

# **WIRING INSTRUCTIONS**

**2012-16**

**Crop Link**

**TANK MONITORING**

# **Items Covered In This Manual:**

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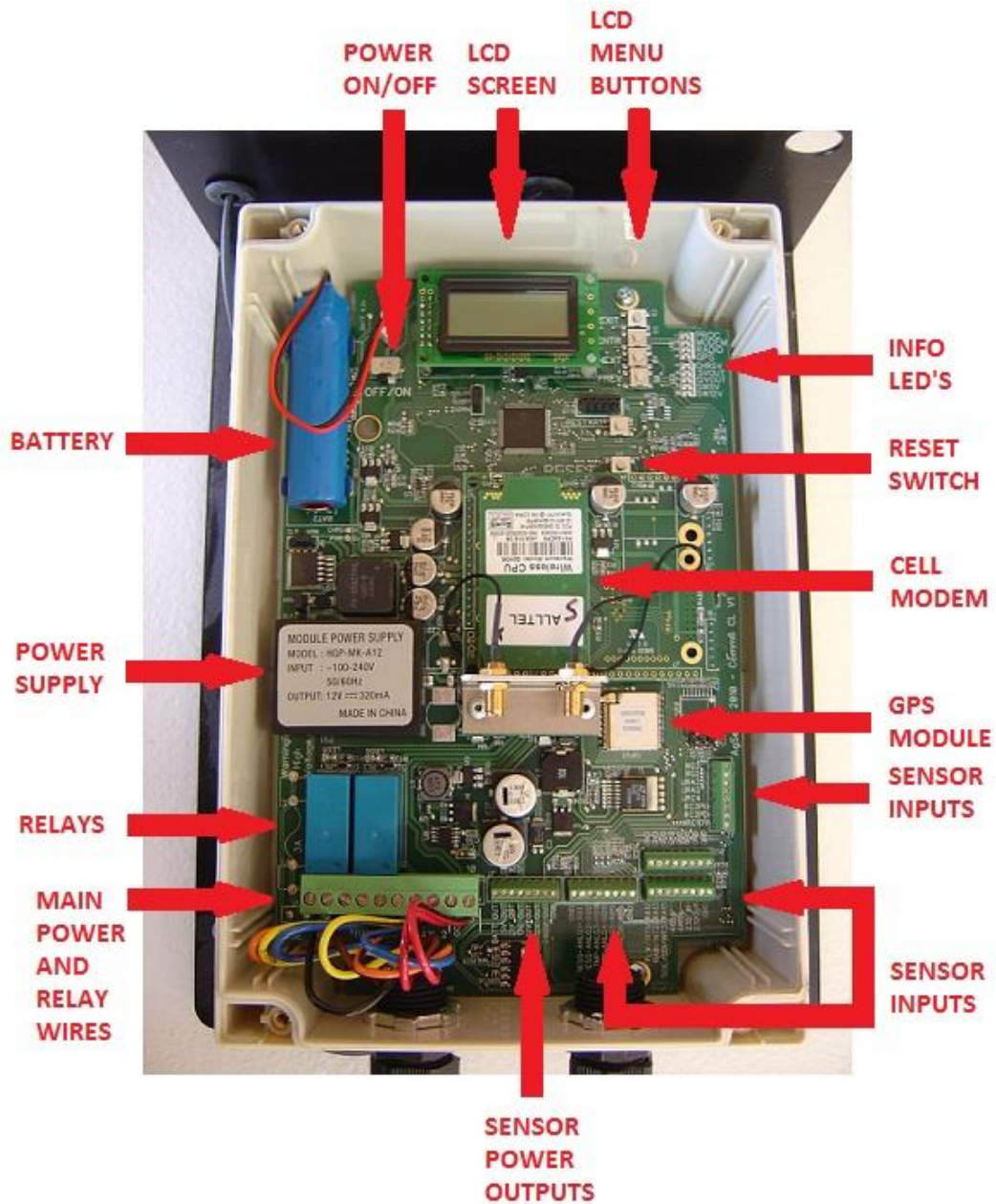
**Page 4: Connecting the Tank Monitor Sensor**

