



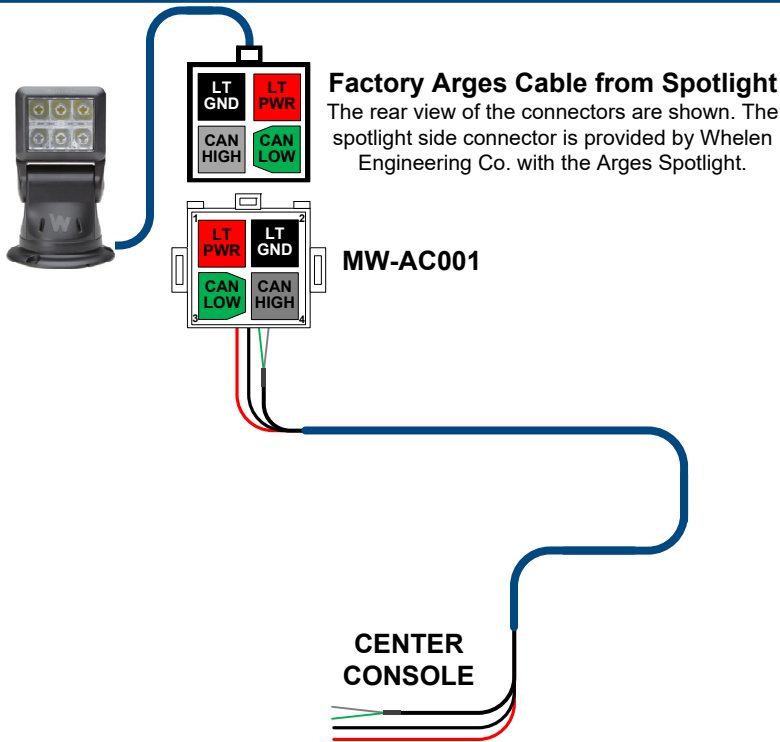
AFS

ALL FLEET SOLUTIONS



**Harnesses and Systems for
Whelen CORE Products
Lighting / Power Distribution / Data Distribution**

MW-AC001



MW-AC001 – Connector:

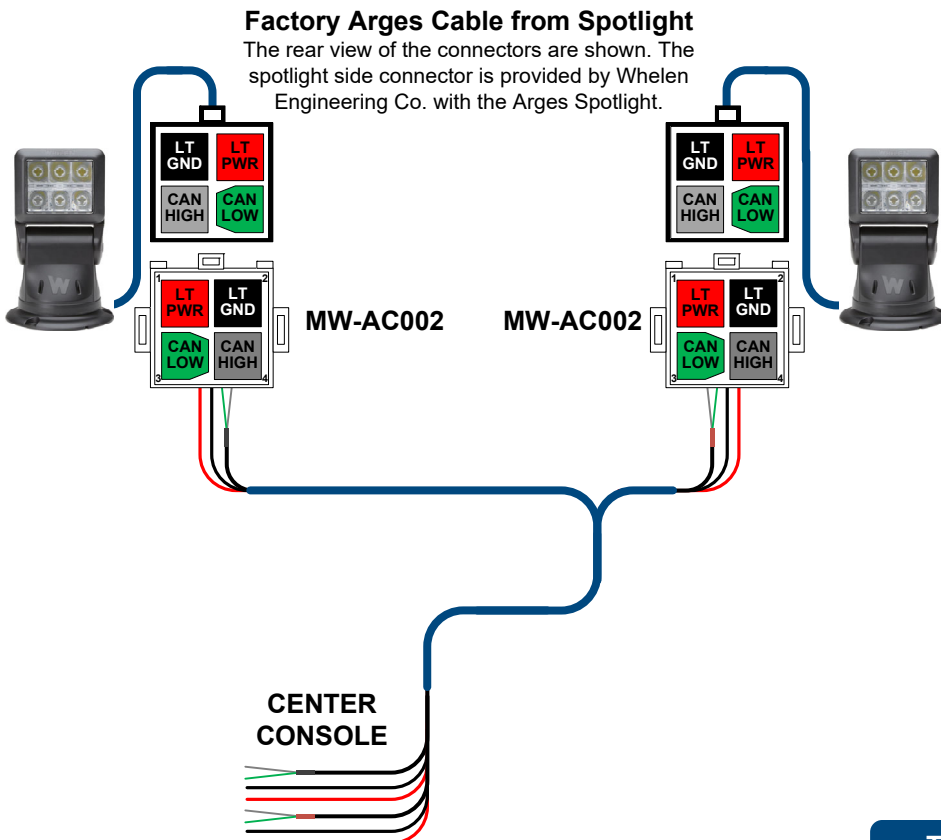
- Pin 1 – 16 Ga. RD Spotlight Power “LIGHT PWR”
- Pin 2 – 16 Ga. BK Spotlight Ground “LIGHT GND”
- Pin 3 – 20 Ga. GN CAN Low – Twisted Pair
- Pin 4 – 20 Ga. GY CAN High – Twisted Pair
- 4” Exposed

MW-AC001 – Console Breakout:

- 16 Ga. RD Spotlight Power “LIGHT PWR”
- 16 Ga. BK Spotlight Ground “LIGHT GND”
- 20 Ga. GN CAN Low – Twisted Pair
- 20 Ga. GY Can High – Twisted Pair
- Shield and 20 Ga. Drain Wire
- 20” Exposed

The Arges Spotlight Power Cable provides the power, ground, and CAN bus data connection from the spotlight to the Whelen Arges Controller mounted in the vehicle’s center console. The installer will need to make the final terminations to the customer’s control head or a CAN bus connection point.

MW-AC002



MW-AC002 – Driver Connector:

- Pin 1 – 16 Ga. RD Spotlight Power “LIGHT PWR2”
- Pin 2 – 16 Ga. BK Spotlight Ground “LIGHT GND2”
- Pin 3 – 20 Ga. GN CAN Low – Twisted Pair
- Pin 4 – 20 Ga. GY CAN High – Twisted Pair
- 4” Exposed
- Black heat shrink on CAN bus cable

MW-AC002 – Pass. Connector:

- Pin 1 – 16 Ga. RD Spotlight Power “LIGHT PWR1”
- Pin 2 – 16 Ga. BK Spotlight Ground “LIGHT GND1”
- Pin 3 – 20 Ga. GN CAN Low – Twisted Pair
- Pin 4 – 20 Ga. GY CAN High – Twisted Pair
- 4” Exposed
- Red heat shrink on CAN bus cable

MW-AC002 – Console Breakout:

- 16 Ga. RD Passenger Spotlight Power “LIGHT PWR1”
- 16 Ga. BK Passenger Spotlight Ground “LIGHT GND1”
- 16 Ga. RD Driver Spotlight Power “LIGHT PWR2”
- 16 Ga. BK Driver Spotlight Ground “LIGHT GND2”
- 20 Ga. GN CAN Low
- 20 Ga. GY Can High
- Shield and 20 Ga. Drain Wire
- 20” Exposed – flag label reads: Driver Spotlight
- 20 Ga. GN CAN Low
- 20 Ga. GY Can High
- Shield and 20 Ga. Drain Wire
- 20” Exposed – flag label reads: Passenger Spotlight

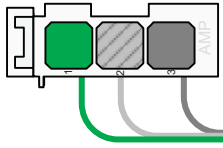
TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

Email: sales@allfleetsolutions.com

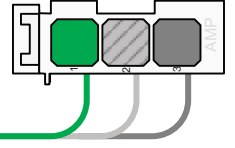
Web: www.allfleetsolutions.com

CORE



12-WCX-18
Data Communication
 • Pos. 1 – 18 Ga. GN CAN H
 • Pos. 2 – 18 Ga. Shield
 • Pos. 3 – 18 Ga. GY CAN L

WCX-M7

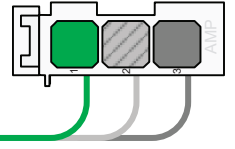


STRIPPED ENDS



WCX-M7-PT18
Data Communication
 • Pos. 1 – 18 Ga. GN CAN H
 • Pos. 2 – 18 Ga. Shield
 • Pos. 3 – 18 Ga. GY CAN L

WCX-M7
Or CORE

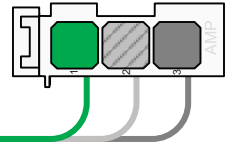


EXPANSION MODULE



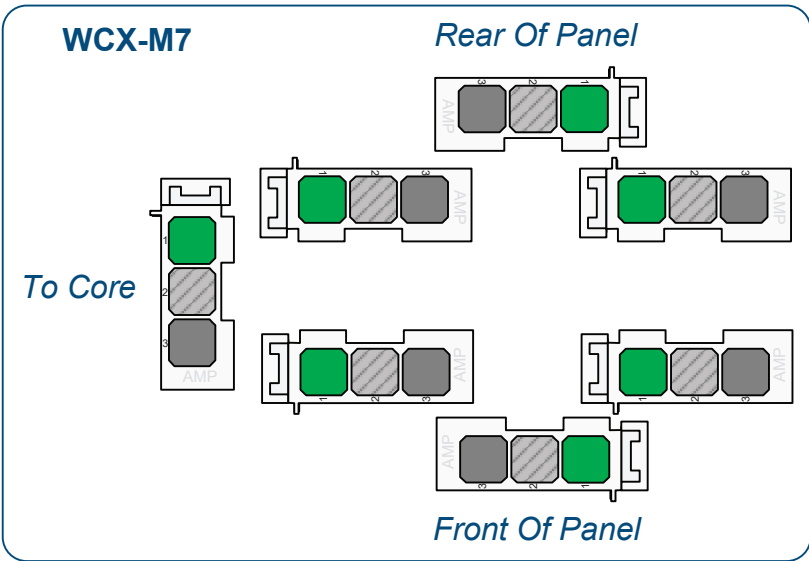
12-WCX-**
Data Communication
 • Pos. 1 – 18 Ga. GN CAN H
 • Pos. 2 – 18 Ga. Shield
 • Pos. 3 – 18 Ga. GY CAN L

WCX-M7
Or CORE



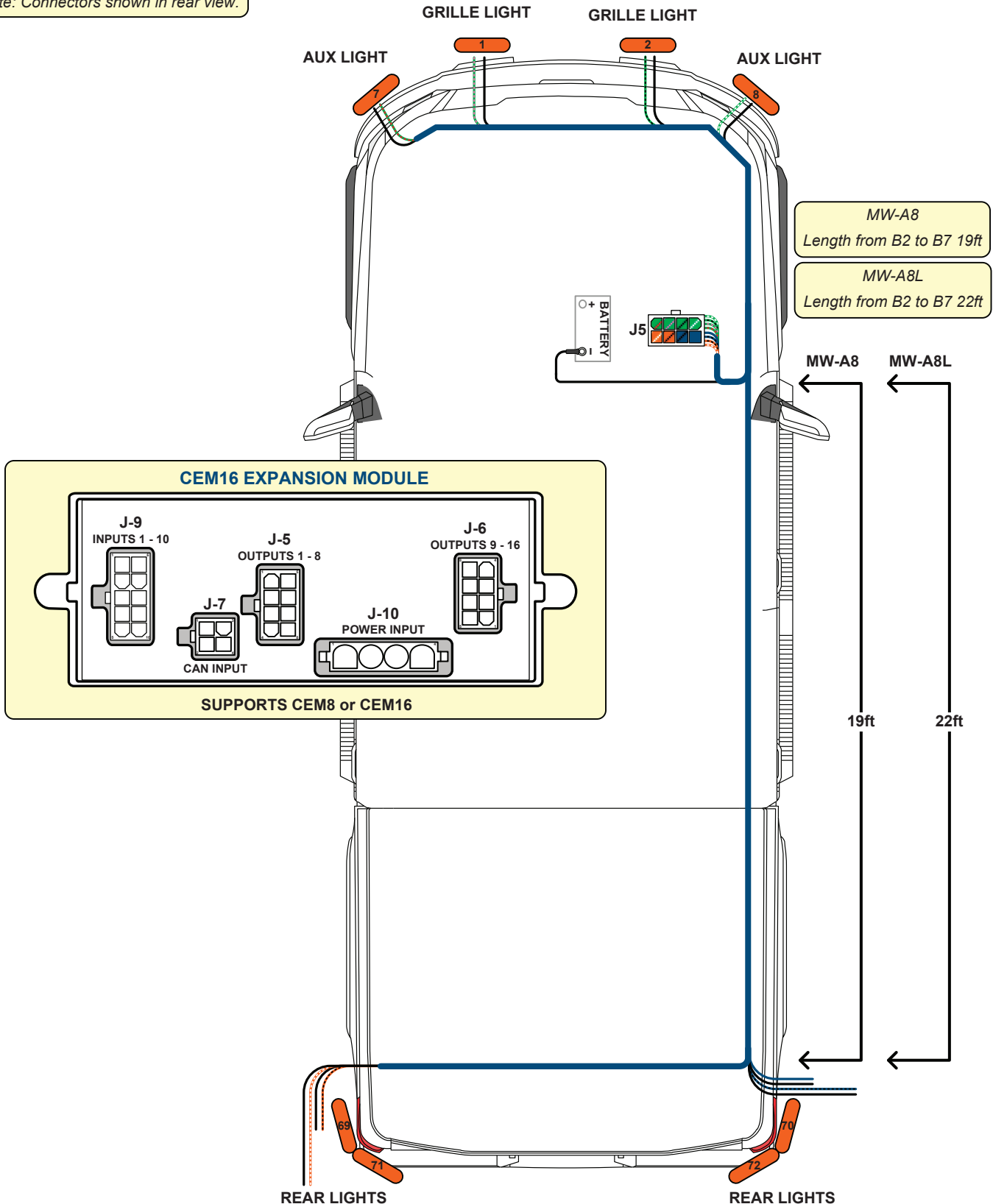
AVAILABLE IN MULTIPLE LENGTHS
 24" Cable - 12-WCX-24
 36" Cable - 12-WCX-36
 120" Cable - 12-WCX-120
 170" Cable - 12-WCX-170
 260" Cable - 12-WCX-260

WCX-M7



TECHNICAL SUPPORT & SALES CONTACT:
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 Email: sales@allfleetsolutions.com
 Web: www.allfleetsolutions.com

Note: Connectors shown in rear view.



HARNESS OPTIONS:

- MW-A8**
• For Crew Cab Pick-Ups with Standard Beds – 19ft from CEM Module to Rear
- MW-A8L**
• For Crew Cab Pick-Ups with Long Beds – 22ft from CEM Module to Rear

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-A8
Front Lighting Harness: MW-A8L

TECHNICAL SUPPORT & SALES CONTACT:

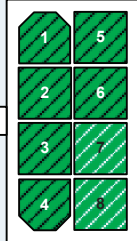
Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

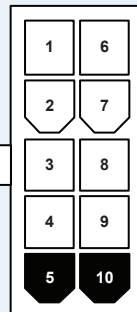
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ECN 00000



J-5 – OUTPUTS 1 thru 8 FROM CEM16

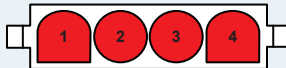
- Pin 1 Output 1 (2.5A) – 18 Ga. GN/WH Pass. Aux Light 8 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/PK Driver Grille Light 1 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/RD Driver Aux Light 7 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. BL Pass. Rear Light 70 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. BL/BK Pass. Rear Light 72 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. OR/BK Driver Rear Light 69 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. OR/WH Driver Rear Light 71 “X OUT 8”



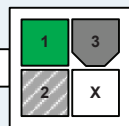
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (–) –: _____
- Pin 2 Input 2 Ground (–) –: _____
- Pin 3 Input 3 Ground (–) –: _____
- Pin 4 Input 4 Ground (–) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*

J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*



- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4



J-7 – CAN INPUT TO CEM16 FROM 12-WCX-170**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

*Note: See 12-WCX-PWR36 Layout for detailed information on Power Distribution (J9 and J10 Connectors)

**Note: See 12-WCX-170 Layout for detailed information on Data Distribution (J7 Connectors)

FRONT LIGHTING:

GRILLE LIGHTS

- 18 Ga. GN/BK Pass. Grille Light “X OUT 2” to CEM16 J5 Pin 2
- 18 Ga. BK Pass. Grille Lights Ground “OUT 2 GND” to Ground Assembly
- 18 Ga. GN/PK Driver Grille Light “X OUT 3” to CEM16 J5 Pin 3
- 18 Ga. BK Driver Grille Lights Ground “OUT 1 GND” to Ground Assembly

AUX LIGHTS

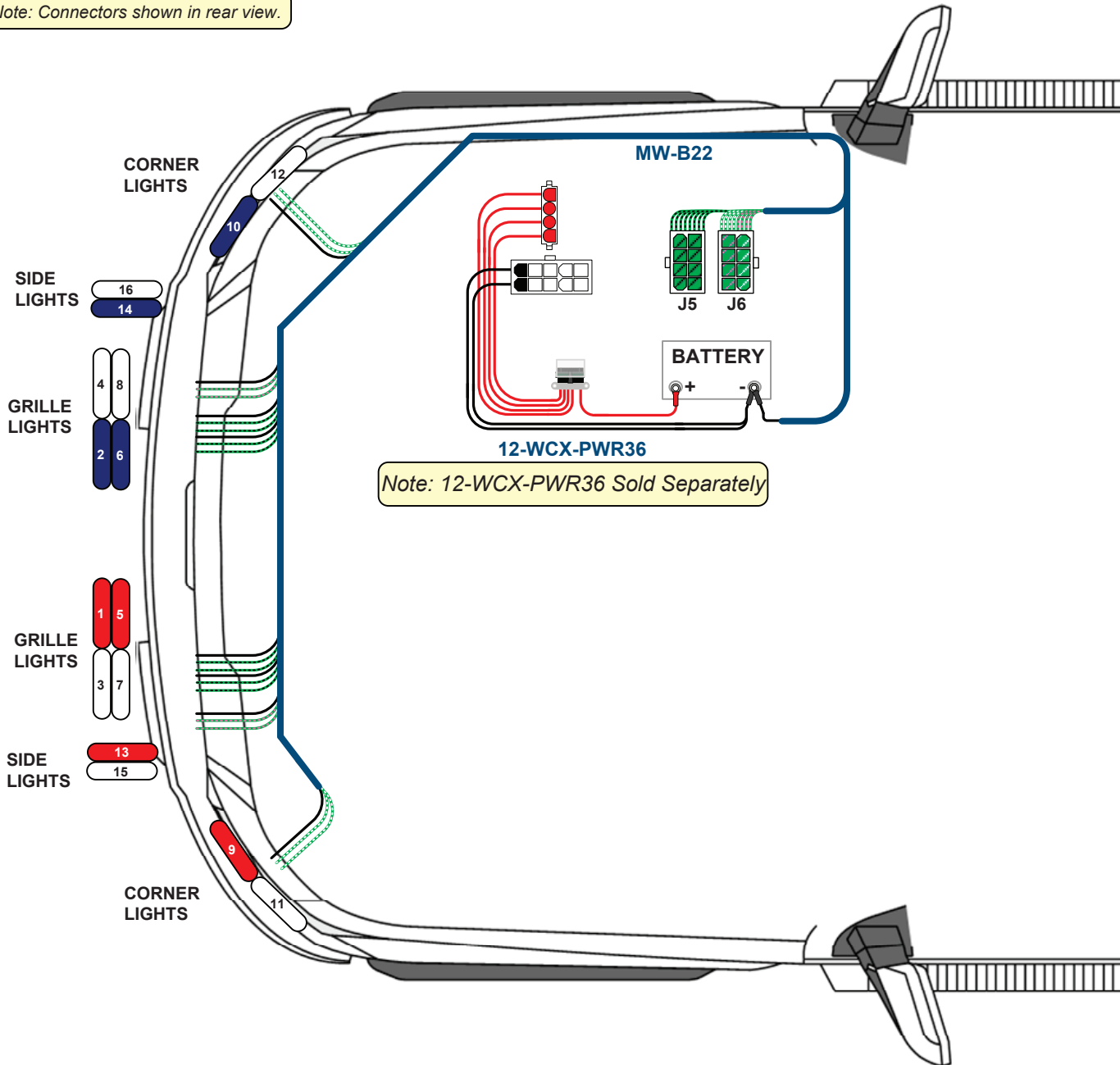
- 18 Ga. GN/WH Pass. Aux Light “X OUT 1” to CEM16 J5 Pin 1
- 18 Ga. BK Pass. Aux Lights Ground “OUT 1 GND” to Ground Assembly
- 18 Ga. GN/RD Driver Aux Light “X OUT 4” to CEM16 J5 Pin 4
- 18 Ga. BK Driver Aux Lights Ground “OUT 4 GND” to Ground Assembly

REAR LIGHTING:

REAR LIGHTS

- 18 Ga. BL Pass. Rear Light “X OUT 5” to CEM16 J5 Pin 5
- 18 Ga. BK Pass. Rear Light Ground “OUT 5 GND” to Ground Assembly
- 18 Ga. BL/BK Pass. Rear Light “X OUT 6” to CEM16 J5 Pin 6
- 18 Ga. BK Pass. Rear Light Ground “OUT 6 GND” to Ground Assembly
- 18 Ga. OR/BK Driver Rear Light “X OUT 7” to CEM16 J5 Pin 7
- 18 Ga. BK Driver Rear Light Ground “OUT 7 GND” to Ground Assembly
- 18 Ga. OR/WH Driver Rear Light “X OUT 8” to CEM16 J5 Pin 8
- 18 Ga. BK Driver Rear Light Ground “OUT 8 GND” to Ground Assembly

Note: Connectors shown in rear view.



Note: 12-WCX-PWR36 Sold Separately

FRONT LIGHTING:

GRILLE LIGHTS – MW-B22

- 18 Ga. GN/BK Pass. Grille Light “X OUT 2” to CEM16 J5 Pin 2
- 18 Ga. GN/BK Pass. Grille Light “X OUT 4” to CEM16 J5 Pin 4
- 18 Ga. GN/BK Pass. Grille Light “X OUT 6” to CEM16 J5 Pin 6
- 18 Ga. GN/BK Pass. Grille Light “X OUT 8” to CEM16 J5 Pin 8
- 18 Ga. BK Pass. Grille Lights Ground “LT 2 GND” to Ground Assembly
- 18 Ga. BK Pass. Grille Lights Ground “LT 6 GND” to Ground Assembly
- 18 Ga. GN/BK Driver Grille Light “X OUT 1” to CEM16 J5 Pin 1
- 18 Ga. GN/BK Driver Grille Light “X OUT 3” to CEM16 J5 Pin 3
- 18 Ga. GN/BK Driver Grille Light “X OUT 5” to CEM16 J5 Pin 5
- 18 Ga. GN/BK Driver Grille Light “X OUT 7” to CEM16 J5 Pin 7
- 18 Ga. BK Driver Grille Lights Ground “LT 1 GND” to Ground Assembly
- 18 Ga. BK Driver Grille Lights Ground “LT 5 GND” to Ground Assembly

SIDE LIGHTS – MW-B22

- 18 Ga. GN/PK Pass. Side Light “X OUT 14” to CEM16 J6 Pin 6
- 18 Ga. GN/PK Pass. Side Light “X OUT 16” to CEM16 J6 Pin 8
- 18 Ga. BK Pass. Side Lights Ground “LT 14 GND” to Ground Assembly
- 18 Ga. GN/PK Driver Side Light “X OUT 13” to CEM16 J6 Pin 5
- 18 Ga. GN/PK Driver Side Light “X OUT 15” to CEM16 J6 Pin 7
- 18 Ga. BK Driver Side Lights Ground “LT 13 GND” to Ground Assembly

CORNER LIGHTS – MW-B22

- 18 Ga. GN/WH Pass. Corner Light “X OUT 10” to CEM16 J6 Pin 2
- 18 Ga. GN/WH Pass. Corner Light “X OUT 12” to CEM16 J6 Pin 4
- 18 Ga. BK Pass. Corner Lights Ground “LT 10 GND” to Ground Assembly
- 18 Ga. GN/WH Driver Corner Light “X OUT 9” to CEM16 J6 Pin 1
- 18 Ga. GN/WH Driver Corner Light “X OUT 11” to CEM16 J6 Pin 3
- 18 Ga. BK Driver Corner Lights Ground “LT 9 GND” to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-B22
Underhood Power: 12-WCX-PWR36

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

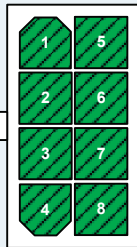
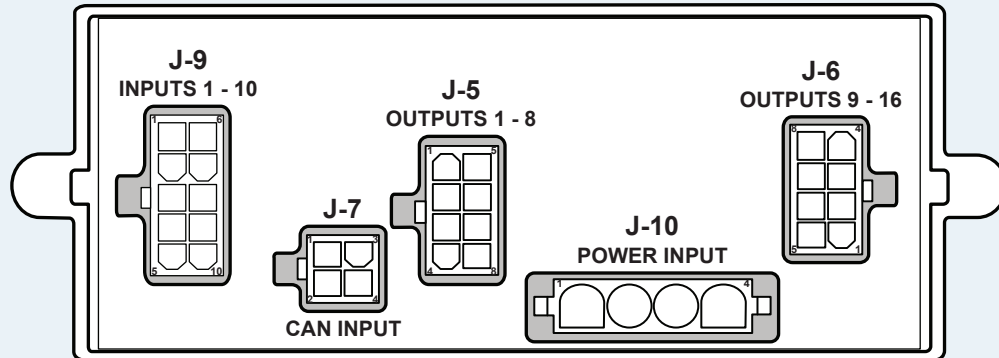
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 010621

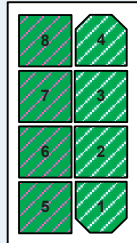
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CEM16 EXPANSION MODULE



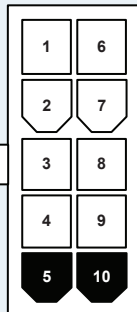
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/BK Driver Grille Light 1 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/BK Driver Grille Light 3 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 4 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/BK Driver Grille Light 5 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 6 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/BK Driver Grille Light 7 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 8 “X OUT 8”



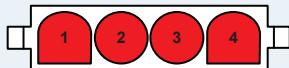
J-6 – OUTPUTS 9 thru 16 FROM CEM16

- Pin 1 Output 9 (2.5A) – 18 Ga. GN/WH Driver Corner Light 9 “X OUT 9”
- Pin 2 Output 10 (2.5A) – 18 Ga. GN/WH Pass. Corner Light 10 “X OUT 10”
- Pin 3 Output 11 (2.5A) – 18 Ga. GN/WH Driver Corner Light 11 “X OUT 11”
- Pin 4 Output 12 (2.5A) – 18 Ga. GN/WH Pass. Corner Light 12 “X OUT 12”
- Pin 5 Output 13 (2.5A) – 18 Ga. GN/PK Driver Side Light 13 “X OUT 13”
- Pin 6 Output 14 (2.5A) – 18 Ga. GN/PK Pass. Side Light 14 “X OUT 14”
- Pin 7 Output 15 (2.5A) – 18 Ga. GN/PK Driver Side Light 15 “X OUT 15”
- Pin 8 Output 16 (2.5A) – 18 Ga. GN/PK Pass. Side Light 16 “X OUT 16”



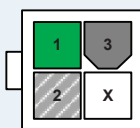
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4



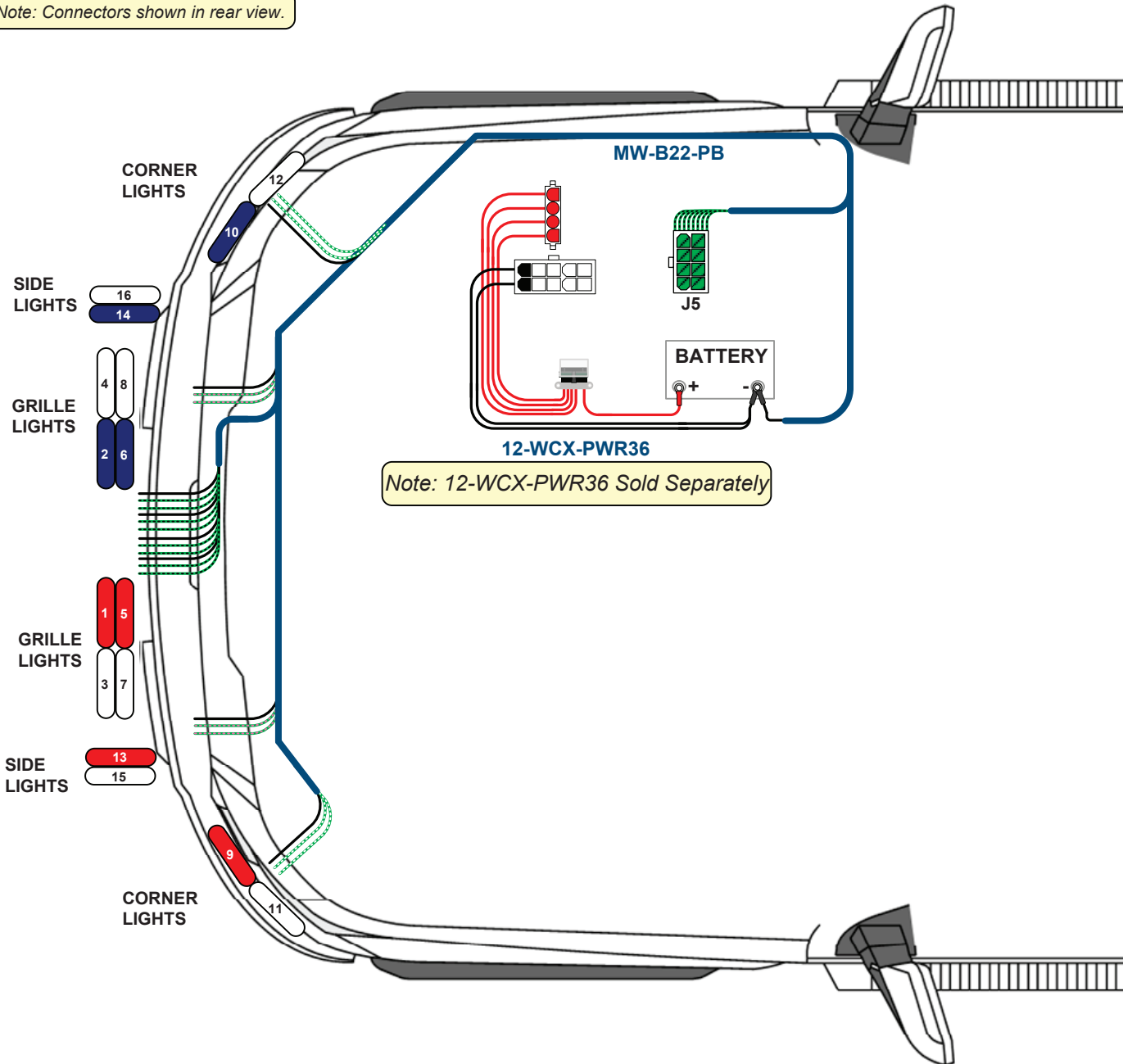
J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR36 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*

Note: Connectors shown in rear view.



