



NAV-500 GUIDANCE CONTROLLER

FOR GFX AND XCN DISPLAY SYSTEMS

CABLING GUIDE

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Release Notice

This is the November 2019 release (Revision A) of the NAV-500 Guidance Controller for GFX/XCN Display Systems Cabling Guide.

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Introduction

This cabling guide describes various installation scenarios for the NAV-500 guidance controller and the GFX and XCN display series. The GFX and XCN series of displays are in-cab touch screen displays that provide affordable guidance, steering and precision agriculture functionality.

NOTE – The GFX and XCN series include the GFX-350™ / GFX-750™ and the XCN-750 and XCN-1050 (the XCN-2050™ is not compatible with the NAV-500 guidance controller).

Technical assistance

Go to the Guidance & Steering webpage on the Trimble website (agriculture.trimble.com/precision-ag/products/displays/) for the latest support information, including:

- support notes detailing support issues
- documentation, including safety and compliance
- the latest files available for download

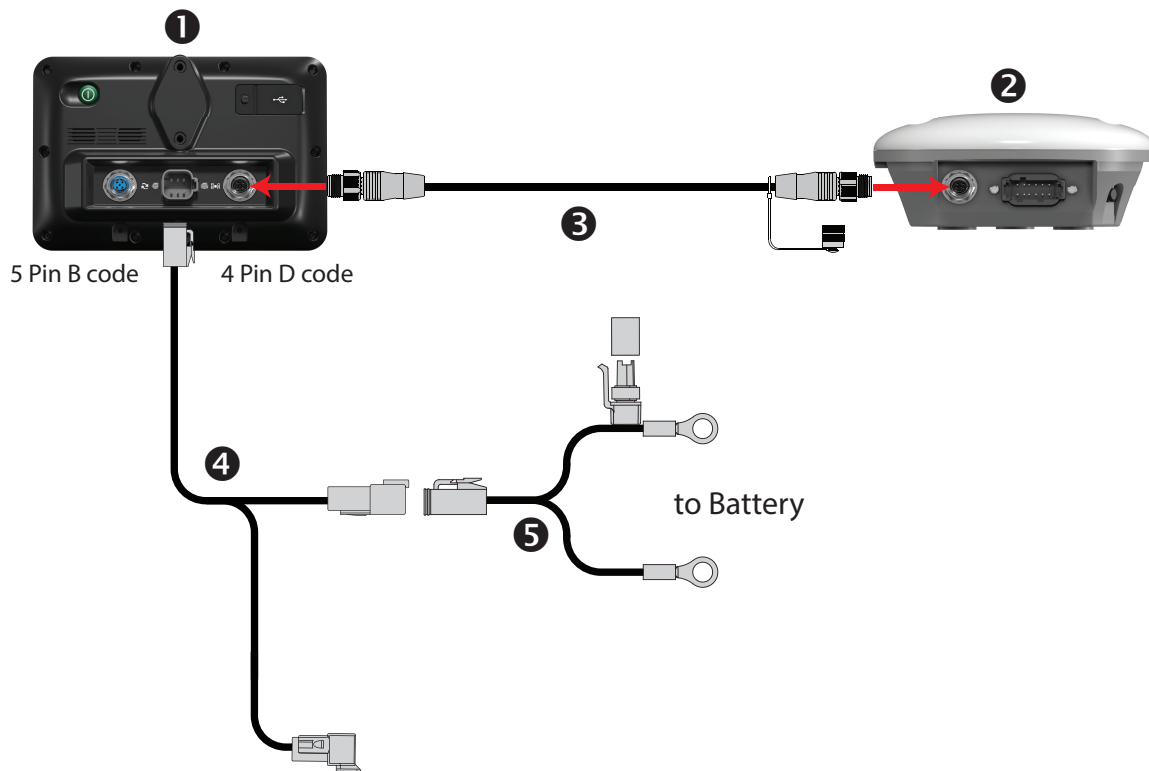
Additional help

If you still cannot find the information that you need, contact your Trimble reseller.

