

Mazda CX-50 Trailer Hitch User Guide



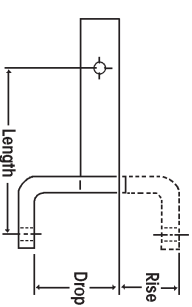
Congratulations on Your Purchase of a Genuine Mazda Trailer Hitch

Your new trailer hitch has been specifically designed for your CX-50 to safely tow up to weights shown in the vehicle owner's manual when properly attached and secured.

This trailer towing system is also equipped with a trailer lighting power converter. The supplied converter is designed to an industry standard, being able to accommodate up to 9 amps of current draw. Trailer lighting wire harness kit is for use in the US, CANADA and MEXICO only.

The A-B-C's of Draw Bars and Ball Mounts

One way to even out a load is to select the best fitting ball mount. Ball mounts vary by weight rating, shaft length and rise / drop measurements. Your CX-50 receiver hitch will accept a class II mount with a precise rise or drop to suit your particular application.



A WARNING

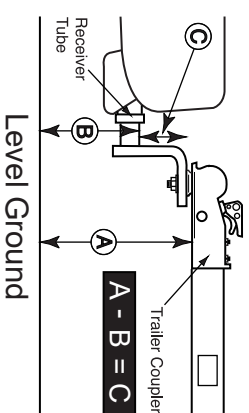
Selecting the proper ball mount for your towing application is important. For best towing, your trailer should always be set up to tow on a level plane.

Ball Mount Length

The ball mount length is the distance from the center of the ball hole to the center of the retaining pin-hole. Ensure that there is no risk of trailer-coupler contact with the CX-50 bumper.

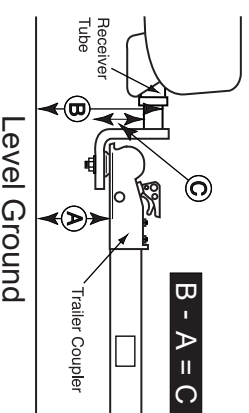
Ball Mount Rise

- A = Distance from the ground to bottom of trailer coupler
- B = Distance from ground to top I.D. of the receiver tube opening
- C = Amount of rise necessary to keep the trailer level



Ball Mount Drop

- A = Distance from the ground to bottom of trailer coupler
- B = Distance from ground to top I.D. of the receiver tube opening
- C = Amount of drop necessary to keep the trailer level



7-way Trailer Lighting Power Converter (Turbo)

Included with your trailer hitch is a power converter with a 7-way flat electrical connector to accommodate standard trailer lighting. This converter is designed to an industry standard and is fused with a 15 amp fuse.

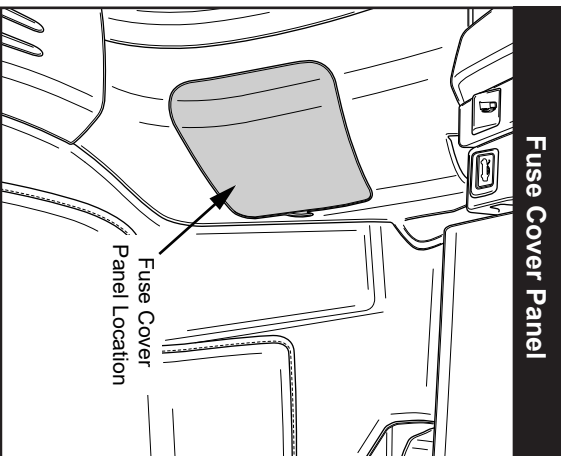
Overload Protection

The power converter has separate protection of 9 amps per output channel to trailer lights on the marker lights and left / right brake lights and turn signals. For example, if the marker lights draw excessive current, the brake lights and turn signals will continue to function normally. After power is removed (lights turned off) for several minutes, the power converter will reset itself.

⚠WARNING
Exceeding the 15 amp max limit on the trailer lighting system could result in a blown fuse and render the lighting power converter inoperable. In this case, all trailer lighting will become inoperable and one should proceed to the troubleshooting guide on the back of this card.

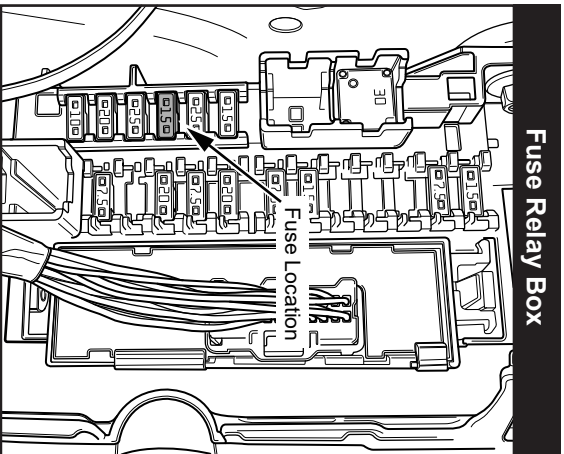
Additional Assistance

Electrical problems other than those listed above may be resolved by referring to the troubleshooting guide on the back of this card. Please reference the vehicle owner's manual or visit your local Mazda dealer for additional information concerning the trailer hitch.



