EZ Guide 500 to Topcon X20
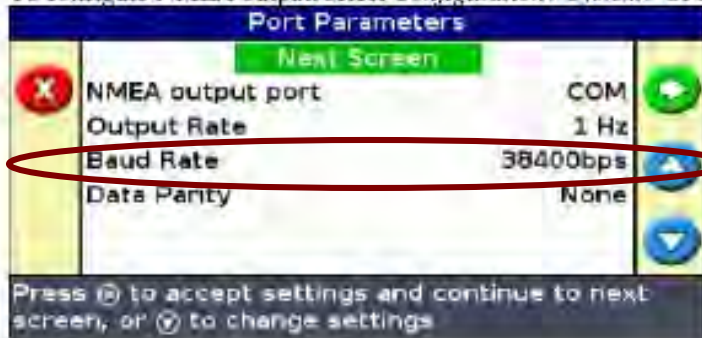
• The following pages detail the procedure to get GPS signal from the Trimble EZ Guide 500 for the Topcon X20.

• This will be required for Variable rate control, Guidance, and/or sectional control.

To configure NMEA output, select *Configuration / System / GPS / NMEA Output*:

Port Parameters

	Next Screen	
❌	NMEA output port	COM
	Output Rate	1 Hz
	Baud Rate	38400bps
	Data Parity	None

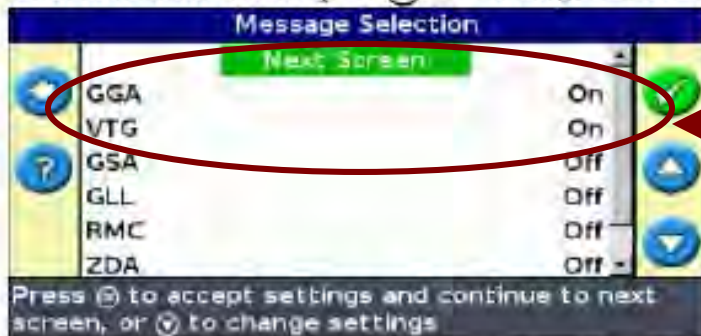Press ⓐ to accept settings and continue to next screen, or ⓥ to change settings

The Trimble output Baud rate should be set to 38400bps

1. Set the *NMEA output port* option to the lightbar port that the NMEA device is connected to.
2. Set the lightbar port parameters.

Tip – To be able to communicate, the parameters must match those of the device.

3. Select Next Screen and then press ⓞⓚ. The *Message Selection* screen appears.

Message Selection

	Next Screen	
	GGA	On
	VTG	On
	GSA	Off
	GLL	Off
	RMC	Off
	ZDA	Off

Press ⓐ to accept settings and continue to next screen, or ⓥ to change settings

The Trimble GGA and VTG must be turned On

4. Set the various message formats to On or Off, depending on whether they are required.
5. Select Next Screen and then press ⓞⓚ.
6. If you turned GGA on, then select the number of decimal places in the GGA message.

Note: Some external devices cannot read the GGA message if there are too many decimal places in the string.

Outputting NMEA messages with RTK corrections

If you are using RTK corrections and outputting NMEA, you must connect the NMEA device to the AUX port. Use the port expansion cable (P/N 62609) and the accessory cable (P/N 63076):
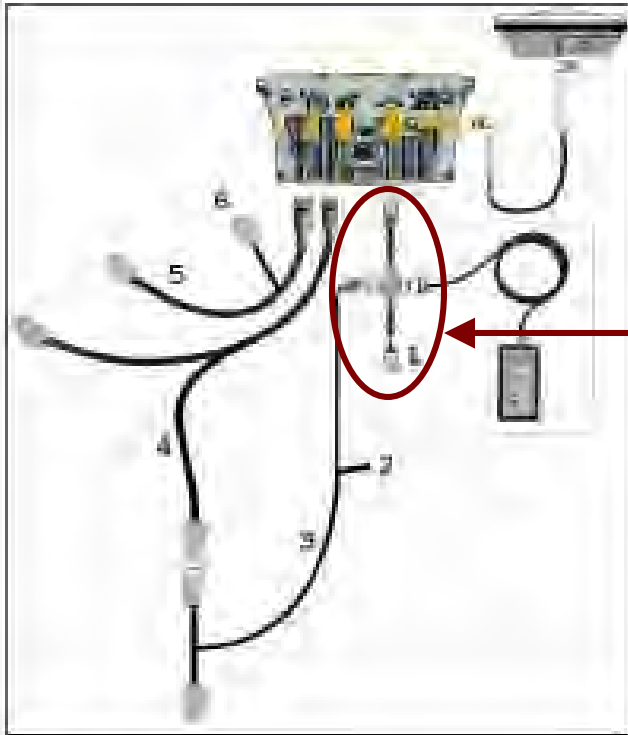
A Trimble P/N 62749 should be used as a Y cable to connect to a serial cable going to COM 1 port located in the back of the X20.

*If using the Trimble remote you can add a second 62749 cable.

| ITEM	DESCRIPTION
1	External interface cable (P/N 62749)
2	To RTK radio
3	RTK radio cable
4	EZ-Guide 500 power cable (P/N 62817)
5	Port expansion cable (P/N 62809)
6	Connect COM 2 port connection cable (P/N 63076) and then NMEA device

External Receiver Support

The EZ-Guide 500 lightbar can receive GPS positions from TSIP-compatible receivers. This enables you to use any of the correction types available on your receiver, including OmniSTAR, Beacon, and RTK.

