

## RS-232 Connections

NMEA 0183 connection rules:

- Positive In (In +) connects to Positive Out (Out +)
- Negative In (In -) connects to Negative Out (Out - or Gnd)
- Positive Out (Out+) connects to Positive In (In +)
- Negative Out (Out -) connects to Negative In (In - or Gnd)

Connecting VHF to GPS: Wiring Guide				Garmin	Garmin	Raytheon	Ratheon	Furuno
VHF Make	NMEA Signal	VHF Wire		Fixed GPS Wire	Portable GPS Wire	520/560 GPS Wire	RL Series Wire	GP 30/36 Wire
Standard Horizon	IN+	blue		blue	brown	blue	white	white
	IN-	green		black	black	brown	brown	blue
Uniden 525/625	IN+	white		blue	brown	blue	white	white
	IN-	yellow		black	black	brown	brown	blue
Uniden Solara DSC	IN+	green		blue	brown	blue	white	white
	GND	brown		black	black	brown	brown	blue
Uniden Polaris & Oceanus	IN+	green		blue	brown	blue	white	white
	GND	bare		black	black	brown	brown	blue
Raymarine 54 54E	IN+	yellow		blue	brown	blue	white	white
	IN-	green		black	black	brown	brown	blue
Raymarine 230 230E	IN+	white		blue	brown	blue	white	white
	IN-	black		black	black	brown	brown	blue
Raymarine 215 215E 53	IN+	blue		blue	brown	blue	white	white
	IN-	purple		black	black	brown	brown	blue
Raymarine 240 240E	IN+	white		blue	brown	blue	white	white
	IN-	blue		black	black	brown	brown	blue
ICOM 422 coax red	in +	CTR cond		blue	brown	blue	white	white
	in -	shield		black	black	brown	brown	blue
Icom 412 coax red	in +	CTR cond		blue	brown	blue	white	white
	in -	shield		black	black	brown	brown	blue
Icom 304	in +	yellow		blue	brown	blue	white	white
	in -	green		black	black	brown	brown	blue
Icom 504 red coax	in +	CTR cond		blue	brown	blue	white	white
	in -	shield		black	black	brown	brown	blue

Furuno	Standard Horizion	Northstar	Simrad	Lowrance	Lowrance	Magellan	Magellan	JRC	JRC	JRC	Si-Tex
GP 1650/1850 Wire	GPS Wire	GPS Wire	GPS Wire	Fixed GPS Wire	Portable GPS Wire	Fixed GPS Wire	Portable GPS Wire	GPS500 Wire	100 Series Wire	200 Series Wire	Neptune/Nautilus Wire
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
	blue										
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown
white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
black	green	black	brown	black	black	black	black	green	black	black	brown