Note: 12-WCX-PWR36 Sold Separately

FRONT LIGHTING:

GRILLE LIGHTS – MW-B22-PB

- 18 Ga. GN/BK Pass. Grille Light "X OUT 2" to CEM16 J5 Pin 2
- 18 Ga. GN/BK Pass. Grille Light "X OUT 4" to CEM16 J5 Pin 4
- 18 Ga. GN/BK Pass. Grille Light "X OUT 6" to CEM16 J5 Pin 6
- 18 Ga. GN/BK Pass. Grille Light "X OUT 8" to CEM16 J5 Pin 8
- 18 Ga. BK Pass. Grille Lights Ground "LT 2 GND" to Ground Assembly
- 18 Ga. BK Pass. Grille Lights Ground "LT 6 GND" to Ground Assembly
- 18 Ga. GN/BK Driver Grille Light "X OUT 1" to CEM16 J5 Pin 1
- 18 Ga. GN/BK Driver Grille Light "X OUT 3" to CEM16 J5 Pin 3
- 18 Ga. GN/BK Driver Grille Light "X OUT 5" to CEM16 J5 Pin 5
- 18 Ga. GN/BK Driver Grille Light "X OUT 7" to CEM16 J5 Pin 7
- 18 Ga. BK Driver Grille Lights Ground "LT 1 GND" to Ground Assembly
- 18 Ga. BK Driver Grille Lights Ground "LT 5 GND" to Ground Assembly

SIDE LIGHTS – MW-B22-PB

- 18 Ga. GN/PK Pass. Side Light "X OUT 14" to CEM16 J6 Pin 6
- 18 Ga. GN/PK Pass. Side Light "X OUT 16" to CEM16 J6 Pin 8
- 18 Ga. BK Pass. Side Lights Ground "LT 14 GND" to Ground Assembly
- 18 Ga. GN/PK Driver Side Light "X OUT 13" to CEM16 J6 Pin 5
- 18 Ga. GN/PK Driver Side Light "X OUT 15" to CEM16 J6 Pin 7
- 18 Ga. BK Driver Side Lights Ground "LT 13 GND" to Ground Assembly

CORNER LIGHTS – MW-B22-PB

- 18 Ga. GN/WH Pass. Corner Light "X OUT 10" to CEM16 J6 Pin 2
- 18 Ga. GN/WH Pass. Corner Light "X OUT 12" to CEM16 J6 Pin 4
- 18 Ga. BK Pass. Corner Lights Ground "LT 10 GND" to Ground Assembly
- 18 Ga. GN/WH Driver Corner Light "X OUT 9" to CEM16 J6 Pin 1
- 18 Ga. GN/WH Driver Corner Light "X OUT 11" to CEM16 J6 Pin 3
- 18 Ga. BK Driver Corner Lights Ground "LT 9 GND" to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-B22-PB
Underhood Power: 12-WCX-PWR36

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

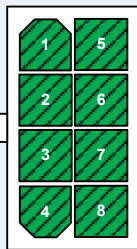
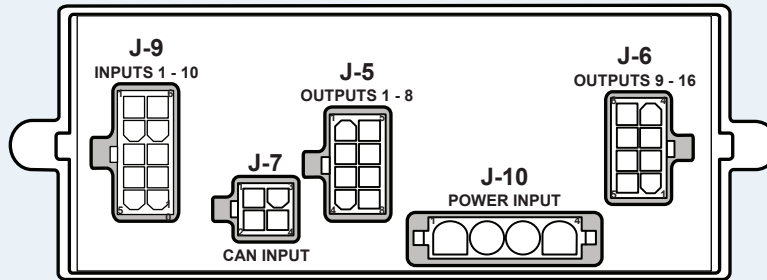
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

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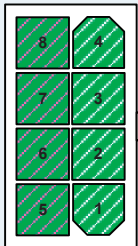
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CEM16 EXPANSION MODULE



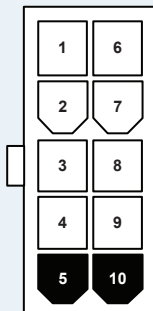
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/BK Driver Grille Light 1 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/BK Driver Grille Light 3 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 4 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/BK Driver Grille Light 5 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 6 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/BK Driver Grille Light 7 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 8 “X OUT 8”



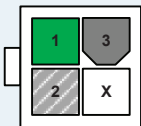
J-6 – OUTPUTS 9 thru 16 FROM CEM16

- Pin 1 Output 9 (2.5A) – 18 Ga. GN/WH Driver Corner Light 9 “X OUT 9”
- Pin 2 Output 10 (2.5A) – 18 Ga. GN/WH Pass. Corner Light 10 “X OUT 10”
- Pin 3 Output 11 (2.5A) – 18 Ga. GN/WH Driver Corner Light 11 “X OUT 11”
- Pin 4 Output 12 (2.5A) – 18 Ga. GN/WH Pass. Corner Light 12 “X OUT 12”
- Pin 5 Output 13 (2.5A) – 18 Ga. GN/PK Driver Side Light 13 “X OUT 13”
- Pin 6 Output 14 (2.5A) – 18 Ga. GN/PK Pass. Side Light 14 “X OUT 14”
- Pin 7 Output 15 (2.5A) – 18 Ga. GN/PK Driver Side Light 15 “X OUT 15”
- Pin 8 Output 16 (2.5A) – 18 Ga. GN/PK Pass. Side Light 16 “X OUT 16”



J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*



J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug



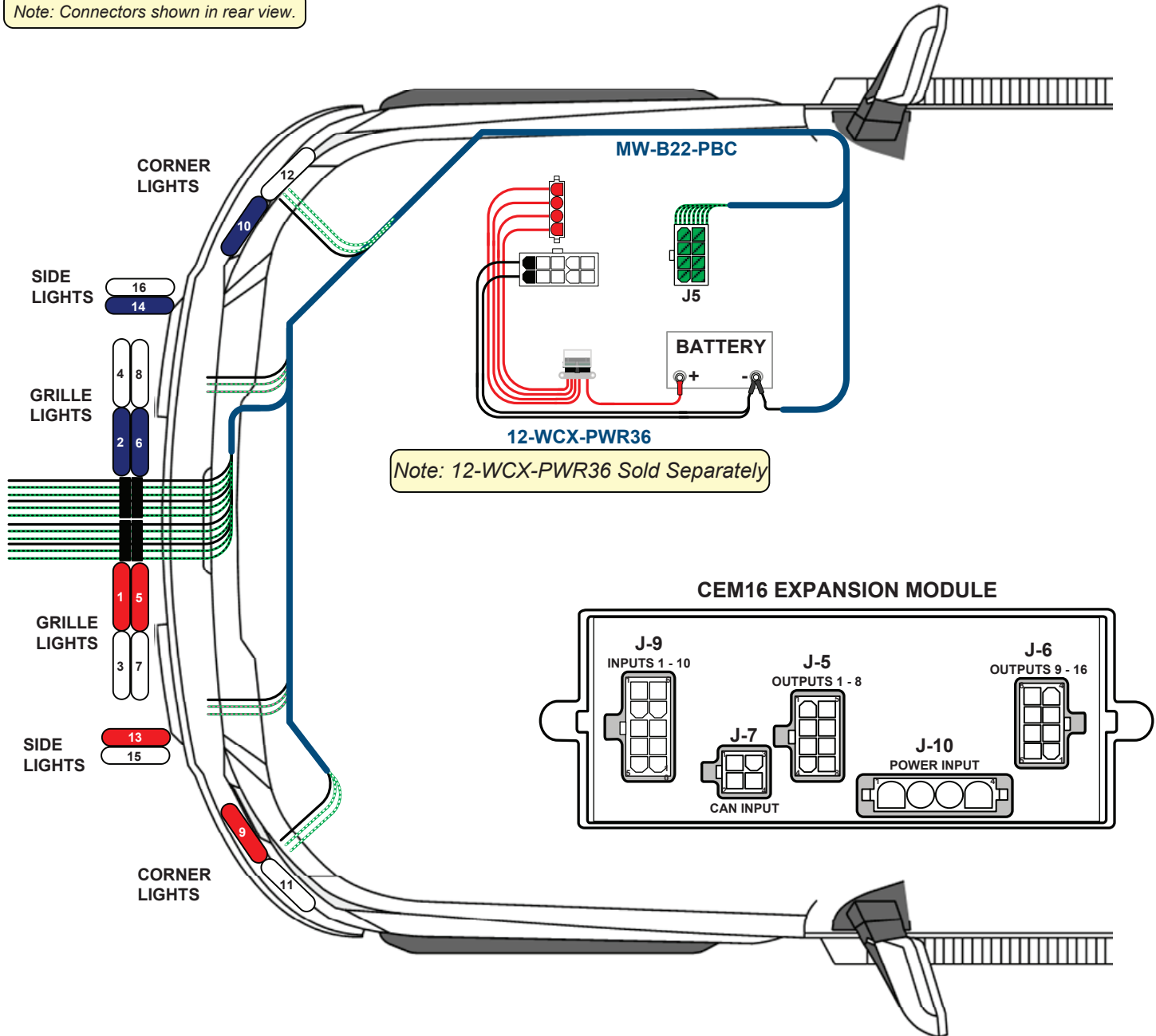
J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4

*Note: See 12-WCX-PWR36 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)

**Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)

Note: Connectors shown in rear view.



Note: 12-WCX-PWR36 Sold Separately

FRONT LIGHTING:

GRILLE LIGHTS – MW-B22-PBC

- 18 Ga. GN/BK Pass. Grille Light "X OUT 2" to CEM16 J5 Pin 2
- 18 Ga. GN/BK Pass. Grille Light "X OUT 4" to CEM16 J5 Pin 4
- 18 Ga. GN/BK Pass. Grille Light "X OUT 6" to CEM16 J5 Pin 6
- 18 Ga. GN/BK Pass. Grille Light "X OUT 8" to CEM16 J5 Pin 8
- 18 Ga. BK Pass. Grille Lights Ground "LT 2 GND" to Ground Assembly
- 18 Ga. BK Pass. Grille Lights Ground "LT 6 GND" to Ground Assembly
- 18 Ga. GN/BK Driver Grille Light "X OUT 1" to CEM16 J5 Pin 1
- 18 Ga. GN/BK Driver Grille Light "X OUT 3" to CEM16 J5 Pin 3
- 18 Ga. GN/BK Driver Grille Light "X OUT 5" to CEM16 J5 Pin 5
- 18 Ga. GN/BK Driver Grille Light "X OUT 7" to CEM16 J5 Pin 7
- 18 Ga. BK Driver Grille Lights Ground "LT 1 GND" to Ground Assembly
- 18 Ga. BK Driver Grille Lights Ground "LT 5 GND" to Ground Assembly

SIDE LIGHTS – MW-B22-PBC

- 18 Ga. GN/PK Pass. Side Light "X OUT 14" to CEM16 J6 Pin 6
- 18 Ga. GN/PK Pass. Side Light "X OUT 16" to CEM16 J6 Pin 8
- 18 Ga. BK Pass. Side Lights Ground "LT 14 GND" to Ground Assembly
- 18 Ga. GN/PK Driver Side Light "X OUT 13" to CEM16 J6 Pin 5
- 18 Ga. GN/PK Driver Side Light "X OUT 15" to CEM16 J6 Pin 7
- 18 Ga. BK Driver Side Lights Ground "LT 13 GND" to Ground Assembly

CORNER LIGHTS – MW-B22-PBC

- 18 Ga. GN/WH Pass. Corner Light "X OUT 10" to CEM16 J6 Pin 2
- 18 Ga. GN/WH Pass. Corner Light "X OUT 12" to CEM16 J6 Pin 4
- 18 Ga. BK Pass. Corner Lights Ground "LT 10 GND" to Ground Assembly
- 18 Ga. GN/WH Driver Corner Light "X OUT 9" to CEM16 J6 Pin 1
- 18 Ga. GN/WH Driver Corner Light "X OUT 11" to CEM16 J6 Pin 3
- 18 Ga. BK Driver Corner Lights Ground "LT 9 GND" to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-B22-PBC
Underhood Power: 12-WCX-PWR36

TECHNICAL SUPPORT & SALES CONTACT:

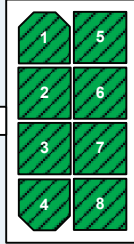
Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

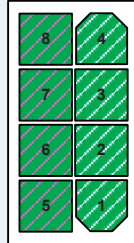
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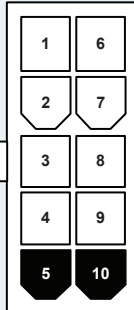
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/BK Driver Grille Light 1 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/BK Driver Grille Light 3 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 4 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/BK Driver Grille Light 5 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 6 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/BK Driver Grille Light 7 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 8 “X OUT 8”



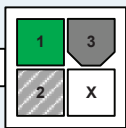
J-6 – OUTPUTS 9 thru 16 FROM CEM16

- Pin 1 Output 9 (2.5A) – 18 Ga. GN/WH Driver Corner Light 9 “X OUT 9”
- Pin 2 Output 10 (2.5A) – 18 Ga. GN/WH Pass. Corner Light 10 “X OUT 10”
- Pin 3 Output 11 (2.5A) – 18 Ga. GN/WH Driver Corner Light 11 “X OUT 11”
- Pin 4 Output 12 (2.5A) – 18 Ga. GN/WH Pass. Corner Light 12 “X OUT 12”
- Pin 5 Output 13 (2.5A) – 18 Ga. GN/PK Driver Side Light 13 “X OUT 13”
- Pin 6 Output 14 (2.5A) – 18 Ga. GN/PK Pass. Side Light 14 “X OUT 14”
- Pin 7 Output 15 (2.5A) – 18 Ga. GN/PK Driver Side Light 15 “X OUT 15”
- Pin 8 Output 16 (2.5A) – 18 Ga. GN/PK Pass. Side Light 16 “X OUT 16”



J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*



J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

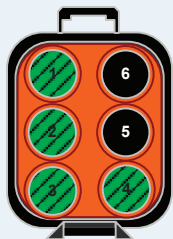


J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4

**Note: See 12-WCX-PWR36 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*



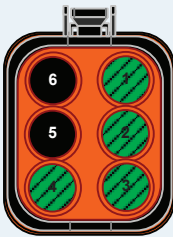
DRIVER GRILLE LIGHTS – MW-B22-PBC

- Pin 1 – 18 Ga. GN/BK Driver Grille Light “X OUT 1” from CEM16 J5 Pin 1
- Pin 2 – 18 Ga. GN/BK Driver Grille Light “X OUT 3” from CEM16 J5 Pin 3
- Pin 3 – 18 Ga. GN/BK Driver Grille Light “X OUT 5” from CEM16 J5 Pin 5
- Pin 4 – 18 Ga. GN/BK Driver Grille Light “X OUT 7” from CEM16 J5 Pin 7
- Pin 5 – 18 Ga. BK Driver Grille Lights Ground “LT 1 GND” from Ground Assembly
- Pin 6 – 18 Ga. BK Driver Grille Lights Ground “LT 5 GND” from Ground Assembly



PASS. GRILLE LIGHTS – MW-B22-PBC

- Pin 1 – 18 Ga. GN/BK Pass. Grille Light “X OUT 2” from CEM16 J5 Pin 2
- Pin 2 – 18 Ga. GN/BK Pass. Grille Light “X OUT 4” from CEM16 J5 Pin 4
- Pin 3 – 18 Ga. GN/BK Pass. Grille Light “X OUT 6” from CEM16 J5 Pin 6
- Pin 4 – 18 Ga. GN/BK Pass. Grille Light “X OUT 8” from CEM16 J5 Pin 8
- Pin 5 – 18 Ga. BK Pass. Grille Lights Ground “LT 2 GND” from Ground Assembly
- Pin 6 – 18 Ga. BK Pass. Grille Lights Ground “LT 6 GND” from Ground Assembly



DRIVER GRILLE LIGHTS – PIGTAIL 30"

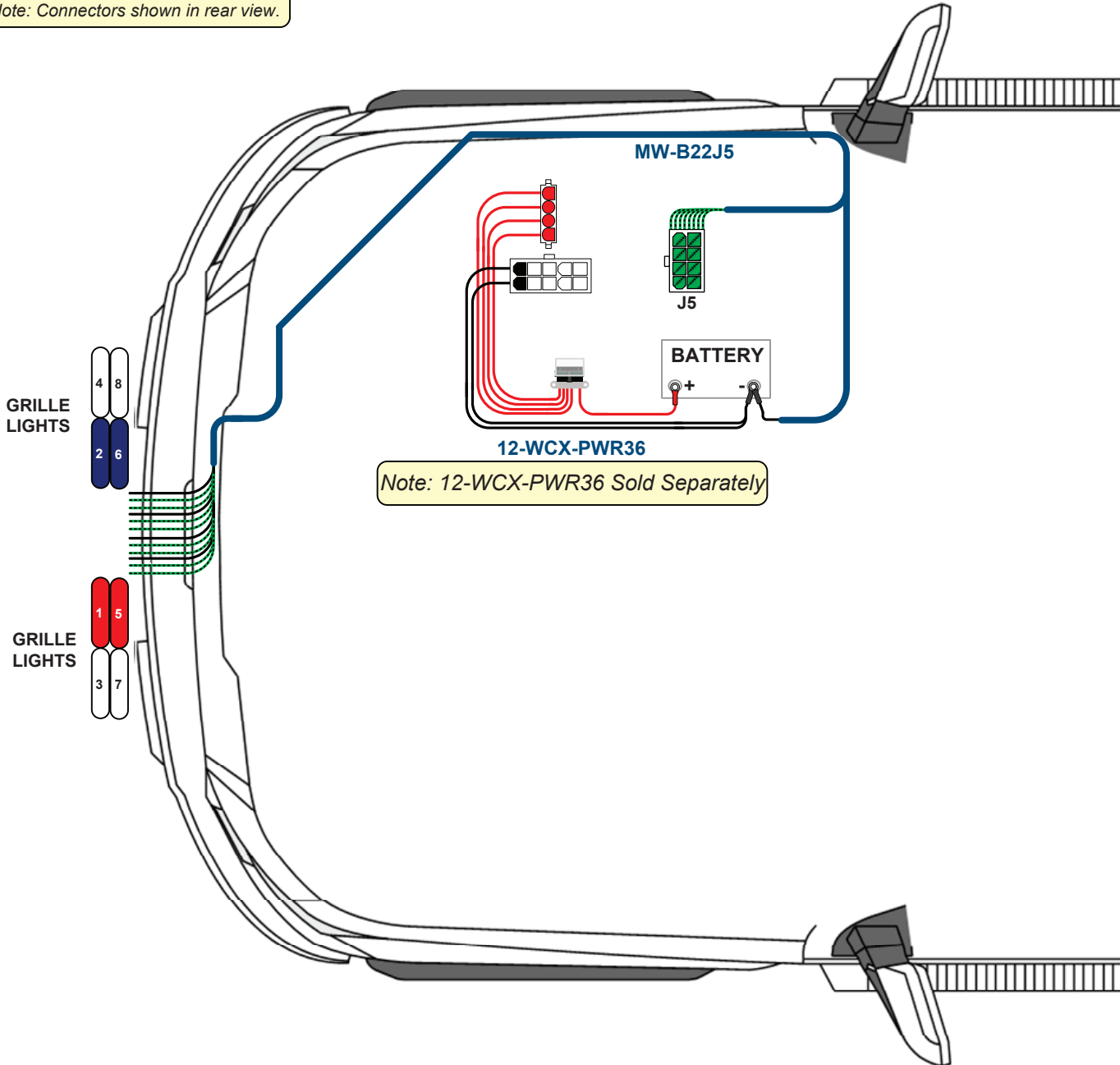
- Pin 1 – 18 Ga. GN/BK Driver Grille Light “X OUT 1”
- Pin 2 – 18 Ga. GN/BK Driver Grille Light “X OUT 3”
- Pin 3 – 18 Ga. GN/BK Driver Grille Light “X OUT 5”
- Pin 4 – 18 Ga. GN/BK Driver Grille Light “X OUT 7”
- Pin 5 – 18 Ga. BK Driver Grille Lights Ground “LT 1 GND”
- Pin 6 – 18 Ga. BK Driver Grille Lights Ground “LT 5 GND”



PASS. GRILLE LIGHTS – PIGTAIL 30"

- Pin 1 – 18 Ga. GN/BK Pass. Grille Light “X OUT 2”
- Pin 2 – 18 Ga. GN/BK Pass. Grille Light “X OUT 4”
- Pin 3 – 18 Ga. GN/BK Pass. Grille Light “X OUT 6”
- Pin 4 – 18 Ga. GN/BK Pass. Grille Light “X OUT 8”
- Pin 5 – 18 Ga. BK Pass. Grille Lights Ground “LT 2 GND”
- Pin 6 – 18 Ga. BK Pass. Grille Lights Ground “LT 6 GND”

Note: Connectors shown in rear view.



Note: 12-WCX-PWR36 Sold Separately

FRONT LIGHTING:

GRILLE LIGHTS – MW-B22J5

- 18 Ga. GN/BK Pass. Grille Light "X OUT 2" to CEM16 J5 Pin 2
- 18 Ga. GN/BK Pass. Grille Light "X OUT 4" to CEM16 J5 Pin 4
- 18 Ga. GN/BK Pass. Grille Light "X OUT 6" to CEM16 J5 Pin 6
- 18 Ga. GN/BK Pass. Grille Light "X OUT 8" to CEM16 J5 Pin 8
- 18 Ga. BK Pass. Grille Lights Ground "LT 2 GND" to Ground Assembly
- 18 Ga. BK Pass. Grille Lights Ground "LT 6 GND" to Ground Assembly
- 18 Ga. GN/BK Driver Grille Light "X OUT 1" to CEM16 J5 Pin 1
- 18 Ga. GN/BK Driver Grille Light "X OUT 3" to CEM16 J5 Pin 3
- 18 Ga. GN/BK Driver Grille Light "X OUT 5" to CEM16 J5 Pin 5
- 18 Ga. GN/BK Driver Grille Light "X OUT 7" to CEM16 J5 Pin 7
- 18 Ga. BK Driver Grille Lights Ground "LT 1 GND" to Ground Assembly
- 18 Ga. BK Driver Grille Lights Ground "LT 5 GND" to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-B22J5
Underhood Power: 12-WCX-PWR36

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

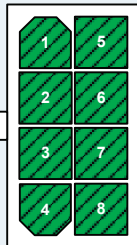
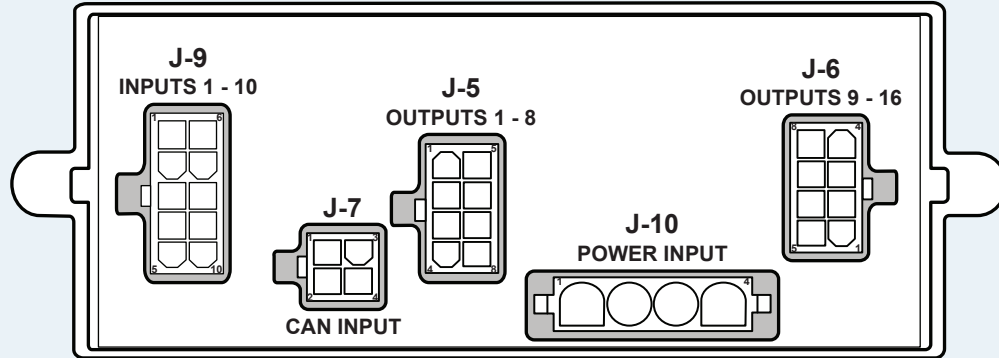
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 010621

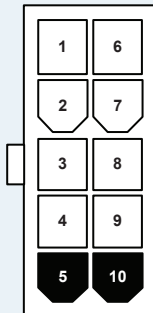
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CEM16 EXPANSION MODULE



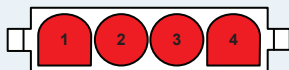
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/BK Driver Grille Light 1 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/BK Driver Grille Light 3 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 4 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/BK Driver Grille Light 5 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 6 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/BK Driver Grille Light 7 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 8 “X OUT 8”



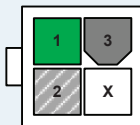
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4



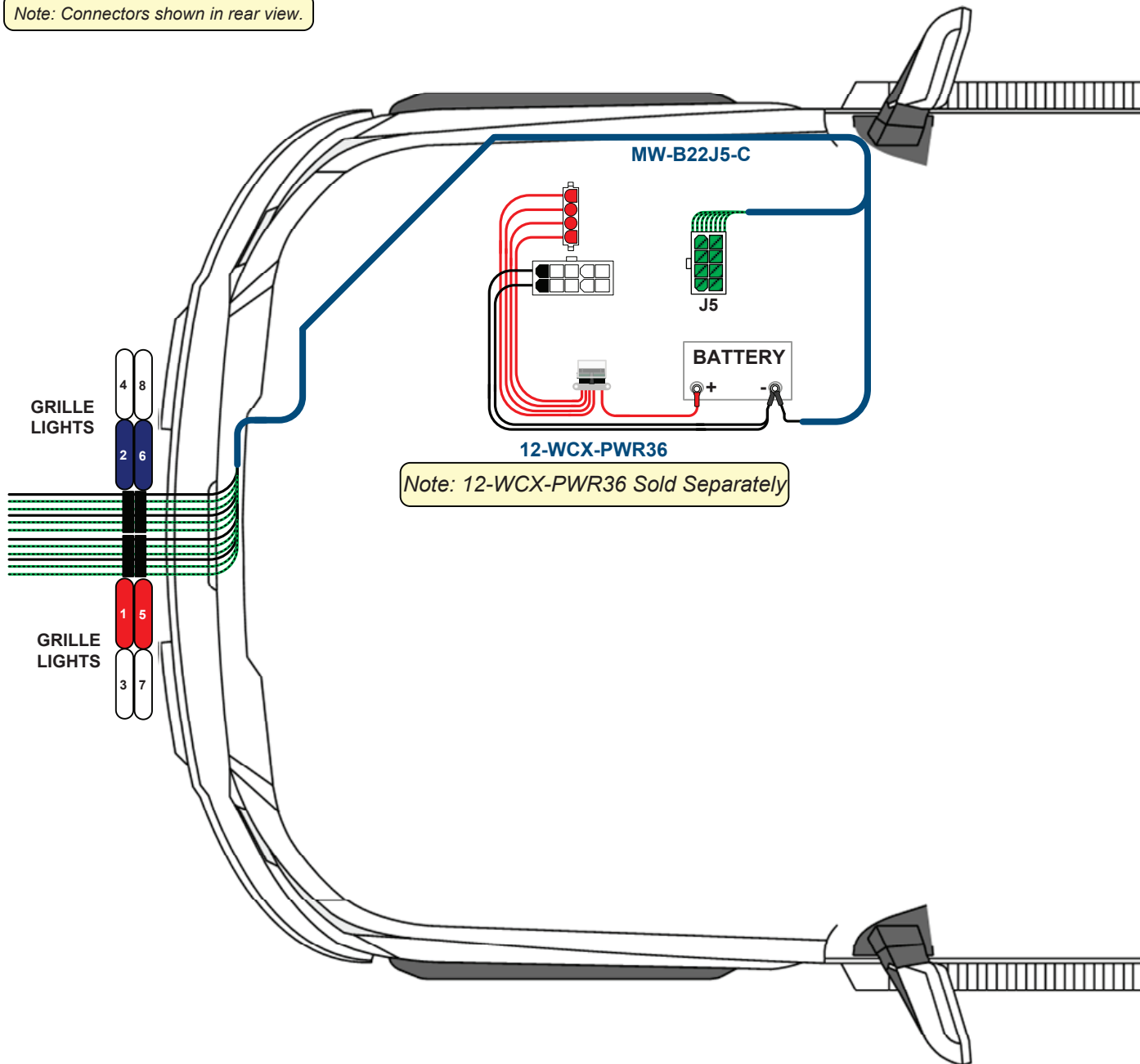
J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR36 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*

Note: Connectors shown in rear view.