The following TSIP-compatible receivers are supported by the EZ-Guide 500 lightbar:

| Trimble	Case IH	Ag Leader	New Holland
AgGPS 252	AFS 252	GPS 5100	NH 252
AgGPS 332	–	–	–

View from the back of the Topcon X20
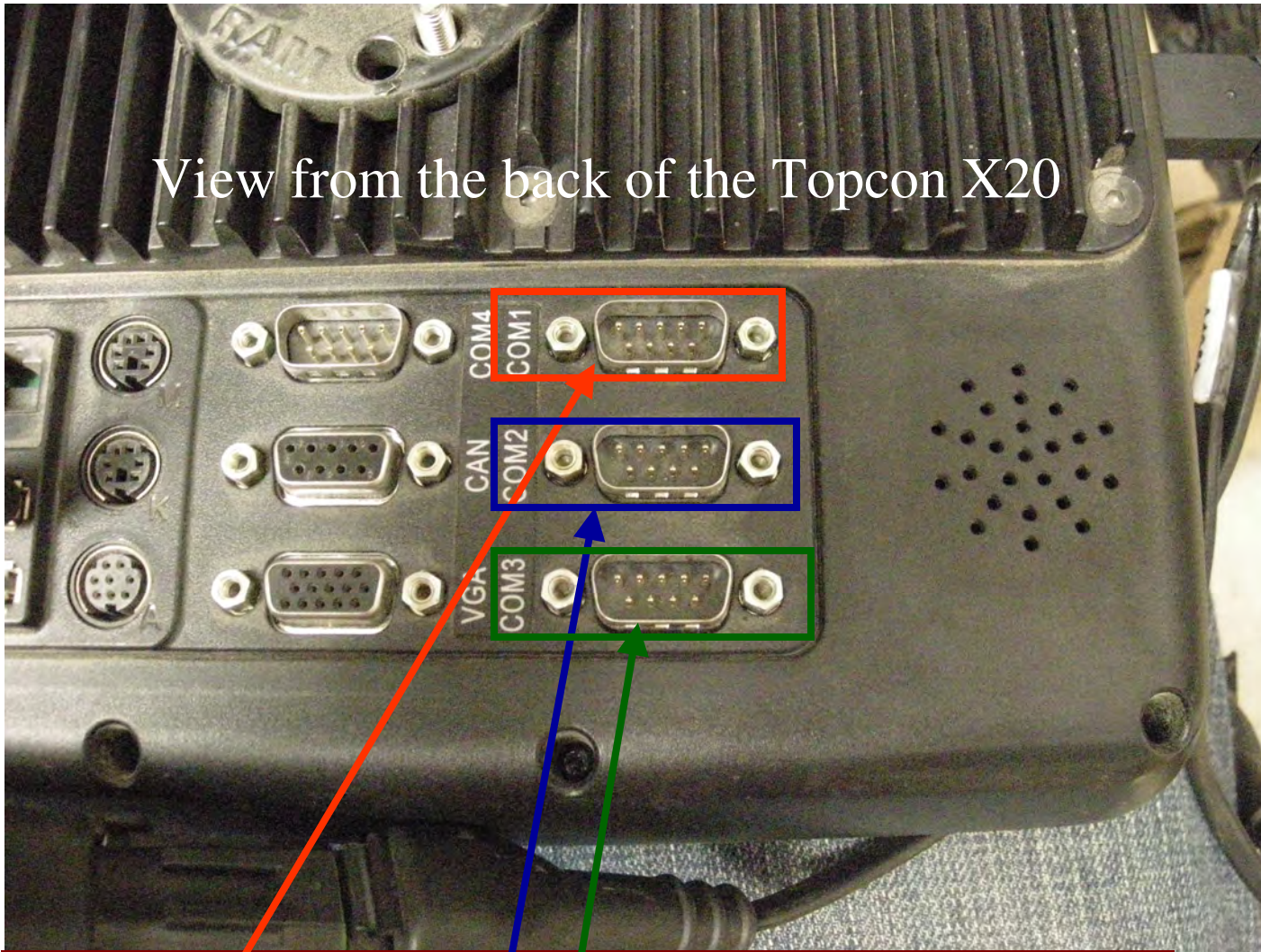
All serial cables must be connected to specific COM ports.
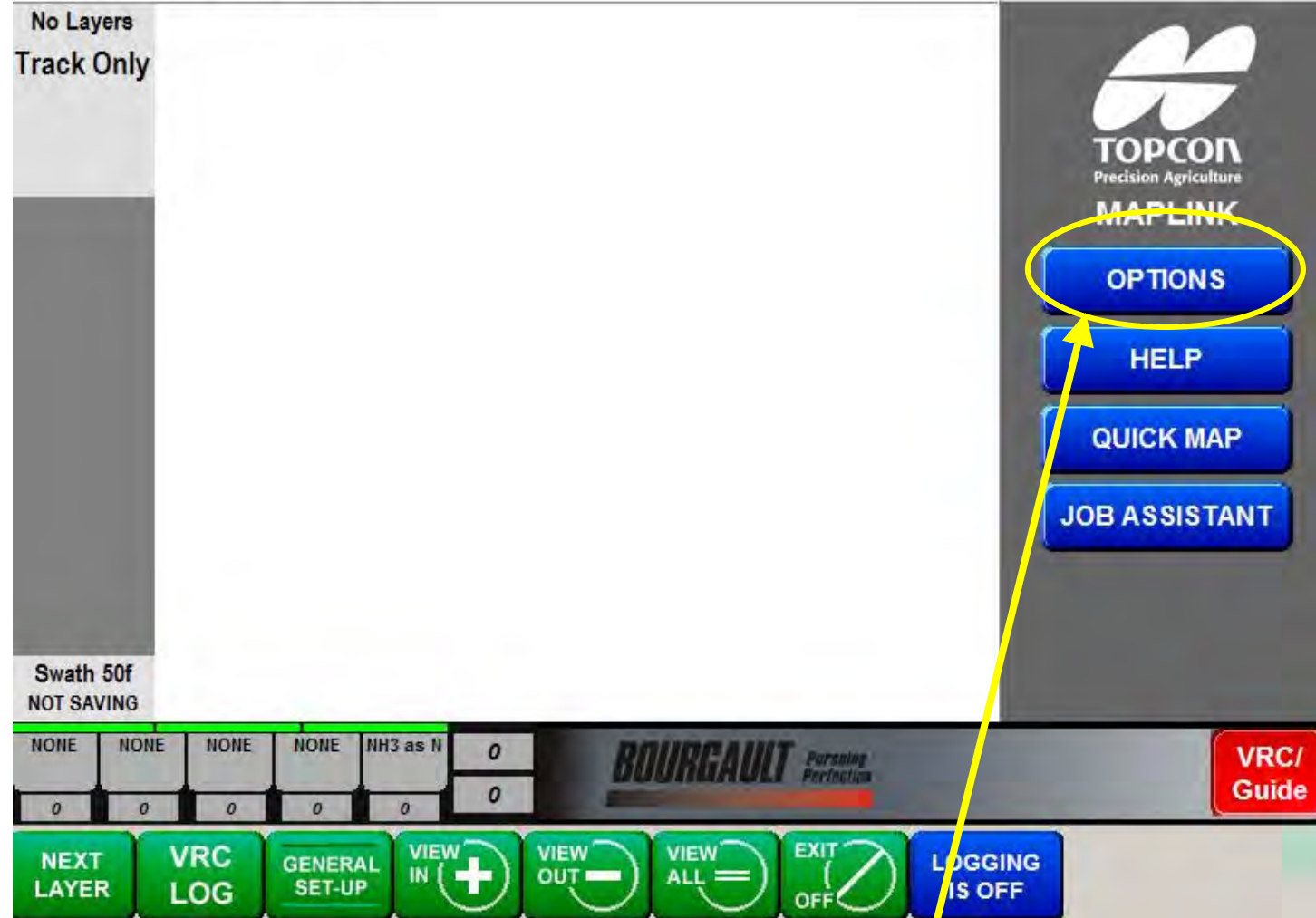
- **Guidance to COM1 (To serial port on Trimble)**

