SIGALARM™

INSTALLATION AND OPERATION MANUAL

GENERATION 4 WIRELESS

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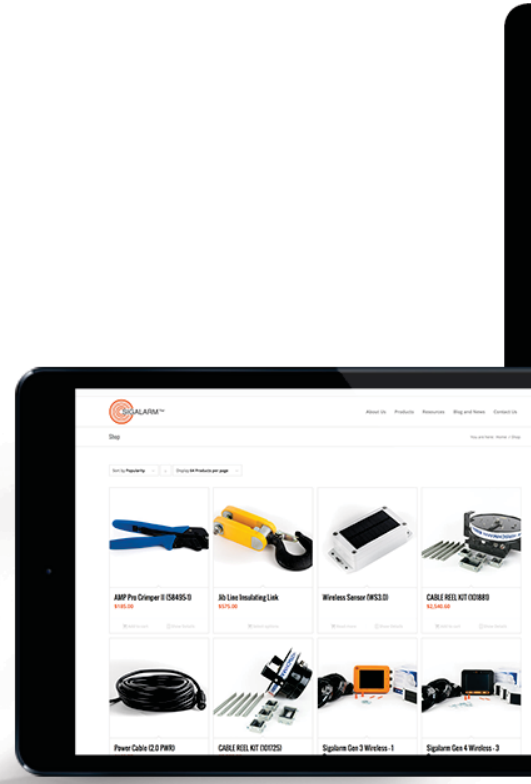
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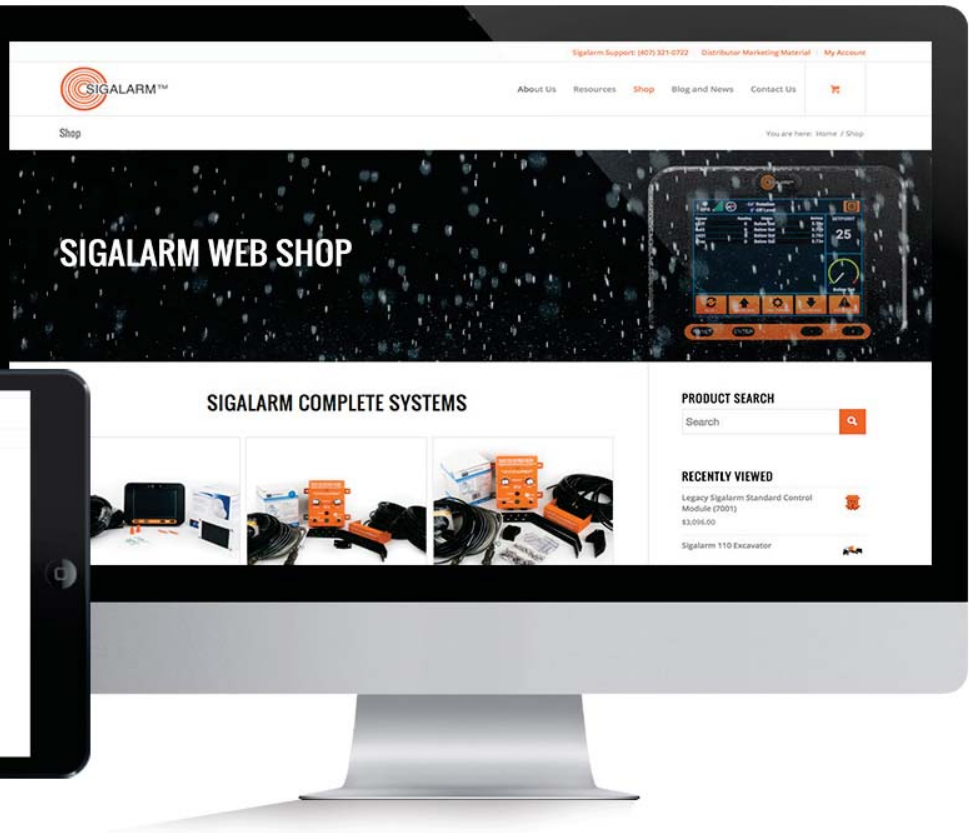

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READ THIS MANUAL

IN ITS ENTIRETY

BEFORE

ATTEMPTING

INSTALLATION

OR

OPERATION

1. OVERVIEW

1.1 UNDERSTANDING E-FIELD DETECTION

The Sigalarm system is a reliable and finely tuned “radio” designed to receive only one selective source: the detectible E-field present around all AC high voltage power lines. The strength of the signal (E-field) depends on the lines voltage and the distance from the lines. Simple adjustment of the settings on the Sigalarm unit will provide accurate and repeatable warnings. After the desired setting is made, a visual and audible alarm will occur whenever the setpoint/E-field reading is detected.

AC VOLTAGE DETECTION ONLY

Sigalarm products do NOT detect DC voltage.

1.2 SAFETY REGULATIONS

It is the equipment operator’s responsibility to know and follow all OSHA, employer, utility, and equipment manufacturers’ instructions, rules, and regulations.

