

TECHNICAL UPDATES

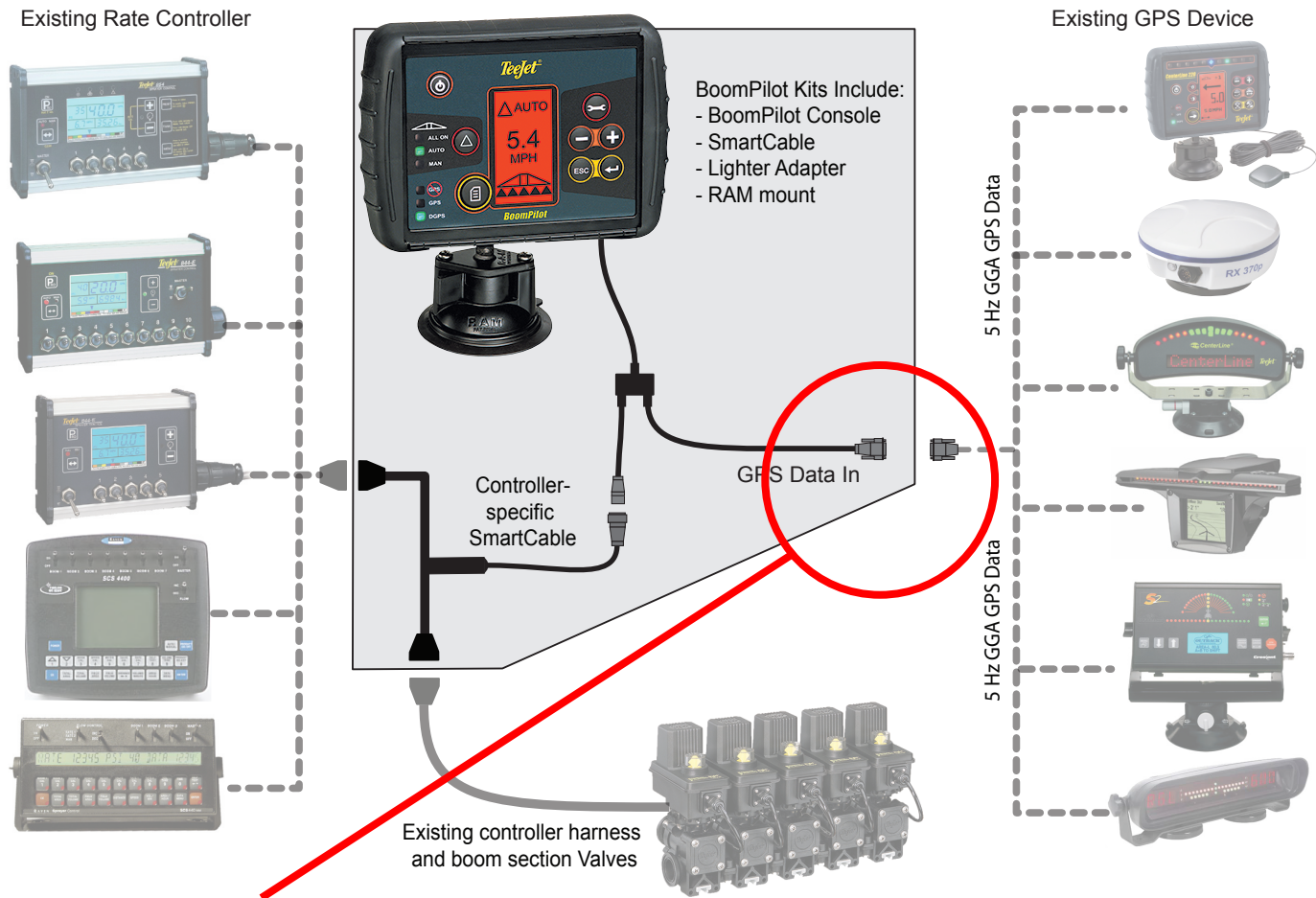
by TeeJet Technologies

from TeeJet®

BoomPilot™ Connections to GPS Products

BoomPilot is Compatible with Most Common Spray Controllers

BoomPilot Connects to Existing GPS Receivers or Guidance Systems



The TeeJet BoomPilot requires an external DGPS source for operation.

