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Stainless Steel Electric Spreader

Models SS8

Warning:
Do not exceed GVWR or GAWR with spreader and load. Overloading could result in an accident or damage.

Read this manual before installing or operating the spreader.

Sander warranty

ARCTIC salt/sanding equipment is guaranteed to be free from defects in material or workmanship under normal use and service for 1 (one) year after the date of purchase. There is Limited warranty policy for Electric Spreader Controller (see document below). Arctic Equipment Manufacturing Corporation will replace or repair, at its election, without charge, any part which becomes defective within the period described above.

Arctic Product's Liability is expressly limited to repair or replacement of defective parts. Arctic Equipment shall not be liable for any consequential, incidental, or contingent damages whatsoever, whether for breach of contract, breach of warranty, negligence, or other tort, or on any strict liability theory.

What is not covered under this warranty is specified below.

Warranty does not cover:

- Problems caused by failure to follow instructions and failure to maintain the product as described in the owner's manual.
- Damage to the product that has been subject to misuse, neglect, accident, or improper installation, maintenance, care, or storage.
- Damage caused by parts not used in accordance with their intended purpose.
- Paint or surface coating deterioration, expendable parts such as, but not limited to, bushings, stripped keyways or splines on external shafts, nuts and bolts or tightening nuts and bolts which are considered normal maintenance.
- Damage resulting from rust, corrosion, freezing or overheating; failure to maintain proper fluid/lubrication levels.
- Damage due to abrasion of wiring harnesses.
- Travel time incurred to and from dealers or suppliers, accommodations, meals, cost of tax, freight to/from dealers, storage charges, environmental charges, solvents, sealants, lubricants, or any other normal shop supplies.
- Problems caused by accessories and parts that are not supplied by Arctic Equipment.
- Damage resulting from lack of, or dirty lubrication or using other than recommended grade and type of lubrication.
- Repairs by an unauthorized person.
- Damage caused by improper mounting or conditions on units not mounted by factory. Improper maintenance or storage of equipment.

- Liability for damage to the property, or injury to, or death of any person arising out of the operation, maintenance or use of the covered product.

This warranty is made only to the original purchaser. There is no other warranty expressed, implied, or statutory.

The customer must register the equipment with Arctic within 60 days from the day of purchase using the online registration system found on the Arctic Equipment website www.arcticsnowplows.com/warranty .

All parts returned to us, transportation charges prepaid, must be accompanied with a "Return Goods Authorization" number, obtained from the factory. In order to reduce down-time, we will, on your request, send the parts required and you will be billed under the usual terms. A credit will be issued to your account when the parts, in our examination prove to be defective.

Arctic Equipment Manufacturing Corporation reserves the right to change specification without prior notice.

Customer Responsibility

The loaded vehicle, including all after-market accessories, the salt/sanding equipment, passengers, and cargo, MUST NOT exceed the gross vehicle weight rating (GAWR), front gross axle weight rating (FGAWR), or rear gross axle weight rating (RGAWR) specified on the Safety Compliance Certification Label located in the driver's side door opening.
It is the operator's responsibility to verify that these ratings are not exceeded.
To determine the Gross Axle Weights for your vehicle, including all after-market accessories, the salt/sanding equipment, passengers, and cargo, take your loaded vehicle to a scale. Place the front wheels of the vehicle on the scale to get the Front Gross Axle Weights (FGAW). To get the Rear Gross Axle Weights (RGAW), place the back wheels of the vehicle on the scale.

Disclaimer Notice

Arctic Equipment Manufacturing Corporation (Arctic) does not assume liability for damage to your motor vehicle resulting from the attachment or use of an Arctic salt/sanding equipment. The purchaser assumes all vehicle risk associated with the attachment and operation of this salt/sanding equipment.
The added weight may impair the operation and control of your vehicle. Additional equipment may be necessary before installing salt/sanding equipment. Please consult your vehicle dealers prior to the purchase and installation of the salt/sanding equipment.

Limited Warranty Policy: Electric Spreader Controller

Products	Electric Spreader Controller: Display Unit and Motor Power Control Module
Warranty term	Up to twelve (12) months, conditional

This policy sets out the terms of the limited warranty on the Arctic electric spreader controller. Please read it in full, including Appendix A, before installing or operating the product. Installation or use of the product constitutes acceptance of these terms.

1. Definitions

1.1 "**Arctic**" means Arctic Equipment and its authorized service agents.

1.2 "**Purchaser**" means the original end-user purchaser of a new Product.

1.3 "**Product**" means the electric spreader controller, consisting of the Display Unit and the Power Control Module.

1.4 "**Display Unit"** means the in-cab operator display.

1.5 "**Power Control Module**" means the motor power control module that drives the spreader motors, mounted outside the cab.

1.6 "**Cover**" means the protective cover supplied for, or specified to be fitted over, the Power Control Module.

1.7 "**Approved Equipment**" means motors, sensors and accessories supplied or approved in writing by Arctic.

2. Limited Warranty

2.1 Subject to the conditions and exclusions in this policy, Arctic warrants to the Purchaser that the Product is free from defects in materials and workmanship.

2.2 The Display Unit and the Power Control Module are each warranted and assessed separately. A claim on one does not extend to, or affect the warranty on, the other.

2.3 This warranty is not transferable.

3. Warranty Period

3.1 The warranty period is up to twelve (12) months from the date of the original purchase invoice.

3.2 The warranty applies only when every condition in Section 4 is met. Failure to meet any condition ends the warranty on the affected part, regardless of the time remaining.

3.3 A repaired or replacement part is warranted only for the balance of the original warranty period. A claim does not extend or renew the warranty period.

4. Conditions of Warranty

The warranty is conditional. It applies only if all the following are met for the full period of use.

4.1 Power supply. The Product is powered through an ignition-switched solenoid, so that it is not energized when the ignition is off. The supply is run directly from the battery in 4 AWG or 6 AWG wire, protected by a 125 A breaker, and connected with correct polarity.

4.2 Electrical protection. The Product is disconnected from the vehicle electrical system before jump-starting, battery charging or welding on the vehicle or attached equipment.

4.3 Operating limits. The Product is operated within its rated supply voltage and rated output current.

4.4 Enclosure and Cover. The Power Control Module is not waterproof. It is installed and always operated under its Cover, in undamaged condition, to keep out water, salt and brine, with its lid closed and fastened and every cable entry sealed.

4.5 Enclosure integrity. The Power Control Module enclosure has not been opened by anyone other its authorized personnel.

4.6 Connected equipment. Only Approved Equipment is connected to or powered from the Product.

4.7 Firmware. Firmware has been loaded only through methods provided by Arctic.

4.8 Appendix A. The Product has been installed and operated in accordance with Appendix A.

5. Exclusions

The warranty does not cover failure or damage caused, in whole or in part, by any of the following.

5.1 Display Unit

1. Cracked, scratched or impact-damaged screen or housing.
2. Liquid damage of any kind, including spills, condensation from washing, or submersion.
3. Dropping, crushing, or a failed or improvised mount.
4. Cables or connectors damaged by pulling, pinching or chafing.
5. Incorrect wiring, including reverse polarity, or connection to the wrong supply.
6. Voltage surges, transient or electrical noise from the alternator, jump-starting, battery charging, welding or other vehicle electrical events.

5.2 Power Control Module

1. Incorrect wiring, including reverse polarity, shorted or crossed outputs, or connection to the wrong supply.
2. A missing, bypassed or incorrectly rated breaker, or supply wire other than 4 AWG or 6 AWG.
3. Voltage surges, transient or electrical noise from the alternator, jump-starting, battery charging, welding or other vehicle electrical events.
4. Sustained or repeated under-voltage or over-voltage, including from a weak battery, worn, loose or corroded battery cables, poor grounds or undersized cable.
5. Repeated or sustained overloading, including a stalled, jammed or seized motor, or any load above the rated current.
6. Water, salt or brine entry, and resulting corrosion, including from operation without the Cover or with a damaged Cover, an unsealed cable entry or an unfastened lid.
7. Pressure washing of the module, its Cover or its connectors.
8. Opening of the enclosure, including short circuits or damage caused while open.
9. Powering accessories or equipment that is not Approved Equipment.

5.3 General

1. Physical damage, collision, accident, misuse or abuse.
2. Modification of the hardware or firmware.
3. Faults in motors, valves, sensors, harnesses or other equipment not supplied by Arctic.
4. Normal wear and cosmetic deterioration.

6. Remedies

6.1 For an approved claim, Arctic will, at its sole option, repair the part or replace it with a new or refurbished part of equal function, and return it to the dealer. The dealer is responsible for returning the part to the Purchaser and for all communication with the Purchaser.

6.2 Repair or replacement is the Purchaser's sole and exclusive remedy under this warranty.

7. Limitation of Liability

7.1 To the maximum extent permitted by law, this warranty is given in place of all other warranties and conditions, express or implied, including merchantability and fitness for a particular purpose.

7.2 Arctic is not liable for any indirect, incidental, special or consequential loss, including loss of revenue, missed service, wasted material, vehicle downtime or third-party claims.

7.3 Arctic's total liability under this policy shall not exceed the purchase price of the affected part.

7.4 Where applicable law does not permit a limitation in this section, that limitation applies only to the extent permitted.

Appendix A: Installation and Operating Requirements

Compliance with these requirements is the condition of warranty under Section 4.