1.3 SAFETY WARNINGS

Overhead power lines are a constant danger to anyone working with or near equipment that can come into contact with these high voltage lines. No warning system should be used in place of standard safety rules and precautions. No warning device can absolutely prevent an accident. When properly installed and operated, Sigalarm products will provide reliable and repeatable WARNINGS of the presence of voltage.

NOT A DISTANCE MEASURING DEVICE

Sigalarm products are warning systems and should not be used as distance measuring devices.

2. INSTALLATION

2.1 STANDARD PACKING LIST

Part #	QTY	Description
WCM4.0	1	Control Module
WS4.0	1-16	Sensor(s)
7315-w	1	Parts Bag
WPASPC-5P	1	Horn
2.0wrly	1	Relay Cable
2.0spk	1	Speaker Cable
2.0pwr	1	Power Cable
727-04	1	Mounting Bracket

2.2 INSTALLATION PRECAUTIONS

It is highly recommended that Sigalarm products are installed by a certified Sigalarm installer or competent person. Prior to the use of Sigalarm products, training should be given to the operator by a certified trainer or competent person. Always test the installation at a safe distance from high voltage power lines. Use extreme care and a spotter while testing this equipment.

2.3 INSTALLATION OF THE CONTROL MODULE; SIGALARM WCM4.0

The main component of the Sigalarm system is the control module WCM4.0. It should be mounted in the immediate vicinity of the operator in plain view, without obstructing their view of the work area.

Systems with an IP rating will be clearly marked. If your control module does not have an IP rating displayed, do not assume it is waterproof.

2.4. CONNECTING THE CONTROL MODULE TO A POWER SOURCE

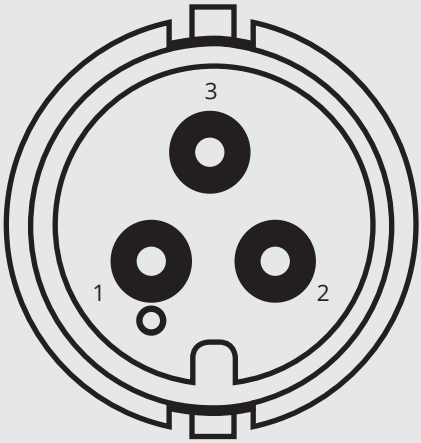
Attach the supplied power cable (2.0pwr) to a 12v to 48v DC power supply. The 2.0pwr cord has a red wire, black wire, and a white wire. It can be installed one of two ways.

SWITCH POWER (Recommended)

Red	(Pin 1)	Positive -always on 12-48v DC
White	(Pin 2)	Switched power
Black	(Pin 3)	Negative -ground

POWER

Red	(Pin 1)	Positive - always on 12-48v DC
White	(Pin 2)	Twist together with Red
Black	(Pin 3)	Negative - ground



Front view of 2.0-pwr

2.5 INSTALLATION OF THE SENSOR(S); SIGALARM WS4.0

The solar sensors are the component of the system that detects voltage.

TURN THE SENSOR ON:

Remove the sensor lid and put the switch (sw1) in the "on" position. Prior to operation, connect the solar panel in the lid to the (J3) connector in the base of the sensor.

Close the sensor insuring the solar panel cables are not caught between the seal. Loosely assemble screws in the sequence shown below

Tighten all screws to an 8 inch-pound torque. There may appear to be a gap between the lid and the base. This is normal. Over-tightening of screws to close the gap is not recommended.

60 HZ OR 50 HZ

Sensors are shipped with a factory setting to detect 60Hz. Upon request 50Hz presets can be made prior to shipping. Customer may also switch between 60 Hz to 50 Hz by utilizing the switch (sw2) on the sensor.

VERIFY PAIRING:

Before permanently installing the sensor and after power is applied to the main control module, verify that the correct quantity of sensors are paired. (Refer to section 3.13 Manage Sensors for further pairing instruction). Verify the correct serial numbers are listed in the active sensor column.

PLACEMENT AND INSTALLATION:

The almost unlimited type sizes and configurations of equipment on which Sigalarm products can be used, make it impossible to cover every potential installation configuration in the manual. However, the following explanation should help you understand general sensor placement considerations.

Place a single sensor at the highest point of the equipment with the best line of sight. Where equipment has varying points that can be higher at any given time, multiple sensors should be installed at each of those points. Sensors cannot be obstructed by metal at any time. The sensors have an adjustable protection zone, set by the operator on the main control module. Always install sensors with protection zones overlapping. Please refer to the following suggested installation diagrams for examples. Wireless Sigalarm systems are not appropriate for all types of equipment or every jobsite. When in doubt consult a Sigalarm technician.