Fuse Cover Panel

Remove fuse relay box cover panel from underneath the dashboard on the driver side of the vehicle.



Fuse Relay Box

15 amp fuse will be located in cavity labeled ESCL of the fuse relay box.

4-way Trailer Lighting Power Converter (Non-Turbo)

Included with your trailer hitch is a power converter with a 4-way flat electrical connector to accommodate standard trailer lighting. This converter is designed to an industry standard and is fused with a 15 amp fuse.

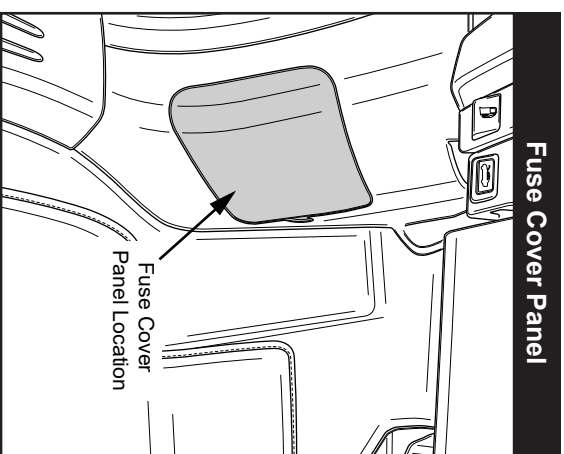
Overload Protection

The power converter has separate protection of 9 amps per output channel to trailer lights on the marker lights and left / right brake lights and turn signals. For example, if the marker lights draw excessive current, the brake lights and turn signals will continue to function normally. After power is removed (lights turned off) for several minutes, the power converter will reset itself.

⚠WARNING
Exceeding the 15 amp max limit on the trailer lighting system could result in a blown fuse and render the lighting power converter inoperable. In this case, all trailer lighting will become inoperable and one should proceed to the troubleshooting guide on the back of this card.

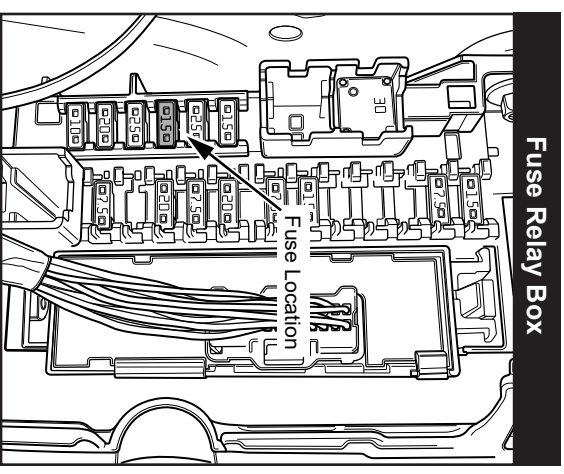
Additional Assistance

Electrical problems other than those listed above may be resolved by referring to the troubleshooting guide on the back of this card. Please reference the vehicle owner's manual or visit your local Mazda dealer for additional information concerning the trailer hitch.



Fuse Cover Panel

Remove fuse relay box cover panel from underneath the dashboard on the driver side of the vehicle.



Fuse Relay Box

15 amp fuse will be located in cavity labeled ESCL of the fuse relay box.

7-WAY TROUBLESHOOTING GUIDE (TURBO)

