

Dohrmann Enterprises, Inc.

Owner's Manual
for

DE-1008.5(-X2)

Dohrect Enject System

MY2019+



Manufactured By: **Dohrmann Enterprises, Inc.**
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For additional Calibration, Maintenance and Troubleshooting help, please give us a call or check out our videos, which can be found at: www.DohrmannEnterprises.com/videos.

WARRANTY

Dohrmann Enterprises, Inc. will repair or replace any applicator part(s) that are found to be defective within **one** year from the original date of purchase, except for **wear parts** (pumping tubes). Defective parts must be returned to **Dohrmann Enterprises, Inc.** within 30 days of failure with shipping and handling fees prepaid.

NOTE: Failure to follow proper installation and maintenance instructions found in the Owner's Manual will **VOID** all warranty.

This warranty shall not be interpreted to render **Dohrmann Enterprises, Inc.** liable for injury or damages of any kind, direct, consequential, or contingent, to person or property.

Furthermore, this warranty does not extend to loss of crop, losses caused by delays or any expense, prospective profits, or any other reason. **Dohrmann Enterprises, Inc.** shall not be liable for any recovery greater in amount than the cost of report of defects in workmanship.

Defective parts caused by freight damage must be reported to the freight company by the receiver.

SP-2L Speed Control Warranty Information:

- **Opening case voids warranty**
- **Cutting off factory plugs or wires voids warranty**
- 3-year limited warranty against manufacturer defects begins on date of purchase from **Dohrmann Enterprises, Inc.**
- Years 1 and 2 – Warranty exchange
 - A deposit is made for new controller and return ground shipping costs.
 - A refund is given if determined to be covered under warranty.
- Year 3 – Repair
 - Customer sends in controller; we cover warranted repairs and return ground shipping.
- For customers outside of the United States, controllers under warranty must first be sent in to Dohrmann Enterprises, and upon our findings, we will replace or repair if considered under warranty.

FOR SAFE OPERATION

1. Read and follow all instructions before attempting to install or start this equipment.
2. Do not attempt to apply any chemical through equipment until you read and understand chemical safety information and application rates.
3. Before applying a chemical, read product labels.
4. Perform a safety check on equipment before each use and at regular intervals.
5. If you encounter problems, do not operate equipment, do not treat crops. Contact the manufacturer or your dealer immediately for assistance.

WINTER STORAGE

OPTION 1: DRAIN TANK. Flush system thoroughly with clean water (minimum of five gallons water) and run RV water system anti-freeze (pink) through the pump and hoses to keep from freezing.

OPTION 2: Flush system thoroughly with clean water (minimum of five gallons water). Drain, and store in a warm building.

Do not flush system with auto anti-freeze, fuel, or any petroleum-based product. This will cause pump failure!

DE-1008.5 ASSEMBLY & INSTALLATION

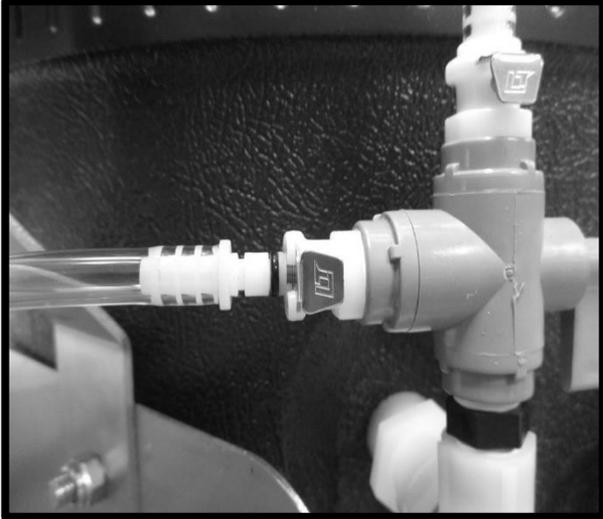
1. Your **DE-1008.5 Dohrect Enject System** is shipped assembled. Carefully remove the foam top packaging and lift the DE-1008.5 unit out of the box. Save the original box and packaging should the applicator need to be shipped in the future.
 - There are additional system components packaged inside the cooler (**Pumping Tubes**, Wire Harness, SP-2L Control, Flowmeter, Hardware, etc.).
 - If a DE-1008.5X2 has been ordered, the second cooler, baseplate and manifold (inside the cooler) will be packaged in a second box.
2. Position the DE-1008.5 baseplate on the chopper's fender in the location where you want it installed and mark the location of the four holes on the bottom of the baseplate. (If the DE-1008.5-X2 is being installed, be sure to also fit and mark the location of the additional cooler and baseplate.)
 - **NOTE: Without the cooler on the baseplate containing the pump assembly, the DE-1008.5 will be tippy prior to being secured to the fender. So, during installation of the baseplate, it is recommended to place weight on the baseplate to counterbalance the weight of the pump assembly. Failure to do so may result in the pump unit tipping over and possibly causing damage or injury.**
3. Before drilling the holes (3/8") and securing the baseplate(s) to the fender, you will need to make sure there is enough clearance to allow the door of the pump enclosure to open. Keep in mind, the door swings forward – away from the cooler – from the top and requires 6.75" of space from the front of the enclosure.
4. Once you have finalized the location of the baseplate(s), verify the mounting holes are located over an area safe to drill (no hydraulic hoses, electrical cables, etc.).



5. After you have confirmed it is safe to drill in the desired location, drill holes in the fender through the mounting holes in the baseplate(s) and secure the baseplate(s) with the included 5/16" bolts, washers, and nuts, found in the hardware pack, Part #170018. It is recommended to use a flat washer on the top, under the bolt head, and a flat washer and Nyloc nut on the underside of the fender.

