VersiControl 2300A-KKKK-XX-01 Addressable Versi Control Smart System Plus Instruction Manual

INSTALLATION INSTRUCTIONS
Addressable Versi Control
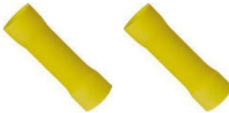**Smart System Plus**
Part#: 2300A-KKKK-XX-01

Contents

PARTS / TOOLS NEEDED:

VersiControl Smart System Plus	RGB Lighting (Varies)	Mounting Screws x 4 (not provided)	Butt Splices (not provided)	Power Drill

Safety Instructions

- Disconnect power before installing, adding or changing any component.
- To avoid a hazard to children, account for all parts and destroy all packing materials.
- Do not install any luminaire assembly closer than 6" from any combustible materials.
- Positive (+) inputs require a fuse if the attached wire leads are not rated to handle the max current.
- This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
  – This device may not cause harmful interference
  – This device must accept any interferences received, including interference that may cause undesired operation

INSTALL:

Determine the installation location for your control module. Make sure to consider the size of the module (7.5"L x 5"W x 1.5"H) when determining your location. Note, it will require room for access and for wiring. Screw the controller in place using four M5 stainless steel screws (not provided) sized appropriately for the substrate material used. Make sure when mounted, that the Bluetooth antenna is not obstructed by metal objects.
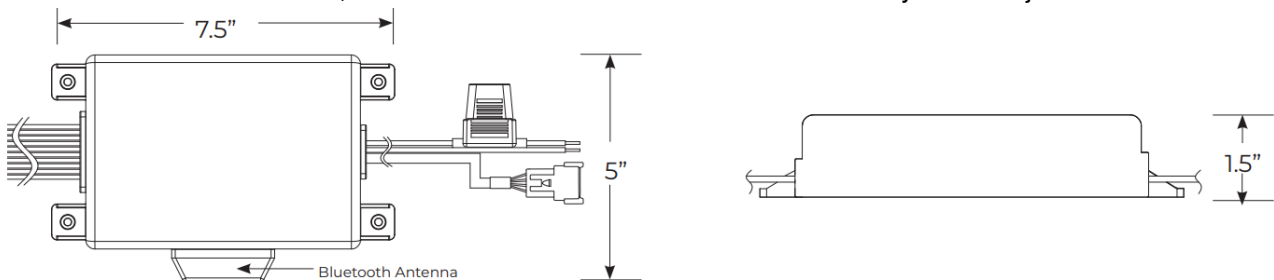
CONNECT CONTROL PAD:

If using the control pad (optional), insert the connector on the control pad into the connector on the module. Refer to control pad installation instructions for more detailed information.
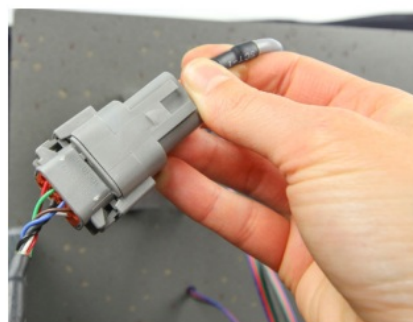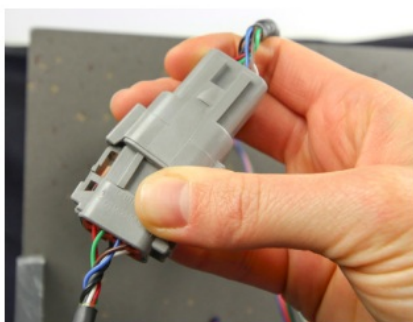
WIRING DIAGRAM:

Follow the wiring diagram below to wire the module to your system. Note: Maximum replacement fuse size is 20 amps.