PART NUMBER:
VS40-V3-920

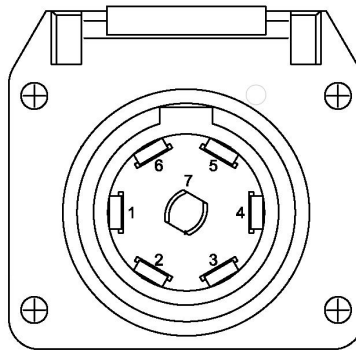
7-WAY TRAILER HITCH WIRING KIT

APPLICABLE MODELS:
2022 > CX-50

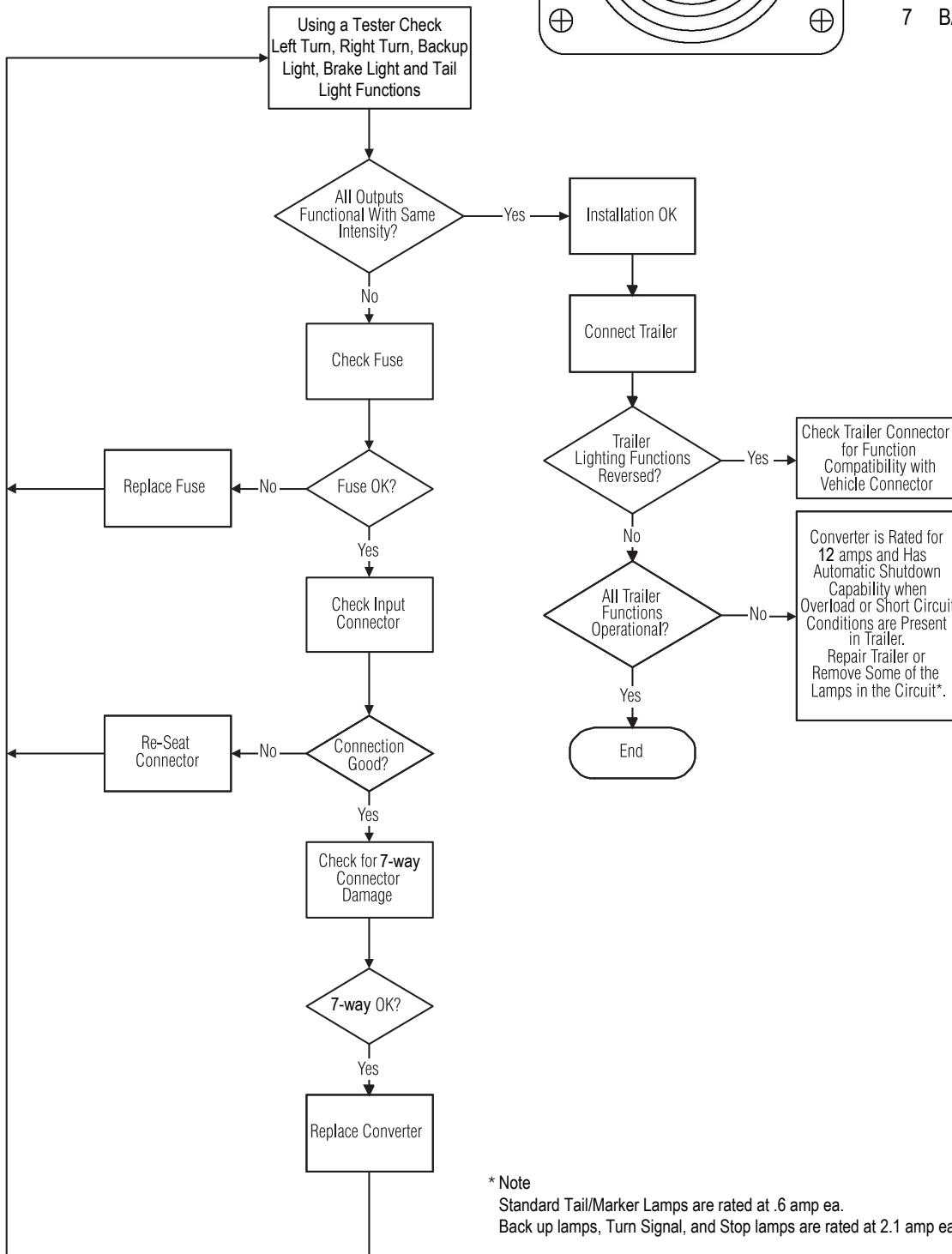
TOOLS REQUIRED:
TEST LIGHT

METHOD:

1. Insert Tester into 7-way trailer connector.
2. Confirm individual circuit operations.



- | | | |
|---|-----------------|----------|
| 1 | LH STOP/TURN | YELLOW |
| 2 | GROUND (-) | WHITE |
| 3 | ELECTRIC BRAKES | BLUE |
| 4 | RH STOP/TURN | GREEN |
| 5 | 12V BATTERY (+) | RED/BLUE |
| 6 | RUNNING LAMPS | BROWN |
| 7 | BACKUP LAMPS | ORANGE |



* Note
Standard Tail/Marker Lamps are rated at .6 amp ea.
Back up lamps, Turn Signal, and Stop lamps are rated at 2.1 amp ea.