DE-1008.5 ASSEMBLY & INSTALLATION CONTINUED

DE-1008.5

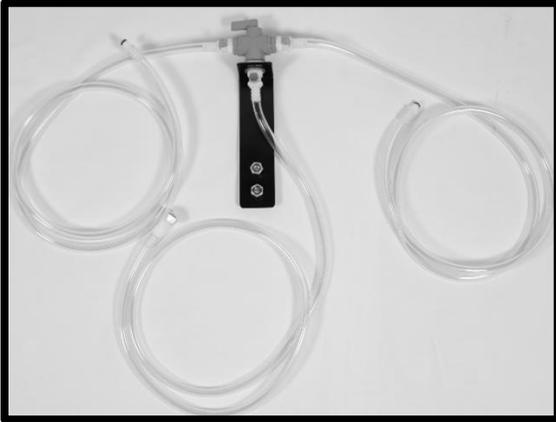


- If you have removed the cooler(s), you can now place the cooler(s) back onto the baseplate(s) and secure with the rubber straps. The rubber straps will hook onto the handles on each side of the cooler.
- Attached the input hose to the cooler by pressing the metal tab on the fitting (located on the left side of the cooler valve assembly) and inserting the fitting until it **CLICKS**.
- If you are installing a DE-1008.5, please skip the directions for the manifold installation and proceed to **WIRING** on **Page 9**.

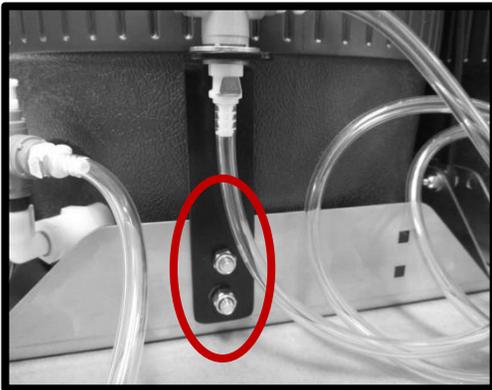
DE-1008.5-X2

- Follow the instructions on **Page 8** for the installation of the manifold.

1008.5-MAN TANK MANIFOLD INSTALLATION



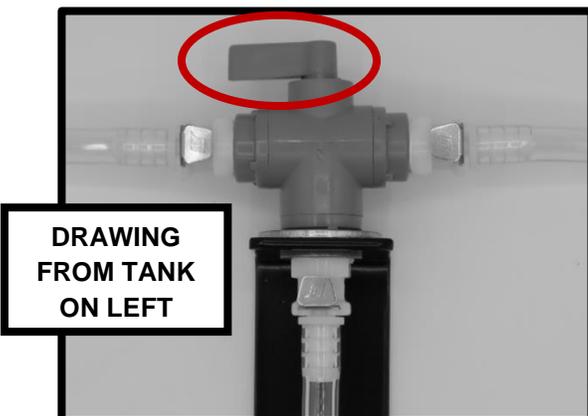
1. Locate the area you would like to install the manifold.
2. Before installation, give some consideration to who will be opening and closing the valves in the field.
 - a. If it is the chopper operator, mount the manifold either to the side of the cab, on the fender, or on a baseplate where the operator can reach it.
 - b. If someone outside the cab will be changing the valves, select a location that can easily be reached. This is typically on the back edge of the fender, or on a baseplate.



3. Once you have determined placement, you can secure the manifold with the 5/16" bolts and Nyloc nuts enclosed. If installing onto a baseplate. Make sure to place carriage bolt heads on the inside of the baseplate, so the nuts are threaded onto the bolts on the outside of the baseplate.
4. If mounting elsewhere, verify the mounting holes are located over an area safe to drill through.

5. After you have confirmed it is all right to drill in that location, drill holes in the fender and secure with the included 5/16" bolts and Nyloc nuts.

6. Determine which port on the assembly will control which tank. Run the hose from the valve connection to the appropriate tank and connect the hose to the side port of the tank valve. **See picture on Page 7.** Repeat this step for the other valve and cooler.

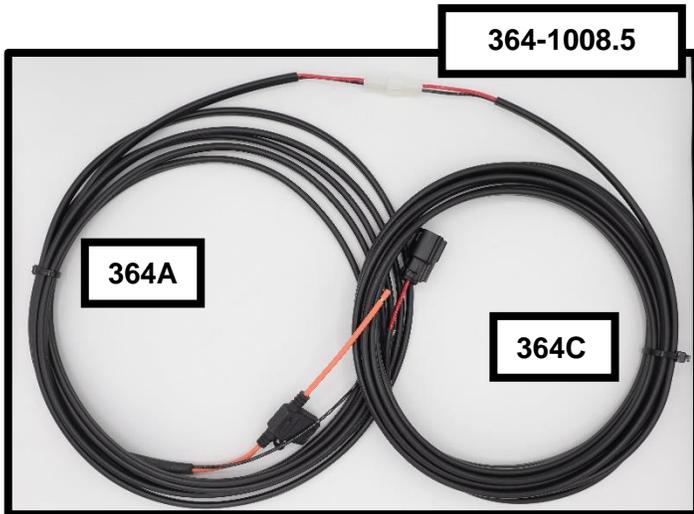


•**NOTE:** The direction of the valve will determine which tank will be drawn from.

7. The final step is to connect the hose from the bottom of the manifold valve to the short hose located on the bottom of the pump unit. The fittings will mate and snap together.

WIRING

Your DE-1008.5 is shipped with the power cord assembly, Part #364-1008.5, connected to the SP-2L Control. The power cord assembly has two sections.



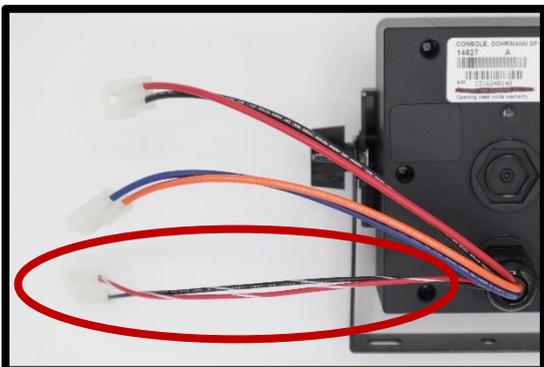
- The first section, Part #364A, will be installed from your power supply to the SP-2L Control.
- The second section, Part #364C, will be installed from the SP-2L Control to the pump assembly.
- Remember, when shipped, both sections are connected to the SP-2L Control.