MINIMUM APPROACH DISTANCE – MAD CONSIDERATIONS:

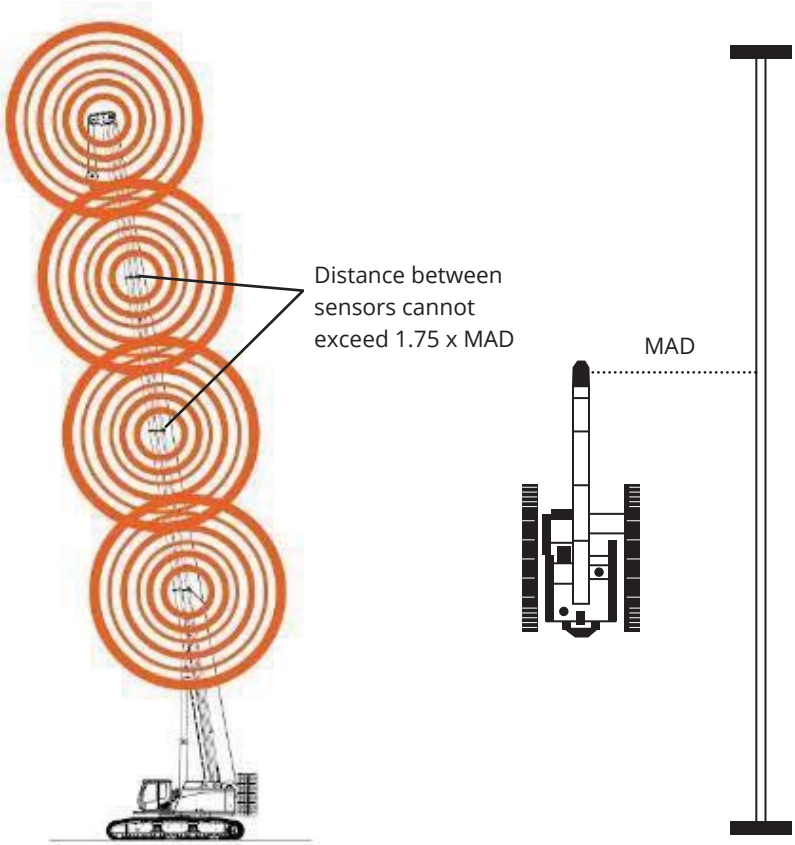
When installing multiple sensors on a piece of equipment, spacing between sensors should be relative to minimum approach distance or MAD. The distance between two sensors must not be greater than 1.75 x MAD. This ensures there are no gaps in protection along the entire length of the boom. For example, if a minimum approach distance is 20 feet, then the spacing between sensors should be no more than 35 feet.

NOT FOR ALL TYPES OF EQUIPMENT

Wireless Sigalarm systems are not appropriate for all types of equipment or every jobsite. When in doubt consult a Sigalarm technician.

SENSOR PLACEMENT

The distance between two sensors must not be greater than 1.75 x MAD.



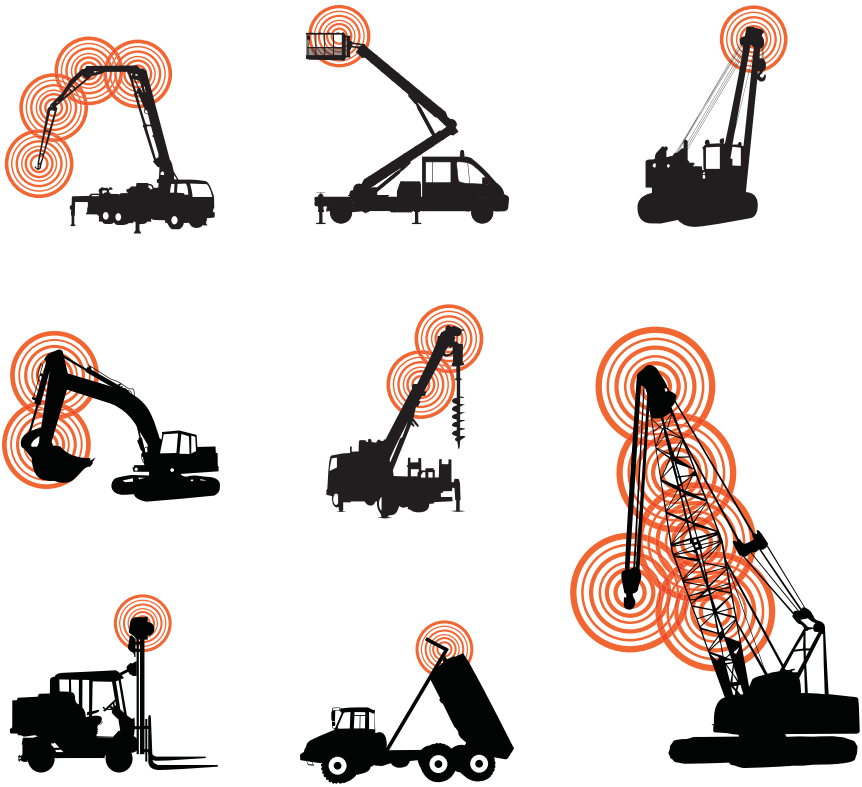
MINIMUM APPROACH DISTANCE - MAD EXAMPLE

If MAD = 20’ Then 1.75 x 20’ = 35’ Distance between sensors < 35’