Ref	Required	Prohibited
A.1	Power the Product through an ignition-switched solenoid	Leaving the Product energized with the ignition off
A.2	Supply power directly from the battery in 4 AWG or 6 AWG wire through a 125 A breaker, and verify polarity before connection	Undersized wire, a missing or bypassed breaker, or reversed polarity
A.3	Disconnect the Product before jump-starting, battery charging or welding	Jump-starting, charging or welding with the Product connected
A.4	Keep the Power Control Module under an undamaged Cover at all times	Operating the Power Control Module without its Cover or with a damaged Cover
A.5	Keep the lid closed and fastened and every cable entry sealed	Opening the Power Control Module enclosure
A.6	Clean around the Power Control Module by hand	Pressure washing the module, its Cover or connectors
A.7	Operate motors within the rated current and clear jams promptly	Running a stalled, jammed or seized motor
A.8	Connect and power only Approved Equipment	Powering unauthorized accessories from the Product
A.9	Make all warranty claims through the dealer that sold the Product	returning a part without an RMA number
A.10	Keep the battery, battery cables, grounds and charging system in good condition	Operating with worn, loose or corroded battery cables, poor grounds or a faulty alternator

Stainless Steel Electric Spreader

WARNING:

- Do not exceed the gross vehicle weight ratings (GVWR), front gross axle weight rating (FGAWR) or rear gross axle weight rating (RGAWR) with spreader and load. Overloading could result in an accident or damage.(Refer to Material Density chart below)
- Never hook booster cables directly to the motor; this would void your warranty.
- Unplug sander battery cables before boosting your truck.
- Empty and clean spreader after every use because leftover material can freeze or harden.

Before attempting any procedure in this book, read and understand all the safety information contained in this section. In addition, ensure all individuals working with you are also familiar with these safety precautions.

For your safety, warning and information decals have been placed on this product to remind the operator to take safety precautions. It is important that these decals are in place and are legible before operation begins. New decals can be obtained from Arctic Equipment Manufacturing or your local dealer.

Remember it is the owner's responsibility to communicate information on the safe use and proper maintenance of this equipment. The careful operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury to operator or bystanders and/or damage to equipment.

- Driver to keep bystanders a minimum of 25 feet away from operating spreader.
- Servicing the sander without special tools and knowledge could result in personal injury. See an authorized Arctic dealer for service.
- Before servicing the spreader, wait for conveyor or spinner to stop and then lock out power.
- Do not climb into or ride on spreader.
- Disconnect electric power and tag out if required before servicing or performing maintenance.
- Do not allow hands, hair or clothing to get near any moving parts such as spinner, chain etc.
- Do not wear neckties or loose clothing when working on the vehicle. These things can catch on moving parts or cause an electrical short circuit that could result in personal injury. Do not wear wrist watches, rings or other jewellery when working on the vehicle or individual equipment
- Do not allow unauthorized person to operate this unit.
- Do not work on a vehicle without having a fully serviced fire extinguisher available. (Dry chemical unit specified for gasoline, chemical or electrical fires).

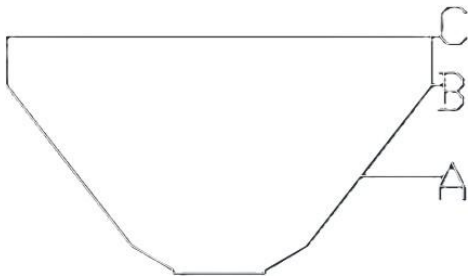
- Do not smoke while working on the vehicle. Gasoline and battery acid vapours are extremely flammable and explosive.
- Do not alter the sander, or any part without written approval of Arctic Equipment Manufacturing Corporation.
- Do not leave unused material in hopper. Material can freeze or solidify, causing unit to not work properly. Empty and clean after each use.
- Inspect the sander periodically for defects. Parts that are loose, broken, missing or plainly worn must be tightened or replaced immediately.
- Check the job site for terrain hazards, obstructions and people. Check surrounding area for hazardous obstacles before operating this unit.
- Wear safety goggles when working on the vehicle to protect your eyes from battery acid, gasoline, and dust or dirt from flying off moving engine parts.
- Be aware of and avoid contact with hot surfaces such as engine, radiator, and hoses.
- Wear safety glasses with side shields when striking metal against metal. Failure to heed could result in injury to the eye(s) or other parts of the body.
- Shut off the vehicle engine, place the transmission in neutral or park, turn the ignition switch to the "off" position, firmly apply the parking brake of the vehicle before removing / installing the sander.
- Be sure that the sander is properly attached before moving the vehicle.
- To remove the sander, the unit must be empty. Do not stand close to the sander when it is being lifted. Keep a safe distance away.
- Before traveling be sure that spinner assembly is properly attached to the spreader body.

Sander Specification

1/2 -HP electric motor

In cab variable speed wireless controller.

Model	Overall Length (in)	Bed Length (in)	Overall Width (in)	Overall Height (in)	Capacity Struck (cu.yd)
SS8	114	96	37	33	1.8



Load Volume

Hopper Length	Load Volume (cu yd)		
	A	B	C
8ft (1.8 cu yd)	0.4	1.2	1.8

Spreader Installation

The SS8 is designed for installation in an 8' pickup truck bed. Follow the steps below to install your unit in your vehicle.

a) Slide spreader into position and secure with the ratchet straps into the cargo tie downs of the truck (pictures # 6)

b) Install the spreader spinner assembly and secure it using pins and secure with hitch pin clip. (Picture#7)

c) Connect all the cables as shown in the electric system diagram. Be sure to grease all connections.

Material Used:

1. Bulk Salt
2. Dry Salt & Sand Mixer (50/50)

Material Density (lb per cubic yd)
Fine Salt – Dry 1400
Coarse Salt – Dry 1300
Coarse Sand – Dry 2800
Coarse Sand – Wet 3300

Maintenance

Daily Inspection and Lubrication

a) Check gearbox oil level. It should be filled to the oil level plug. (Picture#5)
b) Lubricate the following grease nipples:
    1) 1 on conveyor idler shaft bearing (2 bearings) (picture #1)
    2) 1 on drive shaft bearing (picture #2)
    3) 1 on spinner shaft bearing (2 bearings) (Picture #3)

Yearly Inspection

a) At the end of the operating season, the unit should be thoroughly cleaned and lubricated. The conveyor chain should, ideally, be stored in oil. These preventative measures should prevent premature rusting of the unit. Grease threaded rod on the chain tighteners. (Picture #4)

b) At this time or before the start of the next season, it is wise to check all drive components for appreciable wear. Any components which are questionable should be replaced now. This short and simple check will avoid down time during the operating season.

c) Change the gear box oil.

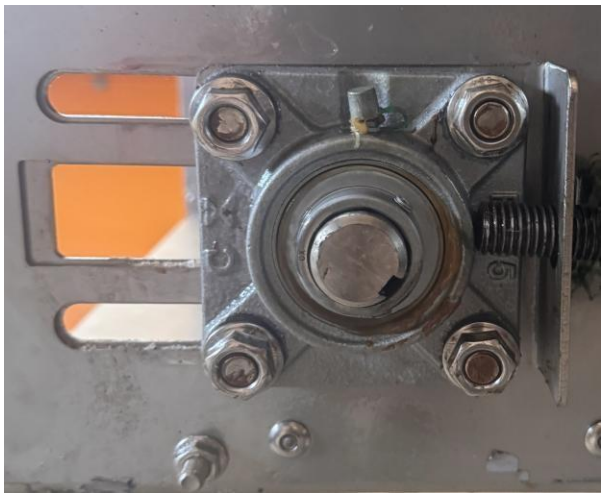
d) Replace the oil filter. (Note: If the unit is utilized year-round, replace it twice a year).

Before Operating

a) Grease all lubrication points.
b) Ensure that the conveyor chain is dragging for one foot on the bottom return channel, of the spreader. (Do not overtighten the chain).

Lubricants

Speed Reducer Lubricant..... semi-synthetic oil gx extra 75W90



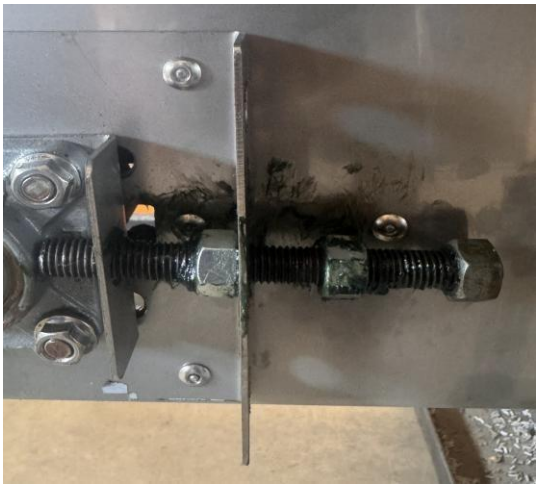
Picture 1



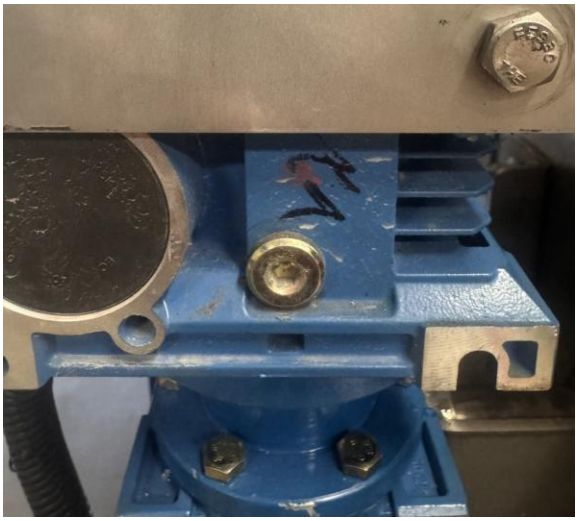
Picture 2



Picture 3



Picture 4



Picture 5



Picture 6



Picture 7

Spreader Controller – Display and Operating Instructions for Manual Mode Only

How to read the display, operate the spreader and respond to alerts on the MTS Pro electric spreader controller. Auto-mode rate control, calibration and geofence features are covered in a separate manual.

