



## CABLING GUIDE

# **EZ-Guide<sup>®</sup> 250** **Lightbar Guidance System**



# CABLING GUIDE

## **EZ-Guide<sup>®</sup> 250 Lightbar Guidance System**

## Contact Information

Trimble Navigation Limited  
Trimble Agriculture Division  
10355 Westmoor Drive  
Suite #100  
Westminster, CO 80021  
USA

[trimble\\_support@trimble.com](mailto:trimble_support@trimble.com)  
[www.EZ-Guide.com](http://www.EZ-Guide.com)

## Legal Notices

### Copyright and Trademarks

© 2008–2011, Trimble Navigation Limited. All rights reserved.

Trimble, EZ-Guide, and EZ-Steer are trademarks of Trimble Navigation Limited, registered in the United States and in other countries.

All other trademarks are the property of their respective owners.

### Release Notice

This is the February 2011 release (Revision C) of the *EZ-Guide 250 Lightbar Guidance System Cabling Guide*. It applies to version 2.00 of the EZ-Guide 250 firmware.

## LIMITED WARRANTY TERMS AND CONDITIONS

### Product Limited Warranty

Trimble Navigation Limited (“Trimble”) warrants that this product and its internal components (the “Product”) shall be free from defects in materials and workmanship and will substantially conform to Trimble’s applicable published specifications for the Product for a period of two (2) years, starting from the earlier of (i) the date of installation, or (ii) six (6) months from the date of original Product shipment from Trimble.

### Product Software

Product software, whether built into hardware circuitry as firmware, provided as a standalone computer software product, embedded in flash memory, or stored on magnetic or other media, is licensed solely for use with or as an integral part of the Product and is not sold. If accompanied by a separate end user license agreement (“EULA”), use of any such software will be subject to the terms of such end user license agreement (including any differing limited warranty terms, exclusions, and limitations), which shall control over the terms and conditions set forth in this limited warranty.

### Software Fixes

During the limited warranty period you will be entitled to receive such Fixes to the Product software that Trimble releases and makes commercially available and for which it does not charge separately, subject to the procedures for delivery to purchasers of Trimble products generally. If you have purchased the Product from an authorized Trimble dealer rather than from Trimble directly, Trimble may, at its option, forward the software Fix to the Trimble dealer for final distribution to you. Minor Updates, Major Upgrades, new products, or substantially new software releases, as identified by Trimble, are expressly excluded from this update process and limited warranty. Receipt of software Fixes or other enhancements shall not serve to extend the limited warranty period.

For purposes of this warranty the following definitions shall apply: (1) “Fix(es)” means an error correction or other update created to fix a previous software version that does not substantially conform to its Trimble specifications; (2) “Minor Update” occurs when enhancements are made to current features in a software program; and (3) “Major Upgrade” occurs when significant new features are added to software, or when a new product containing new features replaces the further development of a current product line. Trimble reserves the right to determine, in its sole discretion, what constitutes a Fix, Minor Update, or Major Upgrade.

### Warranty Remedies

If the Trimble Product fails during the warranty period for reasons covered by this limited warranty and you notify Trimble of such failure during the warranty period, Trimble will repair OR replace the nonconforming Product with new, equivalent to new, or reconditioned parts or Product, OR refund the Product purchase price paid by you, at Trimble’s option, upon your return of the Product in accordance with Trimble’s product return procedures then in effect.

### How to Obtain Warranty Service

To obtain warranty service for the Product, please contact your local Trimble authorized dealer. Alternatively, you may contact Trimble to request warranty service at +1-408-481-6940 (24 hours a day) or e-mail your request to [trimble\\_support@trimble.com](mailto:trimble_support@trimble.com). Please be prepared to provide:

- your name, address, and telephone numbers
- proof of purchase

- a copy of this Trimble warranty
- a description of the nonconforming Product including the model number
- an explanation of the problem

The customer service representative may need additional information from you depending on the nature of the problem.

### Warranty Exclusions and Disclaimer

This Product limited warranty shall only apply in the event and to the extent that (a) the Product is properly and correctly installed, configured, interfaced, maintained, stored, and operated in accordance with Trimble’s applicable operator’s manual and specifications, and; (b) the Product is not modified or misused. This Product limited warranty shall not apply to, and Trimble shall not be responsible for, defects or performance problems resulting from (i) the combination or utilization of the Product with hardware or software products, information, data, systems, interfaces, or devices not made, supplied, or specified by Trimble; (ii) the operation of the Product under any specification other than, or in addition to, Trimble’s standard specifications for its products; (iii) the unauthorized installation, modification, or use of the Product; (iv) damage caused by: accident, lightning or other electrical discharge, fresh or salt water immersion or spray (outside of Product specifications); or exposure to environmental conditions for which the Product is not intended; (v) normal wear and tear on consumable parts (e.g., batteries); or (vi) cosmetic damage. Trimble does not warrant or guarantee the results obtained through the use of the Product, or that software components will operate error free.

**NOTICE REGARDING PRODUCTS EQUIPPED WITH TECHNOLOGY CAPABLE OF TRACKING SATELLITE SIGNALS FROM SATELLITE BASED AUGMENTATION SYSTEMS (SBAS) (WAAS/EGNOS, AND MSAS), OMNISTAR, GPS, MODERNIZED GPS OR GLONASS SATELLITES, OR FROM IALA BEACON SOURCES: TRIMBLE IS NOT RESPONSIBLE FOR THE OPERATION OR FAILURE OF OPERATION OF ANY SATELLITE BASED POSITIONING SYSTEM OR THE AVAILABILITY OF ANY SATELLITE BASED POSITIONING SIGNALS.**

THE FOREGOING LIMITED WARRANTY TERMS STATE TRIMBLE’S ENTIRE LIABILITY, AND YOUR EXCLUSIVE REMEDIES, RELATING TO THE TRIMBLE PRODUCT. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN, THE PRODUCT, AND ACCOMPANYING DOCUMENTATION AND MATERIALS ARE PROVIDED “AS-IS” AND WITHOUT EXPRESS OR IMPLIED WARRANTY OF ANY KIND, BY EITHER TRIMBLE OR ANYONE WHO HAS BEEN INVOLVED IN ITS CREATION, PRODUCTION, INSTALLATION, OR DISTRIBUTION, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NONINFRINGEMENT. THE STATED EXPRESS WARRANTIES ARE IN LIEU OF ALL OBLIGATIONS OR LIABILITIES ON THE PART OF TRIMBLE ARISING OUT OF, OR IN CONNECTION WITH, ANY PRODUCT. BECAUSE SOME STATES AND JURISDICTIONS DO NOT ALLOW LIMITATIONS ON DURATION OR THE EXCLUSION OF AN IMPLIED WARRANTY, THE ABOVE LIMITATION MAY NOT APPLY OR FULLY APPLY TO YOU.

### Limitation of Liability

TRIMBLE’S ENTIRE LIABILITY UNDER ANY PROVISION HEREIN SHALL BE LIMITED TO THE AMOUNT PAID BY YOU FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL TRIMBLE OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGE WHATSOEVER UNDER ANY CIRCUMSTANCE OR LEGAL THEORY RELATING IN ANYWAY TO THE PRODUCTS, SOFTWARE AND ACCOMPANYING DOCUMENTATION AND MATERIALS, (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF DATA, OR ANY OTHER PECUNIARY LOSS), REGARDLESS OF WHETHER TRIMBLE HAS BEEN ADVISED OF THE POSSIBILITY OF ANY SUCH LOSS AND REGARDLESS OF THE COURSE OF DEALING WHICH DEVELOPS OR HAS DEVELOPED BETWEEN YOU AND TRIMBLE. BECAUSE SOME STATES AND JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

**PLEASE NOTE: THE ABOVE TRIMBLE LIMITED WARRANTY PROVISIONS WILL NOT APPLY TO PRODUCTS PURCHASED IN THOSE JURISDICTIONS (E.G., MEMBER STATES OF THE EUROPEAN ECONOMIC AREA) IN WHICH PRODUCT WARRANTIES ARE THE RESPONSIBILITY OF THE LOCAL TRIMBLE AUTHORIZED DEALER FROM WHOM THE PRODUCTS ARE ACQUIRED. IN SUCH A CASE, PLEASE CONTACT YOUR LOCAL TRIMBLE AUTHORIZED DEALER FOR APPLICABLE WARRANTY INFORMATION.**

### Official Language

THE OFFICIAL LANGUAGE OF THESE TERMS AND CONDITIONS IS ENGLISH. IN THE EVENT OF A CONFLICT BETWEEN ENGLISH AND OTHER LANGUAGE VERSIONS, THE ENGLISH LANGUAGE SHALL CONTROL.

## Registration

To receive information regarding updates and new products, please contact your local dealer or visit the Trimble website at [www.trimble.com/register](http://www.trimble.com/register). Upon registration you may select the newsletter, upgrade, or new product information you desire.

## Notices

### Federal Communications Commission (FCC) Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. TRIMBLE is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:  
Trimble Navigation  
935 Stewart Drive  
Sunnyvale CA 94085  
Telephone: 1-408 481 8000

### Industry Canada Compliance Statement

This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

### Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

### European Community Compliance Statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. TRIMBLE cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-TRIMBLE option cards.

### Australia and New Zealand Class A Statement

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## Notice to Our European Union Customers

For product recycling instructions and more information, please go to [www.trimble.com/ev.shtml](http://www.trimble.com/ev.shtml).

Recycling in Europe: To recycle Trimble WEEE (Waste Electrical and Electronic Equipment, products that run on electrical power.), Call +31 497 53 24 30, and ask for the "WEEE Associate". Or, mail a request for recycling instructions to:

Trimble Europe BV  
c/o Menlo Worldwide Logistics  
Meerheide 45  
5521 DZ Eersel, NL



### Restriction of Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

This Trimble product complies in all material respects with DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) and Amendment 2005/618/EC filed under C(2005) 3143, with exemptions for lead in solder pursuant to Paragraph 7 of the Annex to the RoHS Directive applied.

### Declaration of Conformity

We, Trimble Navigation Limited,

935 Stewart Drive  
PO Box 3642  
Sunnyvale, CA 94088-3642  
United States  
+1-408-481-8000

declare under sole responsibility that the product:  
EZ-Guide 250 lightbar guidance system  
complies with Part 15 of FCC Rules.

Operation is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received,  
including interference that may cause undesired operation.