Note: 12-WCX-PWR36 Sold Separately

FRONT LIGHTING:



DRIVER GRILLE LIGHTS – MW-B22J5-C

- Pin 1 – 18 Ga. GN/BK Driver Grille Light “X OUT 1” from CEM16 J5 Pin 1
- Pin 2 – 18 Ga. GN/BK Driver Grille Light “X OUT 3” from CEM16 J5 Pin 3
- Pin 3 – 18 Ga. GN/BK Driver Grille Light “X OUT 5” from CEM16 J5 Pin 5
- Pin 4 – 18 Ga. GN/BK Driver Grille Light “X OUT 7” from CEM16 J5 Pin 7
- Pin 5 – 18 Ga. BK Driver Grille Lights Ground “LT 1 GND” from Ground Assembly
- Pin 6 – 18 Ga. BK Driver Grille Lights Ground “LT 5 GND” from Ground Assembly



PASS. GRILLE LIGHTS – MW-B22J5-C

- Pin 1 – 18 Ga. GN/BK Pass. Grille Light “X OUT 2” from CEM16 J5 Pin 2
- Pin 2 – 18 Ga. GN/BK Pass. Grille Light “X OUT 4” from CEM16 J5 Pin 4
- Pin 3 – 18 Ga. GN/BK Pass. Grille Light “X OUT 6” from CEM16 J5 Pin 6
- Pin 4 – 18 Ga. GN/BK Pass. Grille Light “X OUT 8” from CEM16 J5 Pin 8
- Pin 5 – 18 Ga. BK Pass. Grille Lights Ground “LT 2 GND” from Ground Assembly
- Pin 6 – 18 Ga. BK Pass. Grille Lights Ground “LT 6 GND” from Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-B22J5-C
Underhood Power: 12-WCX-PWR36

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

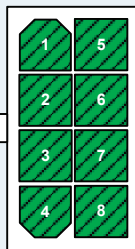
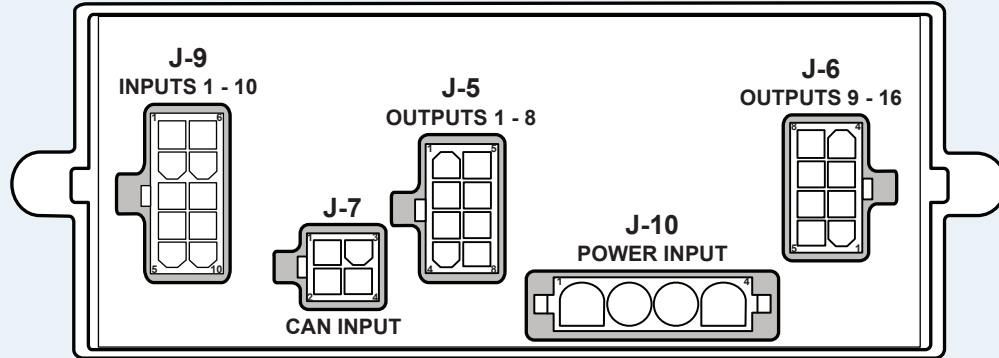
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 010621

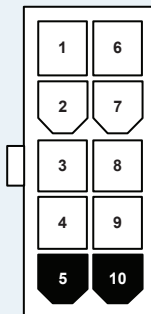
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CEM16 EXPANSION MODULE



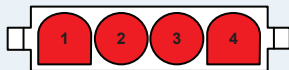
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/BK Driver Grille Light 1 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/BK Driver Grille Light 3 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 4 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/BK Driver Grille Light 5 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 6 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/BK Driver Grille Light 7 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 8 “X OUT 8”



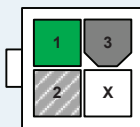
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4

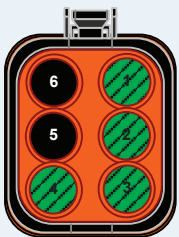


J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR36 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*



DRIVER GRILLE LIGHTS – PIGTAIL 30"

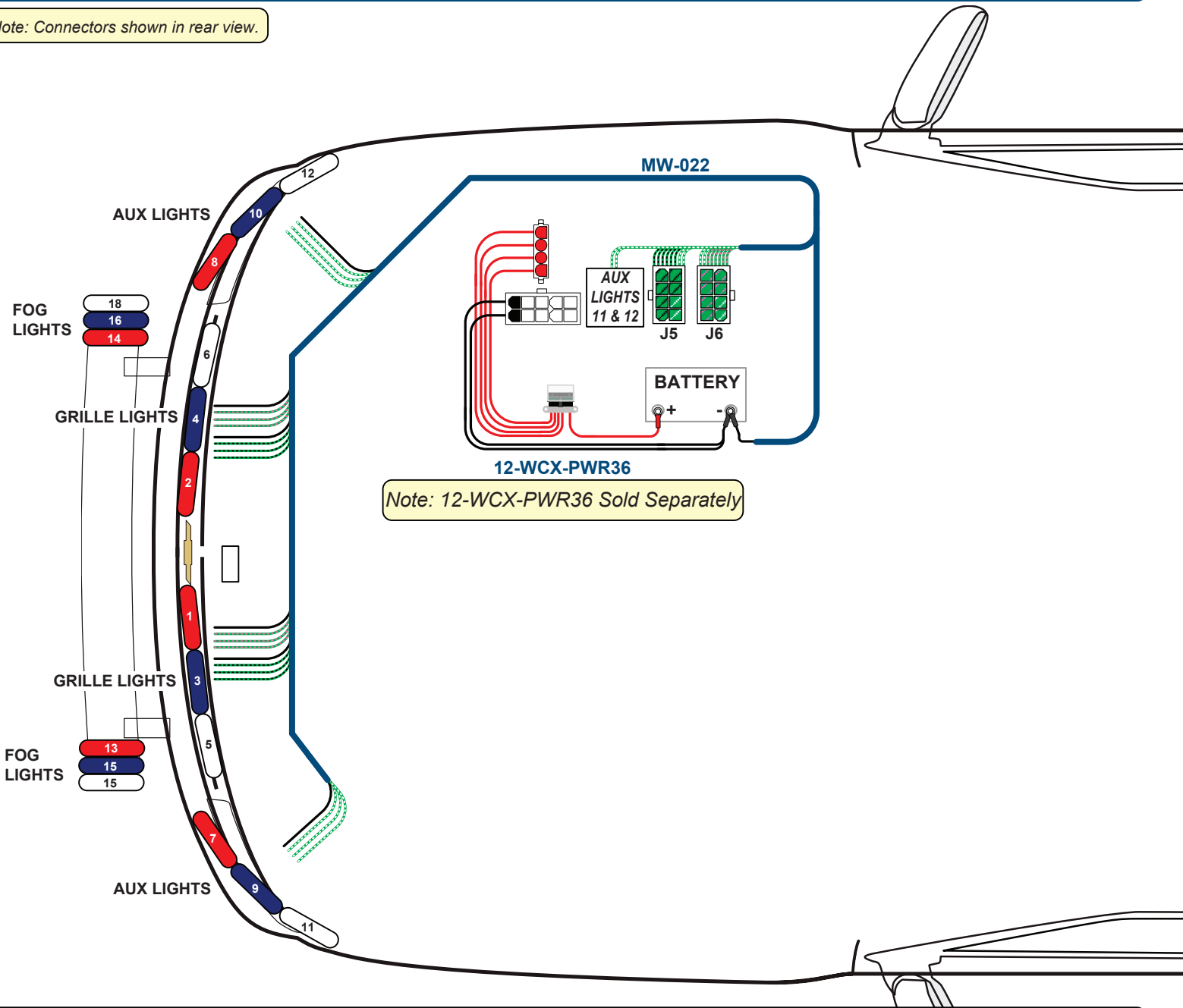
- Pin 1 – 18 Ga. GN/BK Driver Grille Light “X OUT 1”
- Pin 2 – 18 Ga. GN/BK Driver Grille Light “X OUT 3”
- Pin 3 – 18 Ga. GN/BK Driver Grille Light “X OUT 5”
- Pin 4 – 18 Ga. GN/BK Driver Grille Light “X OUT 7”
- Pin 5 – 18 Ga. BK Driver Grille Lights Ground “LT 1 GND”
- Pin 6 – 18 Ga. BK Driver Grille Lights Ground “LT 5 GND”



PASS. GRILLE LIGHTS – PIGTAIL 30"

- Pin 1 – 18 Ga. GN/BK Pass. Grille Light “X OUT 2”
- Pin 2 – 18 Ga. GN/BK Pass. Grille Light “X OUT 4”
- Pin 3 – 18 Ga. GN/BK Pass. Grille Light “X OUT 6”
- Pin 4 – 18 Ga. GN/BK Pass. Grille Light “X OUT 8”
- Pin 5 – 18 Ga. BK Pass. Grille Lights Ground “LT 2 GND”
- Pin 6 – 18 Ga. BK Pass. Grille Lights Ground “LT 6 GND”

Note: Connectors shown in rear view.



FRONT LIGHTING:

GRILLE LIGHTS – MW-022

- 18 Ga. GN/BK Pass. Grille Light "X OUT 2" to CEM16 J5 Pin 2
- 18 Ga. GN/BK Pass. Grille Light "X OUT 4" to CEM16 J5 Pin 4
- 18 Ga. GN/BK Pass. Grille Light "X OUT 5" to CEM16 J5 Pin 6
- 18 Ga. BK Pass. Grille Lights Ground "OUT 2 GND" to Ground Assembly
- 18 Ga. GN/BK Driver Grille Light "X OUT 1" to CEM16 J5 Pin 1
- 18 Ga. GN/BK Driver Grille Light "X OUT 3" to CEM16 J5 Pin 3
- 18 Ga. GN/BK Driver Grille Light "X OUT 5" to CEM16 J5 Pin 5
- 18 Ga. BK Driver Grille Lights Ground "OUT 1 GND" to Ground Assembly

AUX LIGHTS – MW-022

- 18 Ga. GN/WH Pass. Aux Light "X OUT 8" to CEM16 J5 Pin 8
- 18 Ga. GN/WH Pass. Aux Light "X OUT 10" to CEM16 J6 Pin 2
- 18 Ga. GN/WH Pass. Aux Light "X OUT 12" Pigtail 24"
- 18 Ga. BK Pass. Aux Lights Ground "OUT 8 GND" to Ground Assembly
- 18 Ga. GN/WH Driver Aux Light "X OUT 7" to CEM16 J5 Pin 7
- 18 Ga. GN/WH Driver Aux Light "X OUT 9" to CEM16 J6 Pin 1
- 18 Ga. GN/WH Driver Aux Light "X OUT 11" Pigtail 24"
- 18 Ga. BK Driver Aux Lights Ground "OUT 7 GND" to Ground Assembly

FOG LIGHTS – MW-022

- 18 Ga. GN/PK Pass. Fog Light "X OUT 14" to CEM16 J6 Pin 4
- 18 Ga. GN/PK Pass. Fog Light "X OUT 16" to CEM16 J6 Pin 6
- 18 Ga. GN/PK Pass. Fog Light "X OUT 18" to CEM16 J6 Pin 8
- 18 Ga. BK Pass. Fog Lights Ground "OUT 14 GND" to Ground Assembly
- 18 Ga. GN/PK Driver Fog Light "X OUT 13" to CEM16 J6 Pin 3
- 18 Ga. GN/PK Driver Fog Light "X OUT 15" to CEM16 J6 Pin 5
- 18 Ga. GN/PK Driver Fog Light "X OUT 17" to CEM16 J6 Pin 7
- 18 Ga. BK Driver Fog Lights Ground "OUT 13 GND" to Ground Assembly

Note: 18 Ga. GN/WH Driver Aux Light 11 "X OUT 11" Pigtail 24" & 18 Ga. GN/WH Pass. Aux Light 12 "X OUT 12" Pigtail 24" are not terminated and appear next to the CEM16 for customer configuration.

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-022
Underhood Power: 12-WCX-PWR36

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

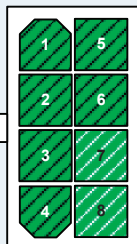
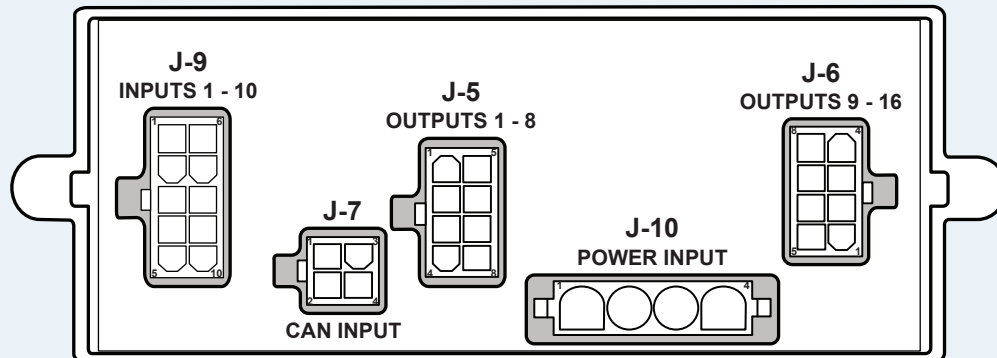
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 120221

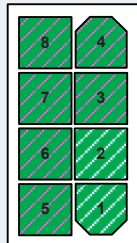
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CEM16 EXPANSION MODULE



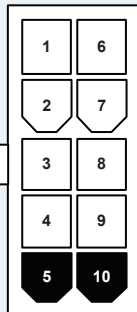
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/BK Driver Grille Light 1 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 2 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/BK Driver Grille Light 3 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 4 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/BK Driver Grille Light 5 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/BK Pass. Grille Light 6 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/WH Driver Aux Light 7 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/WH Pass. Aux Light 8 “X OUT 8”



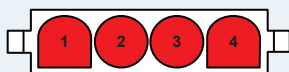
J-6 – OUTPUTS 9 thru 16 FROM CEM16

- Pin 1 Output 9 (2.5A) – 18 Ga. GN/WH Driver Aux Light 9 “X OUT 9”
- Pin 2 Output 10 (2.5A) – 18 Ga. GN/WH Pass. Aux Light 10 “X OUT 10”
- Pin 3 Output 11 (2.5A) – 18 Ga. GN/PK Driver Fog Light 13 “X OUT 13”
- Pin 4 Output 12 (2.5A) – 18 Ga. GN/PK Pass. Fog Light 14 “X OUT 14”
- Pin 5 Output 13 (2.5A) – 18 Ga. GN/PK Driver Fog Light 15 “X OUT 15”
- Pin 6 Output 14 (2.5A) – 18 Ga. GN/PK Pass. Fog Light 16 “X OUT 16”
- Pin 7 Output 15 (2.5A) – 18 Ga. GN/PK Driver Fog Light 17 “X OUT 17”
- Pin 8 Output 16 (2.5A) – 18 Ga. GN/PK Pass. Fog Light 18 “X OUT 18”



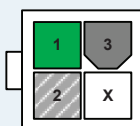
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR36*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR36*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR36*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4



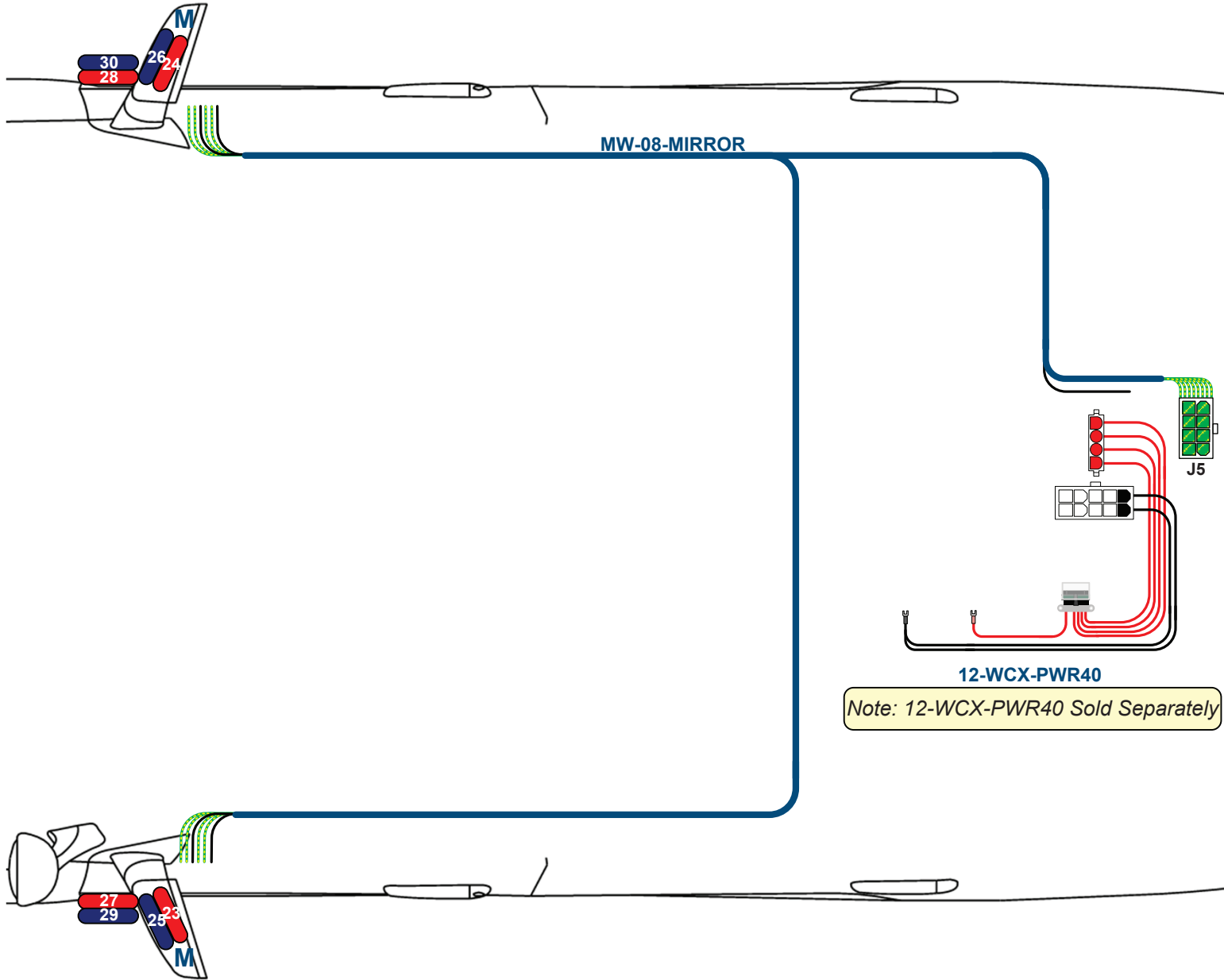
J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR36 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*

Note: Connectors shown in rear view.



MID LIGHTING:

MIRROR LIGHTS – MW-08-MIRROR

- 18 Ga. GN/YW Pass. Mirror Light “X OUT 2” to CEM16 J5 Pin 2
- 18 Ga. GN/YW Pass. Mirror Light “X OUT 4” to CEM16 J5 Pin 4
- 18 Ga. GN/YW Pass. Mirror Light “X OUT 6” to CEM16 J5 Pin 6
- 18 Ga. GN/YW Pass. Mirror Light “X OUT 8” to CEM16 J5 Pin 8
- 18 Ga. BK Pass. Mirror Lights Ground “LT 24 GND” to Ground Assembly
- 18 Ga. BK Pass. Mirror Lights Ground “LT 28 GND” to Ground Assembly
- 18 Ga. GN/YW Driver Mirror Light “X OUT 1” to CEM16 J5 Pin 1
- 18 Ga. GN/YW Driver Mirror Light “X OUT 3” to CEM16 J5 Pin 3
- 18 Ga. GN/YW Driver Mirror Light “X OUT 5” to CEM16 J5 Pin 5
- 18 Ga. GN/YW Driver Mirror Light “X OUT 7” to CEM16 J5 Pin 7
- 18 Ga. BK Driver Mirror Lights Ground “LT 23 GND” to Ground Assembly
- 18 Ga. BK Driver Mirror Lights Ground “LT 27 GND” to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-08-MIRROR
Underhood Power: 12-WCX-PWR40

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

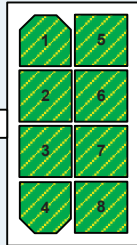
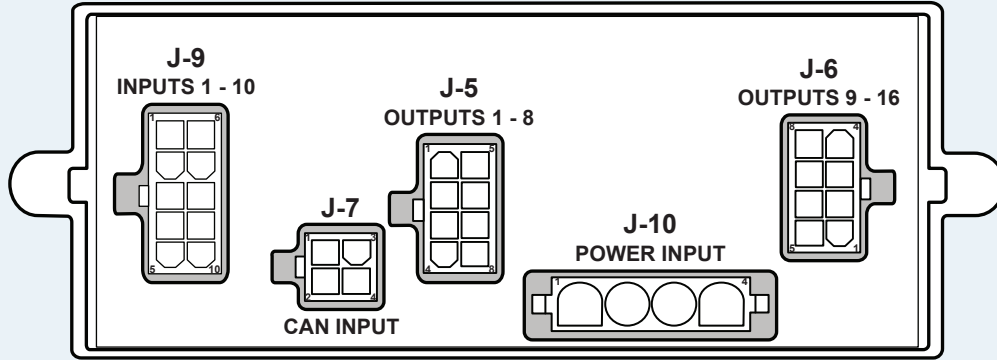
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 012521

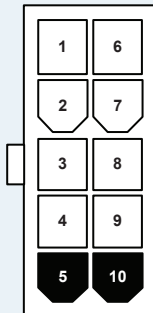
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CEM16 EXPANSION MODULE



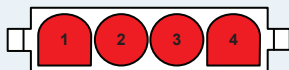
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. GN/YW Driver Mirror Light 23 “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. GN/YW Pass. Mirror Light 24 “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. GN/YW Driver Mirror Light 25 “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. GN/YW Pass. Mirror Light 26 “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. GN/YW Driver Mirror Light 27 “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. GN/YW Pass. Mirror Light 28 “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. GN/YW Driver Mirror Light 29 “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. GN/YW Pass. Mirror Light 30 “X OUT 8”



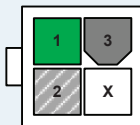
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR40*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR40*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR40*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4



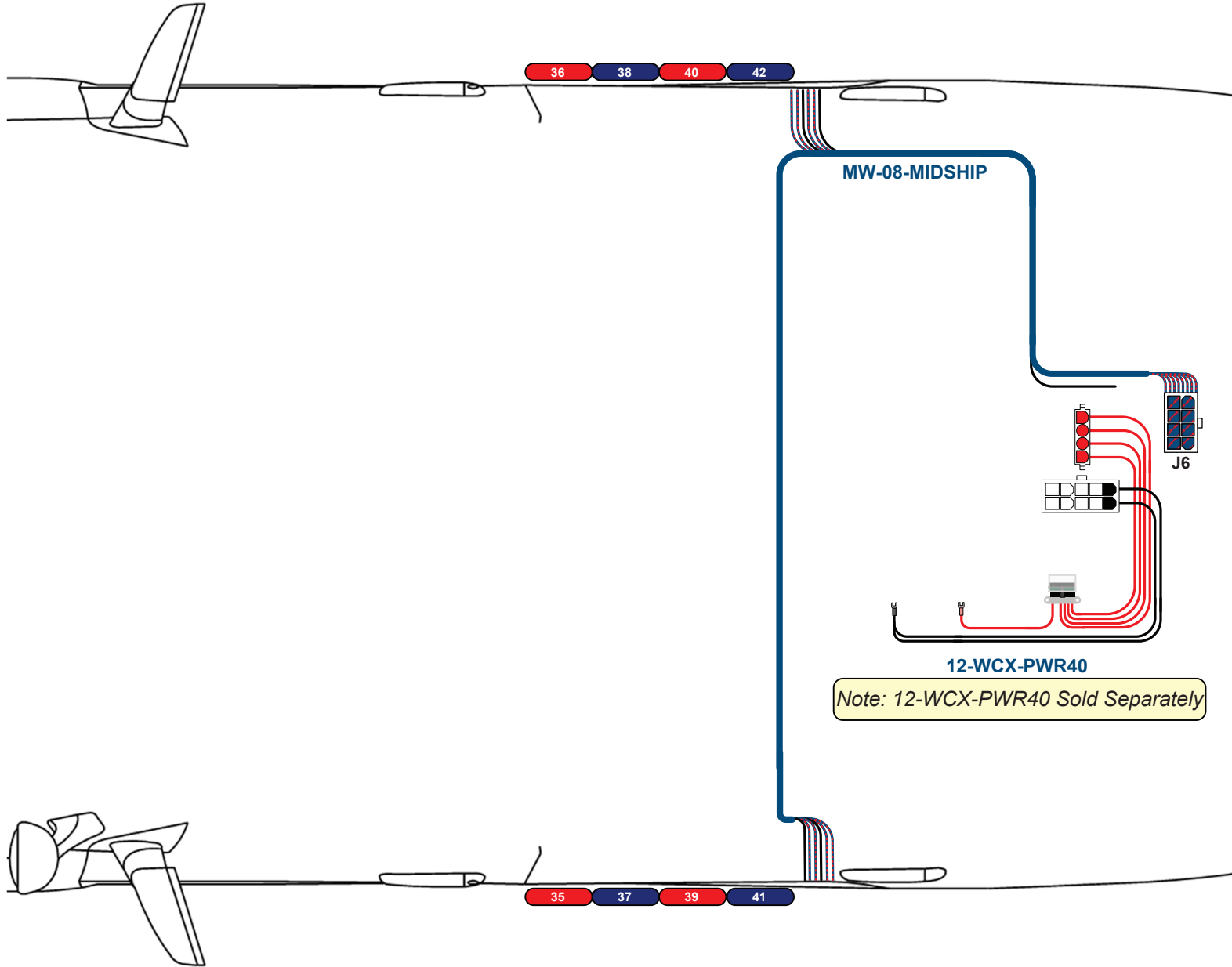
J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR40 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*

Note: Connectors shown in rear view.