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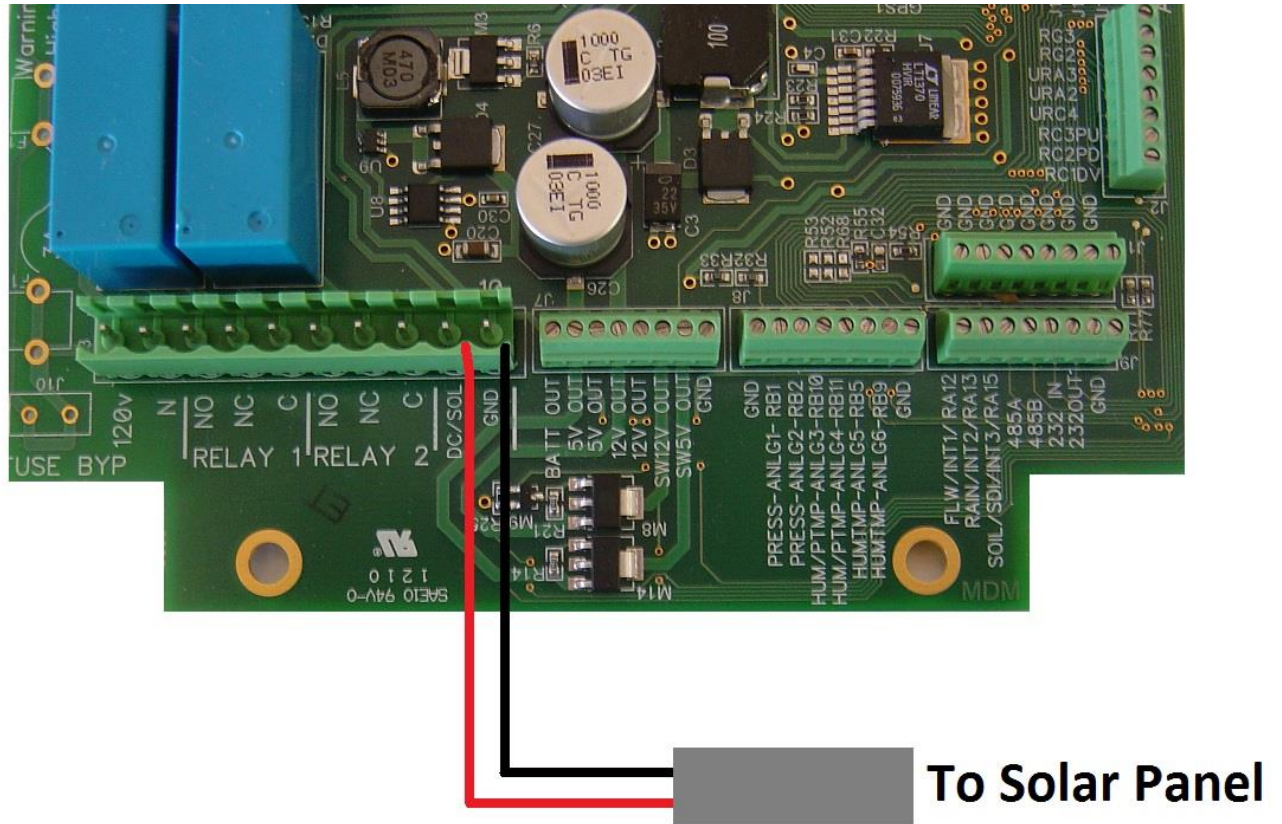
**Page 7-8: Specs and Warranty Information**

# General Overview of the Crop Link Unit



Note: Once all sensors are connected and unit is ready to run, contact your AgSense Dealer to finish setup, and configure this unit to read the sensors that you have installed.