At the present time, the BoomPilot console DOES NOT function in Autonomous GPS mode.

The BoomPilot requires 5 Hz GGA; 1 Hz VTG (optional); baud rates supported 4800 to 115200. **Unless otherwise specified, all GPS products should be set to baud rate 19200, GGA 5 Hz, VTG 1 Hz.**

GPS Status LEDs: **Red** - No GPS; **Yellow** - Autonomous GPS; **Green** - Differentially Corrected GPS

GPS input rate is monitored using the GPS/DGPS LED's

- solid LED indicates 5 Hz or greater
- When less than 5 Hz, the GPS or DGPS LED will blink at the Hz rate of incoming GGA data string

GPS Modes and Section Control

- If GPS signal is lost, boom sections will be turned off. There will be a delay of 2 - 5 seconds after the loss, then the boom sections will turn off. Operator must manually use switches for boom section control.
- The BoomPilot console will return to the startup screen.

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BoomPilot™ Connections to GPS Products (Continued)

Initial System Startup and Status

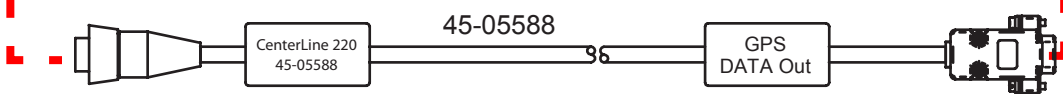
Condition	Expected Outcome
No GPS	Splash Screen + Boom Sections OFF - until DGPS is available
GPS	Splash Screen + Boom Sections OFF - until DGPS is available
DGPS	Main Operation Page (Real Time Page)
1 Hz GGA Only	Splash Screen + blinking LED + Sections OFF - until 5 Hz is satisfied
1 Hz GGA and 1 Hz VTG	Splash Screen + blinking LED + Sections OFF - until 5 Hz is satisfied
5 Hz GGA Only	Real Time Page + velocity is calculated by BoomPilot
5 Hz GGA + 1 Hz VTG	Real Time Page + velocity from VTG
5 Hz GGA + 1 Hz VTG + 1 Hz ZDA	Real Time Page + velocity from VTG
10 Hz GGA	Real Time Page + velocity calculated by BoomPilot
10 Hz GGA + 1 Hz VTG	Real Time Page + velocity from VTG

CONNECTING BOOMPILOT TO TEEJET RECEIVERS AND TEEJET GUIDANCE PRODUCTS

CL220 (REV 1 UNITS)



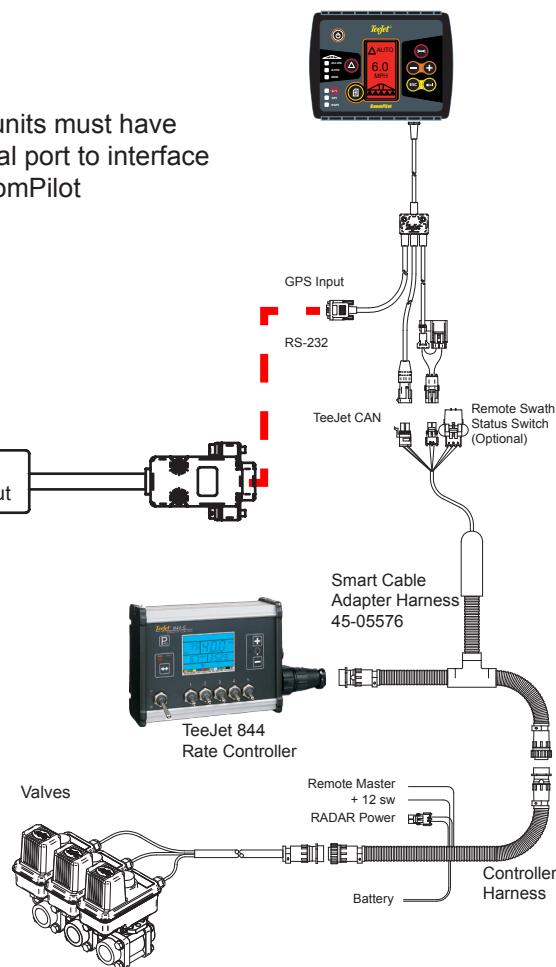
CL220 units must have this serial port to interface with BoomPilot



CL220 Units without assisted steering require adapter cable 45-05588. No other configuration is required.