> **Safety.** Keep people, hands and tools clear of the conveyor and spinner whenever the controller is on. Always find and fix the cause of a protection alert before restarting.

1. Front panel and main screen

The display in the cab talks wirelessly to the control module mounted on the spreader, which drives the conveyor and spinner. Most buttons have two jobs: the label **above** a button is a short press, the label **beside** it is a press-and-hold.

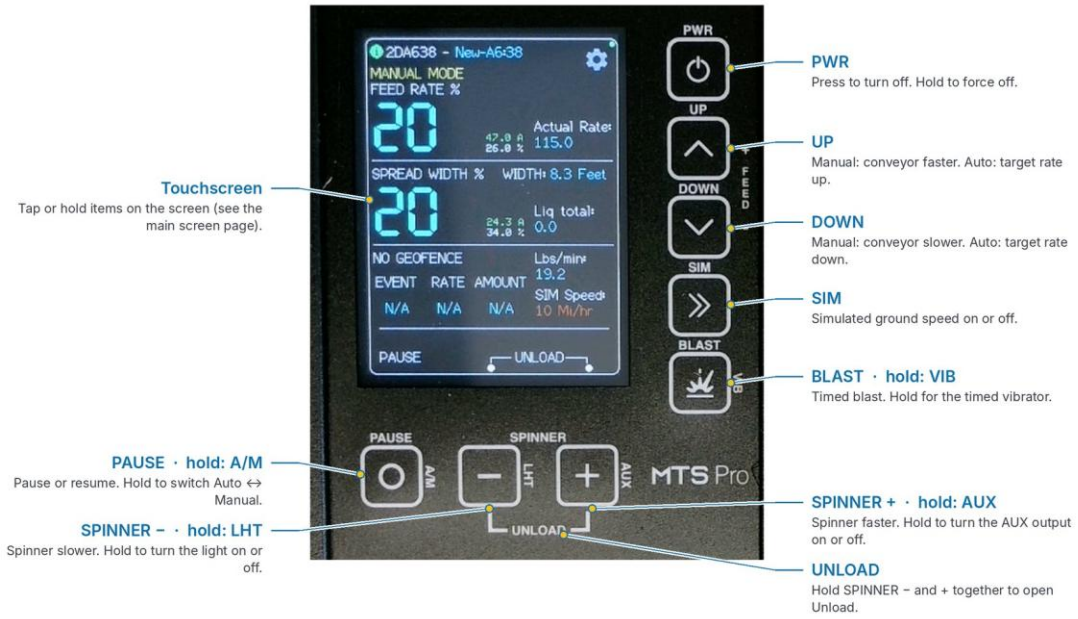


Figure 1 – Front panel (Note: SIM button is AUTO mode only)

Please refer the video:
How to operate a spreader controller
Please click the link:
https://youtu.be/A_t2RkXmec0

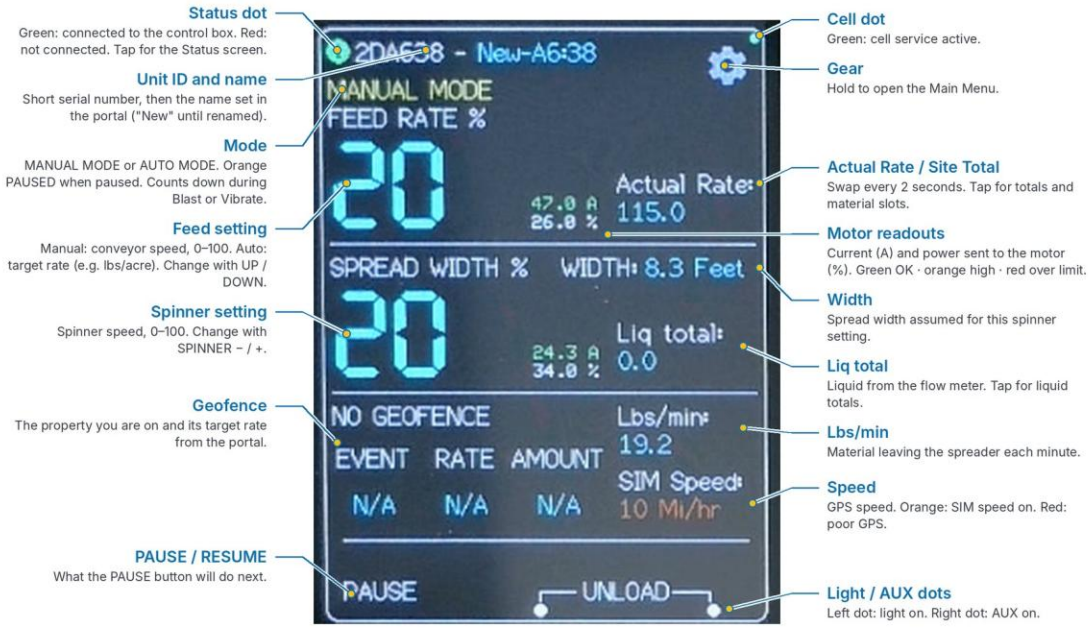


Figure 2 – Main screen in Manual mode (Note: Feed Setting, Geofence, Actual Rate/Site Total, Width, Liq Total, Lbs/min, Speed – Auto mode Only)

2. Connection and pairing

The display and control module talk over their own radio link. They do **not** use Wi-Fi; Wi-Fi is only used to download firmware (section 5).

Status dot

Dot (top left)	Meaning
Green	Display is connected to the control module
Red	Not connected. First check the control module has power, then see *How pairing works* below.

Beside the dot are the display's short serial number and its name. The name is set in the Arctic portal (paid subscription); a new display shows **New** until it is renamed there.

Status screen

Tap the status dot to open the Status screen. The serial number at the top identifies the unit: give it to support when you call, and use it to register the unit in the portal.



Figure 3 – Status screen (SIM and modem numbers hidden)

The value to watch is **Control Module Voltage**: 12 V or more is healthy. At 10 V or below the controller shuts down (see *Low Voltage*, section 4).

How pairing works (The controllers supplied with Arctic spreaders are already paired, so there is no need to pair them again.)

- A **display** pairs with one control module and **remembers it permanently**, through restarts, until you press **RESYNC**.
- After RESYNC the display is unpaired and shows ID **FFFFFF**. It then connects to the **first available module** it sees and remembers that one.
- A **module is available** only when it has just powered up (or been power cycled) and is not connected to a display.
- A **module does not remember displays.** If its display is off, the module can connect to a different display, but only after it is powered up fresh or power cycled.

On most installs the module is powered through the ignition, so **power cycle = ignition off, wait a few seconds, ignition on.**

Situation	What to do
Pair a display with a module	1. On the display: Main Menu → Device Settings → Control Box → **RESYNC**. The ID shows FFFFFF. 2. Power cycle the module. 3. The display connects on its own; the status dot turns green.

Situation	What to do
New display for an existing module	1. Turn off or remove the old display. 2. Turn on the new display. It should show FFFFFF; if not, press RESYNC. 3. Power cycle the module.
New module for an existing display	1. Install and wire the new module. 2. On the display, press **RESYNC**. 3. Power up the new module. If it doesn't connect within a minute, press **AUTO SEARCH** (the module may be on a different radio channel).
Moving a display to another truck	Install it, press **RESYNC**, then power cycle that truck's module.
Several trucks parked together	A display in RESYNC takes the first available module it sees. Keep the other trucks' displays on and connected, or their modules switched off, and power cycle only the module you want.
Status dot red on a unit that was working	Don't press RESYNC: the display still remembers its module. Check the module has power, then power cycle it. It reconnects on its own.



Figure 4 – Device Settings → Control Box

AUTO SEARCH finds a module set to a different radio channel. If the link keeps dropping, move the two units where they connect well, then press Channel **–** or **+** slowly to change channel.

3. Operating the spreader

Mode and pause



Figure 5 – Manual, Auto and Paused

Mode line	Meaning
MANUAL MODE	You set conveyor and spinner speed directly
AUTO MODE	You set an application rate; the controller adjusts the conveyor to hold it as ground speed changes. Covered in the Auto-mode manual.
… PAUSED (orange)	Conveyor and spinner stopped. Settings are kept.

- **Pause / resume:** press **PAUSE**.
- **Switch Manual ↔ Auto:** hold **PAUSE** (A/M).

The two numbers

The **large number** is your setting (0–100). The **small %** under it is the power actually sent to the motor. They won't match; that's normal.

Motor current

The small A reading under each setting is the current drawn by the conveyor or spinner motor.

Colour	Meaning
Green	Normal
Orange	Higher than normal. A warning appears at the bottom of the screen. Check for a jam or frozen material.
Red	Over the limit. The controller stops that motor and shows an Overload alert (section 4).

A small reading (under 1 A) while paused is normal.

Totals (Auto Mode only)

- **Actual Rate** and **Site Total** take turns in the same spot every 2 seconds.
- Tap that area to see **Site Total** (this property) and **Shift Total** (since power-on), and reset either one.
- **WIDTH** is the spread width the controller assumes for the current spinner setting. It comes from spread width calibration (calibration manual).

