

WIRING GUIDE

Connecting VHF to GPS for GPS Input			Standard Horizon	Standard Horizon	Garmin	Garmin	Garmin	Raymarine	Raymarine	Raymarine	Furuno	Furuno
VHF Make	NMEA Signal	VHF Wire	GPS Wire	CPF3901 GPS Wire	Fixed GPS Wire	4000, 5000, 6000 & 7000 Fixed GPS Wire	Portable GPS Wire	OBSOLETE 520/560 GPS Wire	CHANGES MADE RL Series Wire	A, C and E Classic and wide Series Wire	GP 30/36 Wire	GP 1650/1850 Wire
Standard Horizon	IN+	blue	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	green	green	black	black	pink	black	brown	White	brown	blue	black
Uniden 525/625	IN+	white	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	yellow	green	black	black	pink	black	brown	White	brown	blue	black
Uniden Solara DSC	IN+	green	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	brown	green	black	black	pink	black	brown	White	brown	blue	black
Uniden Polaris & Oceanus	IN+	green	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	bare	green	black	black	pink	black	brown	White	brown	blue	black
Uniden Oceanus DSC	IN+	green	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	brown	green	black	black	pink	black	brown	White	brown	blue	black
Uniden Solara DSC / UM425 / UM415 / UM380	IN+	green	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	bare	green	black	black	pink	black	brown	White	brown	blue	black
Raymarine 54 54E	IN+	yellow	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	green	green	black	black	pink	black	brown	white	brown	blue	black
Raymarine 230 230E	IN+	white	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	black	green	black	black	pink	black	brown	white	brown	blue	black
Raymarine 215 215E 53	IN+	blue	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	purple	green	black	black	pink	black	brown	white	brown	blue	black
Raymarine 240 240E	IN+	white	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	blue	green	black	black	pink	black	brown	white	brown	blue	black
Raymarine Ray 49, 55, 218	IN+	Gray	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	Purple	green	black	black	pink	black	brown	white	brown	blue	black
Cobra MRF45, 55 and 75 (RCA phone plug)	IN+	Center pin	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	shield	green	black	black	pink	black	brown	white	brown	blue	black
Cobra MRF80	IN+	white	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	green	green	black	black	pink	black	brown	white	brown	blue	black
Garmin VHF100 & VHF200	IN+	purple	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	gray	green	black	black	pink	black	brown	White	brown	blue	black
Garmin VHF300	IN+	white	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	OR/white	green	black	black	pink	black	brown	White	brown	blue	black
ICOM 422 red RCA Phone Plug	IN+	Center pin	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	shield	green	black	black	pink	black	brown	white	brown	blue	black
ICOM 412 red RCA Phone Plug	IN+	Center pin	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	shield	green	black	black	pink	black	brown	white	brown	blue	black
ICOM 304	IN+	yellow	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	green	green	black	black	pink	black	brown	white	brown	blue	black
ICOM 504 red RCA Phone Plug	IN+	Center pin	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	shield	green	black	black	pink	black	brown	white	brown	blue	black

Connecting VHF to GPS for GPS Input			Northstar	Simrad	Lowrance	Lowrance	Magellan	Magellan	JRC	JRC	JRC	Si-Tex
VHF Make	NMEA Signal	VHF 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
Standard Horizon	IN+	blue	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	green	black	brown	black	black	black	black	green	black	black	brown
Uniden 525/625	IN+	white	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	yellow	black	brown	black	black	black	black	green	black	black	brown
Uniden Solara DSC	IN+	green	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	brown	black	brown	black	black	black	black	green	black	black	brown
Uniden Polaris & Oceanus	IN+	green	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	bare	black	brown	black	black	black	black	green	black	black	brown
Uniden Oceanus DSC	IN+	green	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	brown	black	brown	black	black	black	black	green	black	black	brown
Uniden Solara DSC / UM425 / UM415 / UM380	IN+	green	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	bare	black	brown	black	black	black	black	green	black	black	brown
Raymarine 54 54E	IN+	yellow	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	green	black	brown	black	black	black	black	green	black	black	brown
Raymarine 230 230E	IN+	white	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	black	black	brown	black	black	black	black	green	black	black	brown
Raymarine 215 215E 53	IN+	blue	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	purple	black	brown	black	black	black	black	green	black	black	brown
Raymarine Ray 49, 55, 218	IN+	Gray	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	Purple	green	black	black	black	brown	brown	white	brown	blue	black
Raymarine 240 240E	IN+	white	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	blue	black	brown	black	black	black	black	green	black	black	brown
Cobra MRF45, 55 and 75 (RCA phone plug)	IN+	Center pin	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	shield	black	brown	black	black	black	black	green	black	black	brown
Cobra MRF80	IN+	white	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	green	black	brown	black	black	black	black	green	black	black	brown
Garmin VHF300	IN+	white	brown	brown	blue	gray	brown	blue	Blue	yellow	white	white
	IN-	OR/white	green	black	black	pink	black	brown	White	brown	blue	black
Garmin VHF100 & VHF200	IN+	purple	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	gray	black	brown	black	black	black	black	green	black	black	brown
ICOM 412, 422 coax red	IN+	Center pin	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	shield	black	brown	black	black	black	black	green	black	black	brown
ICOM M604, M604A - See p 46 of manual	IN+	pin 4	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	pin 3	black	brown	black	black	black	black	green	black	black	brown
ICOM 304	IN+	yellow	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	green	black	brown	black	black	black	black	green	black	black	brown
ICOM 504 red RCA Phone Plug	IN+	Center pin	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	shield	black	brown	black	black	black	black	green	black	black	brown

Additional notes

After making the connections between the VHF radio and the GPS, if the VHF radio does not show GPS information it could be due to:  
a. A port setting in the GPS Chart plotter. To resolve this contact technical support of the GPS manufacturer and inquire about setting up the port to be NMEA 0183 or NMEA Standard.  
b. NMEA sentence not enabled by the chart plotter. VHF radios require GGA, GLL or RMC sentences to be output by the GPS which the GPS manufacturer will help to set up.

### VHF Radio-to-GPS Connection

Connecting VHF to GPS: Wiring Guide				Garmin	Garmin	Raytheon	Ratheon	Furuno	Furuno	Standard Horizon	Northstar	Simrad	Lowrance	Lowrance	Magellan	Magellan	JRC	JRC	JRC	Si-Tex
VHF Make	NMEA Signal	VHF Wire		Fixed GPS	Portable GPS	520/560 GPS Wire	RL Series Wire	GP 30/36 Wire	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
Standard Horizon	IN+	blue		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	green		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
	OUT+	brown								blue										
	OUT-	gray																		
Uniden 525/625	IN+	white		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	yellow		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
	OUT+	green								blue										
	OUT -	orange																		
Uniden Solara DSC	IN+	green		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	GND	brown		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
Uniden Polaris & Oceanus	IN+	green		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	GND	bare		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
Raymarine 54 54E	IN+	yellow		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	green		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
Raymarine 230 230E	IN+	white		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	black		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
Raymarine 215 215E 53	IN+	blue		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	purple		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
Raymarine 240 240E	IN+	white		blue	brown	blue	white	white	white	brown	yellow	white	white	orange	gray	orange	yellow	green	white	gray
	IN-	blue		black	black	brown	brown	blue	black	green	black	brown	black	black	black	black	green	black	black	brown
	OUT+	brown								blue										
	OUT-	orange																		

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)