- **Variable Rate Control to COM2 (To serial port on Trimble)**

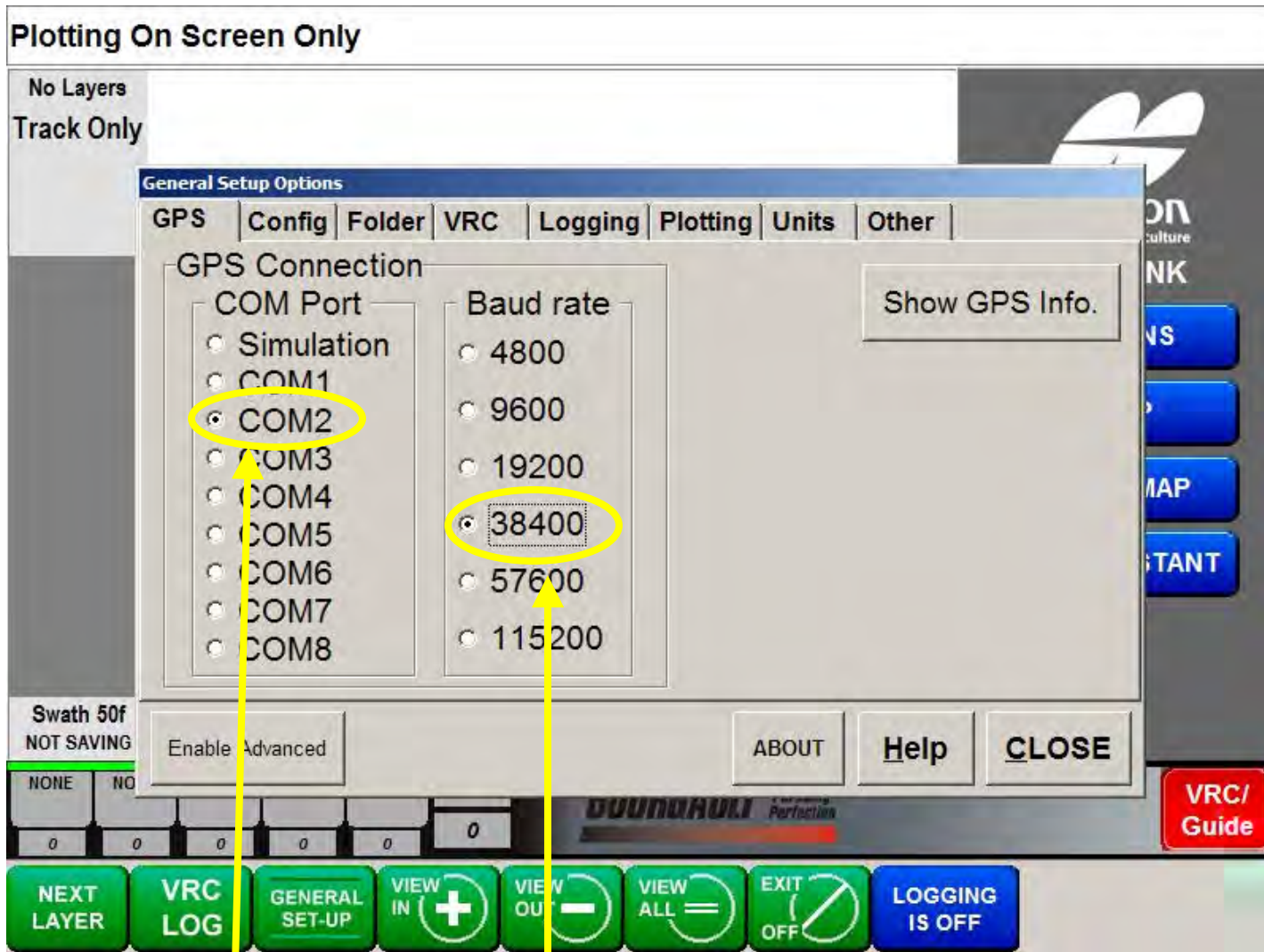- **Seed Rate Control to COM3 (To SRC interface box)**