# Contents

<b>1</b>	<b>Lightbar Connection Only</b>	<b>7</b>
	EZ-Guide 250 lightbar only (basic power cable)	8
	EZ-Guide 250 lightbar only (all port cable option 1)	9
	EZ-Guide 250 lightbar only (all port cable option 2)	10
	EZ-Guide 250 lightbar only (basic power cable with a 4-pin Deutsch connector)	11
	Connecting the LB25 lightbar to an EZ-Guide 250 lightbar	12
	Option 1	12
	Option 2	13
	Option 3	14
<b>2</b>	<b>Antenna Connections</b>	<b>15</b>
	Connecting the patch antenna to the lightbar	16
	Connecting the Ag15 antenna to the lightbar	17
<b>3</b>	<b>Additional Ports on the Power Cable</b>	<b>19</b>
	Attaching add-on cables to the basic power cable	20
	Step 1: Preparing the connector	20
	Step 2: Inserting the contact	20
	Adding a serial connector	22
	12-pin Deutsch pinout information for serial connection	23
	DE-9 (serial connector) pinout information	23
	Adding a 3-pin Deutsch connector (for a radar cable or coverage switch)	23
	12-pin Deutsch pinout information for radar	24
	3-pin connector pinout information	24
	Adding a 4-pin Deutsch connector (for the EZ-Steer system)	24
	12-pin Deutsch pinout information for the EZ-Steer system	25
	4-pin connector pinout information	25
<b>4</b>	<b>EZ-Steer System Connection</b>	<b>27</b>
	EZ-Guide 250 all port cable and EZ-Steer cable (P/N 62974)	28
	EZ-Guide 250 all port cable and EZ-Steer cable (P/N 60855)	29
	EZ-Guide 250 basic power cable and EZ-Steer cable (P/N 62974)	30
	EZ-Guide 250 basic power cable and EZ-Steer cable (P/N 60855)	31
<b>5</b>	<b>EZ-Remote Joystick Connection</b>	<b>33</b>
	Connecting an EZ-Remote joystick to the EZ-Guide 250 lightbar	34
<b>6</b>	<b>Radar Cable Connection</b>	<b>35</b>
	Connecting a Raven radar cable to the power cable with 3-pin add-on cable	36
	Connecting a Raven radar cable to the all port cable	37
	Connecting a DICKEY-john radar cable to the power cable with a 3-pin add-on cable	38
	Connecting a DICKEY-john radar cable to the all port cable	39

Connecting a Hiniker radar cable to the power cable with a 3-pin add-on cable . . . . .	40
Connecting a Hiniker radar cable to the all port cable . . . . .	41
<b>7 Pinout Information . . . . .</b>	<b>43</b>
EZ-Guide 250 12-pin Deutsch DTM pinout information . . . . .	44
All port cable pinout information . . . . .	44
All port cable connectors pinout information . . . . .	45
DE-9 (serial connector) pinout information . . . . .	45
3-pin connector pinout information . . . . .	45
4-pin connector pinout information . . . . .	45

# Lightbar Connection Only

## In this chapter:

- [EZ-Guide 250 lightbar only \(basic power cable\)](#)
- [EZ-Guide 250 lightbar only \(all port cable option 1\)](#)
- [EZ-Guide 250 lightbar only \(all port cable option 2\)](#)
- [EZ-Guide 250 lightbar only \(basic power cable with a 4-pin Deutsch connector\)](#)
- [Connecting the LB25 lightbar to an EZ-Guide 250 lightbar](#)

The EZ-Guide® 250 lightbar guidance system can operate as a standalone guidance system, or you can connect it to a range of accessories to expand its functionality. This document shows you how to complete those cable connections.

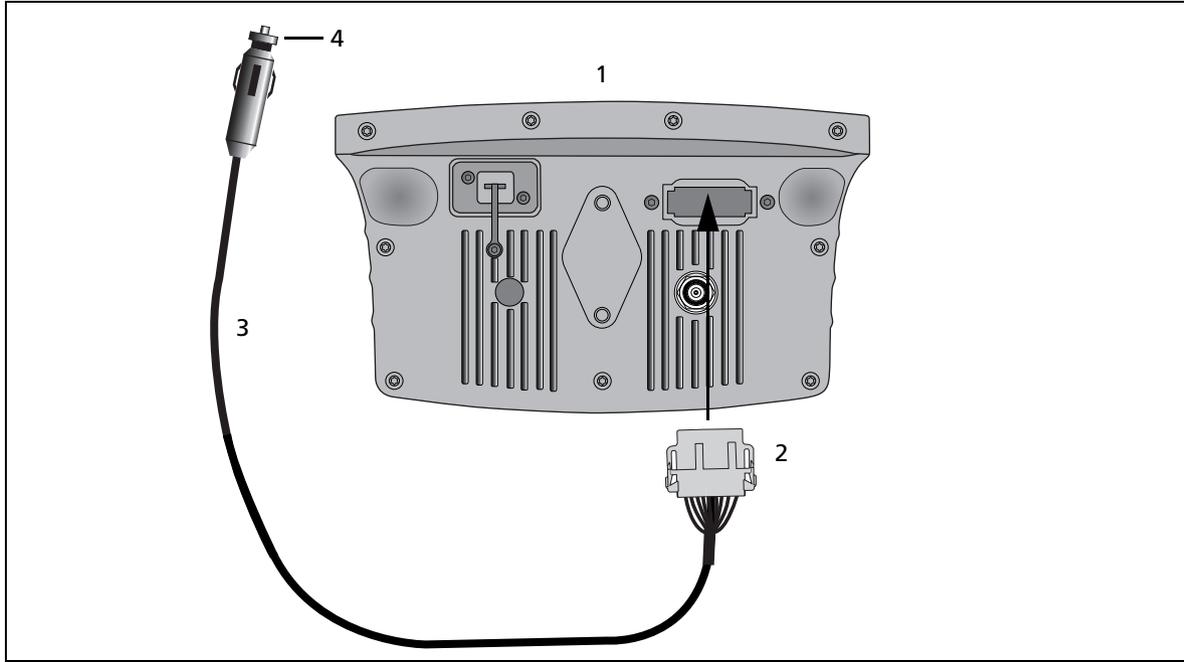
To connect:

- the lightbar as a standalone guidance system, see [Chapter 1](#).
- the antennas to the lightbar, see [Chapter 2](#).
- the port expander cables to the standard power cable, see [Chapter 3](#).
- the EZ-Steer® system to the lightbar, see [Chapter 4](#).
- a radar cable to the lightbar, see [Chapter 6](#).

For cable pinout information, see [Chapter 7](#).

## EZ-Guide 250 lightbar only (basic power cable)

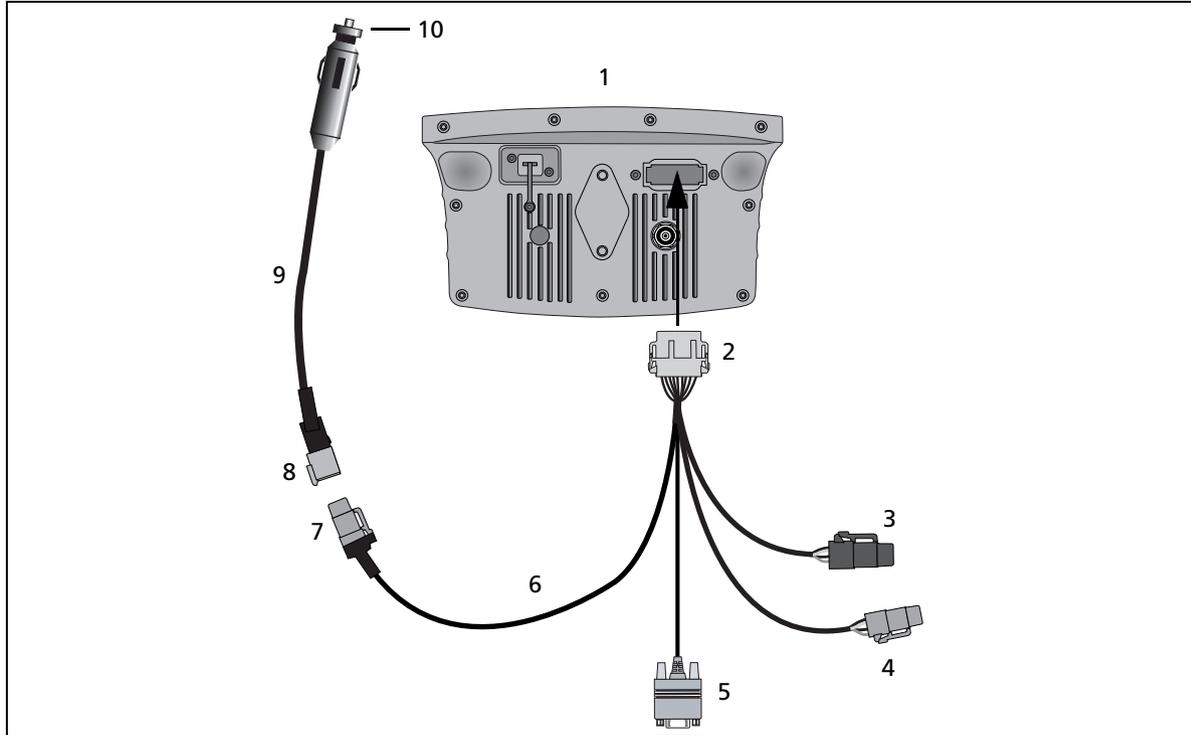
This figure shows how to connect the EZ-Guide 250 lightbar guidance system using the basic power cable:



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	-
3	Basic power cable	65168
4	To power (cigarette lighter connector)	-

## EZ-Guide 250 lightbar only (all port cable option 1)

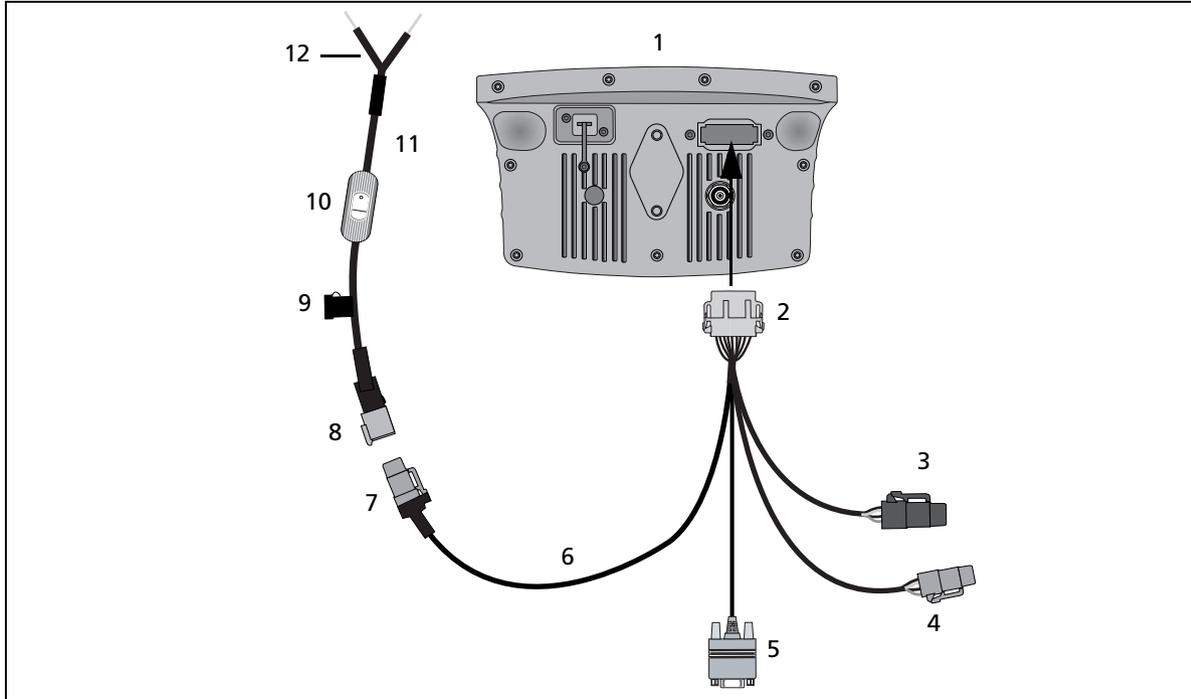
This figure shows how to connect the EZ-Guide 250 lightbar guidance system by connecting a cigarette lighter cable to the all port cable:



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	–
3	4-pin Deutsch connector	–
4	3-pin Deutsch connector	–
5	Serial connector	–
6	All port cable	64045
7	2-pin Deutsch connector	–
8	2-pin Deutsch connector	–
9	Cigarette lighter adaptor cable	62818
10	To power (cigarette lighter connector)	–

## EZ-Guide 250 lightbar only (all port cable option 2)

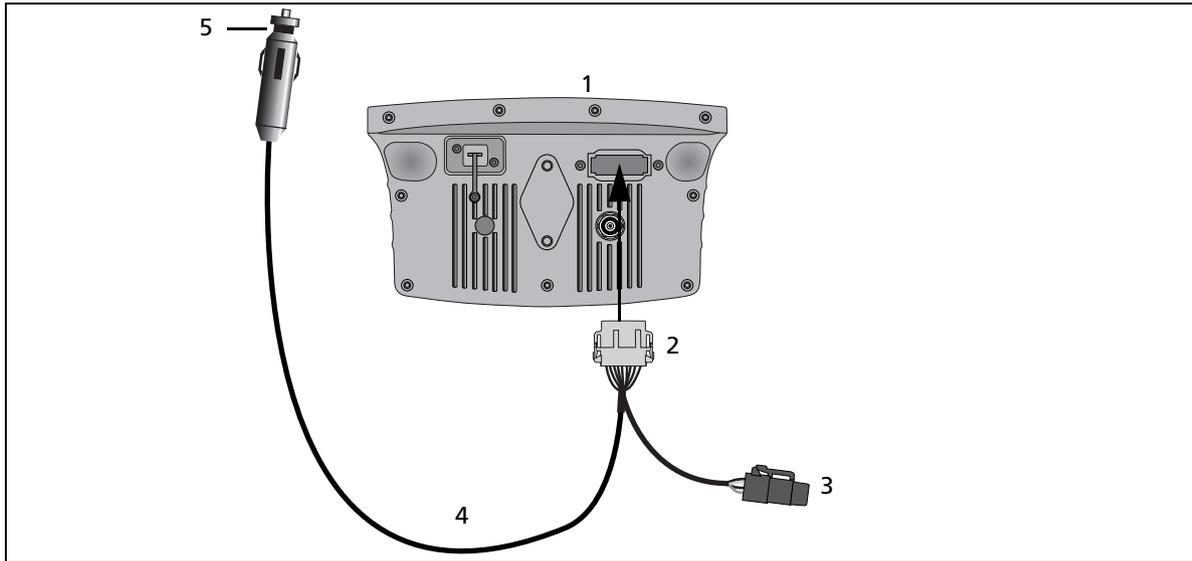
This figure shows how to connect the EZ-Guide 250 lightbar guidance system by connecting a direct power connection cable to the all port cable:



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	-
3	4-pin Deutsch connector	-
4	3-pin Deutsch connector	-
5	Serial connector	-
6	All port cable	64045
7	2-pin Deutsch connector	-
8	2-pin Deutsch connector	-
9	Fuse	-
10	Switch	-
11	Direct power adaptor cable	63193
12	To direct power (battery)	-

## EZ-Guide 250 lightbar only (basic power cable with a 4-pin Deutsch connector)

This figure shows how to connect the EZ-Guide 250 lightbar guidance system by connecting a power cable with 4-pin Deutsch connector (P/N 64228):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	-
3	4-pin Deutsch connector	-
4	Power cable with 4-pin connector	64228
5	To power (cigarette lighter connector)	-

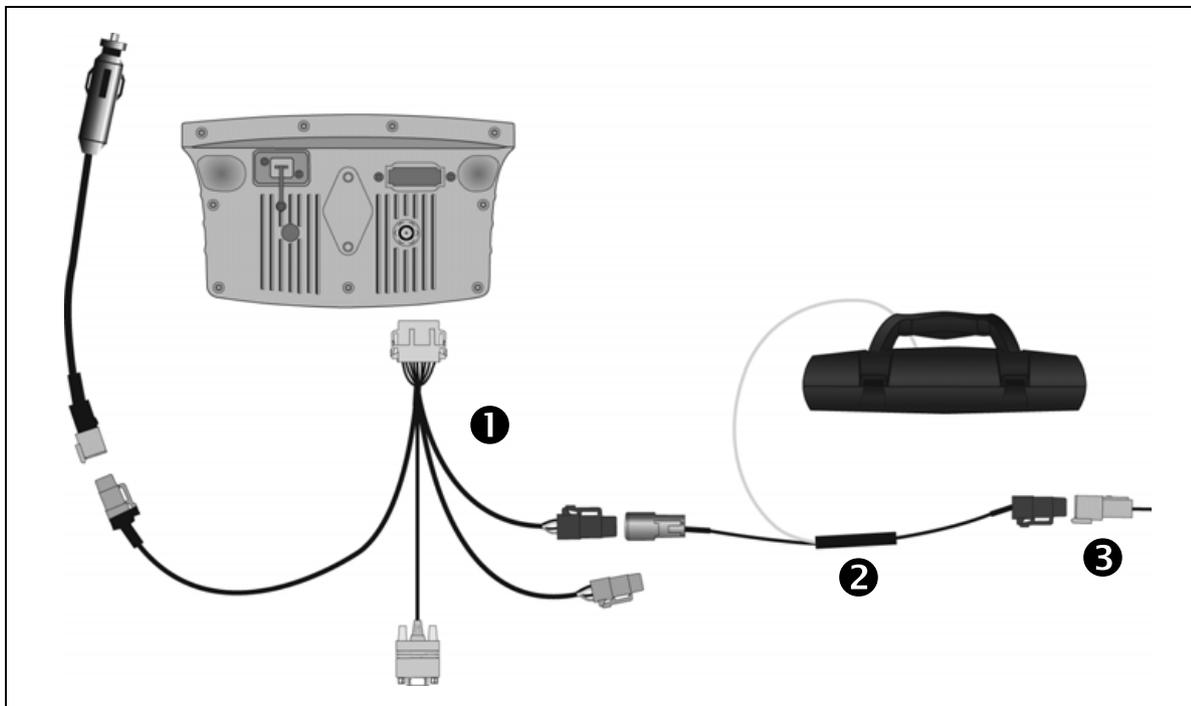
## Connecting the LB25 lightbar to an EZ-Guide 250 lightbar

There are three cabling options for connecting the LB25 lightbar to an EZ-Guide 250 lightbar.

**Note** – Ensure firmware version 2.05 or greater is loaded on the EZ-Guide 250 lightbar. For information on configuring the LB25 lightbar for use with the display, refer to the display documentation.

### Option 1

Connect the LB25 cable (P/N 67094) (❷) to the 4-pin Deutsch plug on cable P/N 64045 (❶).

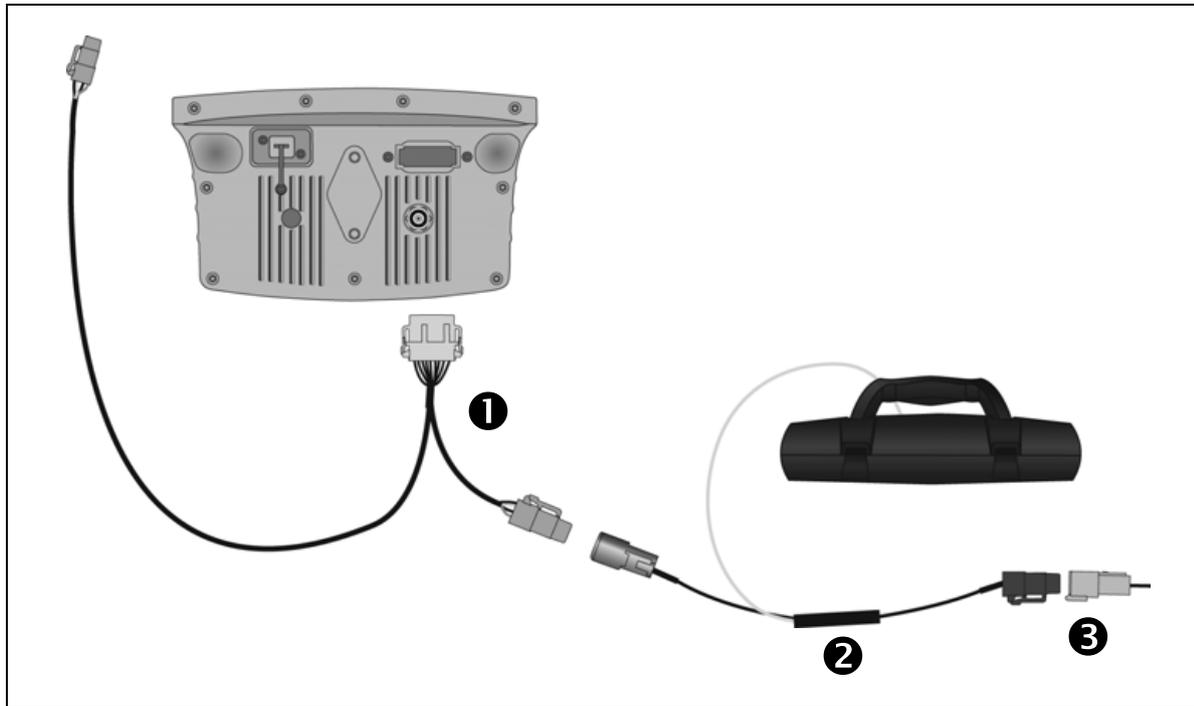


#### Notes:

- For a standalone system, connect the CAN terminator (P/N 59783) (❸) to the 4-pin Deutsch plug on the LB25 cable (❷).
- If you are using an EZ-Steer system, connect the appropriate cable to the 4-pin Deutsch plug on the LB25 cable (❷).
- For details on how to connect the remaining parts of the system, refer to the display documentation.

## Option 2

Connect the LB25 cable (P/N 67094) (❷) to the 4-pin Deutsch plug on cable P/N 64228 (❶).

