

INTRODUCTION

We are excited to announce the addition of a turn-key chemical batch mixing system to the Dura Products lineup. This solution is designed to elevate your chemical transfer operations with unmatched accuracy and efficiency. Streamline your chemical batching with simultaneous multi-injection, pinpoint accuracy and automated operation. The FastBatch MultiJet takes the guesswork out of measurement, ensuring precision and reducing mixing and filling times by up to 75% in every application.

SAFETY INFORMATION

In accordance with safety regulations and best practices for handling agricultural chemicals, all personnel must adhere to the following PPE requirements:

 Eye Protection: Wear safety goggles or face shields to protect against chemical splashes and irritants.

 Skin Protection: Long-sleeved clothing, gloves (chemical-resistant), and pants should be worn to minimize skin exposure. Ensure that gloves fit properly and are approved for the chemicals being used.

 Respiratory Protection: When handling or applying chemicals that may produce vapors or aerosols, use a respirator that is appropriate for the level of exposure, as specified on the chemical label or safety data sheet (SDS).

 Foot Protection: Wear waterproof boots that cover the ankles to protect feet from chemical exposure.

Additional Equipment: Depending on the specific agricultural chemical and application methods, additional PPE such as aprons or full-body suits may be necessary. Always refer to the product label for specific PPE recommendations.

It is essential for all personnel to receive training on the safe handling of agricultural chemicals and the proper use of PPE. Regular inspections of PPE for damage and proper maintenance are also required to ensure maximum protection.

For any questions or clarifications regarding PPE use and safety while handling agricultural chemicals, please consult the SDS for the specific chemical.

PRODUCT OVERVIEW

Features

The FastBatch MultiJet comes with everything you need to make fast and accurate chemical batches.

- Dura 1" Electric Valves
- Protective Meter Lid and Trickle Charge Solar Panel
- 40 Gallon Cone Tank with chem knife and rinse
- Auto-Batch™ High-Flow Carrier System and Chemical Batch Meters
- Dry Poppet Calibration Connections

The system seamlessly integrates the high-quality products you've come to trust from Dura Products. Each meter, pump, and valve are a standard product and can be replaced with conventional dealer stock should the need arise.

Specifications

Technical specifications (dimensions, weight, power requirements, etc.).

Overall dimensions 92.7" x 37"

System weight 437 lbs. no transfer pump, 640 lbs. with a typical 3" cast iron, wet seal pump.

Power 12VDC nominal (11-14 VDC operating) by way of lead acid or AGM automotive battery.

Part Numbering

PART NUMBER TAXONOMY INFORMATION			ORDERING INFORMATION	
DPFB-MULT3V4-12	DIGIT OPTION	DESCRIPTION	PRODUCT #	DESCRIPTION
DPFB-MULT <u>X</u>	2	2" Plumbing	DPFB-MULT2V4-12	2" 12VDC 4-Input Fastbatch Multijet System Viton® No Pump
	3	3" Plumbing	DPFB-MULT3V4-12	3" 12VDC 4-Input Fastbatch Multijet System Viton® No Pump
DPFB-MULT3 <u>X</u>	V	Viton®	DPFB-MULT2V2-12ADD	2" 12VDC 2-Input Fastbatch Multijet Add-On
	E	EPDM	DPFB-MULT2V4-12ADD	2" 12VDC 4-Input Fastbatch Multijet Add-On
DPFB-MULT3V <u>X</u>	4	4 input version	DPFB-MULT3V2-12ADD	3" 12VDC 2-Input Fastbatch Multijet Add-On
DPFB-MULT3V4- <u>XX</u>	12	12 volt DC	DPFB-MULT3V4-12ADD	3" 12VDC 4-Input Fastbatch Multijet Add-On
	110	110 volt AC	DPFB-MULT3V4-12ADD	3" 12VDC 4-Input Fastbatch Multijet Add-On
DPFB-MULT3V4-12- <u>XX</u>	Add TP at end	Transfer Input with Honda® Engine and Silicon Carbide seal		
	Add WSTP at end	John Blue® Transfer Input with Honda® Engine and Wet Seal		

INSTALLATION INSTRUCTIONS

What Is Needed to Begin

- FastBatch MultiJet Skid Assembly
- Transfer Pump (if not purchased with unit)
- 12V Automotive Battery (recommend 750 CCA), alternator or charging method also required
- If static installation is required, additional use of a battery charger is needed.
Dura recommends the NOCO®, GenPro 10X1 if not purchased with the system.
- Chemical Totes, any additional chemical jugs and/or powders
- Hose to make water supply connection, note, less restriction means faster loading

Site Requirements, Equipment Setup, Plumbing Connections - General

The FastBatch MultiJet is designed to withstand the conditions seen in typical outdoor use. It does not require additional protection from the elements. Like any equipment, storage under cover, while not in use, will extend the longevity of system components as well as preserve the original appearance.

Choose a suitable location in your shop or on a tender trailer for your FastBatch MultiJet. Ensure it is fastened securely, stable and accessible. The use of $\frac{3}{8}$ " lag screws or bolts is recommended.

Considerations should be taken to keep the system as level as possible, as well as reducing movement and vibration during use and transport.

Additionally, adequate space should be provided to work in and around the system, keeping hoses tidy and eliminating trip hazards when possible.

It is recommended that the main hose connections in and out of the system be double clamped for added security.

A 2" or 3" cam lock fitting and manifold straight flange fitting is included for the inlet to the high flow carrier meter. Use of cam lock fittings is recommended where applicable for simpler rinsing and winterization. Other connection types may be placed on the inlet, however the provided manifold straight flange fitting is required for proper meter performance.

SETUP INSTRUCTIONS

Secure the FastBatch MultiJet

Choose a suitable location in your shop or on a tender trailer for your FastBatch MultiJet. Ensure it is fastened securely, stable and accessible. We have provided mounting screw holes in the frame (See Fig.1).

