

Monitor/Control System Wiring Guide

Our Controller Wires:	Color	What they are normally hooked to
1 AC Neutral	Black	Neutral on the 120V transformer
2 Aux 2 In	Orange/red	the power (usually 120v) for the auxiliary relay that you are controlling - if used
3 Aux 2 Out	Orange/blue	output to control the auxiliary you are controlling - if used
4 Aux 1	yellow/red	120v output to control an auxiliary - if used (sometimes we use this to control a relay to open the irrigation panel circuit to the pump when we are controlling it. ((some pumps are hardwired with no external relay - in that case to control the pivot and run dry we need to disable the pump with a relay - using this)) - similar uses: use a relay to disconnect power to a computer board, use a relay to disconnect forward/reverse wires to the contactors in some valley panels, etc....)
5 Safety relay	orange/black	120v to control a relay that breaks (opens) the safety circuit when we tell a pivot to shut off (it makes sure the pivot indeed shuts off)
6 Pressure Switch	brown	Input from the pressure switch (120v) so we know the system has pressure
7 Pump In	red/blue	power to turn on the pump relay (usually 120v, or 24v)
8 Pump Out	black/blue	output to control the pump relay
9 Duty Cycle%	black/red	output to control the duty cycle - goes into panel terminal strip
10 End Gun	orange	output to control the end gun - goes to terminal strip
11 Reverse2	blue/black	output for reverse - goes to contactor - if needed
12 Reverse	blue	output for reverse - goes to terminal strip
13 Forward2	yellow/black	output for forward - goes to contactor - if needed
14 Forward	yellow	output for forward - goes to terminal strip
15 Safety Monitor	red/black	input from the safety circuit 120v
16 120v AC	red	120v ac on the 120v transformer

FOR MOST SYSTEMS WITH 120v Safety circuit

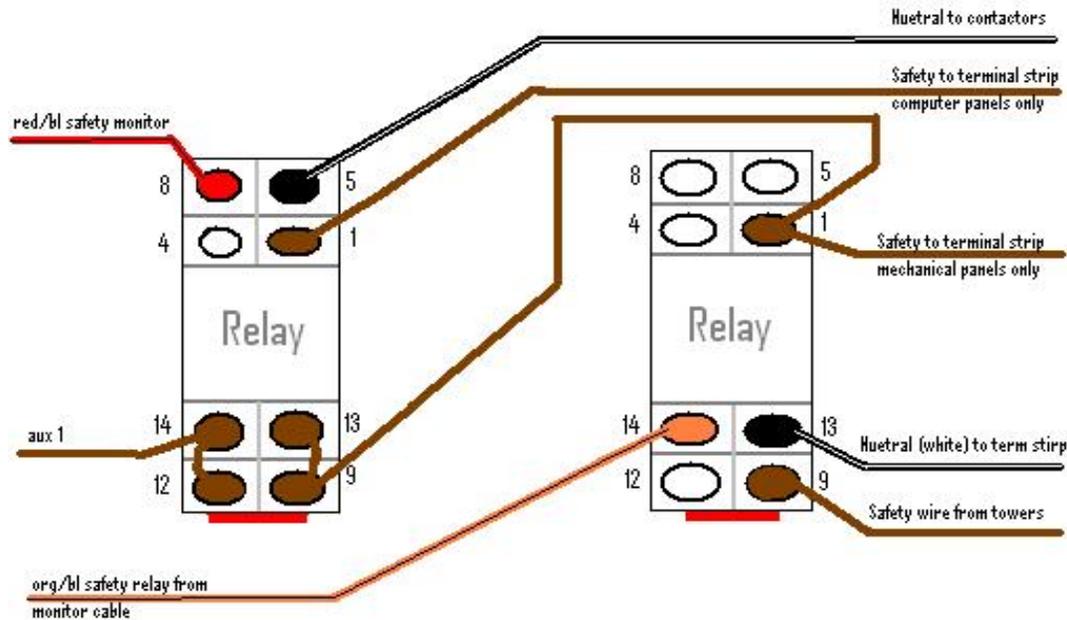
picture of the relay to hook into the safety circuit



- 1 Safety (Terminal Strip)
- 9 Safety (from towers)
- 13 Orange/BLK from our controller
- 14 Neutral

take the safety wire from the towers out of the terminal strip and put it in terminal 9 of our relay with our red/black safety monitor wire
 make a wire to run from terminal 1 of our relay and put it into the terminal strip for safety
 take our orange/black wire and put it into terminal 13 of our relay
 make a wire to run from terminal 14 of our relay and run it to neutral

FOR SYSTEMS WITH NEUTRAL SAFETY CIRCUIT:

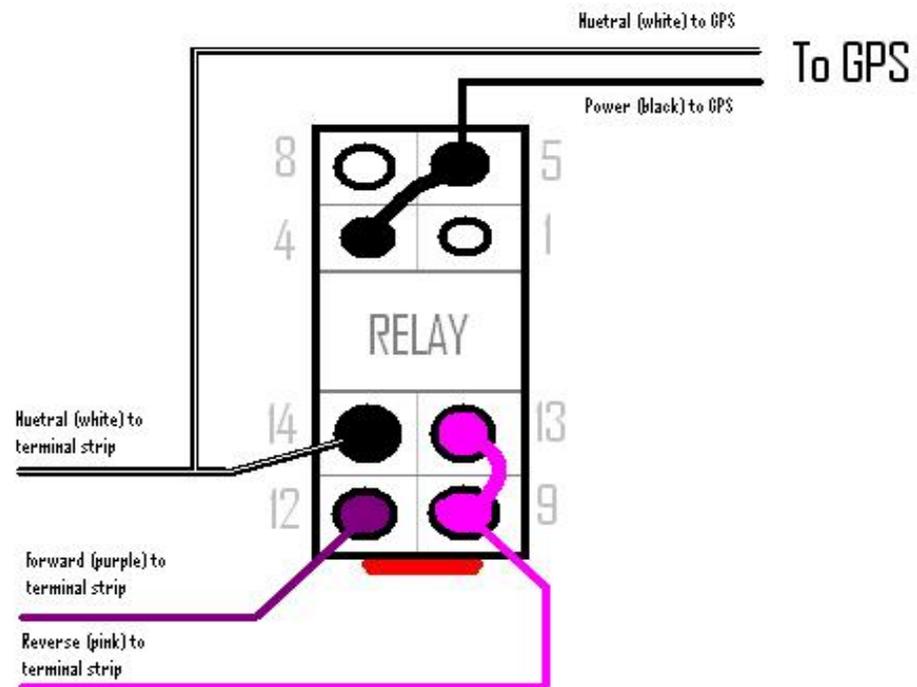


GPS units:

FOR SYSTEMS WITH 120v SAFETY

Black wire goes to Safety on terminal strip
white wire goes to Neutral

FOR SYSTEMS WITH NEUTRAL SAFETY

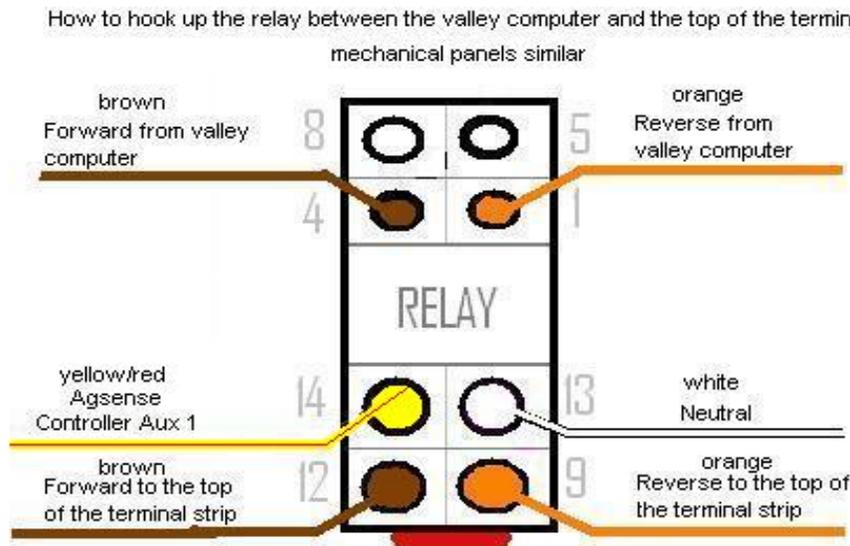


Extra Relays that are needed to be able to control all valley computer/and some mechanical panels.

1. The forward and reverse wires (orange, and brown) from the valley computer/ or from the panel switches on mechanical panels, that are going to the top of the terminal strip - need to be disconnected by a relay while the Agsense Controller is being used.
2. The forward and reverse wires (orange/white, and brown/white) from the valley computer/ or from the panel switches on mechanical panels, that are going to the contactors - need to be disconnected by a relay while the AgSense controller is being used.

Use the yellow/red wire from the Agsense Controller to power both relays. When using this, please call Agsense before controlling the pivot so we can re-configure the controller properly to have Aux 1 and Aux 2 always on when the pivot is controlled by Agsense.

Also, these valley panels need to have our Aux 2 wired to give the safety Out wire 120v. To do this, connect our Aux 2 IN wire to 120v, and connect our Aux 2 OUT wire to the safety Out (yellow/red) in the valley panel



How to hook up the relay between the valley computer and the contactors
Mechanical panels similar

