



973P TRUSS BOOM 120'/132'

Parts Manual

Fast Global Solutions

4130 Commerce Boulevard

Windom, Mn 56101

[www.fastsprayers.com](http://www.fastsprayers.com)



## GENERAL INFORMATION

All rights, especially copying and distribution rights are reserved. No part of this publication may be reproduced in any form or by any means, electronic or mechanical, including photocopying, without express written permission from Fast Global Solutions.

Parts information in this manual represents components installed when product was manufactured based upon the best available information. Modifications made subsequent to initial delivery are not included. Always verify the parts and color required with your dealer or Fast Global Solutions Parts Department at 1-800-772-9279.

If you have any questions, please contact your dealer or our Parts and Service Department.

The serial number is on a serial tag attached to the 3 point frame by the parallel link attachment.





## Limited Warranty

Fast Ag Solutions warrants to the buyer that the new machinery is free from defects in material and workmanship.

This warranty is only effective as to any new machinery which has not been altered, changed, repaired or treated since its delivery to the buyer, other than by Fast Ag Solutions or its authorized dealers or employees, and does not apply to accessories, attachments, tools or parts, sold or operated with the new machinery, if they have not been manufactured by Fast Ag Solutions.

Fast Ag Solutions shall only be liable for defects in the materials or workmanship attributable to faulty material or bad workmanship that can be proved by the buyer, and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery or in any other manner whatsoever, and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with Fast Ag Solutions operator's manual, specifications, or printed instructions.

Written notice shall be given by registered mail, to Fast Ag Solutions within seven (7) days after the defect shall have become apparent or the repairs shall have become necessary, addressed as follows:

Fast Ag Solutions, Inc. 4130 Commerce Boulevard, Windom, Mn 56101.

This warranty shall expire one (1) year after the date of delivery of the new machinery.

If these conditions are fulfilled, FAST shall at its own cost and at its own option either repair or replace any defective parts provided that the buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation or any other work, unless FAST has authorized such expenses in advance.

The warranty shall not extend to any repairs, changes, alterations, or replacements made to the new equipment other than by FAST or its authorized dealers or employees.

This warranty extends only to the original owner of the new equipment.

Tires are subject to the tire manufacturer's warranty. See Titan Tire website at [www.titan-intl.com](http://www.titan-intl.com). Click on dealerlocator to find the nearest dealer.

Rubber parts (including hoses, Grommets) are not warranted.

This warranty is limited to the terms stated herein and is in lieu of any other warranties whether express or implied, and without limiting the generality of the foregoing, excluded all warranties, express or implied or conditions whether statutory or otherwise as to quality and fitness for any purpose of the new equipment. FAST disclaims all liability for incidental or consequential damages.

This Sprayer is subject to design changes and Fast Ag Solutions shall not be required to retrofit or exchange items on previously sold units except at its own option.

Fast Ag Solutions

Warranty void if not registered.



## 973P Truss Boom 120/132'

### FAST 973P Truss Boom 120'/132'

Fast Sprayer Serial Number 97\_\_\_\_T - \_\_\_\_\_ - \_\_\_\_\_

Date Purchased \_\_\_\_/\_\_\_\_/\_\_\_\_

Boom Width\_\_\_\_ 120' or \_\_\_\_ 132'

Nozzle Spacing\_\_\_\_ 15" \_\_\_\_ 20" \_\_\_\_ 22"

Pump Manufacturer:\_\_\_\_ Ace 205F-304, or \_\_\_\_ Hypro HM1

**CONTENTS**

<b>GENERAL INFORMATION</b>	<b>1</b>
<b>WING REST</b>	<b>8</b>
<b>WING REST - CASE</b>	<b>10</b>
<b>INTERIOR PIVOT, PARALLEL LINKS</b>	<b>12</b>
<b>ISO YAW CENTER</b>	<b>14</b>
<b>MAIN WING</b>	<b>16</b>
<b>FLIP WING</b>	<b>18</b>
<b>BREAKAWAY WING AND BREAKAWAY PARTS</b>	<b>20</b>
<b>50 Gallon Rinse Tank</b>	<b>22</b>
<b>PUMP, PLUMBING AND 3" QUICK FILL HYPRO PUMP</b>	<b>24</b>
<b>PUMP, PLUMBING AND 3" QUICK FILL ACE 205F 304 PUMP</b>	<b>26</b>
<b>HYPRO PUMP</b>	<b>28</b>
<b>OPTIONAL ACE 304 PUMP</b>	<b>29</b>
<b>OPTIONAL ACE 205 PUMP MOTOR</b>	<b>30</b>
<b>RAVEN FLOW METER AND MCV</b>	<b>31</b>
<b>Banjo 2" Full Port Flow Meter</b>	<b>32</b>
<b>RFM-100 PARTS</b>	<b>33</b>
<b>MCV 1-1/2"</b>	<b>34</b>
<b>BOOM SHUTOFF &amp; GAUGE PLUMBING</b>	<b>36</b>
<b>CROSS ASSEMBLY</b>	<b>38</b>
<b>HARNESS 3 BALL VALVE CONTROL - 631930</b>	<b>40</b>
<b>ELECTRIC SHUT-OFF FLOW BACK BALL VALVE (2014 AND PRIOR) RED INDICATOR</b>	<b>41</b>
<b>OPTIONAL HIGH PRESSURE BYPASS PLUMBING</b>	<b>42</b>
<b>WET BOOM &amp; BRACKETS</b>	<b>43</b>
<b>WET BOOM DIAPHRAGM CHECK VALVE QUICK TEEJET HINGED NOZZLE BODY - 520039</b>	<b>44</b>
<b>Fence Row</b>	<b>46-55</b>
<b>HYDRAULIC CONTROL VALVE WIRING HARNESS</b>	<b>56</b>



## 973P Truss Boom 120/132'

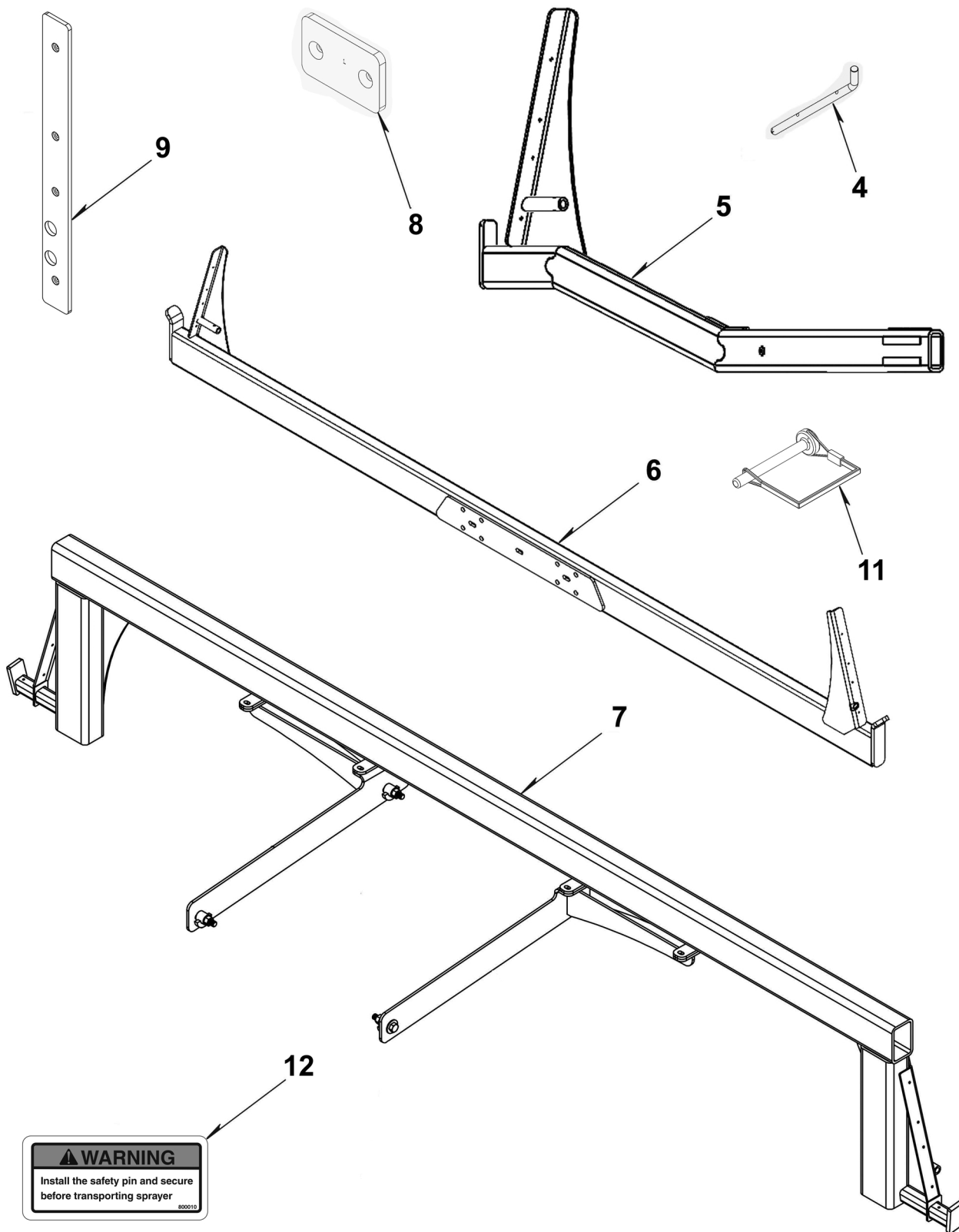
<b>HYDRAULIC CONTROL VALVE</b>	<b>57</b>
<b>HYDRAULIC CONTROL VALVE WIRING HARNESS</b>	<b>58</b>
<b>CONTROL CONSOLE</b>	<b>59</b>
<b>WIRING HARNESS</b>	<b>60</b>
<b>CONTROL CONSOLE WIRING HARNESS</b>	<b>61</b>
<b>CONTROL CONSOLE SWITCH DIAGRAM</b>	<b>62</b>
<b>CYLINDER AND FITTINGS</b>	<b>63</b>
<b>HOSE DESCRIPTION</b>	<b>65</b>
<b>HYDRAULICS, DECALS &amp; BRACKETS</b>	<b>66-67</b>
<b>HYDRAULIC SYSTEM FOR PUMP</b>	<b>68</b>
<b>TRAILER MANIFOLD CONNECTIONS - ISO YAW 631943.</b>	<b>69</b>
<b>YAW BLOCK PARTS</b>	<b>70</b>
<b>ISO AUTOYAW / FOLD, AUTOBOOM, AND RAVEN RATE CONTROL</b>	<b>71</b>
<b>ISO AUTOYAW / FOLD, AUTOBOOM, AND JD RATE CONTROL</b>	<b>72</b>
<b>RAVEN CR7</b>	<b>73</b>
<b>RAVEN SCS450 CONSOLE</b>	<b>74</b>
<b>CONTROL CONSOLE HARNESS - 115-0171-085</b>	<b>75</b>
<b>HARNESS EXTENSION - 115-0159-856 12'</b>	<b>76</b>
<b>HARNESS EXTENSION - 115-0159-857 24'</b>	<b>76</b>
<b>CONTROL HARNESS - 115-0171-086 6'</b>	<b>77</b>
<b>CONTROL HARNESS - 115-0171-129 12'</b>	<b>77</b>
<b>CABLE 10 BOOM, 115-0171-314, 24'</b>	<b>78</b>
<b>CABLE, ADAPTER 6 BOOM To 10 BOOM, 631889</b>	<b>79</b>
<b>LIGHTING</b>	<b>80</b>
<b>Foamer, 1 Gallon Tank</b>	<b>82</b>
<b>NORAC Auto Height Boom Control UC4+</b>	<b>84</b>
<b>NORAC HYDRAULIC VALVE BLOCK</b>	<b>86</b>
<b>NORAC AUTO HEIGHT BOOM CONTROL HYDRAULIC SCHEMATIC UC4+ &amp;</b>	<b>87</b>
<b>UCS NORAC AUTO HEIGHT SENSOR BRACKETS</b>	<b>88</b>
<b>NORAC AUTO HEIGHT BOOM CONTROL HARNESS</b>	<b>89</b>
<b>NORAC AUTO HEIGHT BOOM CONTROL EXTENSION HARNESS - No. 4465103</b>	<b>90</b>
<b>NORAC AUTO HEIGHT BOOM CONTROL SENSOR CABLES</b>	<b>91</b>
<b>NORAC AUTO HEIGHT BOOM CONTROL VALVE CABLE</b>	<b>92</b>

<b>NORAC AUTO HEIGHT BOOM CONTROL MAIN INTERFACE CABLE</b>	<b>93</b>
<b>NORAC AUTO HEIGHT BOOM CONTROL WING INTERFACE CABLE</b>	<b>94</b>
<b>SEVERE TERRAIN KIT UC4 / UC5</b>	<b>95</b>
<b>UC5 NORAC KIT LAYOUT</b>	<b>96</b>
<b>ITEM C01: 43220-10A - CABLE UC5 NETWORK 14 AWG - 10M</b>	<b>97</b>
<b>ITEM C02: 43220-01A - CABLE UC5 NETWORK 14 AWG - 1M</b>	<b>97</b>
<b>ITEM C03: 43210-03A - CABLE UC5 NETWORK 18 AWG - 3M</b>	<b>98</b>
<b>ITEM C04: 43210-01A - CABLE UC5 NETWORK 18 AWG - 1M</b>	<b>98</b>
<b>ITEM C05: 43210-20A - CABLE UC5 NETWORK 18 AWG - 20M</b>	<b>99</b>
<b>ITEM C10: 43230-04A - CABLE UC5 VALVE DT To DT</b>	<b>99</b>
<b>ITEM C20: 43240-01B - CABLE UC5 INTERFACE TILT DT</b>	<b>100</b>
<b>ITEM C21: 43240-07B - CABLE UC5 INTERFACE MAIN DT (WITH AUX 1 &amp; 2)</b>	<b>101</b>
<b>POWERGLIDE WIRING SCHEMATIC</b>	<b>102</b>
<b>POWERGLIDE HYDRAULIC BLOCK</b>	<b>103</b>
<b>POWERGLIDE SOLID AXLE</b>	<b>104</b>
<b>POWERGLIDE, POWERGLIDE PLUS, ULTRAGLIDE TOUCH DOWN BRACKET</b>	<b>105</b>
<b>POWERGLIDE PLUS WIRING SCHEMATIC</b>	<b>106</b>
<b>POWERGLIDE PLUS HYDRAULIC BLOCK</b>	<b>107</b>
<b>ULTRAGLIDE MOUNTING PARTS</b>	<b>108</b>
<b>ISO AUTOBOOM WITHOUT ISO PRODUCT CONTROL</b>	<b>110</b>
<b>RAVEN ISO AUTOBOOM WITH JOHN DEERE PRODUCT CONTROL</b>	<b>111</b>
<b>ULTRAGLIDE HYDRAULIC SCHEMATIC</b>	<b>112</b>
<b>POWERGLIDE PLUS AND ULTRAGLIDE VALVE REPLACEMENT PARTS</b>	<b>113</b>
<b>SENSORS</b>	<b>114</b>
<b>Pressure Transducer</b>	<b>115</b>
<b>RAVEN ISO AUTOBOOM WITH RAVEN ISO RATE CONTROL</b>	<b>116</b>





## Wing Rest



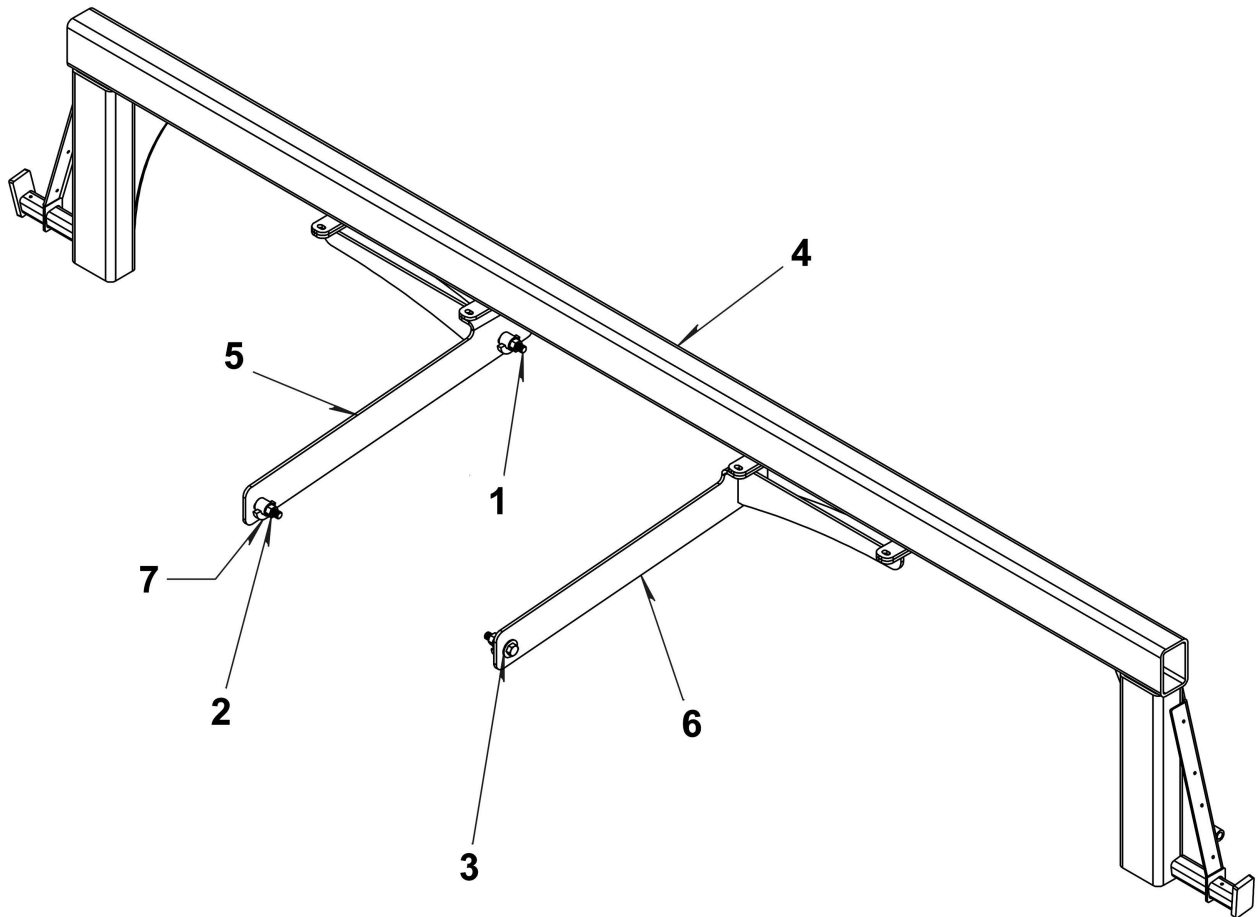
**WARNING**  
Install the safety pin and secure  
before transporting sprayer  
800010





# 973P Truss Boom 120/132'

## Wing Rest - Case

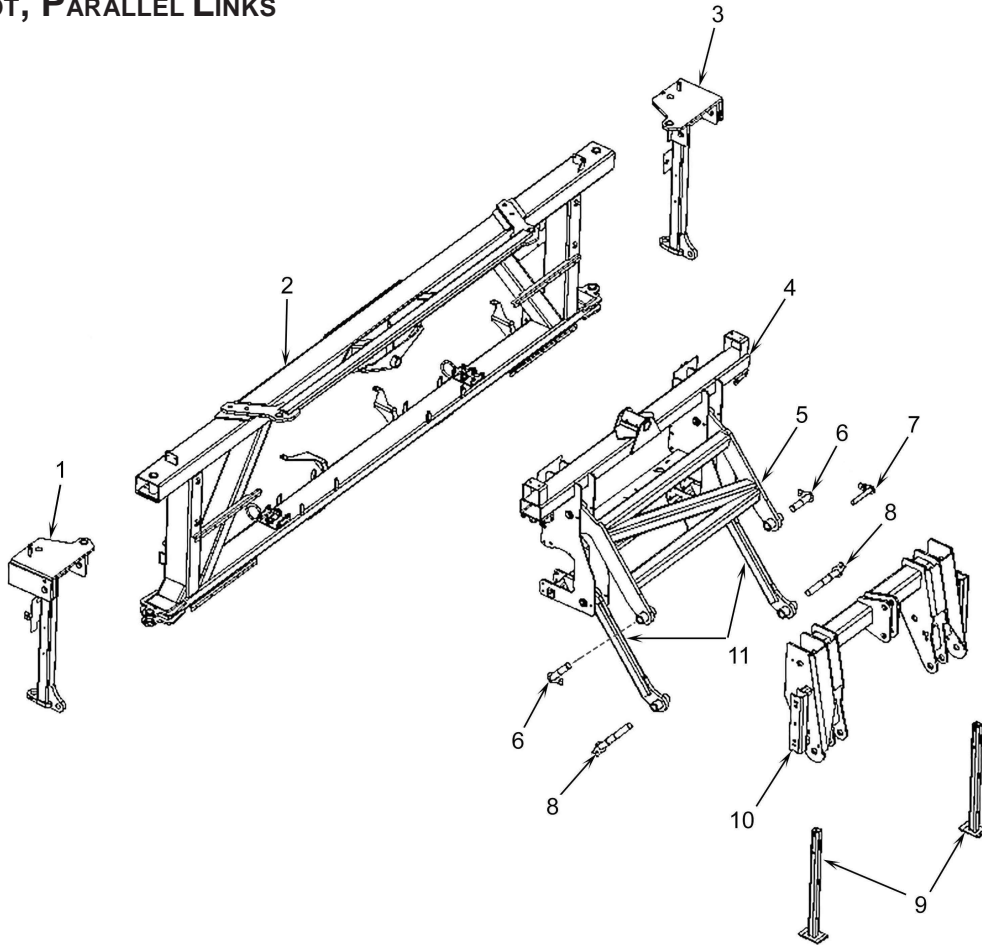




# 973P Truss Boom 120/132'



## INTERIOR PIVOT, PARALLEL LINKS

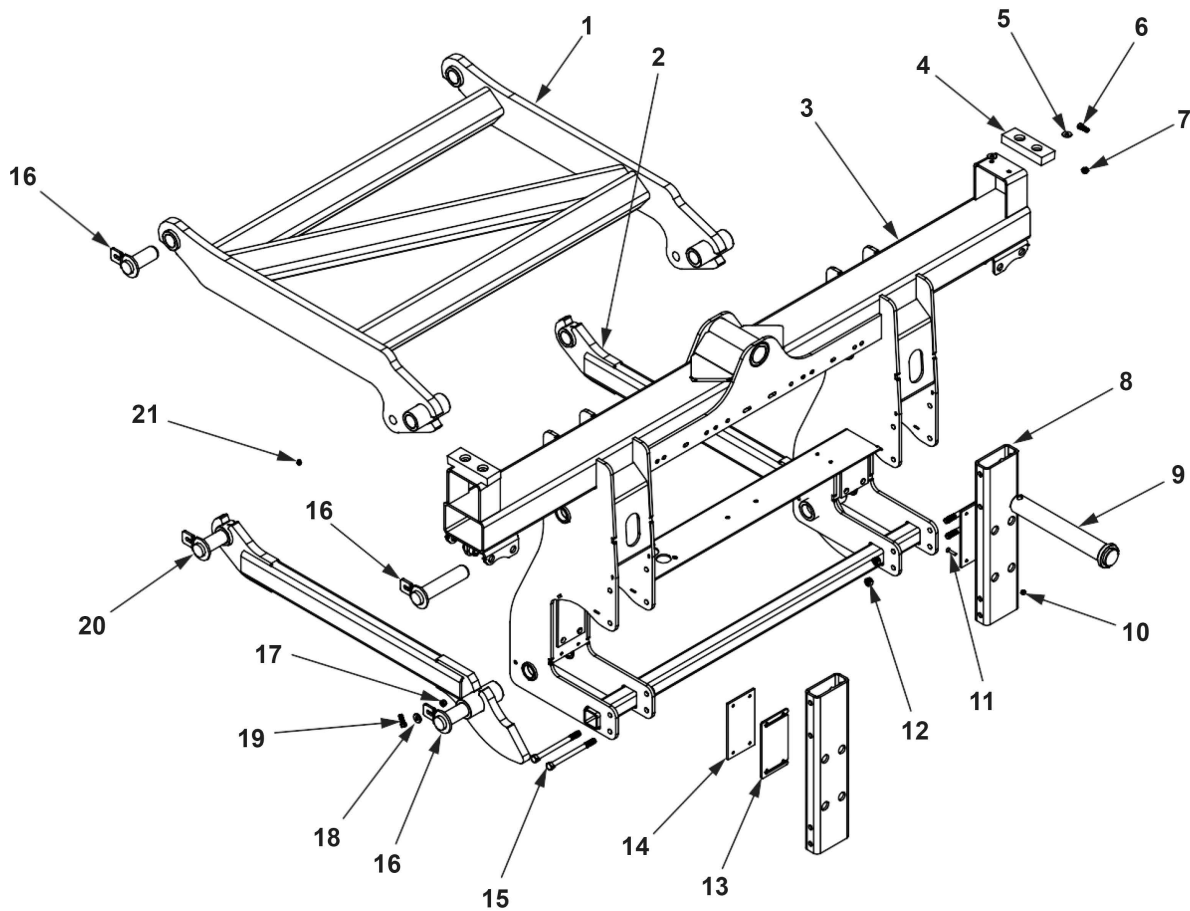


Item	Vendor Part #	Fast Part #	Description	Qty.
1		22204R	WING PIVOT, 3PT, RH	1
2		22202	CENTER SECTION, 3PT, TRUSS, HYDRAULIC YAW	1
3		22204L	WING PIVOT, 3PT, LH	1
4		16320	PIVOT, CENTER, PASSIVE	1
5		16382	3P TRUSS UPPER LINKK	1
6		16334	PIN, UPPER PARALLEL LINK	1
7		16331	PIN, LIFT CYLINDER	1
8		1225	PIN, 3PT UPPER	1
8		16329	PIN, 3PT LOWER	2
9		16340	STAND, 3PT	2
10		16310	WELDMENT, 3PT HOOKUP	1
11		16386	LINK, LOWER WELDMENT 3P TRUSS	2
NS		1056	PIN, JACK STAND	4
NS		8877	RING, BOLT ASSEMBLY	1
NS		14146	BRACKET, HOSE RING	1
NS		530308	WASHER, HEAVY 13/32 X 1-5/8	4
NS		530309	WASHER, HEAVY 13/32 X 1	4
NS		540052	CLAMP, HOSE, 3" WITH 3/8 ID	3
NS		620028	CYLINDER 3" X 12", 1-1/4 ROD	2
NS		800208	DECAL, HYDRAULIC HOSE KEY SPRAYER	1

# 973P Truss Boom 120/132'



## INTERIOR PIVOT, PARALLEL LINKS

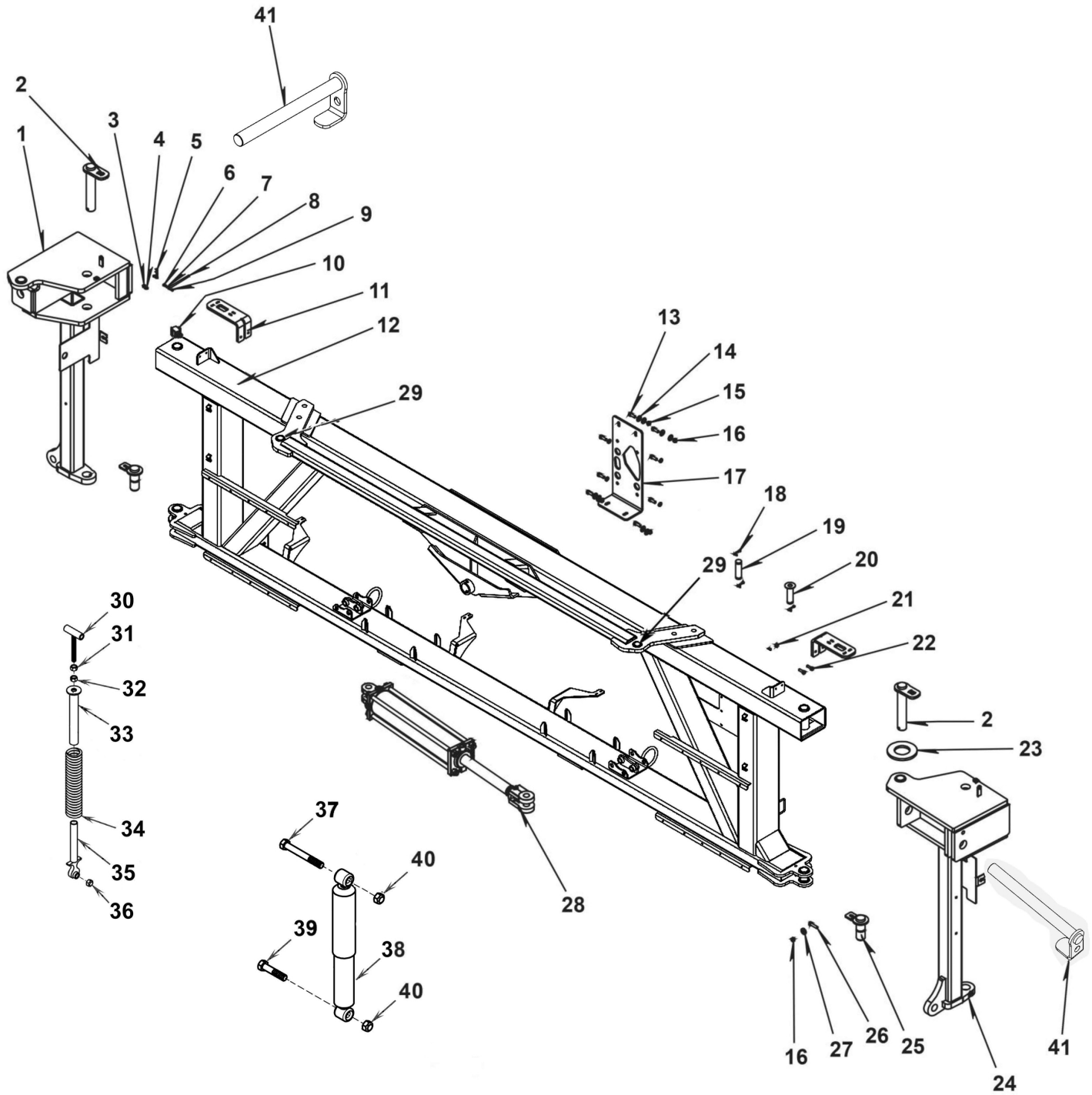


Item	Vendor Part #	Fast Part #	Description	Qty.
1		16382	Link Parallel Upper (Replace Items 16 & 20 Also)	1
2		16386	Link Parallel Lower	2
3		16320	Interior Pivot Truss Boom	1
4		590184	Bumper Pad, Rubber 1" x 4"	2
5		258	Washer Flat 3/8" Zp	4
6		128	Bolt HH GR5 Zp	4
7		237	Nut Hex 3/8" Zp Centerlock	4
8		16518	Truss Boom Strap Tube	2
9		11515	Pin Center Section Pivot	1
10		227	Nut Nylock 1/4 Zp	8
11		719	Bolt Flat Head 1/4 X 1" Black Oxide	8
12		239	Nut Hex Head 1/2" Centerlock Zp	4
13		16216	Plate Spacer 7 Ga	AR
13		16217	Plate Spacer 10 Ga	AR
13		16218	Plate Spacer 12 Ga	AR
13		16219	Plate Spacer 14 Ga	AR
14		590079	Truss Boom Poly Rub Plate	4
15		163	Bolt HH 1/2 X 6-1/2" GR5 Zp	4
16		16334	Pin, Upper Parallel Link	4
17		237	Nut HH 3/8" Centerlock Zp	8
18		530309	Washer Heavy 3/8" Zp	8
19		128	Bolt HH 3/8 X 1" GR5 Zp	8
20		16329	Pin, Lower 3PT	4
21		759	Zerk 1/4-28 TPI	10



# 973P Truss Boom 120/132'

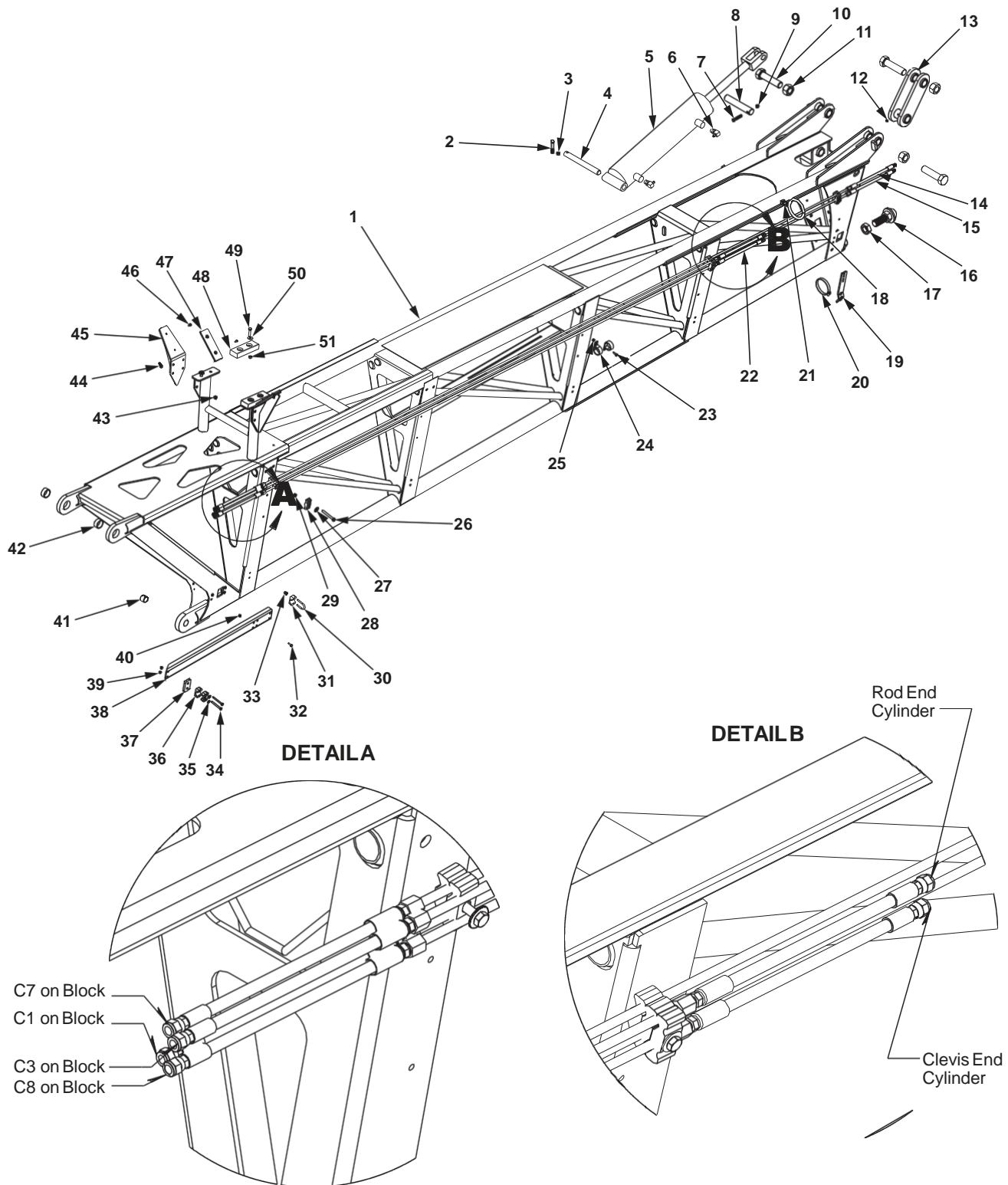
## Iso Yaw Center







## MAIN WING



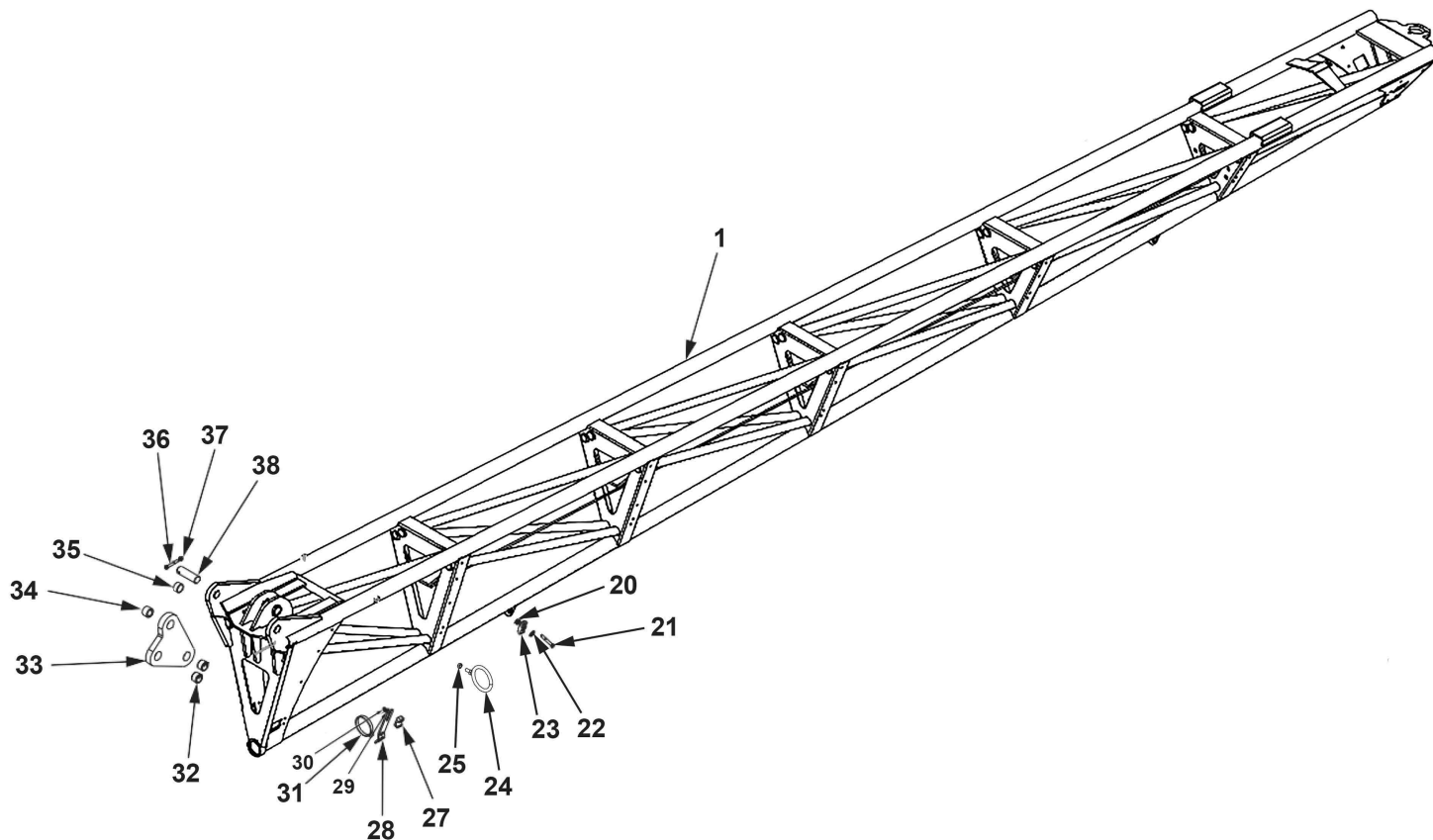
Item	Vendor Part#	Fast Part#	Description	Qty	120'	132'
1		22260	Wing, Main Truss		2	
1		22261	Wing, Main Truss			2
2		131	Bolt HH 3/8 X 2.5 GR5 Zp	2		
3		237	Nut Hex 3/8" Center Lock Zp	2		
4		16268	Pin CylinderMount	2		