MID LIGHTING:

MIDSHIP LIGHTS – MW-08-MIDSHIP

- 18 Ga. BL/RD Pass. Midship Light “X OUT 10” to CEM16 J6 Pin 2
- 18 Ga. BL/RD Pass. Midship Light “X OUT 12” to CEM16 J6 Pin 4
- 18 Ga. BL/RD Pass. Midship Light “X OUT 14” to CEM16 J6 Pin 6
- 18 Ga. BL/RD Pass. Midship Light “X OUT 16” to CEM16 J6 Pin 8
- 18 Ga. BK Pass. Midship Lights Ground “LT 36 GND” to Ground Assembly
- 18 Ga. BK Pass. Midship Lights Ground “LT 40 GND” to Ground Assembly
- 18 Ga. BL/RD Driver Midship Light “X OUT 9” to CEM16 J6 Pin 1
- 18 Ga. BL/RD Driver Midship Light “X OUT 11” to CEM16 J6 Pin 3
- 18 Ga. BL/RD Driver Midship Light “X OUT 13” to CEM16 J6 Pin 5
- 18 Ga. BL/RD Driver Midship Light “X OUT 15” to CEM16 J6 Pin 7
- 18 Ga. BK Driver Midship Lights Ground “LT 35 GND” to Ground Assembly
- 18 Ga. BK Driver Midship Lights Ground “LT 39 GND” to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Front Lighting Harness: MW-08-MIDSHIP
Underhood Power: 12-WCX-PWR40

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

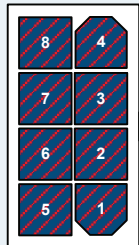
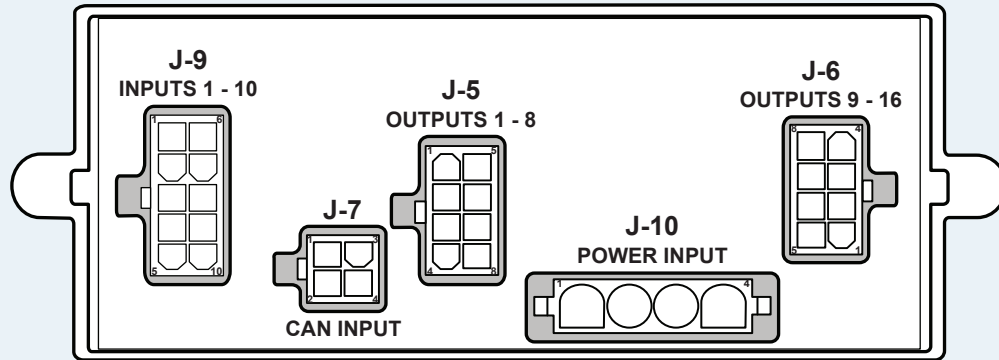
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 011222

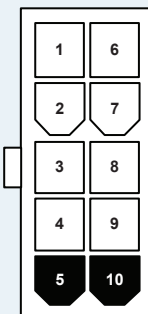
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CEM16 EXPANSION MODULE



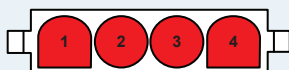
J-6 – OUTPUTS 9 thru 16 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. BL/RD Driver Midship Light 35 “X OUT 9”
- Pin 2 Output 2 (2.5A) – 18 Ga. BL/RD Pass. Midship Light 36 “X OUT 10”
- Pin 3 Output 3 (2.5A) – 18 Ga. BL/RD Driver Midship Light 37 “X OUT 11”
- Pin 4 Output 4 (2.5A) – 18 Ga. BL/RD Pass. Midship Light 38 “X OUT 12”
- Pin 5 Output 5 (2.5A) – 18 Ga. BL/RD Driver Midship Light 39 “X OUT 13”
- Pin 6 Output 6 (2.5A) – 18 Ga. BL/RD Pass. Midship Light 40 “X OUT 14”
- Pin 7 Output 7 (2.5A) – 18 Ga. BL/RD Driver Midship Light 41 “X OUT 15”
- Pin 8 Output 8 (2.5A) – 18 Ga. BL/RD Pass. Midship Light 42 “X OUT 16”



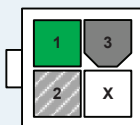
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR40*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR40*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR40*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4

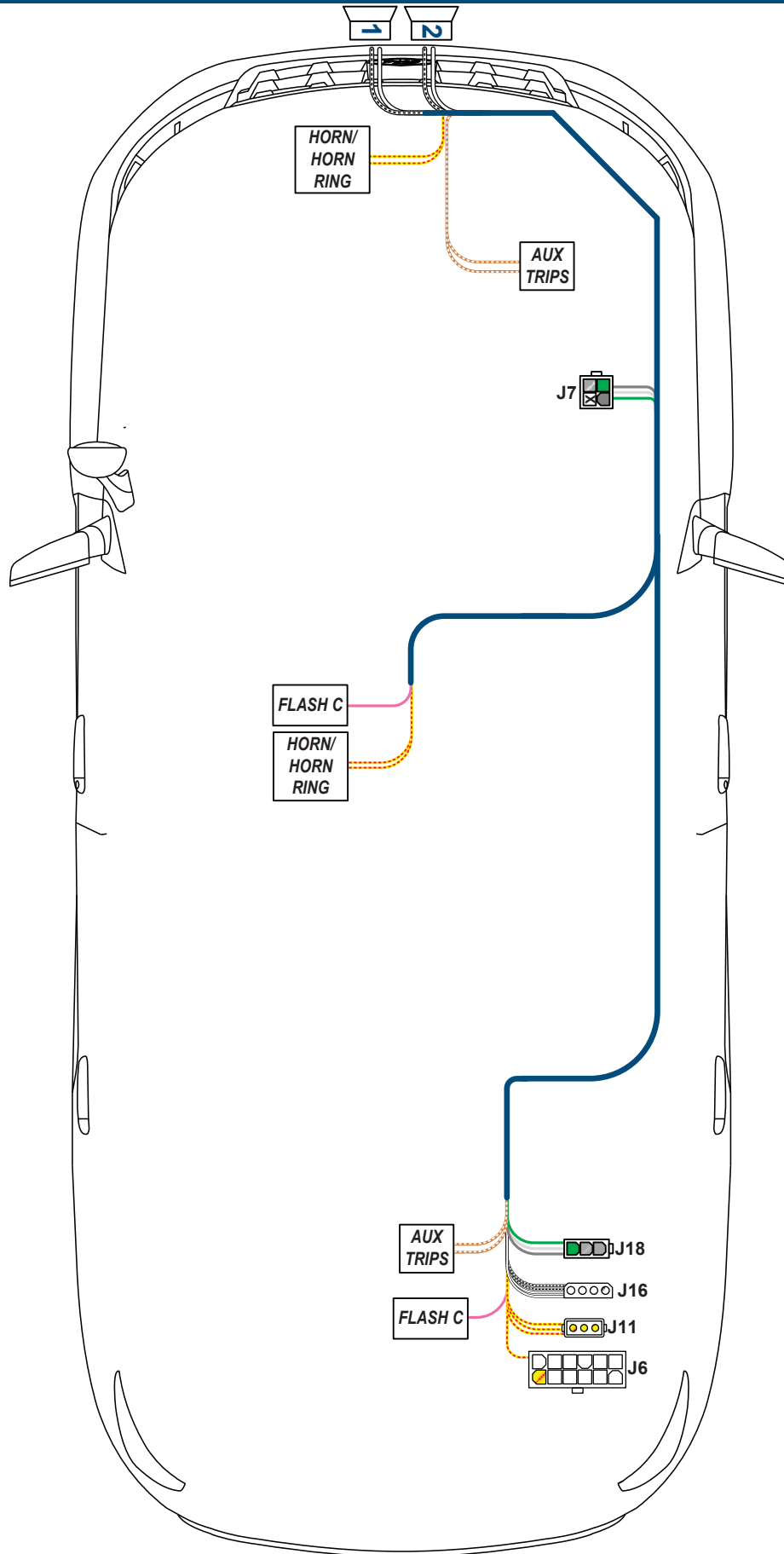


J-7 – CAN INPUT TO CEM16 FROM DATA HARNESS**

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR40 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*



PRODUCTS SHOWN ON LAYOUT:

Main Harness: MW-DC25-2

Front Harness:

Rear Harness:

Battery Cable:

TECHNICAL SUPPORT & SALES CONTACT:

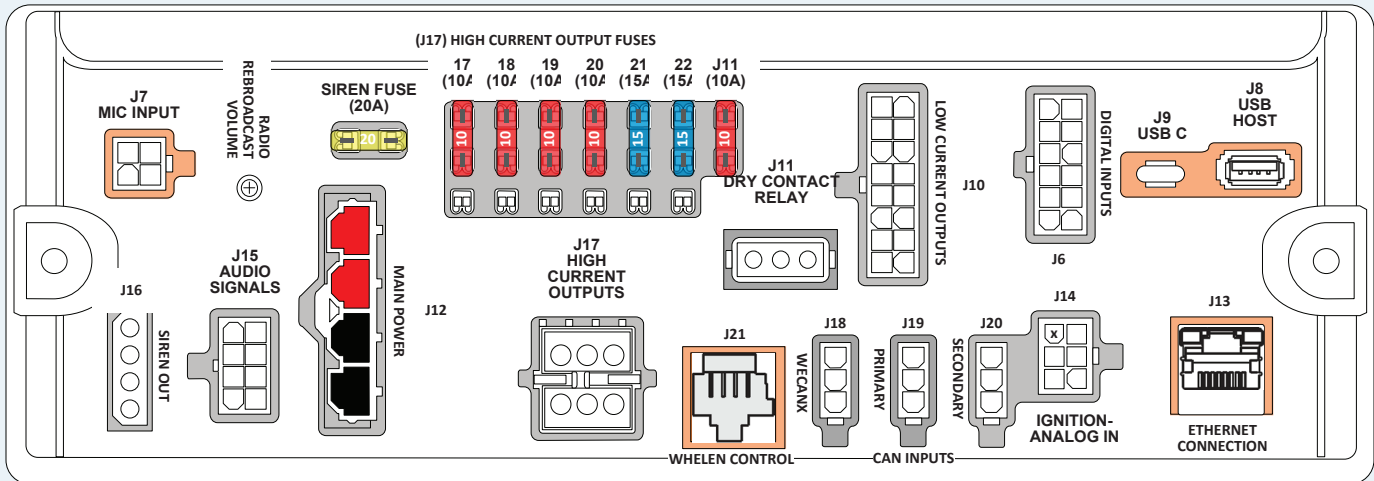
Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 012221

ECN 00000



Note: CORE Siren shown for connector reference only. See CORE Module Layout for detailed information

FRONT COMPONENTS:

SPEAKERS

- 16 Ga. WH/BK Speaker 1 Positive "SPKR POS" from CORE J16 Pin 1
- 16 Ga. WH Speaker 1 Common "SPKR COM" from CORE J16 Pin 3
- 16 Ga. WH/BK Speaker 2 Positive "SPKR POS" from CORE J16 Pin 2
- 16 Ga. WH Speaker 2 Common "SPKR COM" from CORE J16 Pin 3

HORN / HORN RING

- 16 Ga. YW/RD Horn "HORN" from HORN Assembly
- 16 Ga. YW/RD Horn Ring "HORN RING" from HORN RING Assembly

AUX TRIPS

- 14 Ga. TN/WH Aux Trip 1 "AUX TRIP 1" from Rear
- 14 Ga. TN/WH Aux Trip 2 "AUX TRIP 2" from Rear

J7 DATA CONNECTOR

- Pin 1 CAN H – 20 Ga. GN Twisted Pair from CORE J18 Pin 3
- Pin 2 Shield – 20 Ga. Shield from CORE J18 Pin 2
- Pin 3 CAN L – 20 Ga. GY Twisted Pair from CORE J18 Pin 1
- Pin 4 Not Used – Plug

MID COMPONENTS:

FLASH C

- 16 Ga. PK Flash C "FLASH C" from Rear

HORN / HORN RING

- 16 Ga. YW/RD Horn "HORN" from HORN Assembly
- 16 Ga. YW/RD Horn Ring "HORN RING" from HORN RING Assembly

REAR COMPONENTS:

CORE MODULE

- See CORE Module Layout for detailed information.

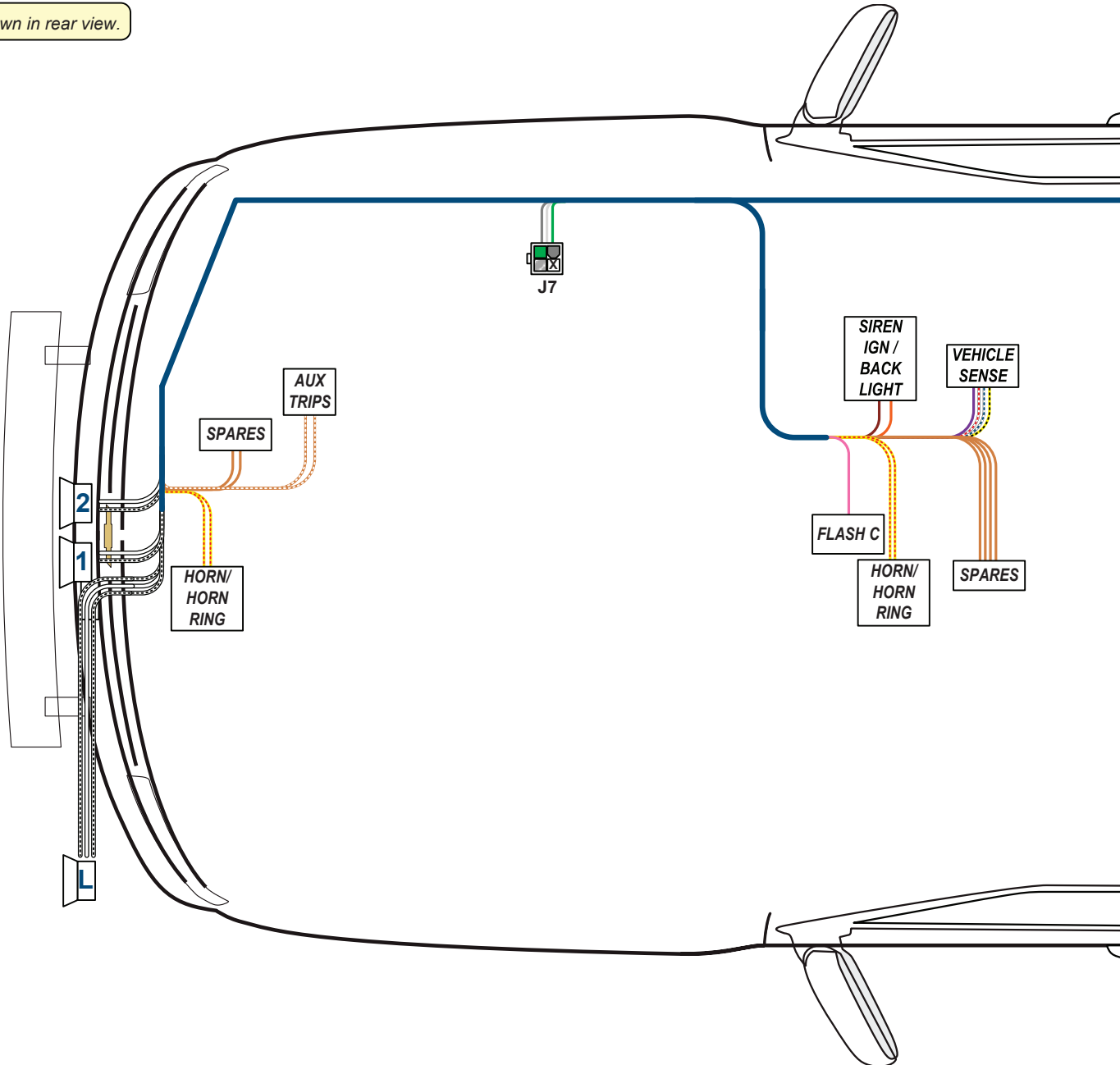
FLASH C

- 16 Ga. PK Flash C "FLASH C" to Console

AUX TRIPS

- 14 Ga. TN/WH Aux Trip 1 "AUX TRIP 1" to Front
- 14 Ga. TN/WH Aux Trip 2 "AUX TRIP 2" to Front

Note: Connectors shown in rear view.



FRONT COMPONENTS:

SPEAKERS

- 16 Ga. WH/BK Speaker 1 Positive "SPKR POS" from CORE J16 Pin 1
- 16 Ga. WH Speaker 1 Common "SPKR COM" from CORE J16 Pin 3
- 16 Ga. WH/BK Speaker 2 Positive "SPKR POS" from CORE J16 Pin 2
- 16 Ga. WH Speaker 2 Common "SPKR COM" from CORE J16 Pin 3

LOW FREQUENCY SPEAKERS

- 16 Ga. WH/BK Low Freq. Speaker Positive 1 "LF POS" from Rear
- 16 Ga. WH/BK Low Freq. Speaker Positive 2 "LF POS" from Rear
- 16 Ga. WH Low Freq. Speaker Common "LF COM" from Rear

HORN / HORN RING

- 16 Ga. YW/RD Horn "HORN" from HORN Assembly
- 16 Ga. YW/RD Horn Ring "HORN RING" from HORN RING Assembly

SPARES

- 14 Ga. TN Spare 1 "SPARE 1" from Rear
- 14 Ga. TN Spare 2 "SPARE 2" from Rear

AUX TRIPS

- 14 Ga. TN/WH Aux Trip 1 "AUX TRIP 1" from Rear
- 14 Ga. TN/WH Aux Trip 2 "AUX TRIP 2" from Rear

MID COMPONENTS:

J7 DATA CONNECTOR

- Pin 1 CAN H – 20 Ga. GN Twisted Pair from CORE J18 Pin 3
- Pin 2 Shield – 20 Ga. Shield from CORE J18 Pin 2
- Pin 3 CAN L – 20 Ga. GY Twisted Pair from CORE J18 Pin 1
- Pin 4 Not Used – Plug

FLASH C

- 16 Ga. PK Flash C "FLASH C" from Rear

HORN / HORN RING

- 16 Ga. YW/RD Horn "HORN" from HORN Assembly
- 16 Ga. YW/RD Horn Ring "HORN RING" from HORN RING Assembly

SPARES

- 14 Ga. TN Spare 3 "SPARE 3" from Rear
- 14 Ga. TN Spare 4 "SPARE 4" from Rear
- 14 Ga. TN Spare 5 "SPARE 5" from Rear
- 14 Ga. TN Spare 6 "SPARE 6" from Rear

PRODUCTS SHOWN ON LAYOUT:

Main Harness – MW-DC25-A2L3

TECHNICAL SUPPORT & SALES CONTACT:

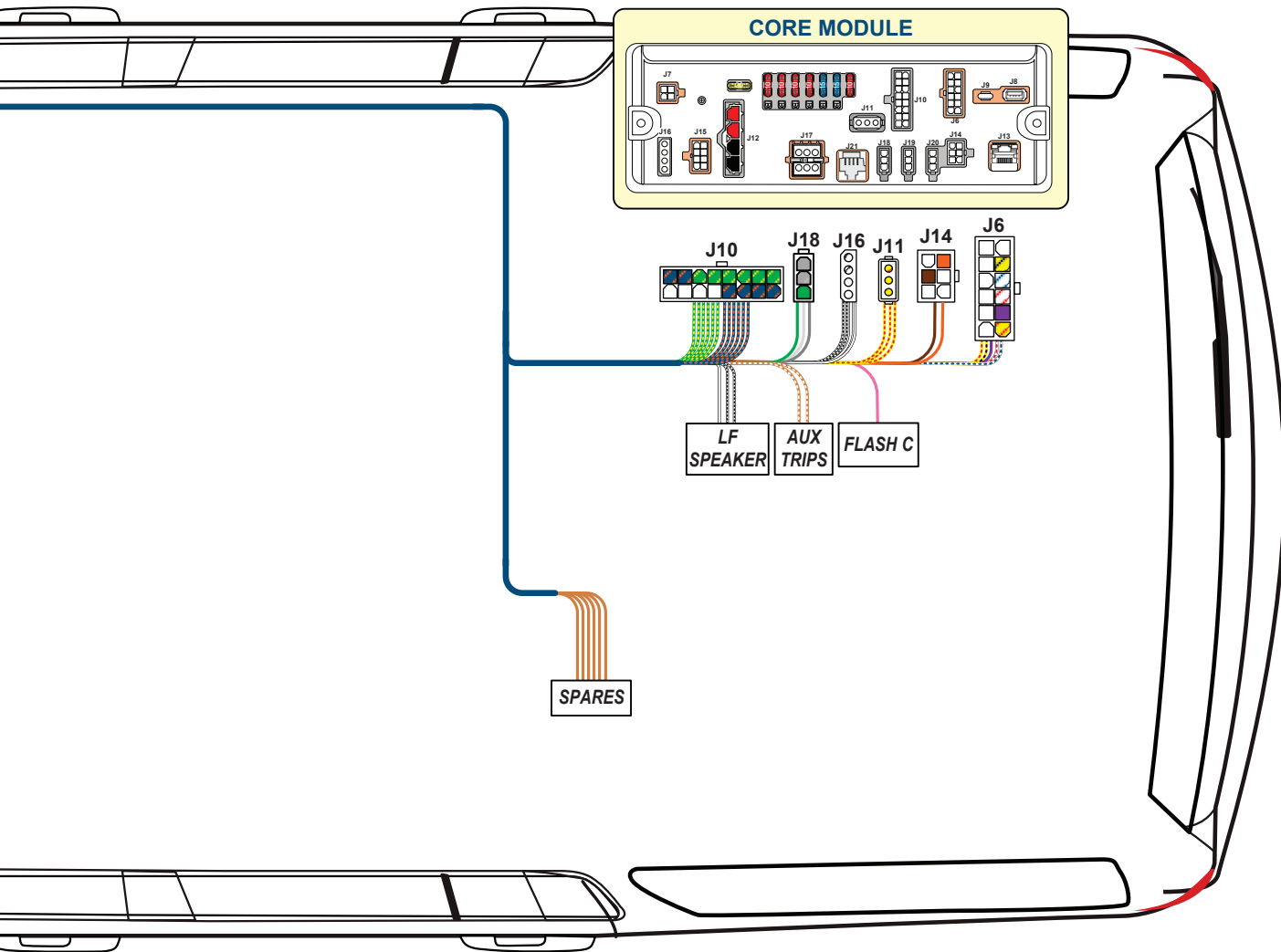
Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 120221

ECN 00000



MID COMPONENTS:

BACK LIGHT

- 18 Ga. OR Siren Ignition "SIREN IGN" to CORE J14 Pin 3
- 18 Ga. BR Back Light "BACKLT" to CORE J14 Pin 5

VEHICLE SENSE

- 18 Ga. PU Park Kill "PRK KILL" to CORE J6 Pin 2
- 18 Ga. WH/RD Brake Sense "BRAKE" to CORE J6 Pin 3
- 18 Ga. WH/BL Speed Sense "SPD SNS" to CORE J6 Pin 4
- 18 Ga. YW/BK Ignition Sense "IGN SNS" to CORE J6 Pin 5

REAR COMPONENTS:

CORE MODULE

- See CORE Module Layout for detailed information.

FLASH C

- 16 Ga. PK Flash C "FLASH C" to Console

AUX TRIPS

- 14 Ga. TN/WH Aux Trip 1 "AUX TRIP 1" to Front
- 14 Ga. TN/WH Aux Trip 2 "AUX TRIP 2" to Front

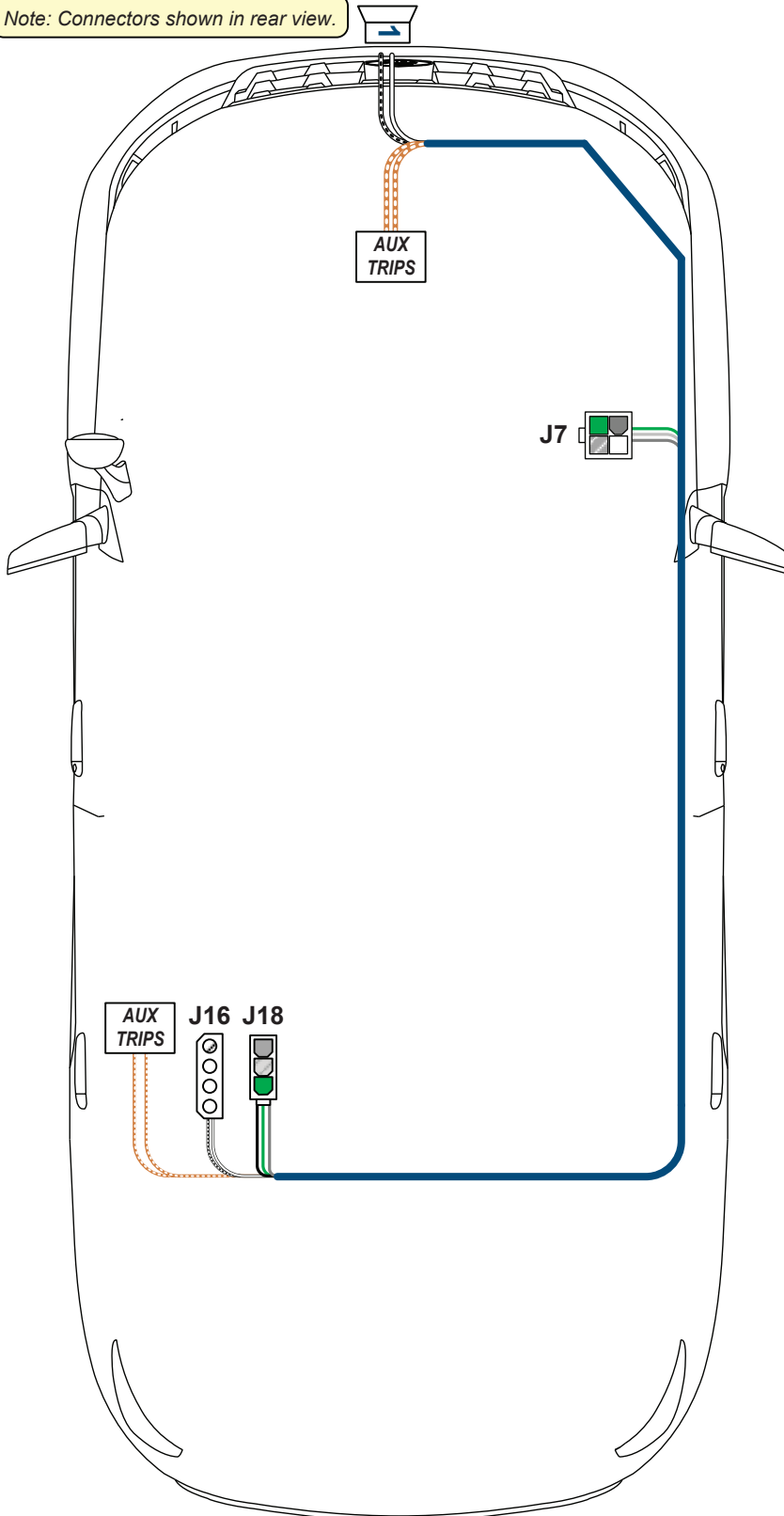
LOW FREQUENCY SPEAKERS

- 16 Ga. WH/BK Low Freq. Speaker Positive 1 "LF POS" to Front
- 16 Ga. WH/BK Low Freq. Speaker Positive 2 "LF POS" to Front
- 16 Ga. WH Low Freq. Speaker Common "LF COM" to Front

SPARES

- 14 Ga. TN Spare 1 "SPARE 1" to Front
- 14 Ga. TN Spare 2 "SPARE 2" to Front
- 14 Ga. TN Spare 3 "SPARE 3" to Console
- 14 Ga. TN Spare 4 "SPARE 4" to Console
- 14 Ga. TN Spare 5 "SPARE 5" to Console
- 14 Ga. TN Spare 6 "SPARE 6" to Console

Note: Connectors shown in rear view.



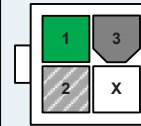
FRONT CIRCUITS:

SPEAKER

- 16 Ga. WH/BK Speaker Positive "SPKR POS" from CORE J16 Pin 1
- 16 Ga. WH Speaker Common "SPKR COM" from CORE J16 Pin 3

AUX TRIPS

- 14 Ga. TN/WH Aux Trip 1 "AUX TRIP 1" from Rear
- 14 Ga. TN/WH Aux Trip 2 "AUX TRIP 2" from Rear



J-7 – CAN INPUT TO CEM16

- Pin 1 CAN H – 20 Ga. GN Twisted Pair from CORE J18 Pin 3
- Pin 2 Shield – 20 Ga. Shield from CORE J18 Pin 2
- Pin 3 CAN L – 20 Ga. GY Twisted Pair from CORE J18 Pin 1
- Pin 4 Not Used – Plug

REAR CIRCUITS:

AUX TRIPS

- 14 Ga. TN/WH Aux Trip 1 "AUX TRIP 1" to Front
- 14 Ga. TN/WH Aux Trip 2 "AUX TRIP 2" to Front



J18– CAN INPUT

- Pin 1 Can Low – 20 Ga. GN Twisted Pair to CEM16 J-7 Pin 3
- Pin 2 Shield – 20 Ga. Shield to CEM16 J-7 Pin 2
- Pin 3 Can High – 20 Ga. GY Twisted Pair to CEM16 J-7 Pin 1



J16 – SIREN OUT

- Pin 1 – 16 Ga. WH/BK Speaker Positive "SPKR POS" to Speaker
- Pin 2 Speaker 2 (+) –: _____
- Pin 3 – 16 Ga. WH Speaker Common "SPKR COM" to Speaker
- Pin 4 Speaker 2 (-) –: _____

MW-DC21:

The Data Cable harness runs from the rear lighting & siren controller to the center of the front bumper. It provides a twisted pair data cable, siren speaker wires & aux trip wires. Series-F options may be added to this harness, including 2nd speaker and low frequency speakers.