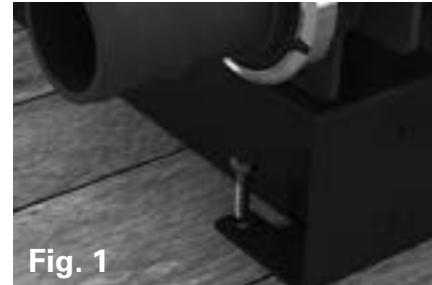


Fig. 1

Mount the Transfer Pump (if not purchased together)

Attach the transfer pump to the skid using the existing holes in the frame and included rubber isolation mounts. Ensure it is securely fastened.



Fig. 2

Connect the Battery

Place your 12V automotive battery in the tray provided (See Fig.2). Use the supplied alligator clips to connect the battery; Red to Positive, Black to Negative. Secure battery to tray.

Connect Chemical Totes

Connect your chemical totes to the injection system. Use the supplied 11' hoses with cam locks to connect at the tote's bottom valve. It's okay for the totes to be elevated above the system. The included Dura EV actuated valves will prevent leakage and eliminate the need for additional check valves. Connect each tote to the corresponding pump inlet on the back of the tower. These are numbered 1 through 4 from top to bottom and correspond to the meter identification on the control panel at the top of the tower. Ensure all chemical and water connections are secure. Verify that all clamps are snug and cam-locks are closed. Ensure chemical totes are vented by cracking the caps to avoid slowing injection.

Connect Water Supply

Make water connections at the end of the carrier manifold before the high flow meter. The system is designed to accept clean water coming into the transfer pump and High Flow Auto-Batch Meter (See Fig. 3). This ensures the longest, trouble-free life for these components. Remember to keep plumbing as secure as possible, without tight turns or res



Fig. 3

Important Plumbing Setup – Bypass

Before operating the FastBatch MultiJet, plumb a bypass hose back to the carrier supply/tank using Dura's custom pressure relief valve (See Fig.4). The minimum recommended hose size is 1".

The pressure relief bypass valve is located after the Auto-Batch™ High-Flow meter, on a tee, just before the 2" or 3" Electric Valve.



Fig. 4

OPERATING INSTRUCTIONS

Calibrate Meters

Calibrate the carrier water Auto-Batch™ High-Flow meter.

Calibrate each of the Auto-Batch chemical meters with the associated chemicals intended to be mixed. *Before starting the calibration process, make sure the 1" Dura electric valves are closed with the red indicator illuminated. Disconnect the associated Dura electric valve at its' Deutsch direct plug connection (See Fig. 5). This is imperative to prevent concentrated chemical from entering the injection manifold.*

For more information refer to the Dura Meter calibration guide and the meter calibration supplement at the end of this guide.

Set Batch Sizes

Set your desired carrier water batch size on the Auto-Batch High-Flow 2" or 3" Meter at the water inlet (see Fig. 6).

Remember it's always a good idea to keep your recipe total at least 50 gallons less than your sprayer capacity.

Configure each chemical amount per batch on the respective Auto-Batch Meters at the top of the pump and meter tower (See Fig.7).

Start Mixing

You are now ready to start making a hot load!

Open the induction bypass valve (See Fig. 8).

Start your carrier water batch with the 2" or 3" Auto-Batch High Flow Meter (see Fig. 9). The corresponding electric valve will open.

Open the water supply to the transfer pump. Make sure the pump housing fills. You may need to briefly open the outlet connection of the pump to achieve a complete prime.

Start your transfer pump.

Once full water flow is achieved, proceed to turn on the injection tower and start your chemical meter batches, largest volume first (see Fig. 10).

Watch the injection manifold pressure. If above 12 PSI it can slow or even stop chemical injection. Transfer pump throttle reduction will reduce pressure (see Fig. 11).

Induce liquid or powdered chemical at the cone tank.

The venturi will function best with the bypass valve throttled down or closed (See Fig.12). Return the bypass to full open once induction is complete to expedite the balance of carrier water.



Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12

Open the valve at the bottom of the tank (See Fig. 13).

The jug rinse is on the left side of the cone tank (See Fig. 14).

See Chemblade user manual for safe operation and further details.

Be sure to run the swirl rinse on the right side of the cone tank after each chemical (See Fig. 15).

When the carrier batch is completed and closes the carrier valve, shut down your transfer pump.

Your hot load is now complete.

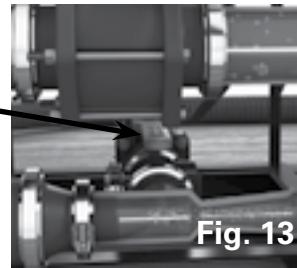


Fig. 13

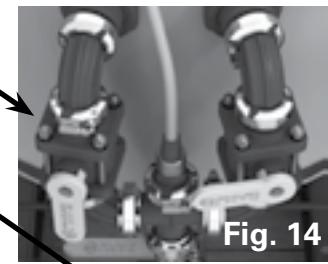


Fig. 14

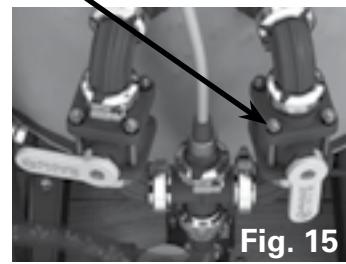


Fig. 15

Additional Tips

Refer to detailed user manuals for troubleshooting and advanced settings.

Always follow safety guidelines when handling chemicals.

Chemical totes can be recirculated by running hose from the calibration dry poppet back into the top of the tote. *Before turning on the pump, make sure the 1" Dura electric valves are closed, with the red indicator illuminated. Disconnect the associated Dura electric valve at its' Deutsch direct plug connection. This is imperative to prevent concentrated chemical from entering the injection manifold. See image (Fig. 5) on page 4 for reference.* Turn on the pump using manual control from the meter's menu. Be sure to adhere to the 30 minute max run-time.

Enjoy your efficient mixing experience with the FastBatch MultiJet!

MAINTENANCE

Routine Checks and Cleaning

Always be sure to rinse lines and system with clean water before extended storage or when changing chemicals.

At the end of each season be sure to winterize the system with RV antifreeze. Cycle each meter, pump, and valve to ensure a complete purge of water.

The FastBatch is a weatherproof system that can be rinsed down with mild detergents or clean water. If a pressure washer is used, keep the nozzle at least 3 feet from all components to prevent damage.