# 973P Truss Boom 120/132'



Item	Vendor Part #	Fast Part #	Description	Qty	120'	132'
5	MHFD10013	620043	Cylinder Cushion 5 X 16 9518T-3394-0111 & Up	2		
	MHFD10013		Seal Kit For 620043			
6	TO6801-4-8	610029	Fitting Hydraulic 8ORB X 4JIC 90°	4		
7		130	Bolt HH 3/8 X 2 GR5 Zp	2		
8		16149	Pin Cylinder Mount	2		
9		237	Nut HH 3/8" Center Lock Zp	2		
10		590183	Bolt HH (Rework) 1.25 X 5 GR5 Zp	4		
11		790072	Nut HH 1.25" Center Lock Zp	4		
12		759	Zerk 1/4" Straight	2		
13		16197	Link, Scissor	2		
14	600039-3A		Hose Hydraulic 29.5" OAL	2		
15	600039-4A		Hose Hydraulic 33" OAL	2		
16		16185	Cone, Line Up	2		
17		558	Nut HH Jam 1.25 Zp	2		
18		8877	Ring Bolt Assembly	2		
19		16271	Bracket Wet Boom	AR		
20	BR64044H	540018	Hose Clamp Size 44	AR		
21		223	Nut HH 1/2" Jan Zp	2		
22	600039-5A		Hose Hydraulic To Base Cylinder Port	2		
22	600039-6A		Hose Hydraulic To Rod Cylinder Port	2		
23		101	Bolt HH 1/4 X 3/4" GR5 Zp	4		
24		540048	Holder Spray Hose	4		
25		227	Nut HH 1/4" Nylock Zp	4		
26		636	Bolt HH 3/8 X 2-3/4" GR5 Stainless	8		
27		665	Washer 3/8 Stainless	8		
28	AG-2		Steel Tube Holder	28		
29		657	Nut HH 3/8" Stainless	8		
30		590048	U-Bolt 1/4 X 1 Stainless	AR		
31		540029	Tube Clamp For 1" SS Tube	AR		
32		655	Nut HH 1/4" Centerlock SS	AR		
33		637	Bolt HH 1/4 X 3/4" GR5 SS	8		
34		638	Bolt HH 1/4 X 2-1/2" GR5 SS	4		
35		685	Washer 1/4" Stainless	4		
36		540029	Tube Clamp For 1" SS Tube	4		
37		11494	Spacer Wet Boom	2		
38		16378	Bracket Wet Boom Support	2		
39		655	Nut HH 1/4" Centerlock SS	4		
40		685	Washer 1/4" Stainless	AR		
41		530281	Bushing Spring 1" ID	2		
42		530280	Bushing Spring 1-1/2" ID	4		
43		237	Hut HH 3/8" Centerlock GR5 Zp	8		
44		128	Bolt HH 3/8 X 1 GR5 Zp	8		
45		16794	Guide, Wing Rest, Bolt-On	2		
46		581	Rivet Drive 1/4"	4		
47	7781	590024	Saddle Base	4		
48		590094	Bumper Pad, 6" Lg	4		
49		129	Bolt HH 3/8 X 1-1/2" GR5 Zp	4		
50		258	Washer 3/8" Zp	4		
51		237	Hut HH 3/8" Centerlock GR5 Zp	4		
52	600039-1A		Hose Hydraulic Block To Hydraulic Tube LH	4		
NS	600039-2A		Hose Hydraulic Block To Hydraulic Tube RH	4		
53	FDMP603		Hydraulic Tube 3/8" X 124"	4		
54	FDMP604		Hydraulic Tube 3/8" X 162"	4		

## FLIP WING

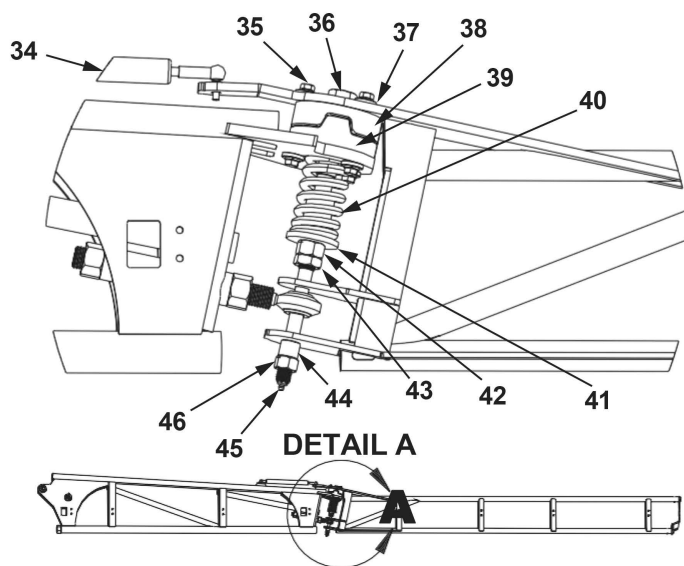
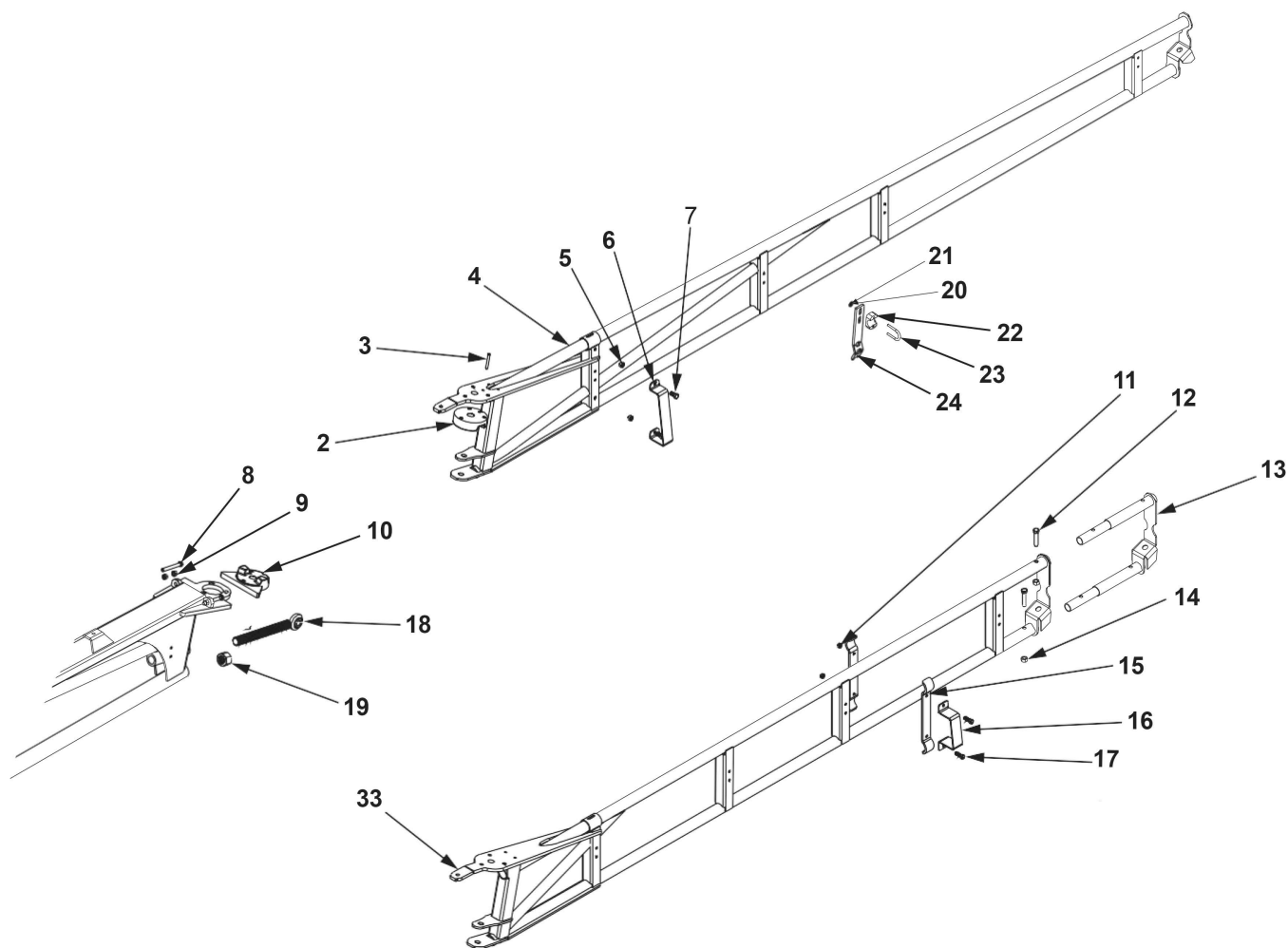






# 973P Truss Boom 120/132'

## BREAKAWAY WING AND BREAKAWAY PARTS

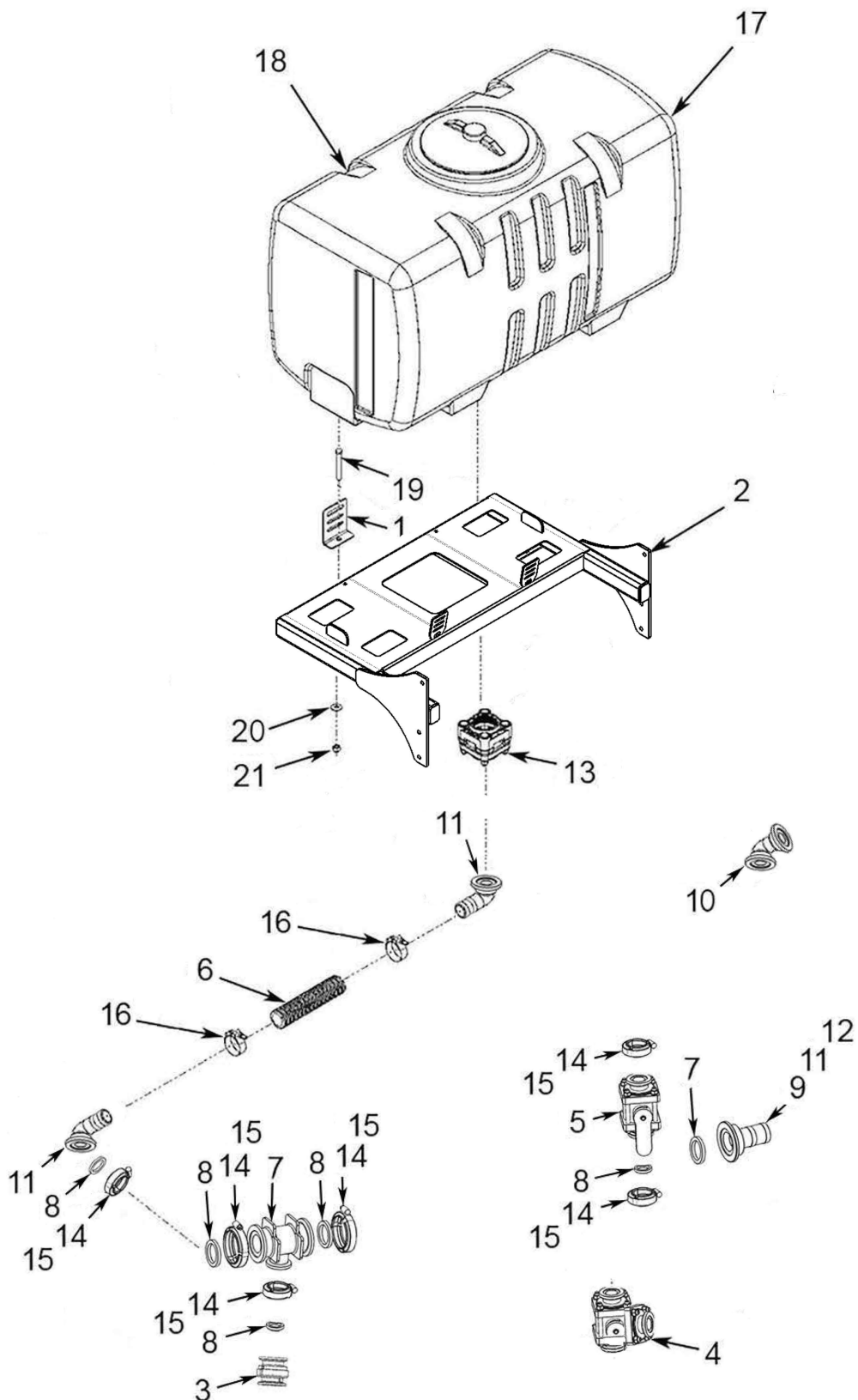






# 973P Truss Boom 120/132'

## 50 Gallon Rinse Tank



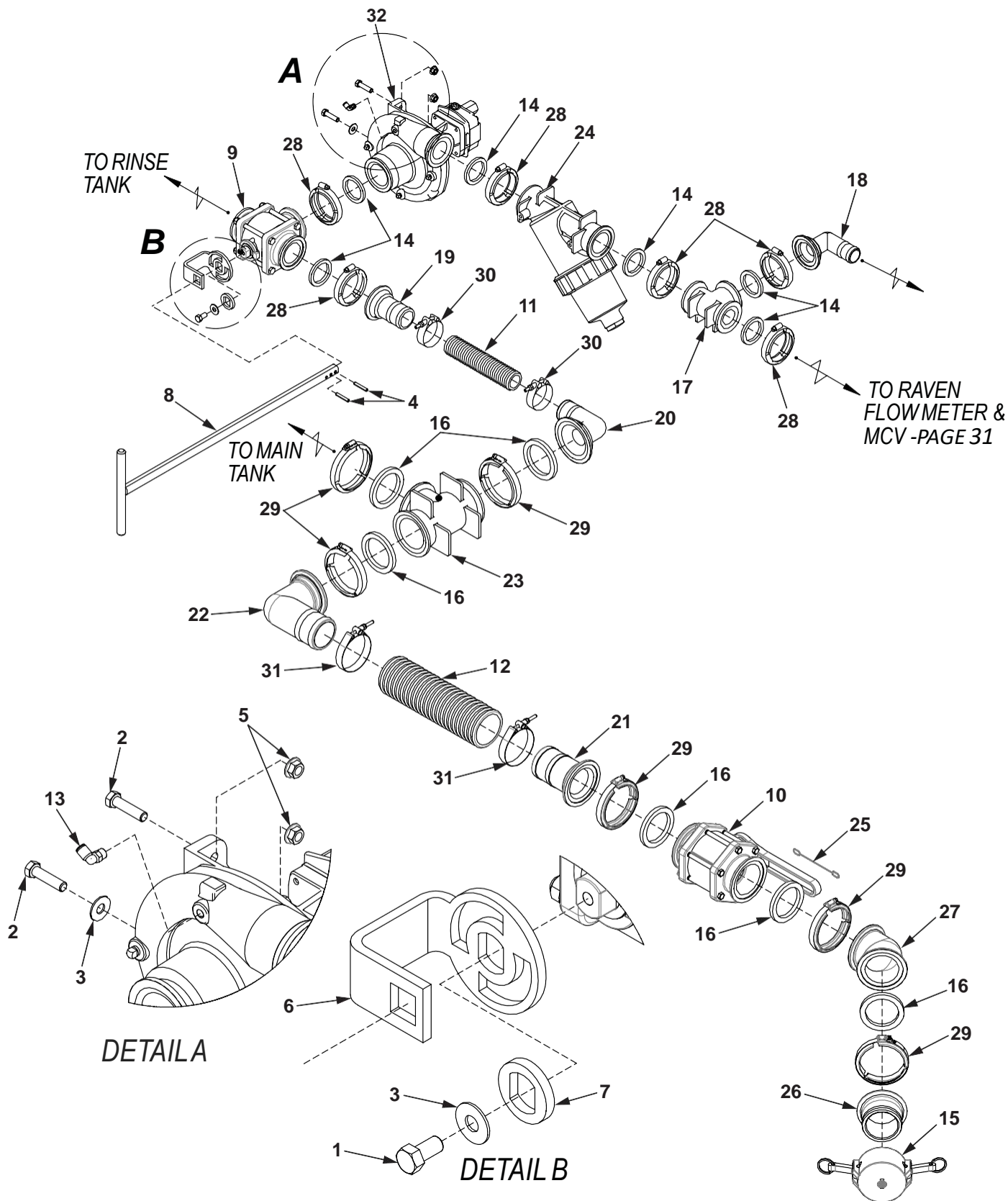






# 973P Truss Boom 120/132'

## PUMP, PLUMBING AND 3" QUICK FILL HYPRO PUMP

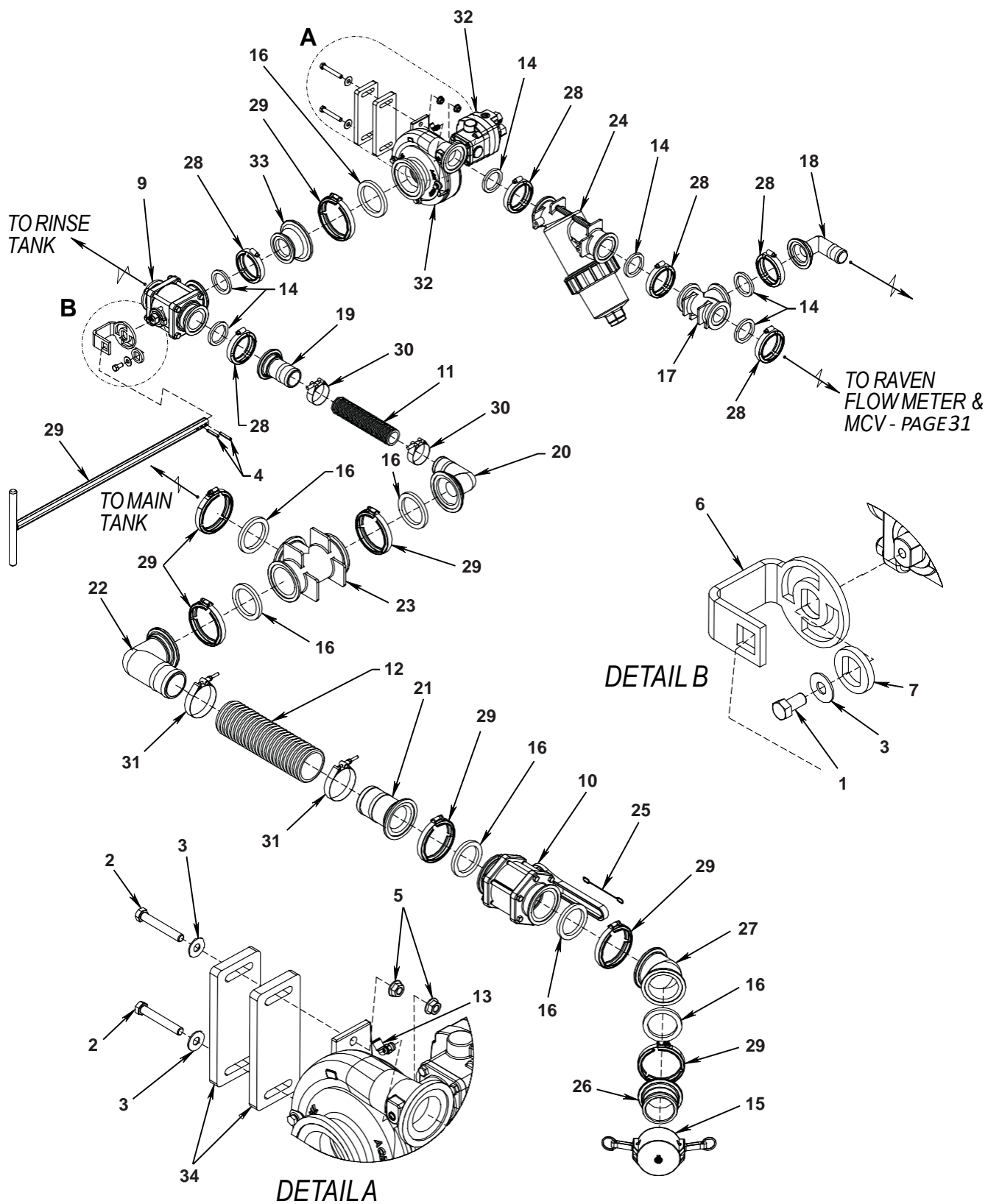






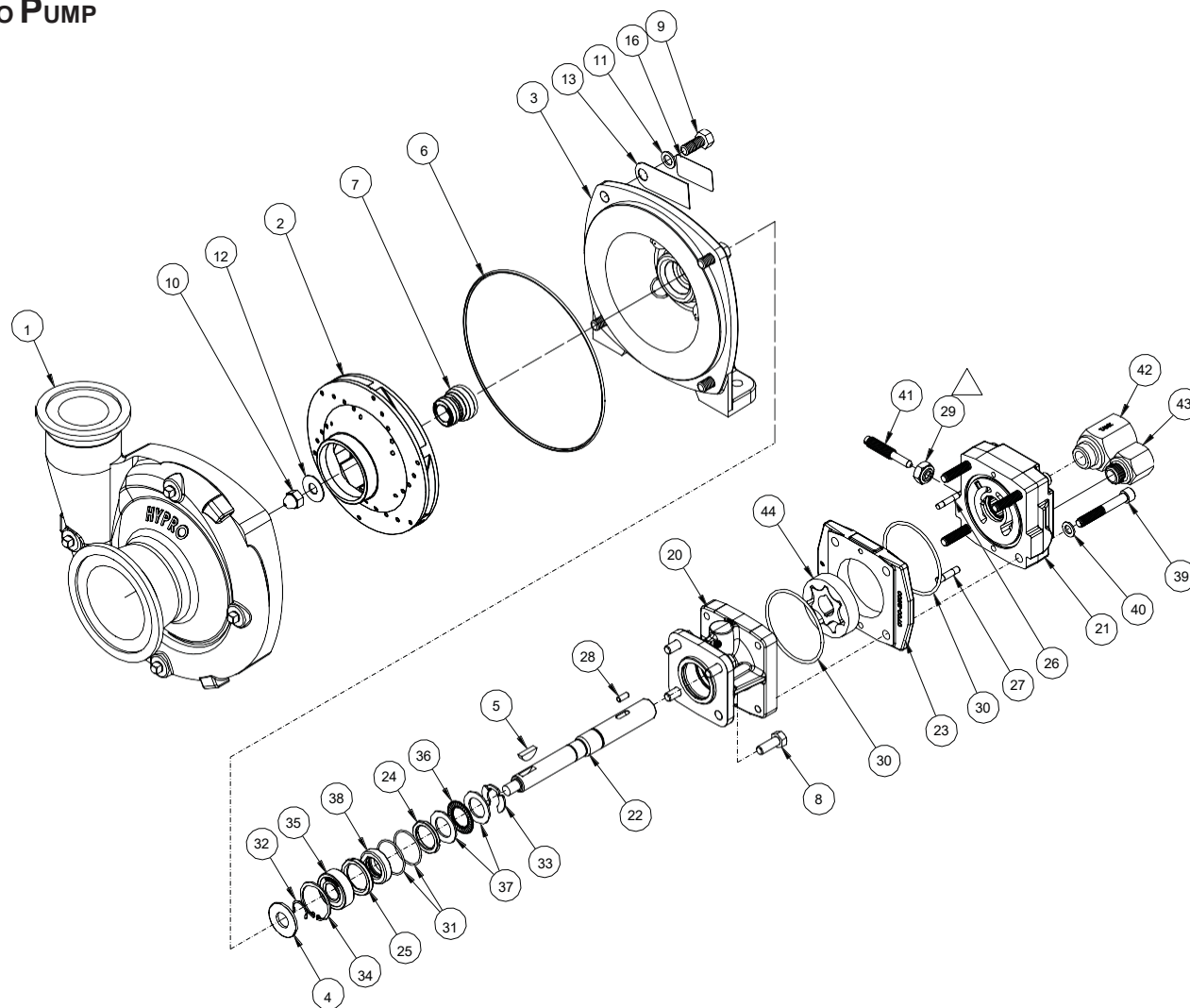
# 973P Truss Boom 120/132'

## PUMP, PLUMBING AND 3" QUICK FILL ACE 205F 304 PUMP





## HYPRO PUMP

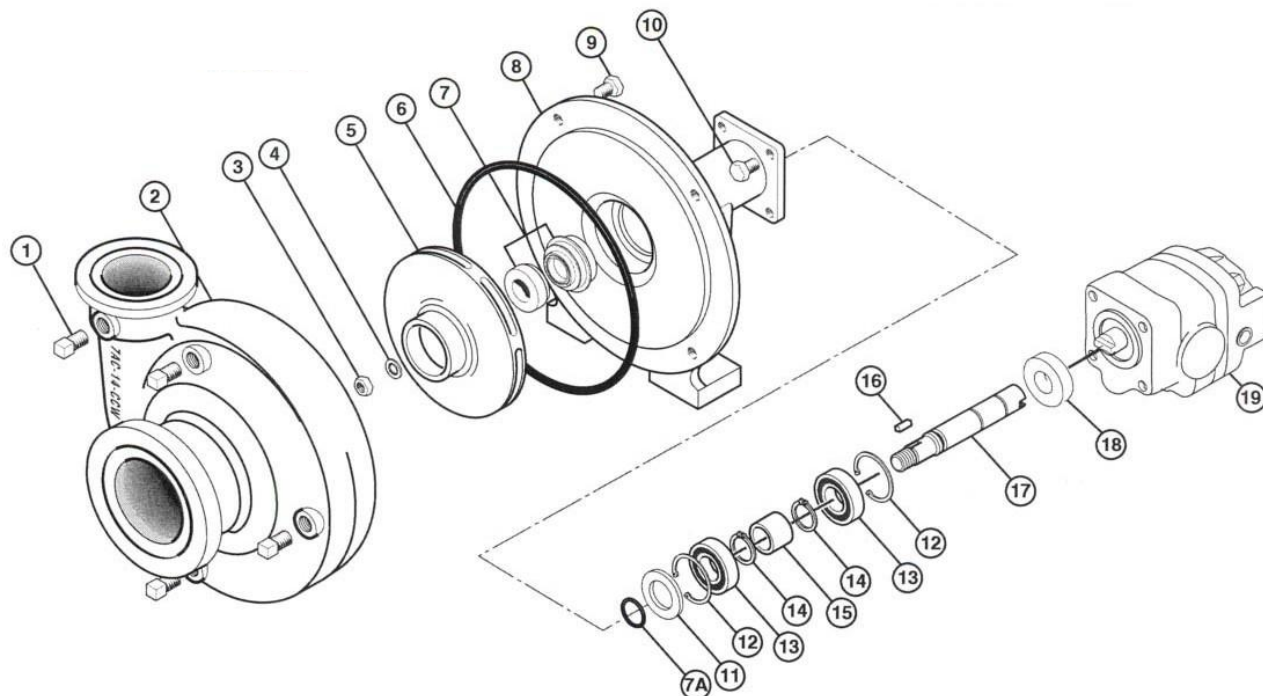


22	0533-2500	SHAFT	1	44	3900-0022	GEROTOR	1
21	0254-2500C2	END PLATE ASSY	1	43	3360-0023A	ADAPTER-INLET PORT ASSY	1
20	0150-2500C	BODY ASSY-SMALL PILOT	1	42	3320-0052A	CHECK VALVE ASSY - TANK PORT	1
19	6031-0373	CE STICKER LABEL	1	41	3220-0029	VALVE STEM	1
18	6031-0343	INSTRUCTION TAG	1	40	2270-0039	WASHER, FLAT 5/16"	4
17	6031-0340	LABEL READY FOR ROUND UP	1	39	2220-0021	SCREW, SOCKET HEAD	4
16	6031-0325	DECAL	1	38	2104-0010	LIP SEAL	1
15	3435-0171	PACKING KIT	1	37	2029-0010	BEARING RACE, THRU	2
14	3031-0134	CARTON - INDIVIDUAL	1	36	2029-0009	BEARING, THRUST	1
13	2270-0076	TAG	1	35	2000-0010	BEARING, BALL	1
12	2270-0071	IMPELLER WASHER	1	34	1820-0013	INT. RET. RING	1
11	2270-0041	WASHER	1	33	1810-0026	RETAINING RING	1
10	2253-0002	ALC NUT 0.3750-24-N	1	32	1810-0014	RETAINING RING	1
9	2210-0020	CAP SCREW, HEX HEAD 3/8"-16 X 7/8"	4	31	1720-0268	O-RING	2
8	2210-0005	CAP SCREW, HEX HEAD 5/16"-18 X 7/8"	4	30	1720-0110	O-RING	2
7	2120-0039	SEAL, MECHANICAL	1	29	1700-0245	NUT, SEALING	1
6	1720-0083	O-RING	1	28	1610-0031	HM1 & HM5 Round Key	1
5	1610-0012	WOODRUFF KEY	1	27	1600-0044	DOWEL PIN	1
4	1410-0056	SLINGER SEAL	1	26	1600-0037	DOWEL PIN	1
3	0750-9300C2	MOUNTING FLANGE	1	25	1410-0131	CARTRIDGE, FRONT	1
2	0401-9200P2	IMPELLER (CW ROTATION)	1	24	1410-0130	SPACER, 3L SEAL	1
1	0158-9200C	PUMP HOUSING, 300x220 U.FLG	1	23	0700-2500C1	GEROTOR HOUSING HM1, COATED	1
ITE M NO.	PART NUMBE R	DESCRIPTION	QTY	ITE M NO.	PART NUMBE R	DESCRIPTION	QTY.