To COM1 port of X20

To COM2 port of X20

3131-07 Y cable

To GPS Receiver
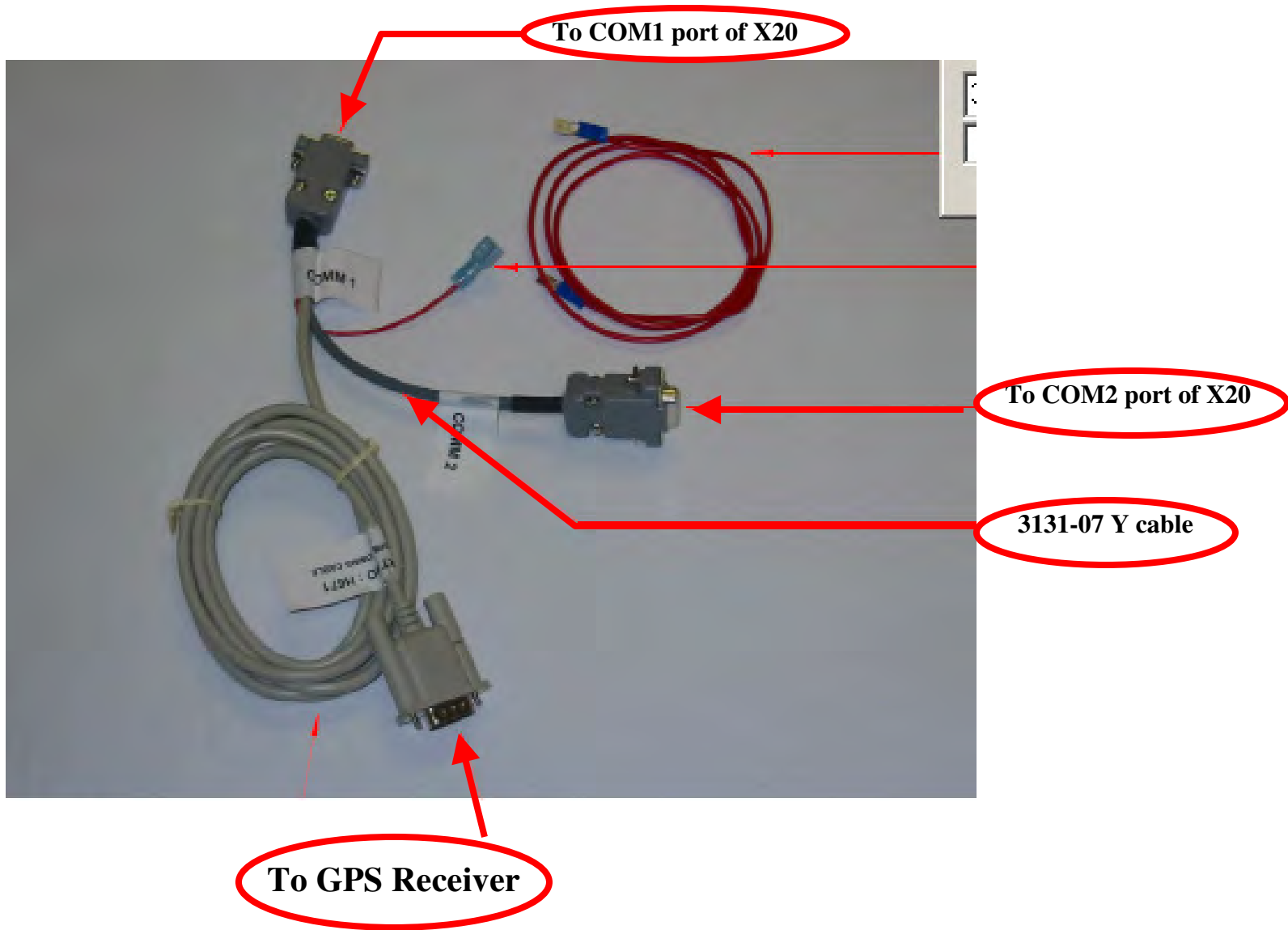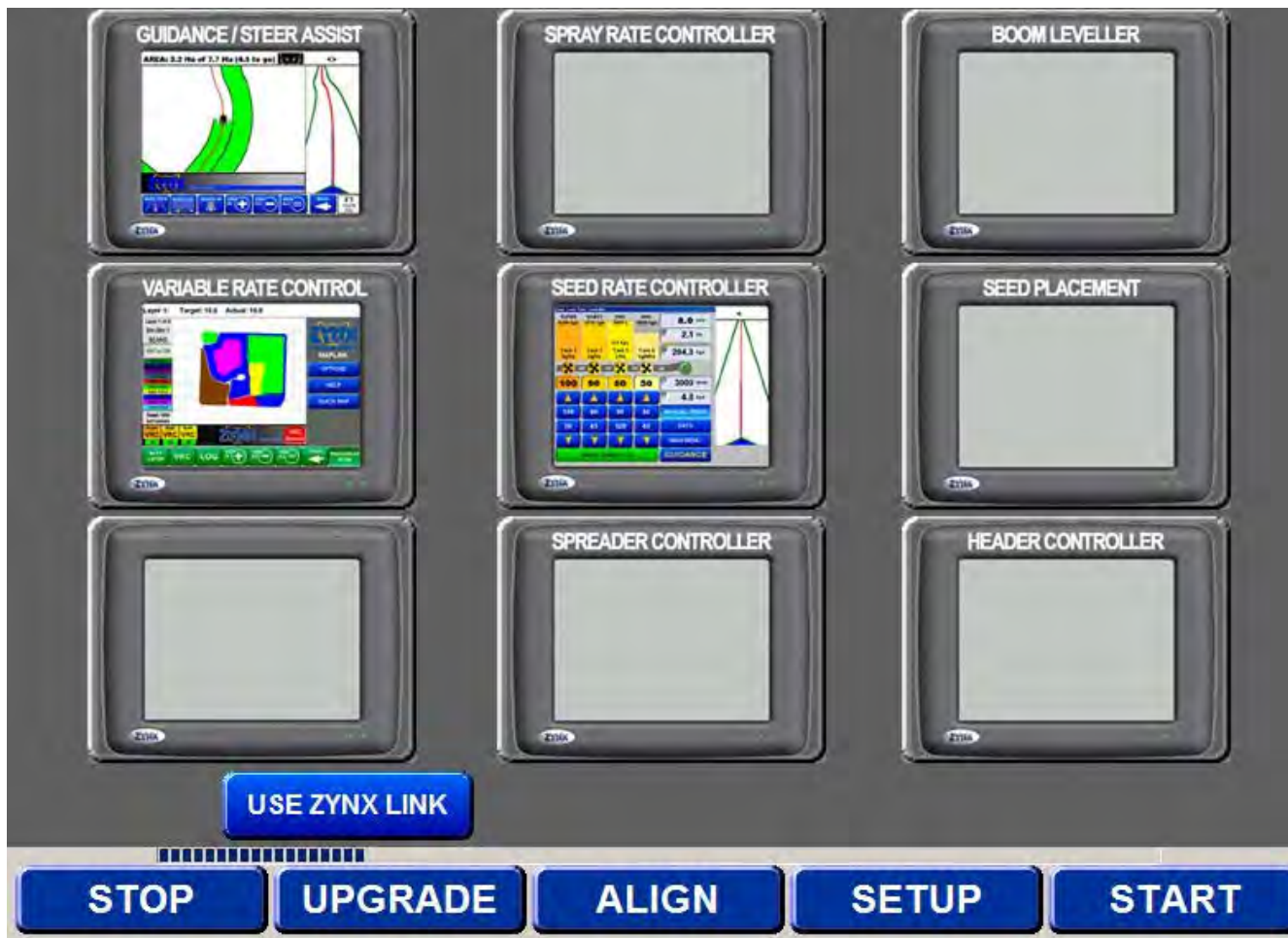
Power up the X20 and select Guidance/Steer Assist, Variable Rate Control and Seed Rate Control.