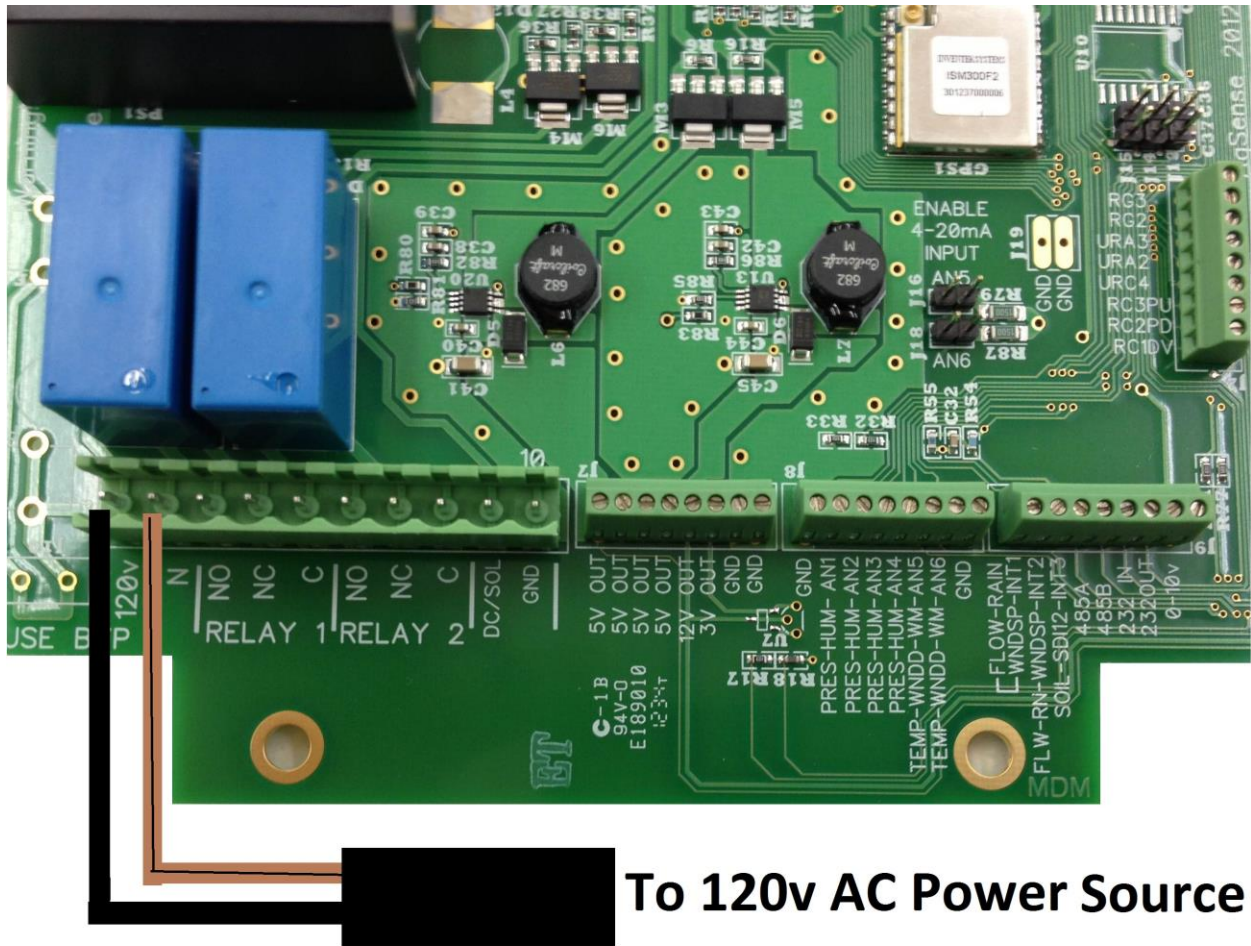
# Wiring the DC Power or Solar Panel to the Crop Link Unit



Wiring the solar panel or 7-38v DC power Source: Find the last two terminals on the large terminal strip labeled DC/SOL and GND

1. Connect the Black or Negative Wire (-) from the solar panel to the terminal marked GND as shown above.
2. Connect the Red or Positive Wire (+) from the solar panel to the terminal marked DC/SOL as shown above.