# 973P Truss Boom 120/132'

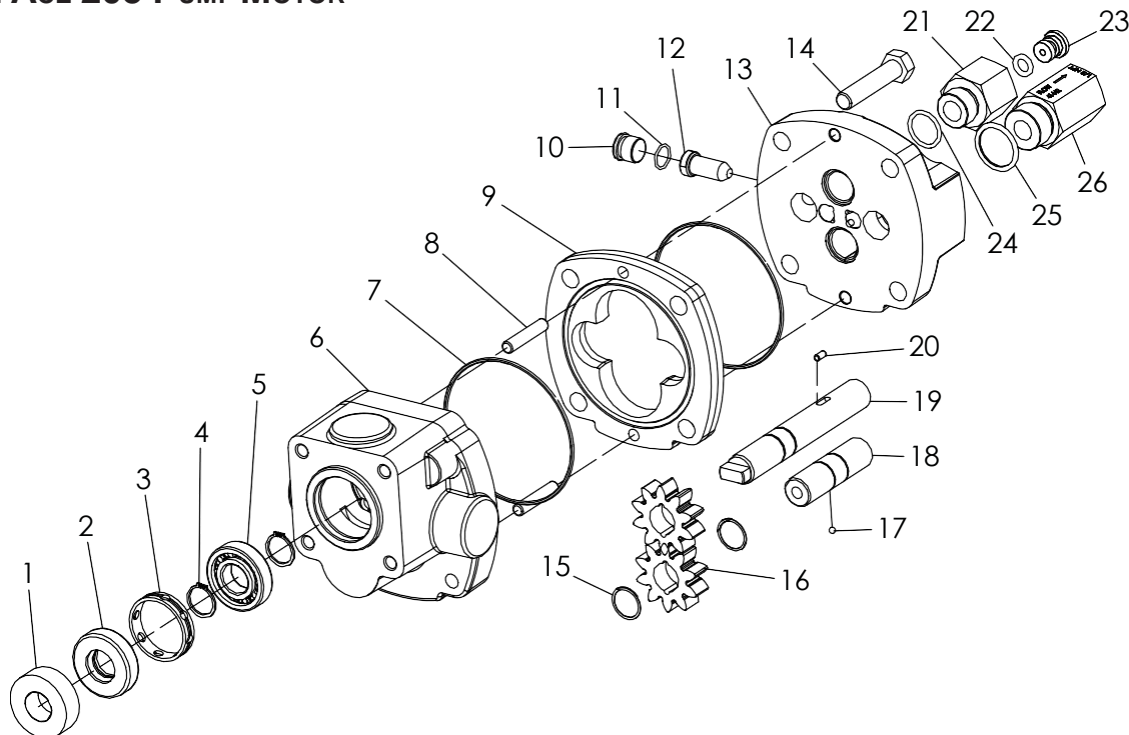


## OPTIONAL ACE 304 PUMP



Item	Part #	EDP #	Description	Qty
1	BAC-53	41110	Pipe plug	4
1	41120	41120	Pipe plug, stainless steel (optional)	4
2	7AC-14-FLG	41530	Volute, 300 standard f ange X 220 full port f ange	1
3	BAC-23-A	40391	Nut, 3/8" NF, cad plated	1
4	BAC-24-HYD-SS	40400	Washer, 3/8" star, stainless steel	1
5	BAC-26-200-CI	40433	Impeller, with extended keyway, cast iron (optional)	1
5	BAC-26-200-P	40434	Impeller, with extended keyway, thermoplastic	1
6 <sup>1</sup>	BAC-4A	40005	O-ring , body seal	1
7 <sup>1</sup>	BAC-7V	40151	Seal, carbon/ceramic/Viton (includes 40160 "O" Ring)	1
7 <sup>2</sup>	BAC-7SC	40152	Seal, silicon carbide (includes 40160 "O" Ring) (optional)	1
7A	40160	40160	O-ring, shaft seal	1
8	BAC-14-HYD-300A	40314	Mounting frame (for -300A series hydraulicmotor)	1
9	40950	40950	Cap screw, 3/8" NC X 3/4" hex head	4
9	40930	40930	Cap screw, 3/8" NC X 3/4" hex head, stainless steel (optional)	4
10	41330	41330	Cap screw, 5/16" NC X 3/4" hex head, motor to pump	4
11	BAC-54	41130	Slinger	1
12	BAC-33	40810	Snap ring, internal, BAC-14 mounting frame	2
13	BAC-37	40870	Ball Bearing, sealed , BAC-6 shaft	2
14	BAC-32	40790	Snap ring , external, BAC-6 shaft	2
15	BAC-32S	40795	Spacer for BAC-6 shaft	1
16	BAC-25	40425	Key, 1/8" X 1/8" X 13/16", extended keyway	1
17	BAC-6-HYD-200-SS	40063	Shaft, extended keyway, tang, stainless steel	1
18	S300	40162	Seal support spacer for 300 series HYD motor	1
19	BAC-75-HYD-304A	41388	Hydraulic motor, 11 GPM, 1/2" NPT ports	1
19	BAC-75-HYD-304A-12SAE	41426	Hydraulic motor, 11 GPM, #12 SAE end ports (optional)	1
1	RK-FMC	52700	Repair kit for FMC series pump	-
2	RK-FMCSC	52706	Repair kit for FMC series pump with silicon carbide shaft seal	-
#	RK-BAC-75-HYD-300-L	41362	Repair kit for 300 Series -L motor	-

## OPTIONAL ACE 205 PUMP MOTOR



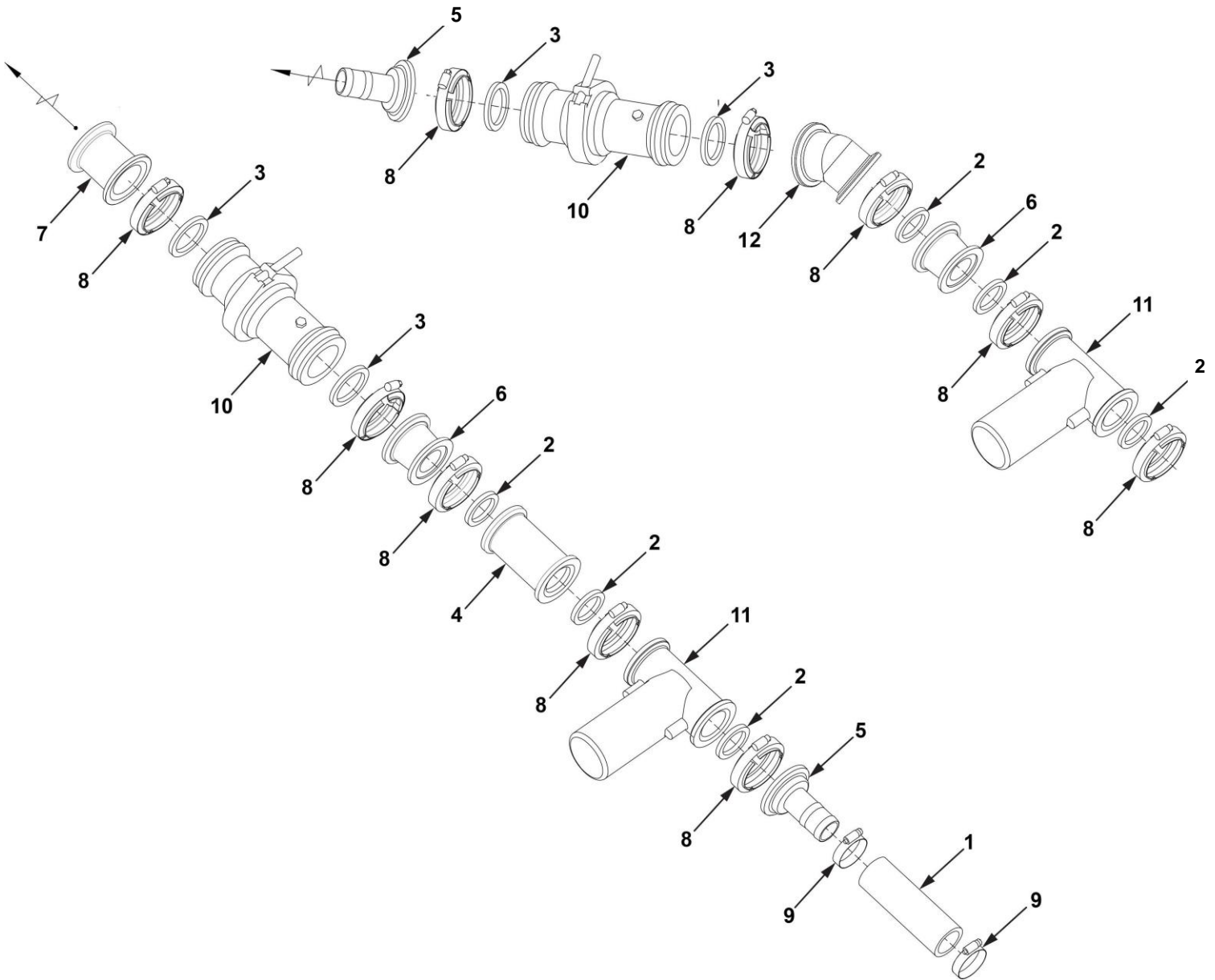
Item	Vendor Part #	Fast Part #	Description	Qty.
1	BAC-53	41110	Pipe Plug	4
1	41120	41120	Pipe Plug, Stainless Steel (Optional)	4
2	7AC-14-FLG-A	41535	Volute, 300 Standard Flange X 220 Full Port Flange	1
3	BAC-23-B-SS	40393	Nut, 3/8" Nf, Stainless Steel	1
4	BAC-24-B-SS	42702	Washer, 3/8", Stainless Steel, Self-Locking	1
5	BAC-26-200-P	40434	Impeller, With Extended Keyway, Thermoplastic	1
5	BAC-26-200-CI	40433	Impeller, With Extended Keyway, Cast Iron (Optional)	1
5	BAC-26-200-SS	40436	Impeller, With Extended Keyway, 316 Stainless Steel (Optional)	1
6 <sup>1</sup>	BAC-7SC-205V	40149	Seal, Silicon Carbide	1
7 <sup>1</sup>	BAC-4A	40005	O-Ring, Body Seal	1
8	BAC-14-205-HYD	40338	Mounting Frame For 205 Pump	1
9	40950	40950	Cap Screw, 3/8" NC X 3/4" Hex Head	4
9	40930	40930	Cap Screw, 3/8" NC X 3/4" Hex Head, Stainless Steel (Optional)	4
10	41330	41330	Cap Screw, 5/16" NC X 3/4" Hex Head, Motor To Pump	4
11	BAC-54	41130	Slinger	1
12	BACH-33	40820	Snap Ring, Internal, BAC-14-205 Mounting Frame	2
13	BACH-32-HD	40385	Snap Ring, External, BAC-6-205 Shaft	3
14	40880	40880	Ball Bearing, Sealed, BAC-6-205 Shaft	2
15	BAC-6-205-HYD-SS	40068	Shaft, Extended Keyway, Tang, Stainless Steel	1
16	BAC-25	40425	Key, 1/8" X 1/8" X 13/16", Extended Keyway	1
17	S305	40163	Seal Support Spacer For 205 Series Pump	1
18	BAC-75-HYD-304N	41343	Hydraulic Motor, 11 GPM, Effective 5/13	1
19	41875	41875	O-Ring, #8 SAE Fitting	1
20	41445	41445	O-Ring, #10 SAE Fitting	1
21	BAC-80-8SAE	41455	Body, Restrictor Orifice, #8 SAE X 1/2" NPT	1
22	41448	41448	O-Ring, Orifice Insert	1
23	BAC-79-8	41447	Orifice Insert, Restrictor Insert, 0.125	1
24	41442	41442	Reverse Check Assembly, #10 SAE X 1/2" NPT	1
25	LS-304N	41429	Flow Limiter (Optional)	1
<sup>1</sup>	RK-FMCSC-205	52705	Repair Kit For FMC-205 Pump With Silicon Carbide Shaft Seal	
#	RK-BAC-75-HYD-300-L	41362	Repair Kit For 300 Series Hydraulic Motor	



# 973P Truss Boom 120/132'

## RAVEN FLOW METER AND MCV

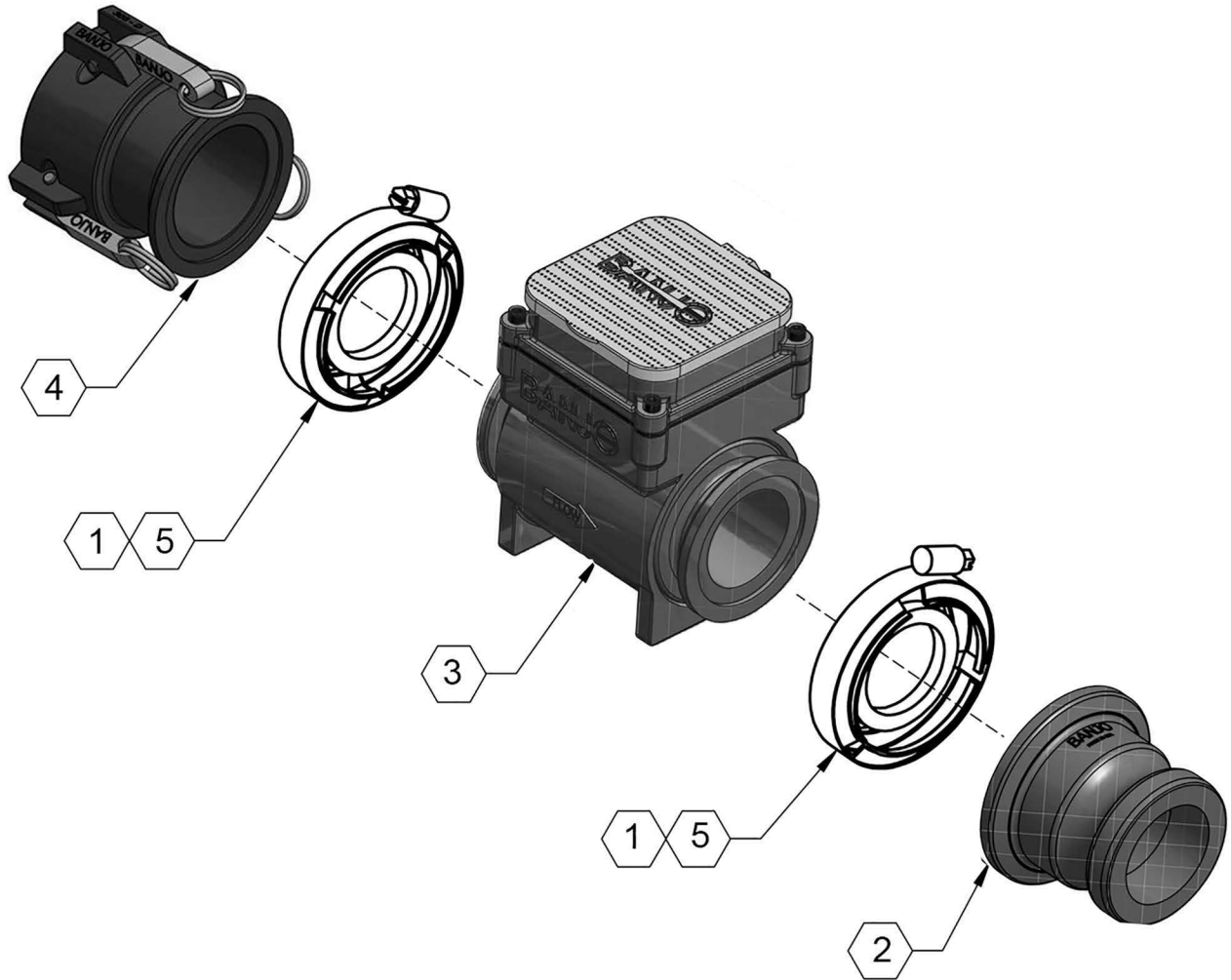
**TO TEE FITTING/  
PUMP FILTER- PAGE24 & 26**



Item	Vendor Part #	Fast Part#	Description	Qty.
1	BS-1-1/2BH200	510014	Hose, 1-1/2" EPDM	1
2	BJ-150G	530014	Gasket, 2" EPDM	3
3	BJ-200G	530019	Gasket, 2" EPDM	2
4	BJ-M200CPG	530084	2" X 2" Standard Port Flange	1
5	BJ-M220150BRB	530100	2" FP Flange X 1 1/2" Hose Barb	1
6	BJ-M220200CPG	530102	2" Full Port - 2" Reducer Flange	1
7	BJ-M220CPG	530244	2" X 2" Full Port Flange	1
8	BJ-FC200	540001	Clamp, 2" Std Worm Screw	5
9	BR-64024H	540016	Clamp, 1-1/2" SS	2
10	RA-063-0171-066	631801	Flowmeter, RFM-100	1
11	RA-063-0171-894	631805	Control Valve, 1-1/2"	1
12	BJ-M200CPG45	530087	2" SP FLANGE COUPLING, 45 DEG	1

# 973P Truss Boom 120/132'

## BANJO 2" FULL PORT FLOW METER



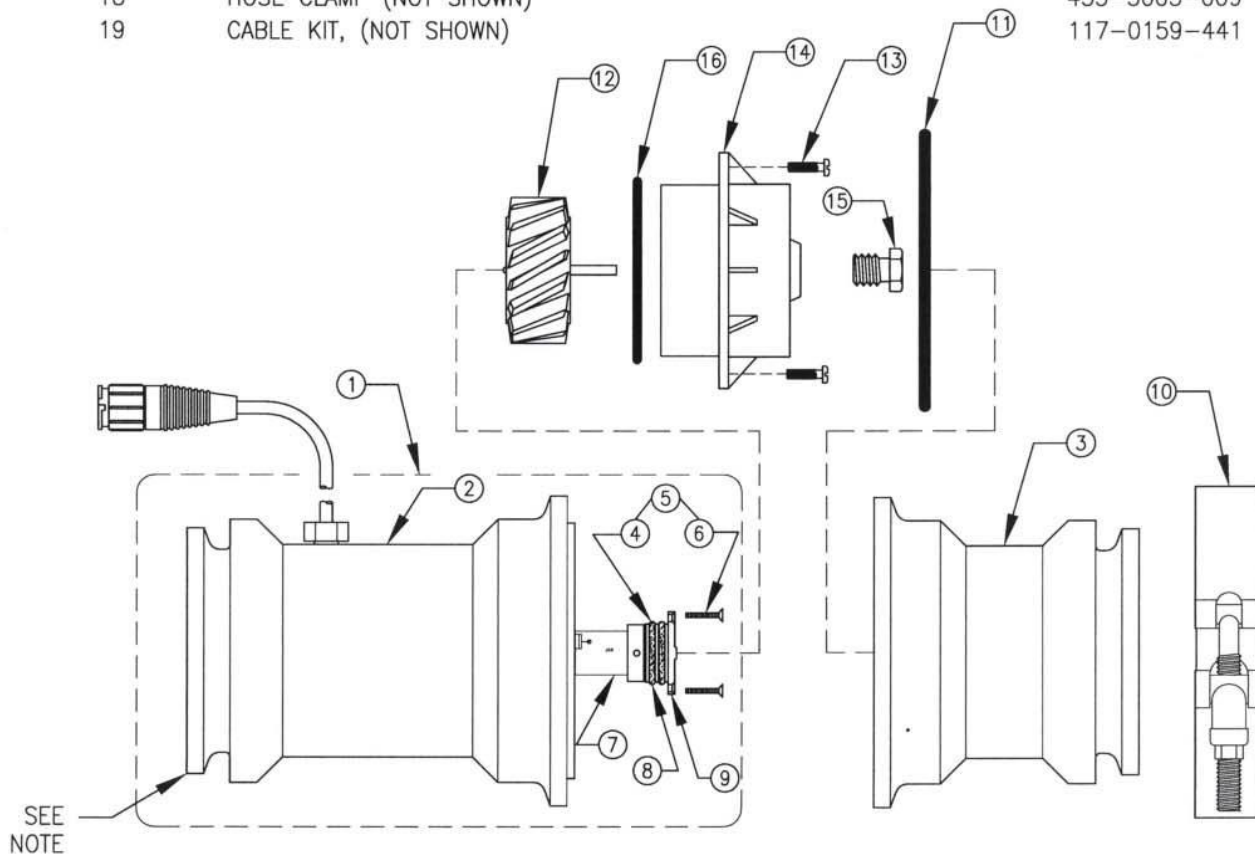
Item	Vendor Part #	Fast Part#	Description	Qty.
1		530019	2" EPDM GASKET	2
2		530271	2" FULL PORT FLANGE - 2" MALE ADAPTER	1
3		530311	2" FULL PORT FLOW METER	1
4		530323	2" FULL PORT FLANGE X FEMALE COUPLER	1
5		540002	CLAMP, 2" FULL WORM SCREW	2

## RFM-100 PARTS

### RFM POLY FLOW METER REPLACEMENT PARTS

063-0171-066

ITEM	DESCRIPTION	RAVEN PART #	
1	OUTLET HOUSING ASSEMBLY	063-0171-068	
2	OUTLET HOUSING	107-0171-006	
3	HUB HOUSING , INLET	107-0171-005	
SEE NOTE	4	END BEARING/P. C. ASSEMBLY	063-0171-069
	5	END BEARING/P. C. ASSEMBLY KIT	117-0159-567
	6	2-56 x 1/2" FLAT HD. S. S. SCREW	311-0013-390
	7	P. C. ASSEMBLY	064-0171-183
	8	O-RING, VITON	219-0002-018
	9	END BEARING ASSEMBLY	063-0173-056
	10	RETAINING CLAMP	435-3003-032
	11	O-RING VITON	219-0002-238
	12	RFM 100 TURBINE	063-0173-002
	13	6-20 x 1/2" PAN HD. S. S. SCREW	310-0002-133
	14	TURBINE HUB/BEARING ASSEMBLY*	321-0000-222
	15	TURBINE STUD ASSEMBLY	063-0173-057
	16	O-RING, VITON	219-0002-140
	17	MOUNTING BRACKET, RFM 100 (NOT SHOWN)	107-0159-509
	18	HOSE CLAMP (NOT SHOWN)	435-3003-009
	19	CABLE KIT, (NOT SHOWN)	117-0159-441



#### NOTE:

END BEARING/PC ASSEMBLY, ITEMS 4 AND 5 WILL NOT FIT OLDER FLOWMETERS THAT DO NOT HAVE THE FLANGE MOUNTING FEATURE. FOR THESE FLOWMETERS, ORDER ITEM 1.

054-0159-056  
8/10 REV. G  
SHEET 1 OF 1

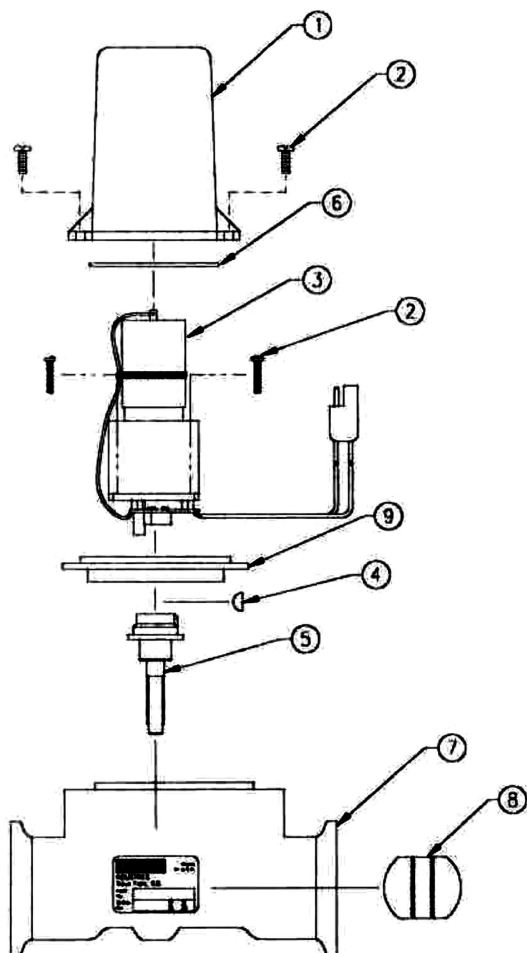
MCV 1-1/2"

## 1 1/2" POLY CONTROL VALVE REPLACEMENT PARTS

063-0171-894

ITEM	DESCRIPTION	RAVEN PART #
1	Valve Cover	106-0159-407
2	#6-32 x 3/4" Lg. Screw	321-0000-256
3	Motor Assembly	063-0159-409
4	Woodruff Key	321-0000-062
5	Coupler Shaft Assembly (1 1/2" Valve)	063-0171-893
6	Seal Tetraseal	219-0000-020
7	Valve Body Assembly (1 1/2" Valve)	063-0171-892
8	Butterfly (1 1/2" Valve)	106-0159-414
9	Isolation Flange Assembly	063-0159-457
10	*Iso-Body Kit (1 1/2" Valve) (Not Shown)	117-0159-739
11	*Polarity Reversal Jumper (Not Shown)	115-0159-415
12	Loctite RC-609 (Not Furnished)	222-1001-050

**\*NOT SUPPLIED WITH STANDARD UNIT**



When servicing Valve:

Replace valve body with iso-body kit (item 10) if valve has been leaking internally.

Replace motor assembly if the motor will not run.

Before reassembling valve, remove the coupler shaft from the valve body. Apply Loctite (item 12) to coupler shaft and woodruff key. Place the coupler shaft (item 5) and the woodruff key (item 4) onto the motor shaft. Plug motor into the valve connector coming from Sprayer Control Console. Check that the motor rotates in both directions. Motor must stop when coupler shaft CAM releases printed circuit board button.

When reassembling valve, grease both sealing surfaces of coupler shaft. Insert coupler shaft into iso-flange and be sure seal properly seats on shaft. Install motor on valve body and apply silicon sealant to mounting holes. Reassemble remaining items as shown in parts diagram.

**RAVEN INDUSTRIES, INC.**

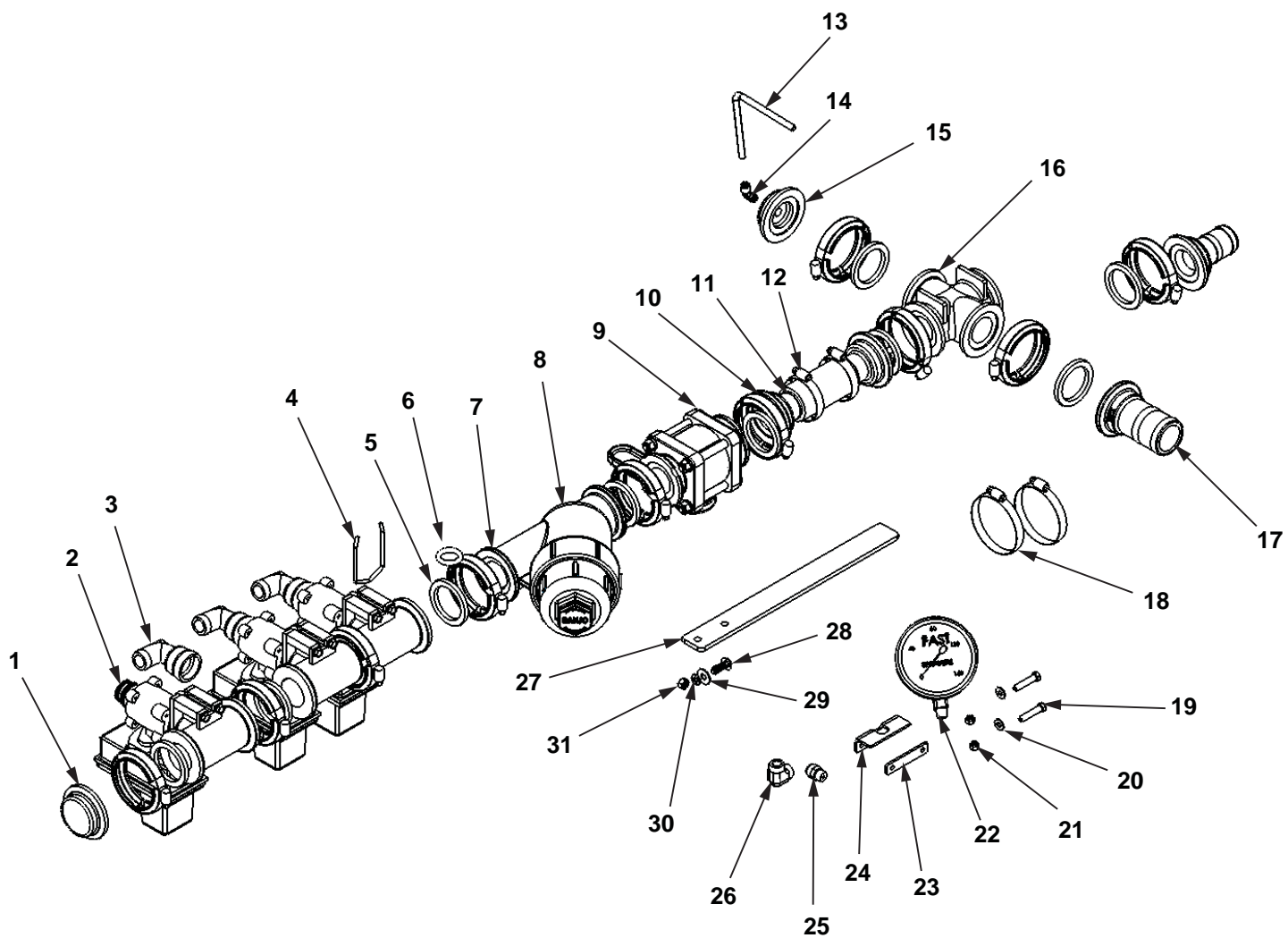
054-0159-185  
1/03 REV. E  
SHEET 1 OF 1





# 973P Truss Boom 120/132'

## BOOM SHUTOFF, GAUGE PLUMBING

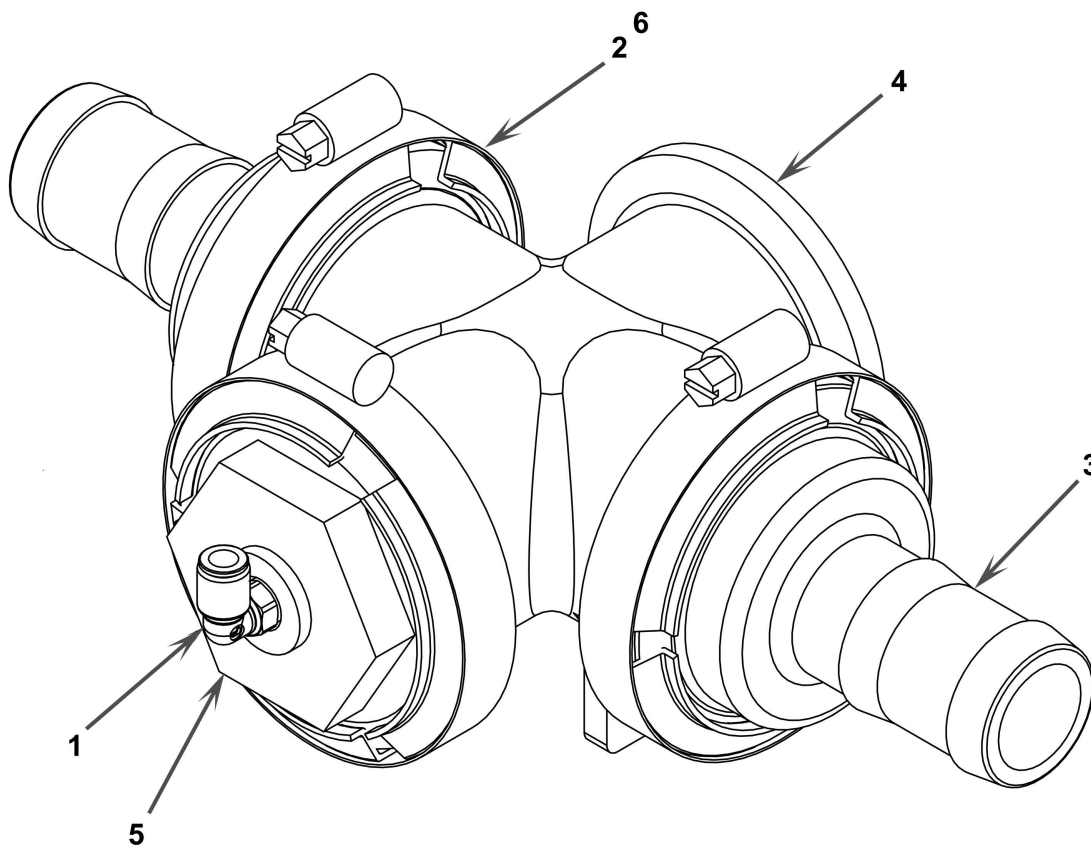






# 973P Truss Boom 120/132'

## Cross Assembly



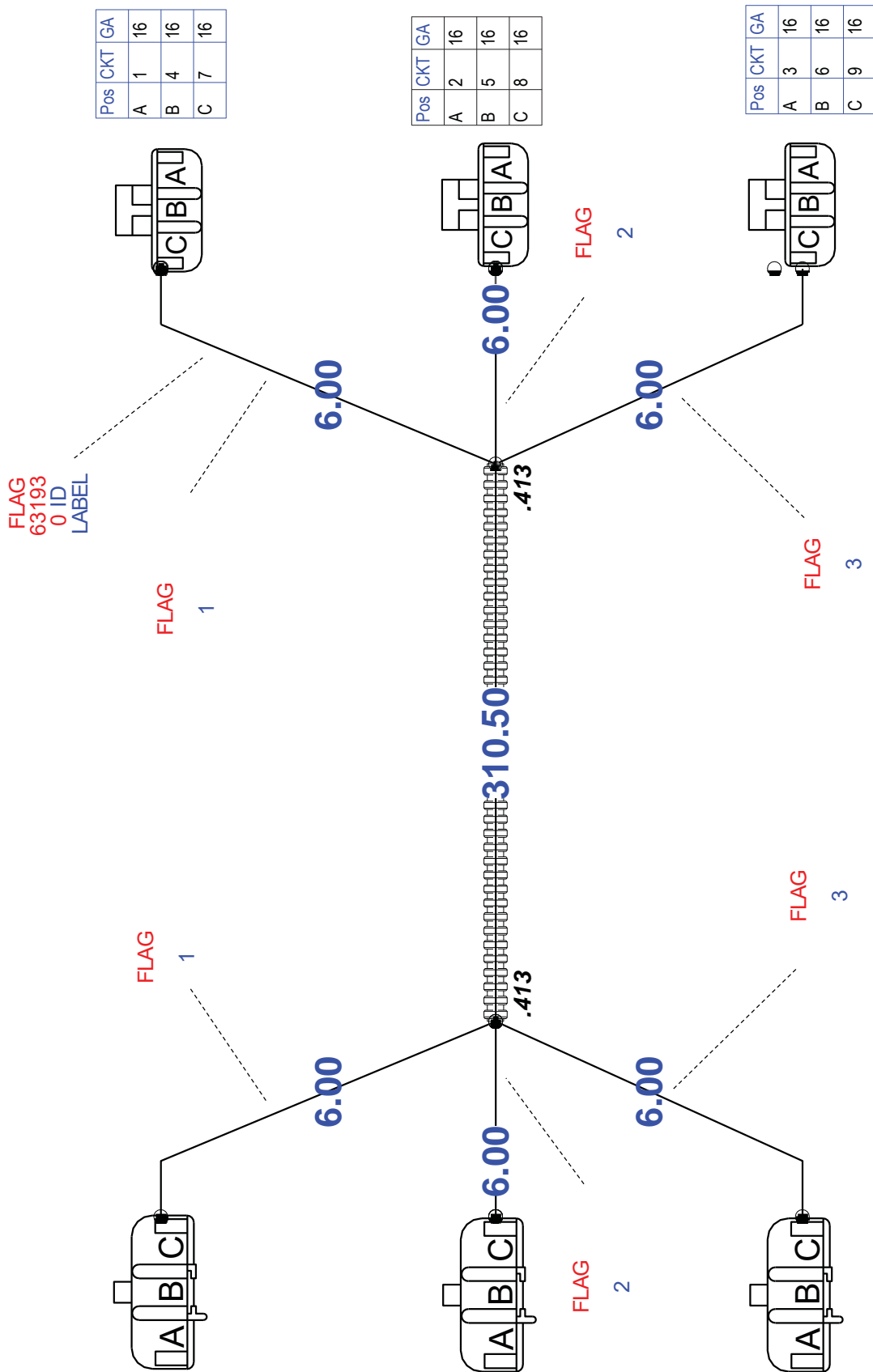






# 973P Truss Boom 120/132'

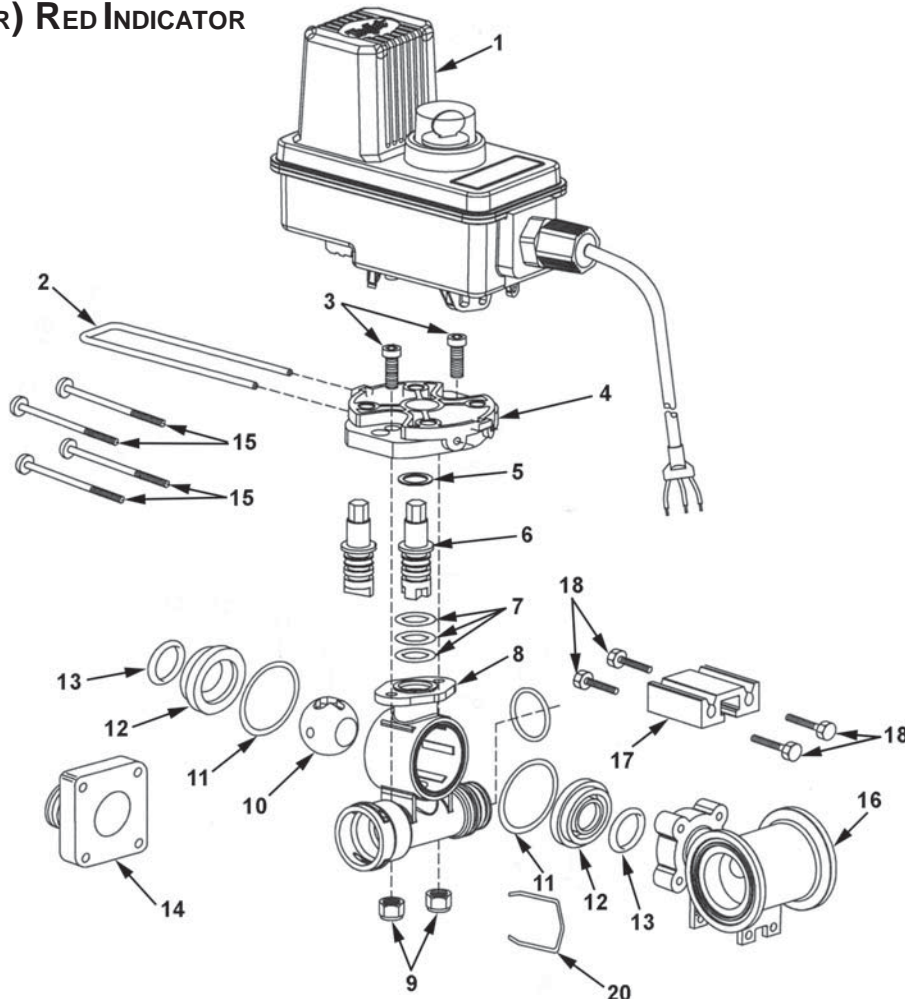
## HARNES 3 BALL VALVE CONTROL - 631930



# 973P Truss Boom 120/132'

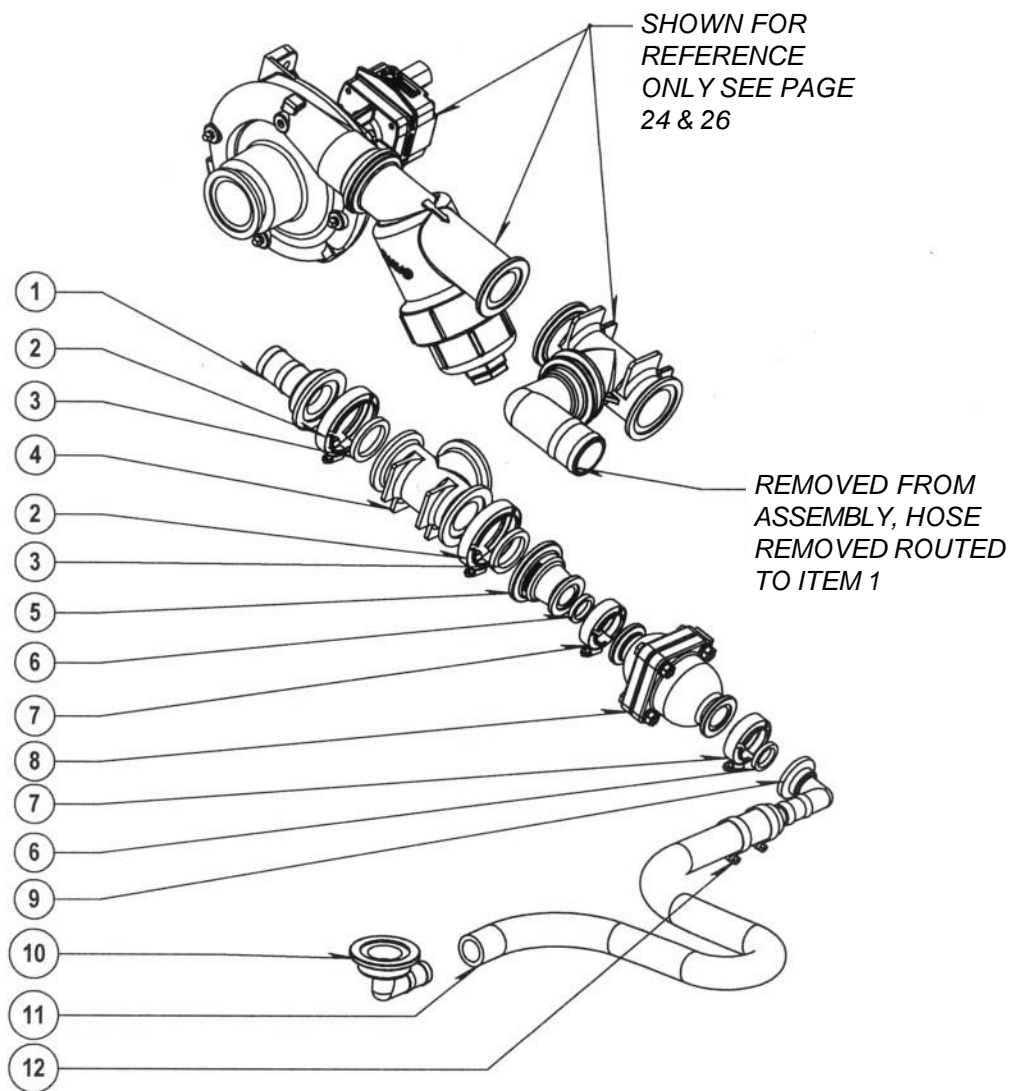


## ELECTRIC SHUT-OFF FLOW BACK BALL VALVE (2014 AND PRIOR) RED INDICATOR



Item	Vendor Part #	Fast Part #	Description	Qty.
1	50515-22CP05		Bec Motor, 22-Rpm (0.7-Sec), 0.5- Meter Cable, Positively Switched	
2	CP50517-SSPV		Retaining Cup, 304 Stainless Steel.	
3	CP26197-7/8-SS		Socket Head Cap Screw, 1/4"-20 X 7/8", Stainless Steel (2 Req'd)	
4	CP50514-PP		Motor Adapter, Polypropylene (Black)	
5*	CP20125-TEF		Thrust Washer, Tefon	
6	CP56613-SS		Stem, 303 Stainless Steel (For Polypropylene Ball)	
7*	CP7717-M12 X 2.5-VI		O-Ring, Viton (3 Req'd)	
8	CP55223-NYB		Flow Back Body, Nylon (Black)	
9	CP55223-NYB		Elastic Locknut, 1/4" 20, Stainless Steel (2 Req'd)	
10	CP20106 2 PP		Flow Back Ball Polypropylene (White)	
11*	CP20564-VI		Gasket, Viton (2 Req'd)	
12*	CP20103-TEF		Seal, Tef on (2 Req'd)	
13*	CP7717-2-213-VI		O-Ring, Viton (2 Req'd)	
14	CP45514-NYB		End Cap, Nylon (Black) (Quick Connect)	
15	CP45252-2-3/4-SSPV		Screw, 1/4"-12 X 2-3/4" Pan Head, Stainless Steel (4 Req'd)	
16	CP55224-PP		#75 Narrow Tee Body, Polypropylene (Black)	
17	CP45216-AL		Mounting Rail, Aluminum	
18	CP45259-SS		Screw, M6 X 1 X 16 mm Hex, Stainless Steel (4 Req'd)	
19	CP7717-J-912-VI		O-Ring, Viton	
20	CP37166-1-302SS		Quick Connect Retaining Cup, 302 Stainless Steel	
	56609-3FB		Valve Body Sub-Assy, Specify Outlet Size & Ball Material (Inc. Items 3-19)	
			AB344AE-KIT, Spare Parts Kit (Includes All Items Marked With*)	