2300A-RGB-XX-01

Inputs

Disable Lines
Zone 1 - White
Zone 2 - White/Red
Zone 3 - White/Green
Zone 4 - White/Blue

Black- 12-24V DC IN (-)
Red- 12-24V DC IN (+)
(Max 20A)
*Mating Connector:
Deutsch DTP06-2S*

V (+)	1
V (-)	2
Shield	3
Plug	4
CAN (+)	5
CAN (-)	6

*Mating Connector:
NMEA Female Connector or
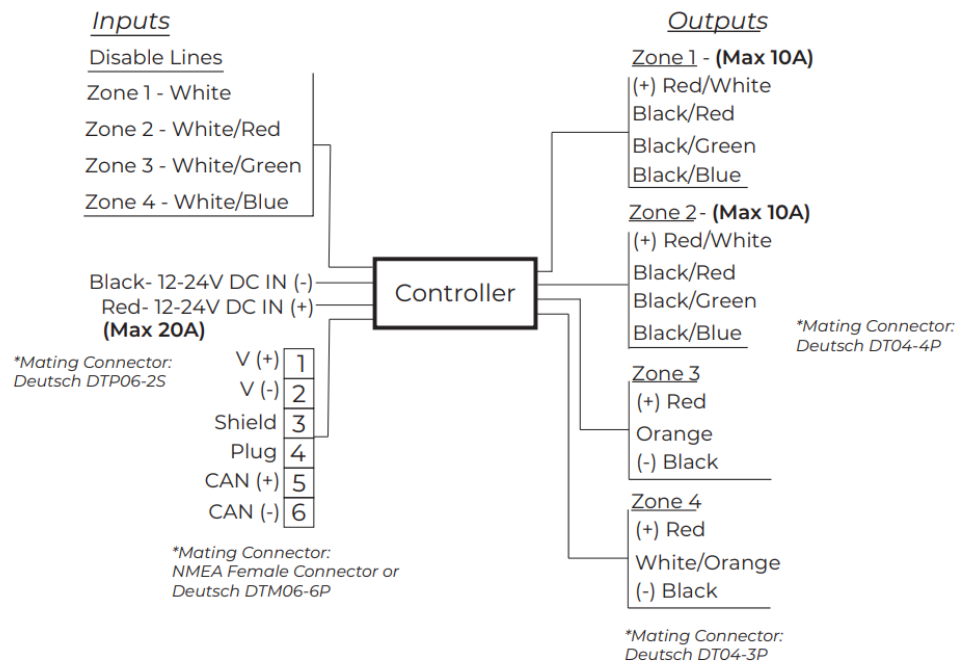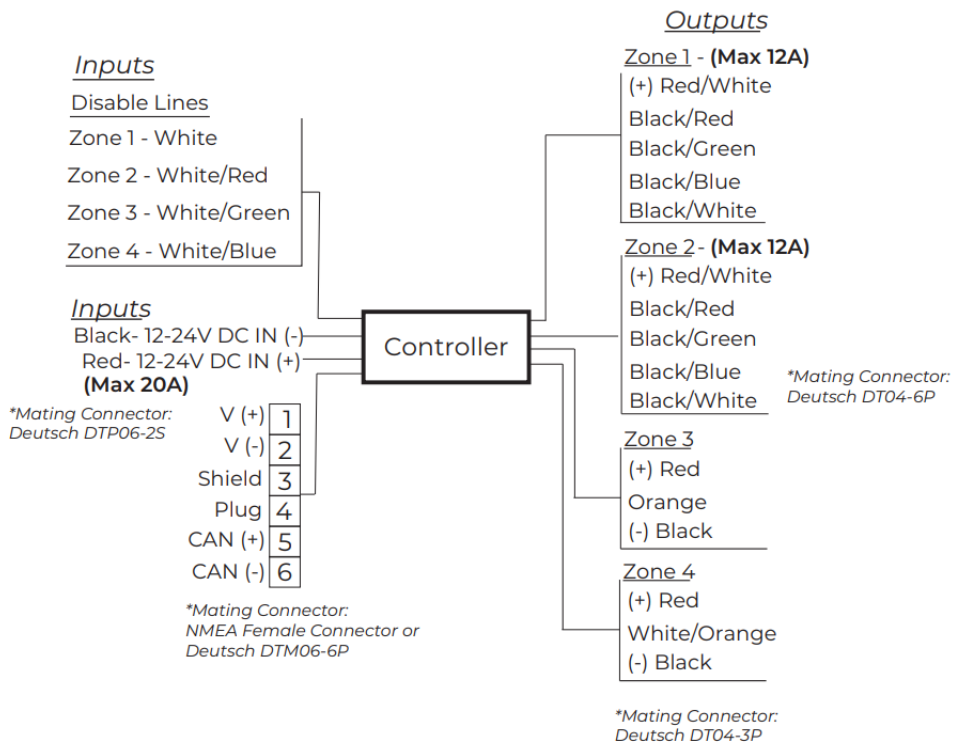Deutsch DTM06-6P*