# Wiring 120v AC Power to the Crop Link Unit

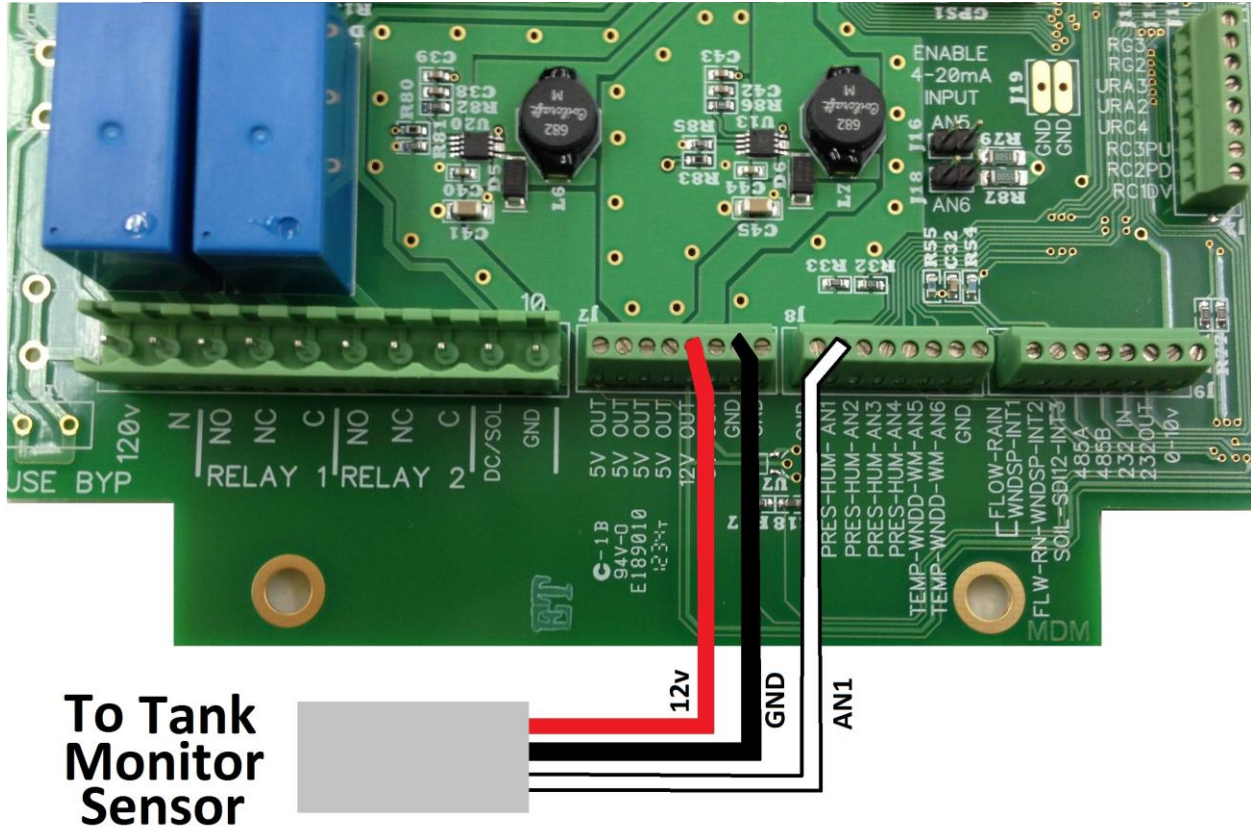


**To 120v AC Power Source**

If you are not using DC power or Solar Power: how to wire 120v AC to the Crop Link.