## OPTIONAL HIGH PRESSURE BYPASS PLUMBING

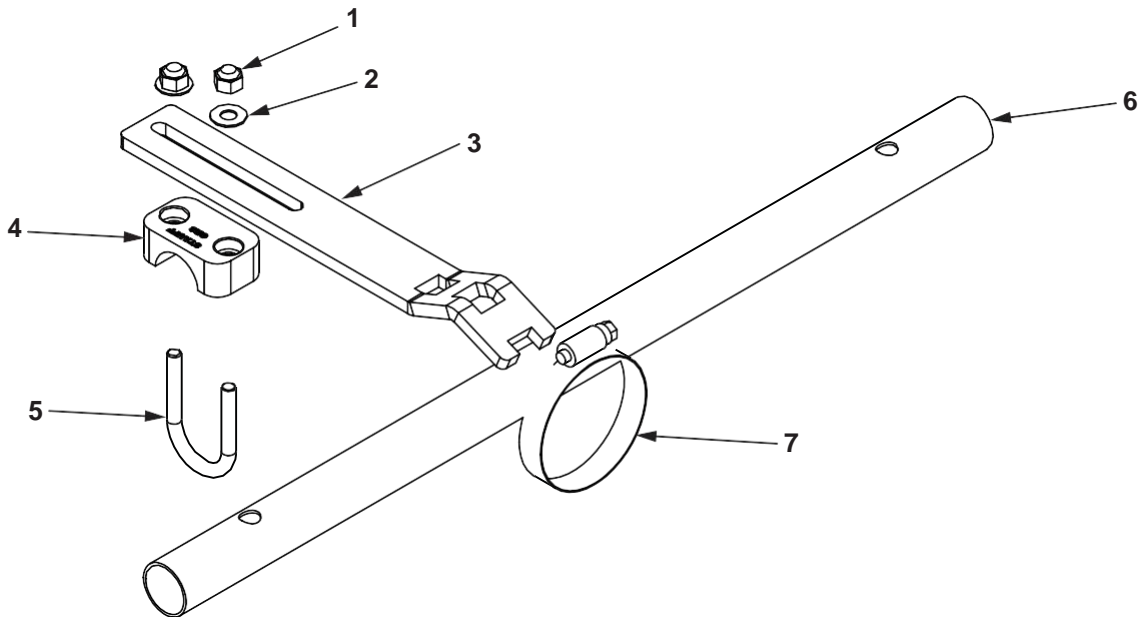


Item	Vendor Part #	Fast Part #	Description	Qty.
1	BJM200150BRB	530079	Manifold Hose Barb	1
2	BJFC200	540001	Manifold Clamp	2
3	BJ150G	530014	Manifold Gasket	2
4	BJM200TEE	530097	Manifold Tee	1
5	BJM200100CPG	530074	Manifold Reducer	1
6	BJ100G	530013	Manifold Gasket 1"	2
7	BJFC100	540000	Manifold Clamp 1"	2
8	BJMPRV100-100	500004	Manifold Pressure Reducing Valve	1
9	BJM100BRB90	530067	Manifold 1' Hose Barb 90	1
10	BJM200100BRB90	530072	Manifold 2" Hose Barb 90	1
11	BS1BH200	510016	Hose 1" EDPM	AR
12	BR64016H	540014	Clamp Hose 1"	2

# 973P Truss Boom 120/132'

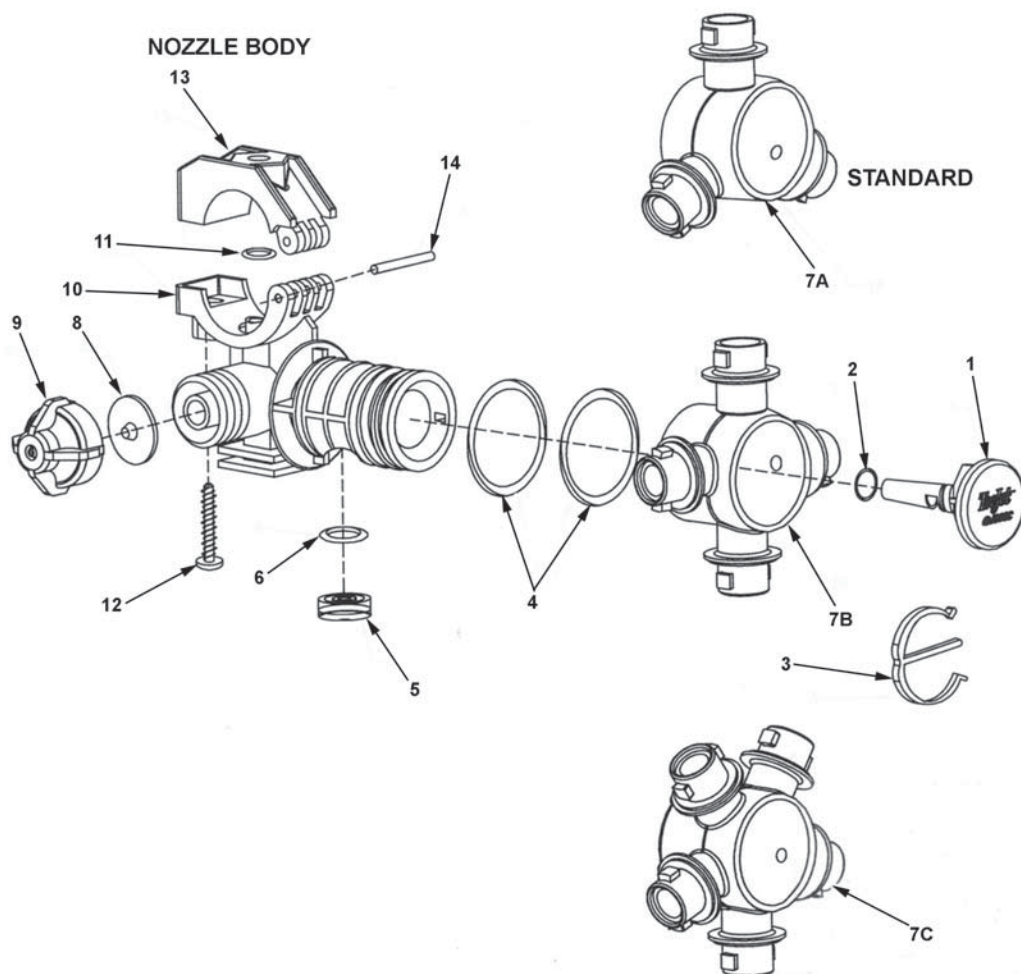


## WET BOOM & BRACKETS



Item	Vendor Part #	Fast Part #	Description	Qty.
1		655	Nut 1/4" Nylock Stainless Steel	
2		685	Washer 1/4" Stainless Steel	
3		16271	Delivery Tube Support	
4		540029	Tube Clamp Base	
5	ZM1473140	590048	U-Bolt Stainless Steel	
6		14301	Tube, 6 Port 15 Inch Spacing + Fenceline Valve	
		14302	Tube, 2 Port 15 Inch Spacing	
		14303	Tube, 3 Port 15 Inch Spacing	
		14304	Tube, 4 Port 15 Inch Spacing	
		14305	Tube, 5 Port 15 Inch Spacing	
		14306	Tube, 6 Port 15 Inch Spacing	
		14307	Tube, 7 Port 15 Inch Spacing	
		14308	Tube, 8 Port 15 Inch Spacing	
		14310	Tube, 10 Port 15 Inch Spacing	
		14311	Tube, 7 Port 20 Inch Spacing + Fenceline Valve	
		14312	Tube, 2 Port 20 Inch Spacing	
		14313	Tube, 3 Port 20 Inch Spacing	
		14314	Tube, 4 Port 20 Inch Spacing	
		14315	Tube, 5 Port 20 Inch Spacing	
		14316	Tube, 6 Port 20 Inch Spacing	
		14317	Tube, 7 Port 20 Inch Spacing	
		14318	Tube, 8 Port 20 Inch Spacing	
		14319	Tube, 9 Port 20 Inch Spacing	
		14320	Tube, 5 Port 20 Inch Spacing + Fenceline Valve	
		14321	Tube, 6 Port 20 Inch Spacing + Fenceline Valve	
		14322	Tube, 2 Port 22 Inch Spacing	
		14323	Tube, 3 Port 22 Inch Spacing	
		14324	Tube, 4 Port 22 Inch Spacing	
		14325	Tube, 5 Port 22 Inch Spacing	
		14326	Tube, 6 Port 22 Inch Spacing	
		14327	Tube, 7 Port 22 Inch Spacing	
		14330	Tube, 5 Port 22 Inch Spacing + Fenceline Valve	
7	BR64032H	540017	Clamp Hose	

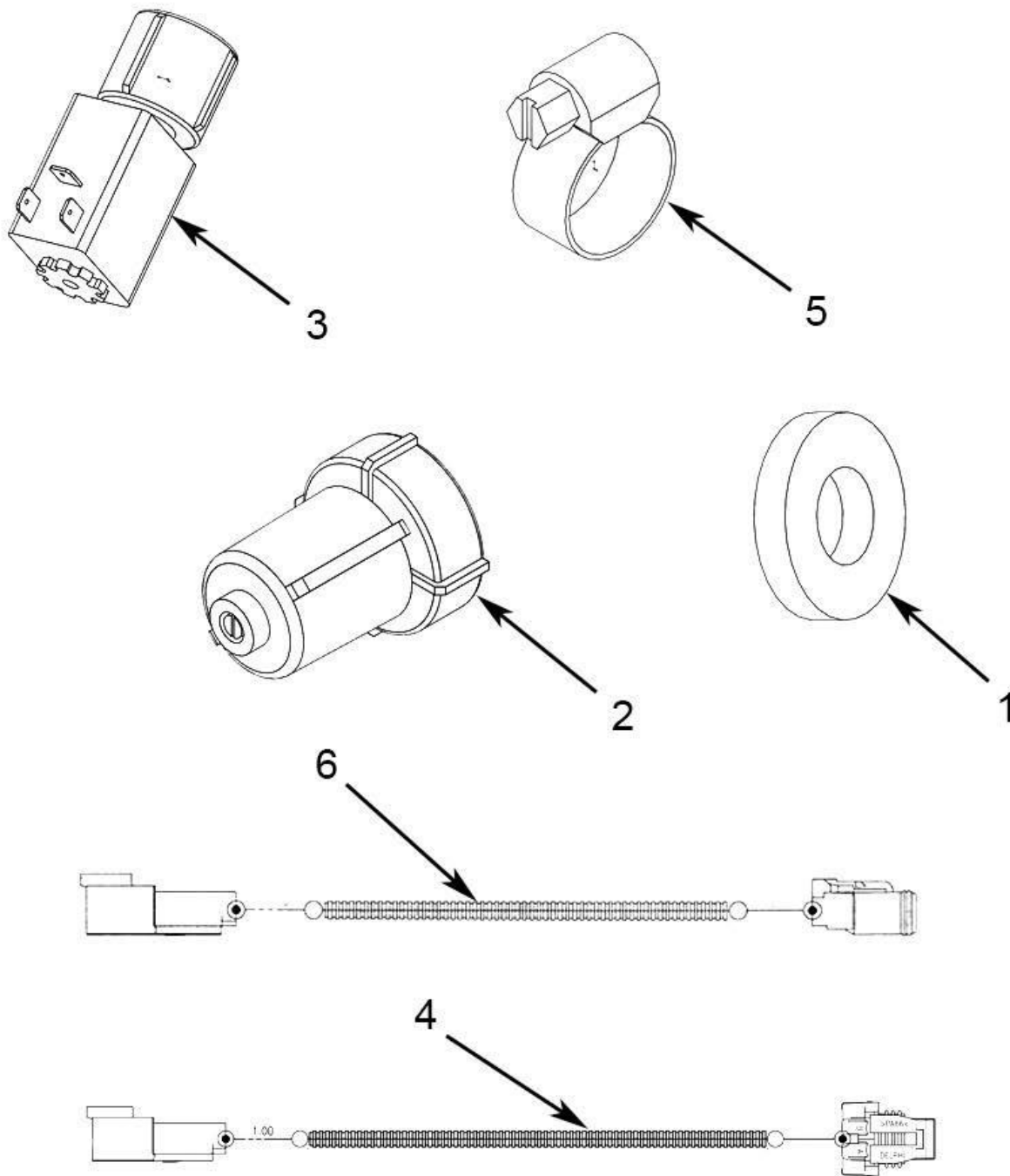
## WET BOOM DIAPHRAGM CHECK VALVE QUICK TEEJET HINGED NOZZLE BODY - 520039



Item	Vendor Part #	Fast Part #	Description	Qty.
1	CP38930-8-NYB		Plug, Nylon (Black)	
2	CP7717-2-13-EPR		O-Ring, Epdm	
	CP7717-2-13-VI		O-Ring, Viton (Optional)	
3	CP38931-NYB		E-Clip, Nylon (Black)	
4	CP7717-M28x3-EPRTFE		O-Ring, EPR-Tef on Filled (2 Req'd.)	
	CP7717-M28x3-VITFE		O-Ring, Viton-Tef on Filled (2 Req'd.) (Optional)	
5	CP56726-VITFE		Seal, Viton-Tef on Filled	
6	CP7717-2-111 - VI		O-Ring, Viton	
7A	CP38921-2-NYB		Turret, Nylon (Black) (3 Outlet) Std	
7B	CP38922-2-NYB		Turret, Nylon (Black) (4 Outlet)	
7C	CP38923-2-NYB		Turret, Nylon (Black) (5 Outlet)	
8	CP21953-EPR		Diaphragm, EPDM	
	CP21953-VI		Diaphragm, Viton (Optional)	
9	21950-10-NYB		End Cap Sub-Assembly, Nylon (Black)	
10	CP38942-2-NYB		1/2" Body, Nylon (Black)	
	CP38925-2-NYB		3/4" & 25mm Body, Nylon (Black)	
	CP38926-2-NYB		1" Body, Nylon (Black)	
11	CP7717-2-110-BU		O-Ring, Buna-N	
	CP7717-2-110-VI		O-Ring, Viton (Optional)	
12	CP48255-1-1/4-302SS		Screw, Stainless Steel	
13	CP48224-NYB		25mm Upper Clamp, Nylon (Black)	
14	CP48256 SS		Pivot Pin, Stainless Steel	



## Fence Row Option







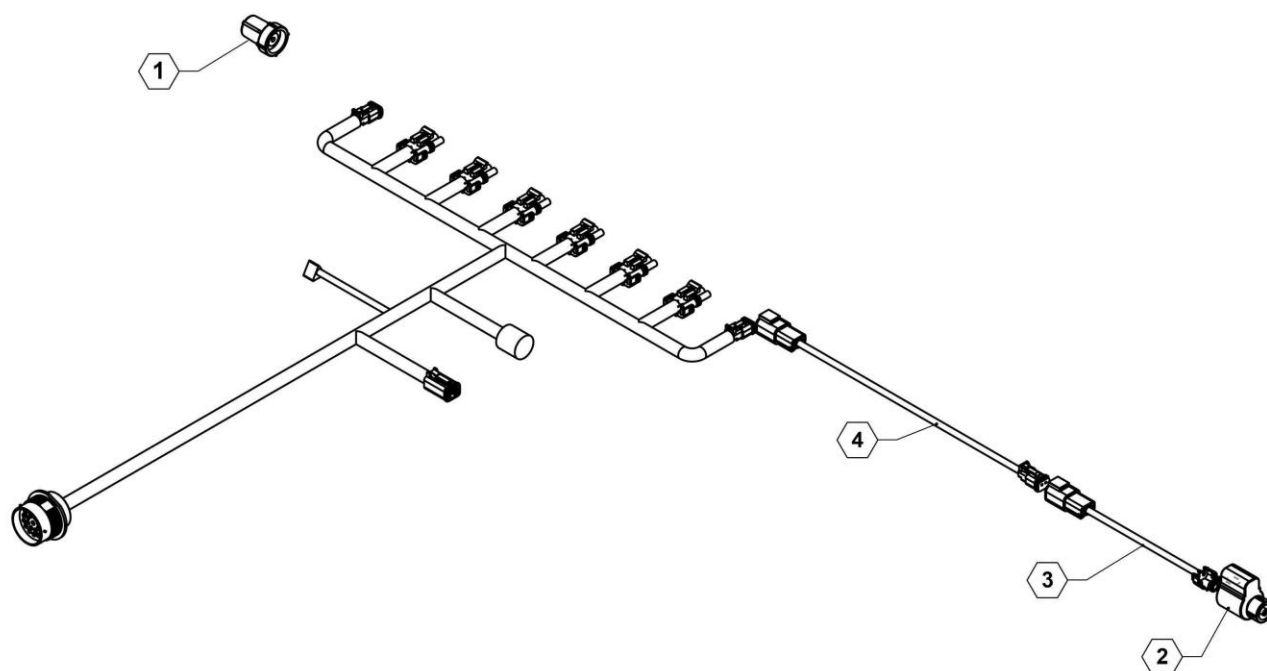
## 973P Truss Boom 120/132'

### Fence Row Option

ITEM	PART NO.	QTY.	DESCRIPTION
1	520016	2	NOZZLE SEAT WASHER, RUBBER
2	520037	2	NOZZLE MANUAL CHEM SAVER
3	520038	2	NOZZLE ELECTRIC CHEM SAVER
4	632044	2	CABLE ADAPTER 2P DT TO 2P 6"
5	540032	4	CLAMP, HOSE 5/16"
6	632054	2	55' FENCE ROW CABLE

## Single Fence Line, Display Control

NOTE:  
1. FOR USE WITH RAVEN RCM AND JD RC2000





## 973P Truss Boom 120/132'

Single Fence Line, Display Control

ITEM	PART NO.	QTY.	DESCRIPTION
1	520037	1	VALVE, MANUAL CHEMSAVER
2	520038	1	VALVE, ELECTRIC CHEMSAVER
3	632044	1	FENCEROW ADAPTER CABLE, 6"
4	632054	1	FENCEROW CABLE, 55'

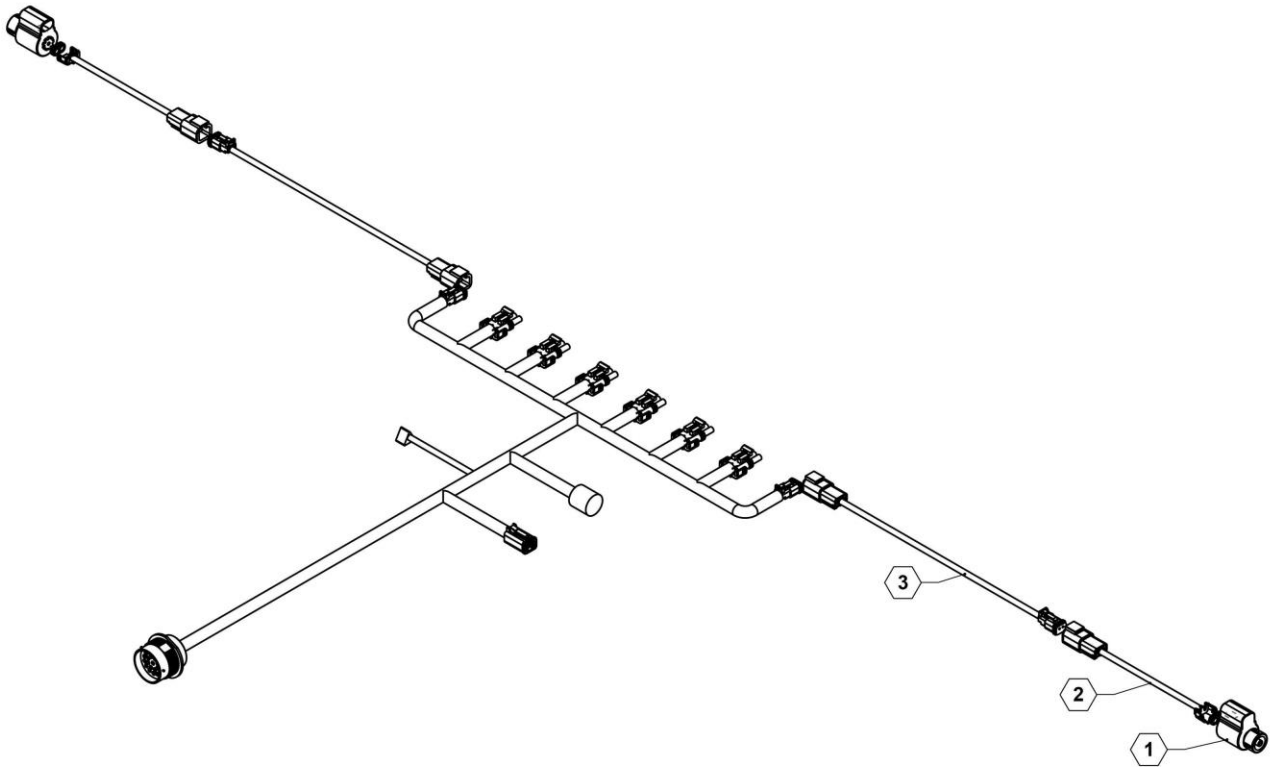


# 973P Truss Boom 120/132'

## Dual Fence Line, Display Control

NOTE:

1. FOR USE WITH RAVEN RCM AND JD RC2000





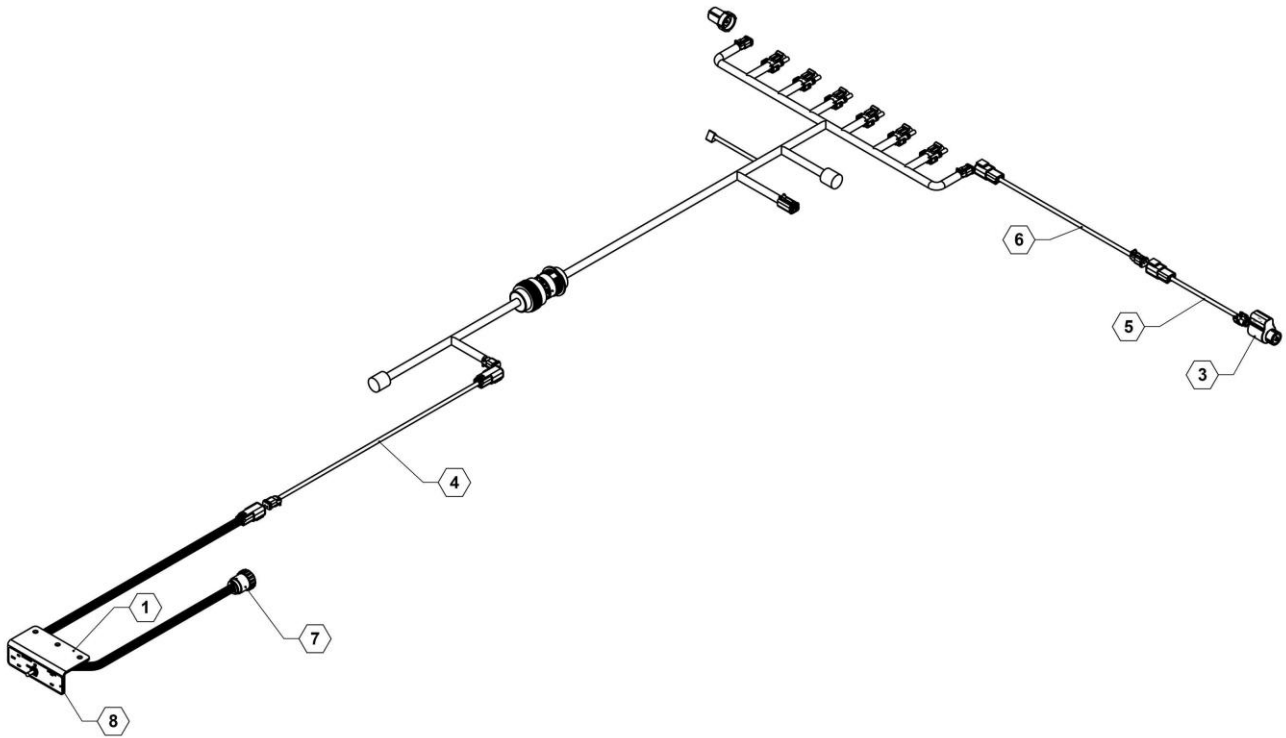
## 973P Truss Boom 120/132'

Dual Fence Line, Display Control

ITEM	PART NO.	QTY.	DESCRIPTION
1	520038	2	VALVE, ELECTRIC CHEMSAVER
2	632044	2	FENCEROW ADAPTER CABLE, 6"
3	632054	2	FENCEROW CABLE, 55'

## Single Fence Row, Toggle Switch Control

NOTE:  
1. FOR USE WITH RAVEN 450, JD GREENSTAR & OTHER 16 & 37 PIN CABLING CONTROLLERS





## 973P Truss Boom 120/132'

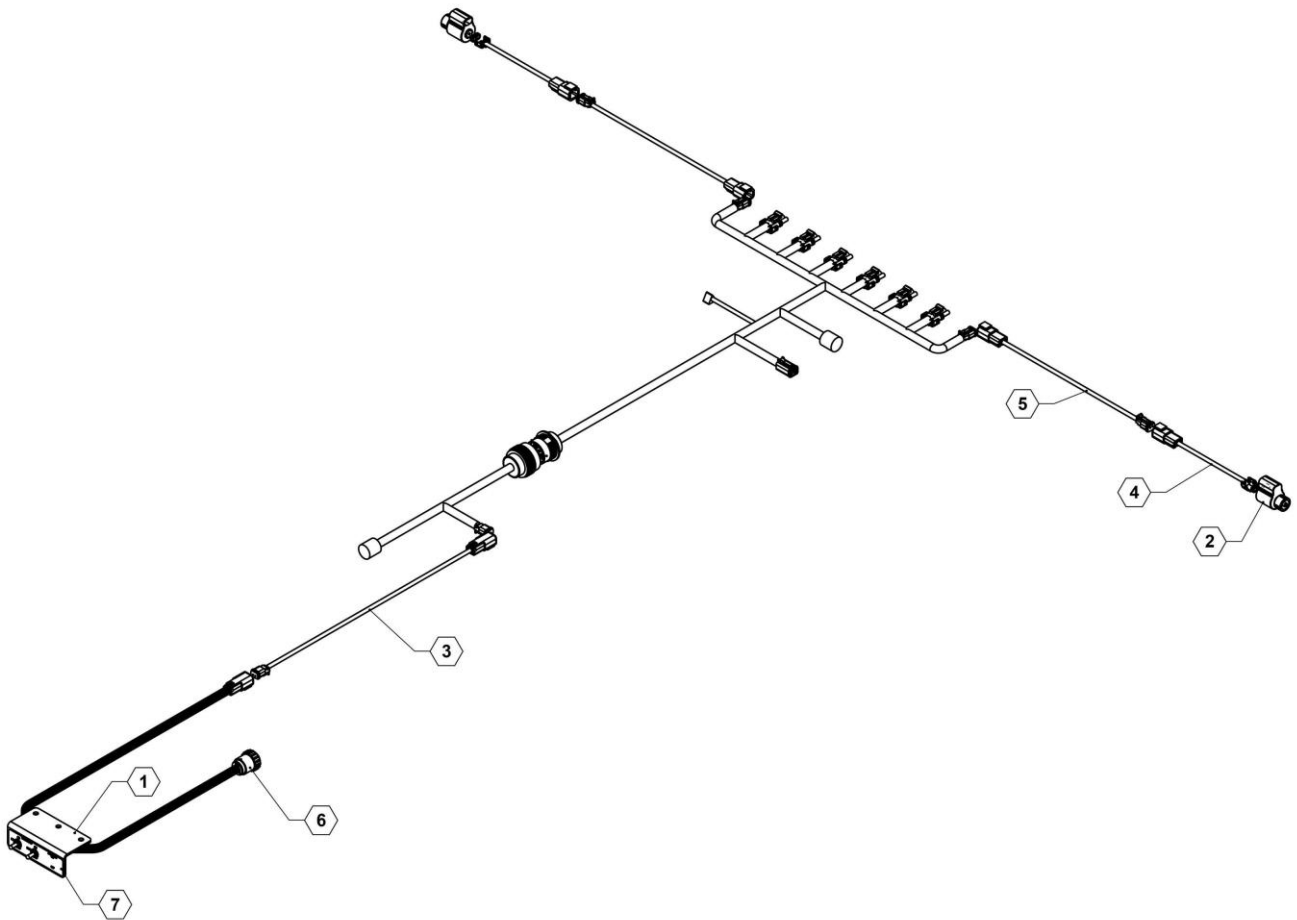
Single Fence Row, Toggle Switch Control Fence

ITEM	PART NO.	QTY.	DESCRIPTION
1	18437	1	PLATE, MOUNT
2	520037	1	VALVE, MANUAL CHEMSAVER
3	520038	1	VALVE, ELECTRIC CHEMSAVER
4	632042	1	2 PIN DT 40' CABLE EXTENSION
5	632044	1	FENCEROW ADAPTER CABLE, 6"
6	632054	1	FENCEROW CABLE, 55'
7	632089	1	CABLE, SINGLE ELECTRIC FENCELINE NOZZLE
8	800261	1	DECAL, FENCELINE & AGITATION

## Dual Fence Row, Toggle Switch Control

**NOTE:**

1. FOR USE WITH RAVEN 450, JD GREENSTAR & OTHER 16 & 37 PIN CABLING CONTROLLERS







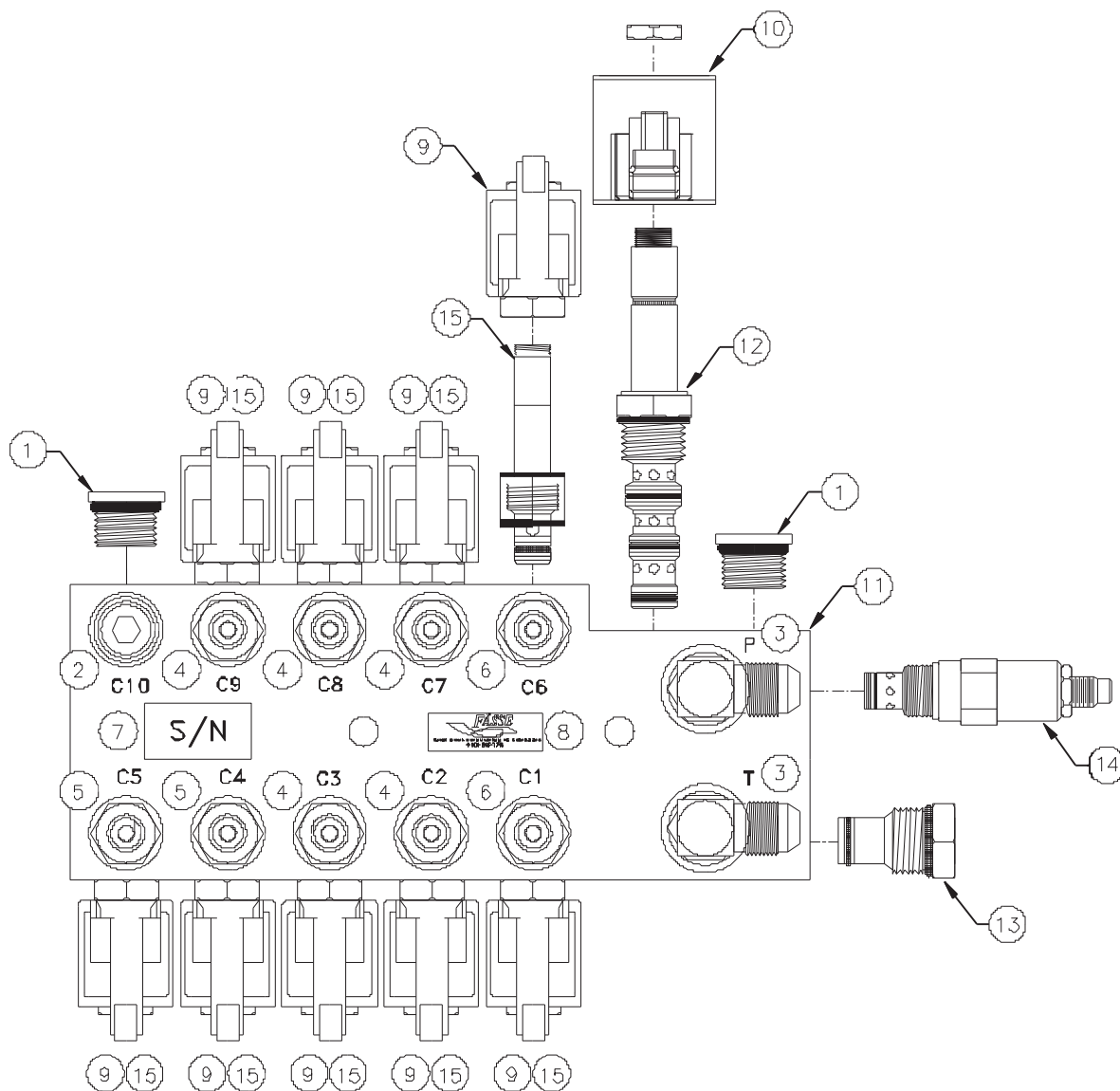
## 973P Truss Boom 120/132'