Cabling Diagrams

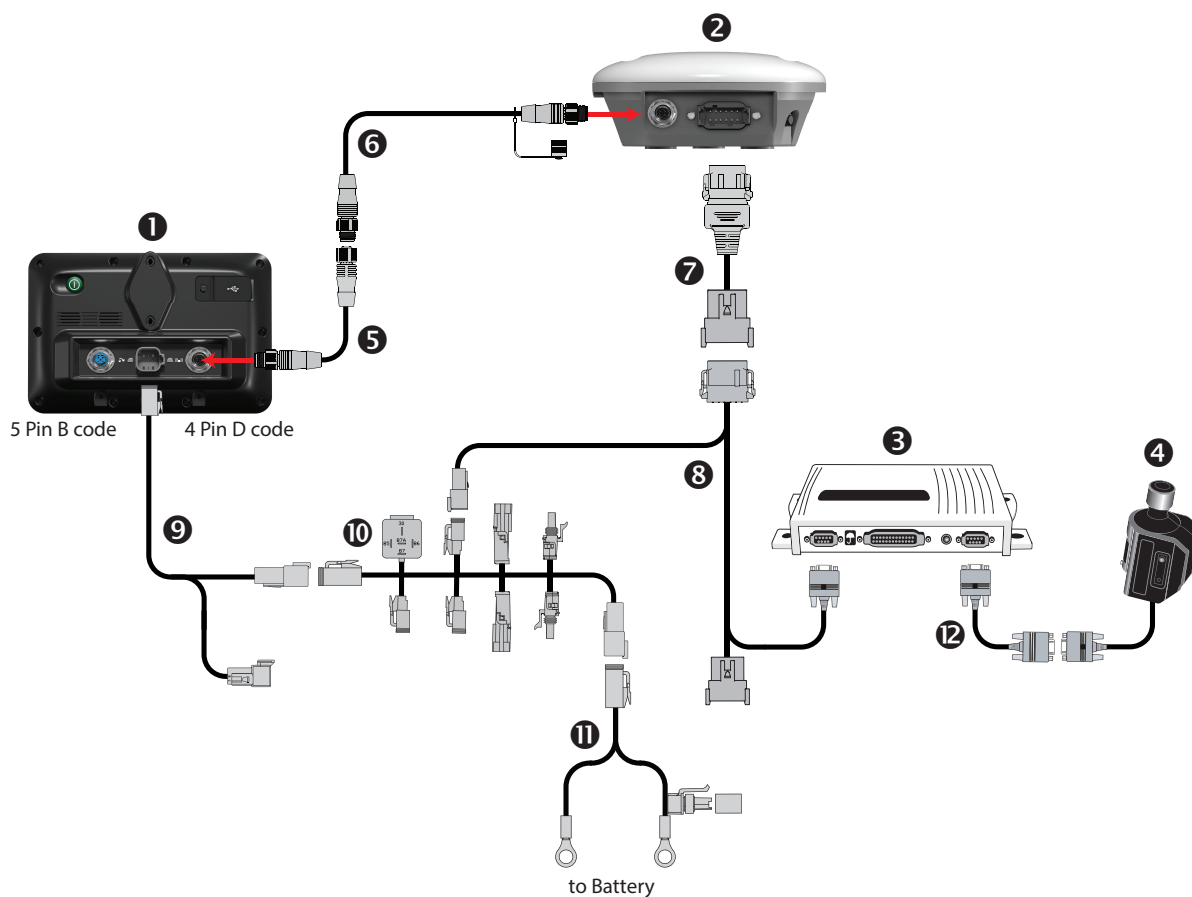
- ▶ Basic setup (manual guidance)
- ▶ EZ-Steer with NAV-500 Guidance controller
- ▶ EZ-Pilot with NAV-500 Guidance controller
- ▶ EZ-Pilot Pro with IMD-900 and NAV-500 Guidance controller
- ▶ Field-IQ
- ▶ Field-IQ – Full harness
- ▶ ISOBUS Universal Terminal – In-cab connector
- ▶ ISOBUS Universal Terminal – In-cab connector with switch boxes
- ▶ ISOBUS Universal Terminal – Full harness
- ▶ ISOBUS Universal Terminal with switch boxes
- ▶ Expansion Port Basic Cable
- ▶ Expansion Port Multi-Use Cable

Basic setup (manual guidance)



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500™/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
5	Cable Assy, GFX/CFX-750™/FM-750™/XCN-750/1050/FmX®/FM-1000™ Basic Power, 4m	67258

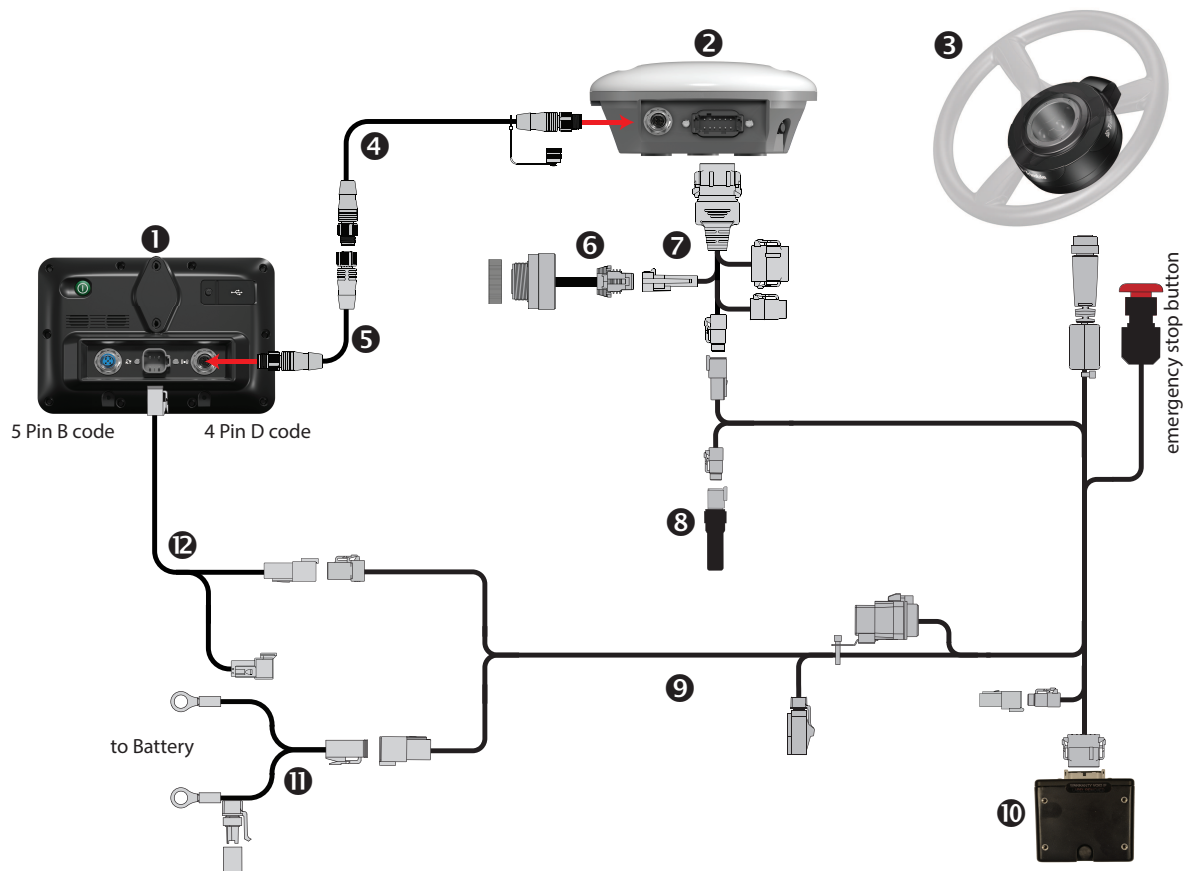
EZ-Steer with NAV-500 Guidance controller



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	EZ-Steer® T2 controller	
4	EZ-Steer motor	
5	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m	112082
6	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
7	Cable Assy, NAV-500/900 to EZ-Steer	111329