SP-2L CONTROL

- Find a mounting location for the SP-2L Control. It is recommended this be in a location within easy reach of the operator.
- Mount the controller using either the included self-tapping screws or the ¼" nuts and bolts.
- If you are using the self-tapping screws, drill a 3/16" pilot hole in the desired screw location.
- **REMINDER: Cutting off factory plugs and/or wires, or opening case, of the SP-2L Controller voids warranty.**

FM-1008.5-LED

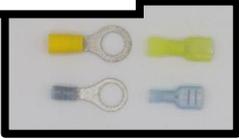
- On the backside of the SP-2L Control, there is a third wire lead. It is black and red with white stripes.
- This lead will only mate up to the power cord that is attached, and part of, the FM-1008.5-LED Flowmeter.



- FM-1008.5-LED Flowmeter will become illuminated when power to the SP-2L is turned on, and the pump motor is running.
- To make running the wiring easier, do not connect until after you have installed both the SP-2L Control and the FM-1008.5-LED Flowmeter.
- **When disconnecting, ALWAYS pull on the fittings – NOT on the wires.**

WIRING

170017



1. Part #364A has bare wires and fuse holder. This end will be connected to your 12 Volt DC power source. You may need to change the terminals to mate up with your power source. There are additional connections found in the electrical pack, Part #170017.



• **ORANGE WIRE (w/FUSE HOLDER):** The orange/red wire must be connected to 12 volt DC positive (+). It is recommended this be connected to a 12 volt DC regulated power source, such as an in-cab power outlet, or a header switch output. If wiring into a “header switch” output, the red wire should be connected to the 12 volt DC (+) switched output. **Only install a 3 AMP Fuse into the fuse holder.**

• **BLACK WIRE:** The black wire should be connected to (-) ground. If wiring into a header switch output, the black wires should be connected to the 12 volt DC (-) output.



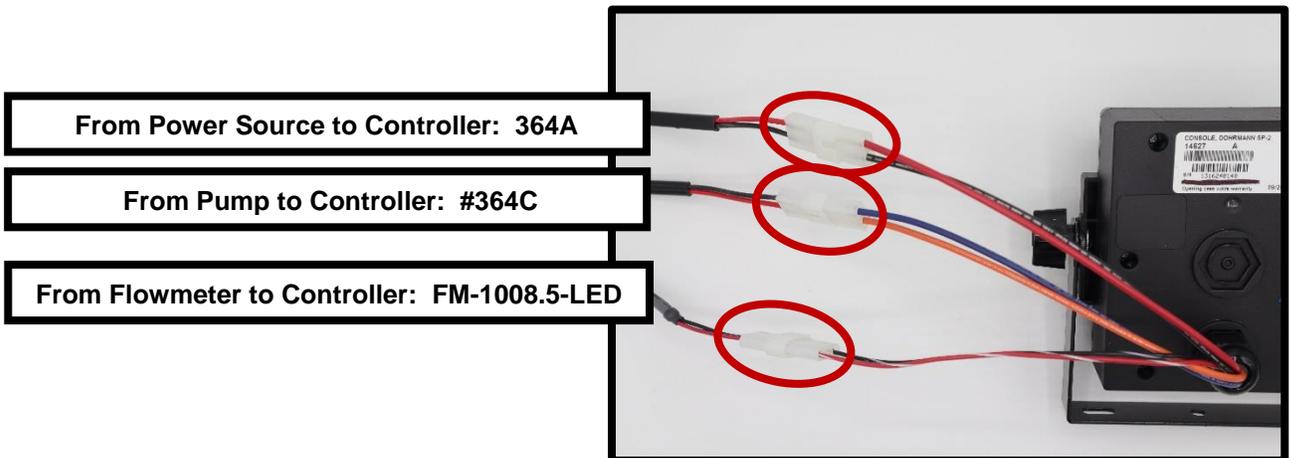
2. The other end of Part #364A has a white plug on it. This plug will mate up to the input wire connection on the SP-2L Control. On the SP-2L Control, the wire lead will be black (-) and red (+).



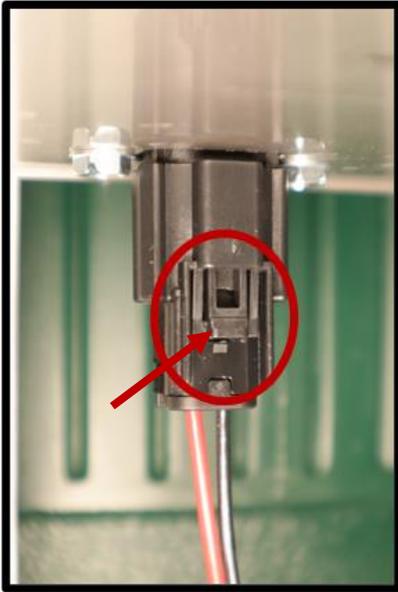
3. Part #364C has a white plug on one end. Connect this output wire connection to the SP-2L Control. On the SP-2L Control, the wire lead will be orange (+) and blue (-).



4. From here, Part #364C will be routed to the pump assembly. On the bottom of the pump assembly, you will find a black plug. The black plug on the end of Part #364C will connect here. The plug can only connect one way. Mate up the plug and insert until it **CLICKS**. Additional details on **Page 11**.



PUMP PLUG DISCONNECT



- On Part #364C there is a weather-tight latching plug which connects to the DE-1008.5 Pump Enclosure.
- To ensure proper connection, line up the fittings and press together until it **CLICKS**.
- To disconnect the power cord, press the black clip in the center, and pull the electrical fittings apart.
- **ALWAYS pull on the fittings – NOT on the wires.**
- **HELPFUL HINT:** If it is difficult to disconnect the power cord from the enclosure, try this:
 - Push the plug portion of the power cord further into the fitting on the enclosure. It sounds weird, but yes, plugging it in more. This will break the weather-tight seal.
 - Then, try unplugging the fittings.

