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Installation Guide: Core® Control Point
Model: CCP

⚠ **WARNING:** This product contains Carbon black and Bisphenol A, which are known by the State of California to cause cancer and reproductive harm. For more information go to www.P65Warnings.ca.gov.

Pre-Installation Notes:

Read *all* instructions before use. This product is a Core Control Point.

- *During the wiring process, it is recommended to terminate the shield wire at the control system's shield connection to help reduce unwanted electromagnetic interference.*

For shield/comm connection locations and connector wiring, scan the QR code:

https://whelen.widen.net/view/pdf/y1gohpkacv/14H22.pdf?t.download=true&u=zxfher

The Core Control Point serves as the main controller of a Whelen WeCanX® (WCX) Series lightbar or Arges® spotlight when a Core control system is not being utilized. When utilizing Whelen Command Programming Software, this module can be configured via the USB-C port to provide the necessary instructions that allow the WCX lightbar or Arges spotlight to function and operate in the desired manner.

Note: *Charging-only cables used for mobile devices (i.e. cell phones or tablets) are not recommended for data transfer use. Not all cables are capable of charging and data transfer.*

Diagnostic Output (J1, Pin 2):

The Diagnostic Output is a high-side programmable output signal, capable of sinking a maximum of 2.5 AMPS

Ignition Sense (J2, Pin 1):

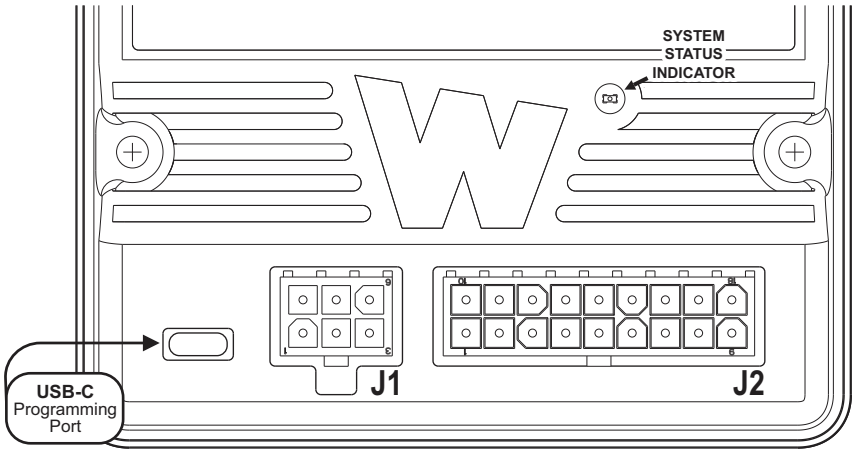
The Ignition Sense Input is to be wired to an ignition signal line on the vehicle. This will enable the WCX Control Point Module to turn on (line high, ignition sensed), or turn off (line low, ignition off).

Digital Inputs (J2, Pins 2-8 / Pins 10-17):

These pins are used as programmable digital inputs, activated by applying +VBAT to the input pin. These inputs can be used to trigger instructions for lightbar operation.

Analog Inputs (J2, Pins 9 / 18):

These pins are used as programmable analog inputs, capable of registering a range of voltages that can trigger lightbar operations when responding to voltage trip points set by the Whelen Command Programming Software.



Automotive: Serial Communications

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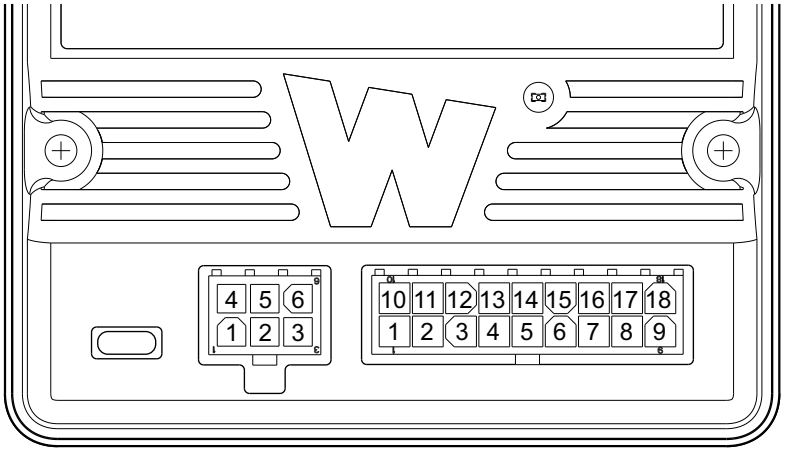
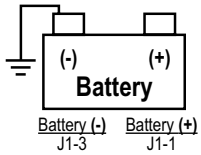
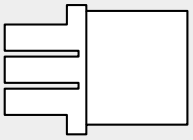
Form No.14C62G (101525)