Plotting On Screen Only

No Layers
Track Only

TOPCON
Precision Agriculture
MAPLINK

OPTIONS

HELP

QUICK MAP

JOB ASSISTANT

Swath 50f
NOT SAVING

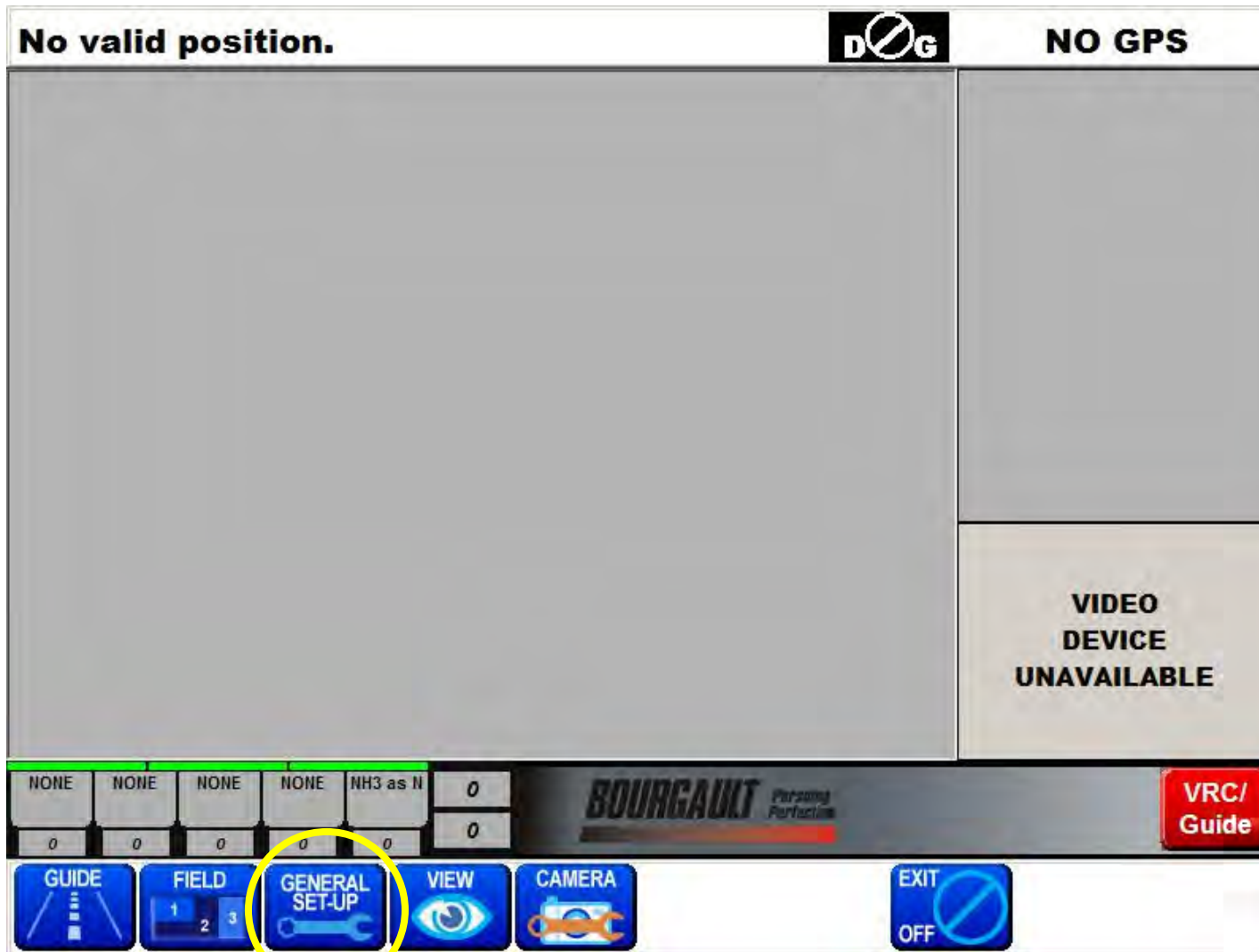| NONE | NONE | NONE | NONE | NH3 as N | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 |

