# SI-TEX MARINE ELECTRONICS INC

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INSTALLATION and OPERATION MANUAL
SI-TEX SP-70 AND SP-80 AUTOPILOTS

Addendum 1
Wiring the Control Unit & Compass
(New Cable Colour Codes)
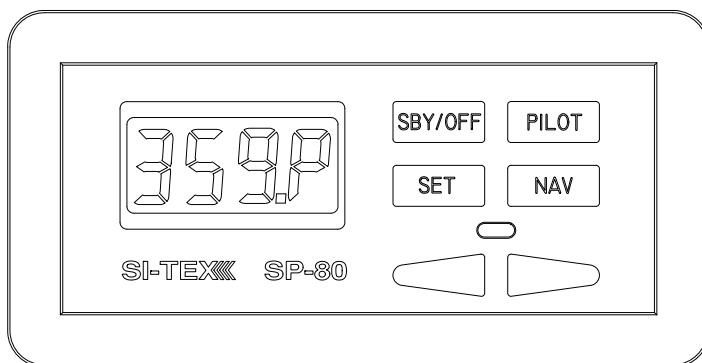
SP-80 AUTOPILOT

SP-70 AUTOPILOT
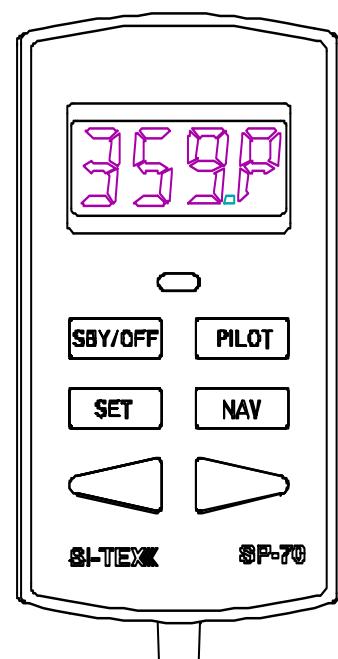
Introduction

There is an alternate new cable type for the SP-80 Control Unit cable and the Fluxgate Compass cable. This cable has a different colour code than the original cable type, although it is otherwise identical.

As well, there is now an alternate SP-70 Control Unit Receptacle cable, with a different colour code than the original cable.

Starting with systems manufactured in the Summer of 2009, either the original or the alternate type of cable may be used, for any of the items above.

As a result, the wiring information for the SP-70 Control Unit Receptacle cable, the SP-80 Control Unit and the Fluxgate Compass, in the Installation & Operation manual (PN 20910049, version 1.2, April 2004) must be revised.

Please use the next two pages of this Addendum, instead of pages 37 & 38 in the current manual.

UNDER THE INSULATION
THERE IS A SHIELD

SP-80 CONTROL UNIT CABLE
ORIGINAL ALTERNATE   SP-70 RECEPTACLE CABLE
COLOURS   COLOURS   COLOURS

12	RED	PINK	RED
11	BLACK	GREY	BLACK OR BROWN
10	GREEN	GREEN	GREEN
9	BLUE	YELLOW	BLUE
8	WHITE	WHITE	WHITE OR ORANGE

J6

SHIELD

J7
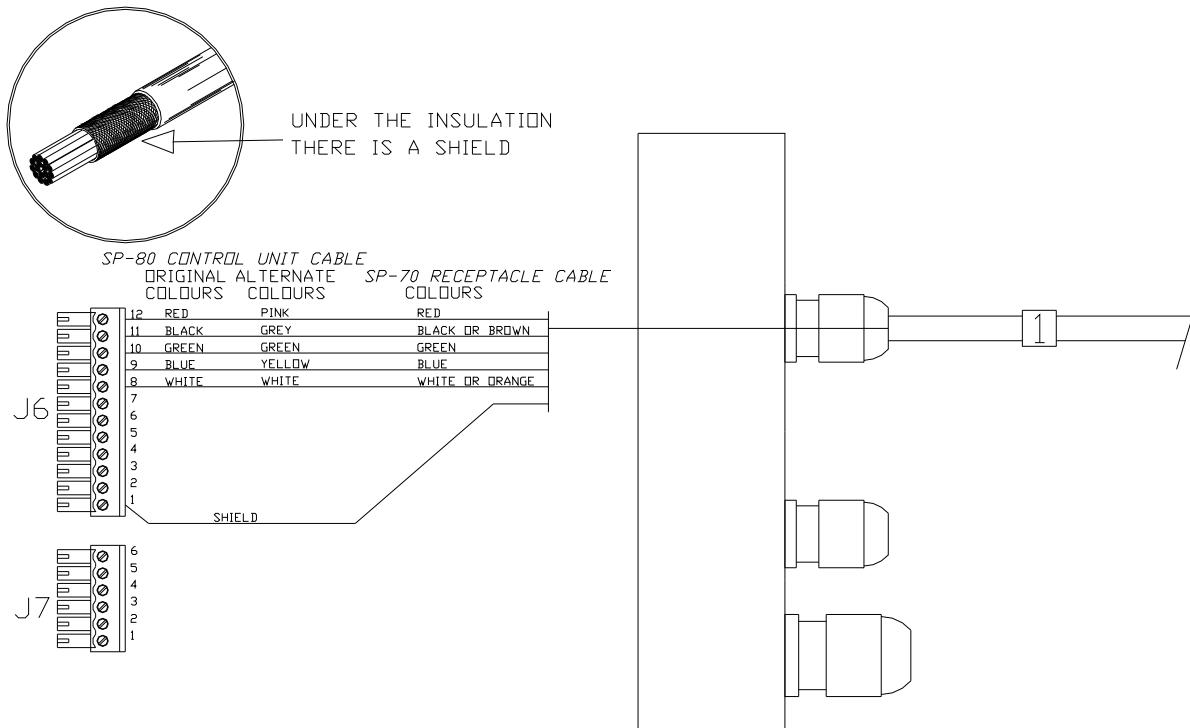
Right Side, Cable 1 (Control Unit) to J6

Note: There is an extra wire that is not used, in the Receptacle & Control Unit cables; the wire is yellow on the original cable, brown on the alternate cable.