HEADER SWITCH WIRING

- Your chopper must be equipped with this option and you must have the electrical connections to mate up to the chopper's plug. *Dohrmann Enterprises, Inc.* does not stock the **factory** plugs for header switch connections. Header switch adapters can be purchased from your local implement dealer.
- *Dohrmann Enterprises, Inc.* does offer a compatible header switch adapter plug for:
 - **John Deere** 7000, 8000 & 9000 Series Self-Propelled Forage Harvesters
 - Part #190000
 - Can be used in place of John Deere Part #AZ100126
 - **Claas** Self-Propelled Forage Harvesters
 - Part #210000

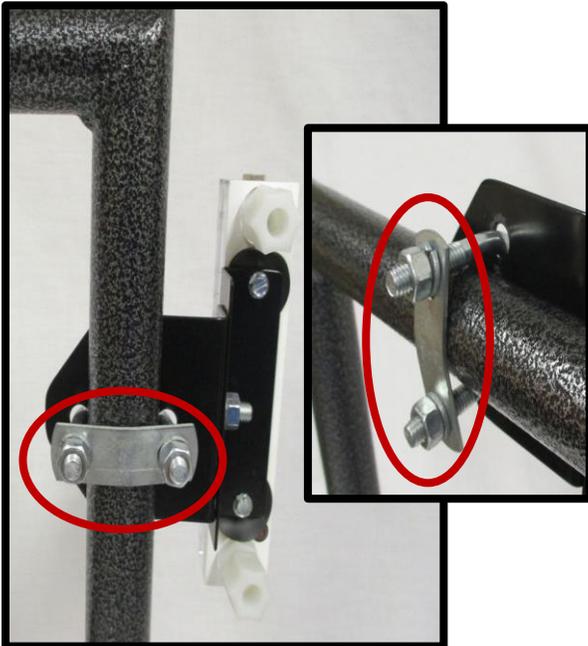
NOTE: For any wiring, be sure you have good, clean terminals, and a good connection. This system must be connected to a 12 volt DC system. A 6 or 24 volt system **WILL NOT** work. After everything is wired, if the control does not work, it has most likely been wired in reverse. Change the red and black wires at the power source to correct this problem.

PLUMBING

IMPORTANT: There are **NO NOZZLES** or nozzle fittings shipped with your *Dohrect Enject System*. These units are designed to work without nozzles. Due to the low rates per ton, applicator through a nozzle would have a high plugging risk due to the small orifice sized required.

To assure proper application, please pay close attention to the placement of the discharge. Details on **Pages 14-15**.

FLOWMETER PLACEMENT

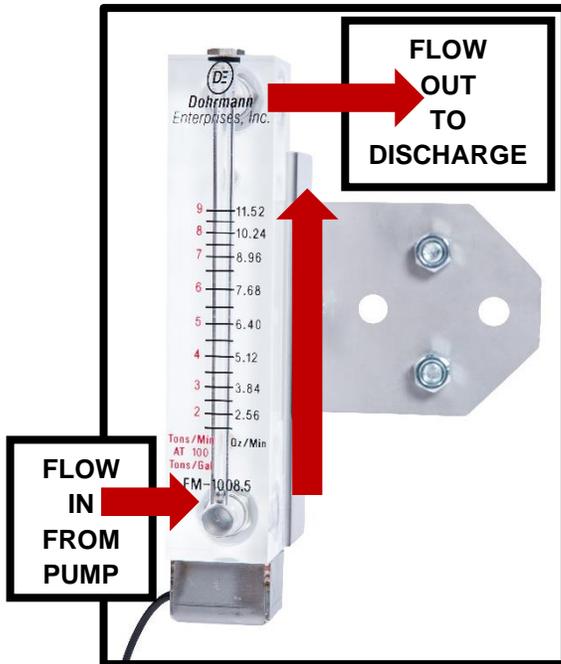


The FM-1008.5-LED Flowmeter should be mounted outside the cab in a location that is easy to view for the operator. Find a desired location to mount the FM-1008.5-LED Flowmeter.

- If mounting to a railing, attach the flowmeter using the U-Bolt.
- If mounting to a flat surface, use the self-tapping screws, or the 5/16" nuts and bolts provided. If using the self-tapping screws, first drill a 3/16" pilot hole. For most accurate readings, the flowmeter needs to be mounted vertically.
- If adjustments are needed to assure proper vertical installation, you can loosen the bolt on the swivel bracket, make the adjustments, and then re-tighten the bolt.

FLOWMETER PLUMBING

The FM-1008.5-LED is shipped with a 20' length of ¼" ID X 3/8" OD hose, Part #451-20, for the pump output. This hose will route to the FM-1008.5-LED Flowmeter and continue on from the FM-1008.5-LED Flowmeter to the cutter head.

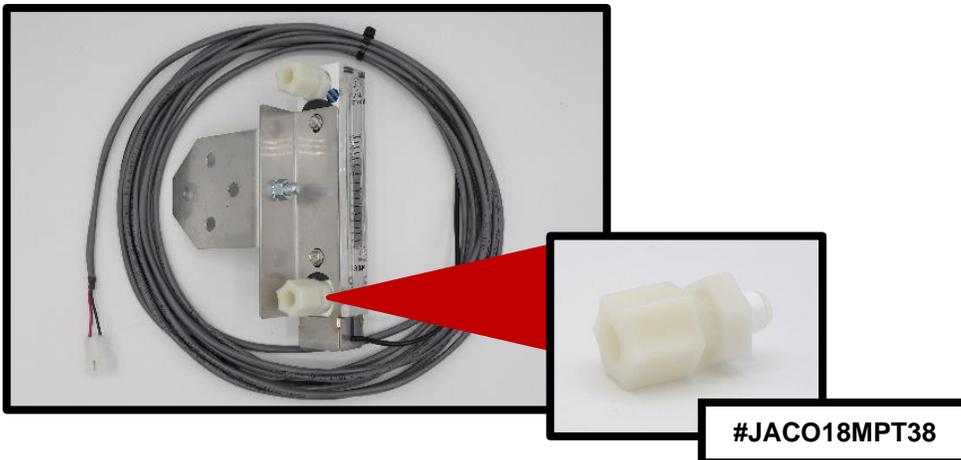


1. Route the ¼" ID X 3/8" ID hose, Part #451-20, from the pump unit up to the FM-1008.5-LED Flowmeter and cut the hose to the appropriate length for installation into the compression fitting, Part #JACO18MPT38OD, on the **BOTTOM**. Make a clean **SQUARE** cut to assure proper sealing.

2. Loosen – **DO NOT REMOVE** - the bottom compression nut and insert the cut end into the fitting until it stops. Tighten the fitting to assure a proper seal. Hand tightening is usually fine.

3. Loosen the **TOP** compression nut – **DO NOT REMOVE** – and insert the cut end into the fitting until it stops. Tighten the fitting to assure a proper seal. Again, hand tightening is usually fine.