Item	Description	P/N
8	Cable Assy, FmX/FM-1000 Display to EZ-Steer w/2 PIN Power Input	75742
9	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
10	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc)	67259
11	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
12	EZ-Steer Motor Cable	62257

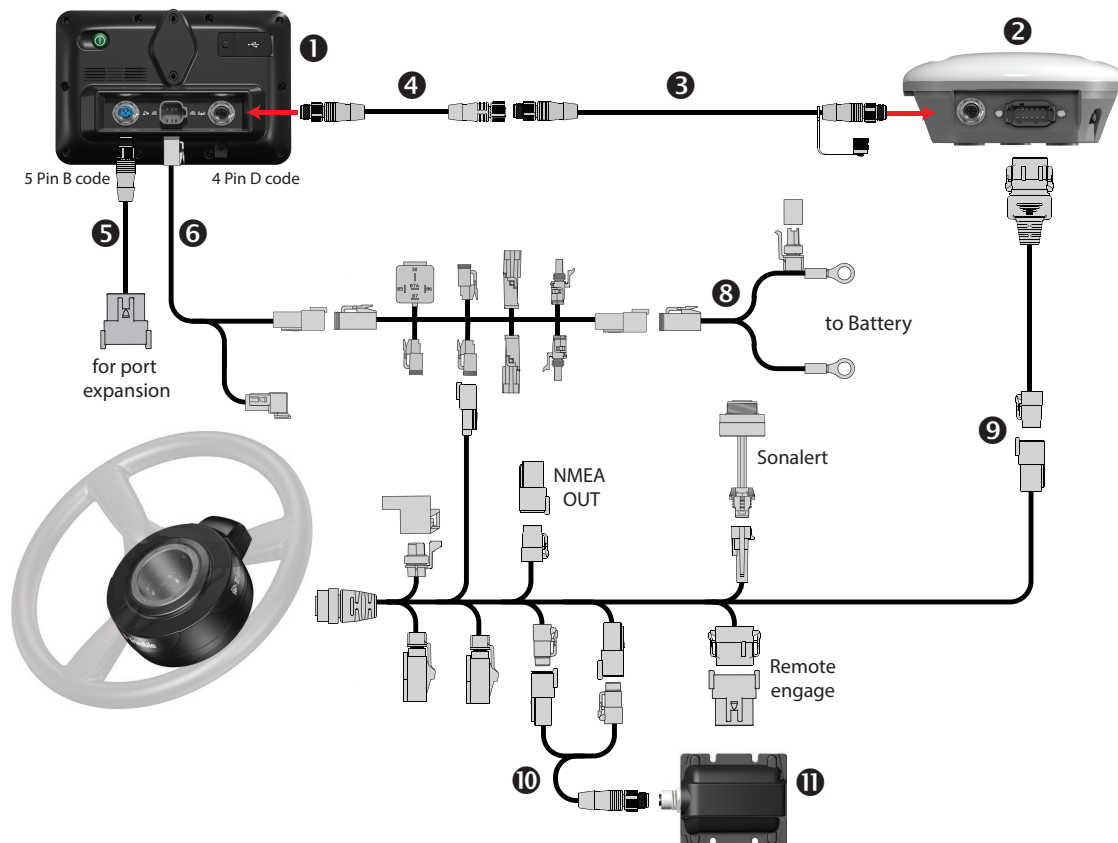
EZ-Pilot with NAV-500 Guidance controller



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	SAM-200 motor	
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
5	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m, optional extension for large vehicles	112082
6	Sonalert	43104
7	Cable Assy, NAV-500/900 to EZ-Pilot®	119793

Item	Description	P/N
8	CAN terminator	59783
9	Cable Assy, EZ-Pilot, SAM-200 Display to NAV-500/900	76351
10	IMD-600 Inertial Measurement Device	
11	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
12	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551

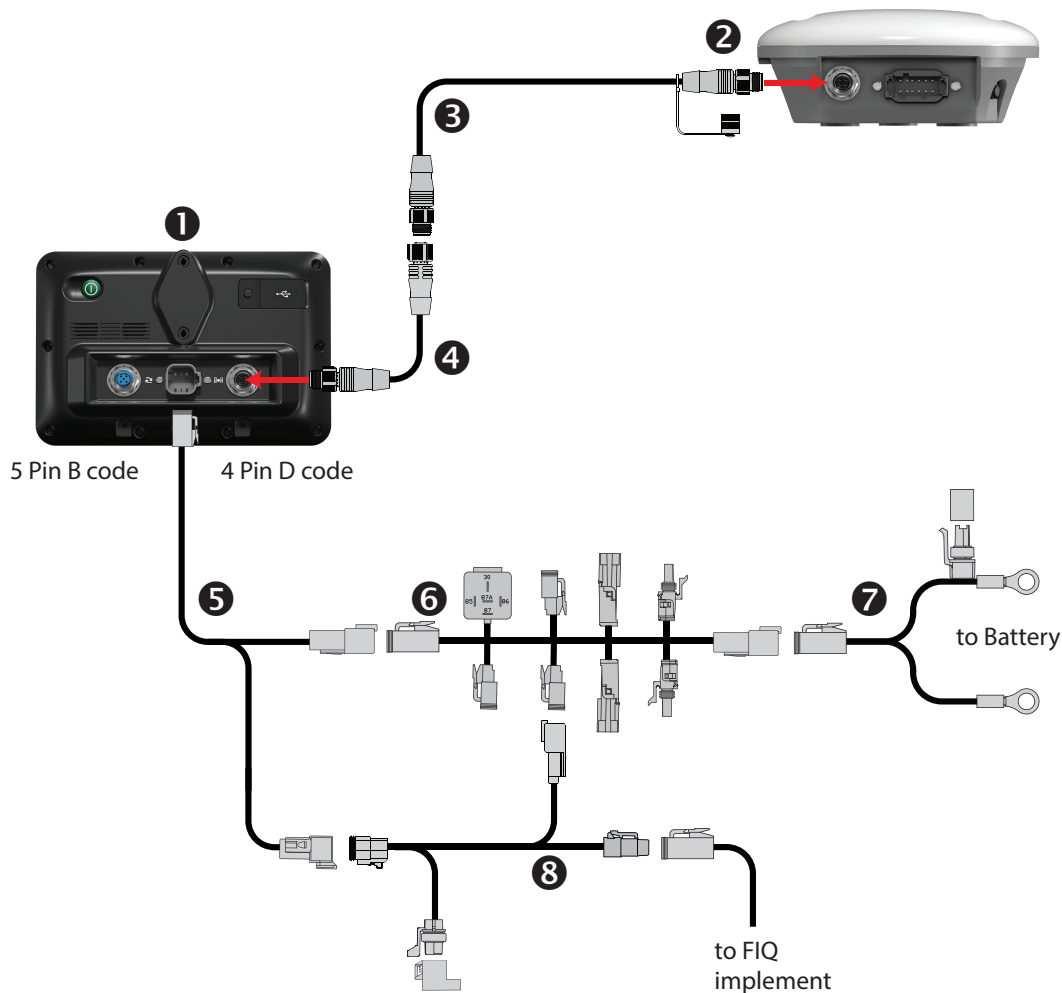
EZ-Pilot Pro with IMD-900 and NAV-500 Guidance controller