Buttons

Button	Press	Hold
UP / DOWN	Manual: conveyor faster / slower. Auto: rate up / down.	—
SPINNER – / +	Spinner slower / faster	–: work lights on/off (both lights share one output). +: AUX output on/off.
SPINNER – and + together	—	Unload (below)
BLAST	Blast: full conveyor output for a set time. No need to hold. Does not work while paused.	Vibrator: runs for a set time (default 15 s). Hold again to stop it early.
SIM	Simulated speed on/off. Used in Auto mode where there is no GPS, so the controller can't measure ground speed.	—
PWR	Turn on / off	Hold 3 seconds to force off

A small dot at each end of the UNLOAD label on screen shows the work lights (left) and AUX (right) are on. While Blast or the vibrator runs, the mode line counts down the seconds left.



Figure 6 – Blast and vibrator

Unload

Use Unload to empty the spreader without counting the material against a property.

1. Hold **SPINNER –** and **SPINNER +** together.
2. Press **PAUSE** to start or stop the conveyor. **– / +** set its speed. The spinner does not run.
3. Hold **–** and **+** together again to exit.

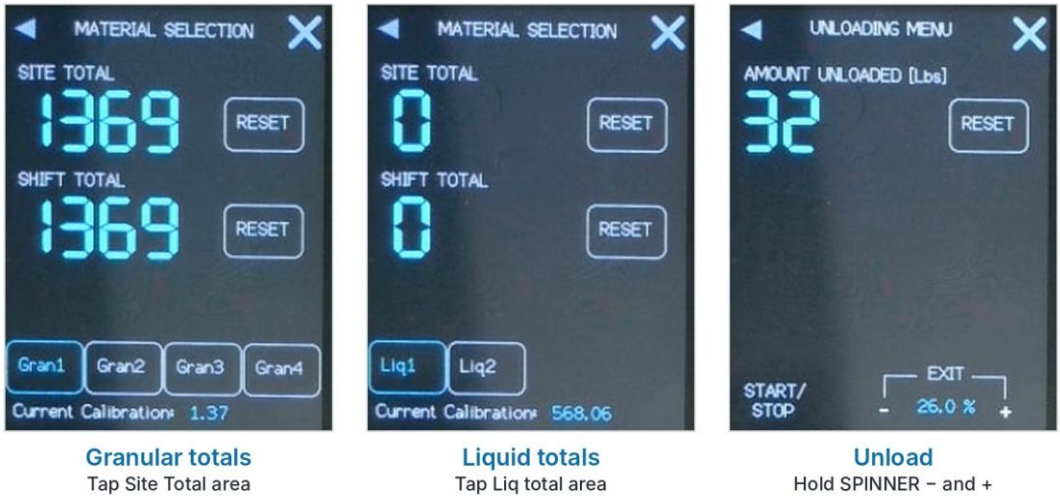


Figure 7 – Granular totals, liquid totals and Unload

4. Spreader protection alerts

When the controller detects a fault, it stops the affected motor and shows a **SPREADER PROTECTION** screen. Tap **ACKNOWLEDGE** to return to the main screen. The spreader is **always paused** afterwards: fix the cause, then press PAUSE to resume. If the fault is still there, the alert comes back.

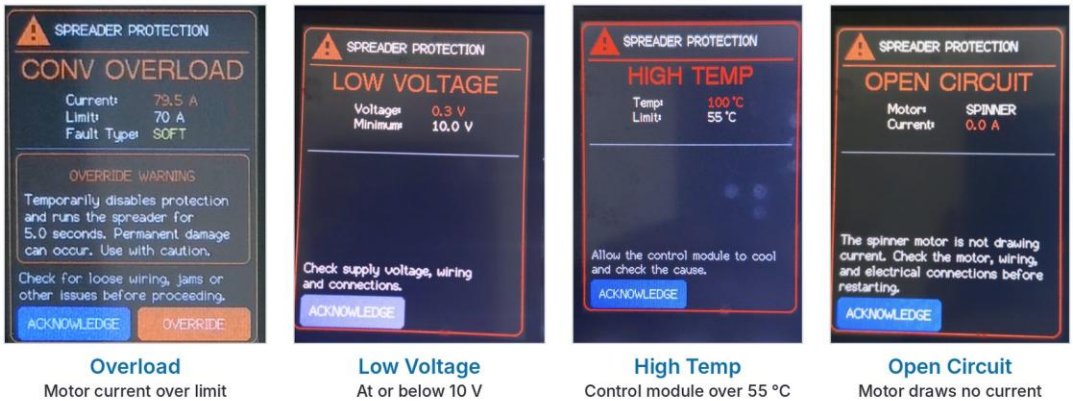


Figure 8 – Protection alerts

Alert	What it means	What to do
OVERLOAD (CONV or SPINNER)	Motor current went over its limit	Check for a jam, frozen material, a worn chain or loose wiring
LOW VOLTAGE	Supply at the control module is 10 V or below; the controller shuts down. Dips of 2 seconds or less are ignored.	Check the battery, charging, wiring and connections. 12 V or more is healthy.
HIGH TEMP	The control module's circuit board is over its limit (55 °C)	Let the control module cool, then find the cause, e.g. a motor working too hard
OPEN CIRCUIT (conveyor or spinner)	The motor isn't drawing any current	Check the motor, wiring and connections before restarting

Override (Overload only)

The Overload screen also has **OVERRIDE**. It switches off overload protection for **5 seconds** and keeps the spreader running, to push through a jam.

- Use it only to clear a jam you can't clear by hand. **Permanent damage can occur.**
- If the jam is still there, stop and clear it. Don't keep pressing Override.
- Note the **Fault Type** shown on the screen if you call support.

5. Settings

Hold the **gear** (top right) to open the Main Menu. ◀ goes back one level; ✕ returns to the main screen.

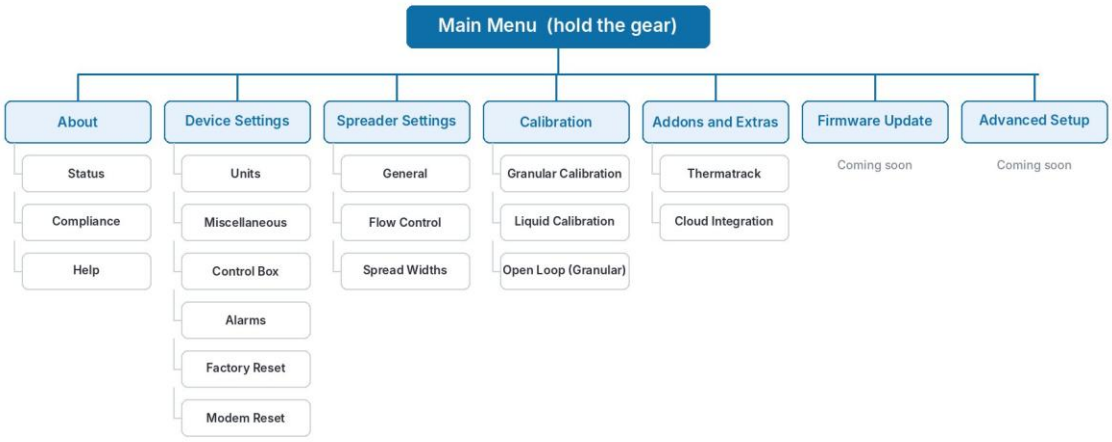


Figure 9 – Menu map

Device Settings

Page	What you can change
Units	Lbs / Kgs / Tons · Gallons / Liters · area (per 1,000 m², per 1,000 ft², acre, lane miles) · Feet / Meters · km/h / mph
Miscellaneous	Rate button step (Auto mode), power-on with ignition, sensor connection, sensor noise filter, brightness
Control Box	Pairing (section 2)
Alarms	Beep on low flow (Auto mode)
Factory Reset	Erases **all** settings and calibration. Use only if Arctic support asks.
Modem Reset	Diagnostics. Use only if Arctic support asks.

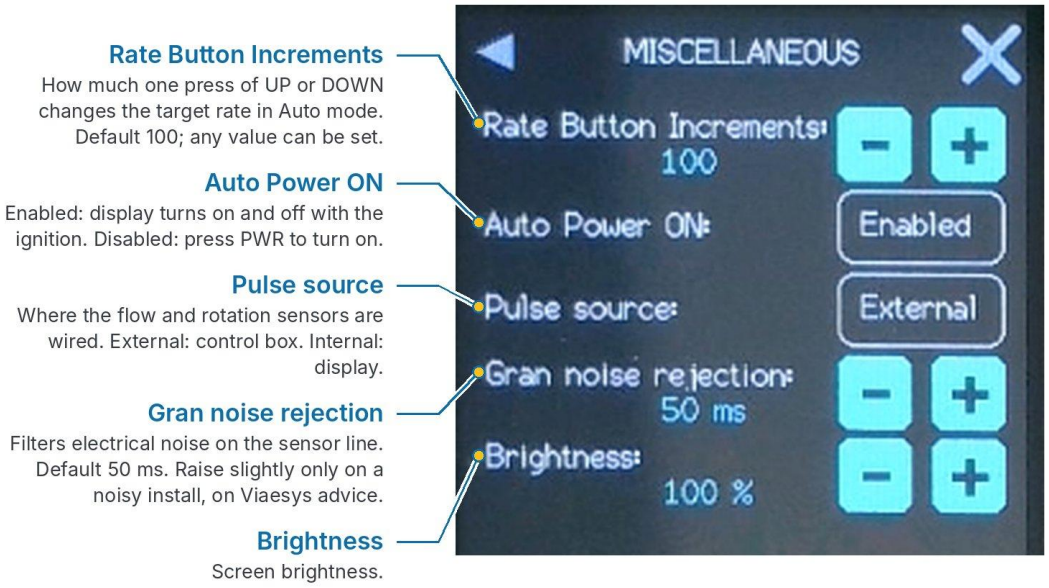


Figure 10 – Device Settings → Miscellaneous

Add-ons and Extras (optional not need for normal spreading)

Optional features such as a pavement temperature sensor and portal (cloud) settings. Not needed for normal spreading.