BOURGAULT *Pursuing Perfection*

VRC/ Guide

NEXT LAYER | VRC LOG | GENERAL SET-UP | VIEW IN + | VIEW OUT − | VIEW ALL = | EXIT OFF | LOGGING IS OFF

Select the Options tab in the Maplink program.

Plotting On Screen Only

No Layers
Track Only

General Setup Options

GPS | Config | Folder | VRC | Logging | Plotting | Units | Other

GPS Connection

COM Port
- ○ Simulation
- ○ COM1
- ⦿ COM2
- ○ COM3
- ○ COM4
- ○ COM5
- ○ COM6
- ○ COM7
- ○ COM8

Baud rate
- ○ 4800
- ○ 9600
- ○ 19200
- ⦿ 38400
- ○ 57600
- ○ 115200

Show GPS Info.

Swath 50f
NOT SAVING

Enable Advanced

ABOUT | Help | CLOSE

NONE | NO

0 | 0 | 0 | 0 | 0 | 0

NEXT LAYER | VRC LOG | GENERAL SET-UP | VIEW IN + | VIEW OUT − | VIEW ALL = | EXIT OFF | LOGGING IS OFF

VRC/ Guide

Select COM2 for Maplink

Select 38400 for the Baud rate

Press the VRC/Guide tab top cycle to the Guidance program.

No valid position.   DⓍG   NO GPS

VIDEO
DEVICE
UNAVAILABLE

| NONE | NONE | NONE | NONE | NH3 as N | 0 | BOURGAULT *Pursuing Perfection* | VRC/ Guide |
| 0 | 0 | 0 | | 0 | 0 | | |

GUIDE FIELD GENERAL SET-UP VIEW CAMERA EXIT OFF

Press the General Set-up tab
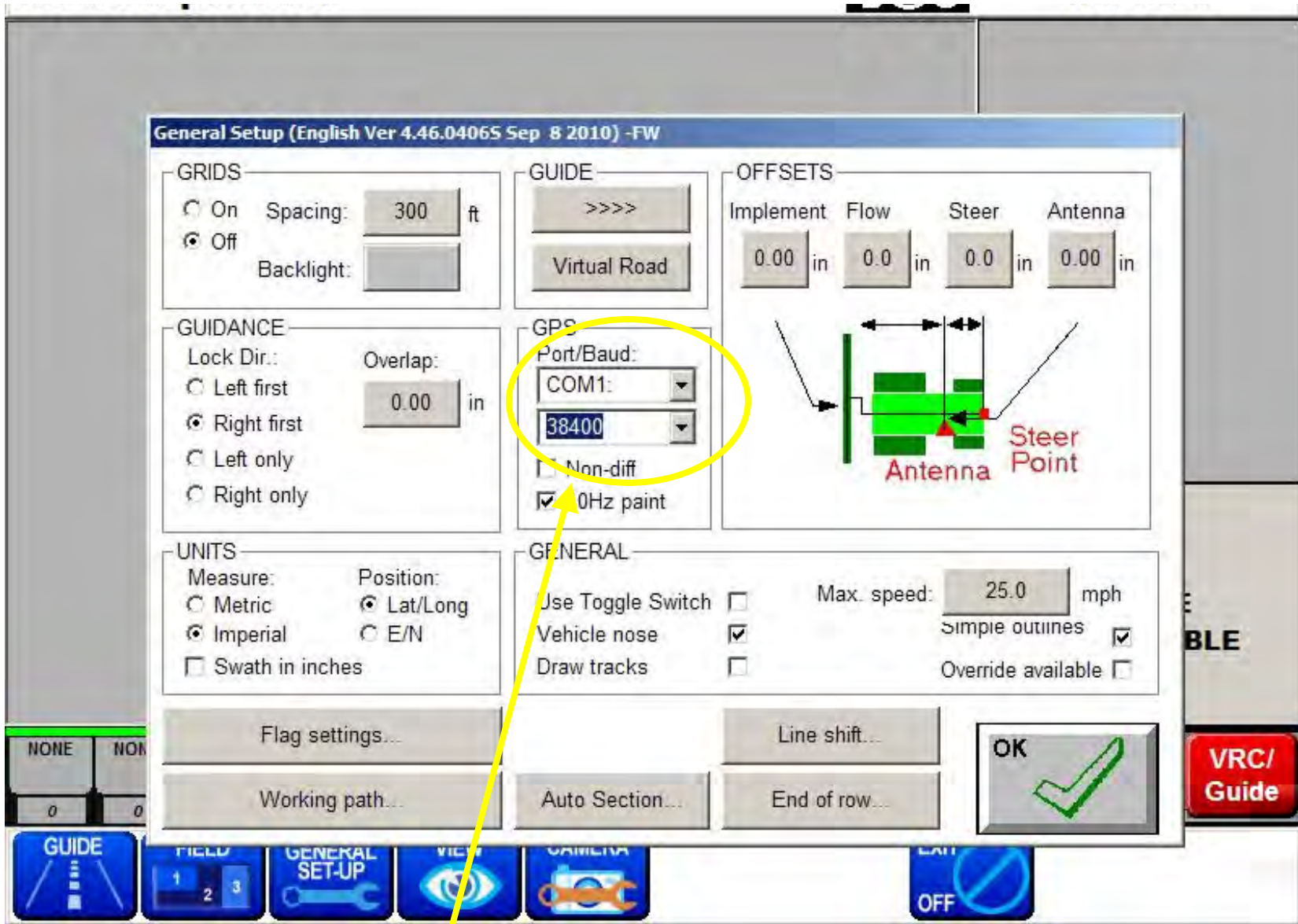
Select COM1 and 38400 as the Baud rate for Guidance