### Dual Fence Row, Toggle Switch Control

ITEM	PART NO.	QTY.	DESCRIPTION
1	18437	1	PLATE, MOUNT
2	520038	2	VALVE, ELECTRIC CHEMSAVER
3	632042	1	2 PIN DT 40' CABLE EXTENSION
4	632044	2	FENCEROW ADAPTER CABLE, 6"
5	632054	2	FENCEROW CABLE, 55'
6	632088	1	CABLE, DUAL ELETRIC FENCELINE NOZZLES
7	800261	1	DECAL, FENCELINE & AGITATION



## HYDRAULIC CONTROL VALVE

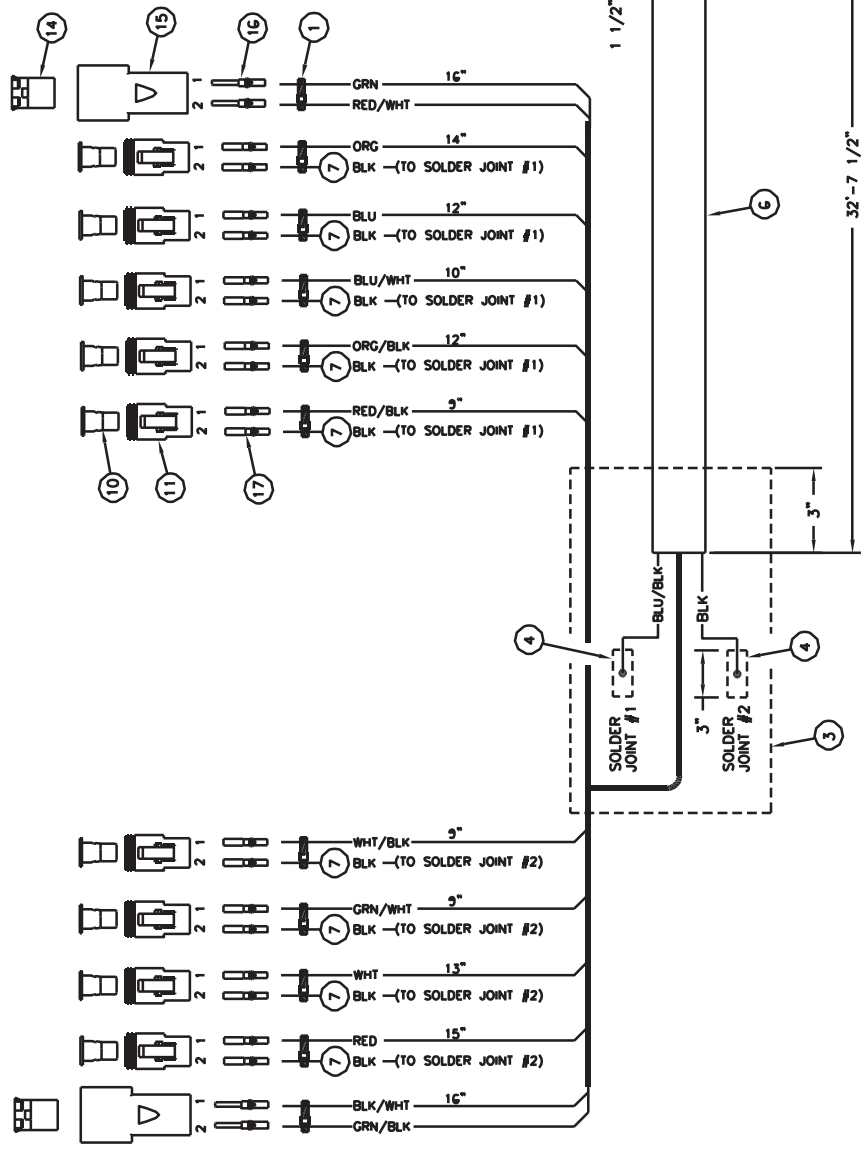


### PARTS LIST

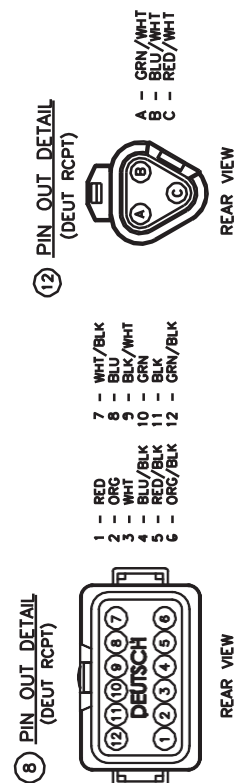
N <sup>o</sup>	PART NUMBER	QTY	PART DESCRIPTION
1	210-038	2	FTG 640B-HHP-8/HOLL HEX PLUG MO
2	210-127	1	FTG 640B-HHP-6/HOLL HEX PLUG MO
3	210-390	2	FTG 6801-B-8/E-MJ-MO ZINC NICKEL PLATED
4	210-391	5	FTG 6400-4-6/S-MJ-MO ZINC NICKEL PLATED
5	210-392	2	FTG 6400-6-6 R.D47/S-MJ-MO ZINC NICKEL PLATED
6	210-393	2	FTG 6400-6-6/5-MJ-MO ZINC NIC PLATED
7	232-050	2	DECL S/N (SILVER)
8	232-058	1	DECAL FASSE BLK/GOLD 1"X 75"RND CRNR
9	253-046	9	COIL HYDAC 0312600 DL DSTCH RECPT.
10	253-593	1	COIL H/F 4304112E-10 INTG DEUT DTR 12V ZENER DIODE
11	270-D93	1	MANI S14153-4 5CIR AL RV
12	273-008	1	CART SV10-40-0-N-00
13	273-D12	1	CART CP10-20
14	273-058	1	CART H/F RV10-22A-0-N-NC-35-30
15	273-D77	9	CART HYDAC WSD8W-01-C-N-0

## HYDRAULIC CONTROL VALVE WIRING HARNESS

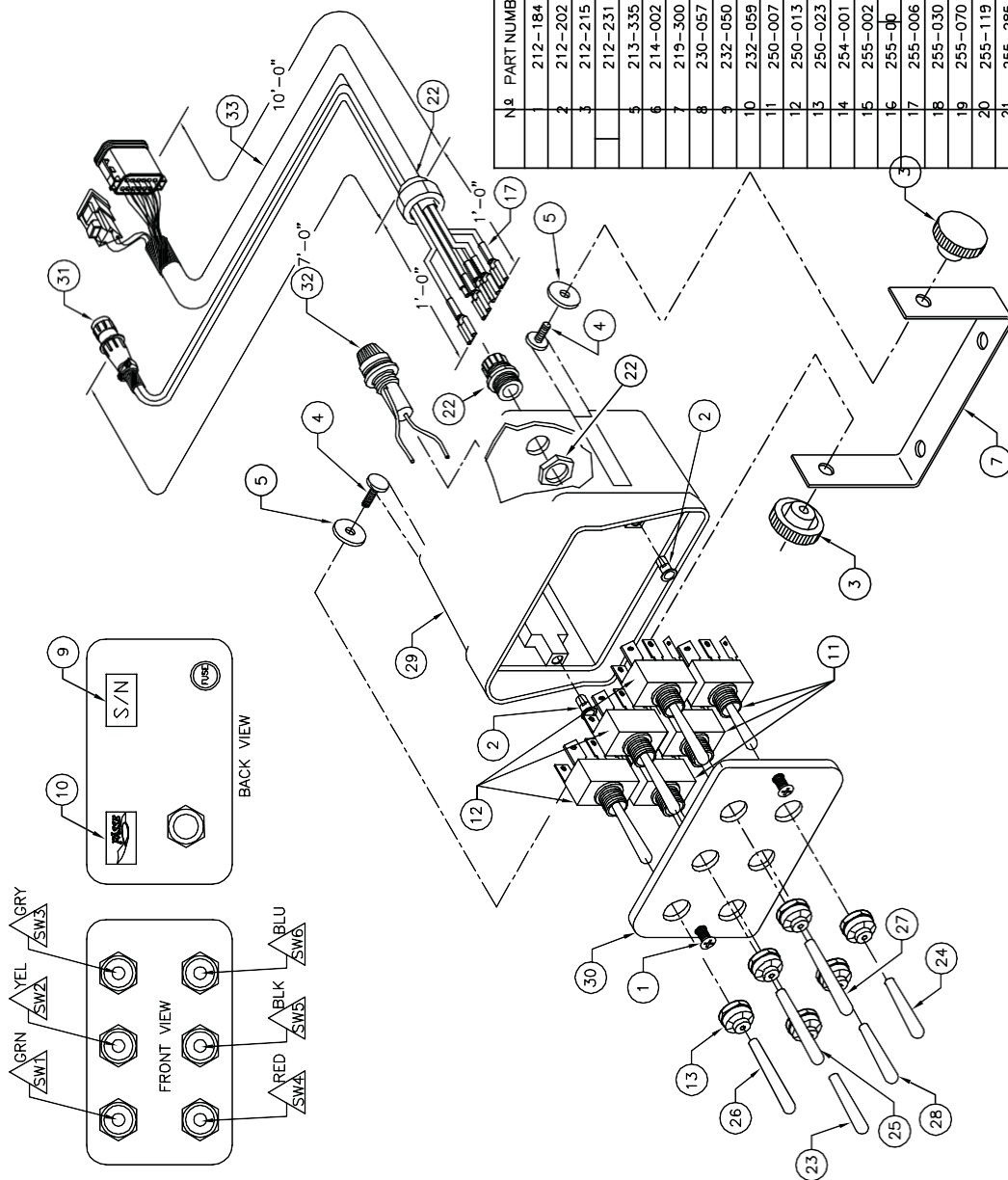
PARTS LIST		PART DESCRIPTION
1	214-002	11 CAB II: BLACK 7"
2	231-007	3" SHRINK TUBING .625
3	231-008	6" SHRINK TUBING .750
4	231-313	6" SHRINK TUBING .313
5	232-050	2 DECL S/N (SILVER)
6	252-020	35' CABLE 15CON 18GA
7	252-058	13' WIRE 18GA BLK
8	255-212	1 CNIR DEUTSCH 12PIN RECEPT DI
9	255-214	1 CNIR DEUTSCH LOCK WEDGE 12PIN DIR
10	255-505	9 CNIR DEUTSCH LOCK WEDGE 2PIN DIP
11	255-801	9 CNIR DEUTSCH 2PIN PLUG DI
12	255-811	1 CNTR DEUTSCH 3PIN RECP DT
13	255-812	1 CNTR DEUTSCH LOCK WEDGE 3PIN DIR
14	255-969	2 CNIR DEUTSCH LOCK WEDGE 2PIN DIR
15	255-971	2 CN R DEU SCH 2PIN RECEPT DT
16	255-977	15 TRM PIN DEUTSCH 16/18GA
17	255-978	18 TRM SOCK-1 DEUTSCH 16/18GA



- NOTES:**
1. HARNESS LENGTH IS 33'
  2. USE 3 CABLE TIES TO COIL UP HARNESS.
  3. PUT REMAINING TIES INTO BAG.



## CONTROL CONSOLE



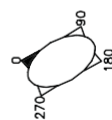
№	PART NUMBER	QTY	PART DESCRIPTION
1	212-184	2	SCREW 6-32 X 3/8 OVA HD BLK
2	212-202	2	INSERT 6-32X3/8 BRASS
3	212-215	2	KNOR 1/4-20-90-EEVA-F
4	212-231	2	SCREW WELDED 1/4-20 X .500
5	213-335	2	WASHER NYLON .257X.875X.060
6	214-002	3	CABLE TIE BLACK 7"
7	219-300	1	BRKT HSGNG MONITOR
8	230-057	1	BAG POLY CLR 14 X 18 2MIL W/LOGO
9	232-050	2	DECL S/N (SILVER)
10	232-059	1	BAG GOLD/BLK 1.5 X .5
11	250-007	3	SW TOG DPDT 3P MOM SHORT
12	250-013	3	SW TOG DPDT 3P MOM LONG
13	250-023	6	SW TOG BOOT OPN GRY
14	254-001	1	DIODE D116A2 6AMP
15	255-002	25	TRM T-TAP F PO BLU
16	255-003	2	TRM PO F FULL INS 22-18GA
17	255-006	6	TRM PO F NON INS 20/18GA
18	255-030	2	TRM SPLICE CLOSED END 16-18GA
19	255-070	2	TRM PO M/F 14-16GA
20	255-119	3	TRM PO F INS 16-14GA
21	255-285	1	TRM SPLICE CLOSED END LRG
22	255-710	1	STRAIN RLF HEYCO .45"-705"ID, HOLE DIA 1.115"
23	259-005	1	SW TOG GRIP VNYL RED .187
24	259-015	1	SW TOG GRIP VNY B U .187
25	259-022	1	SW TOG GRIP VNYL YEL .187
26	259-023	1	SW TOG GRIP VNYL GRN .187
27	259-027	1	SW TOG GRIP VNYL GRY .187
28	259-031	1	GRIP TOG VNY B K .187"
29	301-001	1	ENCL DRILL MNTBRX-H-1 1/8"G
30	304-751	1	-NCL DRILL FP MNTFR SW6 F00204
31	314-217	1	HARNES R B WIRE SERIES 3 P 8
32	319-769	1	FUSEHO DER PM ASSY 10A /5"
33	320-760	1	FRN 15CON 18GA DTP KEY A 12P(12)D P3P(3) 11"

**NOTES:**

1. USE 1-CABLE TIE TO COIL UP HARNESS
2. NOT SHOWN: (6) (8)
3. CUT (23) (24) & (28) TO FIT ON SW BAT.

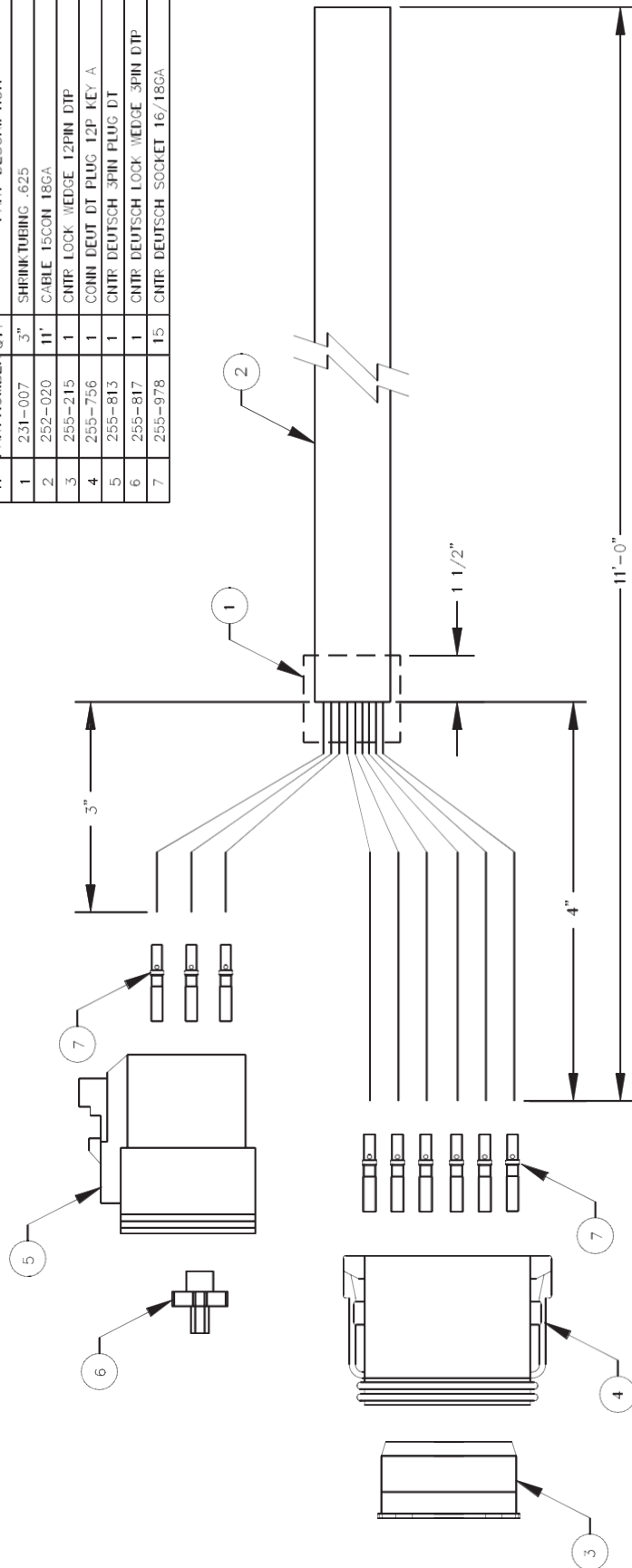
**SWITCH NOTCH ORIENTATION**

- ORIENT SWITCH NOTCHES AS SHOWN IN GRAPHIC
- USE THE ANGLE VALUES SHOWN AS REFERENCE

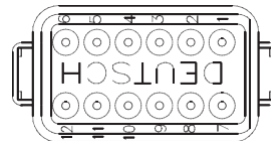


## WIRING HARNESS

PARTS LIST			
NO	PART NUMBER	QTY	PART DESCRIPTION
1	231-007	3"	SHRINKTUBING .625
2	252-020	11'	CABLE 15CON 18GA
3	255-215	1	CNTR LOCK WEDGE 12PIN DTP
4	255-756	1	CONN DEUT DT PLUG 12P KEY A
5	255-813	1	CNTR DEUTSCH 3PIN PLUG DT
6	255-817	1	CNTR DEUTSCH LOCK WEDGE 3PIN DTP
7	255-978	15	CNTR DEUTSCH SOCKET 16/18GA

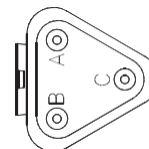


PIN\_OUT\_DETAIL



- 1 - RED
- 2 - ORG
- 3 - WHT
- 4 - BLU/BLK
- 5 - RED/BLK
- 6 - ORG/BLK
- 7 - WHT/BLK
- 8 - BLU
- 9 - BLK/WHT
- 10 - CRN
- 11 - BLK
- 12 - GRN/BLK

PIN\_OUT\_DETAIL



- A - CRN/WHT
- B - BLU/WHT
- C - RED/WHT

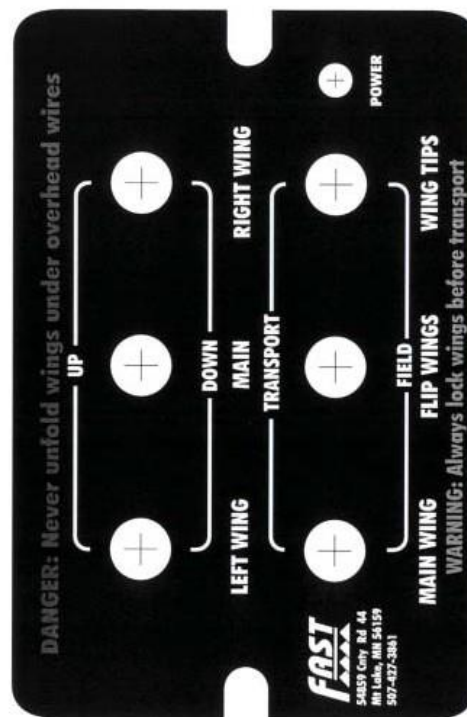


# 973P Truss Boom 120/132'

## CONTROL CONSOLE WIRING HARNESS

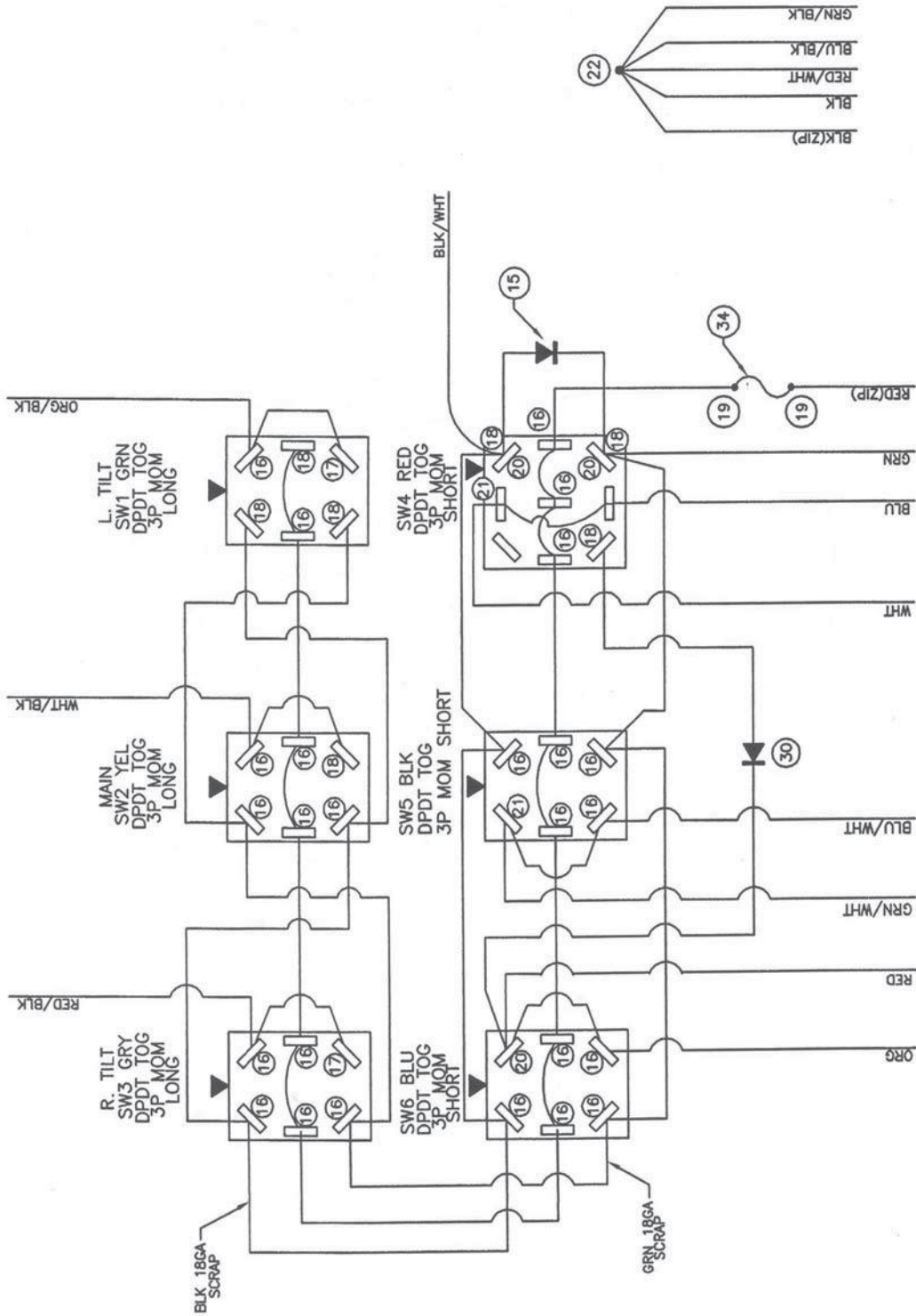
700-0806-4103 & 700-0806-4104 REV D

Switch No.	Boot Color	Switch Position	Hot Wires	Pin Out Location	Pressure Ports	Tank Ports	Function
1 Long	Green	Up (mom)	Org/Blk & Grn	6-12P, 10-12P	C4		Lt. Wing Up
		Center (stat)					Off
		Down (mom)	Org/Blk & Grn & Blk/Wht	6-12P, 10-12P, 9-12P		C4	Lt. Wing Down
2 Long	Yellow	Up (mom)	Wht/Blk & Grn & Blk/Wht	7-12P, 10-12P, 9-12P	C9		Main Up
		Center (stat)					Off
		Down (mom)	Wht/Blk & Grn	7-12P, 10-12P		C9	Main Down
3 Long	Gray	Up (mom)	Red/Blk & Grn	5-12P, 10-12P	C5		Rt. Wing Up
		Center (stat)					Off
		Down (mom)	Red/Blk & Grn & Blk/Wht	5-12P, 10-12P, 9-12P		C5	Rt. Wing Down
4 Short	Red	Up (mom)	Wht & Blu & Grn	3-12P, 8-12P, 10-12P	C2		Main Wing Transport
		Center (stat)					Off
		Down (mom)	Wht & Blu & Grn & Blk/Wht	3-12P, 8-12P, 10-12P, 9-12P		C2	Main Wing Field
5 Short	Black	Up (mom)	Grn/Wht & Blu/Wht & Grn	1-3P, 2-3P, 10-12P	C3		Flip Wings Transport
		Center (stat)					Off
		Down (mom)	Grn/Wht & Blu/Wht & Grn & Blk/Wht	1-3P, 2-3P, 10-12P, 9-12P		C3	Flip Wings Field
6 Short	Blue	Up (mom)	Red & Org & Grn	1-12P, 2-12P, 10-12P	C1		Wing Tips Transport
		Center (stat)					Off
		Down (mom)	Red & Org & Grn & Blk/Wht	1-12P, 2-12P, 10-12P, 9-12P		C1	Wing Tips Field
			Blk	11-12P			Ground
			Red/Wht	3-3P			Ground
			Blu/Blk	4-12P			Ground
			Grn/Blk	12-12P			Ground



## CONTROL CONSOLE SWITCH DIAGRAM

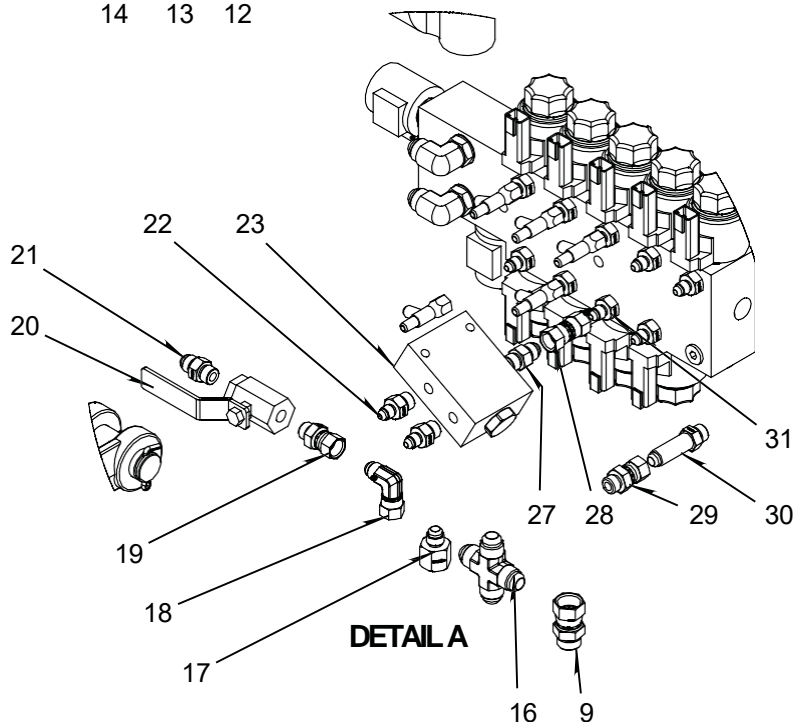
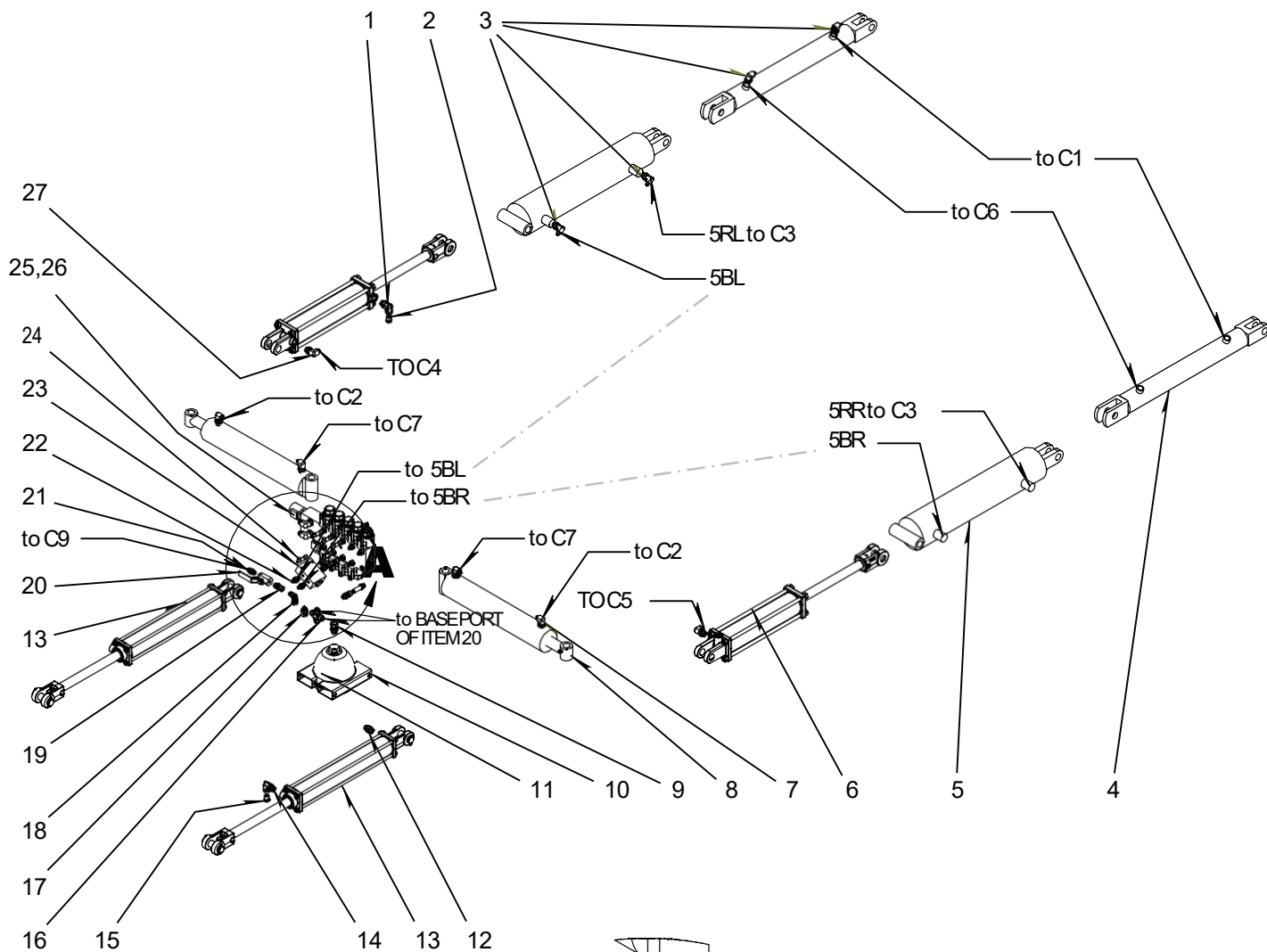
### SWITCH WIRING DIAGRAM



▲ = NOTCH LOCATION



## CYLINDER AND FITTINGS







# 973P Truss Boom 120/132'

## HOSE DESCRIPTION

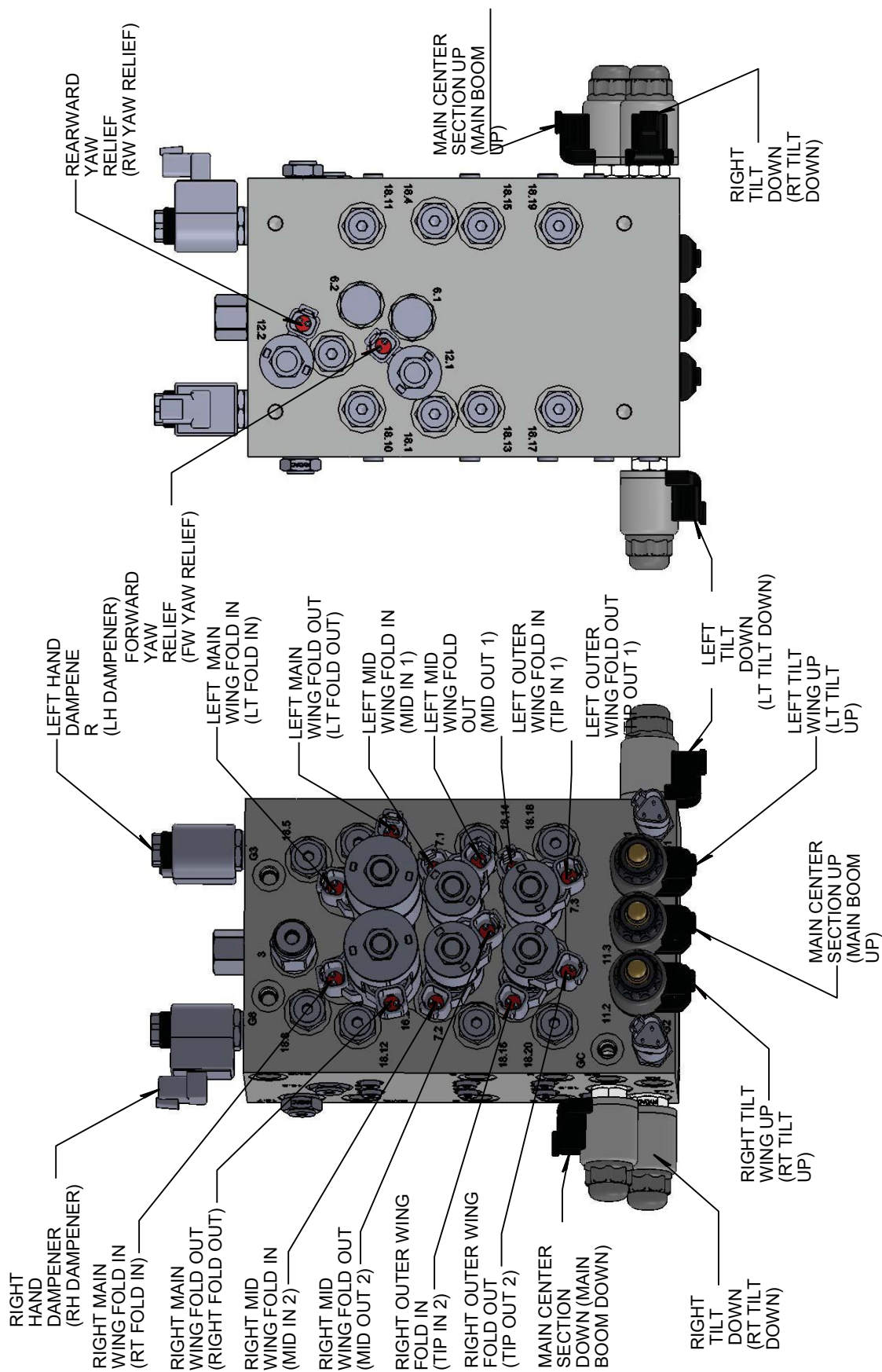
Part #	Description	Hose Size	1st End	2nd End	Cut Length	Qty. Req.	Function of Hose
520048	2-NV12-12SAE-M					4	Hydraulic Tips
610102	6801-10-10-NWO-TCT					1	
610060	6400-8-10-0-TCT					1	
FDM 600039-13-ZN	FDM4R17-4FJX-4FJX90M	1/4"	F St.	F 90	87	1	Block To Main Lift
FDM 600039-11-ZN	FDM8R17-8FJX-8FJX45M	1/2"	F St.	F 45	30	2	Tee To Main Lift Right/Left
	STAUFF AG-2					52	Tube Clamps
FDM 600039-7-ZN	FDM4R17-4FJX-4FJX	1/4"	F St.	F St	100	2	Main Wing Fold Rod
FDM 600039-8-ZN	FDM4R17-4FJX-4FJX90M	1/4"	F St.	F 90	100	2	Main Wing Fold Butt
FDM 600039-1A-ZN	FDM4R17-6MJX-4FJX	1/4"	M St.	F St.	132	4	Block To Hardlines
FDM 600039-2A-ZN	FDM4R17-6MJX-4FJX90M	1/4"	M St.	F 901	132	4	Block To Hardlines
FDM P603	FDM P603					124	Flip Wing Cylinders
FDM P604	FDM P604					162	Breakaway Wing Cylinder Feed On Main Wing
FDM 600039-3A-ZN	FDM4R17-6MJX-6MJX	1/4"	M St.	M St	27.5	2	Hardline Hinge Hose
FDM 600039-4A-ZN	FDM4R17-6MJX-6MJX	1/4"	M St.	M St	31	2	Hardline Hinge Hose
FDM 600039-14-ZN	FDM6R17-6FJX-6FJX	3/8"	F St.	F St.	112	1	Tilt Cylinder Right
FDM 600039-12-ZN	FDM6R17-6FJX-6FJX	3/8"	F St.	F St.	118	1	Tilt Cylinder Left
FDM P605	FDM P605					203	Breakaway Wing Cylinder
FDM 600039-5A-ZN	FDM4R17-6MJX-4FJX	1/4"	M St.	F St.	24	2	Hardline To Cylinder Feed Butt
FDM 600039-21A-ZN	FDM4R17-6MJX-4FJX	1/4"	M St.	F St.	26	2	Hardline To Cylinder Feed Butt
FDM 600039-6A-ZN	FDM4R17-6MJX-4FJX	1/4"	M St.	F St.	32	4	Hardline To Cylinder Feed Rod
FDM 600039-15-ZN	FDM8R17-8FJX-8MBO	1/2"	F St.	#8 O-Ring	340	1	Block Feed
FDM 600039-16-ZN	FDM8R17-8FJXZ-8MBOZ	1/2"	F St.	#8 O-Ring	350	1	Block Return
FDM 600039-17-ZN	FDM8R17-8MBO-10MBX90	1/2"	#8 O-Ring	#10 O-Ring	200	1	PC Valve Feed
FDM 600039-18-ZN	FDM10R17-8MBO-10FJXF	5/8"	#8 O-Ring	F St.	216	1	Pump Return
FDM 600040-20B-ZN	FDM8R17-8FJX90MZ-10MBOZ	1/2"	F 90	#10 O-Ring	25	1	PC To Pump