Right Side Connections

Pull all of the terminal strips from the right hand end of the Processor.

Note that there is an empty socket that does not have a terminal strip. When you replace the terminal strips, do not accidentally place one into the empty socket!

Pass the cables numbered "1", "2" and "3" through the watertight glands on the right end cap, and then connect each cable's wires to the terminal strips, as shown in the diagram above & those on the following pages:

- Right Side, Cable 1 (Control Unit) to J6

- Right Side, Cable 2 (Compass) to J6

- Right Side, Cable 3 (Rudder Feedback) to J7

Caution: there are some differences in the colour codes of the cable types that can be used for Cable 1 (the SP-70 Receptacle, or the SP-80 Control Unit), and Cable 2 (the Fluxgate Compass). Pay attention to the colours shown in the wiring diagrams, and in the wiring table on the next page!

Insert the bared end of the wire into the terminal strip and fasten it there by tightening the screw on the terminal strip. Start from one end of the terminal strip and work to the other in sequence.

Check your work!

Leave the strips unplugged when you are done; they will be plugged back in when you mount the Processor (see page 42)
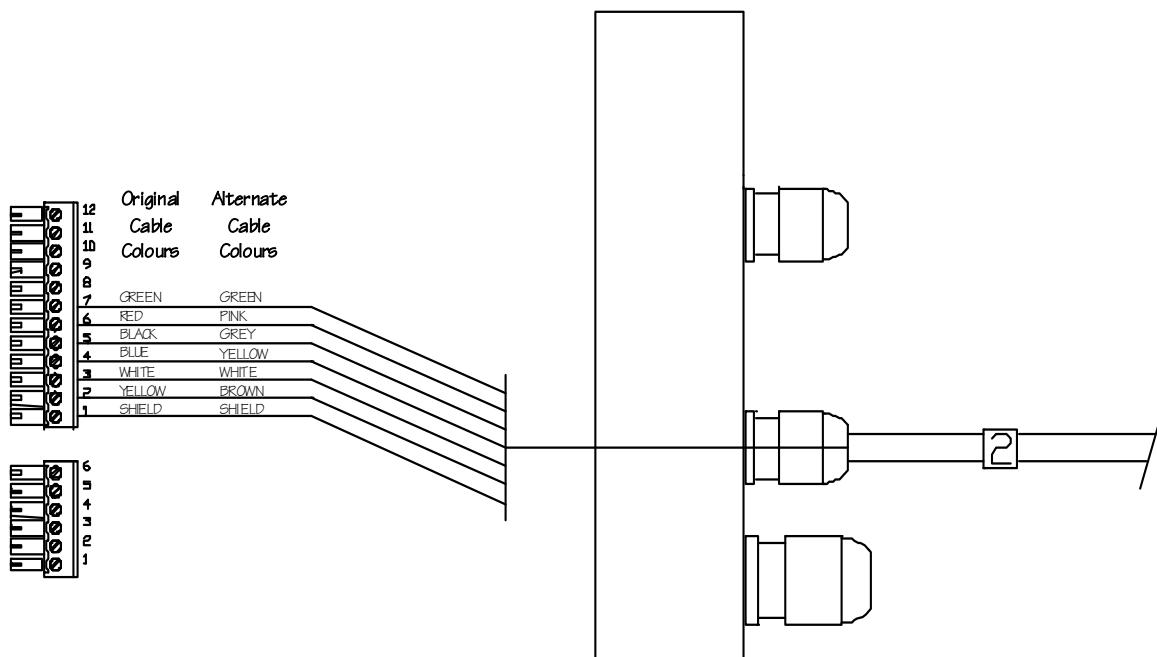
Right Side, Cable 2 (Compass) to J6

Be Careful

The entire stripped end – but no portion of the insulation – of all wires into the terminal strip plugs must be completely inside the plugs. The stripped ends of wire must not be able to touch each other.

Every wire must be connected to the correct terminal on its plug!

Connections For Fluxgate Compasses

J6 PIN	Cable 2		Signal Function	
	Original Wire Colours	Alternate Wire Colours	SP-70/80 Fluxgate Compass	Other Compass
1	SHIELD	SHIELD	GROUND	GND
2	YELLOW	BROWN	COSINE	COSINE *
3	WHITE	WHITE	REF	REF
4	BLUE	YELLOW	SINE	SINE *
5	BLACK	GREY	DRIVE P2	N/C **
6	RED	PINK	DRIVE P1	N/C **
7	GREEN	GREEN	+12V	+12V

* If the compass reading is reversed, swap these two wires

** These wires must not be connected to any compass other than the one supplied with the SP-70/80