Touch this area to access the Seed Rate Controller program
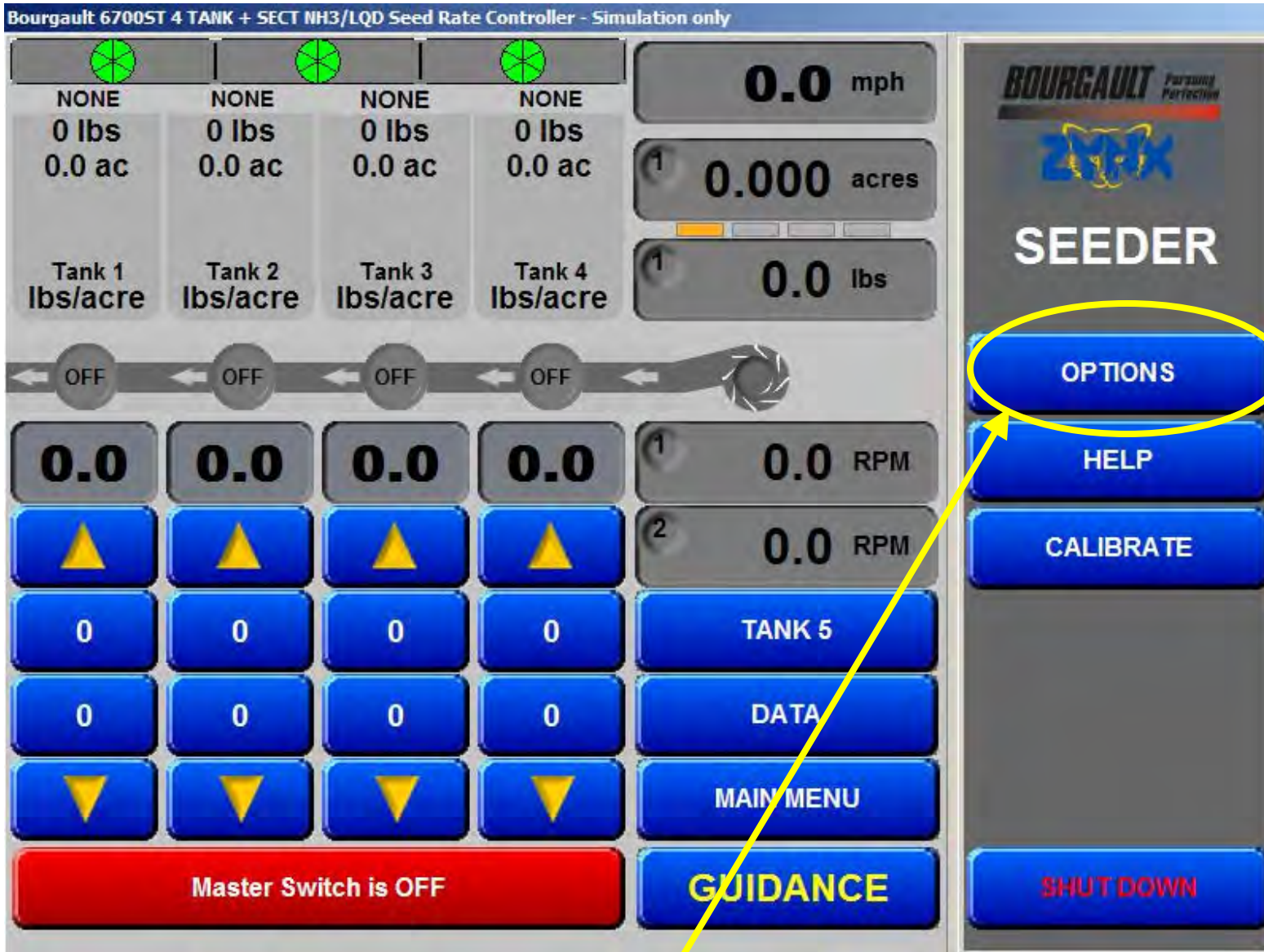
Touch the Options tab of the Seeder program