WARRANTY

2-year comprehensive pump/meter warranty program, second to none in the industry.

- Warrants that all Dura Products equipment shall be free from defects in material and workmanship
- Equipment that falls under warranty period and parameters will be repaired or replaced and returned at no cost to the customer

RETURN GOODS AUTHORIZATION (RGA/MRGA)

- Call (317)984-4003 or email customerservice@duraproducts.com to request a Return Goods Authorization (RGA/MRGA) number

- Complete and sign RGA/MRGA form ensuring all contact details/return address are correct
- Follow shipping instructions per RGA/MRGA form
- SHIP TO: Dura Products
Warranty Department
504 Demoss Avenue
Arcadia, Indiana 46030

APPENDIX

Meter Calibration – Supplemental Information

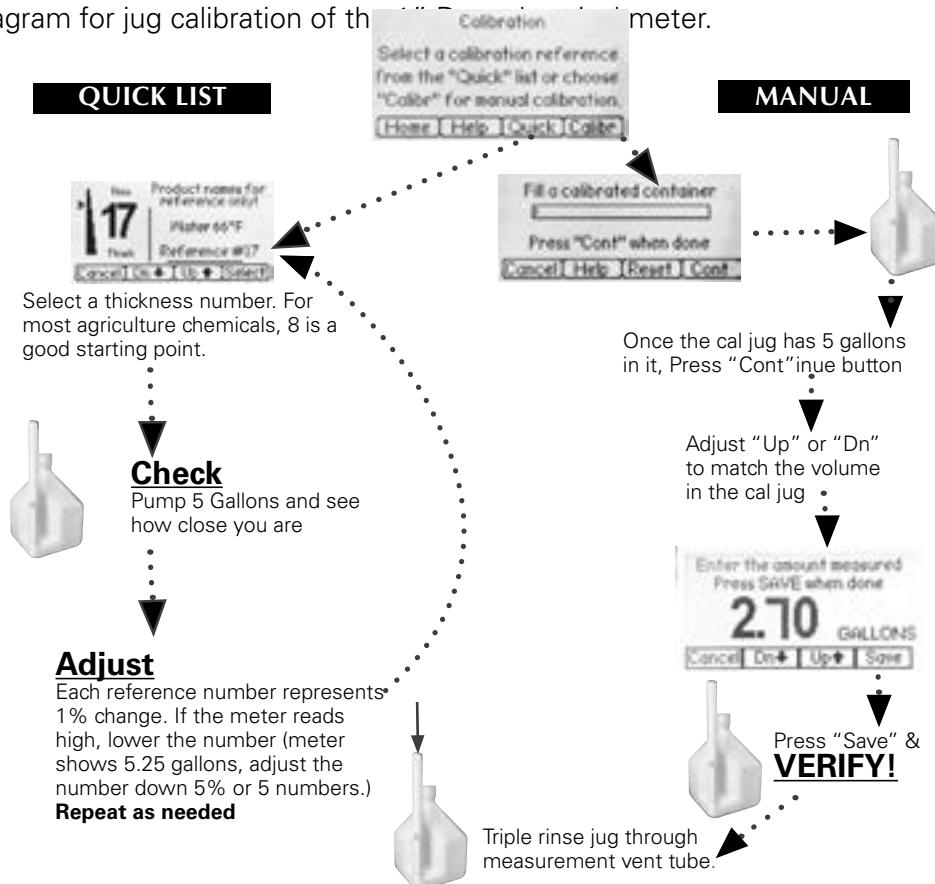
Meter calibration is critical for accurate fluid measurement. Variations in fluid characteristics, viscosity shift due to temperature changes, plumbing differences, and varying flowrates can affect the accuracy. An accurate measurement jug or scale is important to facilitate the verification and calibration process. The Dura Products calibration jug provides an accurate, economical calibration measure for water-based fluids in small volumes. For carrier water flow, fill a tote or other large container with at least 150 gallons, using weight to determine the amount measured. Your calibration will only be as accurate as your measuring method. Another factor in accurate calibration is system prime. Both the chemical and carrier meters will read air, as well as chemicals and water. Removing all the air from the system by priming before calibration will help ensure accuracy.

Before each use, make sure the container is clean, and with a calibration jug, that the scale-reading area is clear for best visibility of the fluid level. Place the container on a flat level surface. Recommended fill for a calibration jug is from the 3 to 5-gallon marker on the scale. Allow for any foaming action that may occur.