CL220 with assisted steering components - no additional cable is required

- connect directly to port B of SCM (the CL220 must be powered up first or no FieldPilot/GPS will be displayed on the BoomPilot).



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BoomPilot™ Connections to GPS Products (Continued)

RX100P - 400P

- Connect directly to main port on the back of receiver
- Set to 19200 baud; GGA 5 Hz, VTG 1 Hz
- Message output is configurable using the receiver front panel controls
- Use a serial Y adapter if the port is already in use



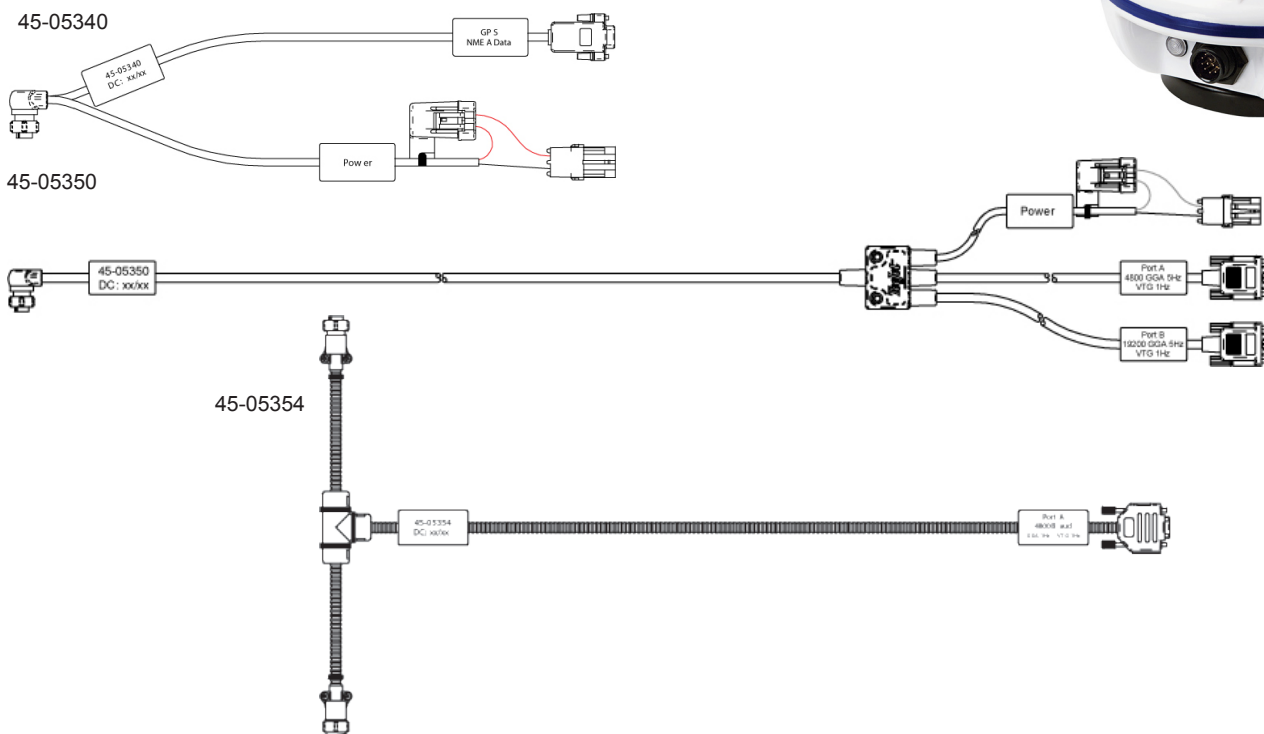
RX410P

- Set to RX410p com port to 19200 baud



RX350P OR RX370P

- Requires either 45-05340, 45-05350, or 45-05354 cable
- Default settings of 19200; GGA 5 Hz, VTG 1 Hz are suitable for BoomPilot
- If original factory settings have been changed, they can be reconfigured with a PC or laptop



BoomPilot™ Connections to GPS Products (Continued)

CONNECTING BOOMPILOT TO OUTBACK RECEIVERS AND GUIDANCE PRODUCTS

OUTBACK S

- Connect directly to receiver console
- Configure output through Outback menu
- Set to 19200 baud; GGA 5 Hz, VTG 1 Hz
- To change Baud rate and NMEA Strings, press “Menu” and select “NMEA Port Setup”. Baud Rate and NMEA string setup options are accessed under this menu. Refer to the Outback user manual for additional information.