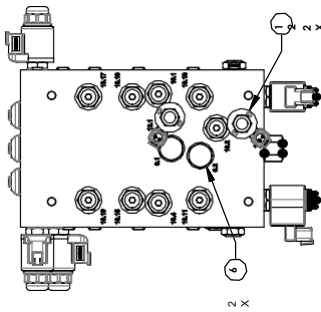
## TRAILER MANIFOLD CONNECTIONS - ISO YAW 631943



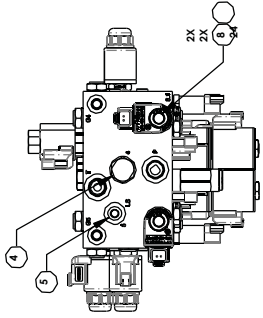
# 973P Truss Boom 120/132'



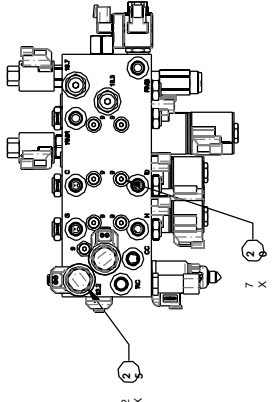
## YAW BLOCK PARTS



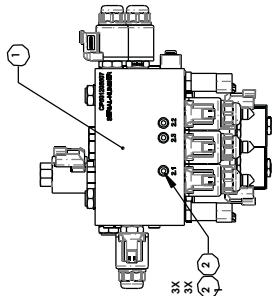
2 X



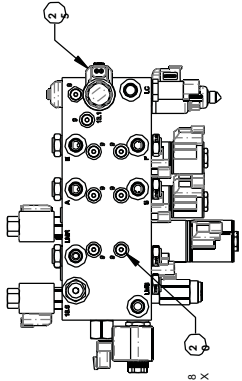
2 X



2 X

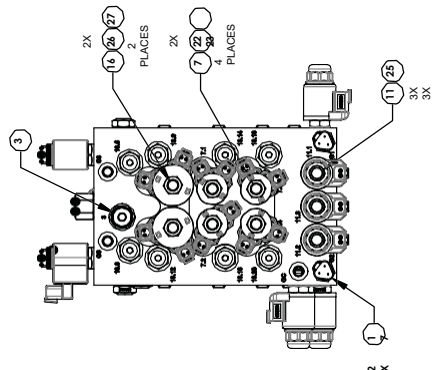


3 X



8 X

ITEM	QTY	PART NUMBER	DESCRIPTION	SPECIAL NOTE
27	2	334-002-10	SPACER, COIL, ER-1012	
28	4	334-002-17	COIL, 12VDC, ER, DEUTSCH, DT 042P-71012	
29	8	334-002-18	COIL, 12VDC, DM-40, DEUTSCH, DT 042P CONNECTOR-8	TORQUE TO 4 FT LBS
34	2	334-002-190	COIL, 12VDC, M13, DEUTSCH, DT 042P-8	TORQUE TO 4 FT LBS
32	4	334-002-193	SPACER, COIL, ER-8	
22	8	334-002-123	COIL, 12VDC, ER, DEUTSCH, DT 042P-8	
21	3	333-012-262	FITTING, PLUG, ORING, 2	TORQUE TO 11-14 FT LBS
20	15	333-012-251	FITTING, PLUG, ORING, 4	TORQUE TO 11-14 FT LBS
17	2	423-009-096	HANDLING PRESSURE, 2000 PSI	TORQUE TO 15-22 FT LBS
16	2	334-002-192	SPACER, COIL, ER-8	TORQUE TO 15-22 FT LBS
13	3	334-002-107	CARTRIDGE, HYDRAULIC, PROPORTIONAL, DIRECTIONAL, 4-WAY, 3 POSITION, MOTOR SPOOL	TORQUE TO 15-22 FT LBS
12	2	334-002-191	CARTRIDGE, HYDRAULIC, PROPORTIONAL, RELIEF, 2-WAY, NORMALLY CLOSED	TORQUE TO 15-22 FT LBS
11	3	334-002-106	CARTRIDGE, HYDRAULIC, PROPORTIONAL, REDUCING/RELIEF, 8	TORQUE TO 15-22 FT LBS
8	2	334-002-176	CARTRIDGE, HYDRAULIC, DAMPENER, 2-WAY, NORMALLY OPEN/WAIT	TORQUE TO 24-30 FT LBS
7	4	334-002-148	SPACER, COIL, ER-8	TORQUE TO 11-20 FT LBS
6	2	334-002-104	CARTRIDGE, HYDRAULIC, CHECK/WISGREEN, 10	TORQUE TO 24-28 FT LBS
5	1	333-012-302	FITTING, HYDRAULIC, ORANGE, 1/8BW/1/4-20 THREAD	TORQUE TO 24-28 FT LBS
4	1	334-002-105	CARTRIDGE, HYDRAULIC, DIRECTIONAL, 2-WAY, 2 POSITION	TORQUE TO 24-28 FT LBS
3	1	334-002-178	CARTRIDGE, HYDRAULIC, RELIEF, DIRECT ACTING 2-11-10	TORQUE TO 24-28 FT LBS
2	3	333-012-284	FITTING, HYDRAULIC, ORFICE, 1/8BW/1/4-20 THREAD	
1	1	334-002-175	MANIFOLD, HYDRAULIC, FAST BOOM CONTROLS	



2 X

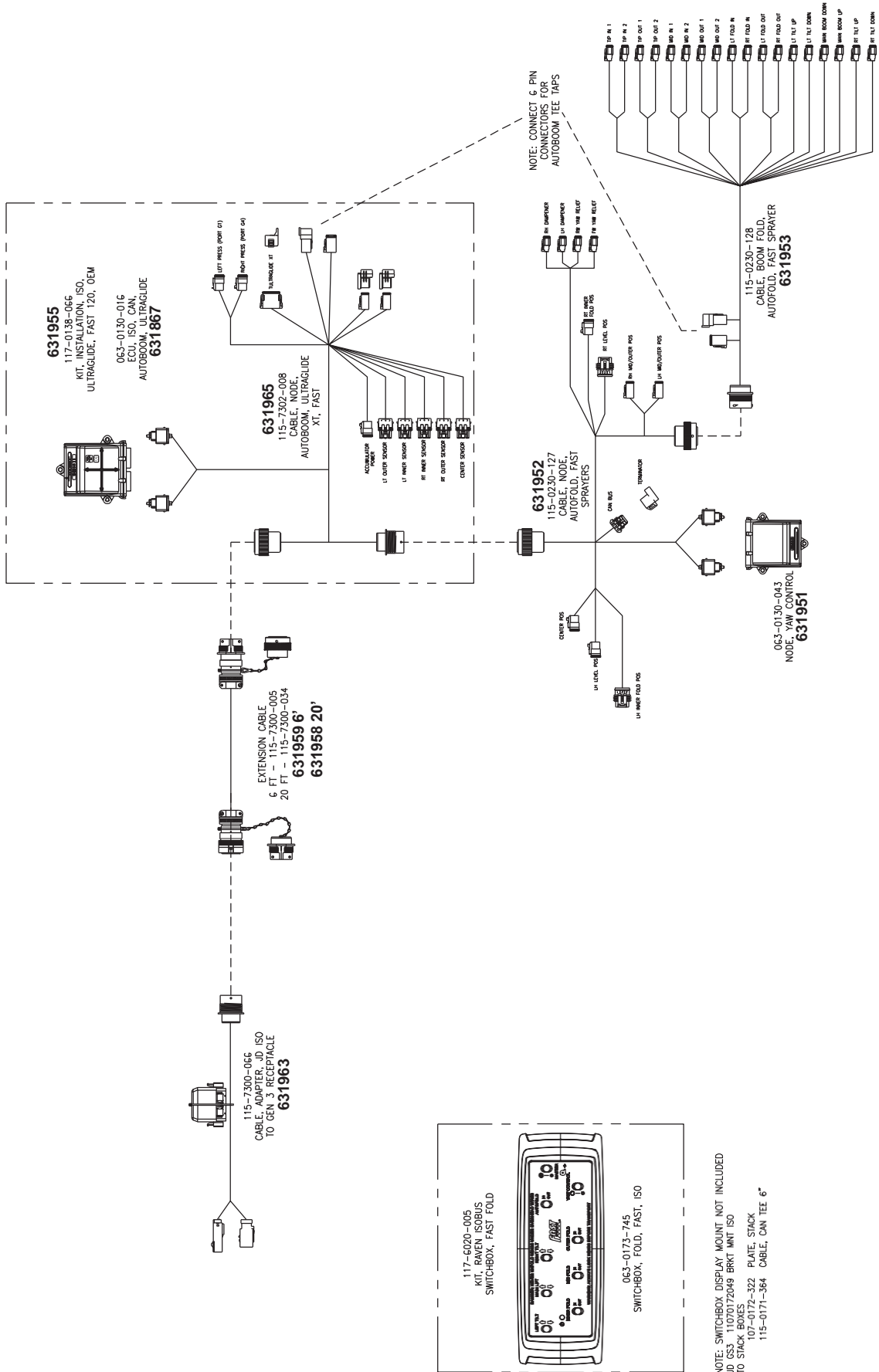




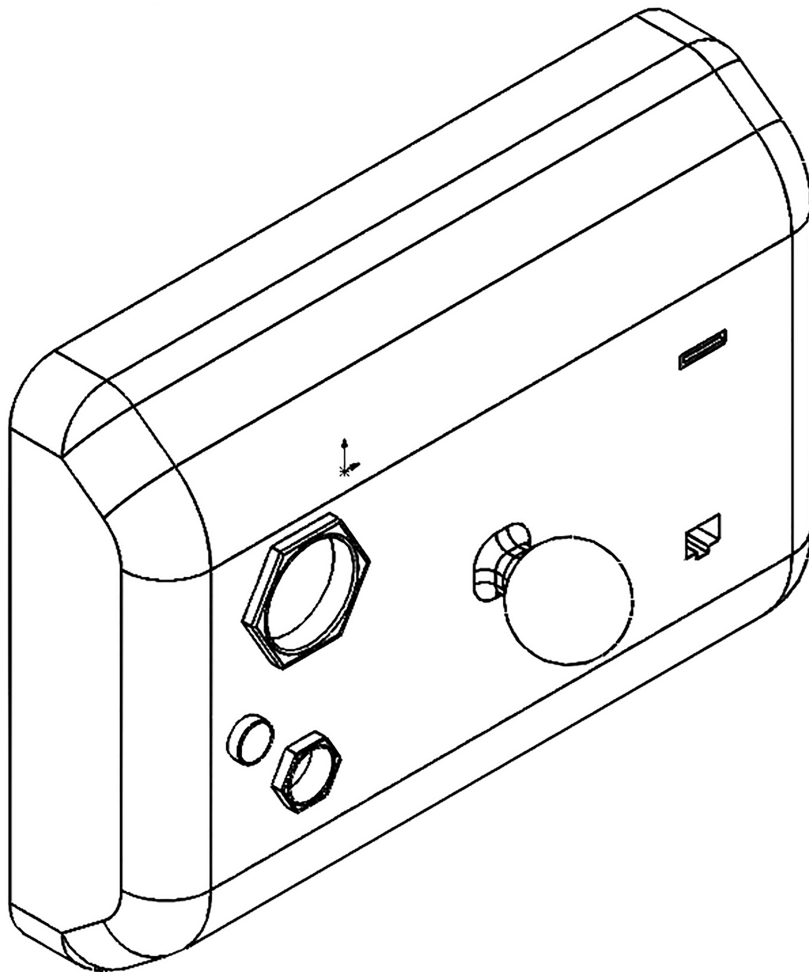
# 973P Truss Boom 120/132'



## ISO AUTOYAW / FOLD, AUTOBOOM, AND JD RATE CONTROL



RAVEN CR7

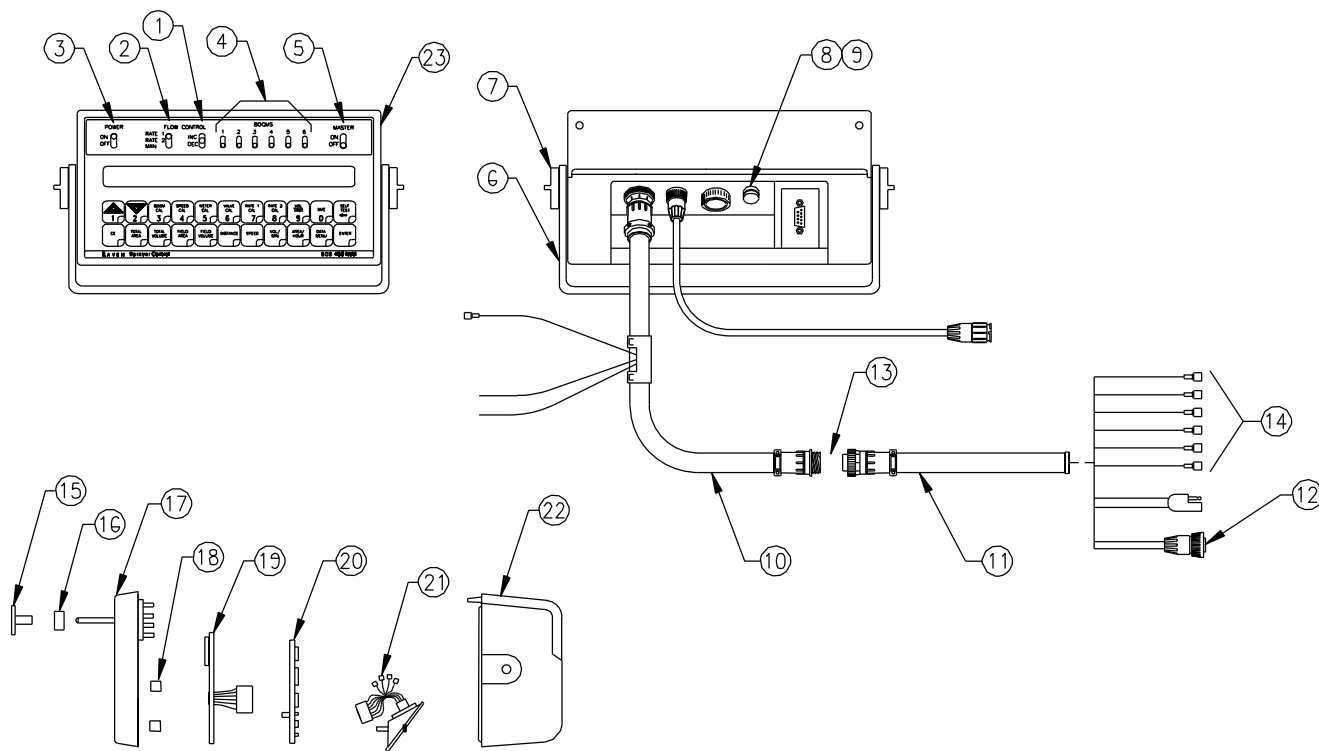


Item	Fast Part #	Description	Qty	
		<b>Raven CR7 ISO Display with Harness (Non-Deere ISO Controller)</b>		
1	632063	Raven Precision CR7 Display	1	
2	632065	Cable, Can/Power OEM ISO	1	
3	632066	Cable, CR7 ISO VT Only	1	
		<b>Raven CR7 ISO Display with Complete ISO Harness (Non-ISO Tractor)</b>		
1	632063	Raven Precision CR7 Display	1	
2	632064	Cable, Raven ISO/Power	1	
3	632066	Cable, CR7 ISO VT Only	1	
		<b>Raven CR7 ISO Display with Deere Harness (Deere ISO Tractor)</b>		
1	632063	Raven Precision CR7 Display	1	
2	632066	Cable, CR7 ISO VT Only	1	
3	632067	Cable, Display Port, Y Adapter	1	

# 973P Truss Boom 120/132'



## RAVEN SCS450 CONSOLE

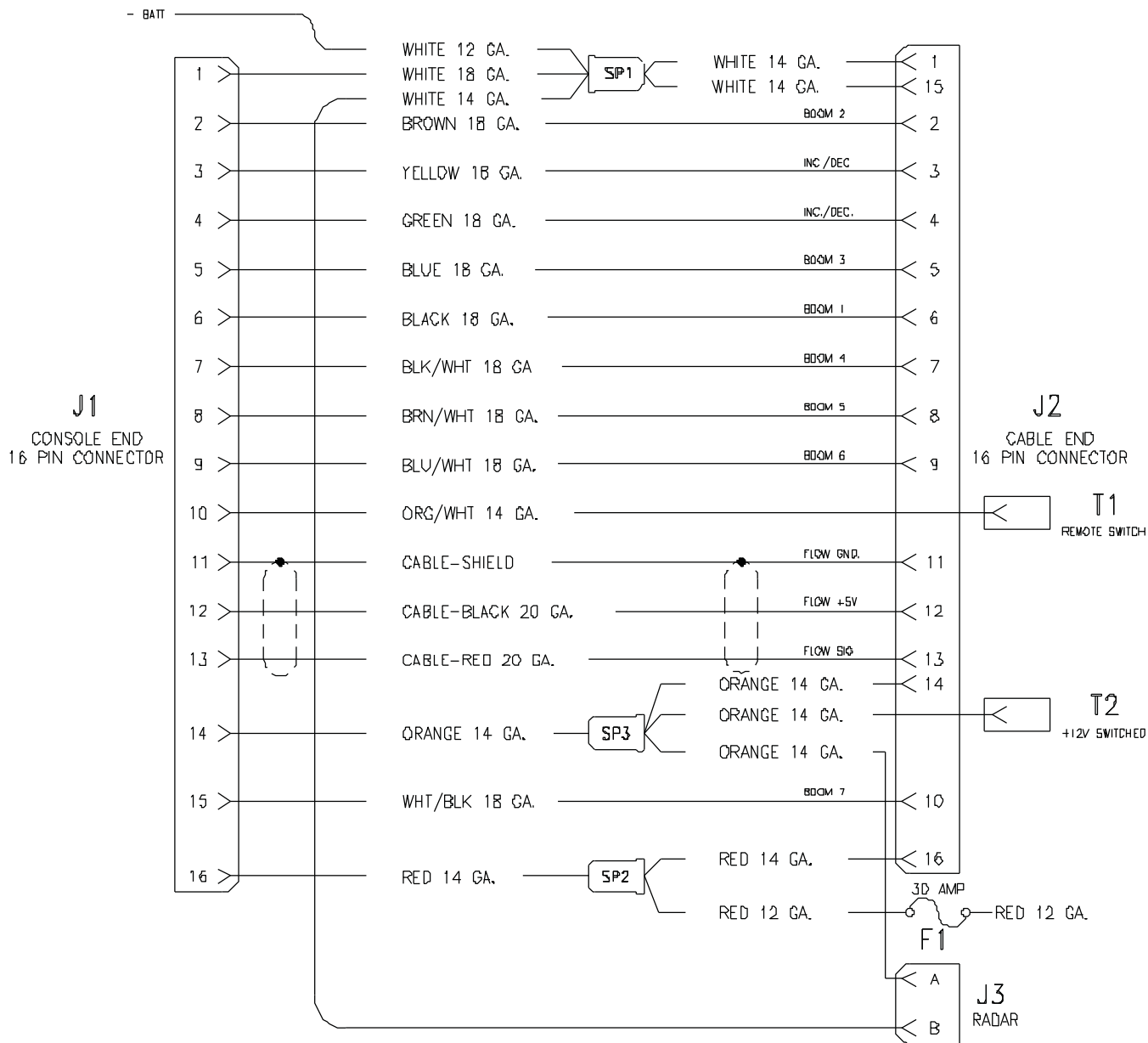


ITEM	DESCRIPTION	RAVEN PART #
1	Manual Adj. Switch	412-2011-049
2	Rate1/Rate2/Manual Switch	019-0159-078
3	Power Switch	412-2011-048
4	Boom Switch	412-2003-010
5	Master Switch	412-2011-046
6	Mounting Bracket	106-0159-437
7	Mounting Knob	106-0159-438
8	Fuse Holder	510-2001-018
9	Fuse, 15 Amp.	510-1003-003
10	Console Control Cable (10 ft.)	115-0159-492
	Console Control Cable (3 ft.)	115-0159-707
11	Flow Control Cable (6 ft.)	115-0159-495
	Flow Control Cable (12 ft.)	115-0159-496
	Flow Control Cable (24 ft.)	115-0159-708
12	Flow Meter Cable Ext. (6 ft.)	115-0159-016
	Flow Meter Cable Ext. (12 ft.)	115-0159-017
13	Flow Ext. Cable (12 ft.)	115-0159-493
	Flow Ext. Cable (24 ft.)	115-0159-494
14	Assorted Terminal Kit	117-0159-402
15	Switch Cover	063-0159-734
16	1-Set Filler Spacers	117-0159-421
17	Face Plate Assembly	063-0172-024
18	Display Board Spacer	107-0159-478
19	LCD Display Board	063-0171-961
20	Processor Board (Serial Interface)	064-0159-745
21	Connector Plate Assembly (Serial Interface)	063-0172-022
22	Back Assembly	063-0159-530
23	SCS 450 Console (Serial Interface)	063-0171-220



# 973P Truss Boom 120/132'

## CONTROL CONSOLE HARNESS - 115-0171-085

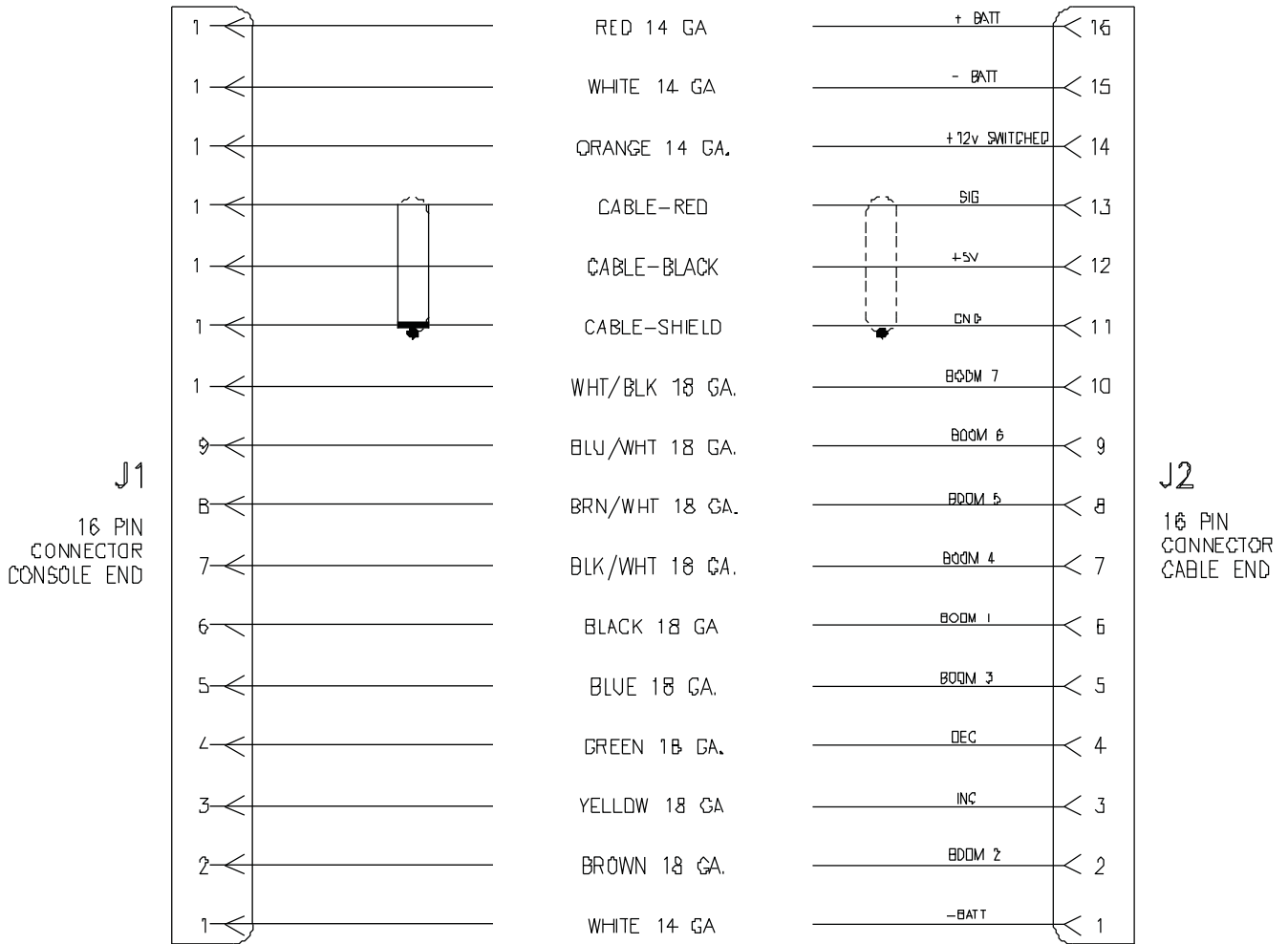


# 973P Truss Boom 120/132'



**HARNESS EXTENSION - 115-0159-856 12'**

**HARNESS EXTENSION - 115-0159-857 24'**

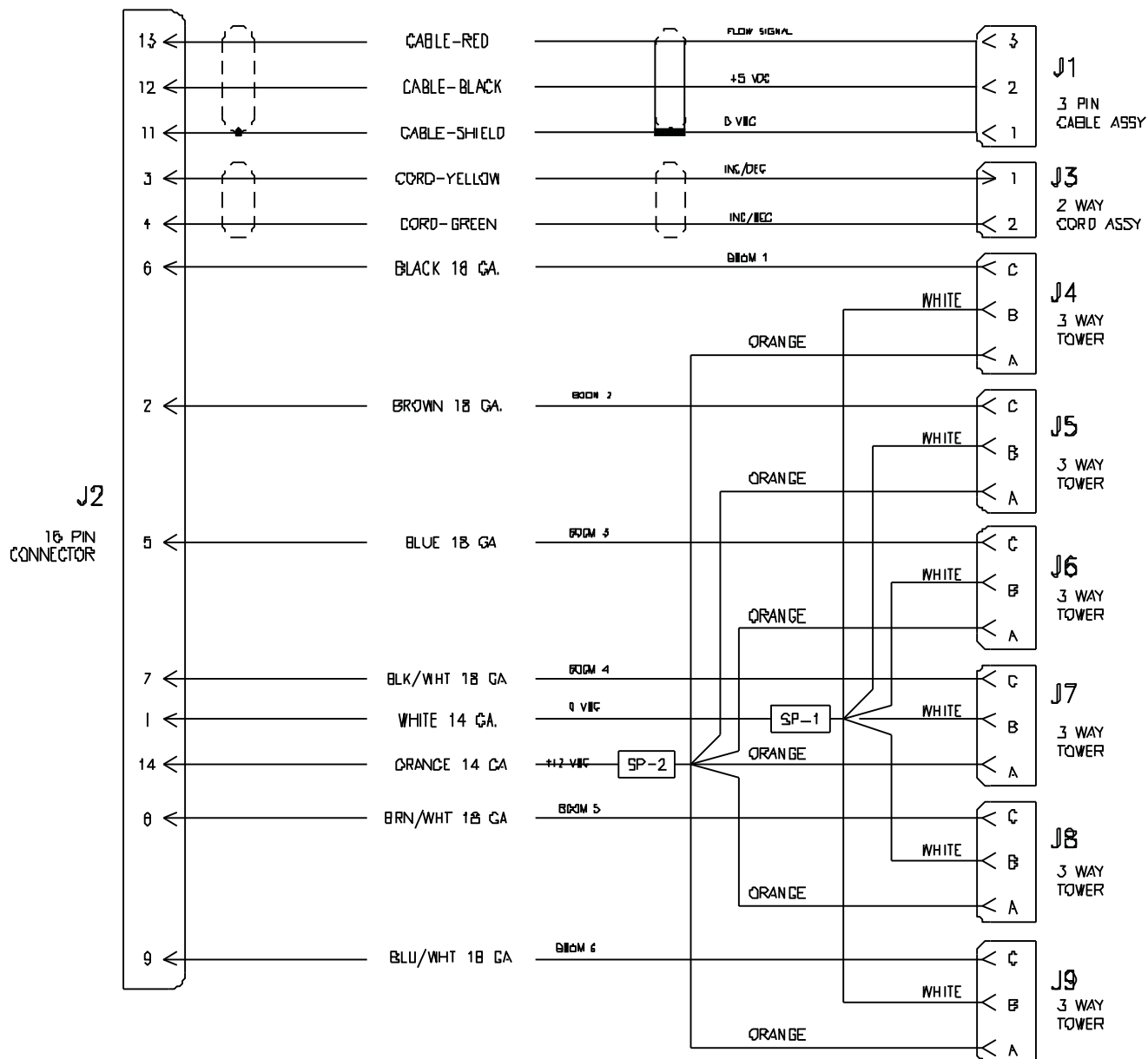




# 973P Truss Boom 120/132'

CONTROL HARNESS - 115-0171-086 6'

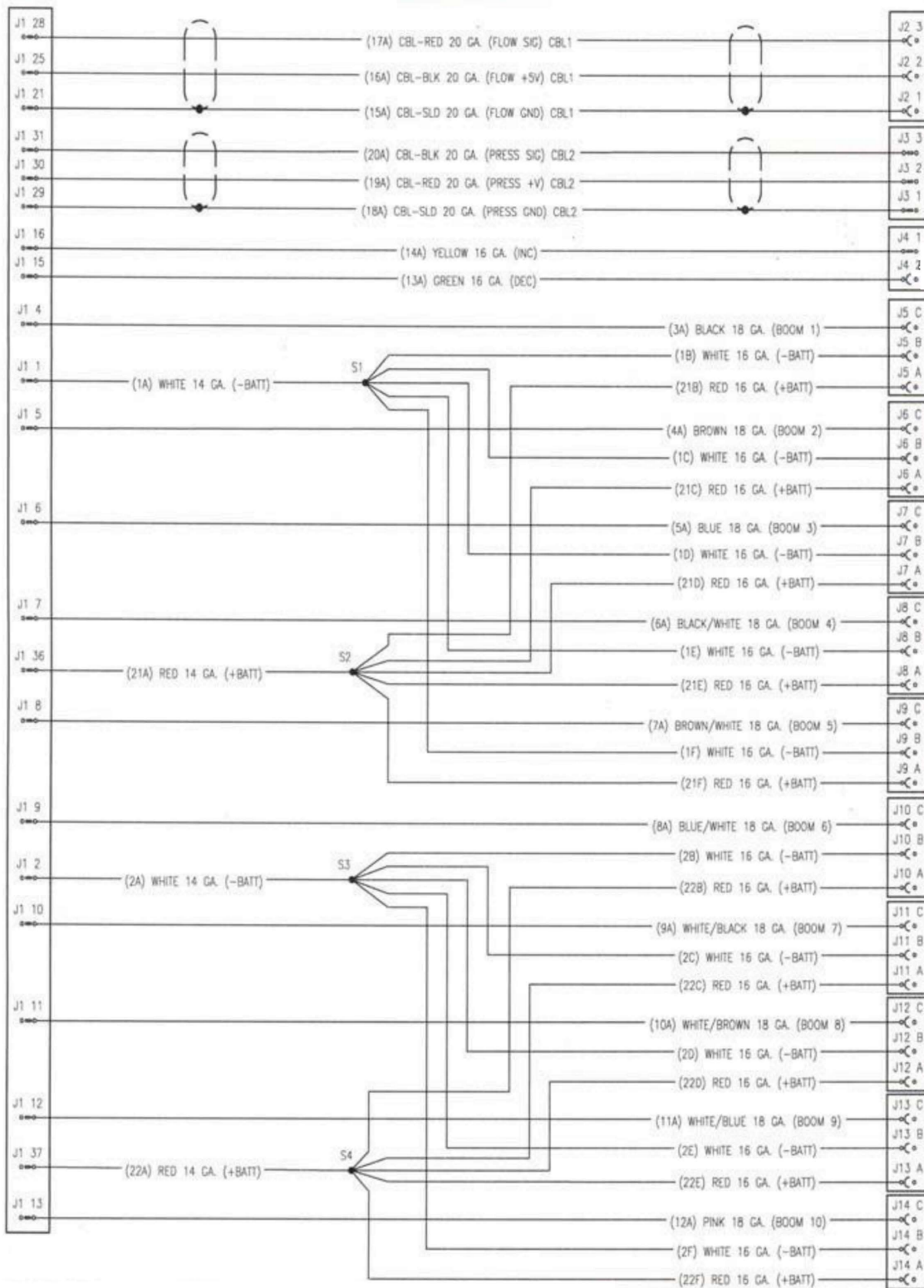
CONTROL HARNESS - 115-0171-129 12'