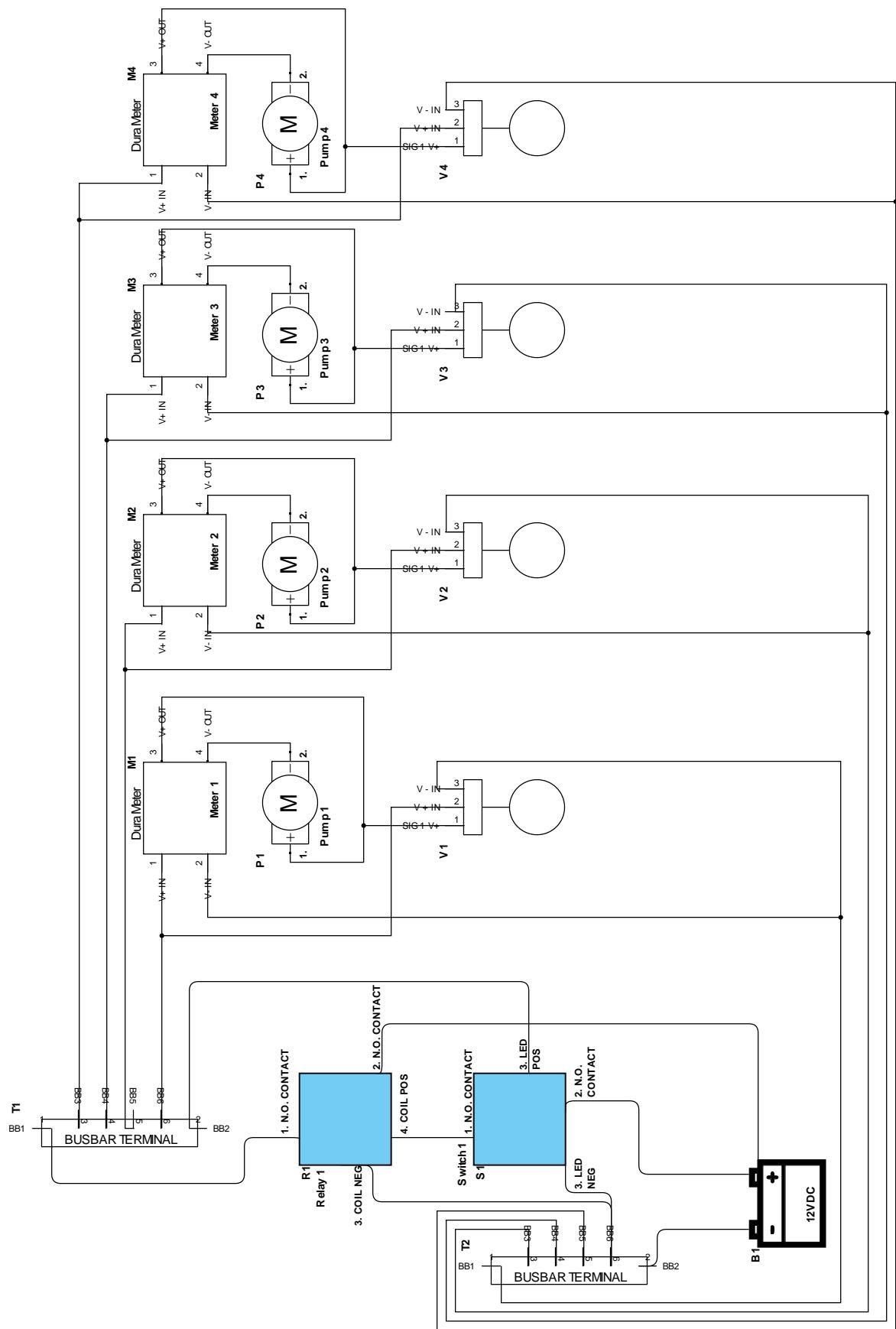
After filling the container with fluid to the desired mark, check the meter reading. The meter reading should match the dispensed units in the calibration container. If it does not, make adjustments per the instruction diagram below.

For the high flow meter, dispense no less than 150 gallons into a container, suitable to be weighed. Take the filled container weight, minus the empty weight in pounds, divide this by 8.34 (only applicable for water, 1 gallon of water ~ 8.34 pounds) to determine the number of gallons dispensed. Recalibrate the meter if the error margin between the meter reading and the container scale is not satisfactory.

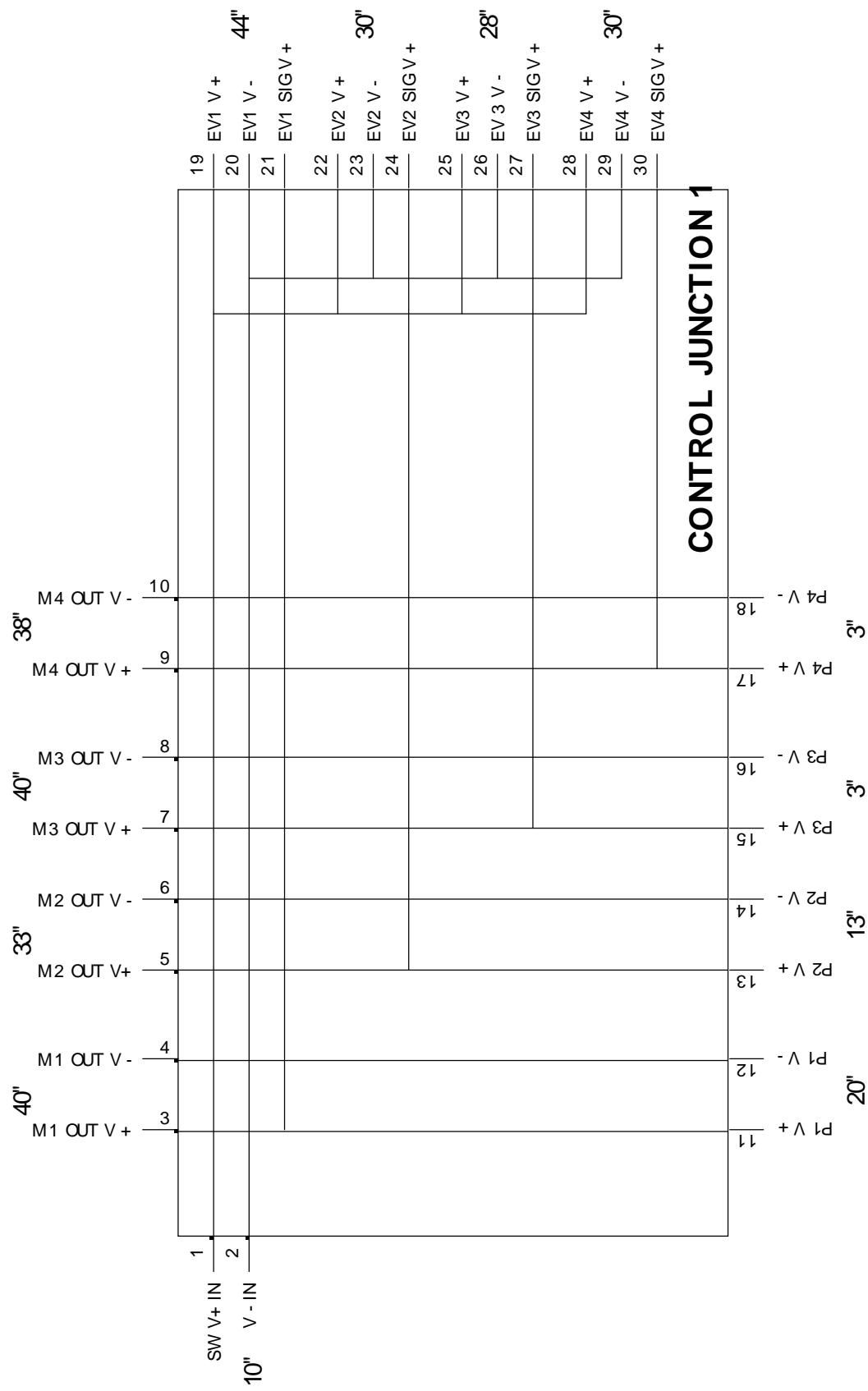
See the following diagram for jug calibration of the **High Flow Meter**.