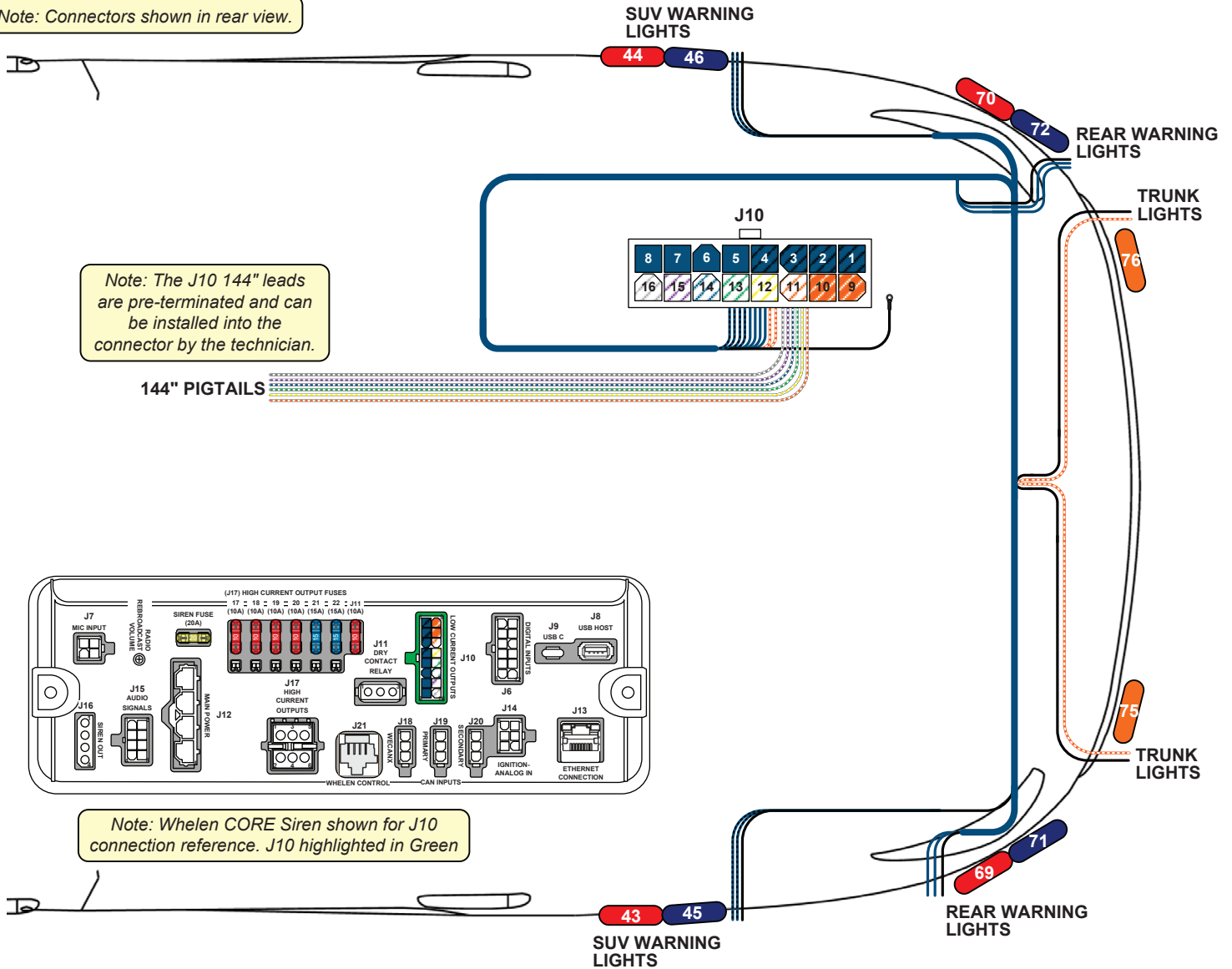
TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

Note: Connectors shown in rear view.



Note: The J10 144" leads are pre-terminated and can be installed into the connector by the technician.

Note: Whelen CORE Siren shown for J10 connection reference. J10 highlighted in Green

REAR LIGHTING:

J10 – SUV WARNING LIGHTS

- 18 Ga. BL/BK Driver SUV Light "SUV LT 43" from J10 Pin 1
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 44" from J10 Pin 2
- 18 Ga. BL/BK Driver SUV Light "SUV LT 45" from J10 Pin 3
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 46" from J10 Pin 4
- 18 Ga. BK Driver SUV Light Ground "LT 43 GND" from Ground Assembly
- 18 Ga. BK Pass. SUV Light Ground "LT 44 GND" from Ground Assembly

J10 – REAR WARNING LIGHTS

- 18 Ga. BL Driver Rear Light "RER W LT 69" from J10 Pin 5
- 18 Ga. BL Pass. Rear Light "RER W LT 70" from J10 Pin 6
- 18 Ga. BL Driver Rear Light "RER W LT 71" from J10 Pin 7
- 18 Ga. BL Pass. Rear Light "RER W LT 72" from J10 Pin 8
- 18 Ga. BK Driver Rear Light Ground "LT 69 GND" from Ground Assembly
- 18 Ga. BK Pass. Rear Light Ground "LT 70 GND" from Ground Assembly

J10 – TRUNK LIGHTS

- 18 Ga. OR/WH Driver Trunk Light "TRUNK LT 75" from J10 Pin 9
- 18 Ga. OR/WH Pass. Trunk Light "TRUNK LT 76" from J10 Pin 10
- 18 Ga. BK Driver Trunk Light Ground "LT 75 GND" from Ground Assembly
- 18 Ga. BK Pass. Trunk Light Ground "LT 76 GND" from Ground Assembly

J10 – CUSTOMER INSTALLED LEADS 144"

- 18 Ga. WH/OR J10 Pin 11 "J10 11" Customer Installed 144" Lead
- 18 Ga. WH/YW J10 Pin 12 "J10 12" Customer Installed 144" Lead
- 18 Ga. WH/GN J10 Pin 13 "J10 13" Customer Installed 144" Lead
- 18 Ga. WH/BL J10 Pin 14 "J10 14" Customer Installed 144" Lead
- 18 Ga. WH/PU J10 Pin 15 "J10 15" Customer Installed 144" Lead
- 18 Ga. WH/GY J10 Pin 16 "J10 16" Customer Installed 144" Lead

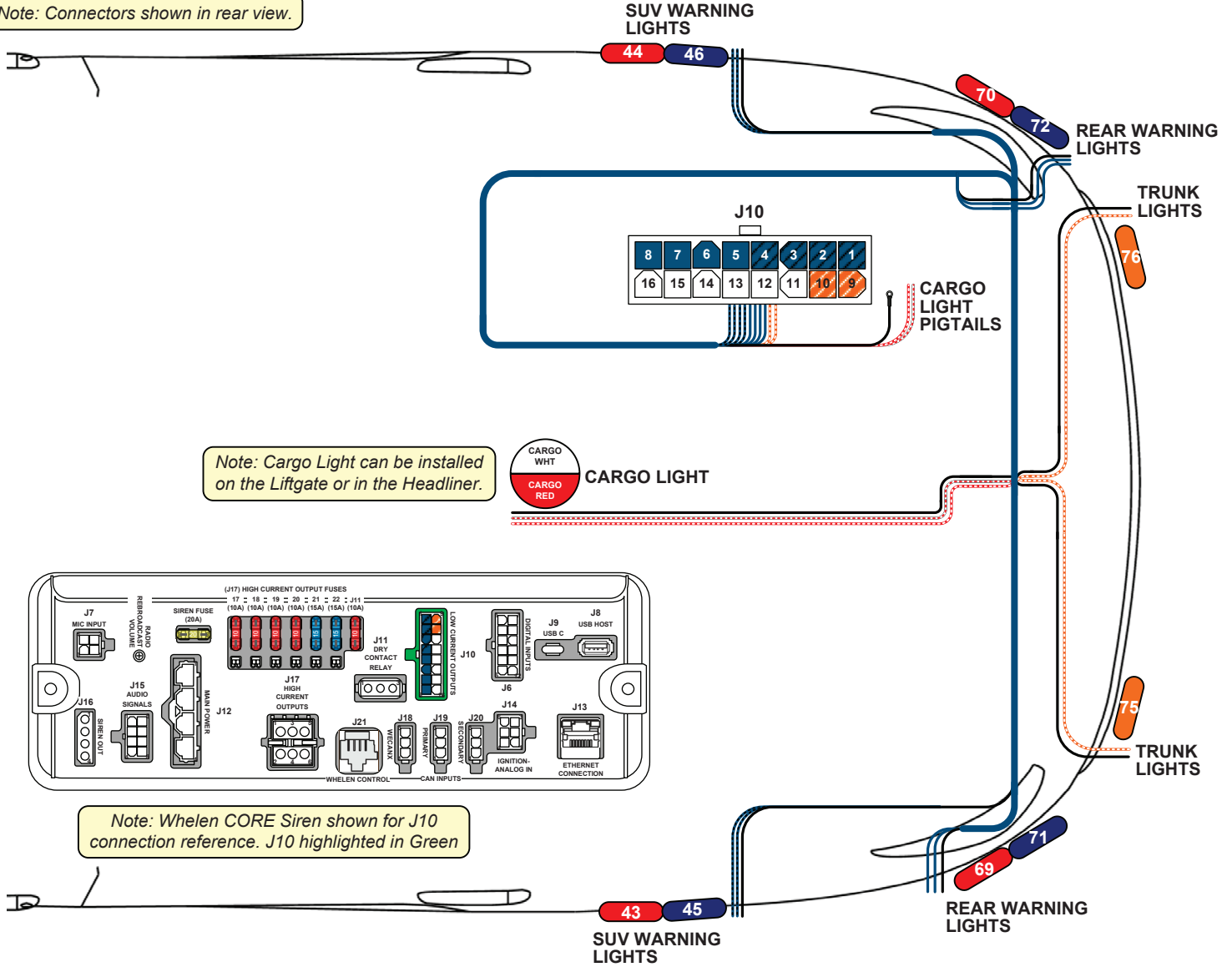
REAR POWER CIRCUITS:

When purchasing a PPWC option with your harnesses consider adding a Console Power Harness and a 12-WCSP-28 Whelen Power Harness to use with a P18-Flex Fuse Panel to supply power to the Whelen CORE and your console equipment.

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200
Email: sales@allfleetsolutions.com
Web: www.allfleetsolutions.com

Note: Connectors shown in rear view.



REAR LIGHTING:

CARGO LIGHT

- 18 Ga. RD/WH Cargo Light Red "CAR LT RD" Pigtail 20"
- 18 Ga. WH/RD Cargo Light White "CAR LT WHT" Pigtail 20"
- 18 Ga. BK Cargo Light Ground "CARGO GND" to Ground Assembly

J10 – SUV WARNING LIGHTS

- 18 Ga. BL/BK Driver SUV Light "SUV LT 43" from J10 Pin 1
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 44" from J10 Pin 2
- 18 Ga. BL/BK Driver SUV Light "SUV LT 45" from J10 Pin 3
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 46" from J10 Pin 4
- 18 Ga. BK Driver SUV Light Ground "LT 43 GND" from Ground Assembly
- 18 Ga. BK Pass. SUV Light Ground "LT 44 GND" from Ground Assembly

J10 – REAR WARNING LIGHTS

- 18 Ga. BL Driver Rear Light "RER W LT 69" from J10 Pin 5
- 18 Ga. BL Pass. Rear Light "RER W LT 70" from J10 Pin 6
- 18 Ga. BL Driver Rear Light "RER W LT 71" from J10 Pin 7
- 18 Ga. BL Pass. Rear Light "RER W LT 72" from J10 Pin 8
- 18 Ga. BK Driver Rear Light Ground "LT 69 GND" from Ground Assembly
- 18 Ga. BK Pass. Rear Light Ground "LT 70 GND" from Ground Assembly

J10 – TRUNK LIGHTS

- 18 Ga. OR/WH Driver Trunk Light "TRUNK LT 75" from J10 Pin 9
- 18 Ga. OR/WH Pass. Trunk Light "TRUNK LT 76" from J10 Pin 10
- 18 Ga. BK Driver Trunk Light Ground "LT 75 GND" from Ground Assembly
- 18 Ga. BK Pass. Trunk Light Ground "LT 76 GND" from Ground Assembly

REAR POWER CIRCUITS:

When purchasing a PPWC option with your harnesses consider adding a Console Power Harness and a 12-WCSP-28 Whelen Power Harness to use with a P18-Flex Fuse Panel to supply power to the Whelen CORE and your console equipment.

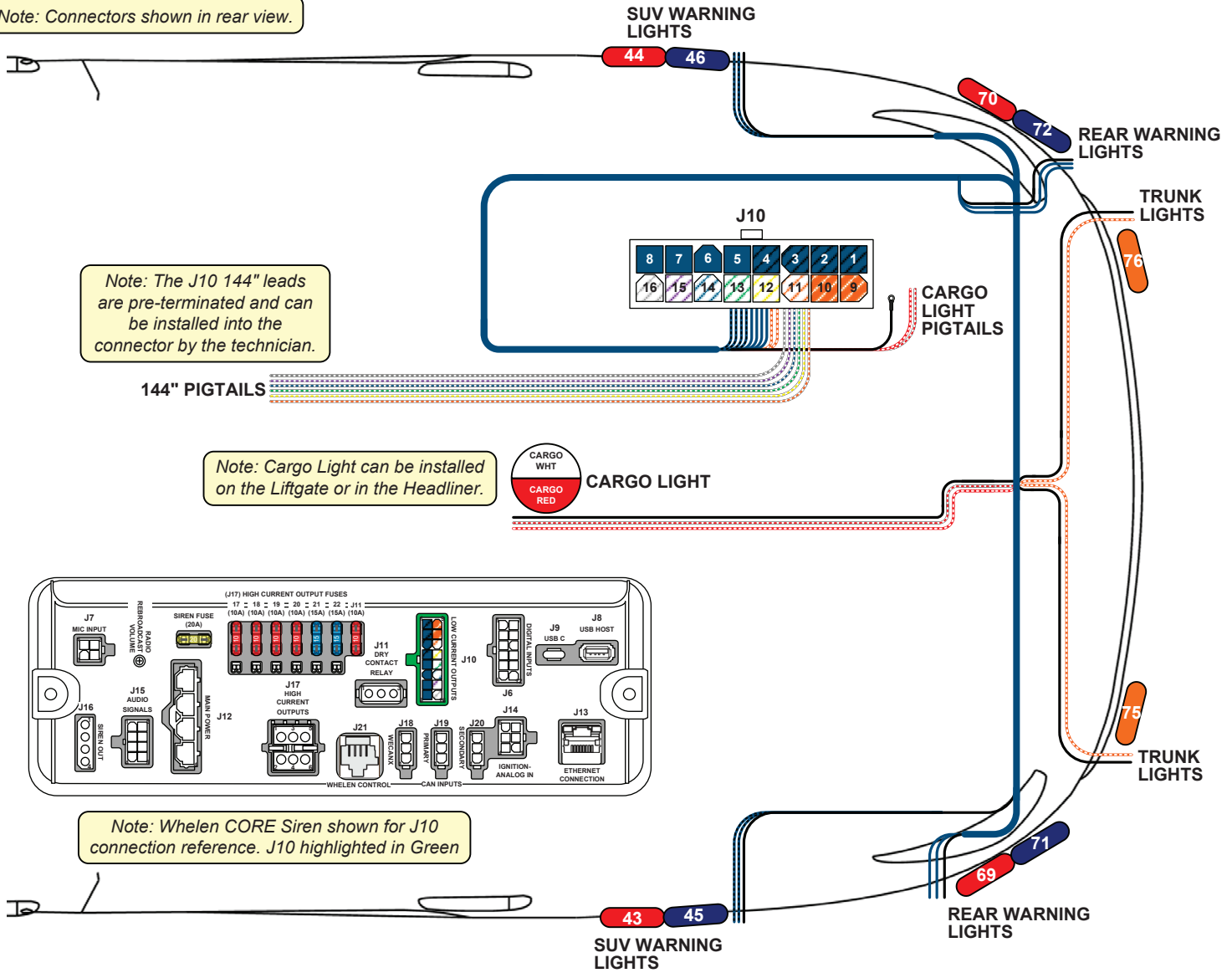
TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

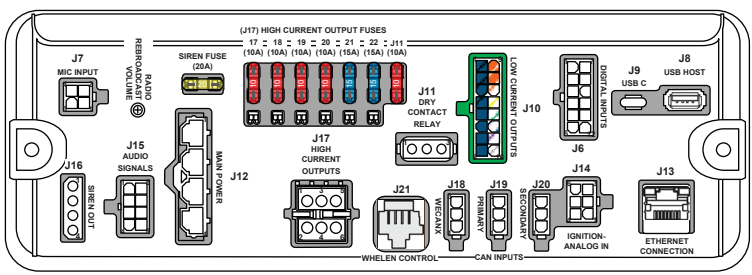
Note: Connectors shown in rear view.



Note: The J10 144" leads are pre-terminated and can be installed into the connector by the technician.

Note: Cargo Light can be installed on the Liftgate or in the Headliner.

Note: Whelen CORE Siren shown for J10 connection reference. J10 highlighted in Green



REAR LIGHTING:

CARGO LIGHT

- 18 Ga. RD/WH Cargo Light Red "CAR LT RD" Pigtail 20"
- 18 Ga. WH/RD Cargo Light White "CAR LT WHT" Pigtail 20"
- 18 Ga. BK Cargo Light Ground "CARGO GND" to Ground Assembly

J10 – SUV WARNING LIGHTS

- 18 Ga. BL/BK Driver SUV Light "SUV LT 43" from J10 Pin 1
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 44" from J10 Pin 2
- 18 Ga. BL/BK Driver SUV Light "SUV LT 45" from J10 Pin 3
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 46" from J10 Pin 4
- 18 Ga. BK Driver SUV Light Ground "LT 43 GND" from Ground Assembly
- 18 Ga. BK Pass. SUV Light Ground "LT 44 GND" from Ground Assembly

J10 – TRUNK LIGHTS

- 18 Ga. OR/WH Driver Trunk Light "TRUNK LT 75" from J10 Pin 9
- 18 Ga. OR/WH Pass. Trunk Light "TRUNK LT 76" from J10 Pin 10
- 18 Ga. BK Driver Trunk Light Ground "LT 75 GND" from Ground Assembly
- 18 Ga. BK Pass. Trunk Light Ground "LT 76 GND" from Ground Assembly

J10 – REAR WARNING LIGHTS

- 18 Ga. BL Driver Rear Light "RER W LT 69" from J10 Pin 5
- 18 Ga. BL Pass. Rear Light "RER W LT 70" from J10 Pin 6
- 18 Ga. BL Driver Rear Light "RER W LT 71" from J10 Pin 7
- 18 Ga. BL Pass. Rear Light "RER W LT 72" from J10 Pin 8
- 18 Ga. BK Driver Rear Light Ground "LT 69 GND" from Ground Assembly
- 18 Ga. BK Pass. Rear Light Ground "LT 70 GND" from Ground Assembly

J10 – CUSTOMER INSTALLED LEADS 144"

- 18 Ga. WH/OR J10 Pin 11 "J10 11" Customer Installed 144" Lead
- 18 Ga. WH/YW J10 Pin 12 "J10 12" Customer Installed 144" Lead
- 18 Ga. WH/GN J10 Pin 13 "J10 13" Customer Installed 144" Lead
- 18 Ga. WH/BL J10 Pin 14 "J10 14" Customer Installed 144" Lead
- 18 Ga. WH/PU J10 Pin 15 "J10 15" Customer Installed 144" Lead
- 18 Ga. WH/GY J10 Pin 16 "J10 16" Customer Installed 144" Lead

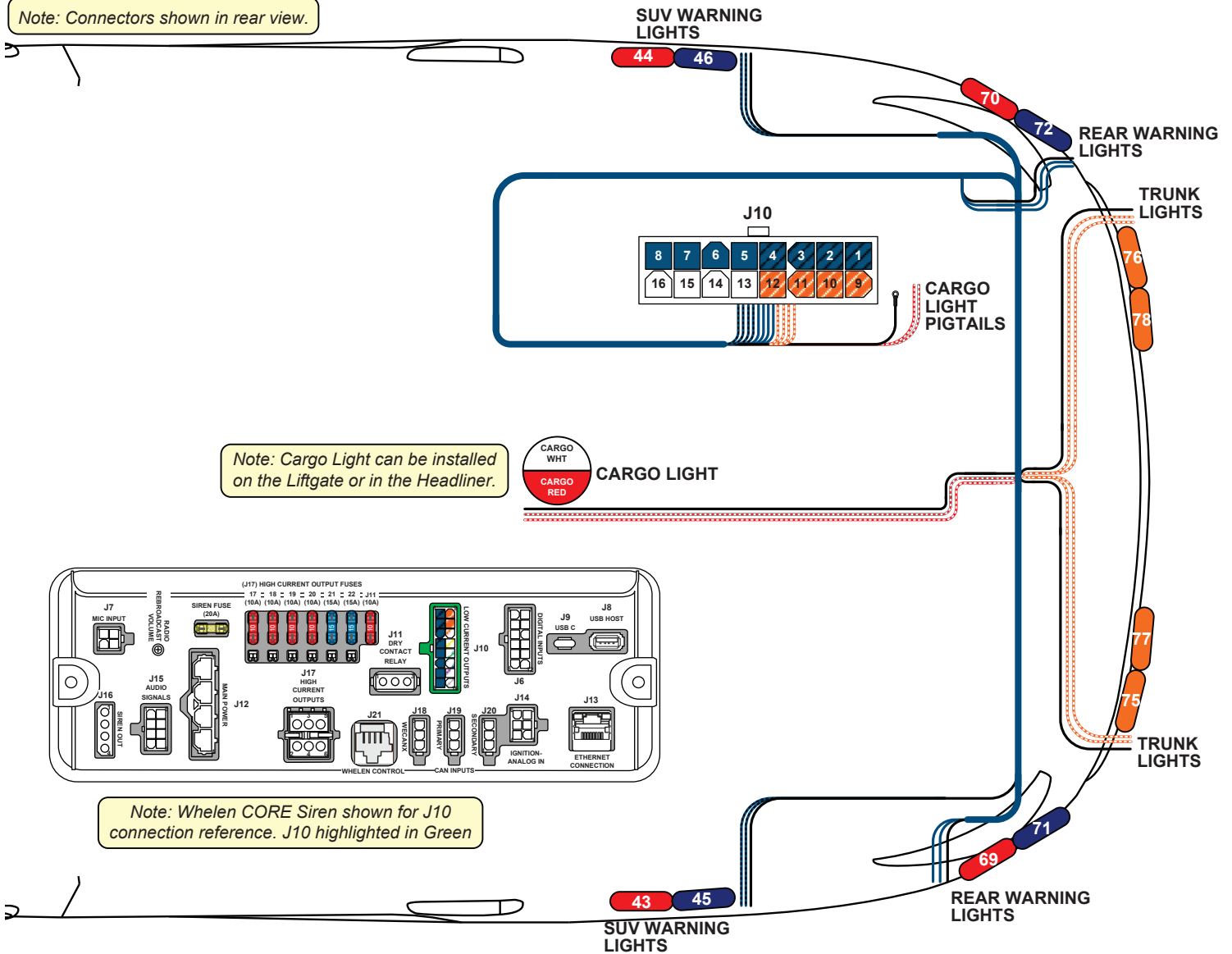
REAR POWER CIRCUITS:

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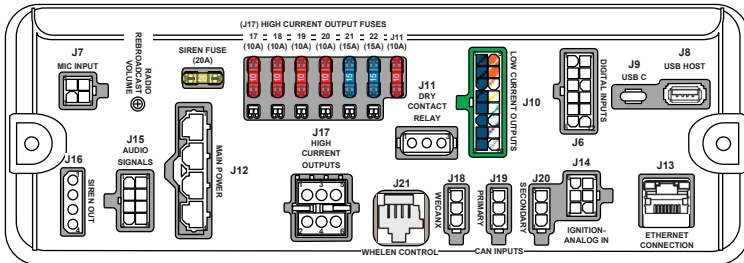
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Note: Connectors shown in rear view.



Note: Cargo Light can be installed on the Liftgate or in the Headliner.



Note: Whelen CORE Siren shown for J10 connection reference. J10 highlighted in Green

REAR LIGHTING:

J10 – SUV WARNING LIGHTS

- 18 Ga. BL/BK Driver SUV Light “SUV LT 43” from J10 Pin 1
- 18 Ga. BL/BK Pass. SUV Light “SUV LT 44” from J10 Pin 2
- 18 Ga. BL/BK Driver SUV Light “SUV LT 45” from J10 Pin 3
- 18 Ga. BL/BK Pass. SUV Light “SUV LT 46” from J10 Pin 4
- 18 Ga. BK Driver SUV Light Ground “LT 43 GND” from Ground Assembly
- 18 Ga. BK Pass. SUV Light Ground “LT 44 GND” from Ground Assembly

J10 – REAR WARNING LIGHTS

- 18 Ga. BL Driver Rear Light “RER W LT 69” from J10 Pin 5
- 18 Ga. BL Pass. Rear Light “RER W LT 70” from J10 Pin 6
- 18 Ga. BL Driver Rear Light “RER W LT 71” from J10 Pin 7
- 18 Ga. BL Pass. Rear Light “RER W LT 72” from J10 Pin 8
- 18 Ga. BK Driver Rear Light Ground “LT 69 GND” from Ground Assembly
- 18 Ga. BK Pass. Rear Light Ground “LT 70 GND” from Ground Assembly

J10 – TRUNK LIGHTS

- 18 Ga. OR/WH Driver Trunk Light “TRUNK LT 75” from J10 Pin 9
- 18 Ga. OR/WH Pass. Trunk Light “TRUNK LT 76” from J10 Pin 10
- 18 Ga. OR/WH Driver Trunk Light “TRUNK LT 77” from J10 Pin 11
- 18 Ga. OR/WH Pass. Trunk Light “TRUNK LT 78” from J10 Pin 12
- 18 Ga. BK Driver Trunk Light Ground “LT 75 GND” from Ground Assembly
- 18 Ga. BK Pass. Trunk Light Ground “LT 76 GND” from Ground Assembly

CARGO LIGHT

- 18 Ga. RD/WH Cargo Light Red “CAR LT RD” Pigtail 20”
- 18 Ga. WH/RD Cargo Light White “CAR LT WHT” Pigtail 20”
- 18 Ga. BK Cargo Light Ground “CARGO GND” to Ground Assembly

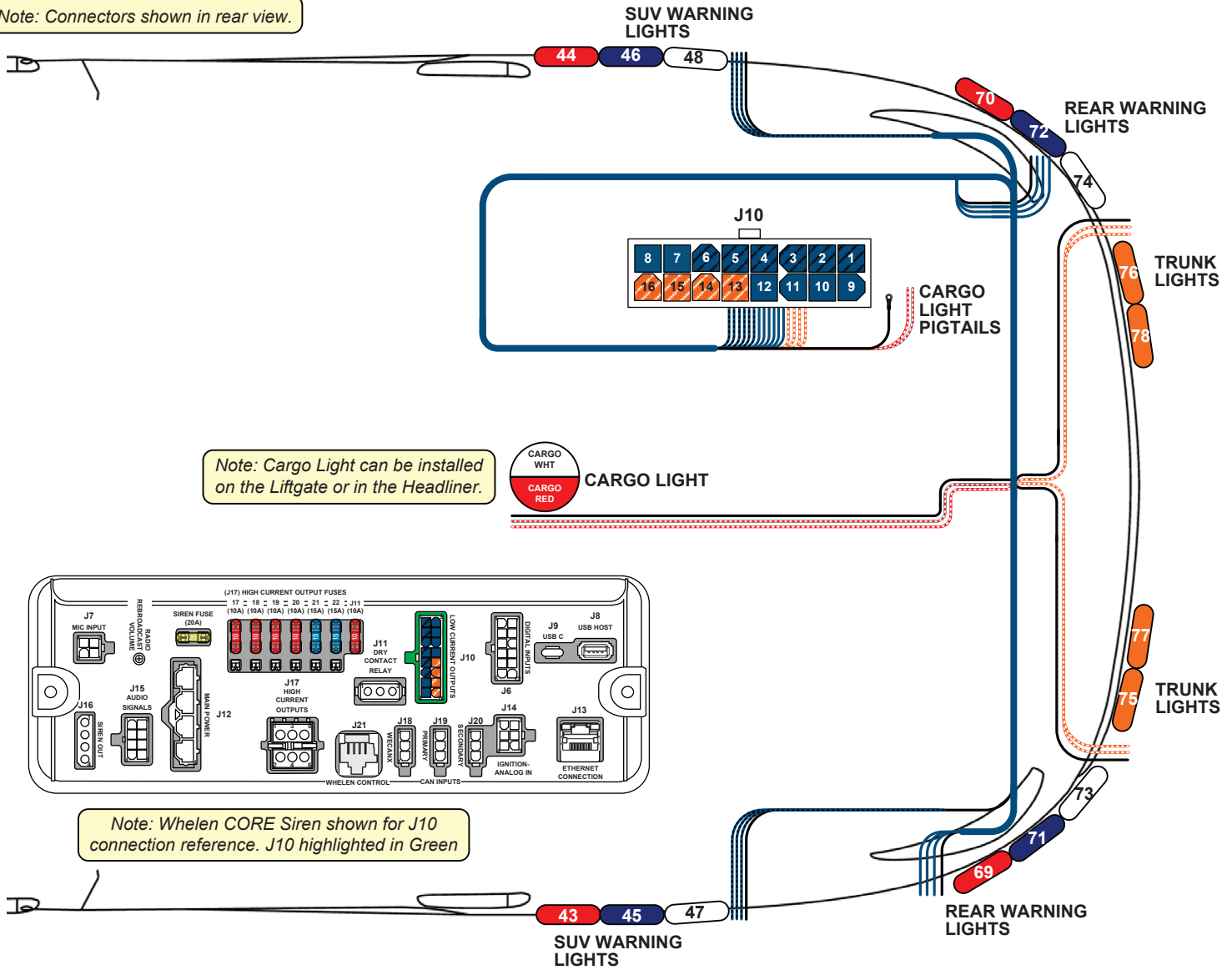
REAR POWER CIRCUITS:

When utilizing a PPWC option with your harnesses, consider adding a Console Power Harness, a 12-WCSP-28 Whelen Power Harness, and a P18-Flex Fuse Panel to supply power to the Whelen CORE and your console equipment.

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Note: Connectors shown in rear view.