Firmware

You should **not** need to update firmware unless Arctic asks you to. When you do:

1. On your phone, set up a hotspot named mtspro, password 12345678. iPhone: rename the phone to mtspro and turn on **Maximize Compatibility**. Android: set the band to **2.4 GHz**. Mobile data must be on.
2. Open the firmware screen and choose the firmware Arctic tells you to. **Defaults** lists Arctic's latest standard firmware for each model.
3. The download takes about 3 minutes. The unit restarts on its own. Don't turn off the unit or the hotspot meanwhile.

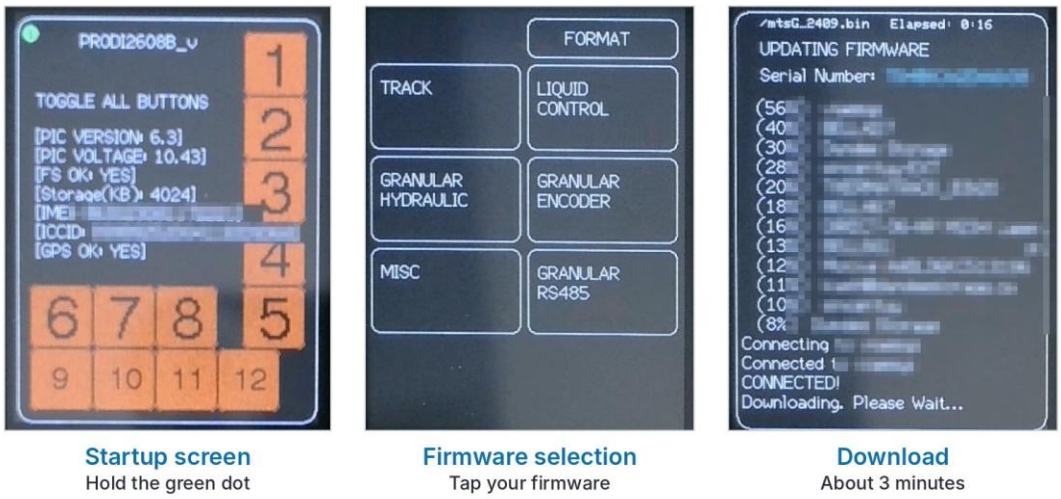


Figure 12 – Firmware download

If the download fails, check the hotspot settings and try again. Still failing: tap **FORMAT**, then choose the firmware again. FORMAT clears a stuck file system; no data is lost.

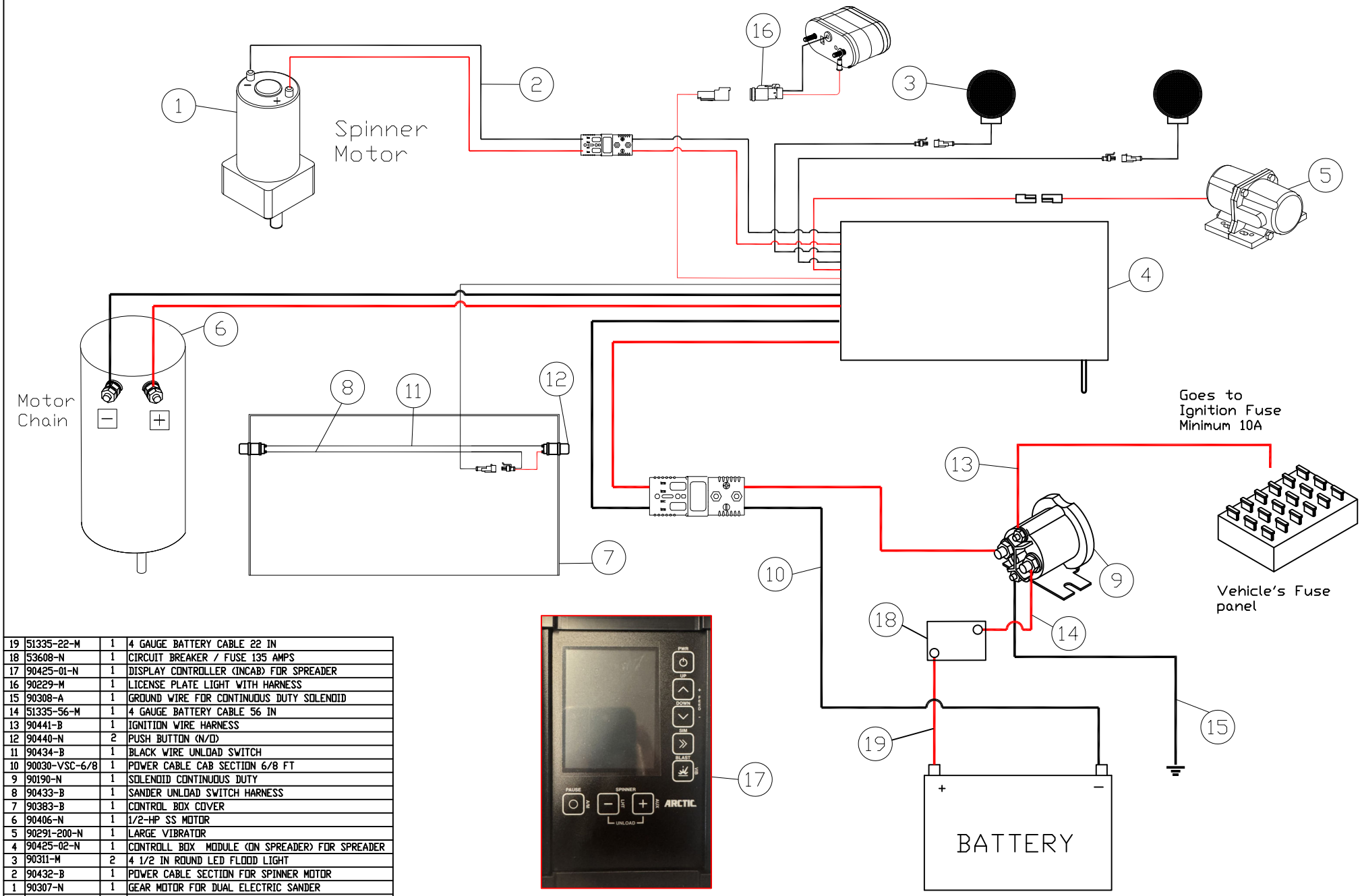
6. Questions and answers

Question	Answer
How do the display and control module connect?	Over their own radio link, not Wi-Fi. See *How pairing works*, section 2.
Does the display need Wi-Fi or a phone hotspot?	Only to download firmware, through a phone hotspot named mtspro (section 5).
Why does the serial number matter?	It identifies the unit for support and for registering it in the Arctic portal. Find it at the top of the Status screen.
How do I change the display's name?	In the Arctic portal. A new display shows "New" until renamed.
What is SIM?	Simulated speed. It lets you apply material in Auto mode where there is no GPS signal, such as a parking garage.
How do I force the controller off?	Hold **PWR** for 3 seconds.
What happens at low voltage?	At 10 V or below the controller shuts down and shows **LOW VOLTAGE**. Dips of 2 seconds or less are ignored. Keep the supply at 12 V or more.
Is there an overheating warning?	Yes: **HIGH TEMP**, when the control module's circuit board passes 55 °C. Let it cool and find the cause.
How long does Override run?	5 seconds.
How do I stop the vibrator early?	Hold **BLAST** again. Otherwise it stops when its timer ends (default 15 s).
How often should firmware be updated?	Only when Arctic tells you to.