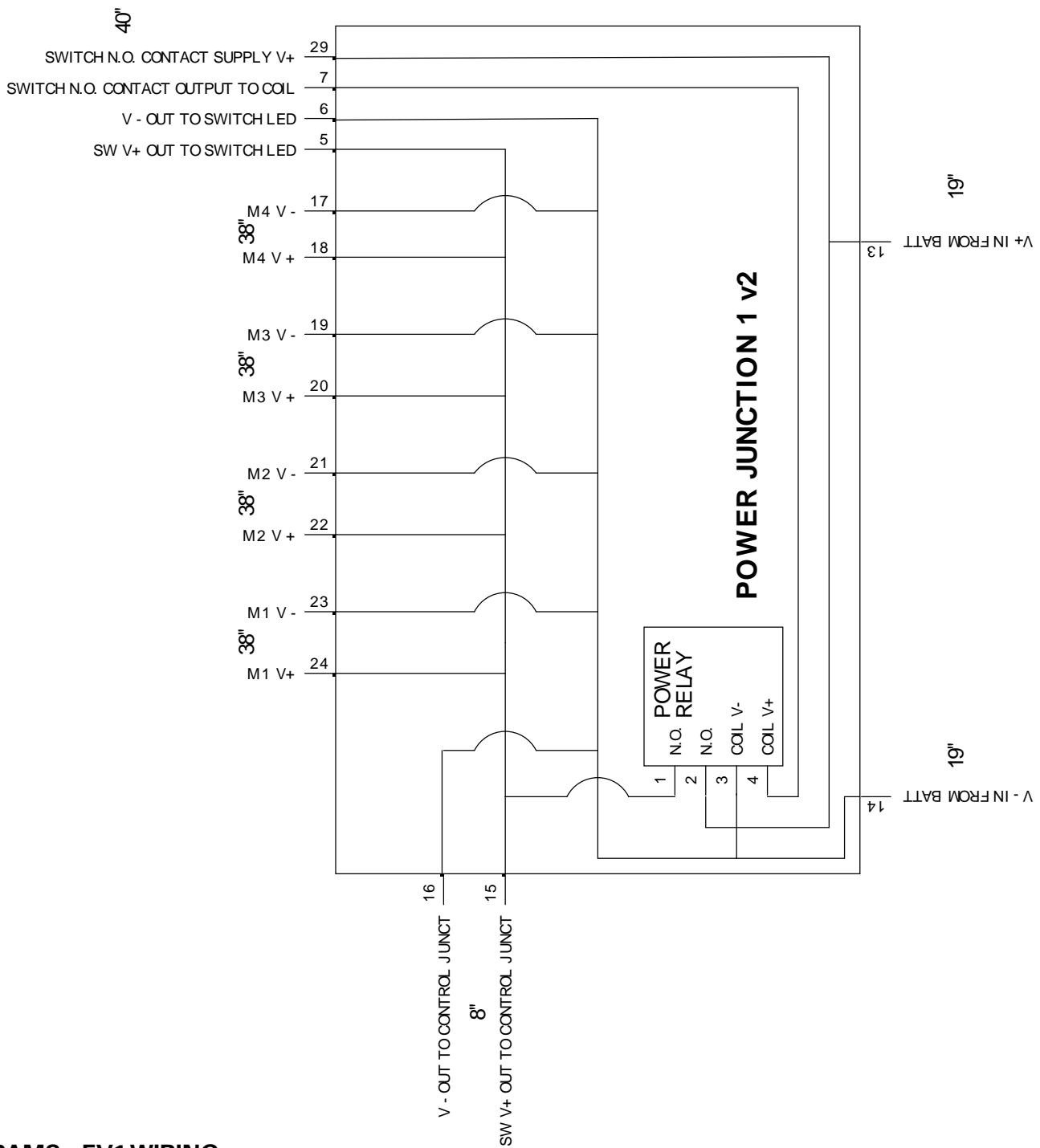
DIAGRAMS - SYSTEM SCHEMATIC



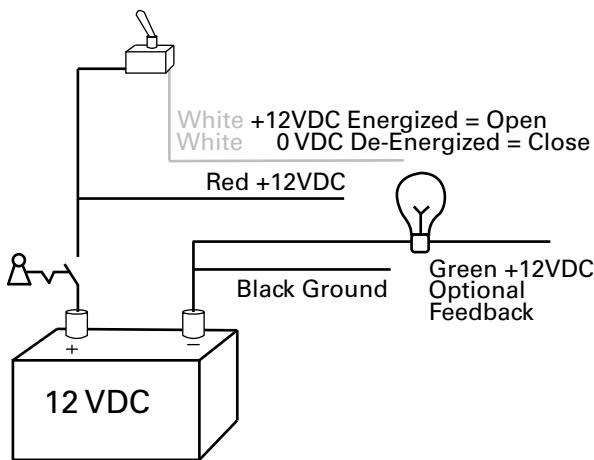
DIAGRAMS - CONTROL JUNCTION BOX SCHEMATIC