REMEMBER: The hose runs from the pump into the bottom fitting, then out of the top fitting to the application point.



DISCHARGE HOSE & BRACKET

Find your desired discharge location. It should either be in front of the feed rolls, or behind the feed rolls, but in front of the knives. Coverage tests that Dohrmann Enterprises, Inc. has been involved in, or contributed equipment to, placed the discharge in one of these locations with successful results. See examples of discharge locations in the pictures on the following page. These will show mounting on the following choppers:

- **Pull-Type**
- **Claas**
- **John Deere**
- **Krone**
- **New Holland**

1. Determine where your discharge location will be. If you are inserting the hose through a shield, check under it for any additional shields, shafts, or brackets that may interfere with the product being applied directly to the feed.

2. Drill a 3/8" hole. If needed, remove any burrs from drilling.



3. Next remove the bolt and nut from the discharge bracket.

4. Place the elbow through the hole you just drilled.



5. Now, mark the spot where the nut and bolt will be used to secure the bracket. If you need to, remove the hose before marking and drilling.

6. Drill the 3/8" hole, and if needed, remove any burrs.

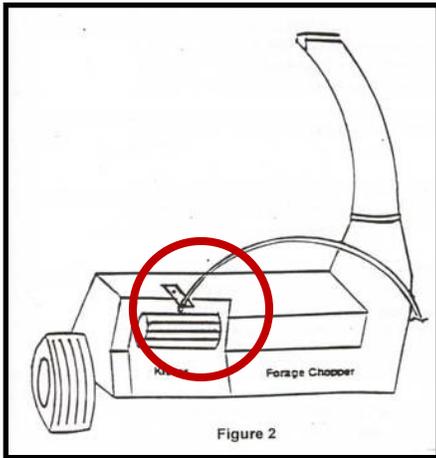
7. Line up the discharge bracket with the second hole drilled.

8. Place the bolt through the top, and secure with the nut from below.

9. If the hose was removed during drilling, put it back in place, and route the 1/4" ID X 3/8" OD hose from the FM-1008.5-LED to your established discharge point.

DISCHARGE BRACKET PLACEMENT EXAMPLES

PULL-TYPE



CLAAS



JOHN DEERE



KRONE



NEW HOLLAND



DE-1008.5 CALIBRATION & PUMP TUBE SELECTION

PUMP TUBE SELECTION & CALIBRATION

There are two color coded pump tubes shipped with your applicator – Red and Blue – as indicated by the zip ties on either end. Use the instructions below to determine which pump tube will work best with your harvest rate and product concentration (mix rate).

DETERMINING YOUR HARVEST RATE

- 1: By reading across, find the weight of your load.
 - A. If the weight of your load is not listed, please round up to the next weight listed.
- 2: By reading down, find the time (in minutes) to load/unload.
 - B. If the exact time to load/unload is not listed, please round up to the faster time listed.
- 3: Moving down from your weight and over from your time, where the column and row meet is your harvest rate in Tons per Minute.

Silage - Tons per Minute

		Tons Per Load											
		4	6	8	10	12	14	16	18	20	22	24	26
Minutes to Load/Unload	12		0.5	0.7	0.8	1.0	1.2	1.3	1.5	1.7	1.8	2.0	2.2
	11		0.5	0.7	0.9	1.1	1.3	1.5	1.6	1.8	2.0	2.2	2.4
	10		0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6
	9		0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.4	2.7	2.9
	8	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.0	3.3
	7	0.6	0.9	1.1	1.4	1.7	2.0	2.3	2.6	2.9	3.1	3.4	3.7
	6	0.7	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	4.3
	5	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2
	4	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
	3	1.3	2.0	2.7	3.3	4.0	4.7	5.3	6.0	6.7	7.3	8.0	
	2	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0				
	1	4.0	6.0	8.0									

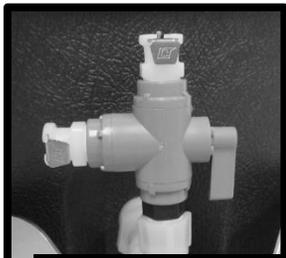
4: Using the following chart, find your product mix rate across the top along with the range your harvest rate falls in. This will determine which tube to install for proper application.

NOTE: Product mix rate of 100 tons/gallon is only recommended for use with products that have a suggested range of 2 grams per ton or less. Products with rates over 2 grams per ton are required to mix at 50 or 25 tons per gallon. Further concentration may cause excessive product sediment build up and will skew the flowmeter calibration.

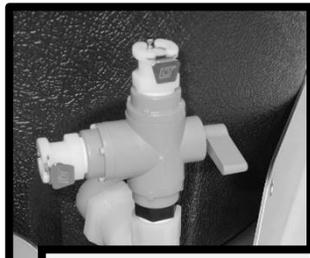
Pump Tube Selection Chart

	Mix Rate= 100 tons/gallon*		Mix Rate = 50 tons/gallon		Mix Rate = 25 tons/gallon	
	Minimum Tons/Min.	Maximum Tons/Min.	Minimum Tons/Min.	Maximum Tons/Min.	Minimum Tons/Min.	Maximum Tons/Min.
Blue Tube	1.50	4.00	0.75	2.00	0.50	1.00
Red Tube	3.00	8.50	1.50	4.25	0.75	2.00
*For products equal to or less than 2 grams/ton.						

DE-1008.5 PUMP TUBE INSTALLATION AND REPLACEMENT



DRAWING FROM COOLER

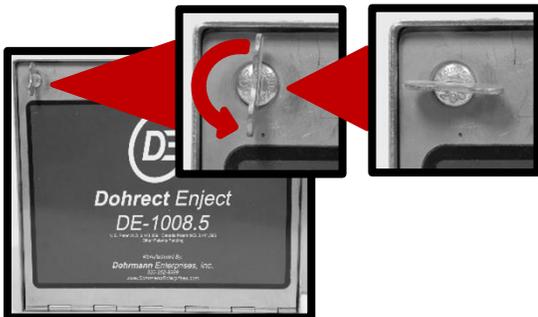


CLOSED



DRAWING FROM FLUSH BOTTLE

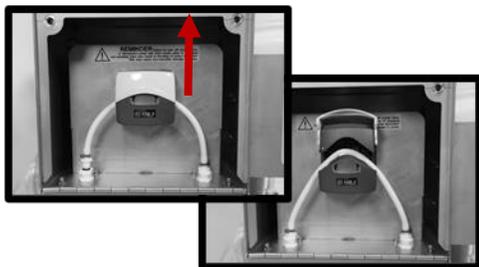
1. Even if the cooler is empty, a good habit to get into is start by turning the cooler valve off. When off, the valve handle will either be facing out towards you, or up towards the line from the flush bottle.