# 973P Truss Boom 120/132'



## CABLE 10 Boom, 115-0171-314, 24'

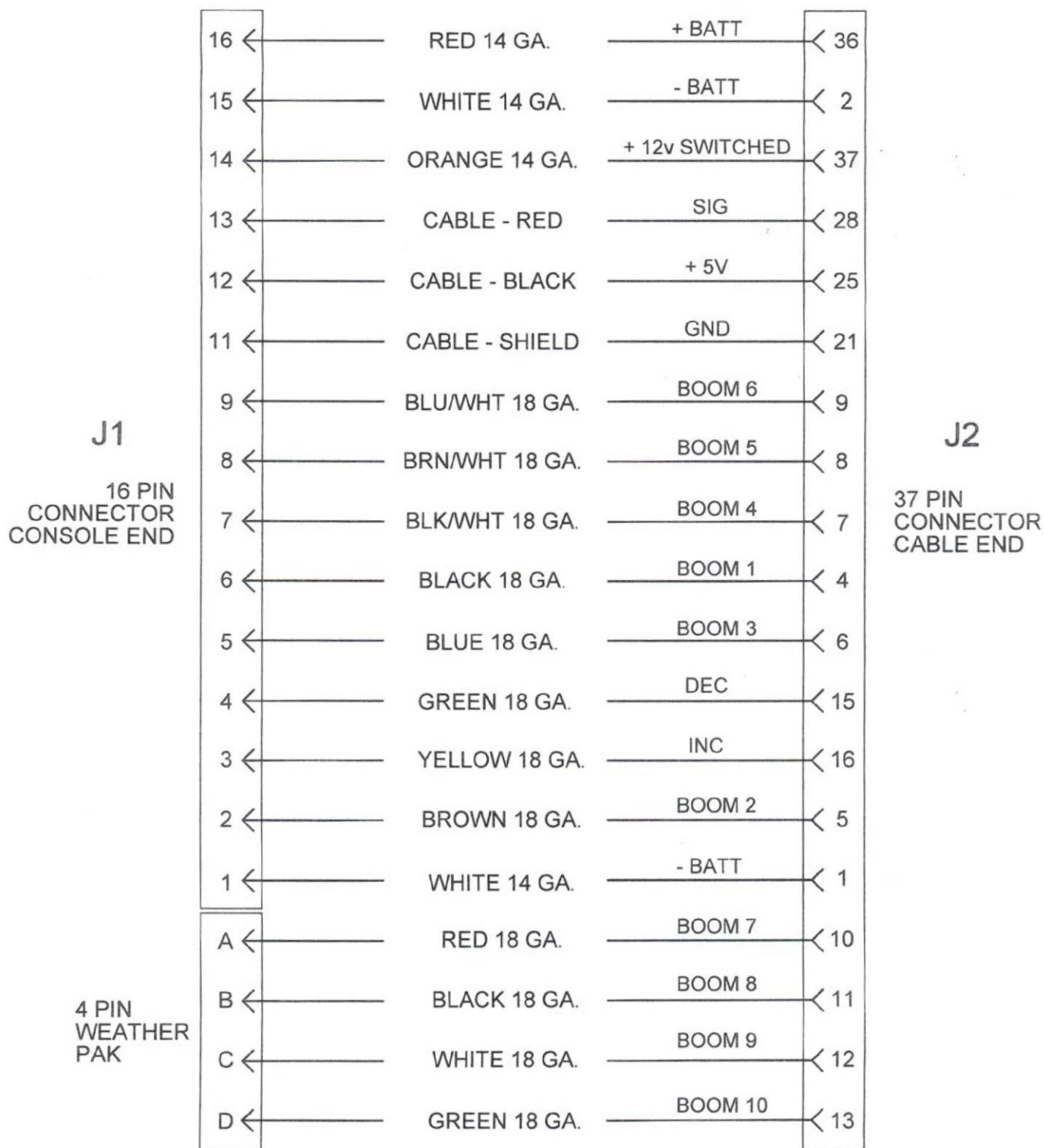




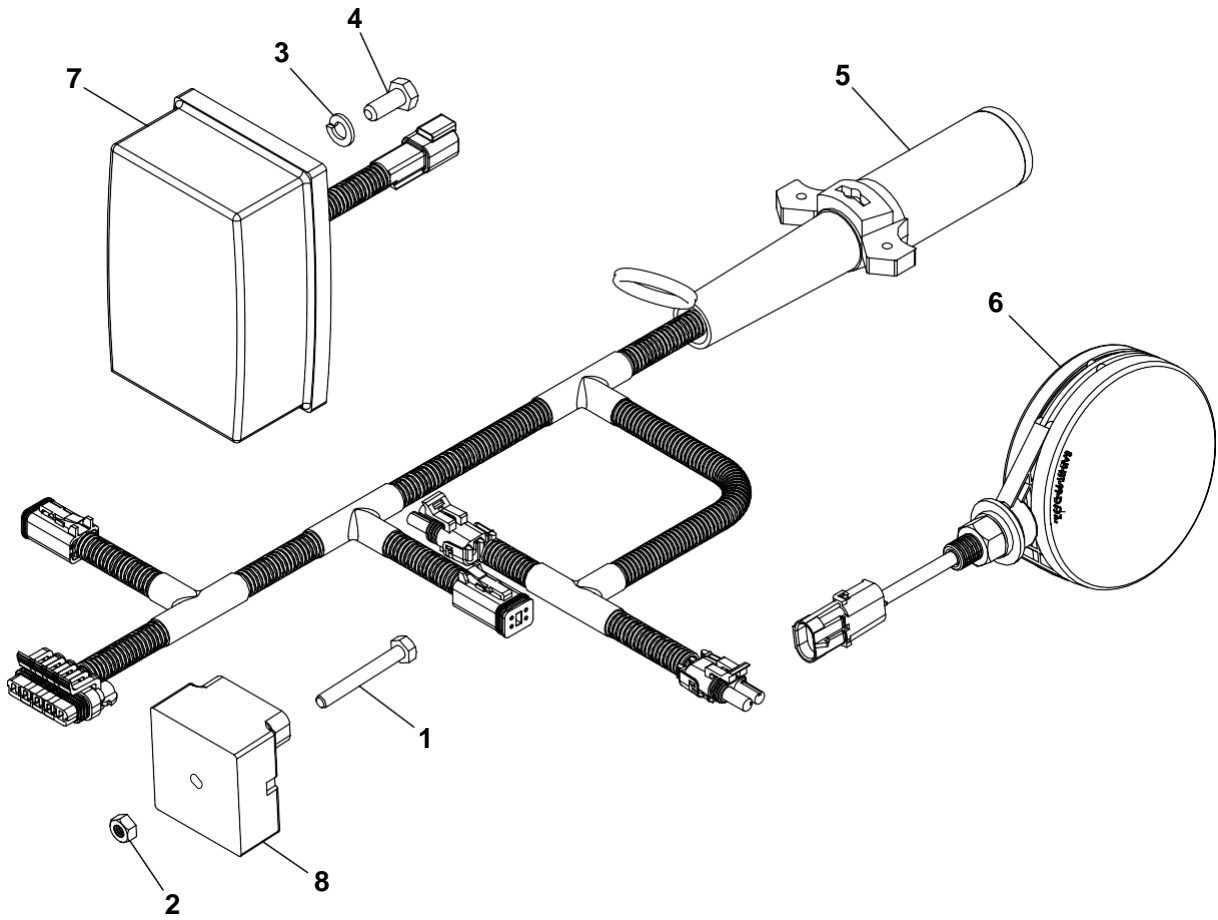


# 973P Truss Boom 120/132'

## CABLE, ADAPTER 6 BOOM TO 10 BOOM, 631889



## LIGHTING



Item	Vendor Part #	Fast Part #	Description	Qty.
1		104	Bolt, 1/4 X 2" GR5 Zp	1
2		235	Nut, Centerlock, 1/4" Zp	1
3		249	Washer, Lock, 5/16" Zp	4
4		590229	Bolt, 8 X 20 mm 8.8 Zp	4
5		740035	Safety Light Wiring Harness	1
6		740024	Amber Warning Light	2
7		740025	Red Tail Light	2
8		740031	Light Module	1
9				

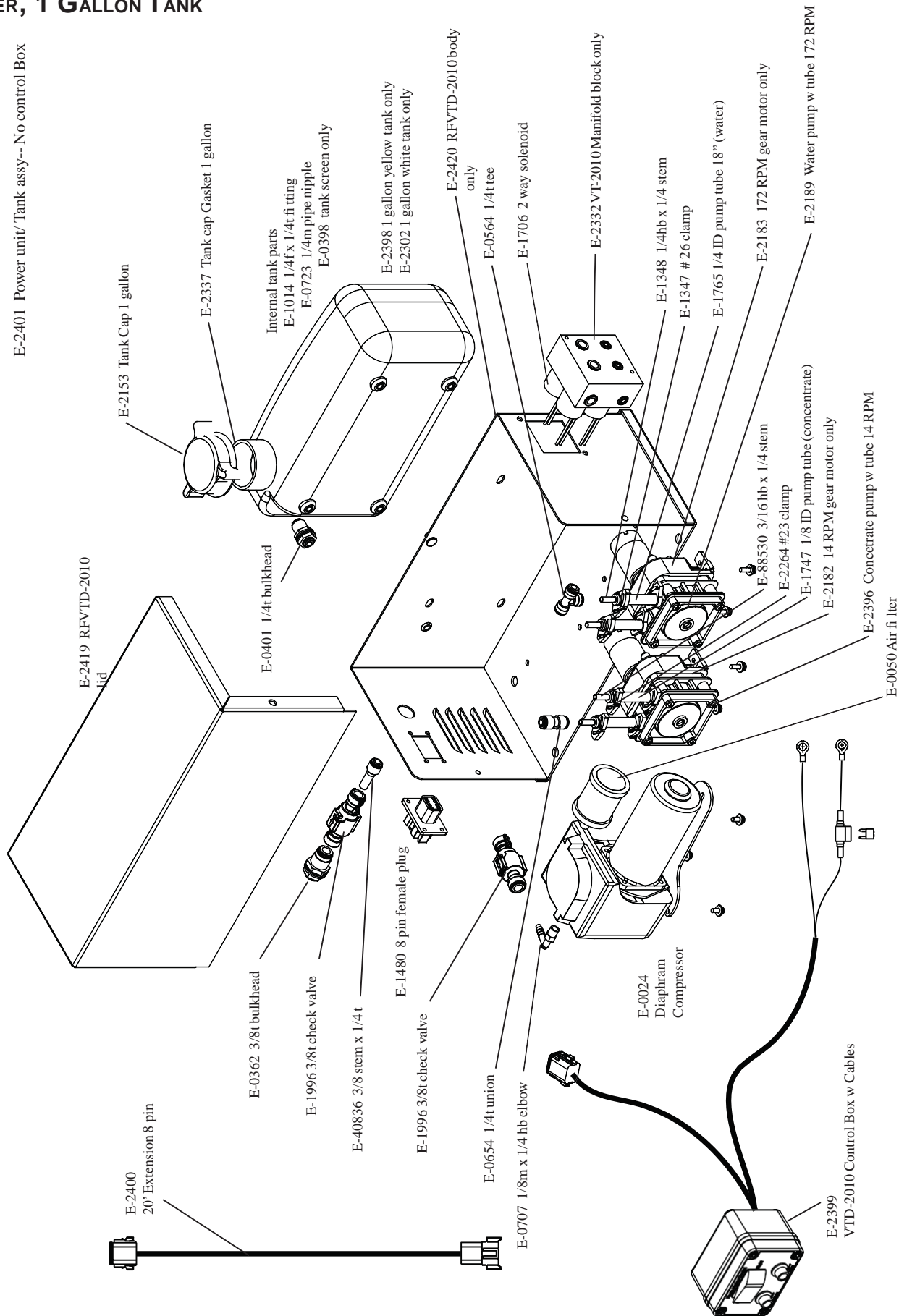




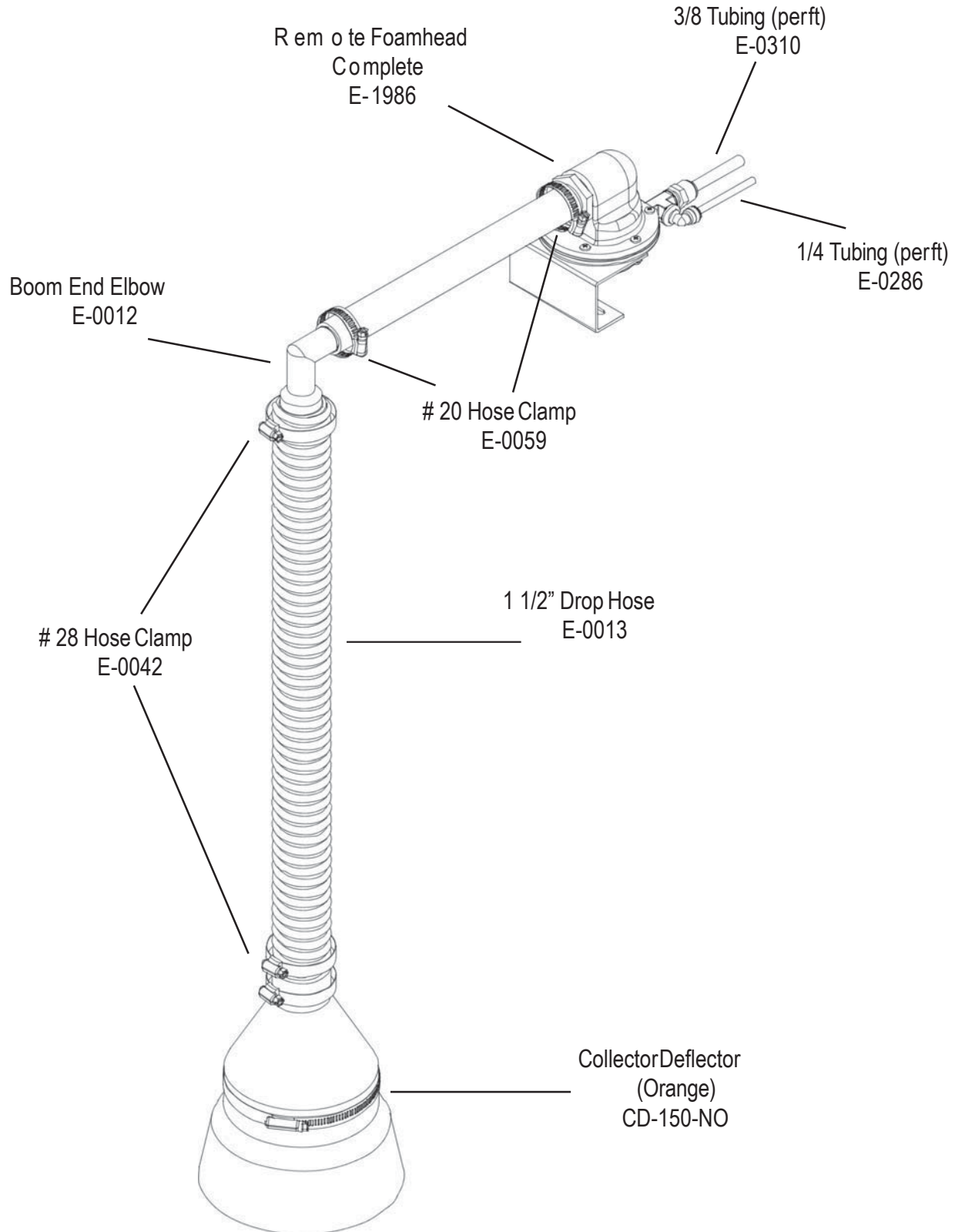
# 973P Truss Boom 120/132'

## FOAMER, 1 GALLON TANK

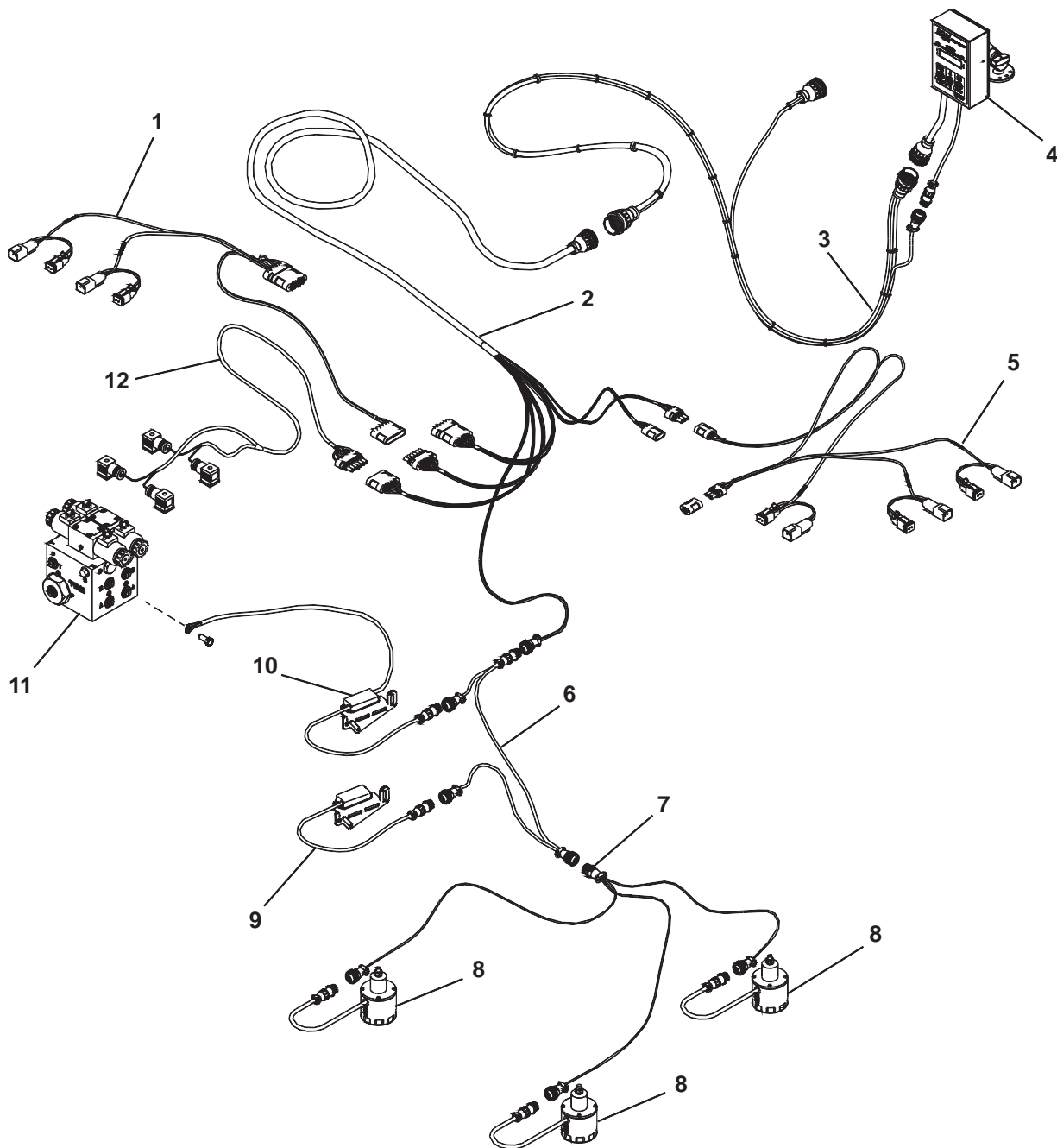
E-2401 Power unit/Tank assy-- No control Box



# 973P Truss Boom 120/132'

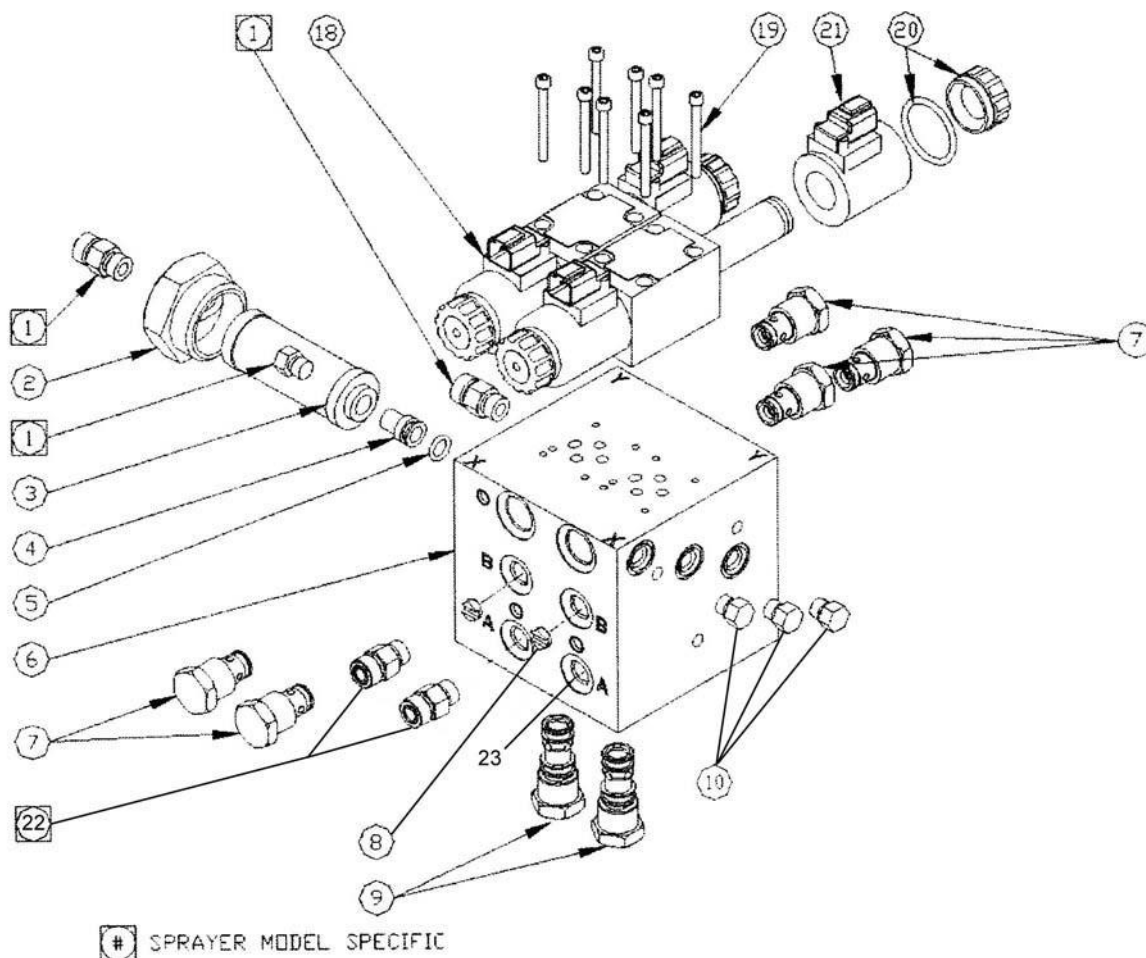


## NORAC AUTO HEIGHT BOOM CONTROL UC4+





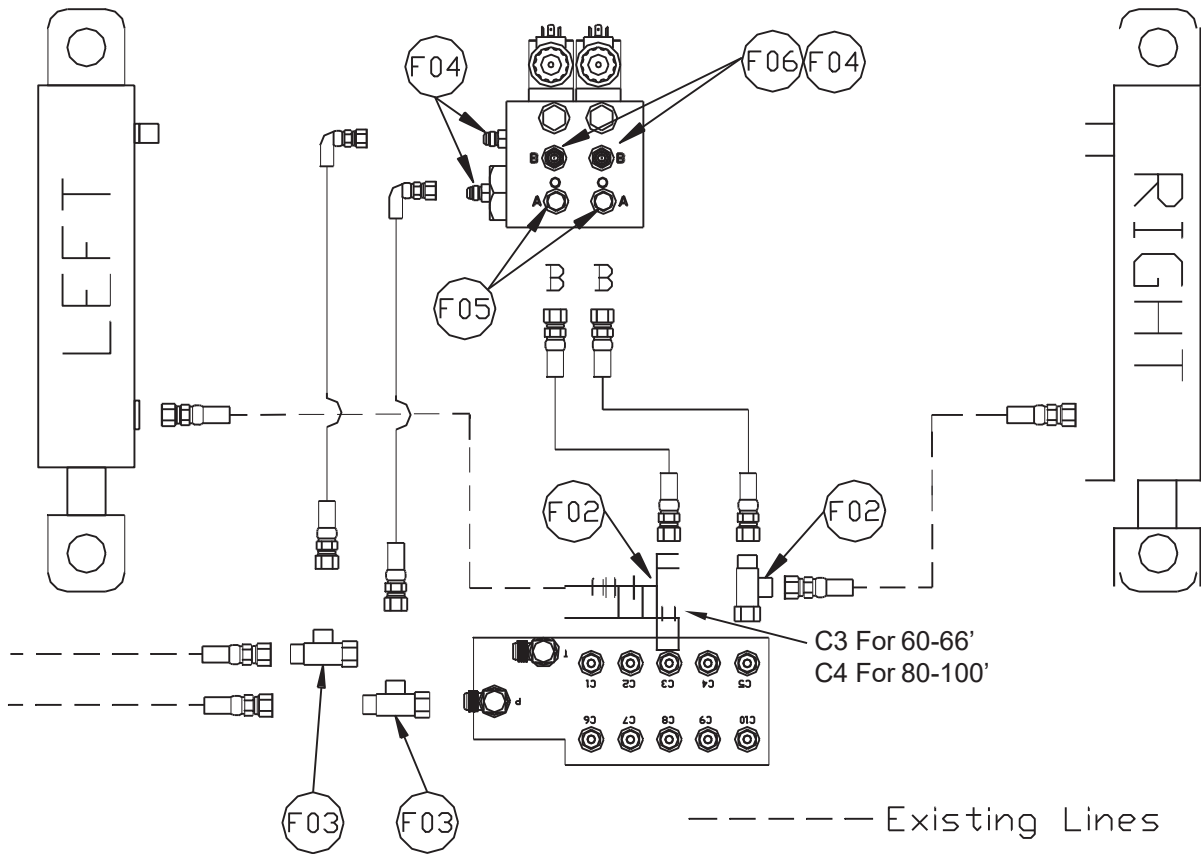
## NORAC HYDRAULIC VALVE BLOCK



Item	Vendor Part #	Fast Part #	Description	Qty.	60 Ft.	80-90 Ft.	100 Ft.
1	W400-6-6		Hydraulic Coupling - Model Specific	2			
2	44897		Filler cap With 60RB Port	1			
3	104827		Hydraulic Filter Element, 3000 PSI in-line 10 Micron	1			
4	44896		Filter Insert	1			
5	104998		O-Ring 5/8 X 0.420 ID X 0.103	1			
6	44923		Valve Block2 Station Closed center	1			
7	104943		Hydraulic Check valve C-10-2	3			
8	44928		Orifice Insert 0.047	2			
9	104944		Check Valve Cartridge C-10-3S	2			
10	103381		Plug 4MBP	5			
18	105723		Hydraulic Valve 12V	1			
19	100739		Hex Socket Cap Screw 10-24 X 2"	8			
20	105948		Coil Nut & O-Ring For NORAC #10599 & 105723	4			
21	105926D		Coil 12V For NORAC #10599 & 105723	4			
21	105927		Coil 12V For NORAC DIN	4			
22	103312		Male Adapter 6MB-6MJ	2			
23	104369		Plug 6MBP	2			



## NORAC AUTO HEIGHT BOOM CONTROL HYDRAULIC SCHEMATIC UC4+ & UCS



Item	Part Number	Name	Quantity	Picture
F02	105588	TEE ADAPTER - 4FJXR4MJT	2	
F03	104632	TEE ADAPTER 8FJXR8MJT	2	
F04	103312	MALE ADAPTER - 6MB 6MJ	4	
F05	104369	PLUG - 6MBP	2	
F06	44928	ORIFICE INSERT .047 IN ONE WAY	2	

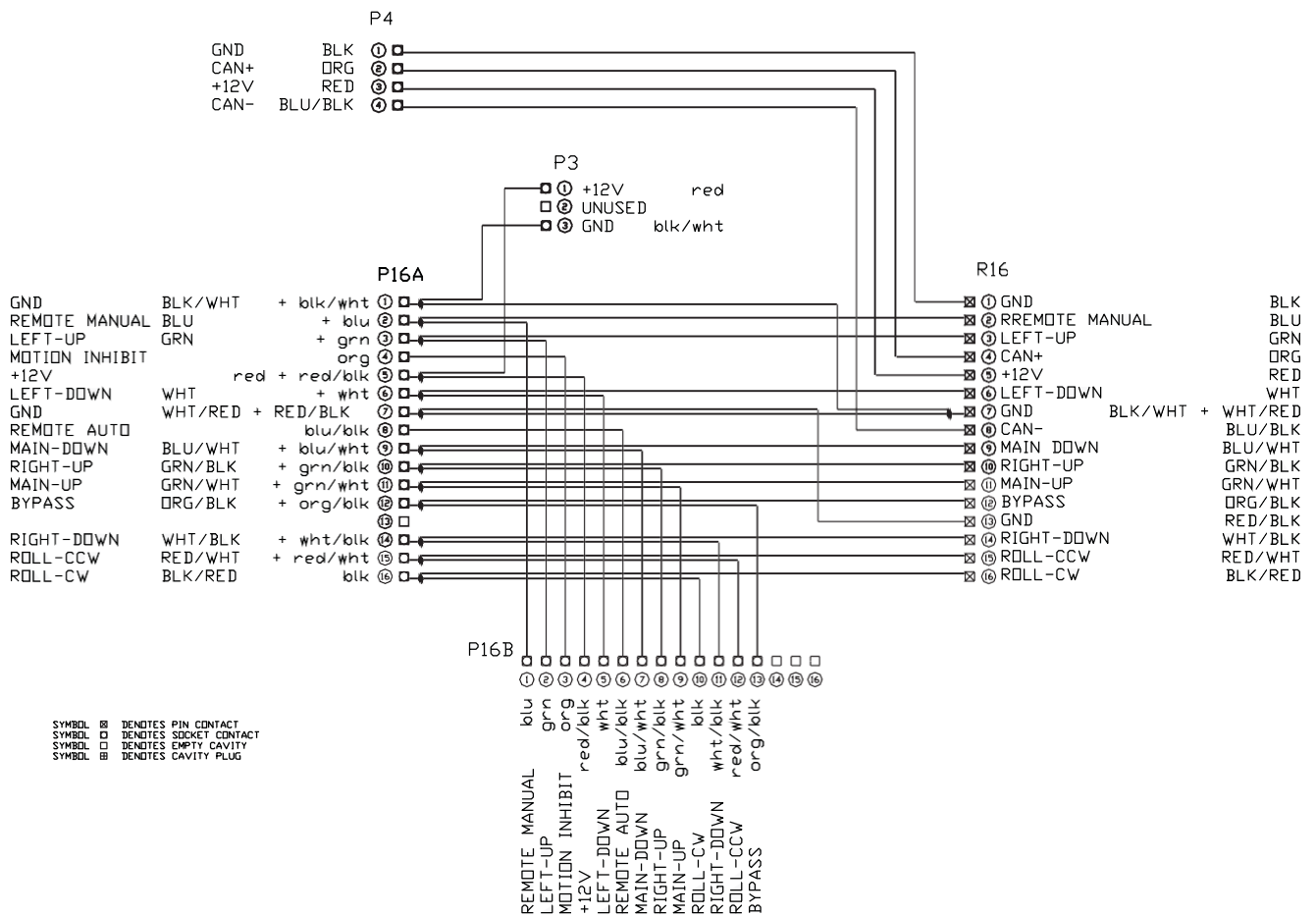
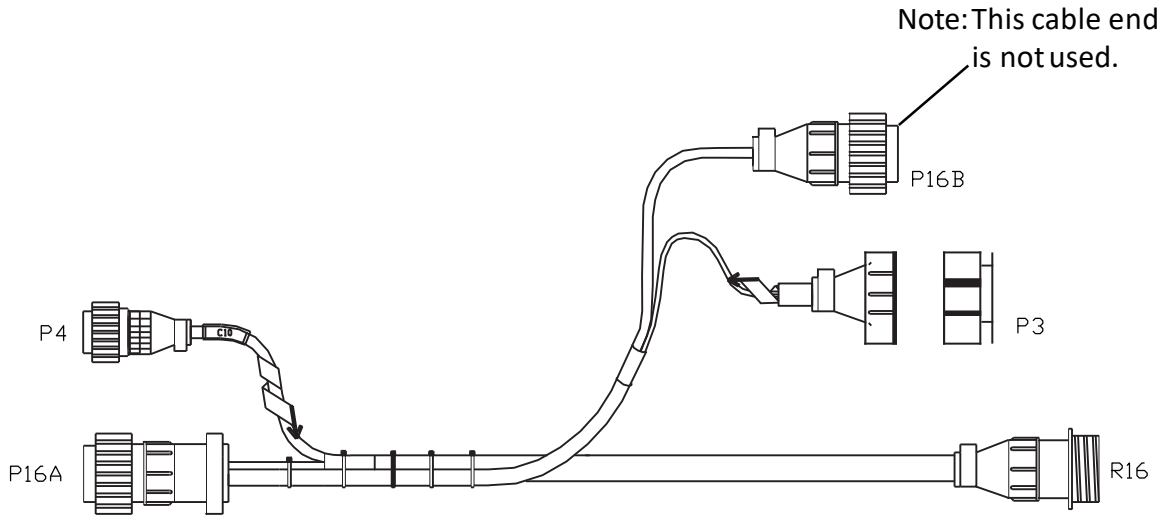


# 973P Truss Boom 120/132'



## NORAC AUTO HEIGHT BOOM CONTROL HARNESS

Note: This cable end is not used.

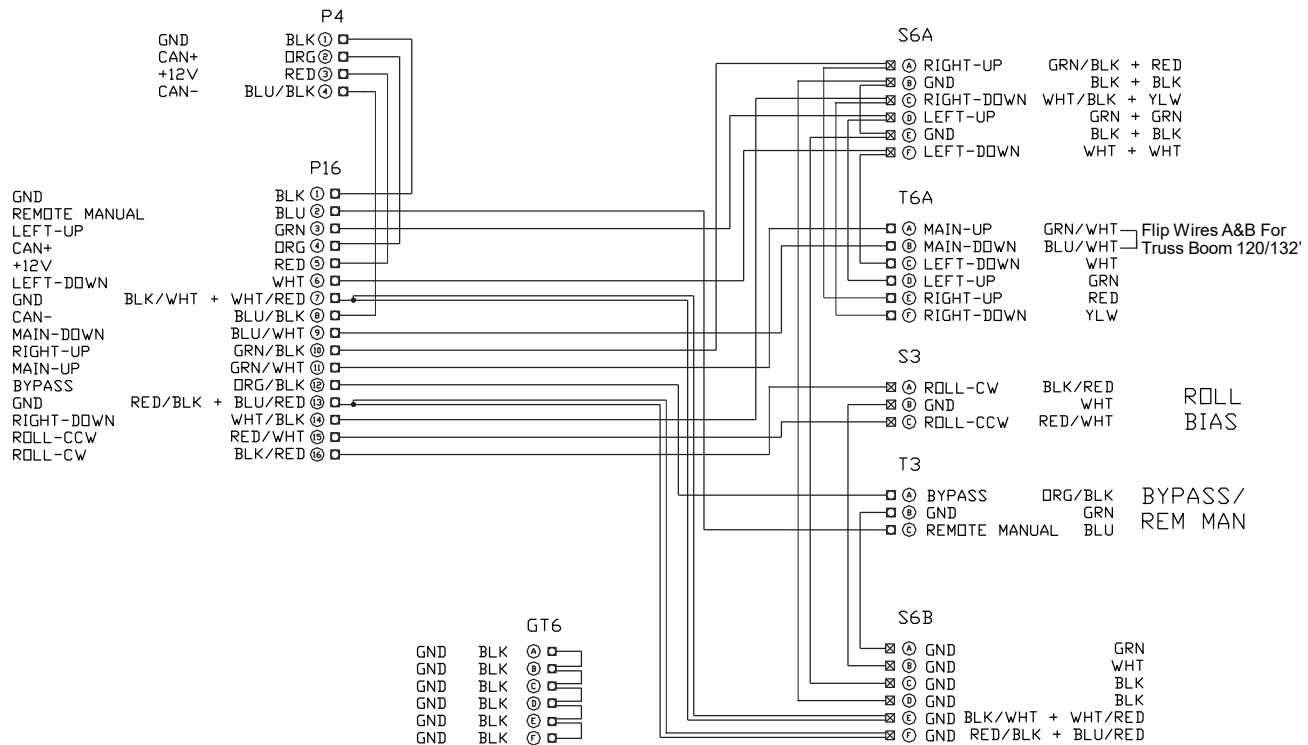
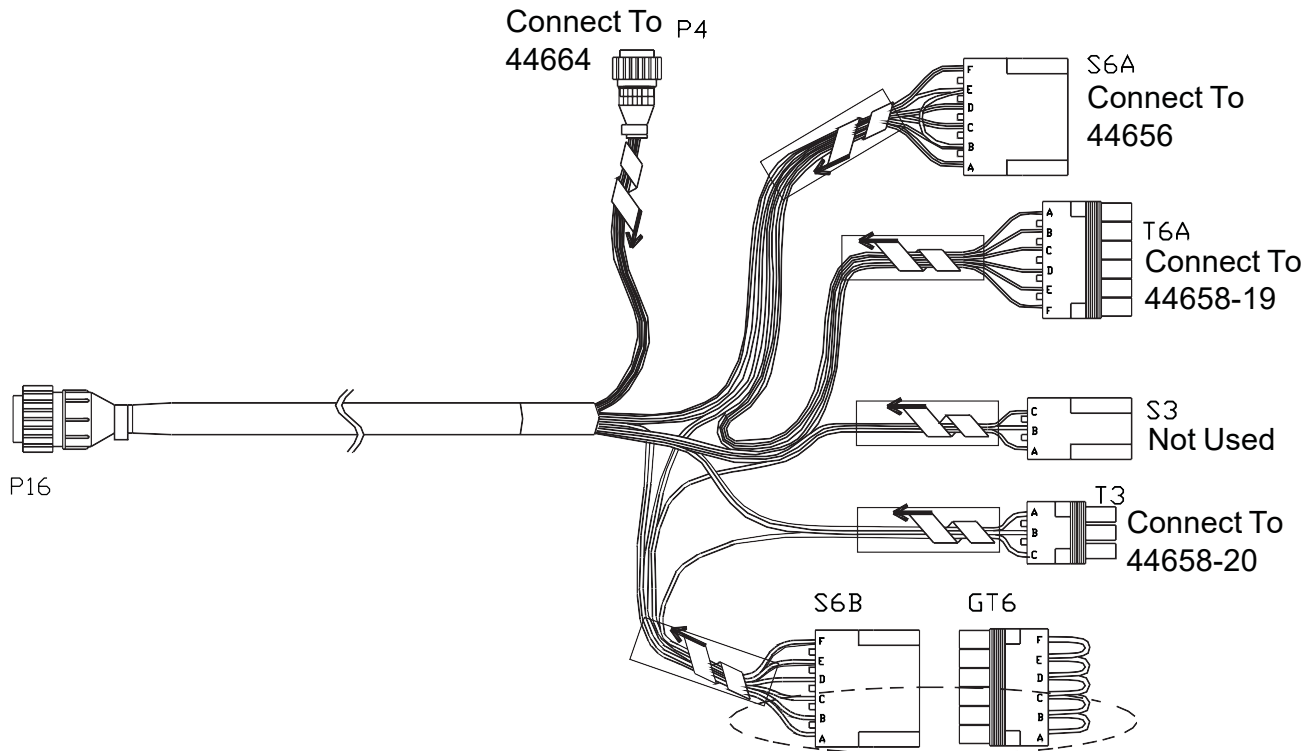