1. Connect 120v AC to the terminal marked 120v – units pre-wired with a cable from AgSense use a Black wire. Cable added by the customer should use the Black wire here.
2. Connect the Neutral wire to the terminal marked N. – units pre-wired with cables from AgSense use either a Brown/Black Stripe or a White wire. Cable added by the customer should use the white wire.

# Wiring the G3 Tank Monitor sensor to the Crop Link Unit



Wiring the G3 Tank Monitor sensor: You can have up to 2 Tank Monitor sensors wired into this unit.

1. Connect the Red wire from the Tank Monitor Sensor to the terminal marked 12V OUT as shown above.
2. Connect the Black wire from the Tank Monitor Sensor to any terminal marked GND as shown above.
3. Connect the White wire from the Tank Monitor Sensor to the terminal marked AN1 as shown above.

Note: Repeat steps 1-2 for a second Tank Monitor sensor, but connect the White wire to AN2 instead.

# Tank Monitor Sensor Installation Tips:

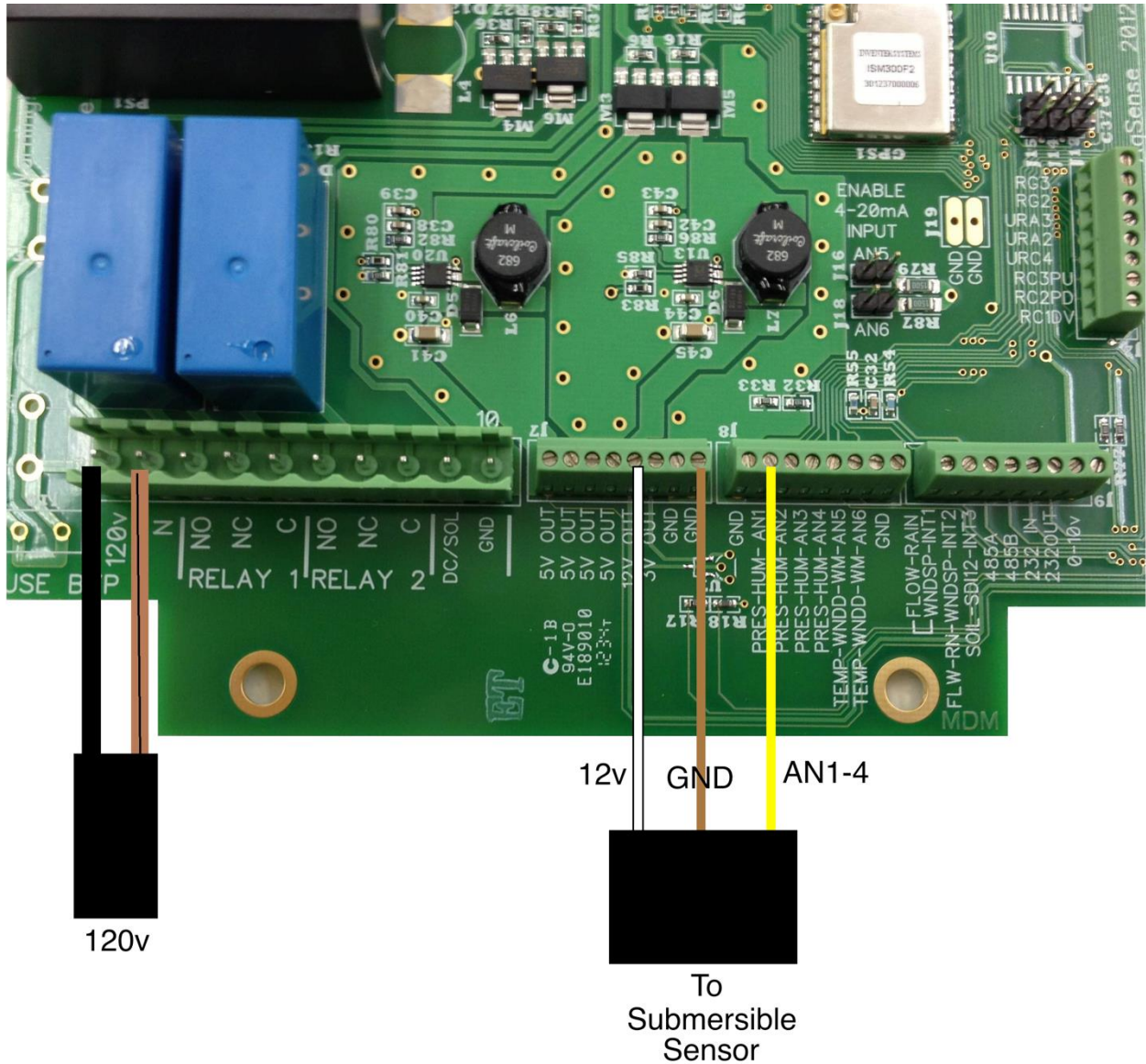
1. Sensors have an accuracy of +/- 3"
2. Sensor should be installed on the outside of the tank, as close to the bottom of the tank as possible, but not below the bottom of the tank. (typical locations would be just after the output flange, or T'ed into the bottom of the sight tube) The sensor will not be able to read any changes in level below the sensor.
3. You must install a ball valve in-line before the tank monitor sensor in case of any sensor leak or failure that would require the removal/replacement of the sensor.
4. Tank Monitor sensors should not be used in clumpy/sludge/sewage/manure liquids due to the possibility of clogging the sensor opening with course/foreign matter.
5. When using multiple tank monitor sensors, most installs will have a max of 2 sensors. The two sensors should be installed in adjacent tanks, with the Crop Link mounted between those two tanks, positioned for the best view of the sun for the most amount of hours. (if using a solar panel) - One mounting style is a 55 gallon barrel (plastic or steel) filled with dirt/gravel, with a tee post installed into the dirt/gravel, then use a beam clamp to attach the unit directly to the tee post. – the other method of mounting would be any metal bracket built by the user that allows the cables to reach the Crop Link and gives the solar panel the most amount of sunlight possible (if using a solar panel)