2. Turn the $\frac{1}{4}$ turn latches on the pump enclosure to the left to release.



3. Pull the door out and away from the enclosure. It hinges at the bottom of the door.



4. To open the pump head, lift up on the front of the hinged pump head.

IF THIS IS A NEW INSTALLATION, PLEASE SKIP TO STEP 8



5. Press in the silver tab at the end of the pump tube and release the one side of the pump tube.

6. Repeat this step for the other side.

DE-1008.5 PUMP TUBE INSTALLATION AND REPLACEMENT



7. Remove the pump tube.

8. Install the new pump tube by pressing in the silver tab on one of the fittings on the bottom of the enclosure.



9. Push end of the tube into the hole until you hear it **CLICK** into place.

10. Stretch the tube across the pump rollers.



11. Press the silver tab on the other fitting on the bottom of the enclosure.

12. Insert the tube end into place and making sure it **CLICKS** into place.



13. After the tube is securely in place, verify the tube is centered over the rollers, adjust if needed, and close the pump lid.



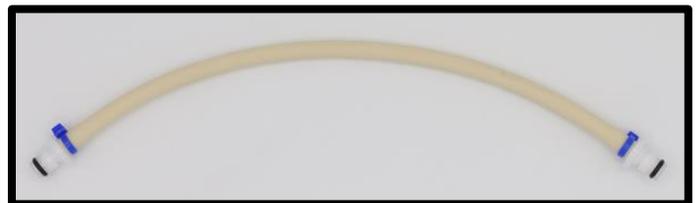
14. Close the pump enclosure door.

15. Lastly, turn the $\frac{1}{4}$ turn latches to the right.

16. **DONE!**

NOTE: Double check tubes are securely in place, failure to do so may result in product pumping inside the enclosure causing NON-WARRANTY damage.

Part Number: 1008.5-PT-BL = 1008.5 Series (Dohrect Enject) Pumping Tube – BLUE



Part Number: 1008.5-PT-RD = 1008.5 Series (Dohrect Enject) Pumping Tube - RED



OPERATION & CALIBRATION

SP-2L CONTROL

The SP-2L Control contains the system's master on/off switch, along with a dial to control the speed of the pump.

- **ON/OFF:** If your system is wired through a header switch you can turn the unit on and allow the header switch to turn the control on and off throughout the day. When the system is on, the red LED above the switch will illuminate when the controller is on.
- **DIAL:** The dial on the controller increases and decreases the speed of the pump motor, in turn, increasing and decreasing the output of the system.
 - **To reduce application, turn the dial counterclockwise.**
 - **To increase application, turn the dial clockwise.**

GENERAL OPERATION

When starting your applicator for the first time, you may notice after 15-20 minutes of run time, the output may increase; this is normal. During the first 15-20 minutes, your pumping tube is being broke in. Your system does not need to go through a break in period before use. However, if you notice the increased output, simply use the SP-2L Control to readjust back to the desired rate.

FM-1008.5-LED FLOWMETER

Your FM-1008.5-LED has calibration markings on the face of the unit, along with a ball that floats inside the flowmeter body.

- As you turn up your SP-2L Control (clockwise), you increase the speed of the pump, floating the ball higher.
- The opposite is true, if you turn down your SP-2L Control (counterclockwise), the ball will float lower.
- When the SP-2L is on, the flowmeter's LED light will illuminate.

- The markings on the left, in **RED**, are your output in Tons/Minute – if your product is concentrated to a mix rate of 100 tons per gallon.

EXAMPLE: You determine you are harvesting 3.5 Tons/Minute. Simply turn the dial on the SP-2L Control until the ball is floating on the line to the right of **3.5**.

- The markings on the right, in **BLACK**, are your output in Ounces/Minute. This would apply to products concentrated to a mix rate of 50 or 25 Tons/Gallon. To determine your Ounces/Minute rates, please reference the charts found on **Page 20**.

EXAMPLE: You have a product concentration of 50 Tons/Gallon, and a harvest rate of 2.5 Tons/Minute. Reference the 50 Tons/Gallon Mix chart and follow the Ton/Min down to 2.50, which equals 6.4 Ounces/Minute. Simply turn the dial on the SP-2L Control until the ball is floating on the line, to the left of, **6.4**.

NOTE: The FM-1008.5-LED Flowmeter has a calibration standard based upon concentrations of products between 100 and 200 grams per gallon. Higher concentration levels will provide skewed calibration, resulting in under application of product. Some products may require the ball to float at the line, and some may require the ball to float on top of the line for most accurate results. **To assure the most accurate results, perform a collection test.**

CALIBRATION CHARTS

The Calibration Charts below are to provide you with the amount of total solution that you need to apply based upon your mix rate and tonnage per minute harvested. Please note that you may need to change your mix rate if your harvest rate drops below the lowest output of the pump.

These charts are to be used along with the FM-1008.5 Flowmeter for calibration of your system.

To find out how much tonnage per minute you are harvesting, please use the harvest rate chart on **Page 16**.