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m	112082
5	Cable Assy, GFX-350/750/XCN-750/1050, Expansion Port Basic, RS232, Dig I/O, 2.5m	110545
6	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551

Item	Description	P/N
7	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc)	67259
8	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
9	Cable Assy, NAV-500/900 to SAM-200/300, Motor Drive	110549
10	Cable Assy, CAN Extension, IMD-900	112759
11	IMD-900 Inertial Measurement Device	

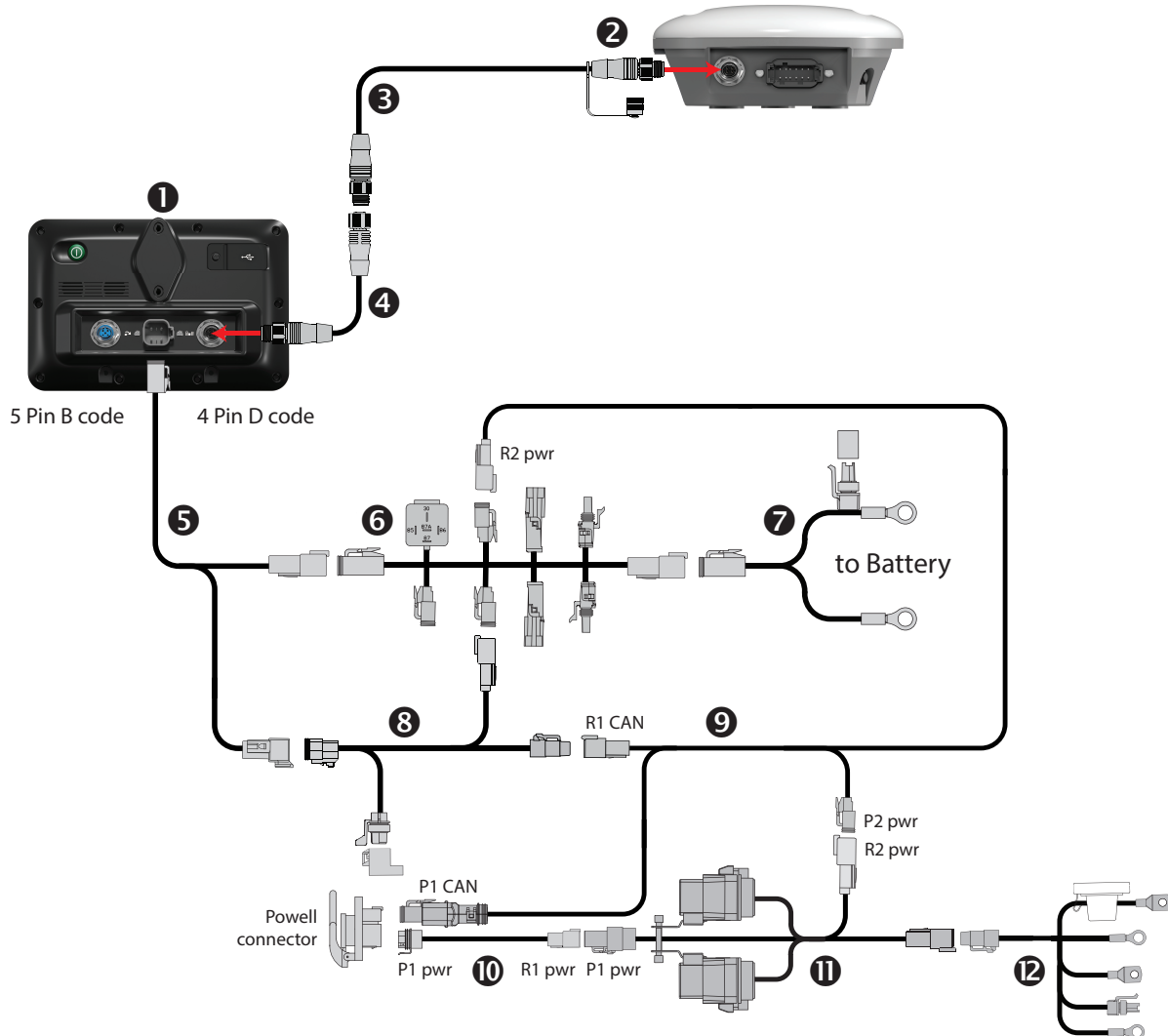
Field-IQ



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m. Optional extension for large vehicles.	112082

Item	Description	P/N
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc)	67259
7	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
8	Cable Assy, GFX-350/750/XCN-750/1050, Field IQ, Active CAN terminator	111083