6. It is up to the installer/user to determine if the liquid stored in the tank is compatible with the sensor due to the many variations of corrosiveness. The standard sensor is 304 Stainless steel base with 17-4 stainless steel diaphragm. If being used in extremely corrosive liquids, a heavier duty 316 stainless steel sensor is available – contact your dealer to get information and pricing and availability of this sensor from AgSense.
7. Caution - This transducer, while resembling our water pressure transducer, should NOT be used on a pivot. Doing so could result in the sensor being permanently damaged.

## To Configure a Tank Monitor Sensor On the [www.wagnet.net](http://www.wagnet.net) website:

1. After logging onto Wagnet and finding your CropLink unit, you can configure the Tank Monitor sensor by choosing Tank Monitor in the Analog 1 or Analog 2 drop downs. Choose the Analog number that corresponds with the location on the Crop Link that was used to wire in the sensor. Once you have chosen Tank Monitor, a few spaces will appear that need to be filled in: Tank Alias (name of the tank), Specific Gravity of the fluid in the tank, tank diameter, tank height, and distance from the bottom of the tank to the metal end of the sensor. All these items must be filled in or it will not read correctly.
2. Click the Set Location button and click on the top of the tank where that particular sensor is installed.
3. Click the Save Config button at the bottom of the page.

# Submersible Tank Level Sensor Wiring:

## Ashcroft KM45 series



1. Install the White wire into the 12v Out terminal as shown above.
2. Install the Brown wire into the GND terminal as shown above
3. Install the Yellow wire into any input (AN1 to AN4) terminal as shown above.
4. Green wire is not used and can be capped off.