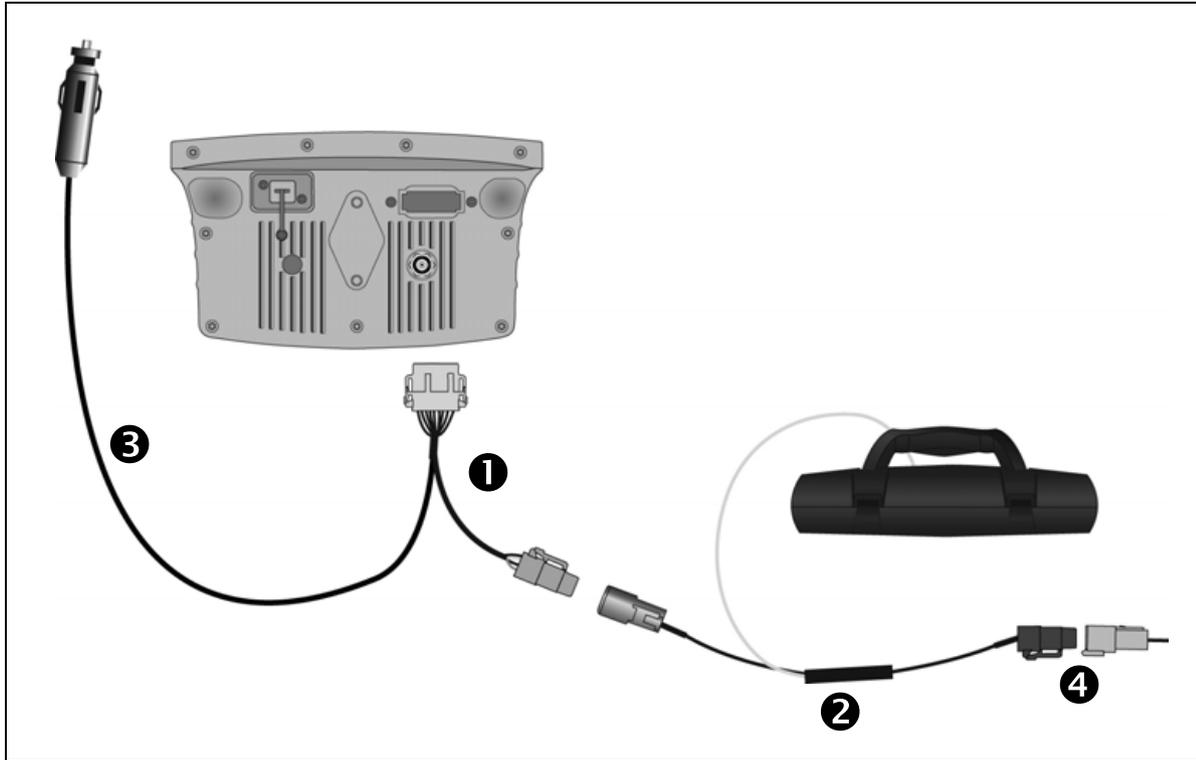


### Notes:

- For a standalone system, connect the CAN terminator (P/N 59783) (❸) to the 4-pin Deutsch plug on the LB25 cable (❷).
- If you are using an EZ-Steer system, connect the appropriate cable to the 4-pin Deutsch plug on the LB25 cable (❷).
- For details on how to connect the remaining parts of the system, refer to your display documentation.

### Option 3

Connect the LB25 lightbar cable (P/N 67094) (❶) to the add-on 4-pin Deutsch plug on cable P/N 65536 (❷) (supplied separately).



#### Notes:

- Before connecting to the LB25 lightbar, cable (P/N 65536)(❶) must be attached to the supplied power cable (P/N 65168) (❸). To install the cable (P/N 65536), follow the steps in [Adding a 4-pin Deutsch connector \(for the EZ-Steer system\)](#), page 24.
- For a standalone system, connect the CAN terminator (P/N 59783) (❹) to the 4-pin Deutsch plug on the LB25 cable (❶).
- If you are using an EZ-Steer system, connect the appropriate cable to the 4-pin Deutsch plug on the LB25 cable (❶).
- For details on how to connect the remaining parts of the system, refer to your display documentation.

# Antenna Connections

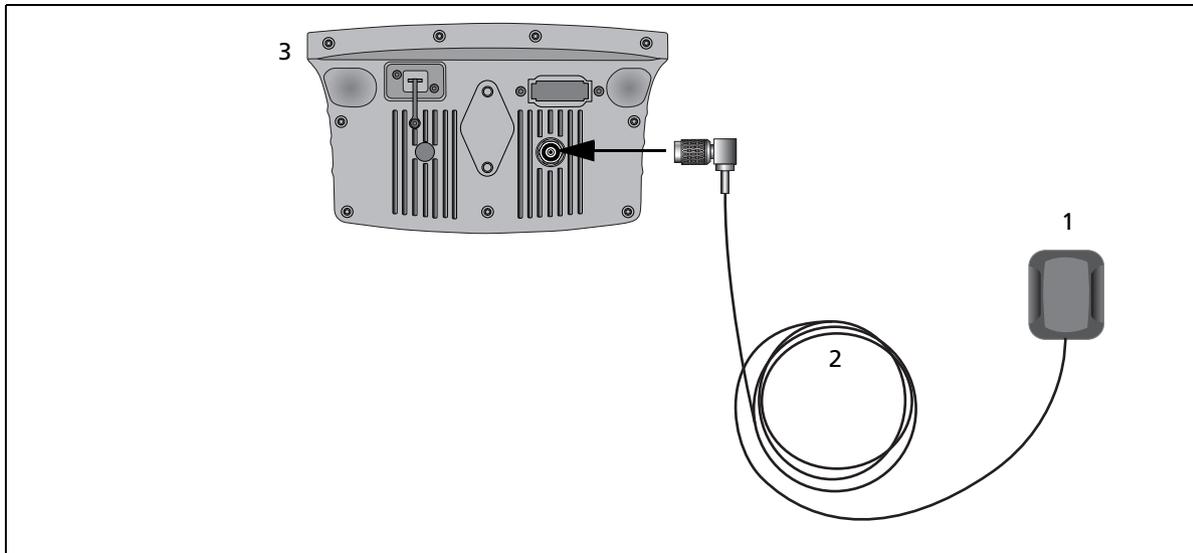
**In this chapter:**

- Connecting the patch antenna to the lightbar
- Connecting the Ag15 antenna to the lightbar

This chapter shows how to connect the antennas to the lightbar.

## Connecting the patch antenna to the lightbar

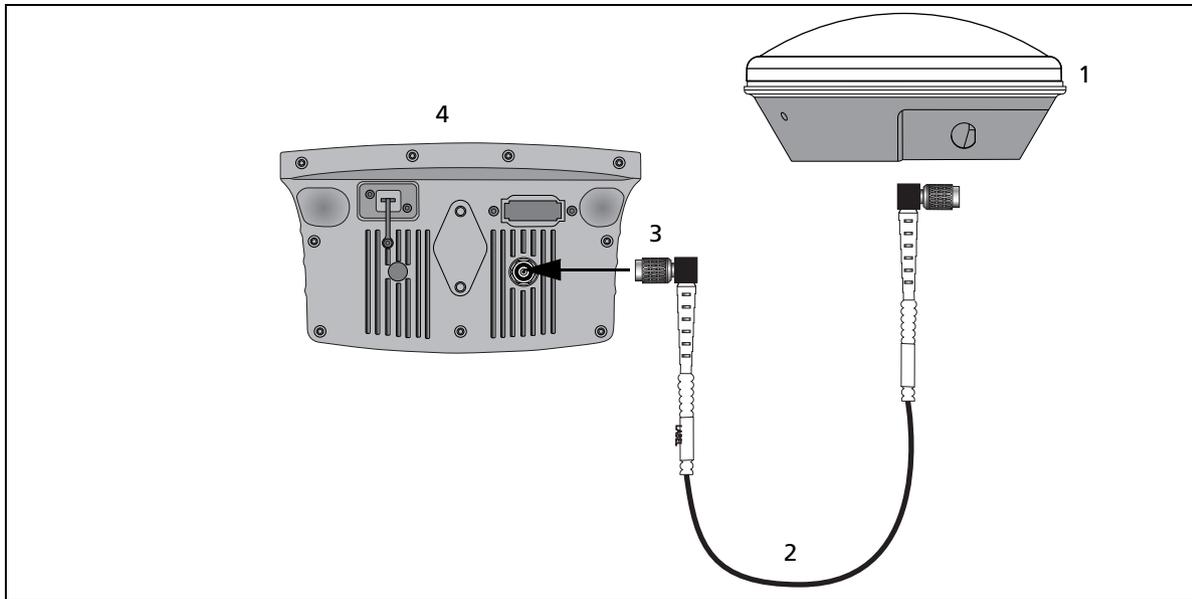
This figure shows how to connect the patch antenna to the EZ-Guide 250 lightbar:



Item	Description	Part number
1	Patch antenna	56237-91
2	Antenna port	–
3	EZ-Guide 250 lightbar	92100-01

## Connecting the Ag15 antenna to the lightbar

This figure shows how to connect the Ag15 antenna to the EZ-Guide 250 lightbar:



Item	Description	Part number
1	Ag15 antenna	60600-01
2	GPS antenna cable	50449
3	Antenna port	–
4	EZ-Guide 250 lightbar	92100-01



## Additional Ports on the Power Cable

### In this chapter:

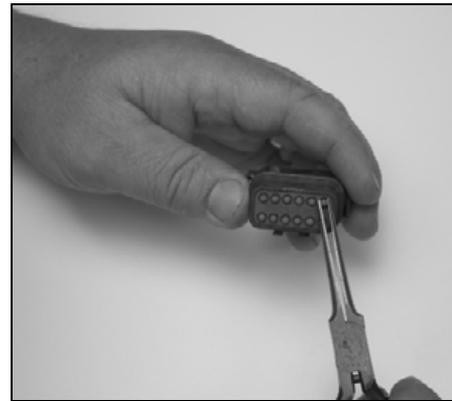
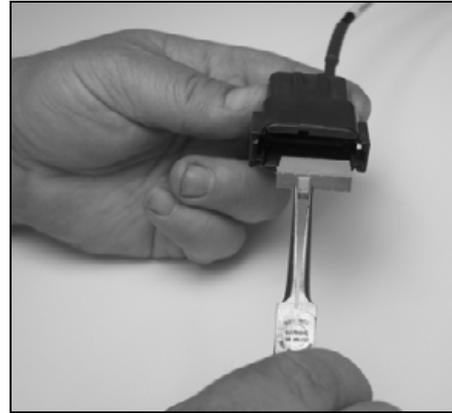
- Attaching add-on cables to the basic power cable
- Adding a serial connector
- Adding a 3-pin Deutsch connector (for a radar cable or coverage switch)
- Adding a 4-pin Deutsch connector (for the EZ-Steer system)

This chapter shows how to add additional ports to the EZ-Guide 250 lightbar basic power cable.

## Attaching add-on cables to the basic power cable

### Step 1: Preparing the connector

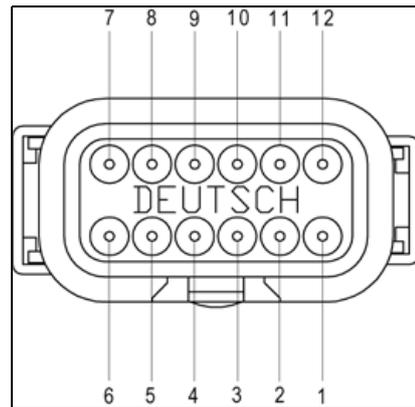
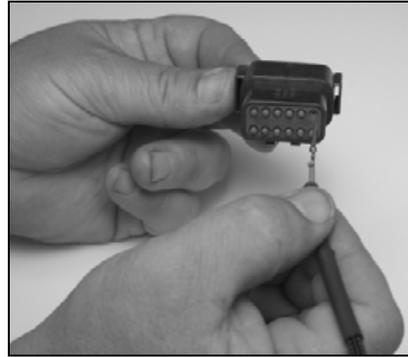
1. If connected, remove the power cable from the EZ-Guide 250 lightbar.
2. Pull the connector wedgelock straight out with a pair of needle-nose pliers. The wedgelock is the piece of orange plastic.
3. Remove the plastic inserts from the location where you will insert wires/pins.