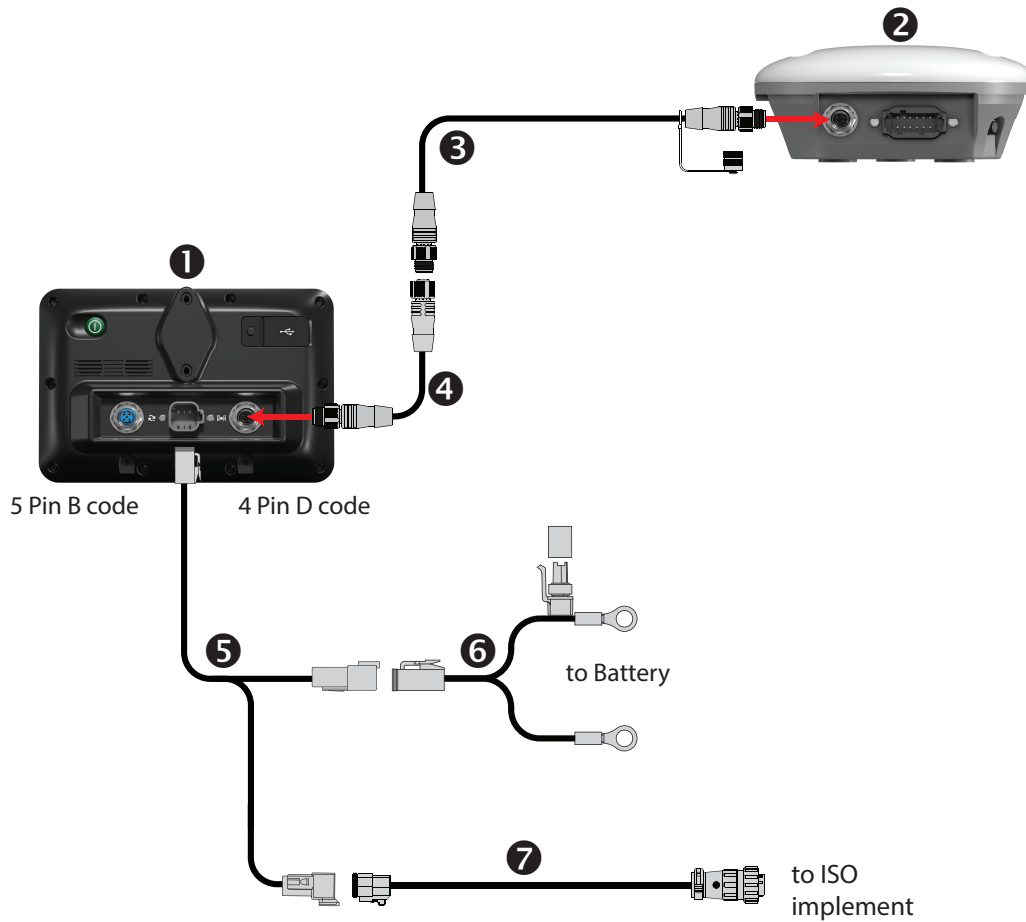
Field-IQ – Full harness



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540

Item	Description	P/N
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m. Optional extension for large vehicles.	112082
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc)	67259
7	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
8	Cable Assy, GFX-350/750/XCN-750/1050, Field IQ, Active CAN terminator	111083
9	Cable Assy, Field IQ, CAN Cab-to-Hitch	77368
10	Cable Assy, Powell Quick Disconnect - Tractor Side	77413
11	Cable Assy, Dual Relay Pwr Cutoff, Field IQ	77533
12	Cable Assy, PWR To Cab, Field IQ	76941

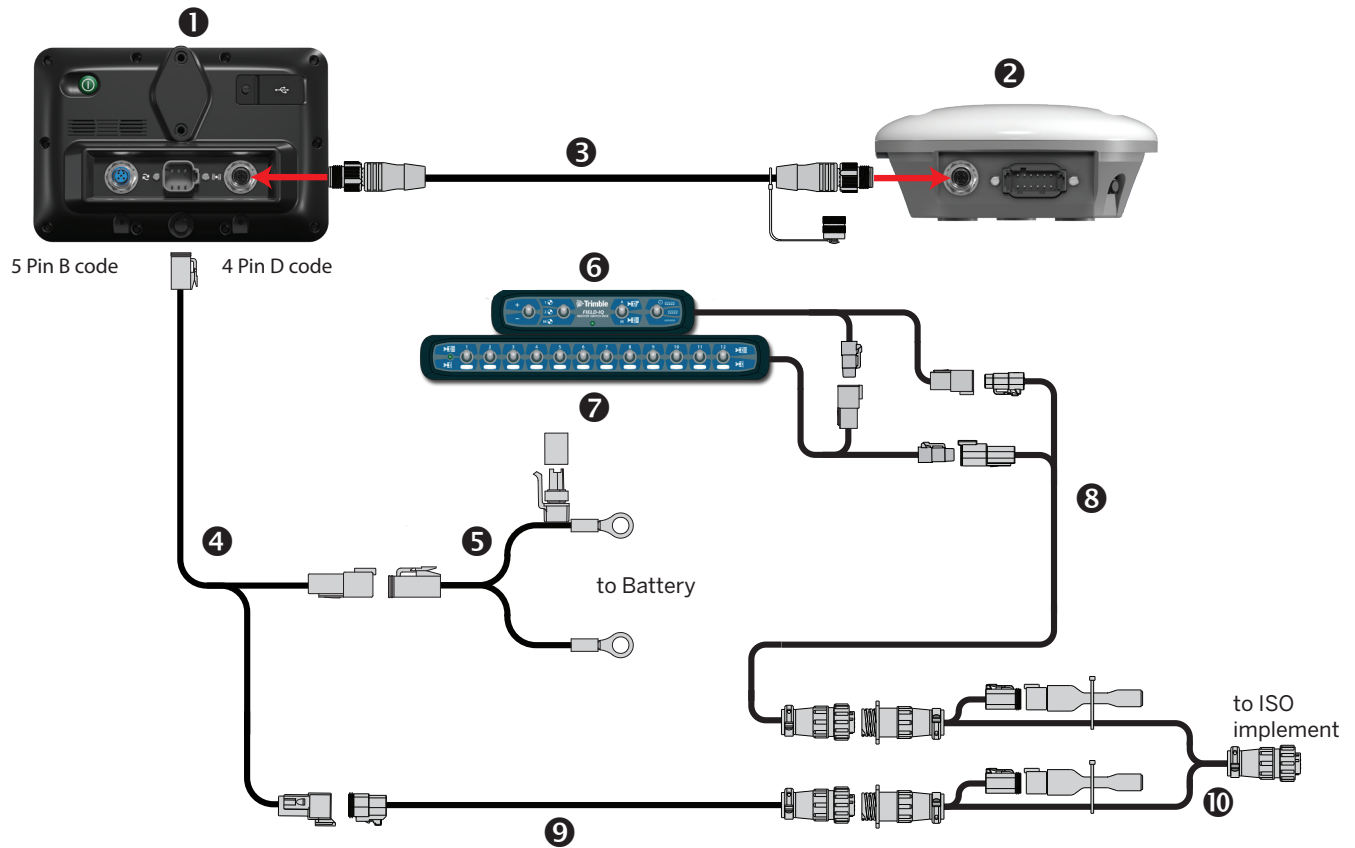
ISOBUS Universal Terminal – In-cab connector