4-WAY FLAT TROUBLESHOOTING GUIDE (NON-TURBO)

PART NUMBER:
VS40-V3-920

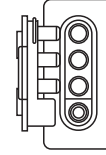
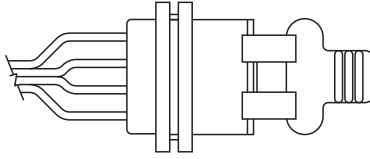
4-WAY FLAT TRAILER HITCH WIRING KIT

APPLICABLE MODELS:
2022 > CX-50

TOOLS REQUIRED:
TEST LIGHT

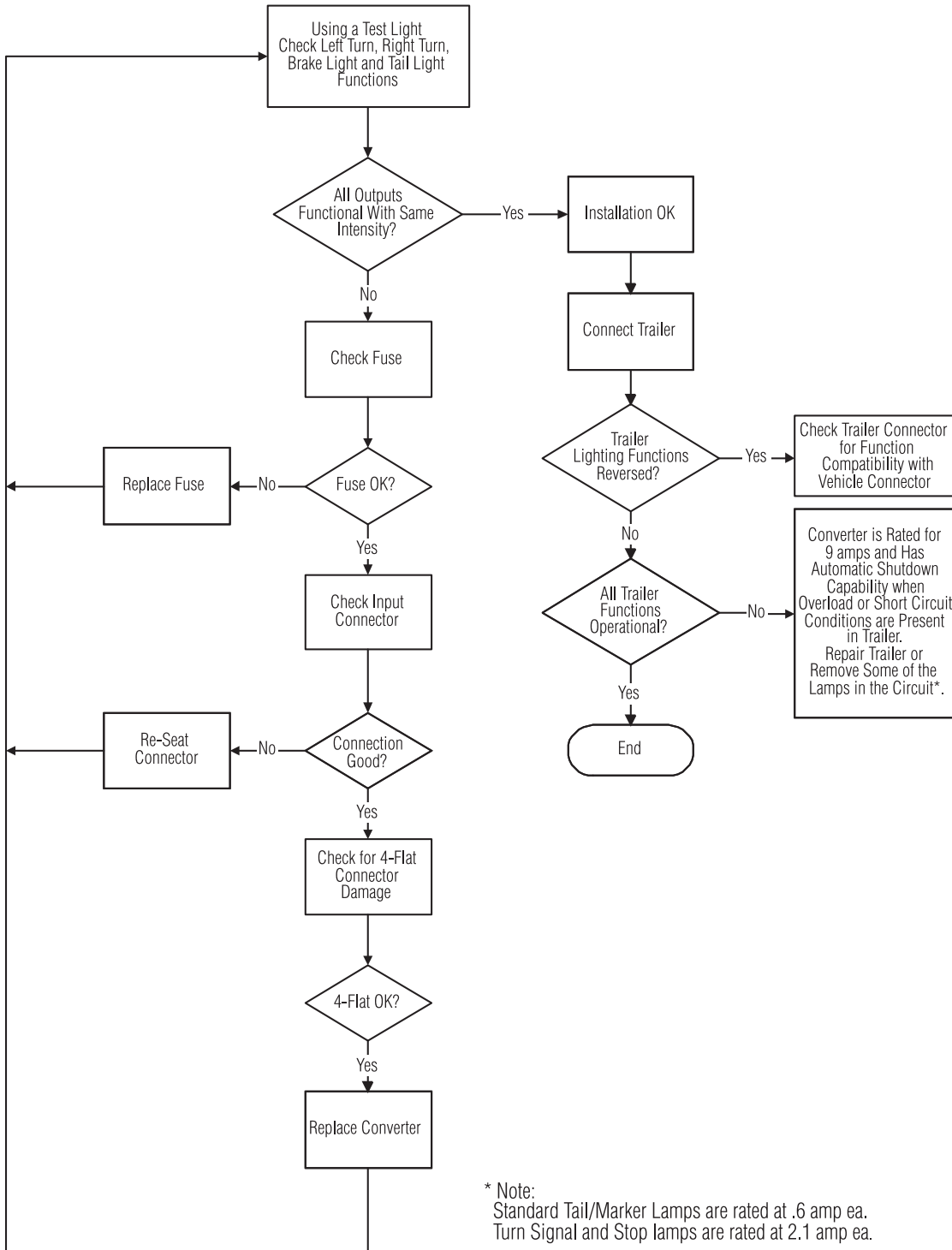
METHOD:

1. Attach the test light ground connection to the male pin of the harness's 4-flat connector.
2. Probe each of the female pins individually to confirm correct circuit operation.



Right Turn / Stop
Left Turn / Stop
Tail
Ground

Green
Yellow
Brown
White



* Note:
Standard Tail/Marker Lamps are rated at .6 amp ea.
Turn Signal and Stop lamps are rated at 2.1 amp ea.