SAMPLE SENSOR PLACEMENT

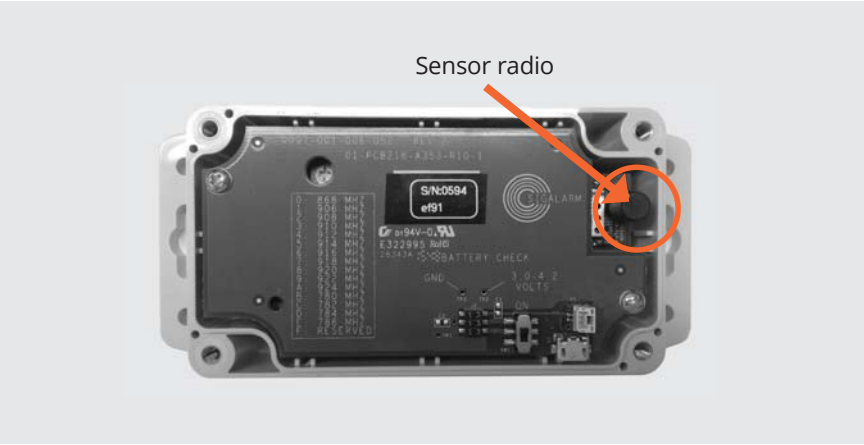
The following images are meant for a visual aid only. They are in no way real life representations, actual or implied. You must not rely on the information in this diagram as an alternative to advice from an appropriately qualified technician. If you have questions about any installation matter you should consult an appropriately qualified professional.

PLACEMENT SUGGESTIONS



MOUNT THE SENSOR WITH OPTIMUM RADIO POSITIONING

The sensor radio should be placed with the best possible line of sight to the control module. For example, rotating the sensor so the radio is on the left versus the right could improve communication with the main control module under certain circumstances.



RADIO DISTANCE RATING

Zigbee radio communication is rated for up to 27 meters. Wireless sensors should not be placed at a distance greater than 27 meters from the control module. Communication between Zigbee radios is affected by many things. Always test your installation for effective communication in multiple configurations where applicable.

2.6 INSTALLATION OF THE SPEAKER; WPASPC-5P

An exterior weather proof speaker is provided with each system to warn persons outside the equipment of danger. Place the speaker where it can easily be heard by ground crew, but will not be damaged during equipment operation. Remove the plug from the speaker by cutting it to expose the blunt wire. Connect the blunt speaker wires to the supplied speaker cable (2.0spk) as follows: pin1 (white) to white, and pin4 (red) to black. Connect the speaker cable to the speaker socket located on the rear of the control module.

2.7 RELAY OPTIONS

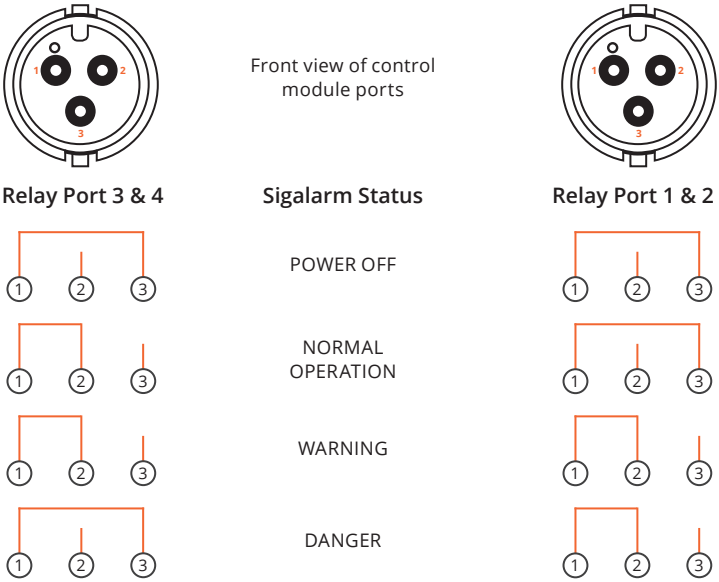
Your Sigalarm has four relay ports that allow you to customize your installation. These relays will open and close under different circumstances. A normal operation, warning, or danger status will open or close these relays according to the diagram. These relay outputs are for up to a maximum of 50Vdc/75Vac only. A relay cable will be provided for you with every Sigalarm system. Each cable has three conductors and pins. The cable can be used in relay ports 1, 2, 3 and 4. Additional relay cables can be purchased for multiple configurations.

Some common relay usage examples include:

- Wiring the Sigalarm system to your vehicle's hydraulics to stop hydraulic operation (movement) while the system is in an "alarm/danger" state
- Wiring the Sigalarm systems to an external light that remains lit in a "normal operation" (below setpoint) state

Use the relay diagram to customize the installation to your needs.