Bourgault 6700ST 4 TANK + SECT NH3/LQD Seed Rate Controller - Simulation only

NONE   NONE   NONE   NONE   **0.0** mph   **BOURGAULT** Pursuing Perfection

0 lbs
0.0 ac

Options   ☒

| Tank 5 | Setup | Blockage | Seq. | Units | Alarms | Products | Sim. | Other |

| Config. | Machine | Sections | Seeder | Fans | Tank 1 | Tank 2 | Tank 3 | Tank 4 |

Tank 1
lbs/acr

Com Port
- ○ Simulation
- ○ COM1
- ○ COM2
- ◉ COM3
- ○ COM4
- ○ COM5
- ○ COM6
- ○ COM7
- ○ COM8

Speed From
- ◉ Seeder
- ○ Tractor Radar

External Switch Box
- ☐ Using External Switch Box

Information
Close program and restart to activate new setting

OK

☐ Auto Clutch Switch Enabled
☐ VRC Enabled
☐ Guidance Master Enabled

Enable Diagnostics

Simulation mode
☑ Show Virtual Road If Moving

HELP   **CLOSE**

OFF

0.0

▲
0
0
▼

Master Switch is OFF   **GUIDANCE**   SHUT DOWN

Select COM3 for the Seed Rate Controller
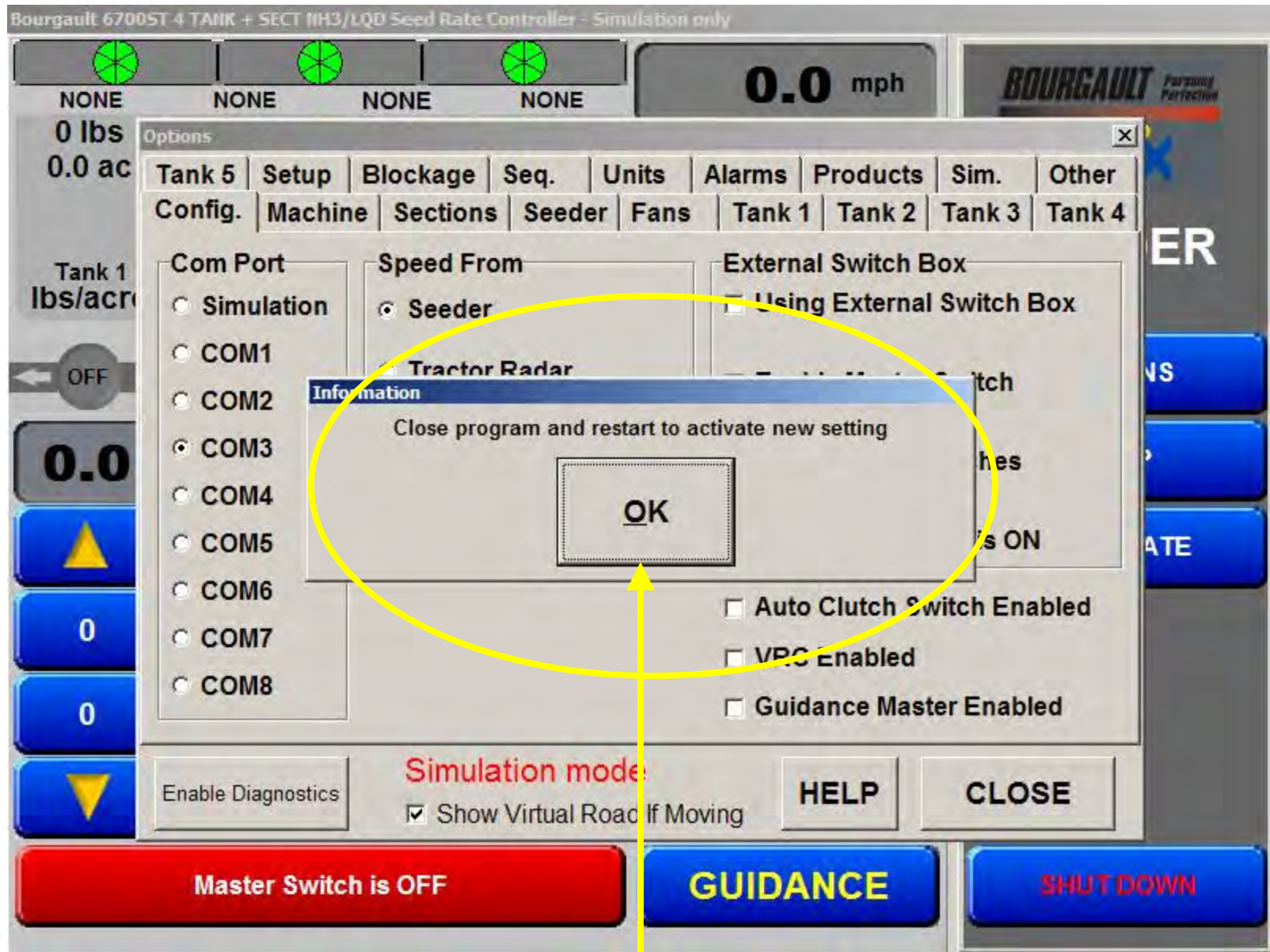
The X20 programs must be closed and restarted to retain the COM settings