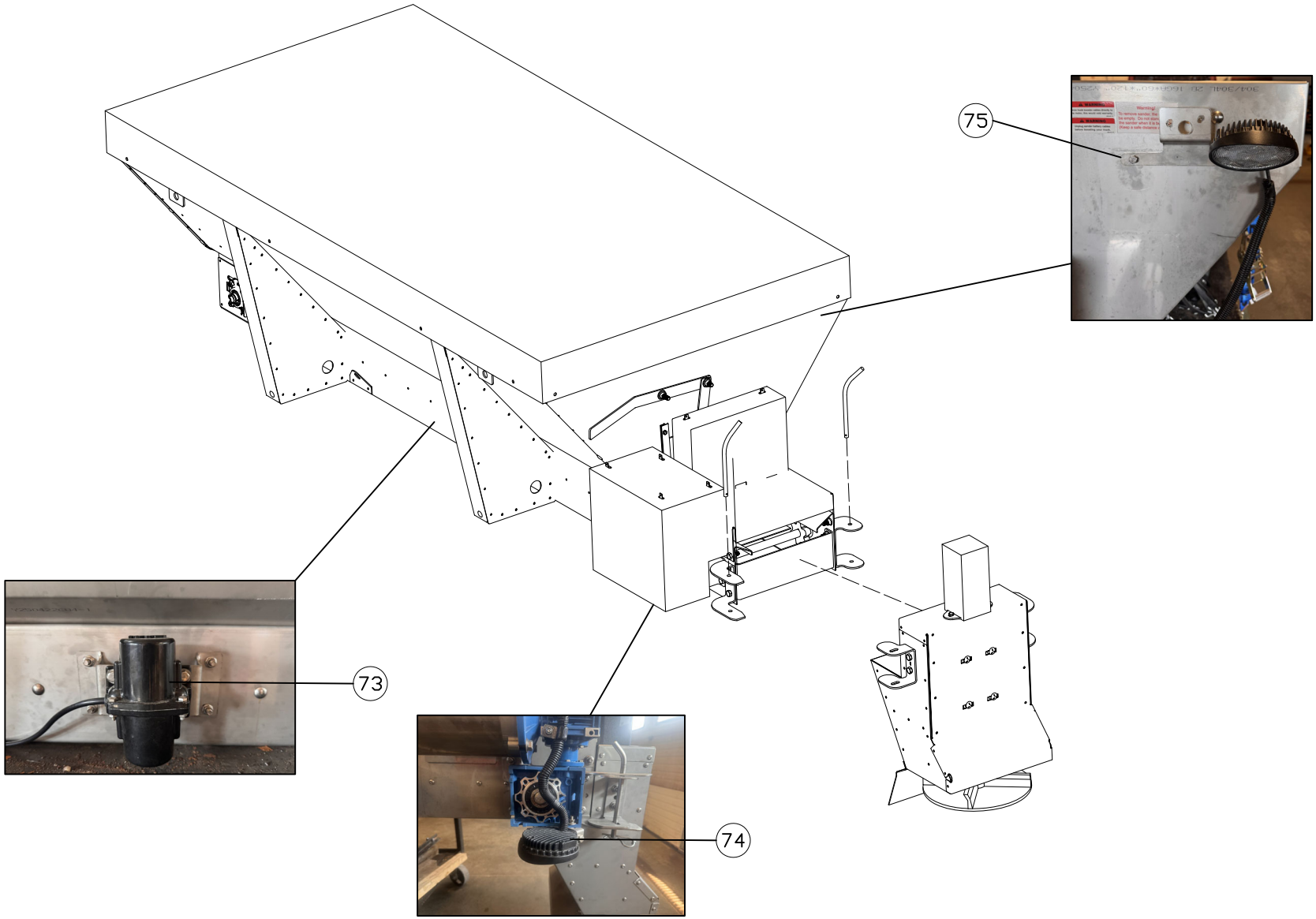
Question	Answer
What are the firmware options?	Install the one Arctic specifies. **Defaults** holds Arctic's latest standard firmware for each model. Granular Encoder and Misc are only for use when Arctic instructs.
Can sand and salt settings be preset before shipping?	No. Each spreader needs a drop test at its set gate height to calibrate, so there are no standard numbers to preload.
When should the controller be reset to defaults?	Only when Arctic support asks. Factory Reset erases all settings **and calibration**, so record your calibration numbers first.

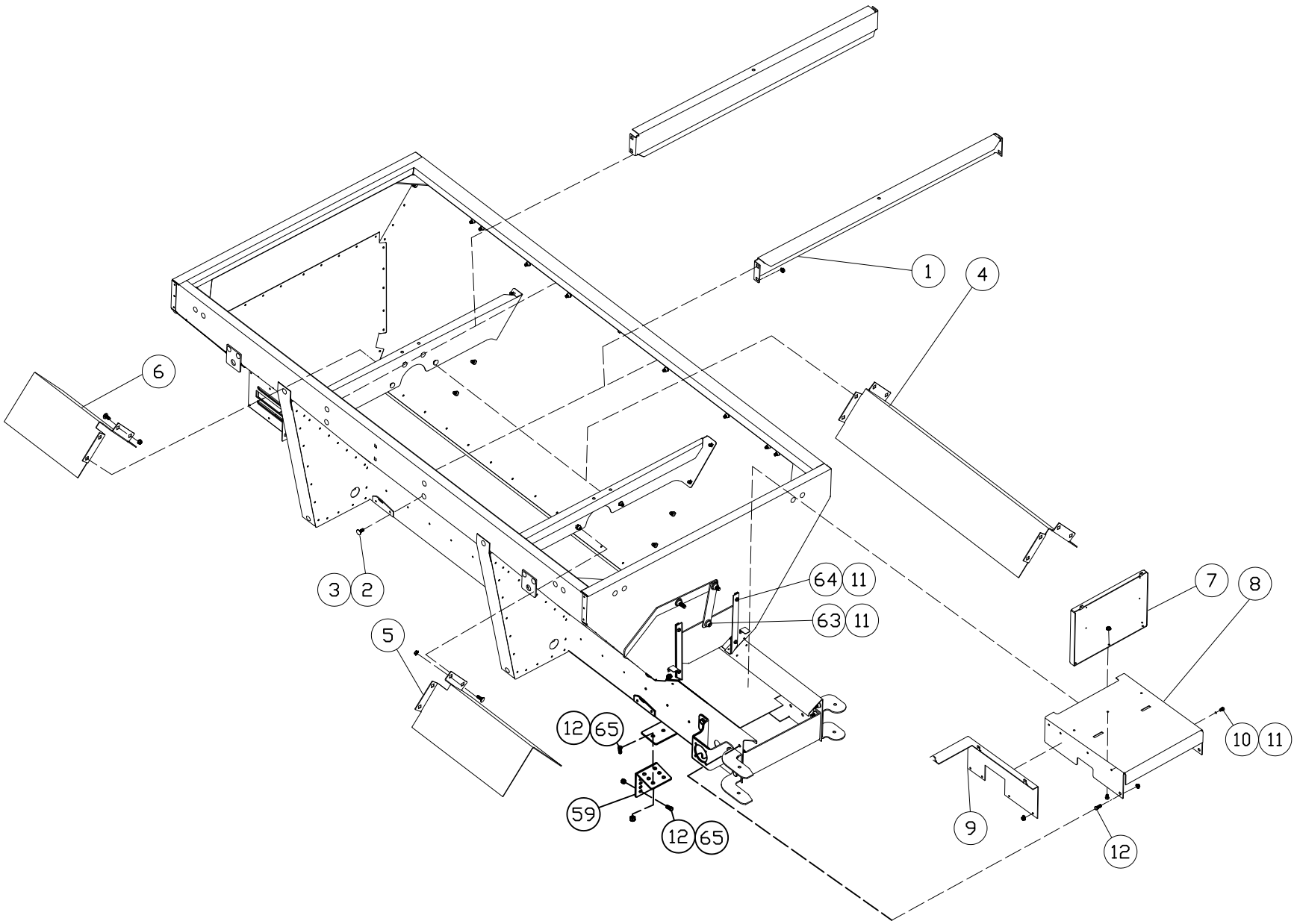
Pairing questions

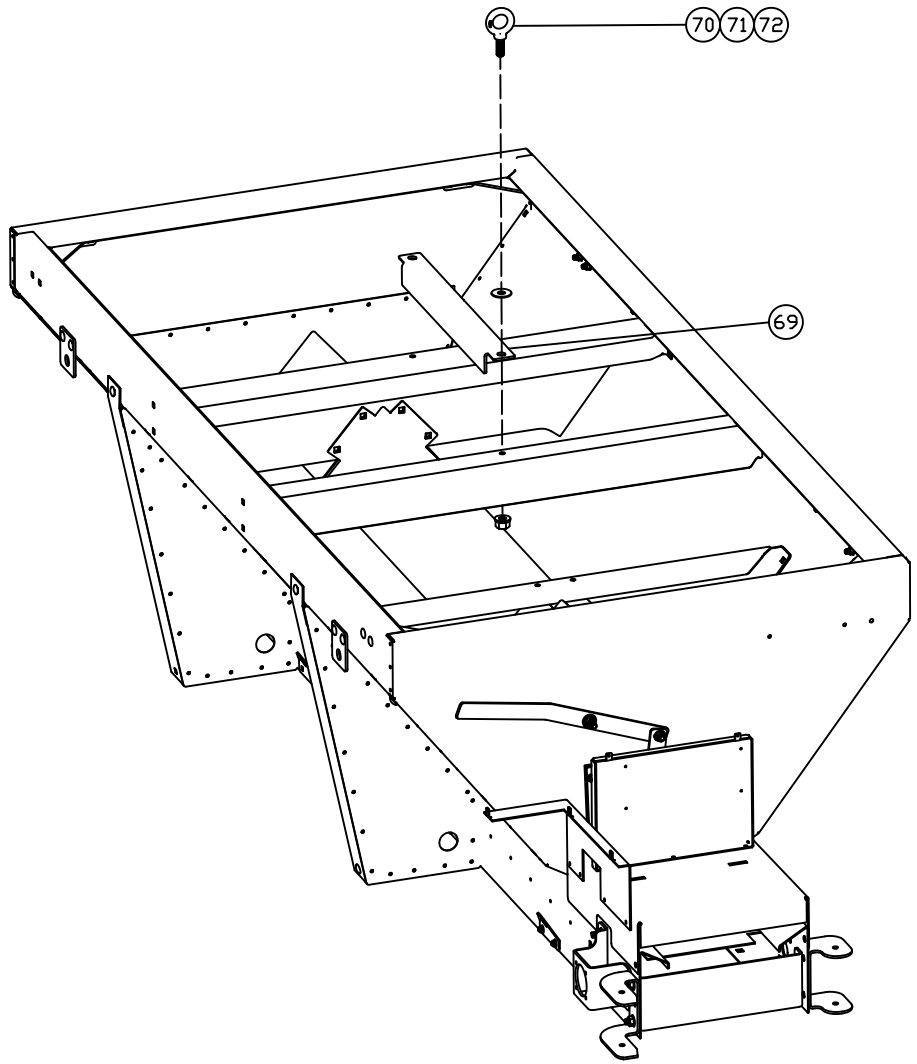
Question	Answer
How do I pair a display with a module?	Press **RESYNC** on the display, then power cycle the module. The display connects to it and remembers it.
I received a new display for my existing module.	Turn off the old display. Turn on the new one (it shows FFFFFF), then power cycle the module.
I received a new module for my existing display.	Install the module, press **RESYNC** on the display, then power up the module.
Do I need to pair again after turning the truck off?	No. The display remembers its module until RESYNC.
Will my module connect to someone else's display?	Only if your display is off **and** the module is powered up fresh or power cycled while another display is waiting to pair (showing FFFFFF).
The display connected to the wrong truck's module.	Press **RESYNC** again with only the correct module freshly powered and the other trucks' modules either off or connected to their own displays.
The status dot went red. Should I press RESYNC?	No. Check the module has power and power cycle it. RESYNC is only for changing which module the display uses.

