG H</b>		
Description	PC Programming Port via USB	


<b>PLUG J</b>		
Pin Number	Description	
1	WeCan® High, Green. Lightbar connection	
2	WeCan® Shield. Lightbar connection	
3	WeCan® Low, Grey. Lightbar connection	

<b>PLUG K</b>		
Description	USA Switch Panel Connection Only	

LED L		
LED Number	Description	
1	Used for US Specification Switch Panels	
2	Data Bus with WC lightbar LED	
3	Power Status LED	

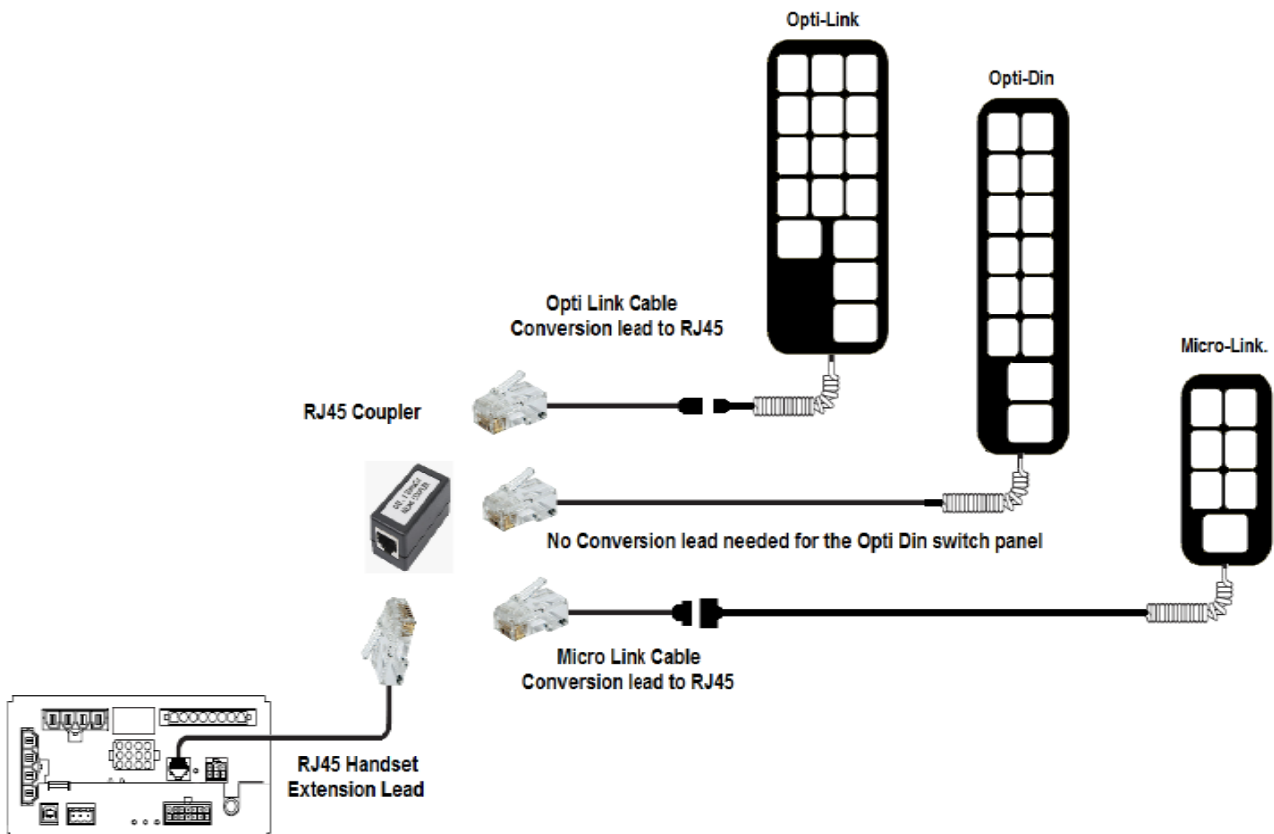
PLUG M		
Pin Number	Description	
1	Logic Input 1 - Positive / Negative	Handbrake
2	Logic Input 3 - Positive / Negative	Ext output delay Timer enable
3	Output 10 - 250mA Positive	
4	Output 9 - 250mA Positive	(Siren In Use)
5	Radio Repeat Input	
6	Siren Speakers Live	Siren Drivers Positive
7	No Connection	
8	Logic Input 2 - Positive / Negative	Tailgate Tilt switch
9	Logic Input 4	Horn Ring
10	Output 11 - 250mA Positive	
11	Output 12 - 250mA Positive	Horn Transfer Positive
12	Radio Repeat Input	
13	Siren Speakers - Return	Siren Drivers Negative
14	Ignition Input - 12V DC Positive	Ignition Input - 12V DC Positive