Controller

Outputs

Zone 1 - **(Max 10A)**
(+) Red/White
Black/Red
Black/Green
Black/Blue

Zone 2 - **(Max 10A)**
(+) Red/White
Black/Red
Black/Green
Black/Blue
*Mating Connector:
Deutsch DT04-4P*

Zone 3
(+) Red
Orange
(-) Black

Zone 4
(+) Red
White/Orange
(-) Black

*Mating Connector:
Deutsch DT04-3P*

2300A-RGB-XX-01

2300A-RGBW-XX-01

Outputs

Inputs

Disable Lines
Zone 1 - White
Zone 2 - White/Red
Zone 3 - White/Green
Zone 4 - White/Blue

Inputs
Black- 12-24V DC IN (-)
Red- 12-24V DC IN (+)
(Max 20A)
*Mating Connector:
Deutsch DTP06-2S*

V (+)	1
V (-)	2
Shield	3
Plug	4
CAN (+)	5
CAN (-)	6

*Mating Connector:
NMEA Female Connector or
Deutsch DTM06-6P*

Controller

Zone 1 - **(Max 12A)**
(+) Red/White
Black/Red
Black/Green
Black/Blue
Black/White

Zone 2 - **(Max 12A)**
(+) Red/White
Black/Red
Black/Green
Black/Blue
Black/White
*Mating Connector:
Deutsch DT04-6P*

Zone 3
(+) Red
Orange
(-) Black

Zone 4
(+) Red
White/Orange
(-) Black

*Mating Connector:
Deutsch DT04-3P*

2300A-RGBW-XX-01

CUSTOMIZING YOUR SYSTEM:

There are several features that can be selected using the four position dip switches on the back of the control module. To adjust these switches, first remove the four screws on the back.

Remove screws
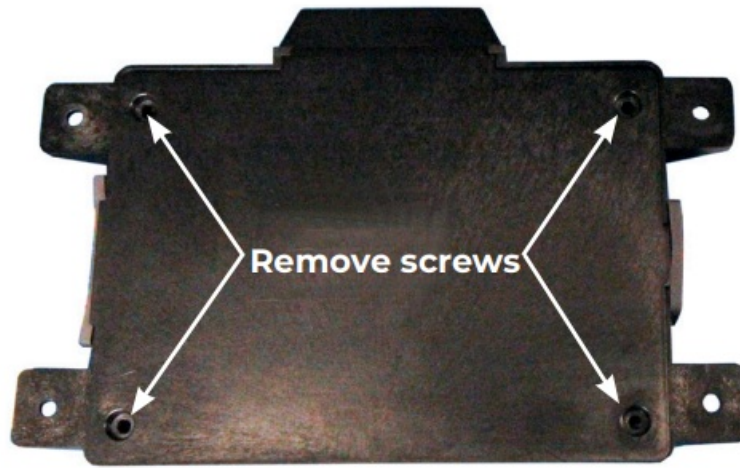
MULTIPLE RGB CONTROLLERS ON SAME CAN BUS NETWORK:

If you are using more than one controller on a CAN network, you will need to adjust the CAN address. Dip switch one and two are used to select an address.

Switch 1	Switch 2	Address
OFF	OFF	0 (Default)
ON	OFF	1
OFF	ON	2
ON	ON	3

Switch 3	Pass Code
OFF	No change
ON	Reset pass code

Switch 4	Power
OFF	Power up OFF (default)
ON	Power up ON

Dip switch adjustment
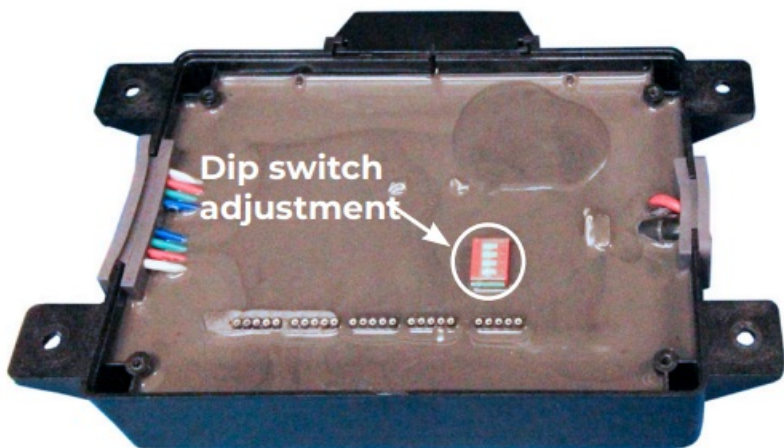
DISABLE/SIGNAL INPUT LINE(optional):