SIGALARM RELAY STATUS DIAGRAM



SIGALARM STATUS	DEFINITION OF STATUS	RELAY 3		RELAY 4		RELAY 1		RELAY 2	
		PINS 1 & 2	PINS 1 & 3	PINS 1 & 2	PINS 1 & 3	PINS 1 & 2	PINS 1 & 3	PINS 1 & 2	PINS 1 & 3
power off	no power supplied to control module	open	closed	open	closed	open	closed	open	closed
normal operation	sensor status below setpoint value	closed	open	closed	open	open	closed	open	closed
warning	approaching setpoint value	closed	open	closed	open	closed	open	closed	open
danger	at or above setpoint value	open	closed	open	closed	closed	open	closed	open

RELAY INSTALLATION EXAMPLE

Auto shut down: To stop hydraulics moving when a danger state occurs connect the supplied relay cable (2.0wrly) to relay port 3 on the rear of the control module. The blunt end of the (2.0wrly) cable should be wired to the equipment's hydraulics using Pin 1(red) and 2(black) so the circuit is interrupted and hydraulic movement is stopped in a danger status.

Auto shut down in never recommended for equipment moving a load

2.8 TESTING THE INSTALLATION

Verify your installation is correct and complete the operation set up prior to operating equipment near power lines.

- Apply power to the unit and verify the LCD screen turns on and the unit goes into a maximum status. If no sensors are paired “no data” will appear.
- Select the reset button and verify the control module reverts from max to the last displayed setpoint. The setpoint autosaves every 10 seconds.
- Verify the correct quantities of sensors installed are showing in the Home Screen/ Detail View, as well as the active sensor column of the Manage Sensors screen.
- Using the decrease icon or (-) button lowers the setpoint to initiate a **warning** status. Verify that the external and internal speakers alarm. Also check that visual warnings on the control module are functioning.
- If relay options are being utilized verify they are functioning properly.
- Using the decrease icon or (-) button lowers the setpoint further to initiate a **danger** status.
- Verify that the external and internal speakers alarm. Also check that visual warnings on the control module are functioning.
- If relay options are being utilized verify they are functioning properly.
- Depress the override icon and adjust the setpoint back to the desired level.

3. MENU DISPLAY IDENTIFICATION

3.1 HOME SCREEN / DETAIL VIEW

The home screen or detail view provides the central point of access for all the system's range of applications. It consists of the following sections:

- Tool bar
- Sensor dashboard
- Setpoint display
- Sensor status gauge
- Touch screen button icons

You can swipe the screen to the left or right for alternate Gauge View.

3.2 TOOL BAR

(Refer to diagram on page 19)

Item	Top Tool Bar	Function
12	GPS	Indicates if the Sigalarm system is receiving GPS service
13	GSM	Indicates GSM signal strength; Optional
14	Compass	Indicates direction
15	AZ/EI	Indicates position
1	Menu	This icon opens the Actions Screen

3.3 SENSOR DASHBOARD

Item	Sensor Dashboard	Function
11	Sensor EID	Displays paired sensors
16	Sensor reading	This is a numerical representation relative to the voltage detected
17	Alert status	Indicates the status of the sensor in relation to the setpoint
4	Battery life	Indicates battery status for each sensor

3.4 SET POINT DISPLAY

Item	Sensor Dashboard	Function
2	Setpoint	The adjustable numerical value at which the operator gets a danger status. Setpoint values range from 5-120

SETPOINT DISTANCE CORRELATION

The higher the numerical value of the setpoint the closer you can get to a power line. Example: A setpoint of 90 will allow an operator to get closer to a power line than a set point of 20.

3.5 SENSOR STATUS GAUGE

Item	Status Gauge	Function
3	Status Gauge	This gauge is a visual representation of sensor readings in relation to the setpoint

3.6 TOUCH SCREEN ICONS

Item	Tool Bar	Function
5	Override	The override icon can be selected in a danger state. This will put the unit in a warning state for 15 second countdown to allow the operator to move away from danger *This is especially important when the auto shutdown feature is utilized*
6	Decrease	Decreases the setpoint
7	One touch	Matches the setpoint to the current highest sensor reading plus five
8	Increase	Increases the setpoint
9	Reset	After power is applied reverts unit to last setpoint

3.7 BUTTONS AND KNOBS

Item	Button/knobs	Function
8a	+	Increases setpoint
6a	-	Decreases setpoint
10	Enter	N/A
9a	Reset	• After power is applied reverts unit to last setpoint. • Depressing the reset button for 15 seconds will reboot the system, known as a hard reset.

3.8 ACTIONS SCREEN OVERVIEW

The Actions Screen provides the point of access for all the following pages:

- Admin
- Display Settings
- Setup Defaults
- Manage Sensors
- Manage Devices
- Volume Adjustment

3.9 ADMIN

Item	Action Screen	Function
1	Admin Icon	Enter password, adjust setpoint max (optional), volume min and max (optional), lock setpoint (optional)

Any adjustment that can be made from the Admin Screen should be completed while equipment is at a safe distance from power lines and in a stationary position. As an added layer of protection, access to these adjustments are password protected.

PASSWORD

Passwords should only be given to competent persons capable of making key safety decisions.