DIAGRAMS - POWER JUNCTION BOX SCHEMATIC



DIAGRAMS - EV1 WIRING



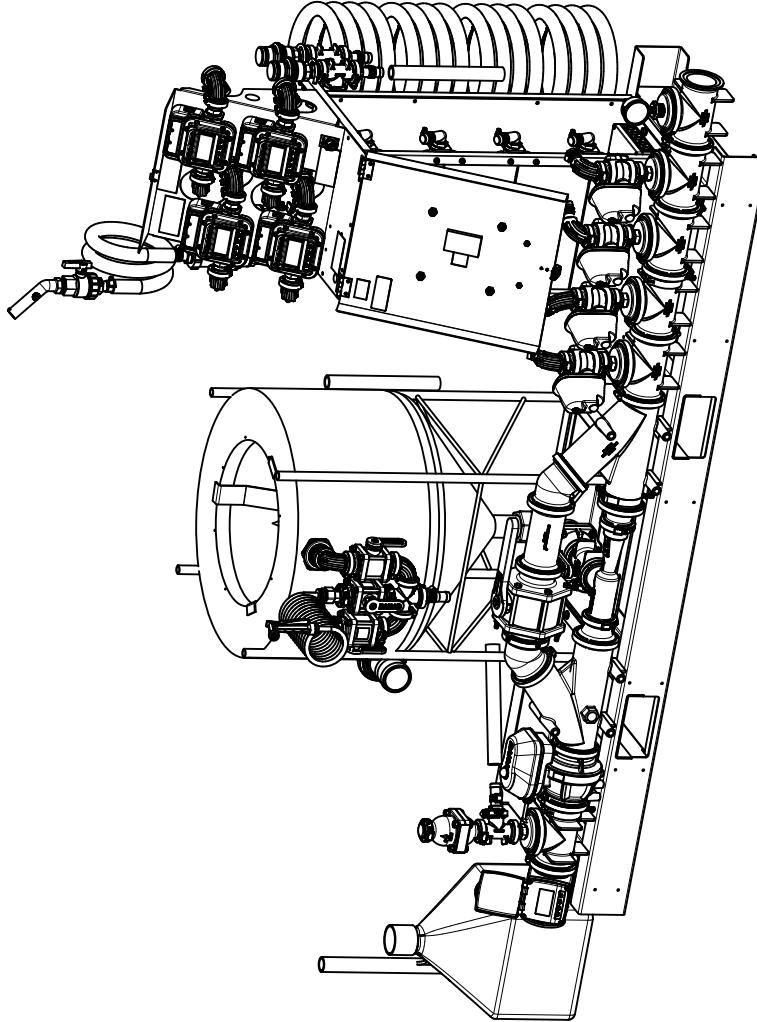
ASSEMBLY PRINTS - COMPLETE SYSTEM

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ANY REPRODUCTION IN PART OR AS A WHOLE
WITHOUT WRITTEN PERMISSION IS
PROHIBITED.

Part Number	Description
DPFB-MULT3V4-12	3" 12VDC 4-Input FastBatch Multijet System, Viton
DPFB-MULT3F4-12	3" 12VDC 4-Input FastBatch Multijet System, EPDM

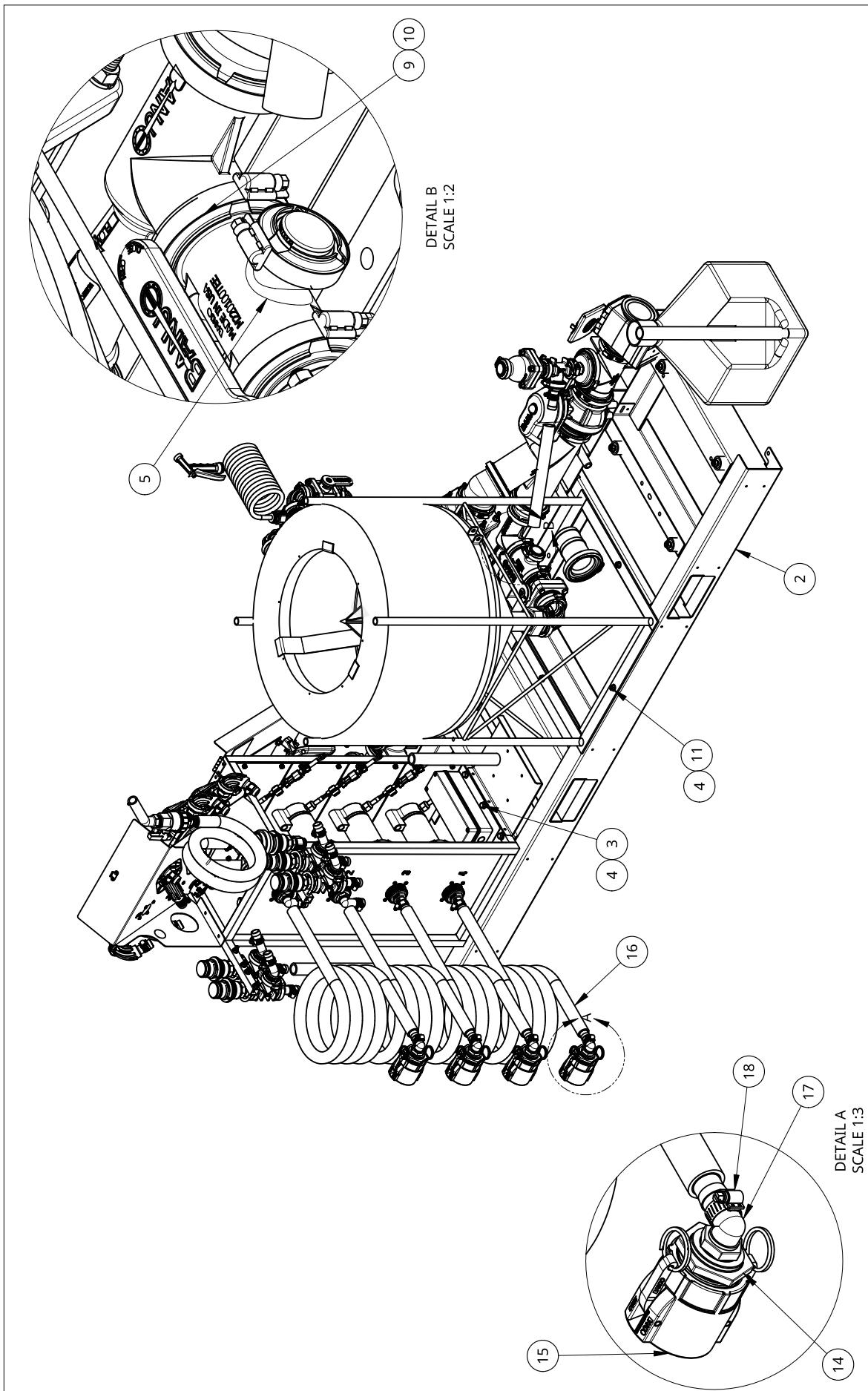
Item	QTY V4	QTY E4	Part number	Description
1	1	0	161-0016-V4	Assembly, Multijet Stack
1	0	1	161-0016-E4	Assembly, Multijet Stack
2	1	1	160-0003	Weldment, DI System Frame
3	6	6	100-0007	Bolt, 3/8"-16 x 1-3/4", SS, Hex Flange
4	9	9	101-0002	Nut, 3/8"-16, Lock, SS
5	1	1	161-0012	Assembly, Induction Cone, Multijet, EPDM
6	2	2	199-0003	Assembly, FastBatch Manifold Mount, 325
7	1	0	161-0025-V	Assembly, Multijet Manifold Plumbing, 3"
7	0	1	161-0025-E	Assembly, Multijet Manifold Plumbing, 3"
8	1	1	500-0017	Label FastBatch Multijet, 16 x 4
9	1	1	209-0005	Clamp, 220 Series Worm Screw
10	1	1	205-0014	Gasket, 2" FP Flange, EPDM
11	3	3	100-0008	Bolt, 3/8"-16 x 1", SS, Hex Flange
12	1	1	199-0002	Assembly, FastBatch Manifold Mount, 350
13	4	4	DP-T4003-ERAW	RAW - 1" Hose (EPDM) - Quantity = 1'
14	4	4	141-0042	2" MPX X 1" FPT Reducing Bushing -Terra Max-RB2001P
15	4	4	DP-TM20CLRaw	2" Cam Lock - TerraMax-200D
16	16	16	DP-T4003/12-ERAW	RAW - 1" Hose (EPDM) - Quantity - cut to 11ft
17	4	4	141-0037	1" Poly 90 Hose Barb X Male Thread
18	4	4	DP-HC1000Raw	1" Hose Clamp
19	1	1	DP-CALJUG	5 Gallon Calibration Jug
20	1	1	511-0001	Hardware Kit, Fastbatch Transfer Pump Dampeners
21	1	1	500-0005	Label, Pump Serial Number, Smudge-Proof 550 2.00" x 1.25" White TT Polyester, Blanks, 3" Core -1850 per roll
22	1	1	500-0006	Label, Fastbatch, 1.5 x 3.5, SS, 2 Color, 3M Adhesive
23	1	1	141-0019	Hose Barb, 3" Flange
24	1	1	205-0015	Gasket, 3" Flange, EPDM
25	1	1	209-0006	Clamp, 300 Series Worm Screw
26	1	1	PMR 20 Foot Cable	PMR 20 Foot Cable Assembly+Power Cord Wiring Harness