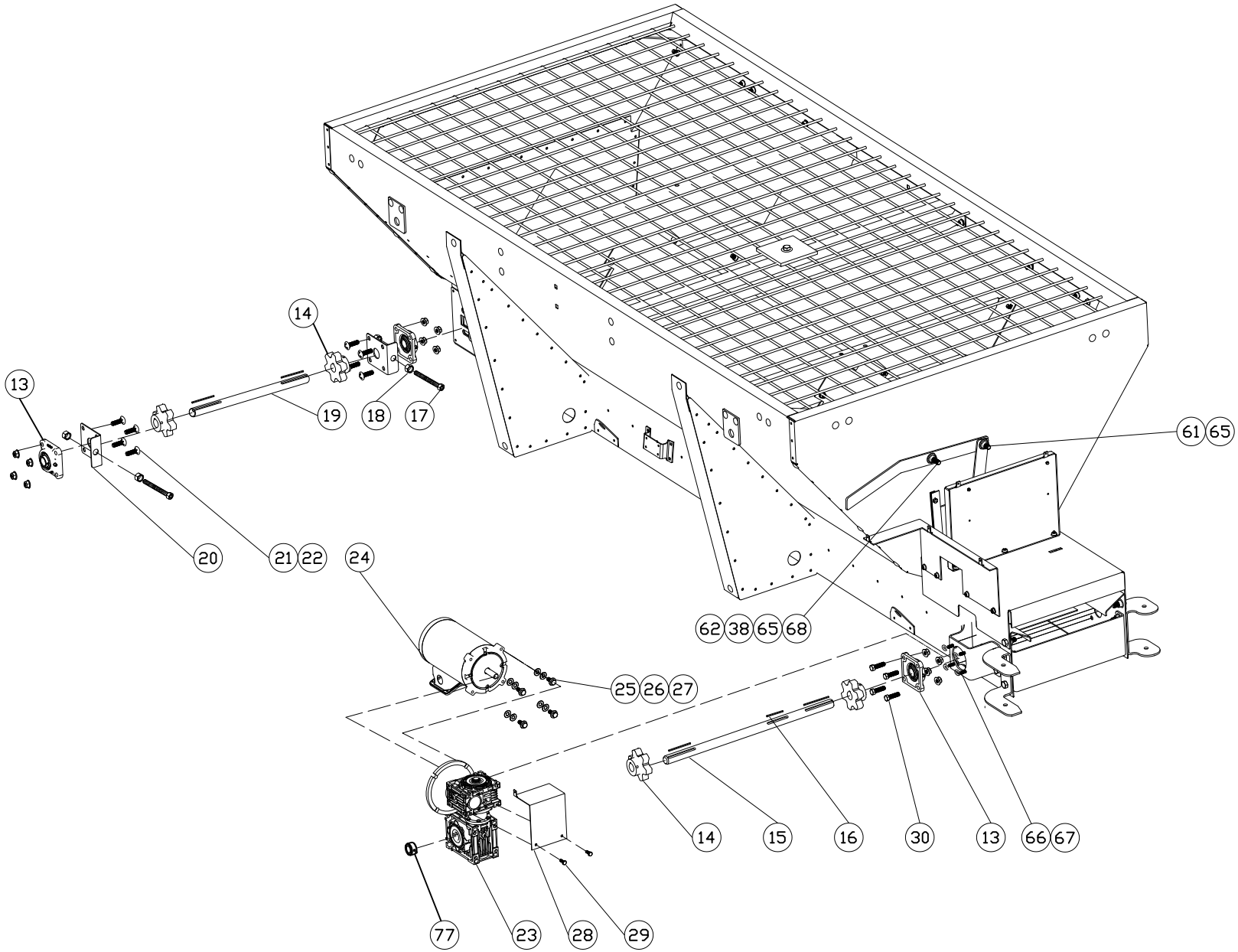


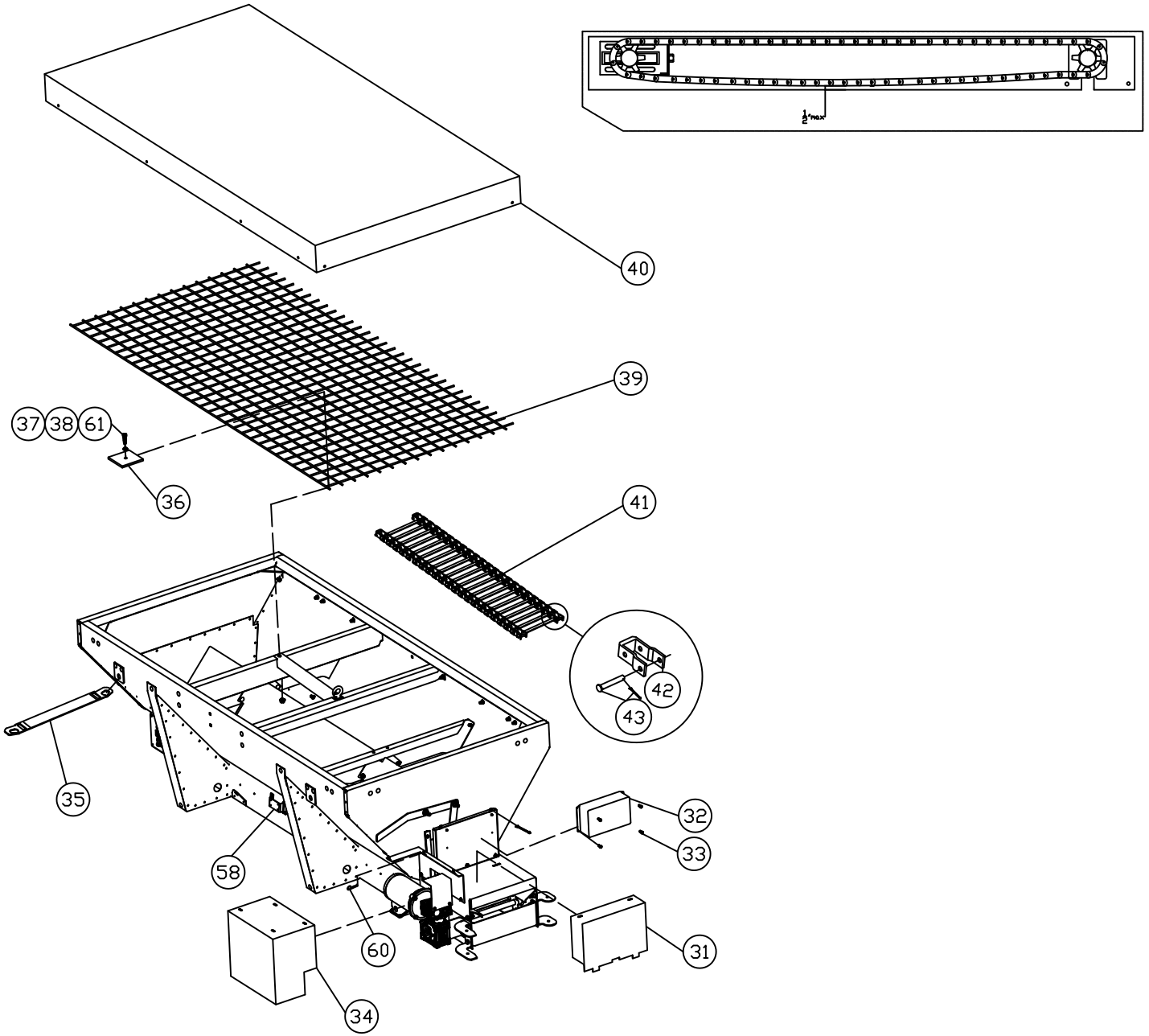
	PART #	QTY.	DESCRIPTION
19	51335-22-M	1	4 GAUGE BATTERY CABLE 22 IN
18	53608-N	1	CIRCUIT BREAKER / FUSE 135 AMPS
17	90425-01-N	1	DISPLAY CONTROLLER (INCAB) FOR SPREADER
16	90229-M	1	LICENSE PLATE LIGHT WITH HARNESS
15	90308-A	1	GROUND WIRE FOR CONTINUOUS DUTY SOLENOID
14	51335-56-M	1	4 GAUGE BATTERY CABLE 56 IN
13	90441-B	1	IGNITION WIRE HARNESS
12	90440-N	2	PUSH BUTTON (N/O)
11	90434-B	1	BLACK WIRE UNLOAD SWITCH
10	90030-VSC-6/8	1	POWER CABLE CAB SECTION 6/8 FT
9	90190-N	1	SOLENOID CONTINUOUS DUTY
8	90433-B	1	SANDER UNLOAD SWITCH HARNESS
7	90383-B	1	CONTROL BOX COVER
6	90406-N	1	1/2-HP SS MOTOR
5	90291-200-N	1	LARGE VIBRATOR
4	90425-02-N	1	CONTROLL BOX MODULE (ON SPREADER) FOR SPREADER
3	90311-M	2	4 1/2 IN ROUND LED FLOOD LIGHT
2	90432-B	1	POWER CABLE SECTION FOR SPINNER MOTOR
1	90307-N	1	GEAR MOTOR FOR DUAL ELECTRIC SANDER