REAR LIGHTING:

CARGO LIGHT

- 18 Ga. RD/WH Cargo Light Red "CAR LT RD" Pigtail 20"
- 18 Ga. WH/RD Cargo Light White "CAR LT WHT" Pigtail 20"
- 18 Ga. BK Cargo Light Ground "CARGO GND" to Ground Assembly

J10 – SUV WARNING LIGHTS

- 18 Ga. BL/BK Driver SUV Light "SUV LT 43" from J10 Pin 1
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 44" from J10 Pin 2
- 18 Ga. BL/BK Driver SUV Light "SUV LT 45" from J10 Pin 3
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 46" from J10 Pin 4
- 18 Ga. BL/BK Driver SUV Light "SUV LT 47" from J10 Pin 5
- 18 Ga. BL/BK Pass. SUV Light "SUV LT 48" from J10 Pin 6
- 18 Ga. BK Driver SUV Light Ground "LT 43 GND" from Ground Assembly
- 18 Ga. BK Pass. SUV Light Ground "LT 44 GND" from Ground Assembly

J10 – REAR WARNING LIGHTS

- 18 Ga. BL Driver Rear Light "RER W LT 69" from J10 Pin 7
- 18 Ga. BL Pass. Rear Light "RER W LT 70" from J10 Pin 8
- 18 Ga. BL Driver Rear Light "RER W LT 71" from J10 Pin 9
- 18 Ga. BL Pass. Rear Light "RER W LT 72" from J10 Pin 10
- 18 Ga. BL Driver Rear Light "RER W LT 73" from J10 Pin 11
- 18 Ga. BL Pass. Rear Light "RER W LT 74" from J10 Pin 12
- 18 Ga. BK Driver Rear Light Ground "LT 69 GND" from Ground Assembly
- 18 Ga. BK Pass. Rear Light Ground "LT 70 GND" from Ground Assembly

J10 – TRUNK LIGHTS

- 18 Ga. OR/WH Driver Trunk Light "TRUNK LT 75" from J10 Pin 13
- 18 Ga. OR/WH Pass. Trunk Light "TRUNK LT 76" from J10 Pin 14
- 18 Ga. OR/WH Driver Trunk Light "TRUNK LT 77" from J10 Pin 15
- 18 Ga. OR/WH Pass. Trunk Light "TRUNK LT 78" from J10 Pin 16
- 18 Ga. BK Driver Trunk Light Ground "LT 75 GND" from Ground Assembly
- 18 Ga. BK Pass. Trunk Light Ground "LT 76 GND" from Ground Assembly

REAR POWER CIRCUITS:

When purchasing a PPWC option with your harnesses consider adding a Console Power Harness and a 12-WCSP-28 Whelen Power Harness to use with a P18-Flex Fuse Panel to supply power to the Whelen CORE and your console equipment.

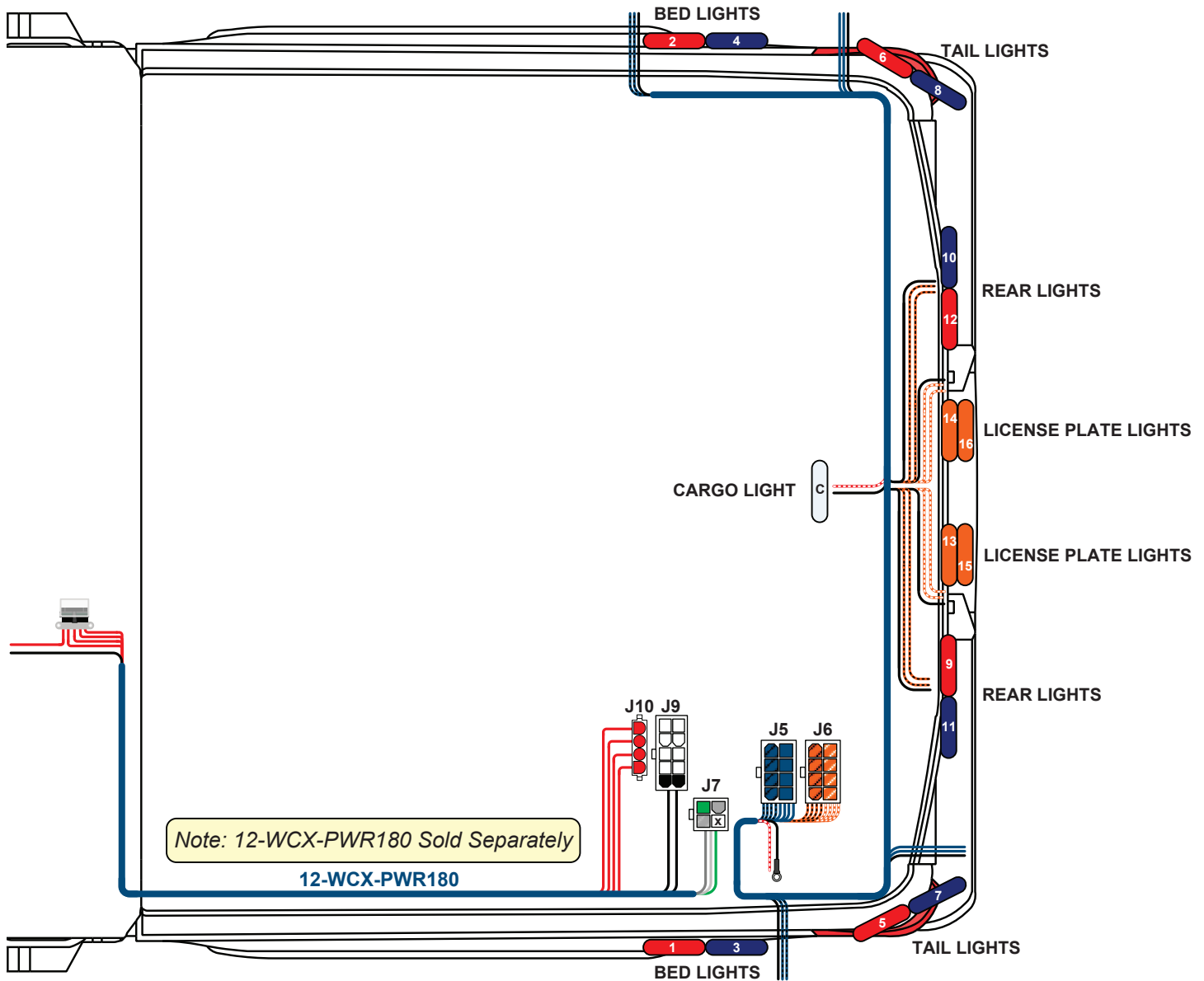
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Note: Connectors shown in rear view.



REAR LIGHTING:

BED LIGHTS J5 – MW-TLH16-C

- 18 Ga. BL/BK Driver Bed Light “X OUT 1” to CEM16 J5 Pin 1
- 18 Ga. BL/BK Driver Bed Light “X OUT 3” to CEM16 J5 Pin 3
- 18 Ga. BK Driver Bed Light Ground “OUT 1 GND” to Ground Assembly
- 18 Ga. BL/BK Pass. Bed Light “X OUT 2” to CEM16 J5 Pin 2
- 18 Ga. BL/BK Pass. Bed Light “X OUT 4” to CEM16 J5 Pin 4
- 18 Ga. BK Pass. Bed Light Ground “OUT 2 GND” to Ground Assembly

REAR LIGHTS J6 – MW-TLH16-C

- 18 Ga. OR/BK Driver Rear Light “X OUT 9” to CEM16 J6 Pin 1
- 18 Ga. OR/BK Driver Rear Light “X OUT 11” to CEM16 J6 Pin 3
- 18 Ga. BK Driver Rear Light Ground “OUT 9 GND” to Ground Assembly
- 18 Ga. OR/BK Pass. Rear Light “X OUT 10” to CEM16 J6 Pin 2
- 18 Ga. OR/BK Pass. Rear Light “X OUT 12” to CEM16 J6 Pin 4
- 18 Ga. BK Pass. Rear Light Ground “OUT 10 GND” to Ground Assembly

TAIL LIGHTS J5 – MW-TLH16-C

- 18 Ga. BL Driver Tail Light “X OUT 5” to CEM16 J5 Pin 5
- 18 Ga. BL Driver Tail Light “X OUT 7” to CEM16 J5 Pin 7
- 18 Ga. BK Driver Tail Light Ground “OUT 5 GND” to Ground Assembly
- 18 Ga. BL Pass. Tail Light “X OUT 6” to CEM16 J5 Pin 6
- 18 Ga. BL Pass. Tail Light “X OUT 8” to CEM16 J5 Pin 8
- 18 Ga. BK Pass. Bed Light Ground “OUT 6 GND” to Ground Assembly

LICENSE PLATE LIGHTS J6 – MW-TLH16-C

- 18 Ga. OR/WH Driver LP Light “X OUT 13” to CEM16 J6 Pin 5
- 18 Ga. OR/WH Driver LP Light “X OUT 15” to CEM16 J6 Pin 7
- 18 Ga. BK Driver LP Light Ground “OUT 13 GND” to Ground Assembly
- 18 Ga. OR/WH Pass. LP Light “X OUT 14” to CEM16 J6 Pin 6
- 18 Ga. OR/WH Pass. LP Light “X OUT 16” to CEM16 J6 Pin 8
- 18 Ga. BK Pass. LP Light Ground “OUT 14 GND” to Ground Assembly

CARGO LIGHT – MW-TLH16-C

- 18 Ga. RD/WH Cargo Light “CARGO LT”
- 18 Ga. BK Cargo Light Ground “CARGO GND” to Ground Assembly

PRODUCTS SHOWN ON LAYOUT:

Rear Lighting Harness: MW-TLH16-C
Rear Expansion Power: 12-WCX-PWR180

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

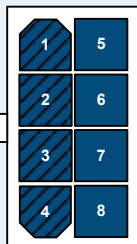
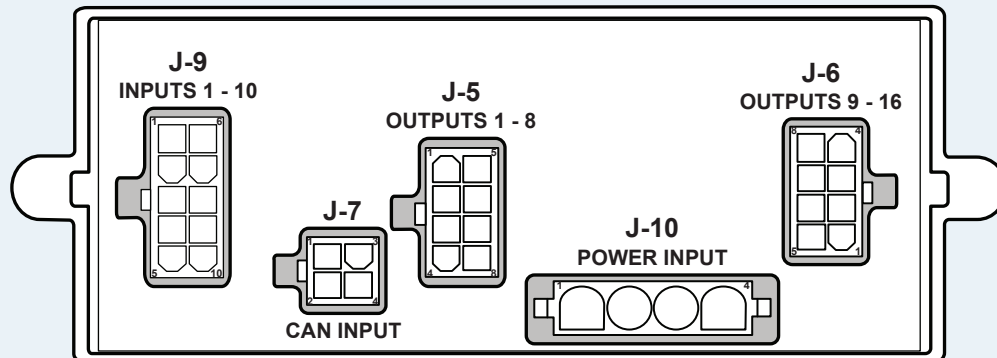
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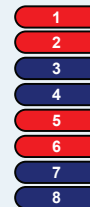
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CEM16 EXPANSION MODULE



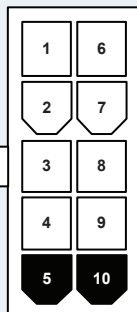
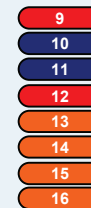
J-5 – OUTPUTS 1 thru 8 FROM CEM16

- Pin 1 Output 1 (2.5A) – 18 Ga. BL/BK Driver Bed Light “X OUT 1”
- Pin 2 Output 2 (2.5A) – 18 Ga. BL/BK Pass. Bed Light “X OUT 2”
- Pin 3 Output 3 (2.5A) – 18 Ga. BL/BK Driver Bed Light “X OUT 3”
- Pin 4 Output 4 (2.5A) – 18 Ga. BL/BK Pass. Bed Light “X OUT 4”
- Pin 5 Output 5 (2.5A) – 18 Ga. BL Driver Tail Light “X OUT 5”
- Pin 6 Output 6 (2.5A) – 18 Ga. BL Pass. Tail Light “X OUT 6”
- Pin 7 Output 7 (2.5A) – 18 Ga. BL Driver Tail Light “X OUT 7”
- Pin 8 Output 8 (2.5A) – 18 Ga. BL Pass. Tail Light “X OUT 8”



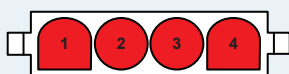
J-6 – OUTPUTS 9 thru 16 FROM CEM16

- Pin 1 Output 9 (2.5A) – 18 Ga. OR/BK Driver Rear Light “X OUT 9”
- Pin 2 Output 10 (2.5A) – 18 Ga. OR/BK Pass. Rear Light “X OUT 10”
- Pin 3 Output 11 (2.5A) – 18 Ga. OR/BK Driver Rear Light “X OUT 11”
- Pin 4 Output 12 (2.5A) – 18 Ga. OR/BK Pass. Rear Light “X OUT 12”
- Pin 5 Output 13 (2.5A) – 18 Ga. OR/WH Driver License Plate Light “X OUT 13”
- Pin 6 Output 14 (2.5A) – 18 Ga. OR/WH Pass. License Plate Light “X OUT 14”
- Pin 7 Output 15 (2.5A) – 18 Ga. OR/WH Driver License Plate Light “X OUT 15”
- Pin 8 Output 16 (2.5A) – 18 Ga. OR/WH Pass. License Plate Light “X OUT 16”



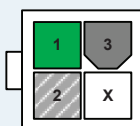
J-9 – INPUTS 1 thru 10 TO CEM16

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 5 GND” from 12-WCX-PWR180*
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input – 16 Ga. BK CEM16 Ground “J9 10 GND” from 12-WCX-PWR180*



J-10 – POWER INPUT TO CEM16 FROM 12-WCX-PWR180*

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power 1 (10A) “PWR 1” from Fuse Position 1
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power 2 (10A) “PWR 2” from Fuse Position 2
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power 3 (10A) “PWR 3” from Fuse Position 3
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power 4 (10A) “PWR 4” from Fuse Position 4



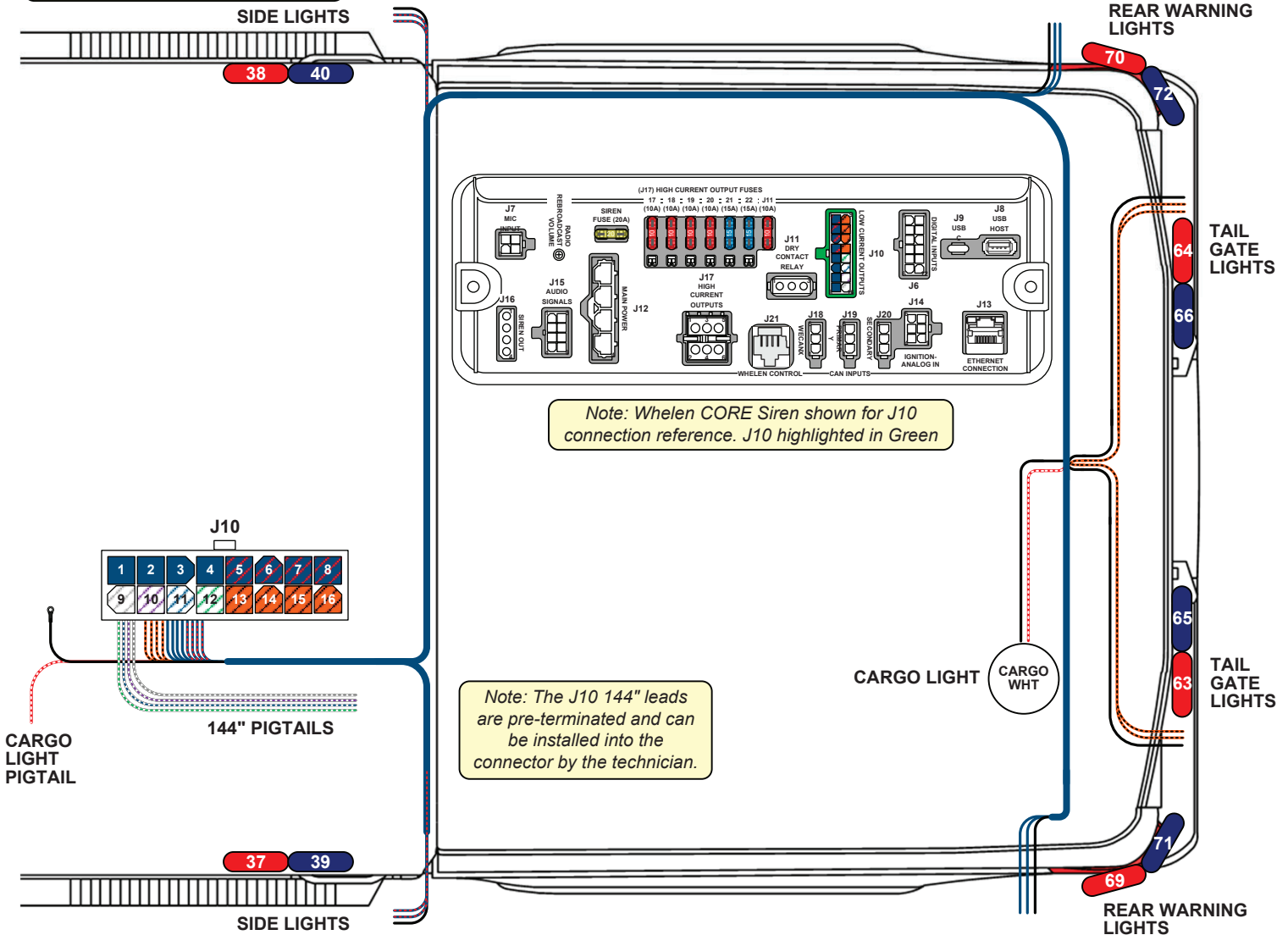
J-7 – CAN INPUT TO CEM16 FROM 12-WCX-PWR180*

- Pin 1 CAN H – 20 Ga. GN Twisted Pair
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY Twisted Pair
- Pin 4 Not Used – Plug

**Note: See 12-WCX-PWR180 Layout, if applicable, for detailed information on Power Distribution (J9 and J10 Connectors)*

***Note: See Data Harness Layout, if applicable, for detailed information on Data Distribution (J7 Connectors)*

Note: Connectors shown in rear view.



REAR LIGHTING:

J10 – SIDE LIGHTS

- 18 Ga. BL/RD Driver Side Light "RUN B LT 37" from J10 Pin 1
- 18 Ga. BL/BK Pass. Side Light "RUN B LT 38" from J10 Pin 2
- 18 Ga. BL/BK Driver Side Light "RUN B LT 39" from J10 Pin 3
- 18 Ga. BL/BK Pass. Side Light "RUN B LT 40" from J10 Pin 4
- 18 Ga. BK Driver Side Light Ground "LT 37 GND" from Ground Assembly
- 18 Ga. BK Pass. Side Light Ground "LT 38 GND" from Ground Assembly

J10 – REAR WARNING LIGHTS

- 18 Ga. BL Driver. Rear Light "RER W LT 69" from J10 Pin 7
- 18 Ga. BL Pass. Rear Light "RER W LT 70" from J10 Pin 8
- 18 Ga. BL Driver Rear Light "RER W LT 71" from J10 Pin 9
- 18 Ga. BL Pass. Rear Light "RER W LT 72" from J10 Pin 10
- 18 Ga. BK Driver Rear Light Ground "LT 69 GND" from Ground Assembly
- 18 Ga. BK Pass. Rear Light Ground "LT 70 GND" from Ground Assembly

J10 – TAIL GATE LIGHTS

- 18 Ga. OR/BK Driver Tail Gate Light "SILL LT 63" from J10 Pin 13
- 18 Ga. OR/BK Pass. Tail Gate Light "SILL LT 64" from J10 Pin 14
- 18 Ga. OR/BK Driver Tail Gate Light "SILL LT 65" from J10 Pin 15
- 18 Ga. OR/BK Pass. Tail Gate Light "SILL LT 66" from J10 Pin 16
- 18 Ga. BK Driver Tail Gate Light Ground "LT 63 GND" from Ground Assembly
- 18 Ga. BK Pass. Tail Gate Light Ground "LT 64 GND" from Ground Assembly

CARGO LIGHT

- 18 Ga. RD/WH Cargo Light Red "CAR LT RD" Pigtail 20"
- 18 Ga. BK Cargo Light Ground "CARGO GND" to Ground Assembly

J10 – CUSTOMER INSTALLED LEADS 144"

- 18 Ga. WH/GN J10 Pin 13 "J10 13" Customer Installed 144" Lead
- 18 Ga. WH/BL J10 Pin 14 "J10 14" Customer Installed 144" Lead
- 18 Ga. WH/PU J10 Pin 15 "J10 15" Customer Installed 144" Lead
- 18 Ga. WH/GY J10 Pin 16 "J10 16" Customer Installed 144" Lead

REAR POWER CIRCUITS:

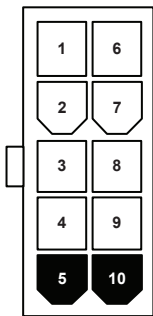
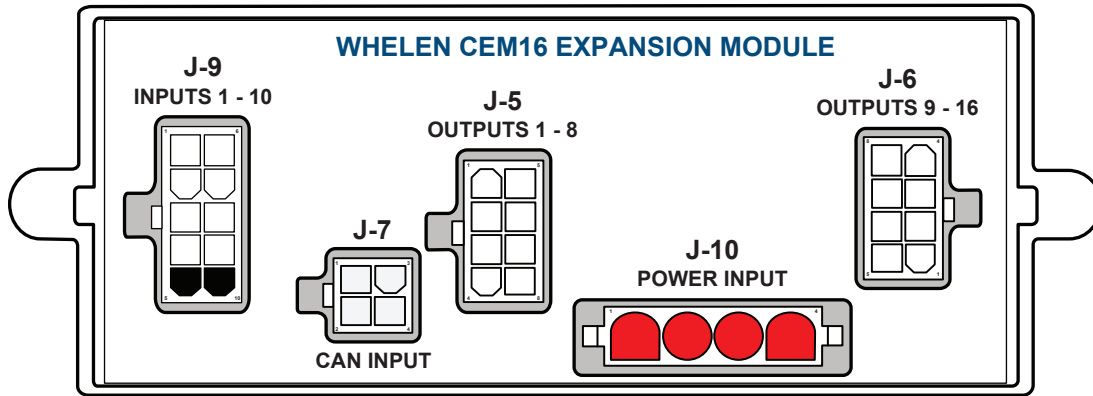
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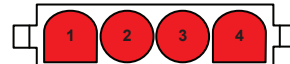
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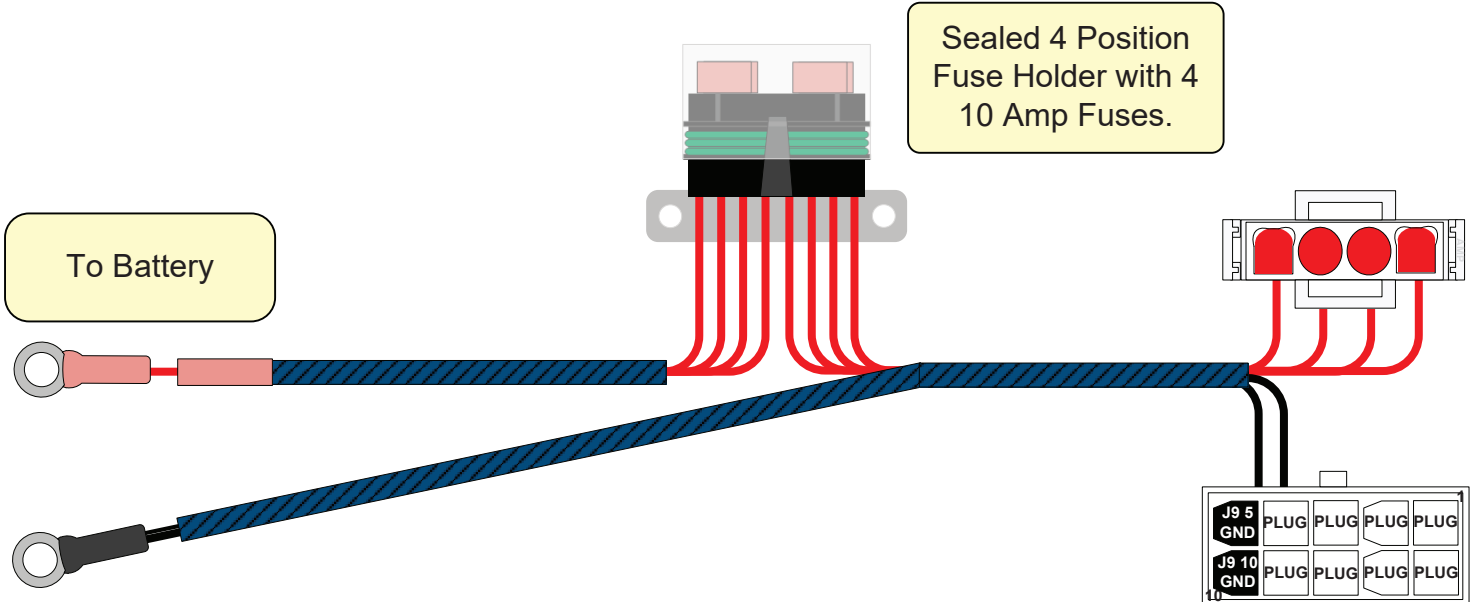
J-9 – INPUTS 1 thru 10

- Pin 1 Input 1 Ground (-) –
- Pin 2 Input 2 Ground (-) –
- Pin 3 Input 3 Ground (-) –
- Pin 4 Input 4 Ground (-) –
- Pin 5 Main Ground Input – 18 Ga. BK Ground “J9 5 GND”
- Pin 6 Input 1 Positive (+) –
- Pin 7 Input 2 Positive (+) –
- Pin 8 Input 3 Positive (+) –
- Pin 9 Input 4 Positive (+) –
- Pin 10 Main Ground Input – 18 Ga. BK Ground “J9 10 GND”



J-10 – POWER INPUT

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power “POWER 1”
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power “POWER 2”
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power “POWER 3”
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power “POWER 4”



12-WCX-PWR36

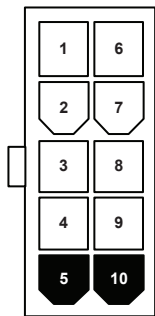
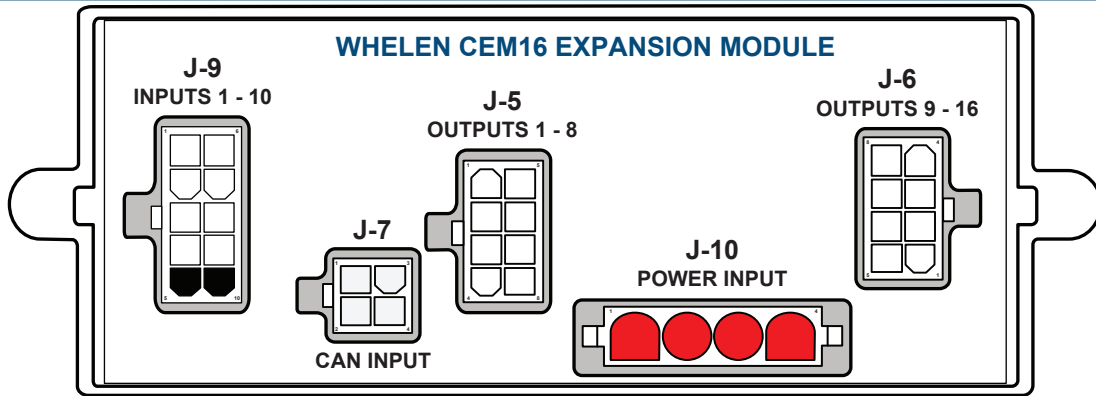
- Power & Ground – ¼” Ring at Battery
- (4) 16 Ga. RD Power Wires to Ring
- Fuse 1, 10 Amp: 16 Ga. RD Power 1
- Fuse 2, 10 Amp: 16 Ga. RD Power 2
- Fuse 3, 10 Amp: 16 Ga. RD Power 3
- Fuse 4, 10 Amp: 16 Ga. RD Power 4
- 18 Ga. BK J9 5 Ground
- 18 Ga. BK J9 10 Ground