OUTBACK S2

- Connect directly to receiver console
- Configure output through Outback menu
- Set to 19200 baud; GGA 5 Hz, VTG 1 Hz
- To change Baud rate and NMEA Strings, press “Menu” and select “NMEA Port Setup”. Baud Rate and NMEA string setup options are accessed under this menu. Refer to the Outback user manual for additional information.



CONNECTING BOOMPILOT TO RAVEN RECEIVERS AND GUIDANCE PRODUCTS

INVICTA 100, 100S, 100G

- Will not interface with BoomPilot due to Hz requirements
- One DB9 serial port, 1 Hz (100g 4 Hz)



INVICTA 110

- One DB9 serial port out, two serial ports out available with special cable
- standard serial cable is Raven # 115-0171-215
- special Y-cable is Raven # 115-0171-207
- 19200 baud; GGA 10 Hz
- Configure with PC/Laptop



INVICTA 115

- Two serial ports out
- serial Y-cable Raven # 115-0171-361
- Port A 19200; GGA 10 Hz; Port B 4800 baud GGA 1 Hz
- Configure with PC/Laptop



BoomPilot™ Connections to GPS Products (Continued)

CONNECTING BOOMPILOT TO RAVEN RECEIVERS AND GUIDANCE PRODUCTS (CONT.)

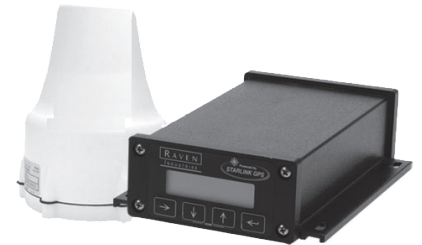
INVICTA/PHOENIX 200

- Two DB9 serial out, no additional cable required
- Port A 19200 baud; GGA 10 Hz; Port B 4800 baud GGA 1 Hz
- Configure with PC/Laptop



PHOENIX 300

- Two 9-pin round connector serial out, comes with cables to adapt DB9
- Configure with PC/Laptop
- Cables are included with receivers



INVICTA/PHOENIX 210/310/410

- Two 9-pin round connector serial out, comes with cables to adapt DB9
- Message output is configurable using the receiver's front panel
- Cables are included with receivers
- Serial cable Raven part # 115-0171-272 (12 ft cable)
- Serial cable Raven part # 115-0171-119 (6 ft cable)



BoomPilot™ Connections to GPS Products (Continued)

CONNECTING BOOMPILOT TO RAVEN RECEIVERS AND GUIDANCE PRODUCTS (CONT.)

ENVIZIO PRO

- Internal GPS receiver can be set for 1200 - 38400 baud output
- Configure for 19200 baud; GGA 5 Hz, VTG 1 Hz
- Message output is configurable using the receiver's front panel
- Requires Aux Output Cable Raven Part # 115-0171-745



CRUIZER

- Internal GPS receiver can be set for 1200 - 38400 baud output
- Configure for 19200 baud; GGA 5 Hz, VTG 1 Hz
- Message output is configurable using the receiver's front panel
- Requires com port cable Raven Part # 115-0171-793
- A null cable can be used instead of Raven Part # 115-0171-793



CONNECTING BOOMPILOT TO TRIMBLE RECEIVERS AND GUIDANCE PRODUCTS

EZ-GUIDE PLUS/AG GPS 150

- Set EZ Guide to output data at 19,200 baud
- GPS is configured through the menu
- To access NMEA messages that are output, use the all-port cable (Trimble # 64045) or the serial port add-on cable (Trimble # 63076).



EZ GUIDE 500

- Requires a male to male null cable (supplied with receiver)
- Set baud rate to 19200; GGA 5 Hz, VTG 1 Hz
- GPS is configured through the menu
- Attach GPS directly to the lightbar data port connector
- For systems with remote control and an external receiver or sensor, connect using Trimble cable # 52033