The control module has the ability to turn off zones if an input line to the controller is activated. If the disable line is held at the input voltage (5-24 volts), Zones one and two will be turned off. This feature can be used if you want to deactivate the zone lights on the outside of the boat when in motion. By default, only zones one and two are turned off.

There is no effect on zones three and four. You can adjust which zones are turned off via a CAN interface display system.

WIRING CONSIDERATIONS:

- Don't power the controller or lights until all connections are made.
- It is recommended that strain relief be added on all wires to prevent any damage to the lights.
- If fuses are not included on the RGB controller then ITC recommends including fuses on each zone output (+) wire.
- If installing a flexible lighting product, do not install the end caps in the mounting track or it may damage the light.
- To test the lights, select the single color fade for each of the colors, red, green and blue on the Versi Control app. This test will show whether there are wiring issues.
- For the NMEA2000 version controller, its LEN (Load Equivalency Number) equals two.

Installation Considerations for Preventing EMI Noise

WHAT IS EMI NOISE?

Electromagnetic interference (EMI) is any unwanted signal which is either radiated(thru air) or conducted(thruwires) to electronic equipment and interferes with the proper operation and performance of the equipment.

All electrical/electronic components that have varying or switching currents, such as RGB lighting, create Electromagnetic interference (EMI noise). It is a matter of how much EMI noise they produce.

These same components are also susceptible to EMI, especially radios and audio amplifiers. The unwanted audible noise that is sometimes heard on a stereo system is EMI.

DIAGNOSING EMI NOISE

If EMI is observed the following steps should help isolate the problem.

1. Turn off LED light(s)/controller(s)
2. Tune the VHF radio to a quiet channel (Ch 13)
3. Adjust the radio's squelch control until the radio outputs audio noise
4. Re-adjust the VHF radio's squelch control until the audio noise is quiet
5. Turn on the LED light(s)/controller(s) – If the radio now outputs audio noise then the LED lights may have caused the interference.
6. If the radio does not output radio noise then the problem is with another part of the electrical system.

PREVENTING EMI NOISE

Once the EMI noise is isolated the following steps can be used to help prevent and lessen the effect of the noise.

CONDUCTED & RADIATED SOLUTIONS

GROUNDING (BONDING) : How each component is connected and routed to power ground is important.

Route the ground of sensitive components back to the battery separately. Eliminate ground loops.

SEPARATION : Physically separate and mount the noisy components away from sensitive components.

In the wire harness, separate the sensitive wires from the noisy wires.

FILTERING : Add filtering to either the device creating the noise or the sensitive device.

Filtering may consist of power line filters, common-mode filters, ferrite clamps, capacitors and inductors.

RADIATED SOLUTIONS

SHIELDING : Shielded cables can be used. Shielding the component in a metal enclosure is also an option.

If you continue to experience EMI issues please contact your ITC sales representative.

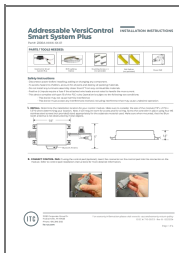**3030 Corporate Grove Dr.**
Hudsonville, MI 49426
Phone: 616.396.1355
itc-us.com
For warranty information please
visit www.itc-us.com/warranty-return-policy
DOC #: 710-00213 • Rev B • 02/23/24

Documents / Resources

[VersiControl 2300A-KKKK-XX-01 Addressable Versi Control Smart System Plus](#) [pdf] Instruction Manual
2300A-KKKK-XX-01 Addressable Versi Control Smart System Plus, 2300A-KKKK-XX-01, Addressable Versi Control Smart System Plus, Versi Control Smart System Plus, Control Smart System Plus, Smart System Plus

References

- **[Designs that inspire, products that perform.](#)**
- **[ITC Warranty & Return Policy](#)**
- **[User Manual](#)**