Note: Items 20, 23, 24, 25, and 26 ship loose



DURA PRODUCTS		PART REV
3" 12VDC X-IN/INPUT FASTBATCH MULTIJET SYSTEM		00B
DPFB-MULT3XX-12		
		3" 12VDC X-IN/INPUT FASTBATCH MULTIJET SYSTEM
		DPFB-MULT3XX-12
		REV.
		1:16
		VOLUME
		SCALE
		SHEET
		1 of 3

ASSEMBLY PRINTS - COMPLETE SYSTEM



ASSEMBLY PRINTS - ADD ON

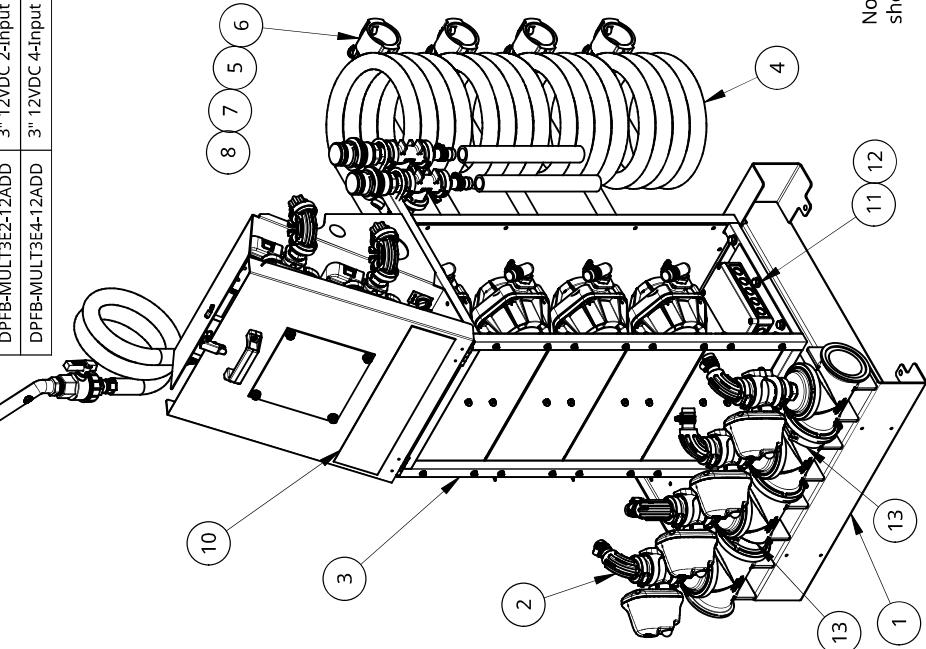
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Part Number	Description	Revisions				DATE	APPROVED
		ZONE	REV	ECO	Initial Release		
DPFB-MULT2V2-12ADD	2" 12VDC 2-Input FastBatch Multijet Add-On Viton					TBD	TBD
DPFB-MULT2V4-12ADD	2" 12VDC 4-Input FastBatch Multijet Add-On Viton						
DPFB-MULT3V2-12ADD	3" 12VDC 2-Input FastBatch Multijet Add-On Viton						
DPFB-MULT3V4-12ADD	3" 12VDC 4-Input FastBatch Multijet Add-On Viton						
DPFB-MULT2E2-12ADD	2" 12VDC 2-Input FastBatch Multijet Add-On EPDM						
DPFB-MULT2E4-12ADD	2" 12VDC 4-Input FastBatch Multijet Add-On EPDM						
DPFB-MULT3E2-12ADD	3" 12VDC 2-Input FastBatch Multijet Add-On EPDM						
DPFB-MULT3E4-12ADD	3" 12VDC 4-Input FastBatch Multijet Add-On EPDM						