ADMIN SCREEN FEATURES (ALL PASSWORD PROTECTED)

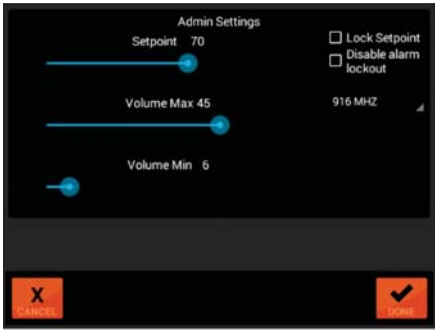
Setpoint: Maximum setpoint parameters can be set to limit the operator's ability to increase the setpoint from the Home Screen. For example: if the admin selects 55 as the maximum setpoint, the operator can only increase the setpoint to 55 or less. This also limits the one touch feature to 55 or less.

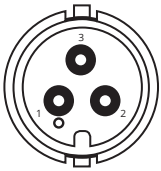
Volume Max: The volume maximum can be set to limit the operator's ability to increase the volume of the external speaker. For example: vehicles working in residential neighborhoods may require a softer alarm. This setting should never bet set low enough that ground personnel cannot hear the external speaker. This feature should always be set to the highest tolerable maximum.

Volume Min: The volume minimum can be set to limit the operator's ability to decrease the volume. A setting of 1 means the operator can adjust the volume of the external speaker all the way down to silent. This is NEVER recommended. It is imperative that ground personnel can hear the external speaker.

Lock Setpoint: The lock setpoint feature can be selected to leave the operator with no ability to increase or decrease the setpoint.

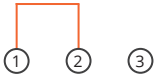
Disable Alarm Lockout: This feature will bypass normal relay continuity in "danger" mode for emergency situations, similar to a manual override. When this box is selected, relay continuity will be configured as shown below. Proceed with extreme caution when utilizing this feature.





Relay Port 3 & 4

Red Black White



Danger status with "disable alarm lockout" selected

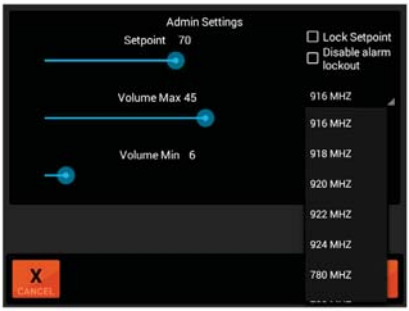
DISABLE ALARM LOCKOUT

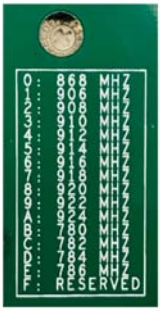
Disable alarm lockout is only relevant if 2.0WRLY cable is installed & only affects relay 3 & 4.

Radio Frequency Selector: This feature allows you to select which radio frequency the control module will utilize. The control module and sensors must be set on the same frequency to communicate. 916 is the factory default. Use the bottom right corner to select the dropdown menu and assign the preferred radio frequency.

In the USA and Canada, users may only select the radio frequencies of 906MHz, 908MHz, 910MHz, 912MHz, 914MHz, 916 MHz, 918MHz, 920MHz, 922MHz, or 924MHz.

Select the matching radio frequency by turning the dial on the sensor to the desired position. Use the table printed on the sensor board as a guide.



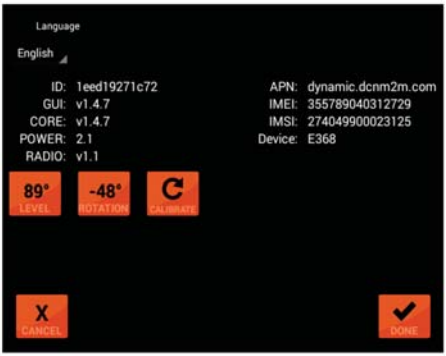


3.10 DISPLAY SETTINGS

Item	Action Screen	Function
2	Display Icon	Adjust brightness

3.11 SETUP DEFAULTS

Item	Action Screen	Function
3	Set Up Icon	Language preference, default English, software version, hardware version,



3.12 MANAGE SENSORS

Item	Action Screen	Function
4	Manage Sensor Icon	Add or remove sensors

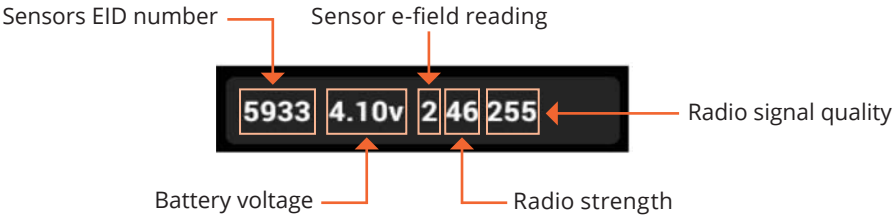
MANAGE SENSORS FEATURES

Active sensors: Displayed sensors in this column are paired to the control module. These same sensors will appear in the Home Screen/Detail View. The installation technician should always verify that the serial number and quantity of sensors installed on the equipment are identical to the listed sensors in this column. Sensors can be removed simply by selecting the icon.