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

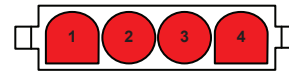
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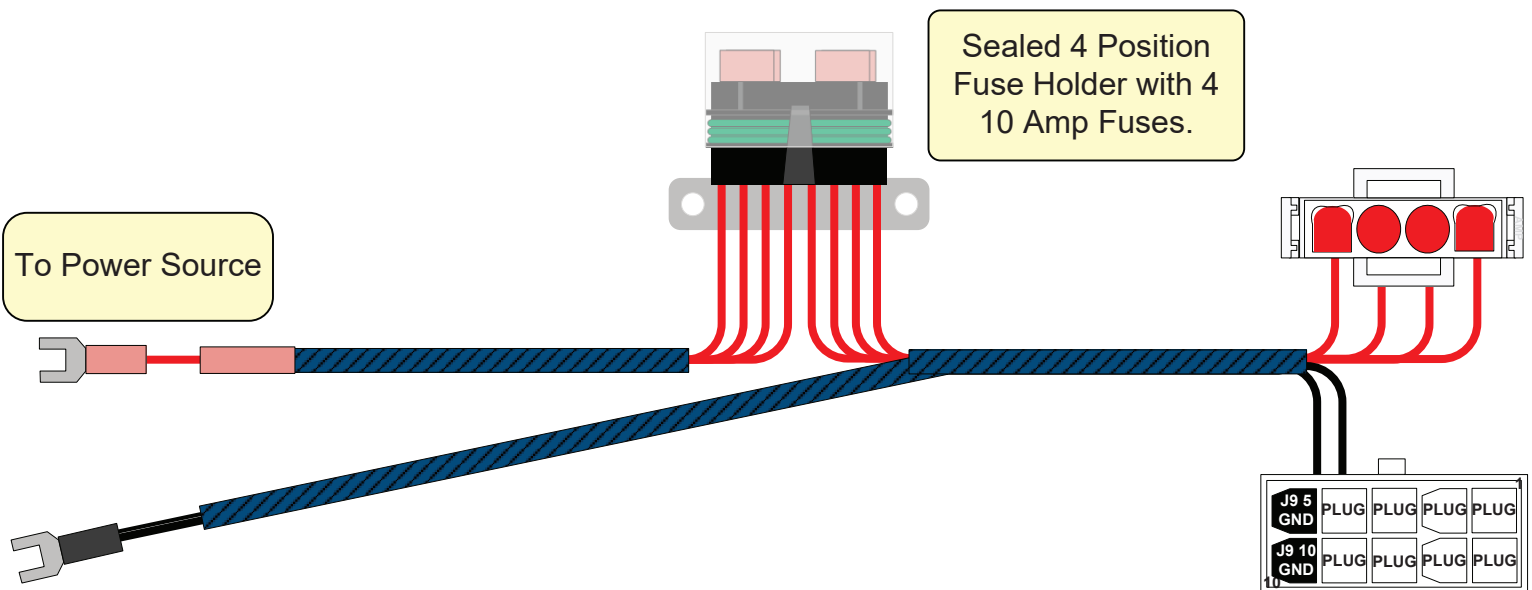
J-9 – INPUTS 1 thru 10

- Pin 1 Input 1 Ground (–) –
- Pin 2 Input 2 Ground (–) –
- Pin 3 Input 3 Ground (–) –
- Pin 4 Input 4 Ground (–) –
- Pin 5 Main Ground Input – 18 Ga. BK Ground “J9 5 GND”
- Pin 6 Input 1 Positive (+) –
- Pin 7 Input 2 Positive (+) –
- Pin 8 Input 3 Positive (+) –
- Pin 9 Input 4 Positive (+) –
- Pin 10 Main Ground Input – 18 Ga. BK Ground “J9 10 GND”



J-10 – POWER INPUT

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power “POWER 1”
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power “POWER 2”
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power “POWER 3”
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power “POWER 4”



12-WCX-PWR40

- Power – #6 Fork at P12 or P18 Fuse Panel
- 10 Ga. RD spliced to (4) 16 Ga. RD Power Wires
- Fuse 1, 10 Amp: 16 Ga. RD Power 1
- Fuse 2, 10 Amp: 16 Ga. RD Power 2
- Fuse 3, 10 Amp: 16 Ga. RD Power 3
- Fuse 4, 10 Amp: 16 Ga. RD Power 4
- 18 Ga. BK J9 5 Ground
- 18 Ga. BK J9 10 Ground

TECHNICAL SUPPORT & SALES CONTACT:

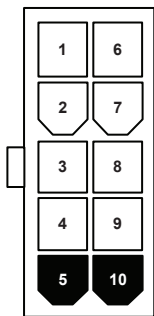
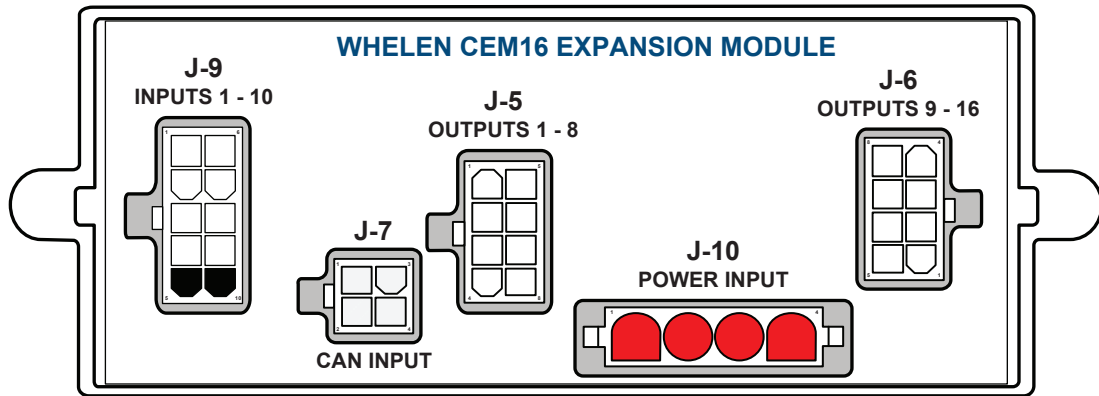
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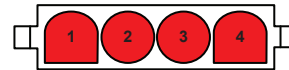
EDD 070720

ECN 050121



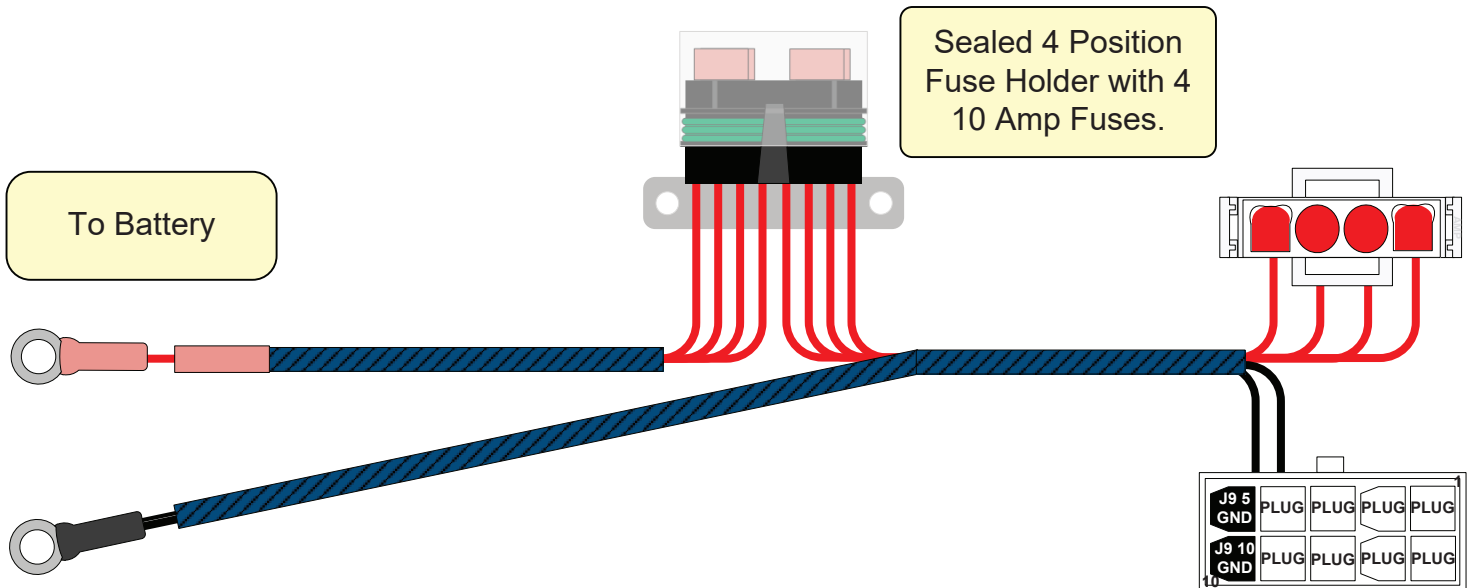
J-9 – INPUTS 1 thru 10

- Pin 1 Input 1 Ground (-) –
- Pin 2 Input 2 Ground (-) –
- Pin 3 Input 3 Ground (-) –
- Pin 4 Input 4 Ground (-) –
- Pin 5 Main Ground Input – 18 Ga. BK Ground “J9 5 GND”
- Pin 6 Input 1 Positive (+) –
- Pin 7 Input 2 Positive (+) –
- Pin 8 Input 3 Positive (+) –
- Pin 9 Input 4 Positive (+) –
- Pin 10 Main Ground Input – 18 Ga. BK Ground “J9 10 GND”



J-10 – POWER INPUT

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power “POWER 1”
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power “POWER 2”
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power “POWER 3”
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power “POWER 4”



12-WCX-PWR60

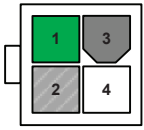
- Power & Ground – ¼” Ring at Battery
- (4) 16 Ga. RD Power Wires to Ring
- Fuse 1, 10 Amp: 16 Ga. RD Power 1
- Fuse 2, 10 Amp: 16 Ga. RD Power 2
- Fuse 3, 10 Amp: 16 Ga. RD Power 3
- Fuse 4, 10 Amp: 16 Ga. RD Power 4
- 18 Ga. BK J9 5 Ground
- 18 Ga. BK J9 10 Ground

TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

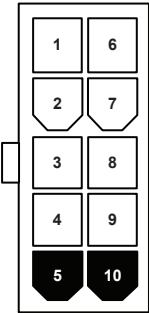
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com



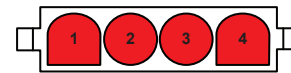
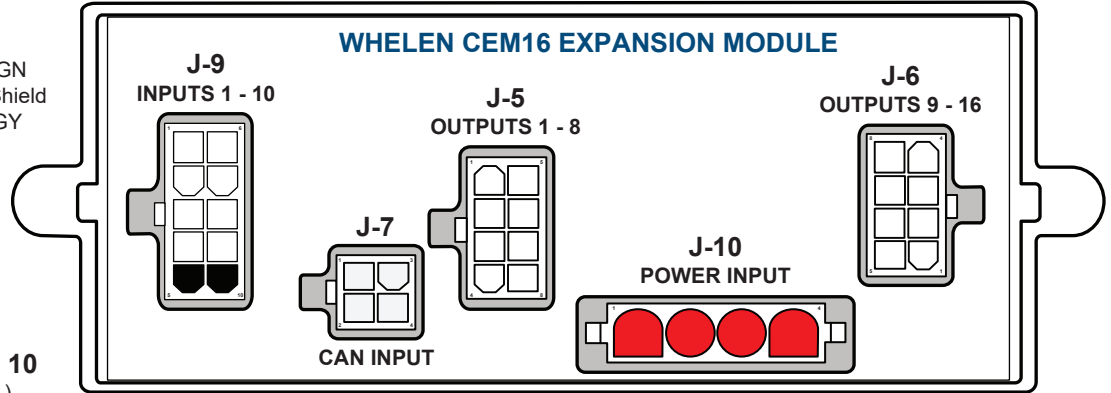
J-7 – CAN INPUT

- Pin 1 CAN H – 20 Ga. GN
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY
- Pin 4 Not Used



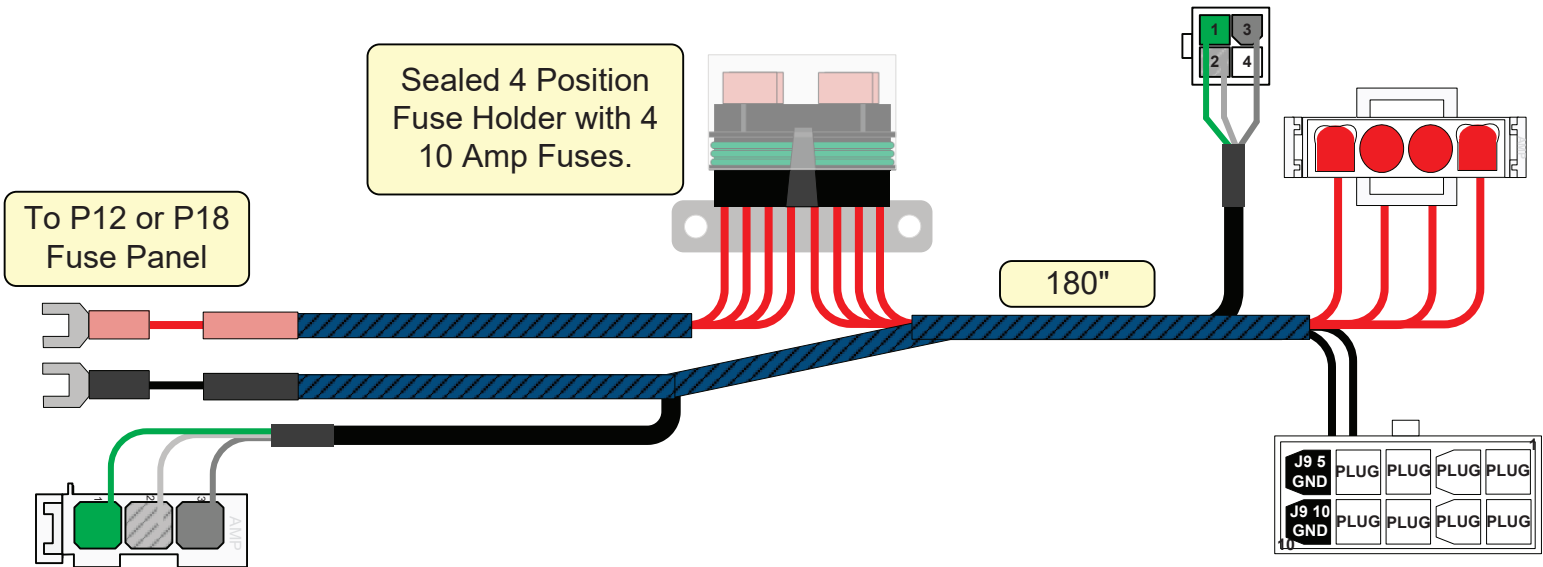
J-9 – INPUTS 1 thru 10

- Pin 1 Input 1 Ground (-) –
- Pin 2 Input 2 Ground (-) –
- Pin 3 Input 3 Ground (-) –
- Pin 4 Input 4 Ground (-) –
- Pin 5 Main Ground Input – 18 Ga. BK Ground “J9 5 GND”
- Pin 6 Input 1 Positive (+) –
- Pin 7 Input 2 Positive (+) –
- Pin 8 Input 3 Positive (+) –
- Pin 9 Input 4 Positive (+) –
- Pin 10 Main Ground Input – 18 Ga. BK Ground “J9 10 GND”



J-10 – POWER INPUT

- Pin 1 Power Input 1 (10A) – 16 Ga. RD Power “POWER 1”
- Pin 2 Power Input 2 (10A) – 16 Ga. RD Power “POWER 2”
- Pin 3 Power Input 3 (10A) – 16 Ga. RD Power “POWER 3”
- Pin 4 Power Input 4 (10A) – 16 Ga. RD Power “POWER 4”



12-WCX-PWR180

Power

- Power – #6 Fork at P12 or P18 Fuse Panel
- 10 Ga. RD spliced to (4) 16 Ga. RD Power Wires
- Fuse 1, 10 Amp: 16 Ga. RD J2 1-4 Power 1
- Fuse 2, 10 Amp: 16 Ga. RD J2 5-8 Power 2
- Fuse 3, 10 Amp: 16 Ga. RD J3 1-4 Power 3
- Fuse 4, 10 Amp: 16 Ga. RD J3 5-8 Power 4

Ground

- 10 Ga. BK Exp Ground
- Ground Pin 5 of J9 and Lighthouse grounds to the provided 10 Ga. ground wire.

Data Communication

- Pos. 1 – 20 Ga. GN CAN A – Twisted Pair
- Pos. 2 – 20 Ga. Shield
- Pos. 3 – 20 Ga. GY CAN B – Twisted Pair

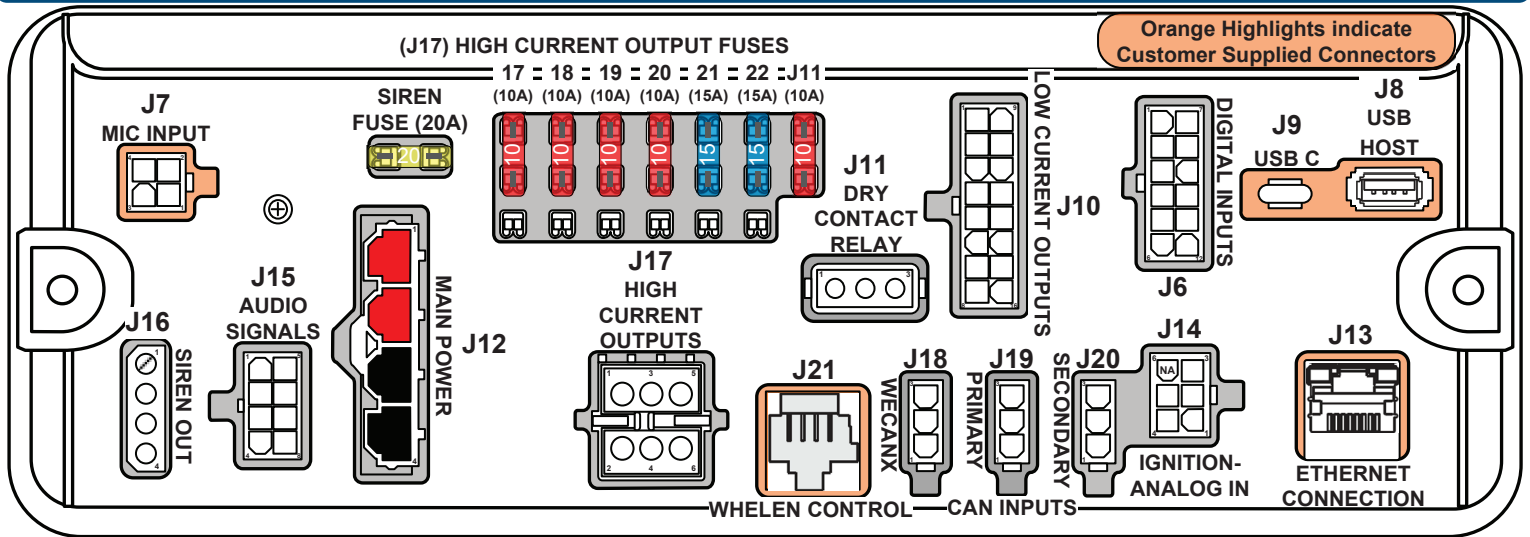
TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

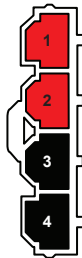
EDD 070720 ECN 051021



12-WCSP-CORE-P32-**

Power Connector

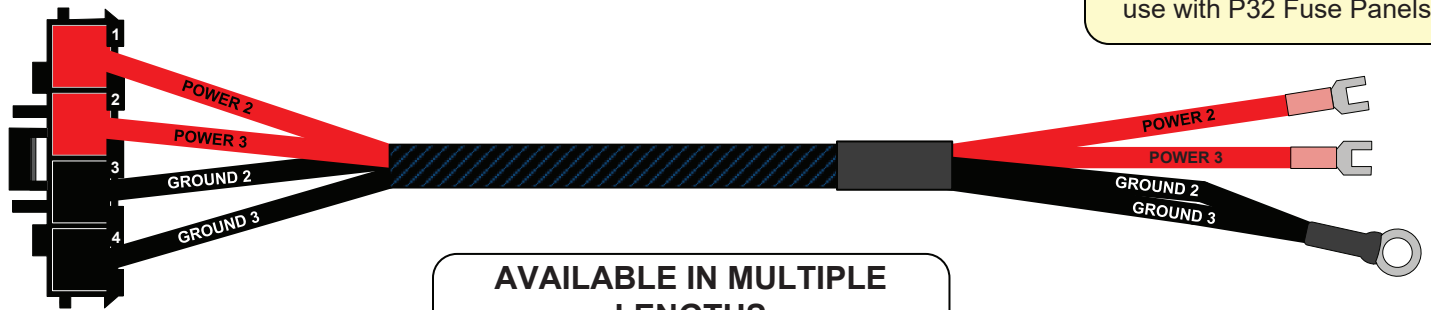
- Pos. 1 – 10 Ga. Red Power 2
- Pos. 2 – 10 Ga. Red Power 3
- Pos. 3 – 10 Ga. Black Ground 2
- Pos. 4 – 10 Ga. Black Ground 3



J12 – MAIN POWER

- Pin 1 Power In (40A) – 10 Ga. RD Power “POWER 2”
- Pin 2 Power In (40A) – 10 Ga. RD Power “POWER 3”
- Pin 3 Ground In – 10 Ga. BK Ground “GROUND 2”
- Pin 4 Ground In – 10 Ga. BK Ground “GROUND 3”

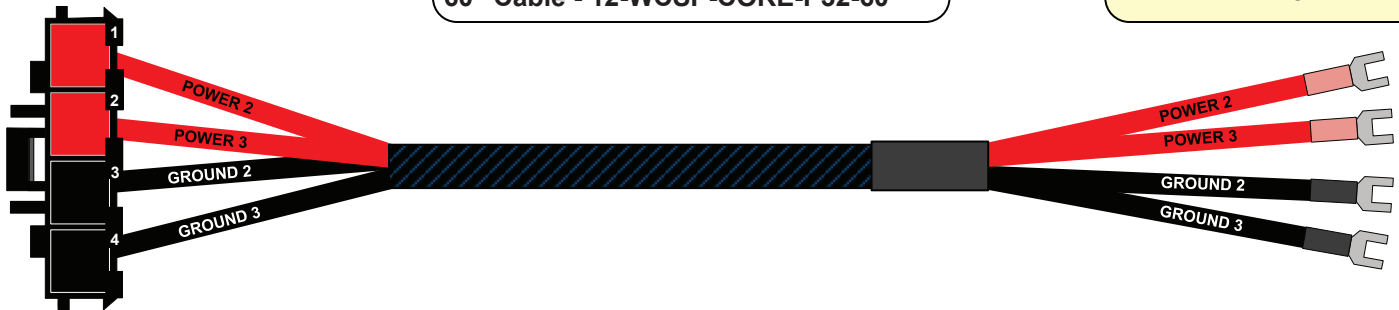
Fork Power Connection and Ring Ground Connection for use with P32 Fuse Panels



AVAILABLE IN MULTIPLE LENGTHS

- 28" Cable - 12-WCSP-CORE-28
- 60" Cable - 12-WCSP-CORE-60
- 28" Cable - 12-WCSP-CORE-P32-28
- 60" Cable - 12-WCSP-CORE-P32-60

Fork Connections for use with P12 or P18 Fuse Panels



12-WCSP-CORE-**

Power Connector

- Pos. 1 – 10 Ga. Red Power 2
- Pos. 2 – 10 Ga. Red Power 3
- Pos. 3 – 10 Ga. Black Ground 2
- Pos. 4 – 10 Ga. Black Ground 3

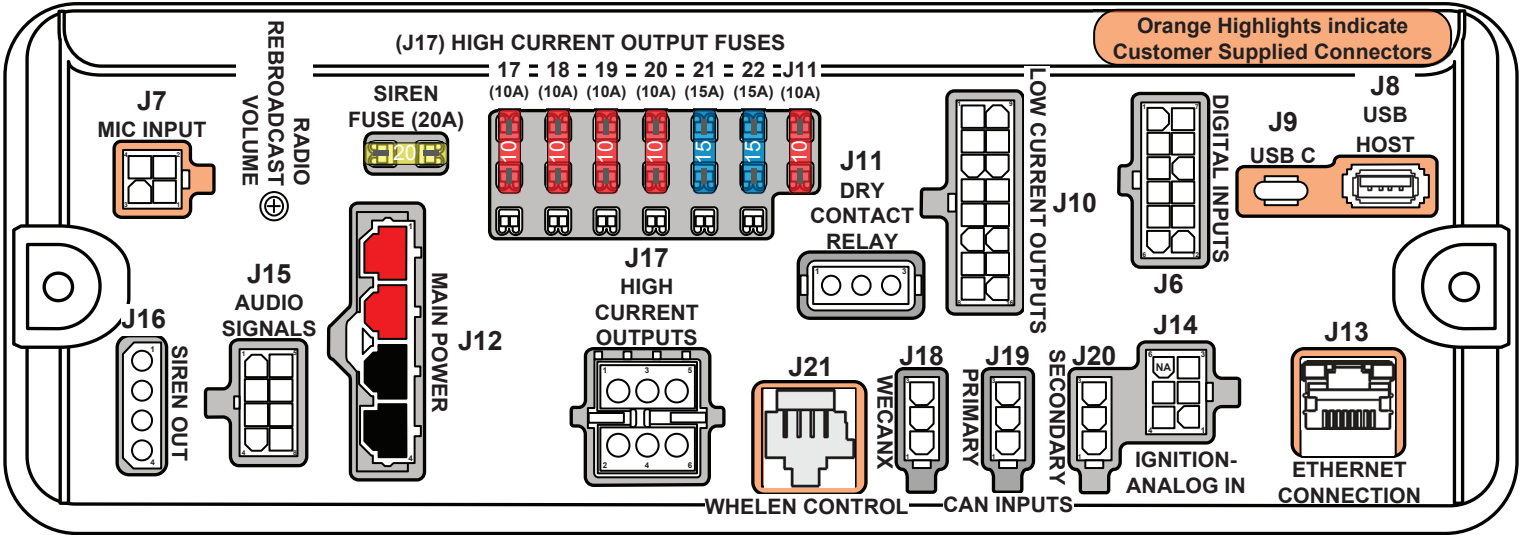
TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

Note: Connectors shown in rear view.



“WC-J6-J11” J6 – DIGITAL INPUTS – PIGTAIL 12”

- Pin 1 Input 1 – 18 Ga. WH “J6 1 J11 1”
- Pin 2 Input 2 – 18 Ga. WH/RD “J6 2 IN 2”
- Pin 3 Input 3 – 18 Ga. WH/OR “J6 3 IN 3”
- Pin 4 Input 4 – 18 Ga. WH/YW “J6 4 IN 4”
- Pin 5 Input 5 – 18 Ga. WH/GN “J6 5 IN 5”
- Pin 6 Input 6 – 18 Ga. WH/BL “J6 6 IN 6”
- Pin 7 Input 7 – 18 Ga. WH/PU “J6 7 IN 7”
- Pin 8 Input 8 – 18 Ga. WH/GY “J6 8 IN 8”
- Pin 9 Input 9 – 18 Ga. WH/BK “J6 9 IN 9”
- Pin 10 Input 10 – 18 Ga. BR “J6 10 IN 10”
- Pin 11 Input 11 – 18 Ga. RD “J6 11 IN 11”
- Pin 12 Input 12 – 18 Ga. OR “J6 12 IN 12”

“WC-J6-J11” J11 – DRY CONTACT RELAY – PIGTAIL 180”

- Pin 1 Normally Open – 18 Ga. WH “J6 1 J11 1”
- Pin 2 Common – 18 Ga. WH “COMMON”
- Pin 3 Normally Closed – 18 Ga. WH “NOR CLOSED”

ALSO SOLD AS SEPARATE PIGTAILS

“WC-J6-12” J6 – DIGITAL INPUTS – PIGTAIL 12”

- Pin 1 Input 1 – 18 Ga. WH/BR “J6 1 IN 1”
- Pin 2 Input 2 – 18 Ga. WH/RD “J6 2 IN 2”
- Pin 3 Input 3 – 18 Ga. WH/OR “J6 3 IN 3”
- Pin 4 Input 4 – 18 Ga. WH/YW “J6 4 IN 4”
- Pin 5 Input 5 – 18 Ga. WH/GN “J6 5 IN 5”
- Pin 6 Input 6 – 18 Ga. WH/BL “J6 6 IN 6”
- Pin 7 Input 7 – 18 Ga. WH/PU “J6 7 IN 7”
- Pin 8 Input 8 – 18 Ga. WH/GY “J6 8 IN 8”
- Pin 9 Input 9 – 18 Ga. WH/BK “J6 9 IN 9”
- Pin 10 Input 10 – 18 Ga. BR “J6 10 IN 10”
- Pin 11 Input 11 – 18 Ga. RD “J6 11 IN 11”
- Pin 12 Input 12 – 18 Ga. OR “J6 12 IN 12”

“WC-J11-180” J11 – DRY CONTACT RELAY – PIGTAIL 180”

- Pin 1 Normally Open – 18 Ga. WH “NOR OPEN”
- Pin 2 Common – 18 Ga. WH “COMMON”
- Pin 3 Normally Closed – 18 Ga. WH “NOR CLOSED”

DIAGRAM KEY:

18 Ga: Wire Gauge
YW/BK: Wire Color
"12V IGN": Wire Text

CH: Cabin Harness
RLH: Rear Lighting Harness
B1: Wire Breakout Location

TECHNICAL SUPPORT & SALES CONTACT:

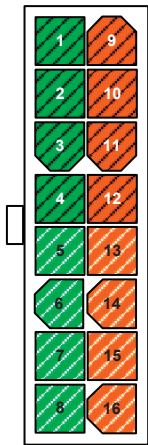
Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 070720

ECN 051021



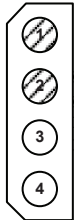
"WC-J10-180" J10 – LOW CURRENT OUTPUTS – PIGTAIL 180"

- Pin 1 Output 1 (2A) – 18 Ga. GN/BK "J10 1 OUT1"
- Pin 2 Output 2 (2A) – 18 Ga. GN/BK "J10 2 OUT2"
- Pin 3 Output 3 (2A) – 18 Ga. GN/BK "J10 3 OUT3"
- Pin 4 Output 4 (2A) – 18 Ga. GN/BK "J10 4 OUT4"
- Pin 5 Output 5 (2A) – 18 Ga. GN/WH "J10 5 OUT5"
- Pin 6 Output 6 (2A) – 18 Ga. GN/WH "J10 6 OUT6"
- Pin 7 Output 7 (2A) – 18 Ga. GN/WH "J10 7 OUT7"
- Pin 8 Output 8 (2A) – 18 Ga. GN/WH "J10 8 OUT8"
- Pin 9 Output 9 (2A) – 18 Ga. OR/BK "J10 9 OUT9"
- Pin 10 Output 10 (2A) – 18 Ga. OR/BK "J10 OUT10"
- Pin 11 Output 11 (2A) – 18 Ga. OR/BK "J10 OUT11"
- Pin 12 Output 12 (2A) – 18 Ga. OR/BK "J10 OUT12"
- Pin 13 Output 13 (2A) – 18 Ga. OR/WH "J10 OUT13"
- Pin 14 Output 14 (2A) – 18 Ga. OR/WH "J10 OUT14"
- Pin 15 Output 15 (2A) – 18 Ga. OR/WH "J10 OUT15"
- Pin 16 Output 16 (2A) – 18 Ga. OR/WH "J10 OUT16"



"WC-J14-120" J14 – IGNITION-ANALOG IN – PIGTAIL 120"

- Pin 1 Analog 1 (+) – 18 Ga. WH/BK "ANALOG 1"
- Pin 2 Analog 2 (+) – 18 Ga. WH/GY "ANALOG 2"
- Pin 3 Ignition In – 18 Ga. RD/WH "SIREN IGN"
- Pin 4 Analog 4 (+) – 18 Ga. WH/PU "ANALOG 3"
- Pin 5 Analog 5 (+) – 18 Ga. WH/BL "ANALOG 4"
- Pin 6 Not Used



"WC-J16-240" J16 – SIREN OUT – PIGTAILS 240"

- Pin 1 Speaker 1 (+) – 16 Ga. WH/BK Speaker Positive "SPKR POS 1"
- Pin 2 Speaker 2 (+) – 16 Ga. WH/BK Speaker Positive "SPKR POS 2"
- Pin 3 Speaker 1 (-) – 16 Ga. WH Speaker Common "SPKR COM 1"
- Pin 4 Speaker 2 (-) – 16 Ga. WH Speaker Common "SPKR COM 2"



"WC-J17-180" J17 – HIGH CURRENT OUTPUTS – PIGTAIL 180"

- Pin 1 Output 19 (10A) – 16 Ga. OR "J17 OUT 19"
- Pin 2 Output 18 (10A) – 16 Ga. RD "J17 OUT 18"
- Pin 3 Output 20 (10A) – 16 Ga. YW "J17 OUT 20"
- Pin 4 Output 17 (10A) – 16 Ga. BR "J17 OUT 17"
- Pin 5 Output 21 (15A) – 16 Ga. GN "J17 OUT 21"
- Pin 6 Output 22 (15A) – 16 Ga. BL "J17 OUT 22"

ALSO SOLD AS A KIT

"QK-WC-001" INCLUDES:

- "WC-J6-J11" J6 – DIGITAL INPUTS – PIGTAIL 12" and J11 – DRY CONTACT RELAY – PIGTAIL 180"
- "WC-J10-180" J10 – LOW CURRENT OUTPUTS – PIGTAIL 180"
- "WC-J14-120" J14 – IGNITION-ANALOG IN – PIGTAIL 120"
- "WC-J16-240" J16 – SIREN OUT – PIGTAILS 240"
- "WC-J17-180" J17 – HIGH CURRENT OUTPUTS – PIGTAIL 180"

Note: Connectors shown in rear view.