<b>PLUG N</b>	
Description	Stand Alone Fist Microphone Socket

## Switch Panel Connection Options

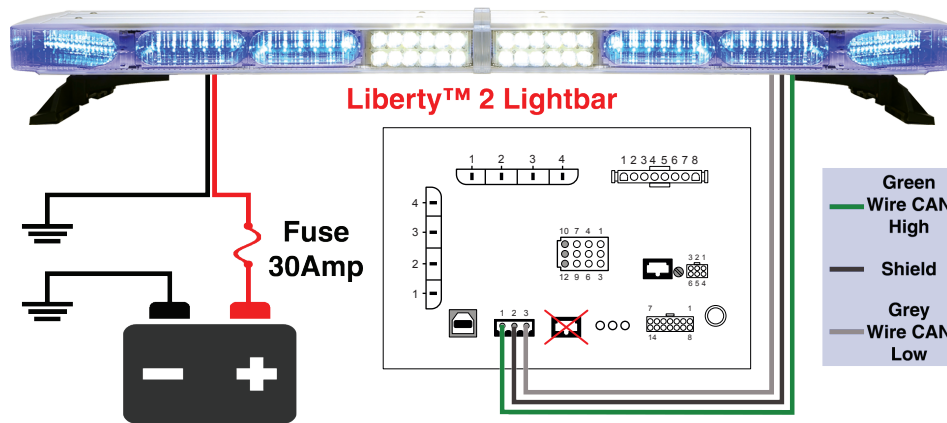
Once decided on which switch panel to use with the CenCom Sapphire UK, connect this up as shown below using the appropriate supplied adaptor, which is only required with the Opti-Link and Micro-Link switch panels. The switch panel extension cable is plugged in to socket 'E' of the CenCom Sapphire™ UK. The tail end of the extension cable will plug in to the RJ45 Coupler as shown below.



## WeCan® Connection

Mount the lightbar to the roof of the vehicle following the steps in the supplied lightbar Installation Guide.

The CenCom Sapphire™ UK is focused towards the use of any lightbar from the WeCAN™ range.



To wire the lightbar to the CenCom Sapphire™ UK, connect the lightbars attached Red power wire to the battery's 'Positive' (+) terminal and the Black power wire to 'Ground' (-). Ensure that you install a fuse and that the correct rating for your fitted lightbar (see lightbar Installation instructions if unsure), is fitted in line with your Red power wire as close to the battery terminal as possible. If wires need to be extended, ensure that the wire used is correctly rated for the necessary current (recommended 125% of maximum current draw).

Run the Green (CAN High) and Grey (CAN Low) WeCan® wires to the CenCom Sapphire™ UK Using the supplied 3 Way WeCan® screw terminal plug supplied. Using Ferrule crimps screw the wires into the 3 Way Plug using the following connections:

- Pin 1 = GREEN CAN High
- Pin 2 = SHIELD
- Pin 3 = GREY CAN Low

With the three wires securely fastened into the 3 Way plug, it can then be connected to plug J of the CenCom Sapphire™ UK by firmly mating the two connectors together.

The lightbar flash patterns can now be programmed using the supplied CenCom Sapphire™ UK programming software.

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## Notes

ISO 9001:2015 Certified



5 Year Warranty