### Step 2: Inserting the contact

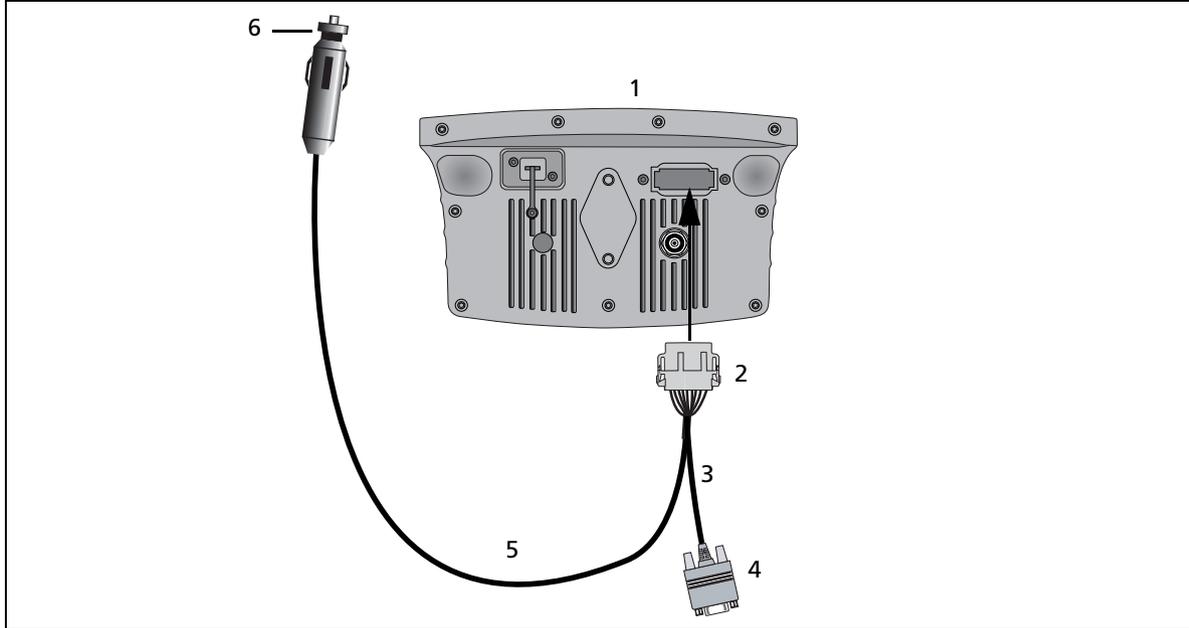
*Note – This procedure shows a plug connector – use the same procedure for a receptacle connector.*

1. Grasp the crimped contact approximately one inch behind the contact barrel.
2. Each wire with a crimped-on pin is labeled with the appropriate pin location number, as shown here. Connect the wires to the pins.
3. Hold the connector with the rear grommet facing you.
4. Push the contact straight into the connector grommet until you feel a click. A slight tug will confirm that the contact is properly locked in place.
5. Once all contacts are in place, replace the wedgelock. The wedgelock snaps into place.



## Adding a serial connector

This figure shows how to add a serial port to the EZ-Guide 250 basic power cable to output NMEA messages or input RTCM:



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	-
3	Serial add-on cable	63076
4	Serial connector	-
5	Basic power cable	65168
6	To power (cigarette lighter connector)	-

## 12-pin Deutsch pinout information for serial connection

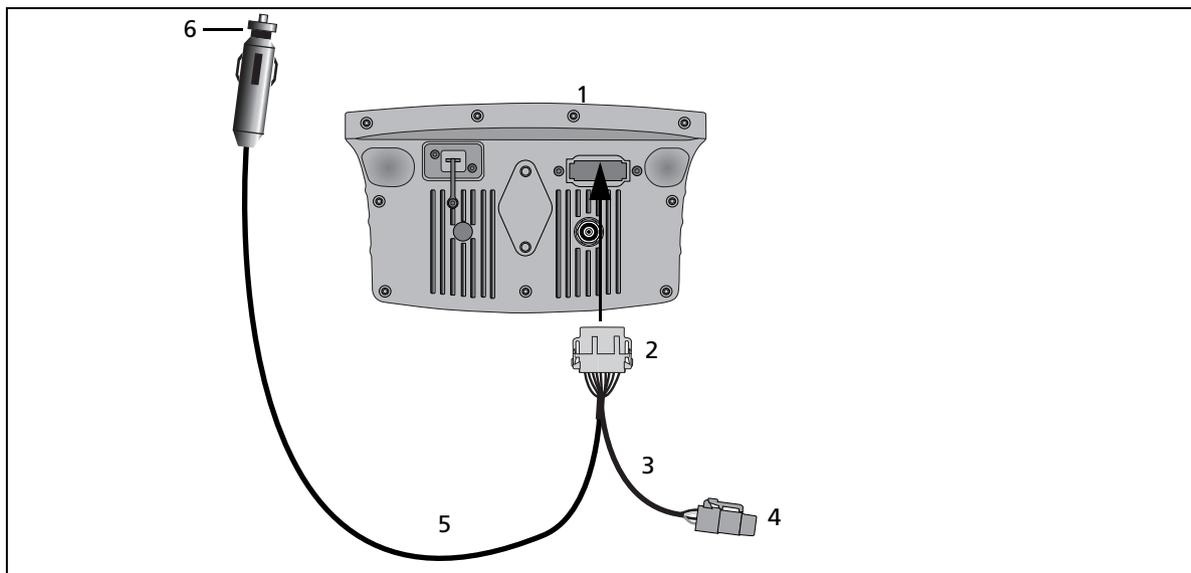
Pin	Description
5	RS-232 Rx
6	RS-232 Tx
7	Ground

## DE-9 (serial connector) pinout information

Pin	Description
2	RS-232 Rx
3	RS-232 Tx
5	Ground

## Adding a 3-pin Deutsch connector (for a radar cable or coverage switch)

This figure shows how to add a 3-pin Deutsch connector to the EZ-Guide 250 basic power cable so that you can connect a radar cable or coverage switch to the system:



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	–
3	3-pin Deutsch add-on cable	65535
4	3-pin Deutsch connector	–
5	Basic power cable	65168
6	To power (cigarette lighter connector)	–

### 12-pin Deutsch pinout information for radar

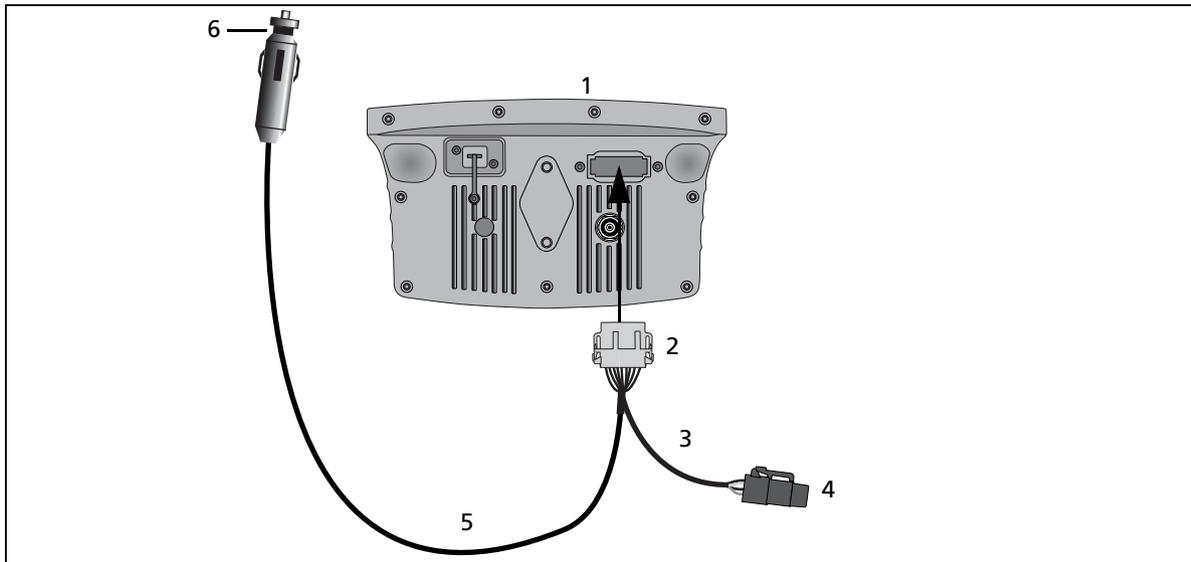
Pin	Description
4	External switch in
8	Ground
9	Radar out

### 3-pin connector pinout information

Pin	Description
1	Radar out
2	Ground
3	External switch in

## Adding a 4-pin Deutsch connector (for the EZ-Steer system)

This figure shows how to add a CAN port (a 4-pin Deutsch connector) to the EZ-Guide 250 basic power cable so that you can connect an EZ-Steer system for assisted steering:



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	12-pin Deutsch connector	–
3	4-pin CAN add-on cable	65536
4	4-pin Deutsch connector	–
5	Basic power cable	65168
6	To power (cigarette lighter connector)	–

## 12-pin Deutsch pinout information for the EZ-Steer system

Pin	Description
2	V (+) out
3	CAN high
10	CAN low
11	V (-) out

## 4-pin connector pinout information

Pin	Description
1	V (+) out
2	CAN high
3	V (-) out
4	CAN low



## EZ-Steer System Connection

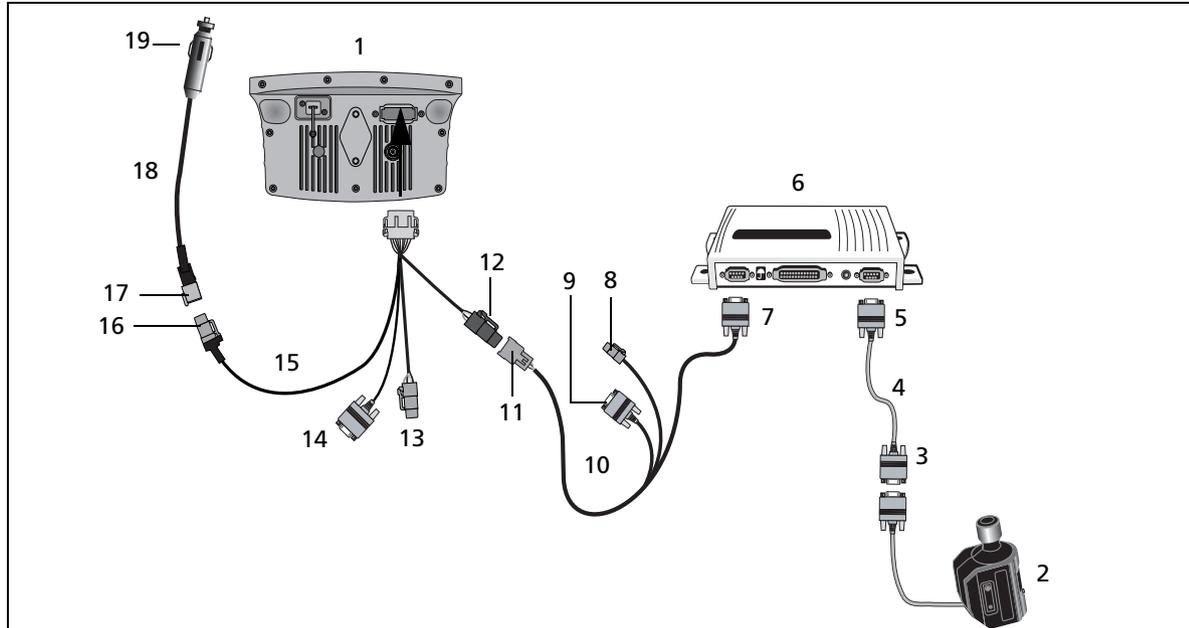
### In this chapter:

- EZ-Guide 250 all port cable and EZ-Steer cable (P/N 62974)
- EZ-Guide 250 all port cable and EZ-Steer cable (P/N 60855)
- EZ-Guide 250 basic power cable and EZ-Steer cable (P/N 62974)
- EZ-Guide 250 basic power cable and EZ-Steer cable (P/N 60855)

This chapter shows the different ways to connect the EZ-Guide 250 lightbar to the EZ-Steer system.