100 Ton Per Gallon Mix		50 Ton Per Gallon Mix		25 Ton Per Gallon Mix	
Tons/Min	Ounces/Min	Tons/Min	Ounces/Min	Tons/Min	Ounces/Min
1.50	1.92	0.75	1.92	0.50	2.56
2.00	2.56	1.00	2.56	0.75	3.84
2.50	3.20	1.25	3.20	1.00	5.12
3.00	3.84	1.50	3.84	1.25	6.40
3.50	4.48	1.75	4.48	1.50	7.68
4.00	5.12	2.00	5.12	1.75	8.96
4.50	5.76	2.25	5.76	2.00	10.24
5.00	6.40	2.50	6.40		
5.50	7.04	2.75	7.04		
6.00	7.68	3.00	7.68		
6.50	8.32	3.25	8.32		
7.00	8.96	3.50	8.96		
7.50	9.60	3.75	9.60		
8.00	10.24	4.00	10.24		
8.50	10.88	4.25	10.88		

KEY	
Blue Tube	
Blue or Red	
Red Tube	

Part Number: 1008.5-PT-BL = 1008.5 Series (Dohrect Enject) Pumping Tube - BLUE

Part Number: 1008.5-PT-RD = 1008.5 Series (Dohrect Enject) Pumping Tube - RED

OPERATION & CALIBRATION

PRODUCT MIXING

Use the mixing bottle for pre-mixing your product. Mix between 200-250 tons per mix. Mix the total amount of product you desire and then top with cold water to the desired gallon mark.

NOTE: The applicator is designed to mix **UP TO** 100 treatable ton of product per gallon – 1000 ton per cooler full (see the mix rate and calibration charts on **Page 16** to find your desired mixing rate and pump tube color based on your harvest rate).

Add frozen plastic bottles (soda bottle) of water to assist with providing a cool environment for the product. At the day's end, or during any prolonged interruption of chopping (weather, breakdown, etc.), ice packs or frozen bottles of water may be added to keep the product cool. (Ice packs or bottles are not included with the applicator). However, **DO NOT** add ice directly to the mix as this will dilute the concentration resulting in under application of product.

SYSTEM FLUSHING

1. Your applicator should be flushed at the end of each day. To do this, turn the 3-way valve handle up toward the flush bottle input. This will allow the pump to draw clean water from the flush bottle and flush out the entire product line.

NOTE: **FOUR** feet of product line will contain approximately enough product for **ONE** ton of forage. It is recommended to flush out the product onto the last batch of forage harvested.

2. It is recommended to flush out the tank between batch mixes to remove any product settlings. To do this, remove the tank and rotate the swivel connection to expose the filter screen and rinse out with clean water. This will clean out the tank and filter.
3. Occasionally it is recommended to flush the entire system – including the cooler – with warm soapy water, followed by a clean water flush. This will help to get any residue out of the filter, tank, and lines.
4. If there is significant build up or mold growth it is recommended to mix a solution of 2 fl. oz. of bleach per gallon of water, fill the cooler and run some of the solution through the system. Expose for 4 hours and then thoroughly flush with clean water.

COLD WEATHER FLUSHING

During cold weather when there is a possibility of the product lines freezing overnight, it is recommended to fill the flush bottle with RV Waterline Antifreeze and then flush the system. This will prevent the lines and the flowmeter from freezing and/or cracking.

GENERAL MAINTENANCE

The DE-1008.5 Applicator has only one wear part. This part is the Pumping Tube. The Pumping Tube needs to be replaced as needed or annually, whichever comes first. If the Pumping Tube wears out, the motor will still run, but it will not pump any product, or will have a significant reduction in output. Directions for changing the Pumping Tube can be found on **Page 17**.

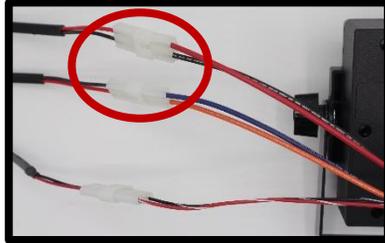
SYSTEM TROUBLESHOOTING

Pump Does Not Pump

- Does the motor run?
 - **No – Jump to “Motor Does Not Run” on Page 23**
 - **Yes – Continue On**
 - When was the pumping tube last replaced? Pumping tubes should be replaced annually, or more often depending on use.
 - If pumping tube was recently replaced, continue to next step.
 - If not, replace your pumping tube.
 - Make sure that there is product in the cooler and the valve handle is pointed down to draw from the cooler.
 - Inspect System for Plugged Hoses/Fittings
 - Disconnect the hose from the valve on the cooler, turn valve handle down to see if product flows freely from the cooler.
 - If so, continue to next step.
 - If not, inspect filter screen and clean.
 - If cleaning filter does not resolve, disassemble the valve assembly, and clean out each fitting.
 - If cooler fluid level is above the pump unit, you can slide the hose off of the pump head, disconnect the pumping tube on the output side and see if product runs free.
 - If so, continue to next step.
 - If not, shut off cooler valve and clean out the input panel-mount fitting that the pumping tube connects to.
 - Disconnect the hose at the bottom of the flowmeter.
 - If product flows freely, continue to the next step.
 - If not, shut off the cooler valve and clean out the output panel-mount fitting that the pumping tube connects to.
 - Disconnect the hose at the top of the flowmeter.
 - If product flows freely, continue to the next step.
 - If not, you will need to clean out your flowmeter. Follow the directions in the video at **DohrmannEnterprises.com/videos**
 - Remove hose from the check valve at the distribution point.
 - If product flows freely, replace check valve.
 - Applicator can be used without the check valve in place.

Motor Does Not Run

- When the switch is on, does the LED light on the control light up?
 - No – Continue to the next step.
 - Yes – Continue on
 - Check wiring for any nicks, frays, and that you have good clean connections.
 - Bypass the control.
 - Unplug the control leads from the red/black and orange/blue connectors on the back of the controller.



- Plug the two ends from the **WIRE HARNESS** together.

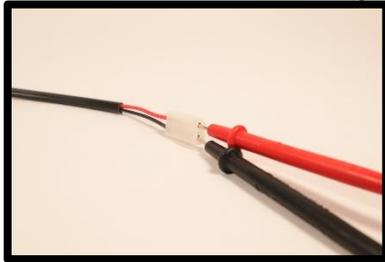


- Does the pump run now?
 - If No – Continue to the next step.
 - If Yes – verify that the pump is turning in the correct direction.
 - Pump head will be turning counterclockwise.



- If it is turning counterclockwise, is it pumping?
 - If No – go back to Pump Will Not Pump
 - If Yes - you most likely need to replace/repair your controller

- Verify that there is power going to the control.
 - Verify the input lead is connected to a power supply.
 - Check to make sure the fuse is not blown.
 - Check wiring for any nicks, frays, and that you have good clean connections.
 - Disconnect the connection to the red/black lead on the back of the controller.
 - Use a multi-meter to check voltage on the incoming harness.
 - Red lead to pin on red line, Black lead to pin on black line – you must test both leads on the harness, if you ground to a different location, that will only tell us if there is power or not through the harness, not if there is ground through the harness.