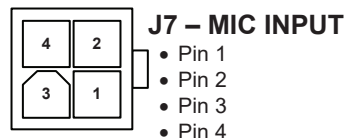
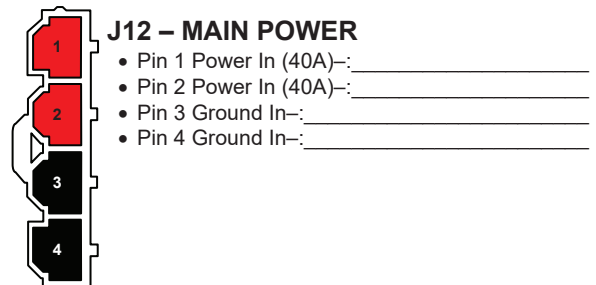
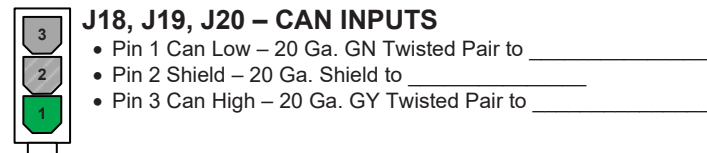
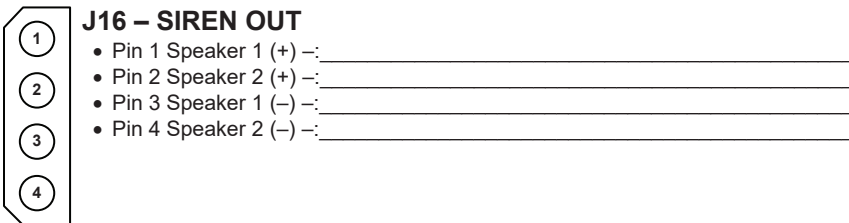
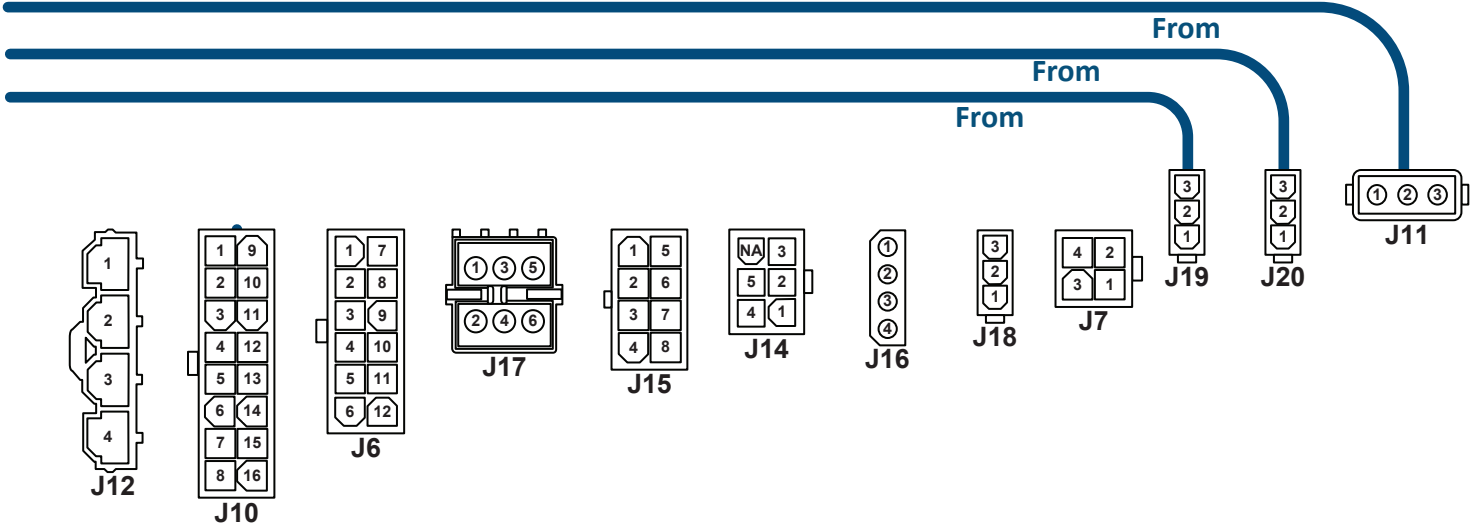
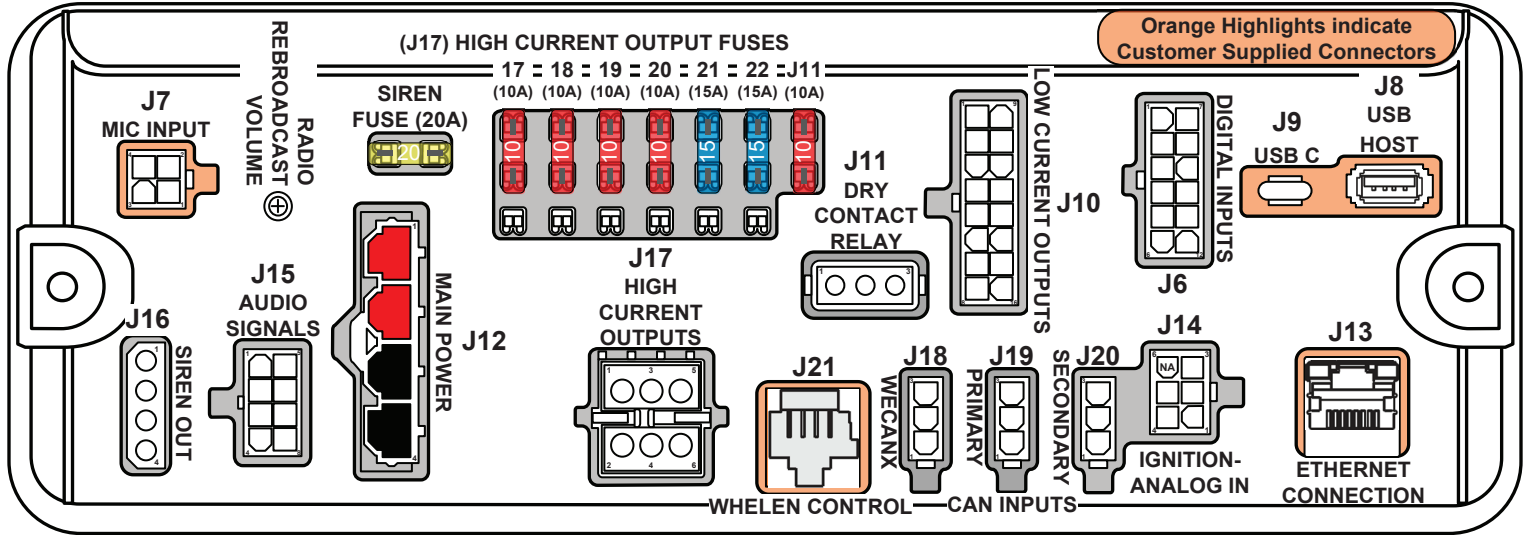


DIAGRAM KEY:

18 Ga: Wire Gauge
YW/BK: Wire Color
"12V IGN": Wire Text

CH: Cabin Harness
RLH: Rear Lighting Harness
B1: Wire Breakout Location

TECHNICAL SUPPORT & SALES CONTACT:

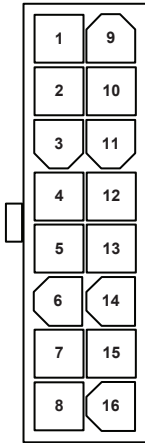
Phone: 844-423-7200

Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

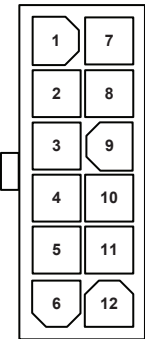
EDD 070720

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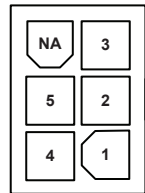
J10 – LOW CURRENT OUTPUTS

- Pin 1 Output 1 (2A) –: _____
- Pin 2 Output 2 (2A) –: _____
- Pin 3 Output 3 (2A) –: _____
- Pin 4 Output 4 (2A) –: _____
- Pin 5 Output 5 (2A) –: _____
- Pin 6 Output 6 (2A) –: _____
- Pin 7 Output 7 (2A) –: _____
- Pin 8 Output 8 (2A) –: _____
- Pin 9 Output 9 (2A) –: _____
- Pin 10 Output 10 (2A) –: _____
- Pin 11 Output 11 (2A) –: _____
- Pin 12 Output 12 (2A) –: _____
- Pin 13 Output 13 (2A) –: _____
- Pin 14 Output 14 (2A) –: _____
- Pin 15 Output 15 (2A) –: _____
- Pin 16 Output 16 (2A) –: _____



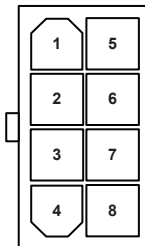
J6 – DIGITAL INPUTS

- Pin 1 Input 1 –: _____
- Pin 2 Input 2 –: _____
- Pin 3 Input 3 –: _____
- Pin 4 Input 4 –: _____
- Pin 5 Input 5 –: _____
- Pin 6 Input 6 –: _____
- Pin 7 Input 7 –: _____
- Pin 8 Input 8 –: _____
- Pin 9 Input 9 –: _____
- Pin 10 Input 10 –: _____
- Pin 11 Input 11 –: _____
- Pin 12 Input 12 –: _____



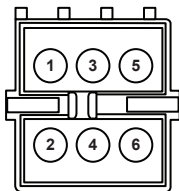
J14 – IGNITION-ANALOG IN

- Pin 1 Analog 1 (+) –: _____
- Pin 2 Analog 2 (+) –: _____
- Pin 3 Ignition In –: _____
- Pin 4 Analog 4 (+) –: _____
- Pin 5 Analog 5 (+) –: _____
- Pin 6 Not Used



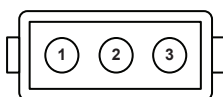
J15 – AUDIO SIGNALS

- Pin 1 Radio In (+) –: _____
- Pin 2 Aux In (+) –: _____
- Pin 3 Cab Speaker (+) –: _____
- Pin 4 Aux Out (+) –: _____
- Pin 5 Radio In (-) –: _____
- Pin 6 Aux In (-) –: _____
- Pin 7 Cab Speaker (-) –: _____
- Pin 8 Aux Out (-) –: _____



J17 – HIGH CURRENT OUTPUTS

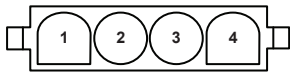
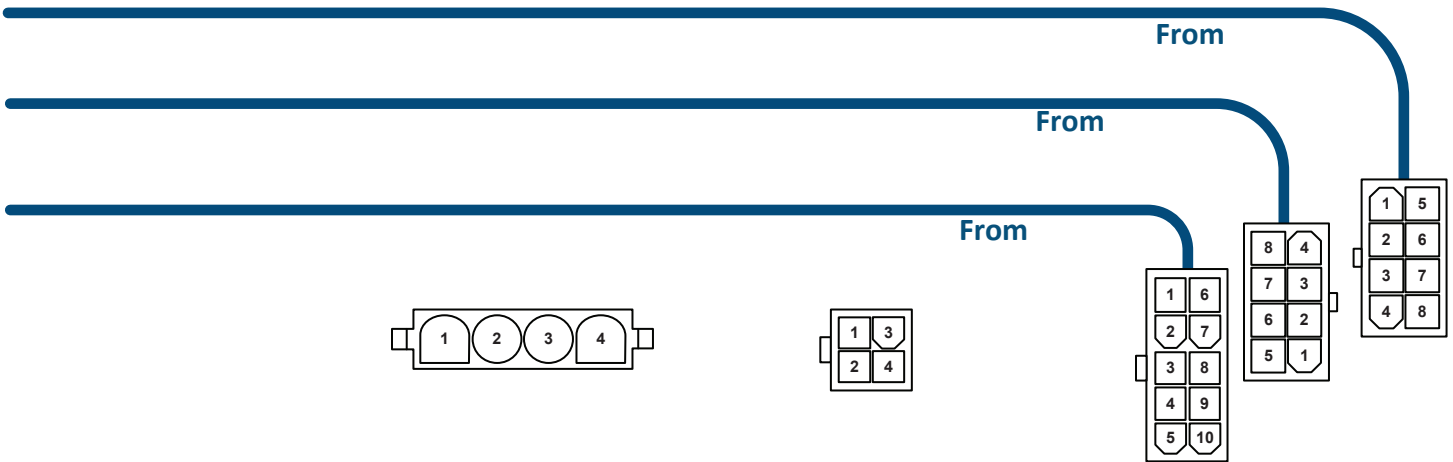
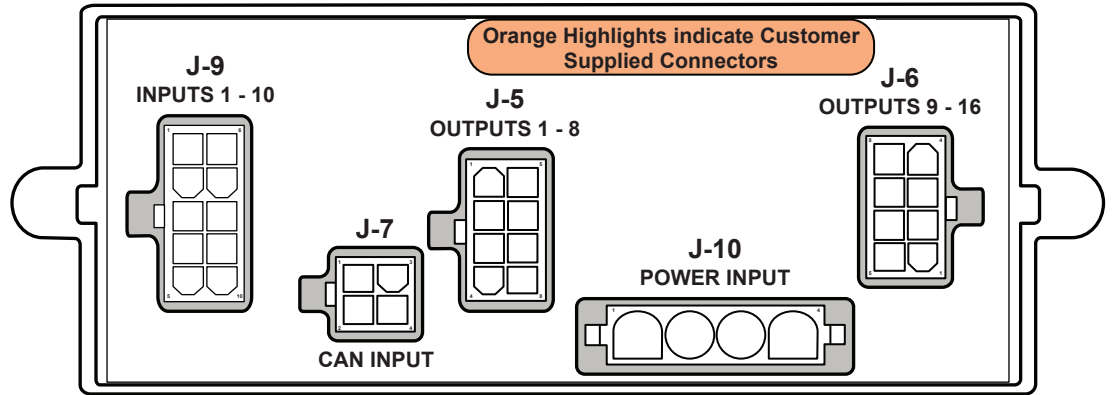
- Pin 1 Output 19 (10A) –: _____
- Pin 2 Output 18 (10A) –: _____
- Pin 3 Output 20 (10A) –: _____
- Pin 4 Output 17 (10A) –: _____
- Pin 5 Output 21 (15A) –: _____
- Pin 6 Output 22 (15A) –: _____



J11 – DRY CONTACT RELAY

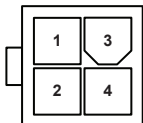
- Pin 1 Normally Open –: _____
- Pin 2 Common –: _____
- Pin 3 Normally Closed –: _____

Note: Connectors shown in rear view.



J-10 – POWER INPUT

- Pin 1 Power Input 1 (10A) –: _____
- Pin 2 Power Input 2 (10A) –: _____
- Pin 3 Power Input 3 (10A) –: _____
- Pin 4 Power Input 4 (10A) –: _____



J-7 – CAN INPUT

- Pin 1 CAN H – 20 Ga. GN ""
- Pin 2 Shield – 20 Ga. Shield
- Pin 3 CAN L – 20 Ga. GY ""
- Pin 4 Not Used

DIAGRAM KEY:

18 Ga: Wire Gauge
YW/BK: Wire Color
"12V IGN": Wire Text

CH: Cabin Harness
RLH: Rear Lighting Harness
B1: Wire Breakout Location

TECHNICAL SUPPORT & SALES CONTACT:

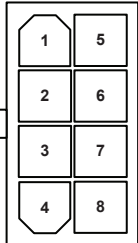
Phone: 844-423-7200

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Web: www.allfleetsolutions.com

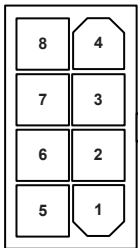
EDD 070720

ECN 051021



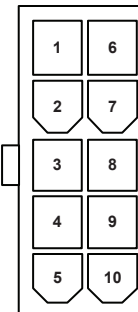
J-5 – OUTPUTS 1 thru 8

- Pin 1 Output 1 (2.5A) –: _____
- Pin 2 Output 2 (2.5A) –: _____
- Pin 3 Output 3 (2.5A) –: _____
- Pin 4 Output 4 (2.5A) –: _____
- Pin 5 Output 5 (2.5A) –: _____
- Pin 6 Output 6 (2.5A) –: _____
- Pin 7 Output 7 (2.5A) –: _____
- Pin 8 Output 8 (2.5A) –: _____



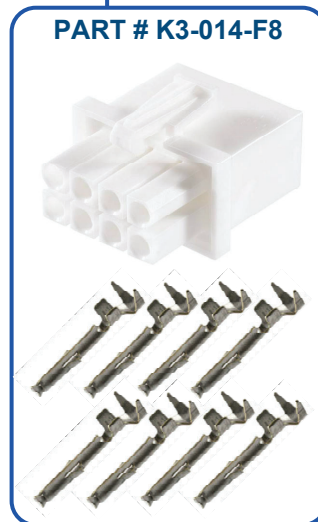
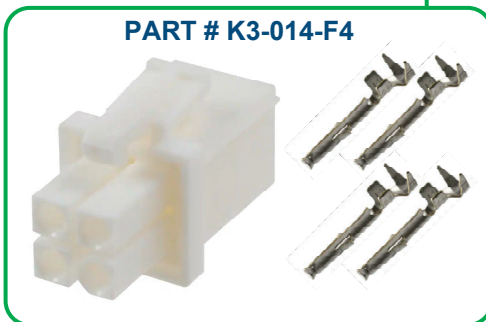
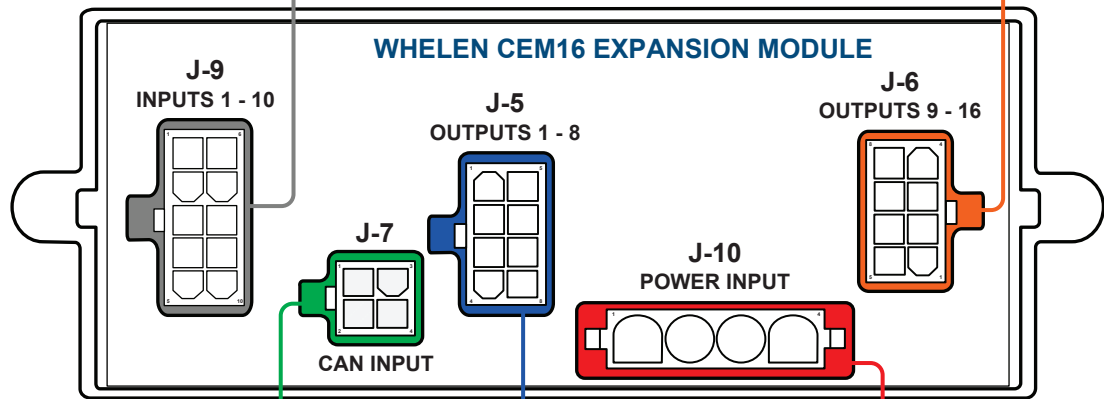
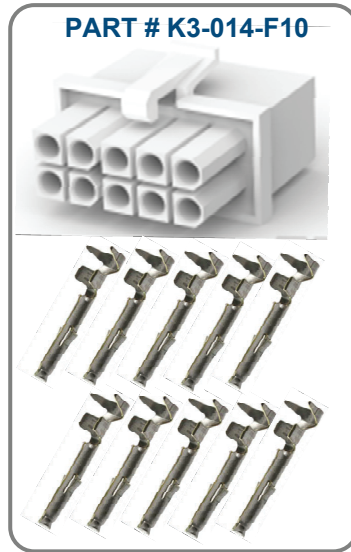
J-6 – OUTPUTS 9 thru 16

- Pin 1 Output 9 (2.5A) –: _____
- Pin 2 Output 10 (2.5A) –: _____
- Pin 3 Output 11 (2.5A) –: _____
- Pin 4 Output 12 (2.5A) –: _____
- Pin 5 Output 13 (2.5A) –: _____
- Pin 6 Output 14 (2.5A) –: _____
- Pin 7 Output 15 (2.5A) –: _____
- Pin 8 Output 16 (2.5A) –: _____

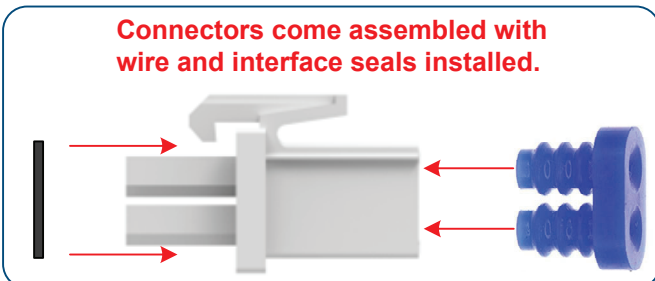


J-9 – INPUTS 1 thru 10

- Pin 1 Input 1 Ground (-) –: _____
- Pin 2 Input 2 Ground (-) –: _____
- Pin 3 Input 3 Ground (-) –: _____
- Pin 4 Input 4 Ground (-) –: _____
- Pin 5 Main Ground Input –: _____
- Pin 6 Input 1 Positive (+) –: _____
- Pin 7 Input 2 Positive (+) –: _____
- Pin 8 Input 3 Positive (+) –: _____
- Pin 9 Input 4 Positive (+) –: _____
- Pin 10 Main Ground Input –: _____



Connectors come assembled with wire and interface seals installed.



TECHNICAL SUPPORT & SALES CONTACT:

Phone: 844-423-7200

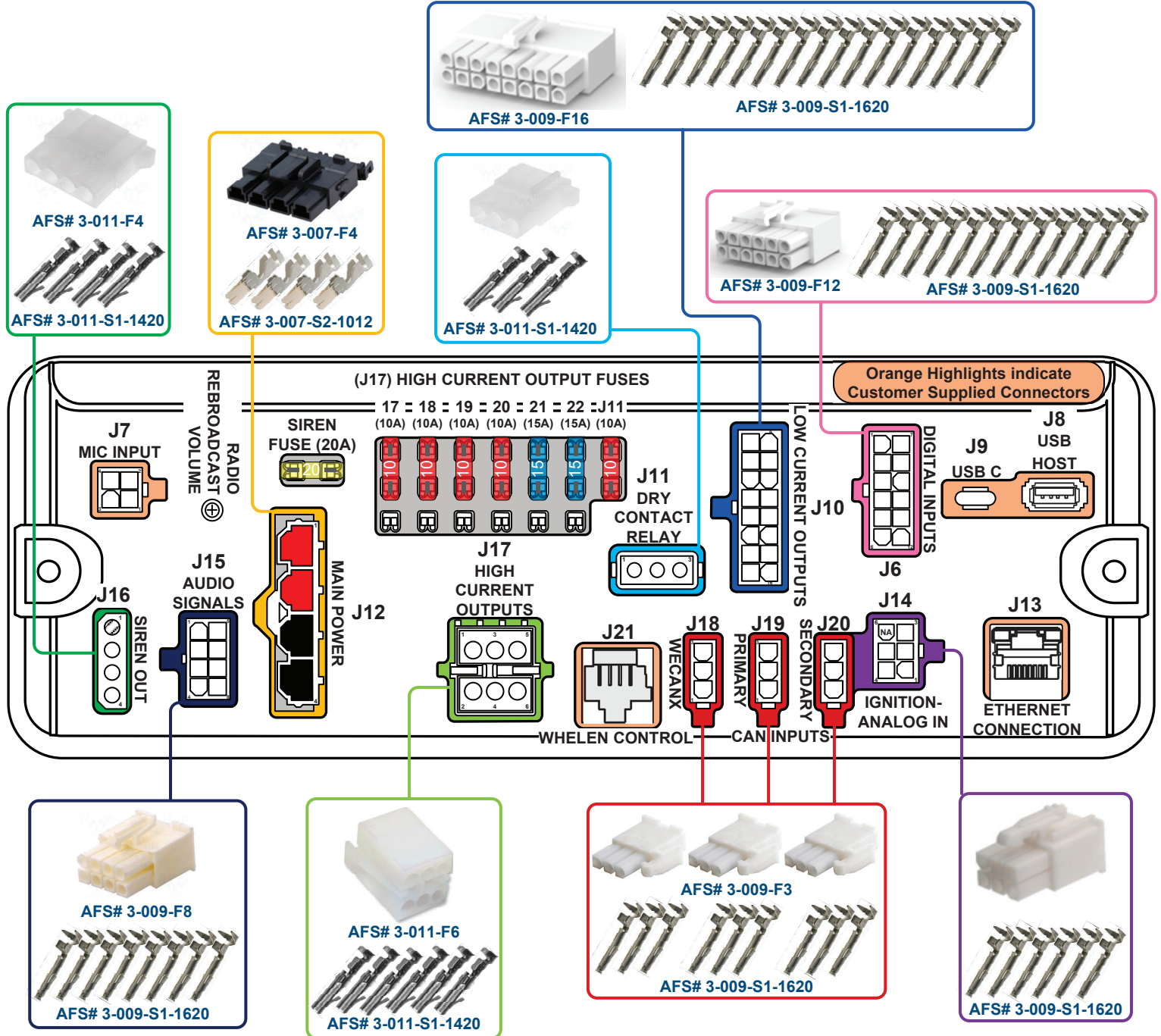
Email: sales@allfleetsolutions.com

Web: www.allfleetsolutions.com

EDD 062320

ECN 000000

Note: J7, J8, J9, J13 & J21 are Customer Supplied Connections



TECHNICAL SUPPORT & SALES CONTACT:

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 Email: sales@allfleetsolutions.com
 Web: www.allfleetsolutions.com

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