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m. Optional extension for large vehicles.	112082
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551

Item	Description	P/N
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
7	Cable Assy, GFX-350/750/XCN-750/1050, ISO connector, CAN, power, 2.5m	110553

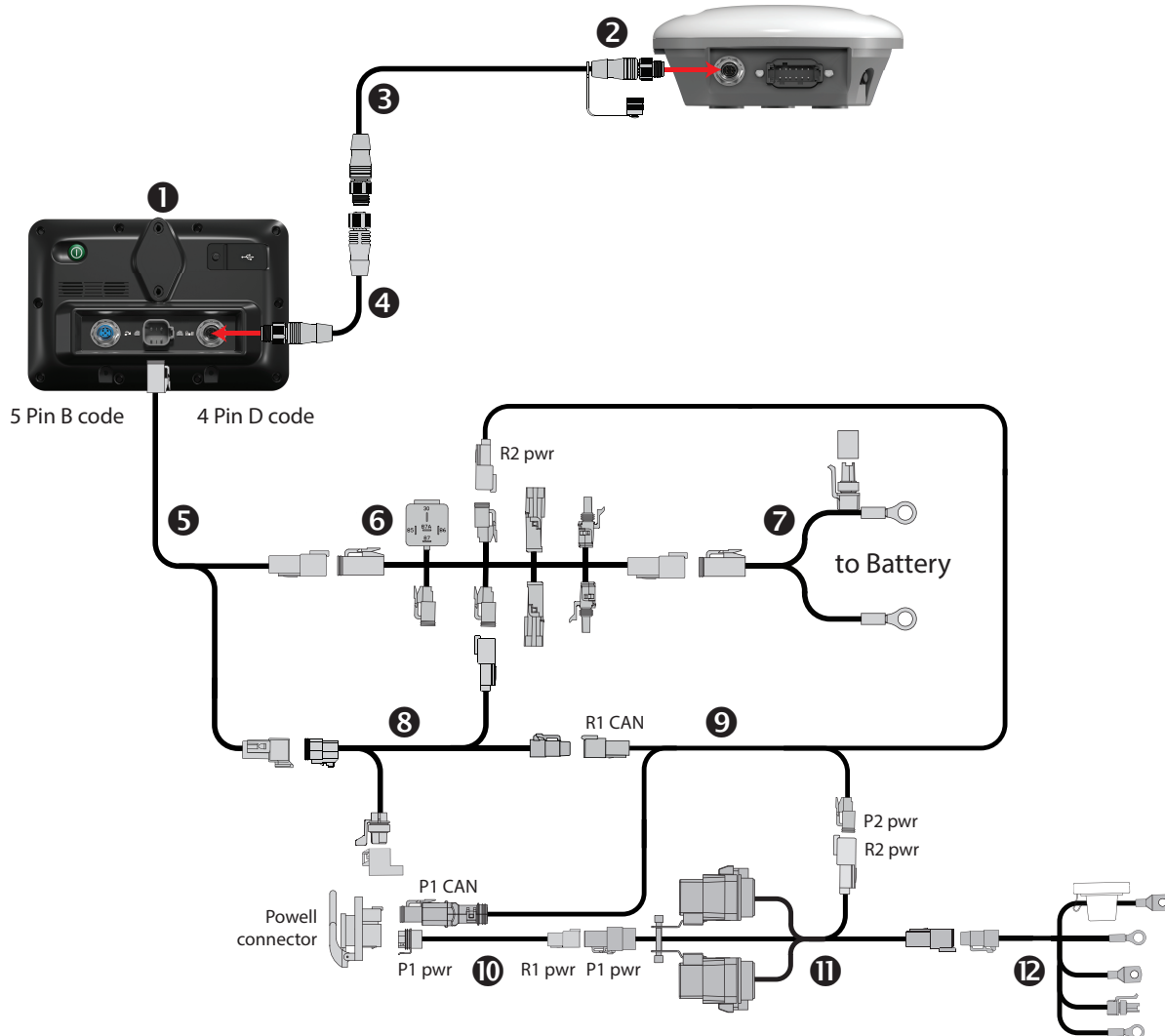
ISOBUS Universal Terminal – In-cab connector with switch boxes



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m. Optional extension for large vehicles.	112082
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551

Item	Description	P/N
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
7	Field-IQ Master switch box	75050-01
8	Optional: 12 section switch box	75060-01
9	Cable Assy, Field-IQ ISO, In-Cab ISO Connector adapter	119627
10	Cable Assy, GFX-750/XCN-1050, ISO Connector, CAN, Power, 2.5m	110553
11	Cable Assy, In-Cab Y Adapter, ISOBUS	97256