Available Sensors: Displayed Sensors in this column are NOT paired to the control module. They can be paired by simply selecting the icon.

Several values associated with the sensors are displayed:

- The sensors EID number
- Battery voltage
- Sensor e-field reading
- Radio strength 0-100
- Radio signal quality 0-255



3.13 MANAGE DEVICES (COMING SOON)

Item	Action Screen	
5	Manage Devices Icon	Synch key fob (optional)

4. GETTING STARTED

4.1 INITIAL CONTROL MODULE SET UP

Before the equipment is operated near power lines, the following control module set up must be completed.

A. Display settings
- I. Adjust brightness
- II. Adjust volume
- III. Select default page layout preference

B. Setup Defaults
- I. Select Language preferences (Coming Soon)

C. Manage sensors
- I. Add or remove sensors as necessary
- II. Verify pairing

D. Manage Devices
- I. Verify key fob status (Coming Soon)

5. OPERATION

5.1 WARNINGS

The operator must fully understand how the Sigalarm system functions, and its limitations before use. It is dangerous to operate any equipment directly beneath or above high voltage power lines. Never approach any power line closer than the minimum safe distance set by OSHA. If multiple lines are present the Sigalarm system should be set to the lowest voltage line, and additional precautions may be required.

IF MULTIPLE LINES ARE PRESENT, THE SIGALARM SYSTEM SHOULD BE SET TO THE LOWEST VOLTAGE LINE, AND ADDITIONAL PRECAUTIONS MAY BE REQUIRED.

5.2 OPERATING PROCEDURES

Powering up: When power is first applied, the control module will search for sensors. No data will appear while connectivity is in progress (approx. 2 seconds). Once sensors are connected the control module will go into a maximum setting. If any power lines are in the vicinity, the alarms will sound. The operator must select the reset button to revert the system to the last displayed set point.

SETPOINT

The operator must decide what setpoint is appropriate for each and every jobsite.

The operator must decide what setpoint is appropriate for each and every jobsite. To adjust the setpoint, position the equipment at the desired location where the operator would like an alarm state, then depress the “one touch” button. This will change the setpoint to the greatest numerical sensor reading +5 at that position. When adjusting the setpoint, always position the equipment far enough away from the power line to give the operator time to react.

The Sigalarm system should be set to give a warning no closer than the minimum approach distance or MAD from the power line. Setpoint adjustments can also be made utilizing the increase or decrease buttons. Use a spotter to help you determine a safe position while adjusting the setpoint.

SIGNIFICANT CHANGES IN BOOM LENGTH AND/OR ANGLE MAY REQUIRE A SETPOINT ADJUSTMENT THAT DIFFERS FROM THE INITIAL SETPOINT SELECTION AT SETUP.

BELOW SET

A below set status occurs when all of the sensors have a reading numerically lower than the displayed setpoint. This means the equipment is in the defined work zone.

WARNING

A warning status occurs when one or more sensors are within 80% of the setpoint. This means the equipment is getting closer to but has not yet reached the danger zone.

DANGER

A danger status occurs when one of the sensor readings matches the setpoint. This means the equipment has crossed into the danger zone. No setpoint adjustments can be made during a danger status.

NO DATA

A no data status occurs when the sensor is not transmitting data to the control module for more than two seconds. This means there is no protection zone around the “down” sensor and the equipment is no longer detecting voltage. Do not operate equipment with a no data status. The system will beep alerting the operator of a no data status. See additional no data notes in the troubleshooting section.

WARNING NOTES

- If multiple lines are present, the Sigalarm should be calibrated to the lowest voltage line, and additional preventative measures may need to be utilized.
- The operator MUST fully understand how the Sigalarm is installed, operates, and its limitations before use.
- It is highly recommended that a Sigalarm distributor or an equally competent person complete installations.
- Prior to use, operator training should be done by Sigalarm, its representatives, or a competent person.
- When operating in close proximity to high voltage power lines, vehicles should be prohibited from traveling between the boom and power line.
- Adjust the Sigalarm setpoint when the boom angle and length is significantly different than that used for the last setting.
- It is dangerous to operate any high lift vehicle beneath or above high voltage lines.

GREATER THAN 10FT

Sigalarm systems should not be used on equipment operating closer than 10 feet to a power line.

5.3 REMOTE CONTROL OPERATION

Some units are equipped with remote control capabilities. Those units can be operated as follows: The control module will automatically go into max when power is applied. The operator can depress the reset button from the remote key fob. If a danger status occurs the operator can depress the override button on the remote key fob. The control module will then display an override countdown. The override countdown keeps the unit in a warning state for 15 seconds to allow the operator to pull away from the line.

5.4 SYSTEM RESET

The reset button and icon returns the unit to the last setpoint. The reset must be selected once every time power is applied to the control module. The displayed setpoint will autosave every 10 seconds. Depressing the reset button for 15 seconds will “hard reset” the control module.