Revisions

ZONE	REV	ECO	DESCRIPTION	DATE	APPROVED
	A		Initial Release	TBD	TBD

Note: 3" BOMs



QTY 3V4	QTY 5E4	Item	QTY 3V2	QTY 3E2	Part number	Description
1	1	1	1	1	160-0006	Weldment, Lone Multijet Frame
1	0	2	0	0	161-0015-V4	Assembly, DI EV Plumbing, 3", Viton, 4 Meter
0	1	2	0	0	161-0015-E4	Assembly, DI EV Plumbing, 3", EPDM, 4 Meter
0	0	2	1	0	161-0015-V2	Assembly, DI EV Plumbing, 3", Viton, 2 Meter
0	0	2	0	1	161-0015-E2	Assembly, DI EV Plumbing, 3", EPDM, 2 Meter
1	0	3	0	0	161-0016-V4	Assembly, Multijet Stack, Viton, 4 Meter
0	1	3	0	0	161-0016-E4	Assembly, Multijet Stack, EPDM, 4 Meter
0	0	3	1	0	161-0016-V2	Assembly, Multijet Stack, Viton, 2 Meter
0	0	3	0	1	161-0016-E2	Assembly, Multijet Stack, EPDM, 2 Meter
4	4	4	2	2	DP-T4003/12-ERAW	RAW - 1" Hose (EPDM) - Quantity - cut to 11ft
4	4	5	2	2	141-0042	2" MPTX1" FPT Reducing Bushing -Terra Max-RB2001P
4	4	6	2	2	DP-TM20CLraw	2" Cam Lock - TerraMax-200D
4	4	7	2	2	141-0037	1" Poly 90 Hose Barb X Male Thread
4	4	8	2	2	DP-HC1000raw	1" Hose Clamp
1	1	9	1	1	500-0005	Label, Pump Serial Number, Smudge-Proof 550 2.00" x 1.25" White TT Polyester, Blanks, 3" Core - 1850 per roll
1	1	10	1	1	500-0017	Label, FastBatch Multijet, 16 x 4
6	6	11	6	6	100-0007	Bolt, 3/8"-16 x 1-3/4", SS, Hex Flange
6	6	12	6	6	101-0002	Nut, 3/8"-16, Lock, SS
2	2	13	1	1	195-0003	Assembly, FastBatch Manifold Mount, 325
12	12	14	6	6	DP-T4003-ERAW	RAW - 1" Hose (EPDM) - Quantity = 1

DIMENSIONS ARE IN INCHES		UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES		DRAWN		NAME		DATE		PART NO.	
TOLERANCES		X typically +/-0.1		CHECKED		10/10/2015		01/07/2015		00A	
X typically +/-0.01		SURFACE FINISH		APPROVED							
X typically +/-0.005		DO NOT SCALE DRAWING									
ANGULARITY (Locally) = +/- 1°		BREAK ALL SHARP EDGES AND REMOVE BURRS									
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5:2018		THIRD ANGLE PROJECTION		MATERIAL		N/A					
TITLE		X INCH 12VDC X-INPUT FASTBATCH MULTIJET ADD-ON									
SHEET		B		DRAW NO.		DPFB-MULTXXX-12ADD		REV.			
NOTE		1 of 2		SCALE		1:10		VOLUME			

Note: 2" system BOMs
shown on Sheet 2

ASSEMBLY PRINTS - ADD ON

Note: 2" BOMs

QTY 2E4	QTY 2E4	Item	QTY 2V2	QTY 2E2	Part number	Description
1	1	1	1	1	160-0006	Weldment, Lone Multijet Frame
1	0	2	0	0	161-0014-V4	Assembly, DI EV Plumbing, 2", Viton, 4 Meter
0	1	2	0	0	161-0014-E4	Assembly, DI EV Plumbing, 2", EPDM, 4 Meter
0	0	2	1	0	161-0014-V2	Assembly, DI EV Plumbing, 2", Viton, 2 Meter
0	0	2	0	1	161-0014-E2	Assembly, DI EV Plumbing, 2", EPDM, 2 Meter
1	0	3	0	0	161-0016-V4	Assembly, Multijet Stack, Viton, 4 Meter
0	1	3	0	0	161-0016-E4	Assembly, Multijet Stack, EPDM, 4 Meter
0	0	3	1	0	161-0016-V2	Assembly, Multijet Stack, Viton, 2 Meter
0	0	3	0	1	161-0016-E2	Assembly, Multijet Stack, EPDM, 2 Meter
4	4	4	2	2	DP-T4003/12-ERAW	RAW - 1" Hose (EPDM) - Quantity - cut to 11ft
4	4	5	2	2	141-0042	2" MPT X 1" FPT Reducing Bushing -Terra Max-RB2001P
4	4	6	2	2	DP-TM20CLraw	2" Cam Lock - TerraMax-200D
4	4	7	2	2	141-0037	1" Poly 90 Hose Barb X Male Thread
4	4	8	2	2	DP-HC1000raw	1" Hose Clamp
1	1	9	1	1	500-0005	Label, Pump Serial Number, Smudge-Proof 550 2.00" x 1.25" White TT Polyester, Blanks, 3" Core - 1850 per roll
1	1	10	1	1	500-0017	Label, FastBatch Multijet, 16 x 4
6	6	11	6	6	100-0007	Bolt, 3/8"-16 x 1-3/4", SS, Hex Flange
6	6	12	6	6	101-0002	Nut, 3/8"-16, Lock, SS
2	2	13	1	1	199-004	Assembly, FastBatch Manifold Mount, 225
12	12	14	6	6	DP-T4003-ERAW	RAW - 1" Hose (EPDM) - Quantity = 1'



DURA PRODUCTS
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FB_MultiJet_Manual_082025