## EZ-Guide 250 all port cable and EZ-Steer cable (P/N 62974)

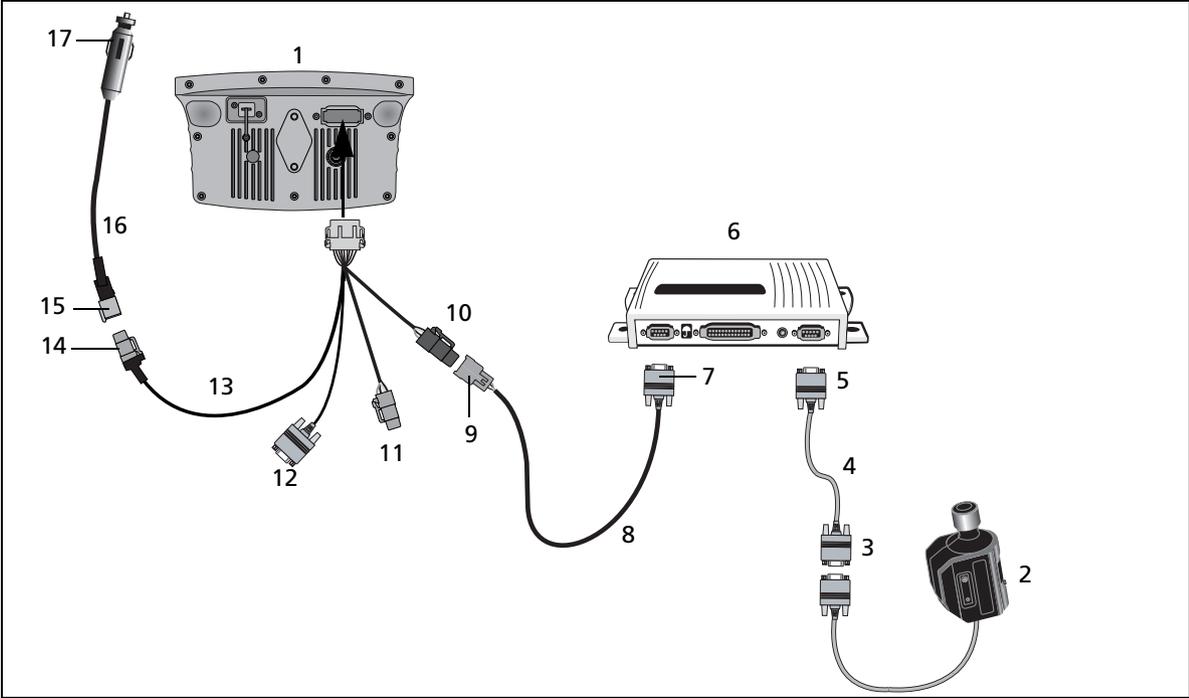
This figure shows how to connect the EZ-Guide 250 lightbar to the EZ-Steer system with the all port cable (P/N 64045) and the EZ-Steer cable (P/N 62974):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	EZ-Steer motor	53058-00
3	"P2" connector	-
4	EZ-Steer motor cable	6225762257
5	"P1" connector	-
6	EZ-Steer controller	53057-10
7	"P2" connector	-
8	Alternate power connector	-
9	Laptop connector (for upgrading firmware)	-
10	EZ-Steer extension cable	62974
11	"S1" connector	-
12	4-pin Deutsch connector	-
13	3-pin Deutsch connector	-
14	Serial port connector	-
15	All port cable	64045
16	2-pin Deutsch connector	-
17	2-pin Deutsch connector	-
18	Basic power cable	62818
19	To power (cigarette lighter connector)	-

### EZ-Guide 250 all port cable and EZ-Steer cable (P/N 60855)

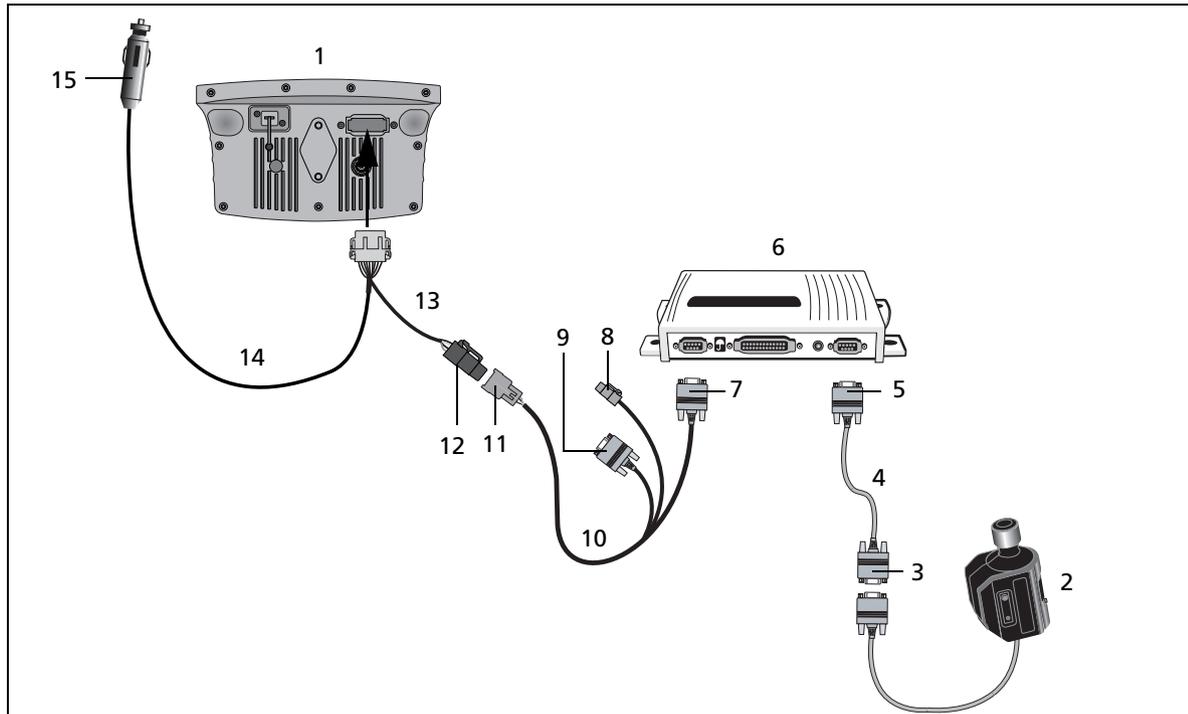
This figure shows how to connect the EZ-Guide 250 lightbar to the EZ-Steer system with the all port cable (P/N 64045) and the EZ-Steer cable (P/N 60855):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	EZ-Steer motor	53058-00
3	"P2" connector	-
4	EZ-Steer motor cable	62257
5	"P1" connector	-
6	EZ-Steer controller	53057-10
7	"P2" connector	-
8	EZ-Steer extension cable	60855
9	"S1" connector	-
10	4-pin Deutsch connector	-
11	3-pin Deutsch connector	-
12	Serial port connector	-
13	All port cable	64045
14	2-pin Deutsch connector	-
15	2-pin Deutsch connector	-
16	Basic power cable	62818
17	To power (cigarette lighter connector)	-

## EZ-Guide 250 basic power cable and EZ-Steer cable (P/N 62974)

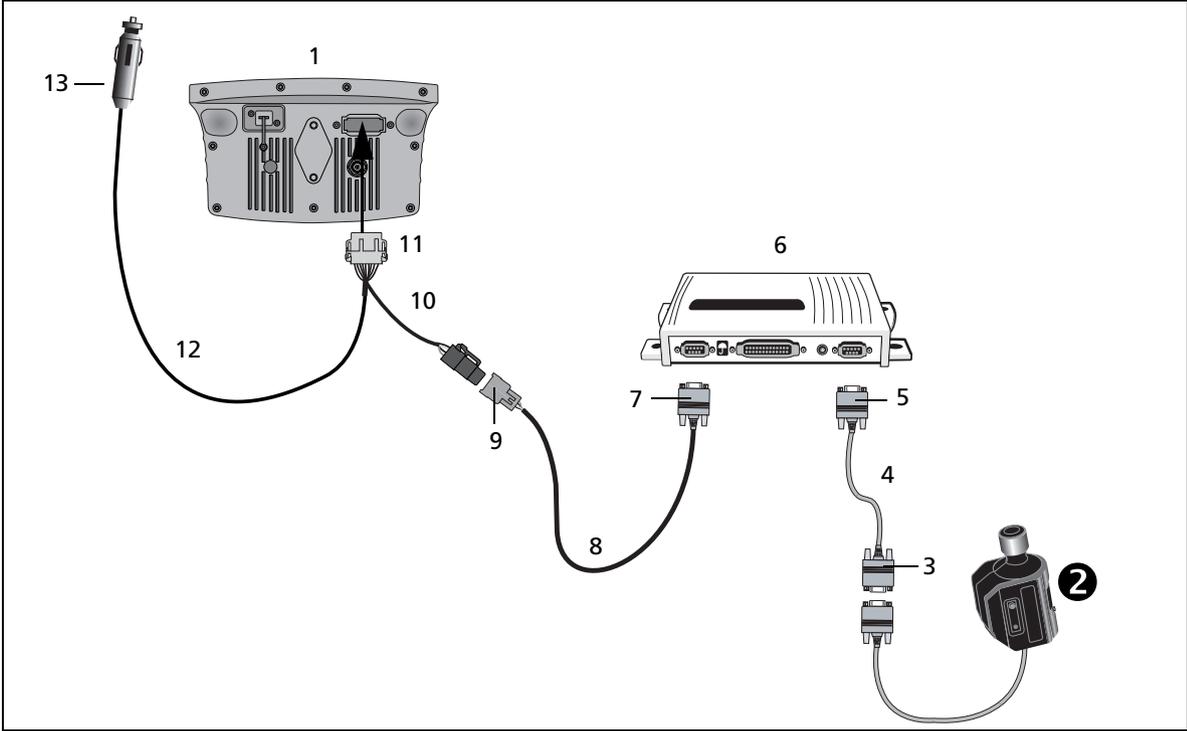
This figure shows how to connect the EZ-Guide 250 lightbar to the EZ-Steer system with the basic power cable (P/N 65168), the 4-pin add-on cable (P/N 65536), and the EZ-Steer cable (P/N 62974):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	EZ-Steer motor	53058-00
3	"P2" connector	-
4	EZ-Steer motor cable	62257
5	"P1" connector	-
6	EZ-Steer controller	53057-10
7	"P2" connector	-
8	Alternate power connector	-
9	Laptop connector (for upgrading firmware)	-
10	EZ-Steer extension cable	62974
11	"S1" connector	-
12	4-pin CAN add-on cable	65536
13	4-pin Deutsch connector	-
14	Basic power cable	65168
15	To power (cigarette lighter connector)	-