5.5 OVERRIDE FEATURE

If a danger status occurs the operator can depress the override icon. The control module will then display an override countdown. The override countdown keeps the unit in a warning state for 15 seconds. If the auto shutdown feature has been utilized this will allow the operator to pull away from the line.

USE EXTREME CAUTION WHEN UTILIZING THE OVERRIDE FEATURE

6. DATA MANAGEMENT

6.1 DATA LOGGER

All control modules record events up to 2 gigs of storage

7. SPECIFICATIONS

7.1 DIMENSIONS

Control Module	W 7.5	D 3.0	H 5.25
Sensor	W 4.5	D 2.5	H 1.5
External Speaker	W 5	D 5	H 5
Cables	30 Ft		

7.2 MATERIAL

Control Module	ABS plastic enclosure
Sensor Enclosure	Built with ABS plastic
External Speaker	ABS with stainless steel hardware
Cables	18 AWG stranded tinned copper conductors with PVC insulation, water blocking tape, foil shield and PVC jacket

7.3 POWER SUPPLY REQUIREMENTS

12-48 Volt

7.4 E-FIELD DETECTION

Electric Field 60 Hz or 50Hz
selector switch located on board default is 60Hz

7.5 RANGE OF EFFECTIVENESS

Voltage Detection – Between 10 to 200 feet depending on voltage
Zigbee Communication – 27 meters (between sensors and control module)

7.6 SENSOR BATTERY

Each sensor is equipped with a lithium polymer battery that should last approximately 660 hours with no sunlight. Variables such as extreme heat or cold will affect estimated battery life. The solar panels will continually charge this battery for years. Completely dead batteries will take approximately 24 hours to charge (at approximately 100 milliamps per hour). If the battery is allowed to run down to 3.0 volts or less the sensor will enter self-preservation mode and shut down. The sensor will resume operations at 3.2 volts and, is considered fully charged at 3.75 volts.

The sensor battery can be charged using any micro USB. Plug the USB in the (J1) port. The switch must be in the on position to charge the battery.

7.7 CONTROL MODULE SCREEN

5.7 Full color display, High Brightness 900 Nits, 640 x 480 res.

7.8 TEMPERATURE SPECIFICATIONS

-10° c to +70°c

7.9 SPEAKER

Freq Resp: 300-15 kHz
Power Rating 15W max
Sensitivity: 105dB / 1W/1M

8. TROUBLESHOOTING

8.1 CONTROL MODULE TROUBLESHOOTING

Will Not Power Up

- Verify the wiring per the instructions in the manual (sections 2.3 - 2.4).
- Hold down the manual reset button for 15 seconds to force a “hard reboot”.
- Unplug the power cord for 60 seconds and restart.
- Call Sigalarm for remote assistance if available.

Frozen Screen

- Try adjusting the setpoint using the manual buttons. If the setpoint increases or decreases the touch screen is frozen, but not the control module. Power cycle the unit to resolve the situation. Never touch the screen while the system is powering up to avoid this problem.
- Hold down the manual reset button for 15 seconds to force a “hard reboot”.

Cannot Adjust Setpoint

- Verify that the lock setpoint feature in the admin screen is not selected.
- Verify that the max setpoint parameters in the admin screen are set in such a way that allows adjustment.

8.2 SENSOR TROUBLESHOOTING

No Data Reading

- Check that the sensor is turned on.
- Verify that the battery is charged using test points on the board.
- The distance between the sensor and the control module may be too great, try repositioning.

Sensor Reading Is 0

- It is common to have a reading of zero, it is only a problem if the sensor is near voltage.
- Test that the sensor is detecting voltage by plugging in an extension cord and moving it near the sensor, check that the reading increases.
- The voltage may be too low to detect at that distance.
- The power line may be too far away for the sensor to detect at that voltage.

9. REGULATORY WARNINGS

9.1 FCC COMPLIANCE STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with the FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and all persons. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

9.2 CANADIAN COMPLIANCE STATEMENT

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada license-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) L'appareil ne doit pas produire de brouillage;
(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

NOTE: Afin d'assurer la conformité aux exigences de la FCC en matière d'exposition aux radiofréquences, aucune modification de l'antenne ou de l'appareil n'est autorisée. Toute modification de l'antenne ou de l'appareil pourrait avoir pour conséquence que l'appareil dépasse les exigences en matière d'exposition aux radiofréquences et annule le droit de l'utilisateur de faire fonctionner l'appareil.

NOTES

NO RMA NUMBER IS ISSUED. THE SERIAL NUMBER IS USED TO TRACK THE UNIT

Customers wishing to return units to Sigalarm for any reason must complete the Return Material Authorization (RMA) form before returning the units. This includes both Warranty and Out of Warranty repairs.

Send unit to 4150 St. Johns Pkwy, Ste 1002 Sanford FL 32771 Attn: Warehouse Service Technician.

TO DOWNLOAD RMA FORM VISIT:

SIGALARMINC.COM/RMA

SIGALARM™

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