For warranty information regarding this product, visit **www.whelen.com/warranty**





J1

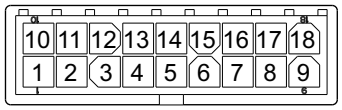


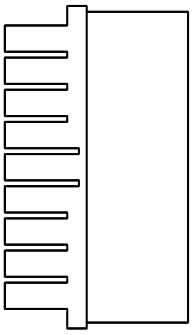
(Fuse wire at 5 AMPS)

1	RED	10-30 VDC Power	Battery (+)
2	RED/WHT	Diagnostic Output	
3	BLK	Ground	Battery (-)
4	GRN	Can H	WeCanX Shield/Comm
5	BLK/WHT	Shield	
6	GRY	Can L	

*The green and grey communication wires must be a twisted pair (7 twists per linear foot).

J2





1	GRN	Ignition
2	GRN/WHT	Input (Digital)
3	GRN/BLK	Input (Digital)
4	WHT/RED	Input (Digital)
5	WHT	Input (Digital)
6	YEL	Input (Digital)
7	WHT/VIO	Input (Digital)
8	WHT/GRN	Input (Digital)
9	WHT/ORG	Input (Analog)
10	BLU	Input (Digital)
11	BLU/WHT	Input (Digital)
12	BLU/BLK	Input (Digital)
13	WHT/BRN	Input (Digital)
14	WHT/BLK	Input (Digital)
15	WHT/BLU	Input (Digital)
16	RED/WHT	Input (Digital)
17	WHT/YEL	Input (Digital)
18	VIO	Input (Analog)

*The green ignition wire should be connected to an ignition controlled circuit that can accomodate an additional 250 mA load.

CCP Diagnostic Indicators

Status Indicator LEDs

All CoreOS devices have both a Status and Activity indicator. In some cases the indicators use a single RGB LED or a separate blue LED and an RGB LED. The indicators are used to communicate system status and error information:

- The **Activity Indicator** is a blue LED that flashes to indicate when the device is processing data.
- The **Status Indicator** is a multi-color RGB LED that indicates the system status and error conditions.

The state tables below are used to decode the system status and activity.

State Table - Update Status

System Status	Status Indicator Colors	Details
Booting	**Magenta**	The system is booting up. When a CoreOS device firmware update is being installed, this process could take up to 30 seconds.
System Failed to Boot	**Red**	A fatal error occurred and the system was unable to boot. Contact customer support.

State Table - Operational Status

System Status	Status Indicator Colors	Details
File Error	**Orange**	A configuration is missing.
Working	**White**	A new configuration file has been transferred to the CoreOS device and is actively transferring it to other WeCanX® devices. Some functionality may be unavailable during this time.
Unconfigured Node	**Cyan**	The system has a valid configuration file installed, but a device is present on the bus that is not in the configuration.
Active	**Green**	The system is actively communicating with attached devices and processing events.
Communication	**Blue Flash**	System communications are active.

CCP Diagnostic Indicator Troubleshooting

System Status	Status Indicator Colors	Troubleshooting Steps
Booting	**Magenta**	A CoreOS device firmware update can take up to 30 seconds to install. If the diagnostic LED is still magenta after 30 seconds, contact customer service.
Missing Configuration	**Orange**	Transfer a valid configuration from Whelen Command®.
Unconfigured Node	**Cyan**	Verify that all peripheral devices connected to CCP are included in your Whelen Command® configuration.
Communication	**Blue Flash**	A blue flashing LED indicates CCP detects an input change. If there's no responce to input changes, check input wiring or reset power to CCP.