### EZ-Guide 250 basic power cable and EZ-Steer cable (P/N 60855)

This figure shows how to connect the EZ-Guide 250 lightbar to the EZ-Steer system with the basic power cable (P/N 65168), the 4-pin add-on cable (P/N 65536), and the EZ-Steer cable (P/N 60855):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	EZ-Steer motor	53058-00
3	"P2" connector	-
4	EZ-Steer motor cable	62257
5	"P1" connector	-
6	EZ-Steer controller	53057-10
7	"P2" connector	-
8	EZ-Steer extension cable	60855
9	"S1" connector	-
10	4-pin CAN add-on cable	65536
11	4-pin Deutsch connector	-
12	Basic power cable	65168
13	To power (cigarette lighter connector)	-



## EZ-Remote Joystick Connection

### In this chapter:

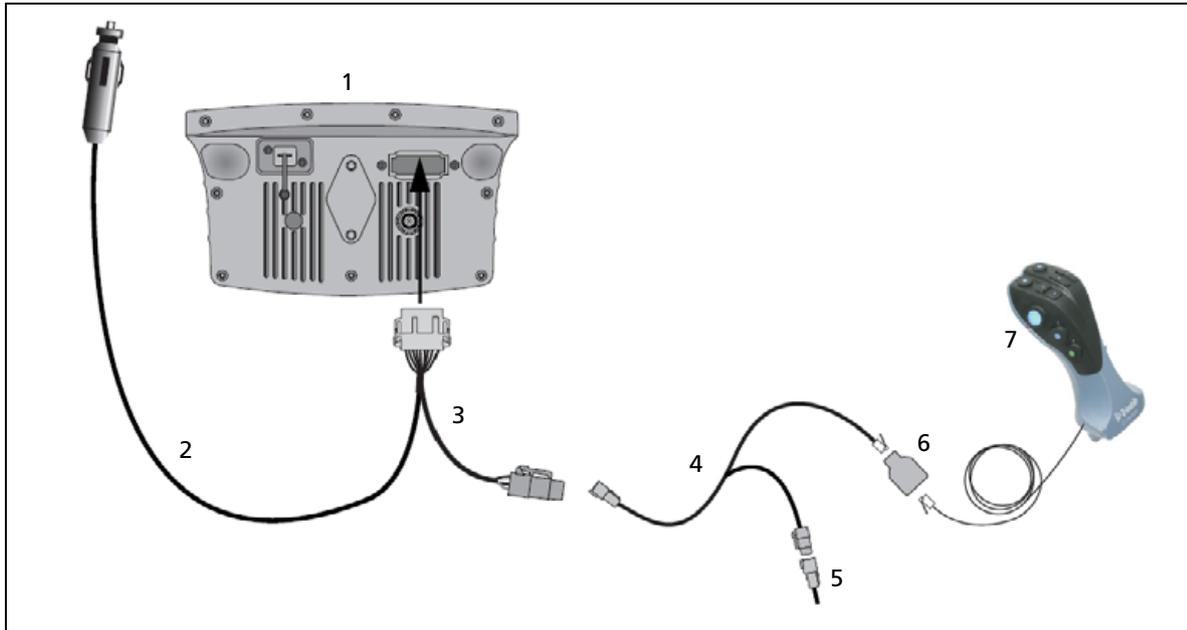
- [Connecting an EZ-Remote joystick to the EZ-Guide 250 lightbar](#)

This chapter describes the cabling option to connect the EZ-Remote joystick to the EZ-Guide 250 lightbar.

***Note** – Ensure that firmware version 3.10 or greater is loaded on the EZ-Guide 250 lightbar. For information on configuring the EZ-Remote joystick for use with a display refer to the display documentation.*

## Connecting an EZ-Remote joystick to the EZ-Guide 250 lightbar

This figure shows how to connect the EZ-Remote joystick to the EZ-Guide 250 lightbar—connect the EZ-Remote cable (P/N 67094) (4) to the 4-pin Deutsch connector on cable P/N 65536 (3):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	Basic power cable	65168
3	4-pin CAN add-on cable	65536
4	EZ-Guide 250 to LB25 remote lightbar cable	67094
5	CAN terminator	59783
6	Splitter cable, RJII F to 2x RJII F	72422
7	EZ-Remote joystick	83200-00

**Notes:**

- The all ports cable (P/N 64045) can be used instead of the P/N 65168 and P/N 65536 cable combination.
- For a standalone system, connect the CAN terminator (P/N 59783) (5) to the 4-pin Deutsch plug on the EZ-Remote cable (4).
- If you are using an EZ-Steer system, connect the appropriate cable to the 4-pin Deutsch plug on the EZ-Remote cable (4).

# Radar Cable Connection

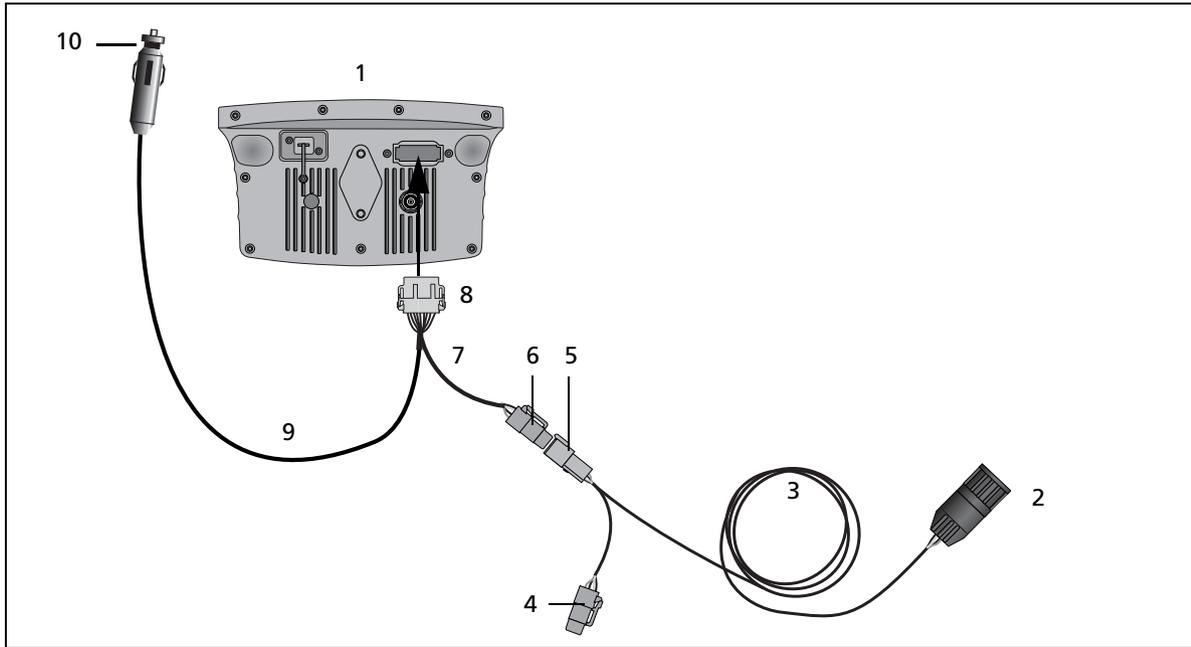
## In this chapter:

- Connecting a Raven radar cable to the power cable with 3-pin add-on cable
- Connecting a Raven radar cable to the all port cable
- Connecting a DICKEY-john radar cable to the power cable with a 3-pin add-on cable
- Connecting a DICKEY-john radar cable to the all port cable
- Connecting a Hiniker radar cable to the power cable with a 3-pin add-on cable
- Connecting a Hiniker radar cable to the all port cable

This chapter shows how to connect radar cables to the EZ-Guide 250 lightbar.

## Connecting a Raven radar cable to the power cable with 3-pin add-on cable

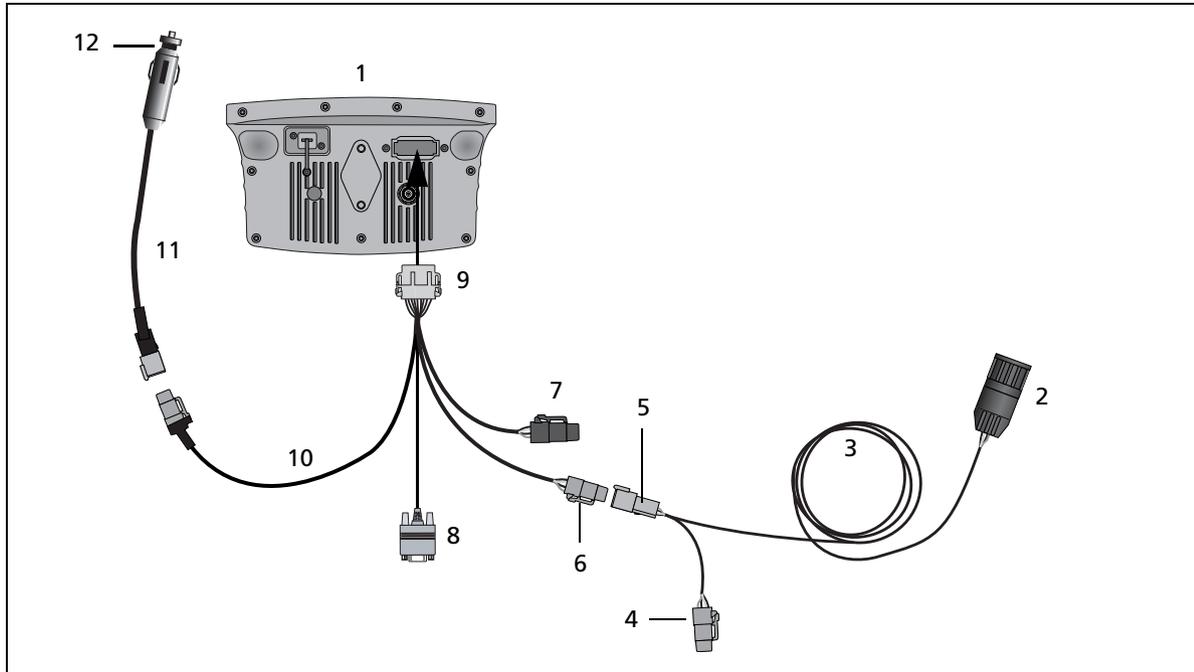
This figure shows how to connect a Raven radar cable (P/N 64272) to the EZ-Guide 250 lightbar power cable (P/N 65168) with 3-pin add-on cable (P/N 65535):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	Raven radar connector	-
3	Raven radar cable	64272
4	Coverage switch connector (3-pin Deutsch)	-
5	3-pin Deutsch connector	-
6	3-pin Deutsch connector	-
7	3-pin add-on cable	65535
8	12-pin Deutsch connector	-
9	Basic power cable	65168
10	To power (cigarette lighter connector)	-