Note: DO NOT shorten or lengthen the cable on this transducer. This cable contains an air vent tube and filter that is critical to this transducer functioning correctly – do not modify!!



Power Requirements for the Crop Link unit:

**SOLAR/DC Powered Unit 7-34V DC:**

At 12v DC: 1.0A MAX

0.1A - 0.5A during normal operation

Recommended Solar panel – Must be a minimum of 10 watt @ 17v Solar panel.

Specs of solar panels that ship from AgSense:

10 watt

Operating Voltage 17v DC

Operating Current 0.59A

Open Circuit Voltage 21.2v DC

Short Circuit Current 0.69A

**Warranty Information:**

All warranty service provided by the AgSense service center, or an authorized technician.

**Warranty repairs require a Return Merchandise Authorization Number (RMA);  
Have your dealer contact AgSense to obtain this RMA number.**

For the Period of :	AgSense will:
<b>60 Days</b>	Money back Guarantee if not satisfied with product.
<b>2 Years</b>	Repair on any unit that fails due to defect in materials or workmanship. AgSense labor and parts would be provided free of charge during the warranty period. (This does not include dealer labor.)

**What is not covered:**

- Service trips to your home to teach you how to use the product.
- Improper installation, delivery or maintenance. If you have an installation problem contact your dealer or installer.
- Failure of product resulting from modification to product or due to unreasonable failure to provide reasonable and necessary maintenance.
- Labor necessary to move device from one location to another.
- Improper installation of battery.
- Failure due to corrosion or water damage.
  - Units installed in direct contact with sprinklers require a tower box or other watertight protection.
- Damage to the product caused by improper power supply voltage, accident, fire, floods or acts of God.
- Damage caused after delivery.

**Exclusion of implied warranties – Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to two years or the shortest period allowed by law.**

This warranty is extended to the original purchaser and any succeeding owner for the products purchased for use within the USA.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have the other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

**DISCLAIMER:** The use of Field Commander/Crop Link/Aqua Trac shall not be utilized by customer as a substitute for the Customer's personal observation of the manner in which Customer's irrigation equipment is functioning. AgSense specifically advises Customer that this product is designed to enhance Customer's ability to control existing irrigation equipment and to provide the Customer with additional information about existing irrigation equipment. Field Commander/Crop Link/Aqua Trac relies upon GPS, Satellite and Internet technology which not always functions properly, accordingly, AgSense disclaims any and all responsibility for the reliability of this technology. Customer acknowledges that AgSense does not have the ability to control the reliability of GPS, Satellite and Internet Technology. AgSense specifically disclaims any and all liability for Customer's failure to personally determine whether or not the irrigation equipment that belongs to Customer is functioning properly. AgSense, its agents, members or officers will not be liable for Customer's loss of profits, business interruption, or any other type of consequential damages arising because of the failure to Customer's equipment, GPS, Satellite or Internet to function properly.

**CUSTOMER'S RESPONSIBILITIES:** Customer agrees to keep the irrigation equipment upon which Field Commander/Crop Link/Aqua Trac is installed in good repair and maintenance. Customer acknowledges the importance of and agrees to keep all safety devices which came with Customer's irrigation equipment in working order. Customer agrees to keep an end field stop and barricades in place to prevent damage to the irrigation equipment in the event that Field Commander/Crop Link/Aqua Trac malfunctions. Customer agrees that Field Commander/Crop Link/Aqua Trac cannot solely replace the personal monitoring of the operation of irrigation equipment.

**REMEDY:** Customer acknowledges that Field Commander/Crop Link/Aqua Trac's sole obligation and Customer's exclusive remedy in the event of any material and continuing nonconformity, defect, or error in the information service shall be to take reasonable corrective actions upon discovery of the problem.