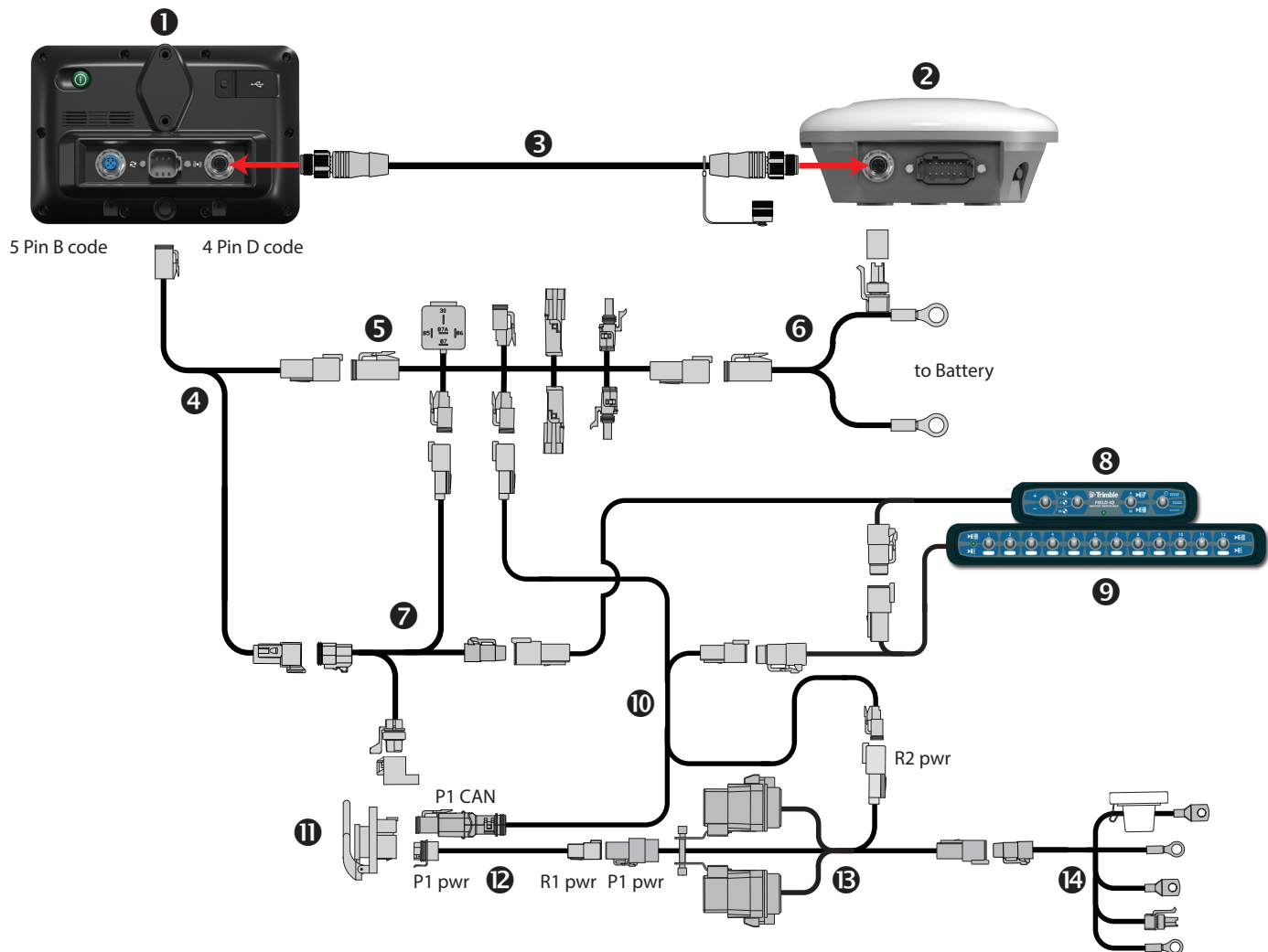
ISOBUS Universal Terminal – Full harness



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540

Item	Description	P/N
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m. Optional extension for large vehicles.	112082
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc)	67259
7	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
8	Cable Assy, GFX-350/750/XCN-750/1050, Field IQ, Active CAN terminator	111083
9	Cable Assy, Field IQ, CAN Cab-to-Hitch	77368
10	Cable Assy, Powell Quick Disconnect - Tractor Side	77413
11	Cable Assy, Dual Relay Pwr Cutoff, Field IQ	77533
12	Cable Assy, PWR To Cab, Field IQ	76941