## Connecting a Raven radar cable to the all port cable

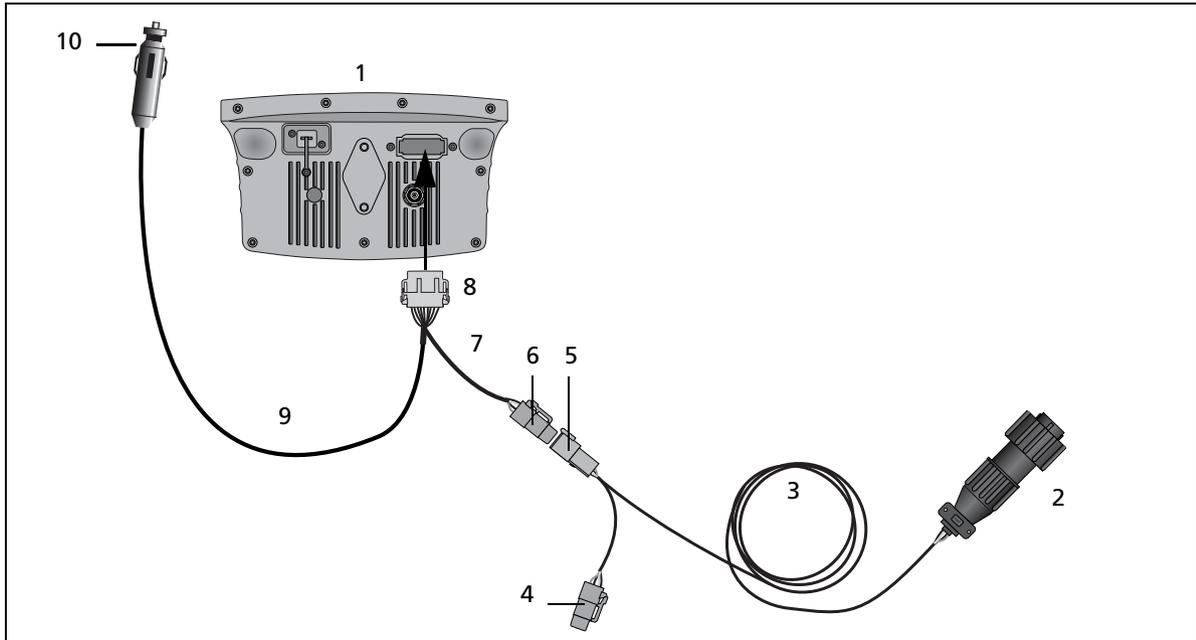
This figure shows how to connect a Raven radar cable (P/N 64272) to the EZ-Guide 250 lightbar all port cable (P/N 64045):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	Raven radar connector	–
3	Raven radar cable	64272
4	Coverage switch connector (3-pin Deutsch)	–
5	3-pin Deutsch connector	–
6	3-pin Deutsch connector	–
7	4-pin Deutsch connector	–
8	Serial connector	–
9	12-pin Deutsch connector	–
10	All port cable	64045
11	Cigarette lighter adaptor cable	62818
12	To power (cigarette lighter connector)	–

## Connecting a DICKEY-john radar cable to the power cable with a 3-pin add-on cable

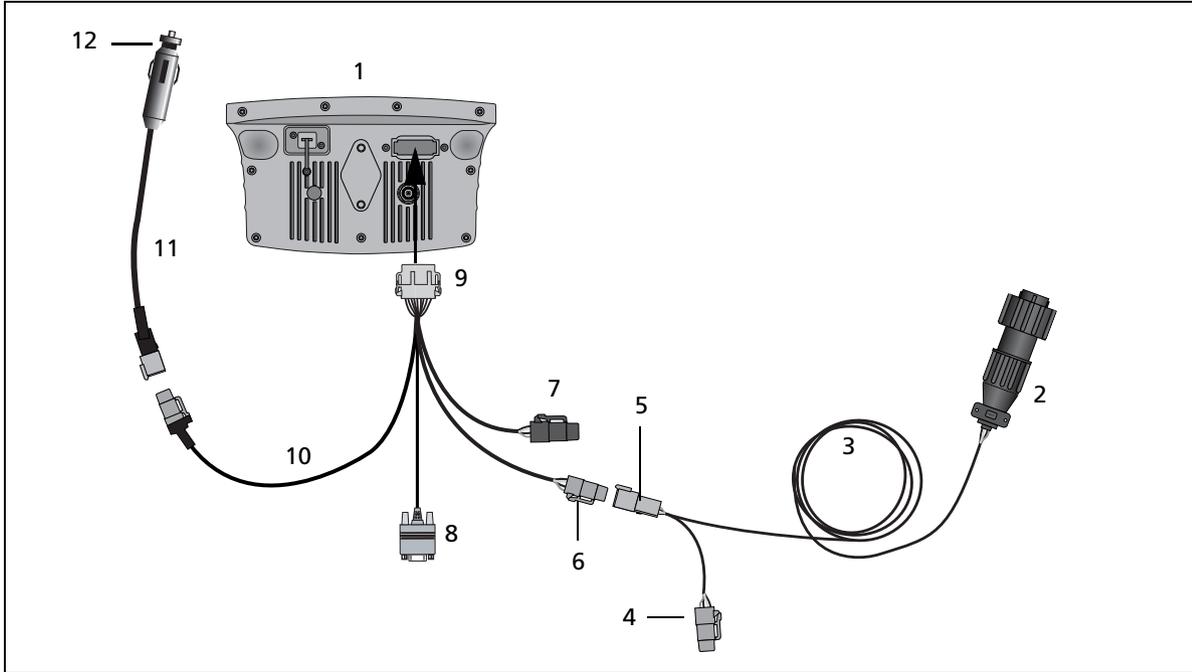
This figure shows how to connect a DICKEY-john radar cable (P/N 64273) to the EZ-Guide 250 lightbar power cable (P/N 65168) with a 3-pin add-on cable (P/N 65535):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	DICKEY-john radar connector	–
3	DICKEY-john radar cable	64273
4	Coverage switch connector (3-pin Deutsch)	–
5	3-pin Deutsch connector	–
6	3-pin Deutsch connector	–
7	3-pin add-on cable	65535
8	12-pin Deutsch connector	–
9	Basic power cable	65168
10	To power (cigarette lighter connector)	–

## Connecting a DICKEY-john radar cable to the all port cable

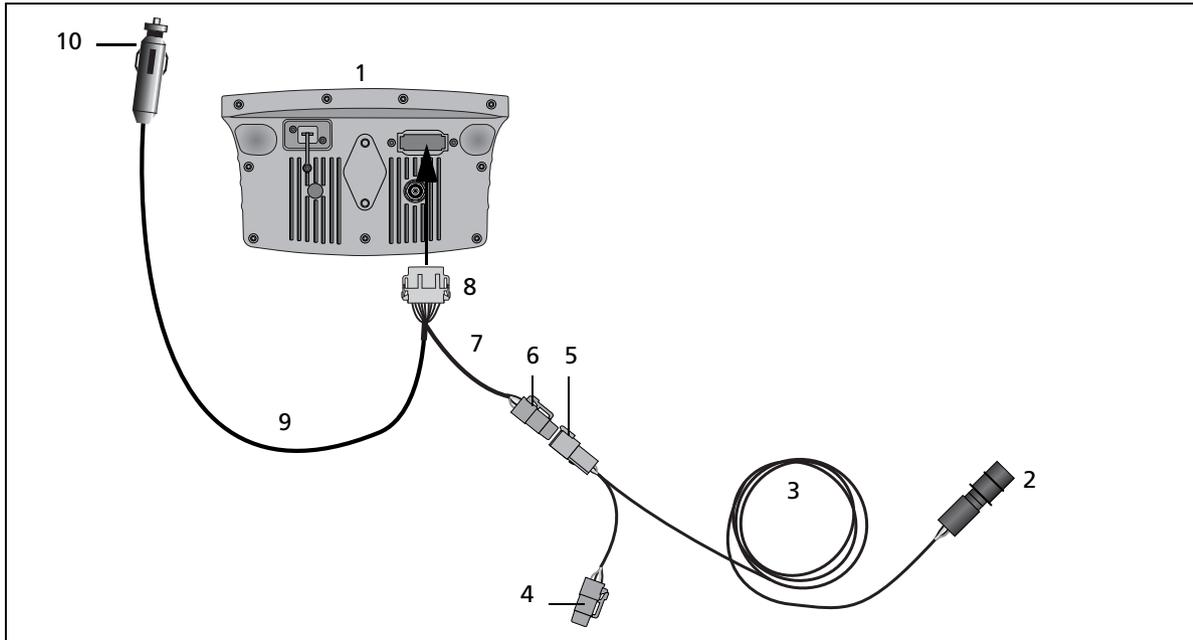
This figure shows how to connect a DICKEY-john radar cable (P/N 64273) to the EZ-Guide 250 lightbar all port cable (P/N 64045):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	DICKEY-john radar connector	-
3	DICKEY-john radar cable	64273
4	Coverage switch connector (3-pin Deutsch)	-
5	3-pin Deutsch connector	-
6	3-pin Deutsch connector	-
7	4-pin Deutsch connector	-
8	Serial connector	-
9	12-pin Deutsch connector	-
10	All port cable	64045
11	Cigarette lighter adaptor cable	62818
12	To power (cigarette lighter connector)	-

## Connecting a Hiniker radar cable to the power cable with a 3-pin add-on cable

This figure shows how to connect a Hiniker radar cable (P/N 64274) to the EZ-Guide 250 lightbar power cable (P/N 65168) with a 3-pin add-on cable (P/N 65535):



Item	Description	Part number
1	EZ-Guide 250 lightbar	92100-01
2	Hiniker radar connector	–
3	Hiniker radar cable	64274
4	Coverage switch connector (3-pin Deutsch)	–
5	3-pin Deutsch connector	–
6	3-pin Deutsch connector	–
7	3-pin add-on cable	65535
8	12-pin Deutsch connector	–
9	Basic power cable	65168
10	To power (cigarette lighter connector)	–





# Pinout Information

## In this chapter:

- EZ-Guide 250 12-pin Deutsch DTM pinout information
- All port cable pinout information
- All port cable connectors pinout information

This chapter lists the pinout information for the EZ-Guide 250 lightbar's 12-pin power/data port.

## EZ-Guide 250 12-pin Deutsch DTM pinout information

The 12-pin port on the back of the lightbar has the following pinout information:

Pin	Connection
1	V (+) in
2	V (+) out
3	CAN high
4	External switch in
5	RS-232 Rx
6	RS-232 Tx
7	Ground
8	Ground
9	Radar out
10	CAN low
11	V (-) out
12	V (-) in

## All port cable pinout information

The pins on the all port cable (P/N 64045) are connected as follows:

Pin	Connection
1 and 12	Through a fuse to vehicle power.
2, 3, 10, and 11	Through a 4-pin Deutsch for CAN/power to or from the EZ-Steer cable.
4, 8, and 9	Through a 3-pin Deutsch for coverage logging in and radar out. <b>Note</b> – Do not put voltage on these pins. To use the coverage switch, connect pin 4 to pin 8 on the 12-pin connector (or pins 2 and 3 on the 3-pin connector) using a relay or switch contacts with no voltages on the relay or switch contacts.
5, 6, and 7	Through an RS-232 (NMEA) to a DE-9 (M) connector.

## All port cable connectors pinout information

The connectors on the all port cable (P/N 64045) have the following pinout information:

### DE-9 (serial connector) pinout information

Pin	Description
2	RS-232 Rx
3	RS-232 Tx
5	Ground

### 3-pin connector pinout information

Pin	Description
1	Radar out
2	Ground
3	External switch in

### 4-pin connector pinout information

Pin	Description
1	V (+) out
2	CAN high
3	V (-) out
4	CAN low