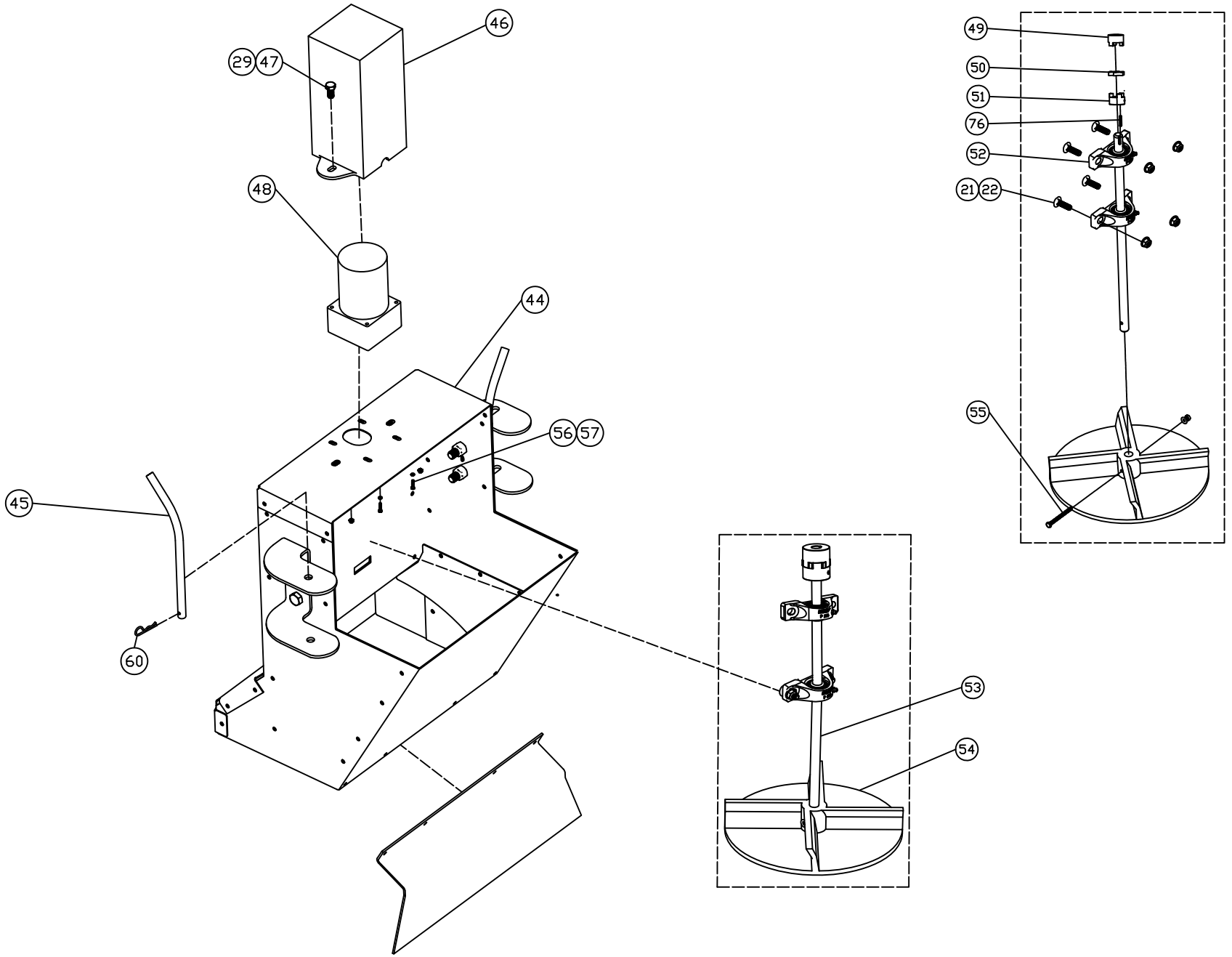

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Stainless Steel Spreader			
SN	Part#	Description	Quantity
1	90354-03-D	Middle Stiffener	1
2	53600-0006	3/8 - 16 X 1 18-8 SS Carriage Bolt	96
3	HH-00086-011	3/8- 16 18.8 SS Serrated Flange Locknut	96
4	90352-03-D	Inverted V Plate	1
5	90401-03-D	Inverted V Support Half (21")	1
6	90402-03-D	Inverted V Support Half (17")	1
7	90376-03-B	Controller Box	1
8	90365-03-D	Controller Plate	1
9	90411-03-D	Cover Bracket	1
10	HH-00300-025	5/16 - 18 UNC X 1/2 IN 18.8 SS HHCS	80
11	HH-00086-010	5/16- 18 UNC 18.8 SS Serrated Flange Locknut	91
12	HH-00300-063	1/2- 13 UNC X 1-1/4 IN 18.8 SS HHCS	14
13	HH-00859-014	Idler Shaft Bearing, Four Bolt Flange	3
14	RB-872-1	Drive Sprocket 6 Tooth (1" Bore), C/W 1/4"	4
15	90367-A	Driven Shaft	1
16	HH-00291-103	Key Stock 1/4 In X 4 In	5
17	90131-A	Bolt Weldment for Idler Bearing	2
18	HH-00294-007	Hex Nut 5/8-11 UNC	4
19	90389-A	Idle Shaft	1
20	90350-03-A	Bent Bearing Bracket for Chain Tightening	2
21	HH-00300-085	7/16-14 UNC X 1-1/2 IN 18-8 SS Carriage Bolt	12
22	HH-00086-012	7/16- 14 UNC 18.8 SS Serrated Flange Locknut	16
23	90407-N	Gear Reducer 100: 1	1
24	90406-N	1/2-HP SS Motor	1
25	HH-00300-049	3/8 -16 UNC X 1 IN 18.8 SS HHCS	4
26	53600-0007	3/8 18-8 SS REG Lock washer	4
27	HH-00271-006	3/8 FLAT WASHER - 18.8 SS	4
28	90412-03-D	Bent Cover Support	1
29	HH-00300-003	1/4 - 20 X 3/4 HEX HD CAP SCREW 18.8 SS	4
30	HH-00300-056	7/16- 14 UNC X 1-1/2 IN 18.8 SS HHCS	4
31	90383-B	Control Box Cover (Box Only)	1
32	90342-M	Spreader Wireless Control Kit 6/8 Ft Spreader (C/W Wireless Controller, Black Box, Wiring) with Unload Switch Wiring	1
33	HH-00300-075	#8 -32 x 3/4 in Hex Head	4
34	90413-B	Motor Gear Cover	1
35	90040-N	Sander Ratchet Strap	4
36	90154-A	Screen Hold Down (3/8 X 5 X 5 X 5 X Poly)	1
37	HH-00300-065	1/2- 13 UNC X 1-3/4 IN 18.8 SS HHCS	2
38	HH-00271-007	1/2 Flat Washer - 18.8 SS	14
39	90134-N	AG8 Sander Screen (46.1/4 X 92.5)	1

40	90385-D	Tarp	1
41	RB-32992-02ESS	8 Ft Chain Assembly (For Electric Ss Sander Only)	1
42	RB-32992-04	Chain Connecting Link	-
43	RB-32992-05	Chain Connecting Pin	-
44	90403-02-D	SS Spreader Spinner Body Only (W/O Motor, Shaft,etc)	1
45	90366-03-A	Bent Pin (Spinner), Ss Spreader	2
46	90384-B	Cover For Spinner Motor	1
47	HH-00086-016	1/4-20 Nylon Insert L/N - 18.8 SS	8
48	90307-N	Gear Motor for Dual Electric Sander	1
49	90442-N	Motor Side Coupling (Hub) L090	2
50	90444-N	Rubber Spider L090, Black NBR	1
51	90443-N	Spinner Side Coupling (Hub) L090	1
52	90409-N	Pillow Bearing 3/4 IN	2
53	90387-01-M	Spinner Shaft Plated	1
54	90414-N	Spinner Disk Poly, 3/4" Shaft	1
55	HH-00300-011	1/4 - 20 UNC X 3 IN 18.8 SS HHCS	1
56	HH-00300-073	M6 x 3/4 in Hex Head	4
57	HH-00271-008	M6 Flat Washer - 18.8 SS	4
58	90370-03-B	Vibrator Bracket	2
59	90422-B	Stop Plate	2
60	HH-00020-165	Hitch Pin Clip	7
61	HH-00300-064	1/2-13 X 1.1/2 Hex HD Cap Screw 18.8 SS	9
62	HH-00086-013	1/2-13 UNC 18.8 SS Serrated Flange Locknut	36
63	HH-00300-095	1/2 -13 UNC X 1 IN 18-8 SS Carriage Bolt	13
64	HH-00300-028	5/16 - 18 UNC X 1-1/4 IN 18.8 SS HHCS	4
65	HH-00086-003	1/2-13 Nylon Insert L/N - 18.8 SS	2
66	HH-00300-079	M8 X 20 SS Bolt	4
67	HH-00271-011	5/16 SS Reg Lockwasher	4
68	HH-00300-065	1/2- 13 UNC X 1-3/4 IN 18.8 SS HHCS	2
69	90392-B	Lift Support Plate	1
70	90426-N	Lift Ring Galvanized	1
71	HH-00086-014	5/8 in UNC 18.8 SS Serrated Flange Locknut	1
72	HH-00271-009	5/8 in Flat Washer - 18.8 SS Plated	1
73	90291-200-N	Large Vibrator	1
74	90311-M	4 1/2 In Round LED Flood Light C/W 2 Way Connector	2
75	90423-03-B	License Plate	1
76	90445-N	3/16 In Key stock Square Stainless Steel	2
77	90424-A	Retainer Coupling	1