ISOBUS Universal Terminal with switch boxes

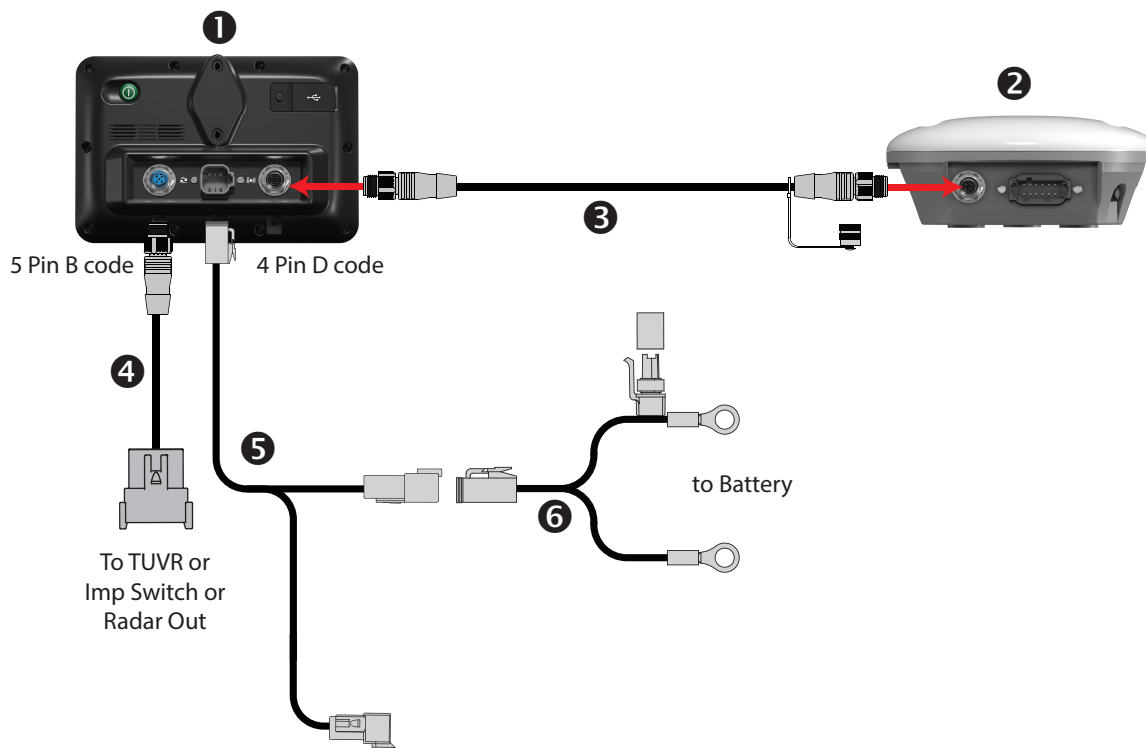


Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540

Item	Description	P/N
4	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR) Extension, 2.5m. Optional extension for large vehicles.	112082
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc)	67259
7	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258
8	Cable Assy, GFX-350/750/XCN-750/1050, Field IQ, Active CAN terminator	111083
9	Field-IQ Master switch box	75050-01
10	Optional: 12 section switch box	75060-01
11	Cable Assy, Field-IQ, CAN CAB to Hitch	77368
12	Powell Connector	
13	Cable Assy, Powell Quick Disconnect - Tractor Side	77413
14	Cable Assy, Dual Relay Pwr Cutoff, Field-IQ	77533
15	Cable Assy, PWR To Cab, Field-IQ	76941

Expansion Port Basic Cable

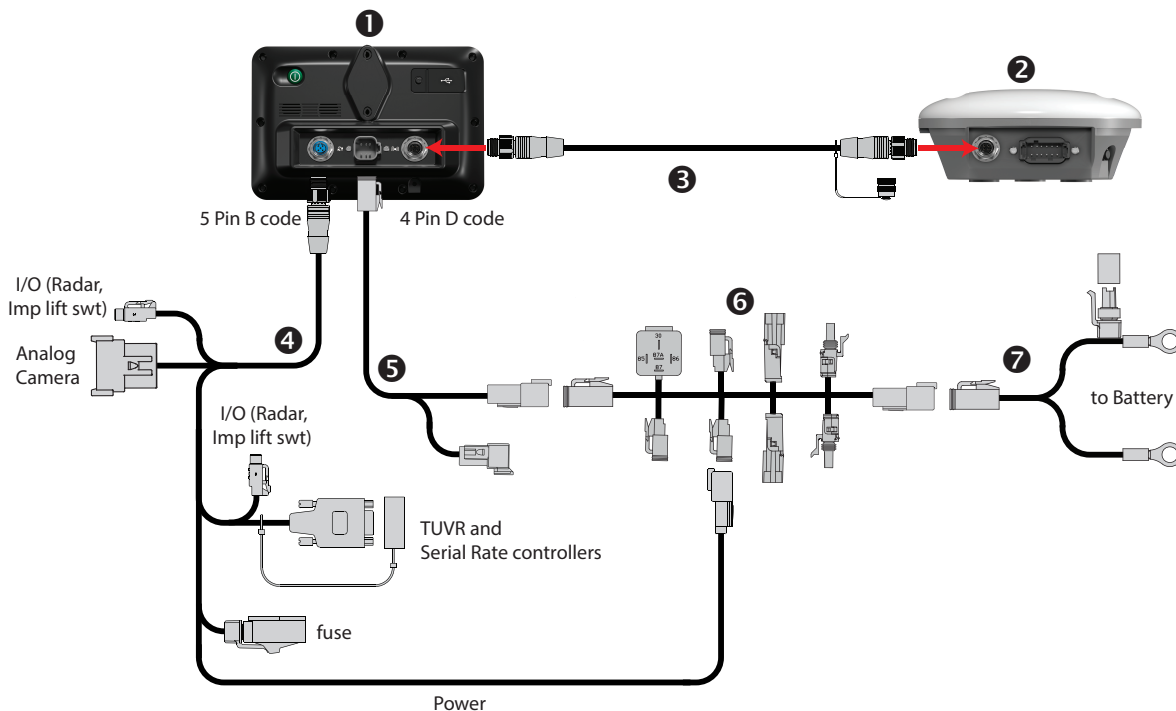
Use for TUVR (serial) or Implement Lift switch or radar output.



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050, Expansion Port Basic, RS232, Dig I/O, 2.5m	110545
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258

Expansion Port Multi-Use Cable

Use for camera and/or Implement Lift switch and/or radar output and TUVR and serial rate controllers.



Item	Description	P/N
1	GFX and XCN series displays, with PIQ App	
2	NAV-500 Guidance controller	
3	Cable Assy, GFX-350/750/XCN-750/1050 to NAV-500/900, Power/Ethernet (BRR), 5m	110540
4	Cable Assy, GFX-350/750/XCN-750/1050, Expansion Port Multi, Dig I/O, RS232, Analog AgCam, 2.5m	114078
5	Cable Assy, GFX-350/750/XCN-750/1050, Power to display, CAN, 2.5m	110551
6	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Power with Relay and Switch (Acc) (optional)	67259
7	Cable Assy, GFX/CFX/FM-750/XCN-750/1050/FMX/FM-1000 Basic Power, 4m	67258

Radar and serial/TUVR adapters

Controller type	P/N
Raven	69729
Amazone (ISOBUS)	59043
Amazone (AMABUS)	59043
LH-Agro LH5000	59043
Vaderstad	428017
Bogballe	59043
Hardi 5500 and 6500	59043

NOTE – These adapters integrate with the DB9 port on the Expansion Port Multi-Use Cable (P/N 114078).