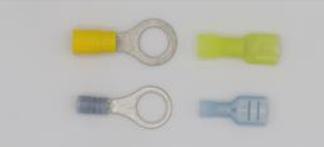
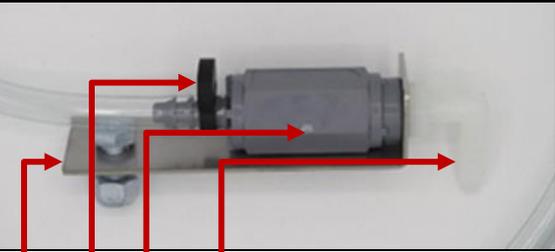
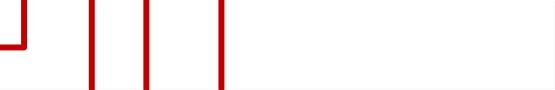
- Voltage reading must be between 10-15 volts.



- Readings outside of this may not allow the control to function.
- If the readings are negative (Example -12.0), your red and black wire need to be flipped at the power supply – the control has gone into reverse polarity protection mode.

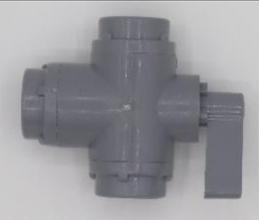


DE-1008.5 Parts Breakdown

Qty	Part Number	Description	Picture
1	1008.5-PT-BL	1008.5 Series Pumping Tube – BLUE	
1	1008.5-PT-RED	1008.5 Series Pumping Tube - RED	
1	170017	Electrical Pack for Assembly Kits	
1	170018	DE-1008.5 Mounting Hardware Bag	
1	170021	DE-1008.5 – 11” Pump Hose – Hose and fitting connecting pump to cooler	
1	LT14HBSTR	¼” HB Quick Connect Straight	
1	170026	DE-1008.5 Check Valve Assembly with 20’ of Hose	
BREAKDOWN OF 170026			
1	170001	In-Line Check Valve for Dohrect Enject System	
1	182-SS-CV	Dohrect Enject Series Discharge Bracket for use with In-Line Check Valve	
1	SHC-BB	Snapper Hose Clamp	
1	ILCV-14FPT14HB-1.5	In-Line Check Valve (1.5#)	
1	326	¼” MPT X ¼” HB Elbow	
1	451-20	20’ Length of ¼” ID X 3/8” OD Clear Hose	Not Pictured

1	364-1008.5	DE-1008.5 – 35' Complete Power Cord Assembly	
BREAKDOWN OF 364-1008.5			
1	364A	DE-1008.5 – 15' Power Cord – From Power Source to Controller	
1	364C	DE-1008.5 – 20' Power Cord – From Controller to Pump	
1	FM-1008.5-LED	Flowmeter Assembly w/LED Light – Dohrect Enject Series – 1008.5 ONLY	
2	JACO18MPT38OD	1/8" MPT X 3/8" OD Compression Fitting	
1	350081-00	FM-1008.5/FM-1008.5M Flowmeter Float Ball	Not pictured
1	SP-2L	Dohrect Enject Manual Controller	
1	130-QC	10 Gallon Cooler Assembly for DE-1008.5 & DE-1010 Series – Includes CVA-130-QC	
1	CVA-130-QC	Dohrect Enject Cooler Valve Assembly	

BREAKDOWN OF CVA-130-QC

2	LT14MPTQC	¼" MPT X Quick Connect Socket	
1	301	¼" Street Elbow	
1	302	½" X ¼" Reducer Bushing	
1	333	¼" X ¼" Close Nipple	
1	338	½" X ½" FPT Coupler	
1	449	¼" 3-Way Valve	
1	456	¼" Suction Strainer (Inside Cooler)	
1	130/GSK	Gasket/Washer Assembly for Cooler	
1	234-3926	½" FPT Swivel (Wingnut) X ½" HB Swivel Elbow	
1	313PVC	½" X ½" PVC Close Nipple (Gray)	

1	156-SS	Dohrect Enject Baseplate (Stainless Steel) with Straps	
2	156-Strap	Dohrect Enject Baseplate Strap (Each) – Includes 1/4" X 1-1/4" Hex Head Bolt and 1/4" Flat Washer	
1	1008.5-SUPPORT	Support Bracket for 1008.5 Series Pump Unit (Does not include hardware)	
1	170037-19	DE-1008.5 Pump Unit	Not pictured
BREAKDOWN OF DE-1008.5 PUMP UNIT			
1	1008.5-ENC	Pump Enclosure – DE-1008.5 Dohrect Enject Series (Does not include hardware)	Not pictured
1	108.5	DE-1008.5 Pump (Does NOT include pumping tubes)	
2	177-OSB-SS	Pump Mount Bracket (13" w/Offset Bend (Does not include hardware)	Not pictured
2	LT14HBPM-NCV	1/4" HB Panel Mount Quick Connect Socket (No check valve)	
1	170038	Quick Reference Chart for DE-1008.5, Laminated	Not pictured
1	1776502	Rubbermaid 1 Gallon Mixing Jug	

1	FLB32QC	Flush Bottle Assembly – For DE-1008.5 Series Dohrect Enject System	
BREAKDOWN OF FLB32QC			
1	170020	DE-1008.5 – 15” Flush Bottle Hose	
1	FLB32QC-NH/NHF	Flush Bottle Assembly for DE-1008.5 Series (Does not include hose or hose fittings)	
1	LT14HBEL	¼” HB Quick Connect Elbow	
1	OM-1008.5	Owner’s Manual for DE-1008.5 Applicator	Not pictured
HEADER SWITCH ADAPTERS			
1	190000	NOT INCLUDED WITH APPLICATOR - “Header Switch” wiring adapter for John Deere Self-Propelled Forage Harvesters (SPFH); 7000, 8000 & 9000 Series Can be used in place of John Deere Part #AZ100126	
1	210000	NOT INCLUDED WITH APPLICATOR - “Header Switch” wiring adapter for Claas Self-Propelled Forage Harvesters (SPFH)	