SYMBOL □ DENOTES PIN CONTACT  
 SYMBOL □ DENOTES SOCKET CONTACT  
 SYMBOL □ DENOTES EMPTY CAVITY  
 SYMBOL □ DENOTES CAVITY PLUG



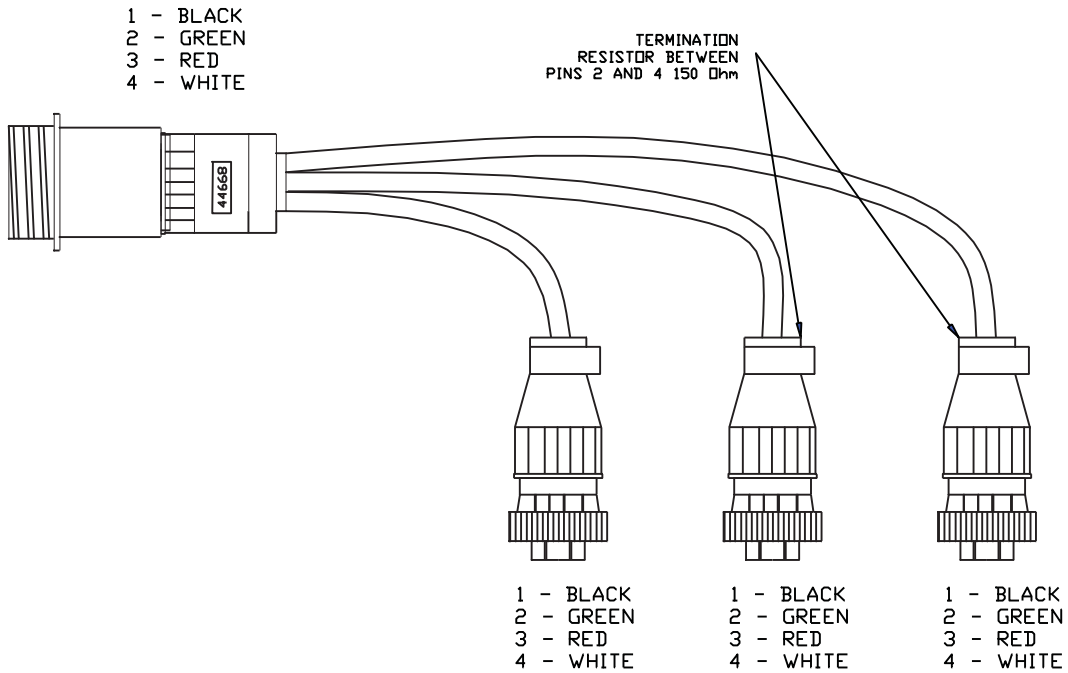
# 973P Truss Boom 120/132'

## NORAC AUTO HEIGHT BOOM CONTROL EXTENSION HARNESS - No. 4465103

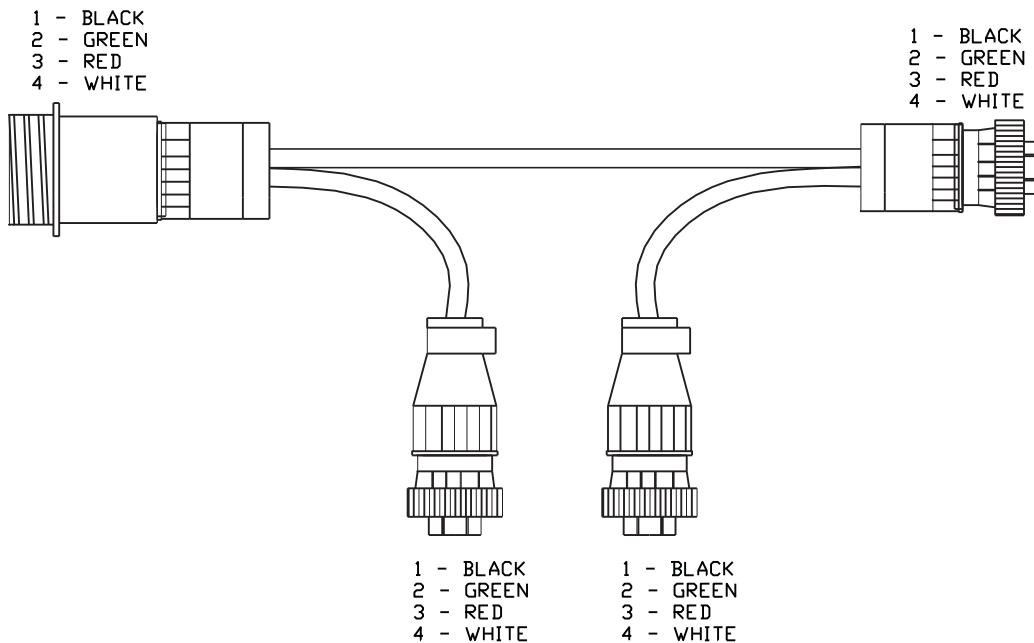


## NORAC AUTO HEIGHT BOOM CONTROL SENSOR CABLES

### ITEM C02: 44668 – SENSOR BRANCH CABLE



### ITEM C02B: 44664 – CABLE UC4 CAN NODE DUAL



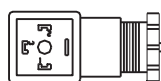
## NORAC AUTO HEIGHT BOOM CONTROL VALVE CABLE

### ITEM C03: 44656 – VALVE CABLE (VARIABLE RATE) DIN Terminal

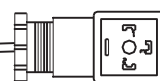
PIN	WIRE COLOR	FUNCTION
A	GREEN	RIGHT-UP
B	BLACK	GND
C	WHITE	RIGHT-DOWN
D	GREEN	LEFT-UP
E	BLACK	GND
F	WHITE	LEFT-DOWN



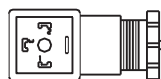
PIN	WIRE COLOR	FUNCTION
1	GREEN	LEFT-UP
2	BLACK	GROUND
3	NOT USED	NOT USED



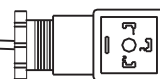
PIN	WIRE COLOR	FUNCTION
1	GREEN	RIGHT-UP
2	BLACK	GROUND
3	NOT USED	NOT USED



PIN	WIRE COLOR	FUNCTION
1	WHITE	LEFT-DOWN
2	BLACK	GROUND
3	NOT USED	NOT USED

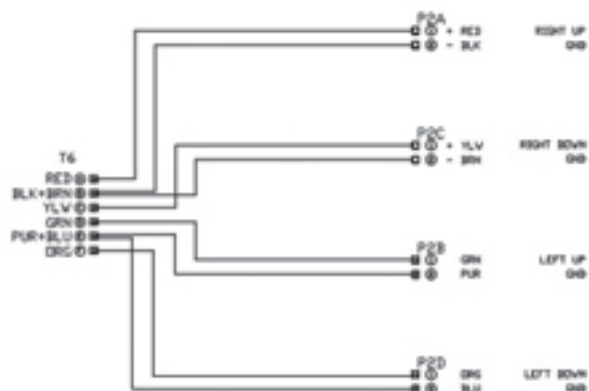


PIN	WIRE COLOR	FUNCTION
1	WHITE	RIGHT-DOWN
2	BLACK	GROUND
3	NOT USED	NOT USED



**44656D  
Duetsch  
Terminal**

RIGHT UP  
GROUND  
RIGHT DN  
LEFT UP  
GROUND  
LEFT DN

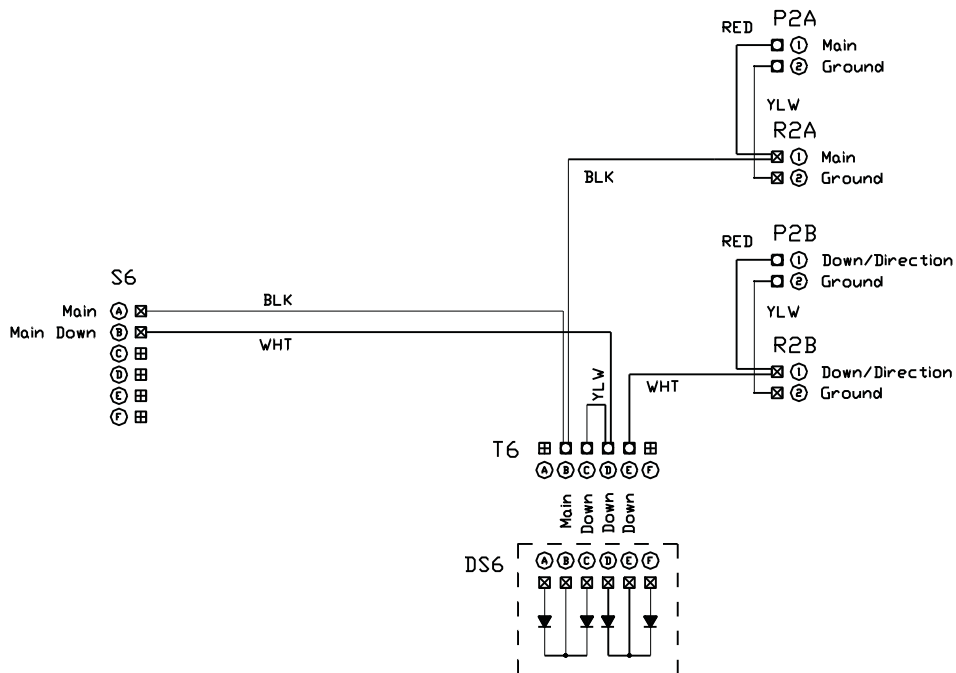
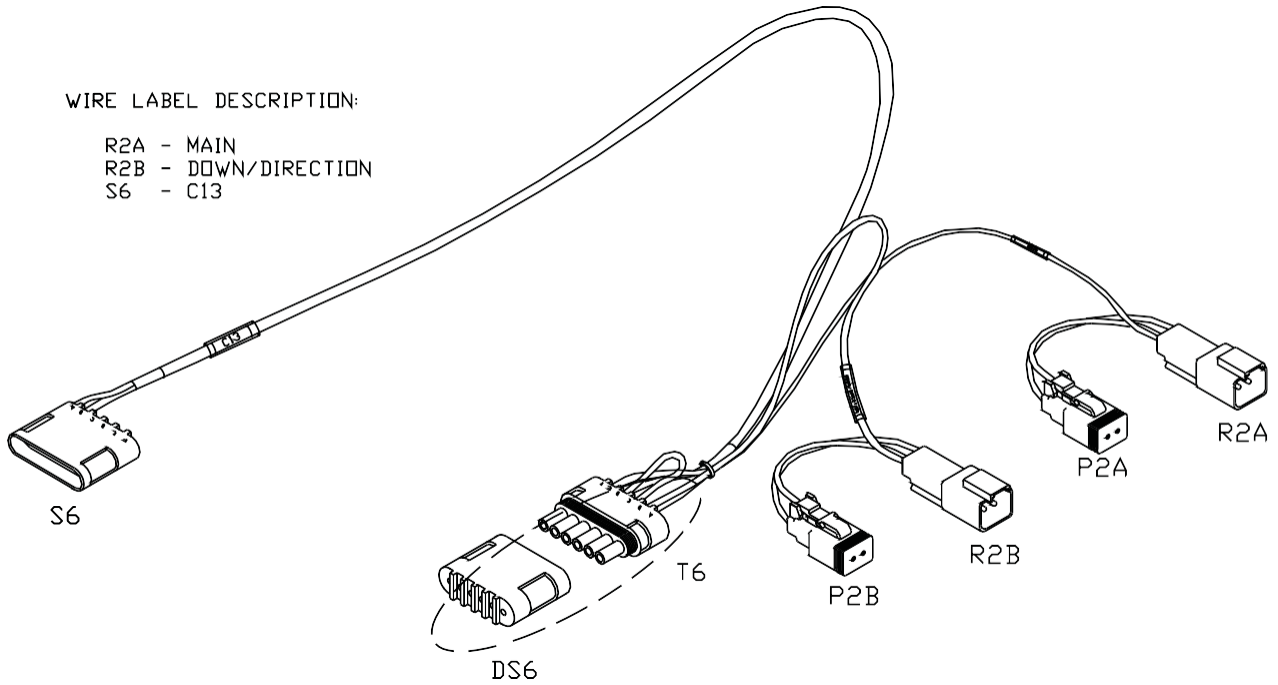


## NORAC AUTO HEIGHT BOOM CONTROL MAIN INTERFACE CABLE

ITEM C13: 44658-19 – MAIN INTERFACE CABLE

WIRE LABEL DESCRIPTION:

- R2A - MAIN
- R2B - DOWN/DIRECTION
- S6 - C13





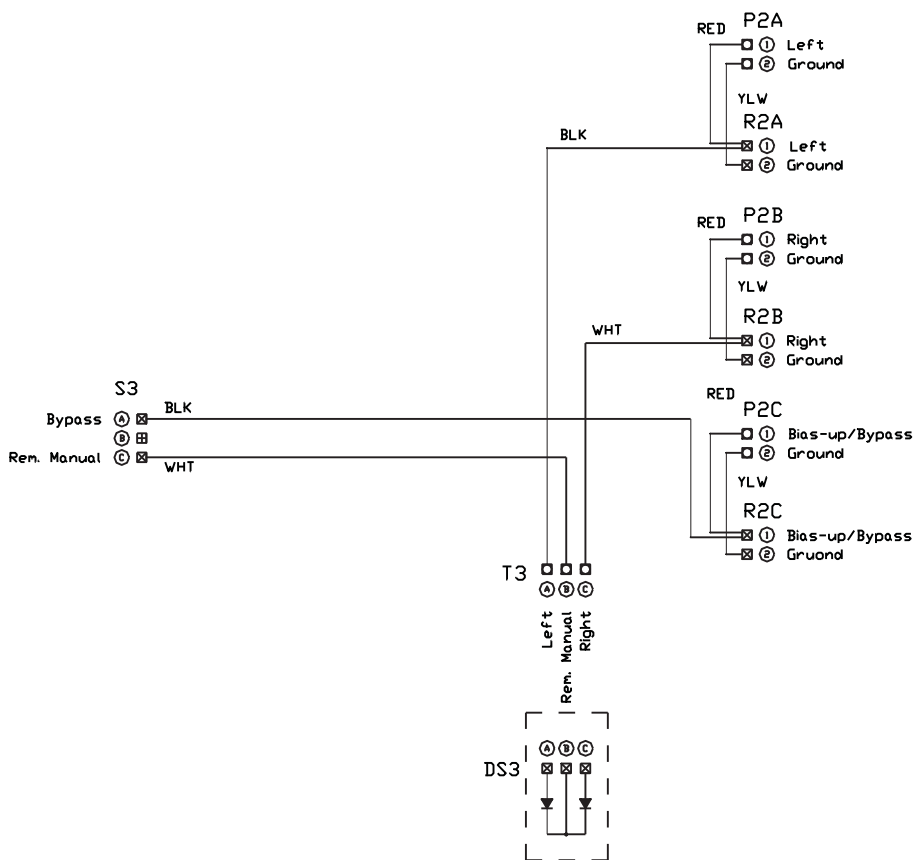
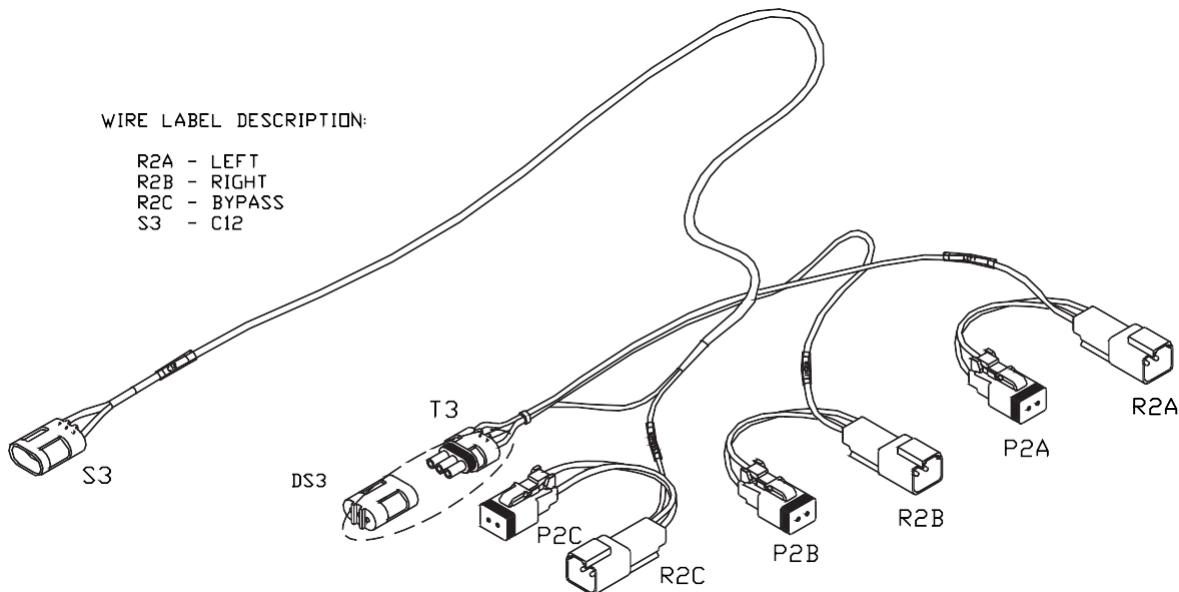
# 973P Truss Boom 120/132'

## NORAC AUTO HEIGHT BOOM CONTROL WING INTERFACE CABLE

ITEM C12: 44658-20 – WING INTERFACE CABLE

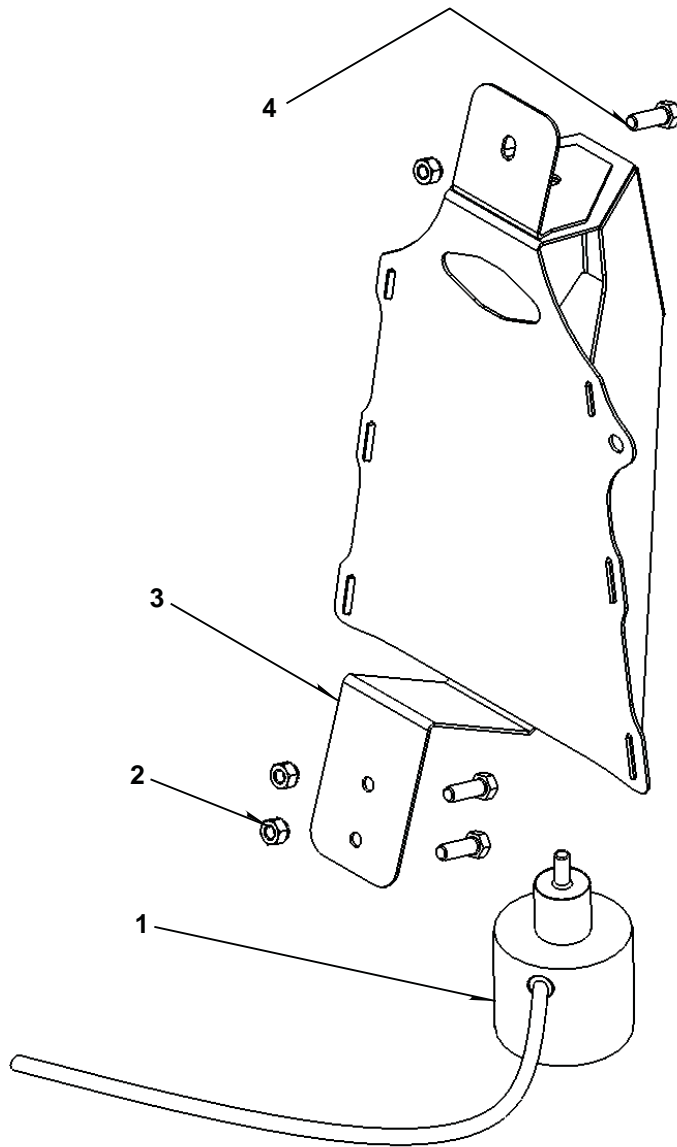
WIRE LABEL DESCRIPTION:

- R2A - LEFT
- R2B - RIGHT
- R2C - BYPASS
- S3 - C12





SEVERE TERRAIN KIT UC4 / UC5

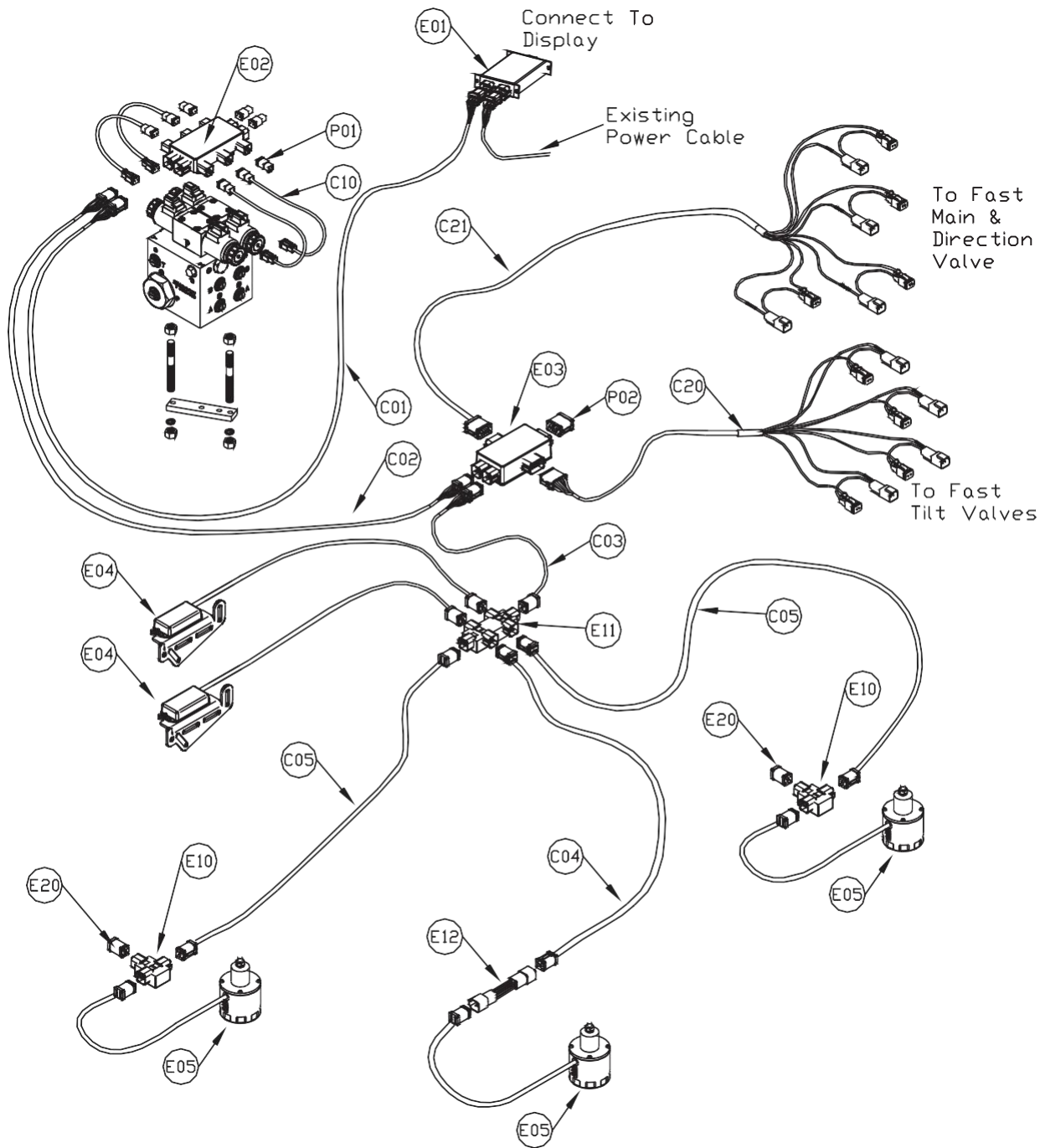


Item	Vendor Part #	Fast Part #	Description	Qty.
1	NO44631	631900	Sensor UC4	2
NS	NO43750	631911	Sensor UC5	2
2		228	Nut Hex Nylock Zp	3
3		16720	Sensor Mount	2
4		115	Bolt HH 5/16 X 1 GR5 Zp	3
NS	NO44669	631901	Cable Severe Terrain UC4	1
NS	NO4222010A		Cable Severe Terrain UC5	1

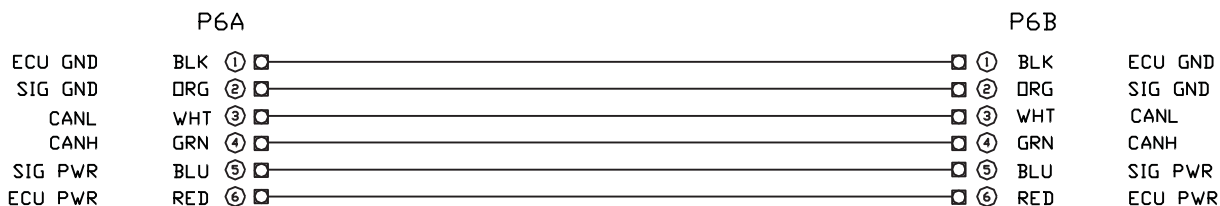
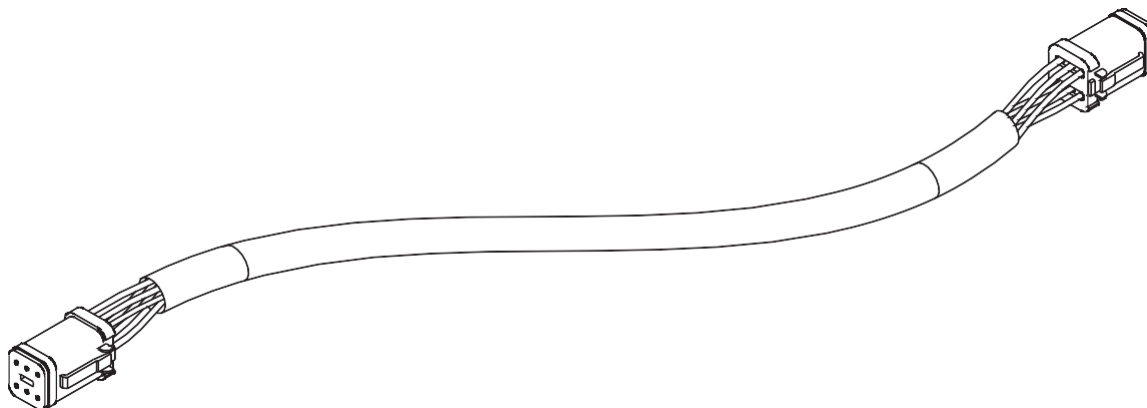


# 973P Truss Boom 120/132'

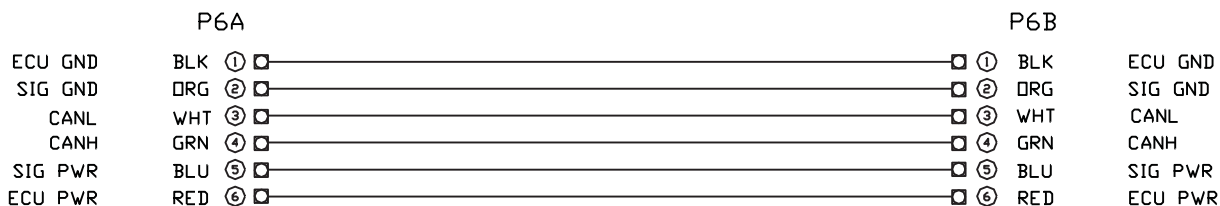
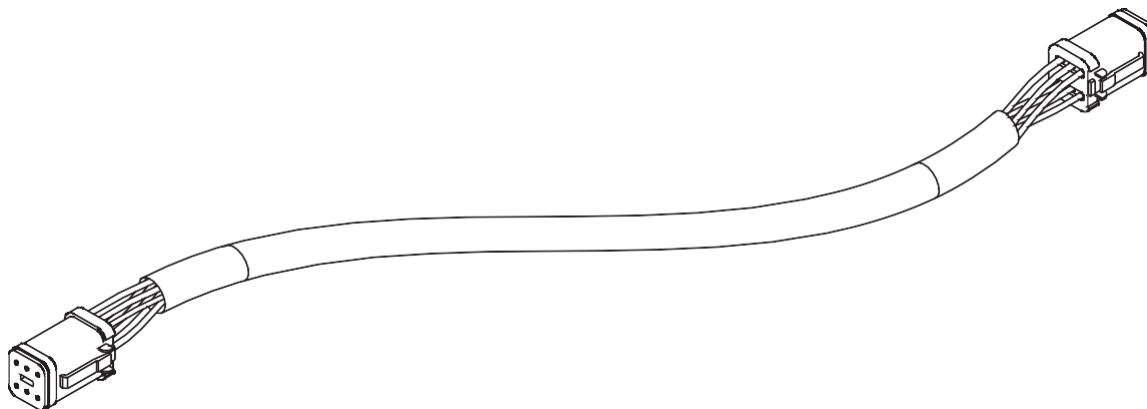
## UC5 NORAC Kit LAYOUT



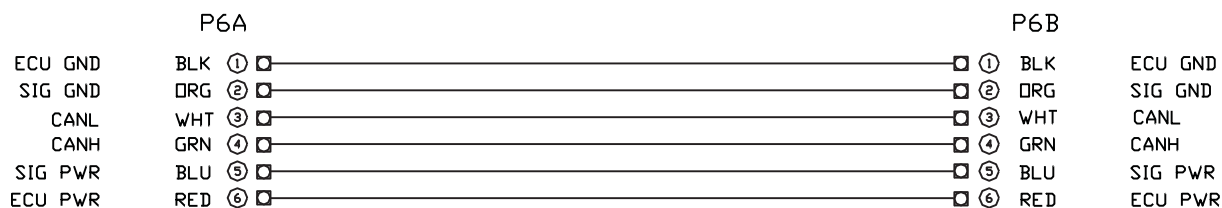
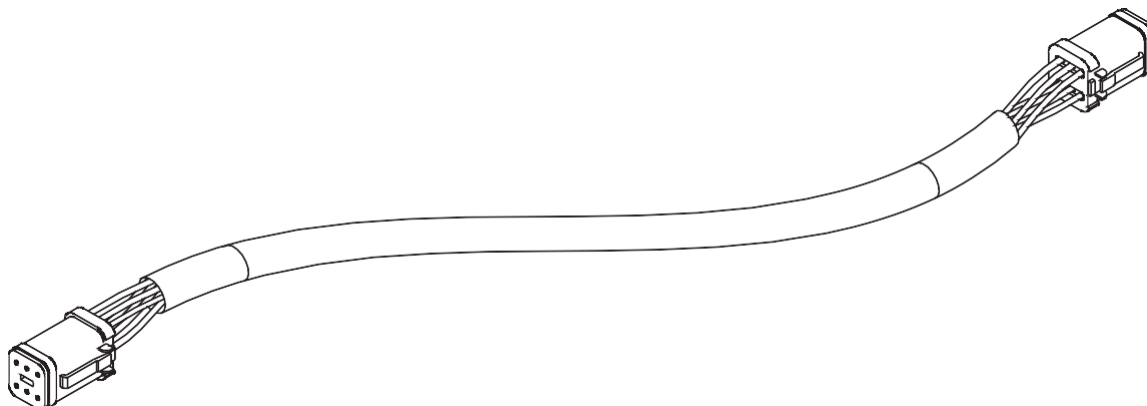
## ITEM C01: 43220-10A - CABLE UC5 NETWORK 14 AWG - 10M



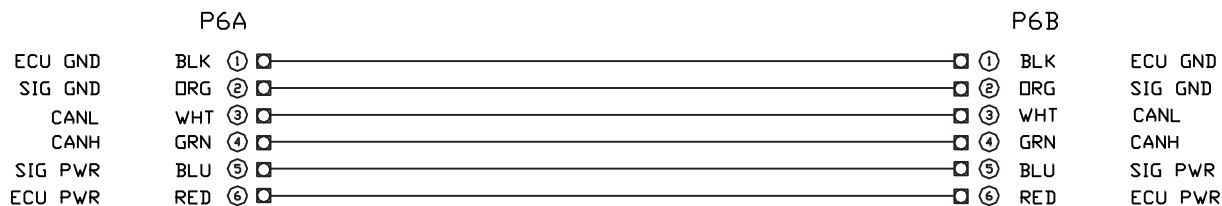
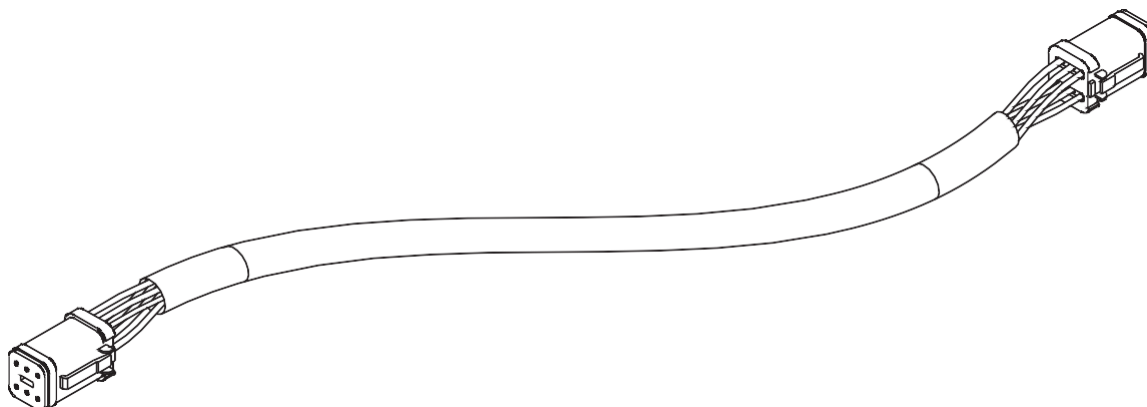
## ITEM C02: 43220-01A - CABLE UC5 NETWORK 14 AWG - 1M



## ITEM C03: 43210-03A - CABLE UC5 NETWORK 18 AWG - 3M



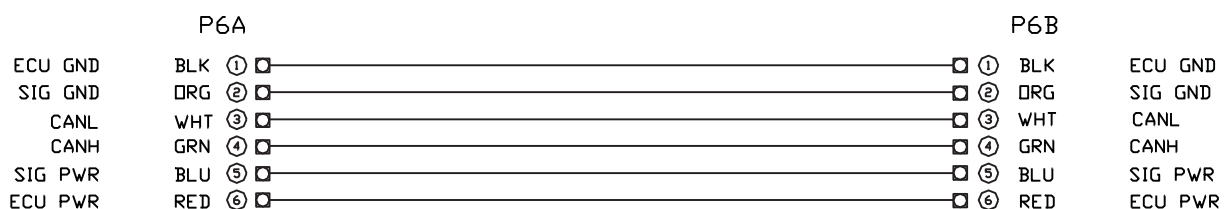
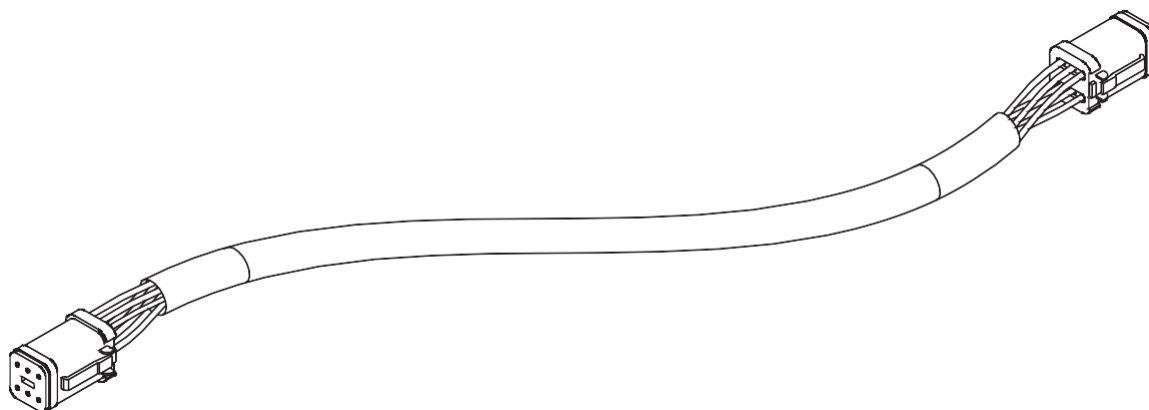
## ITEM C04: 43210-01A - CABLE UC5 NETWORK 18 AWG - 1M



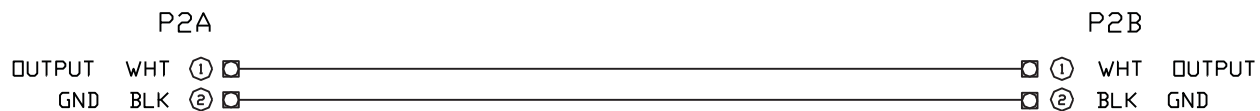
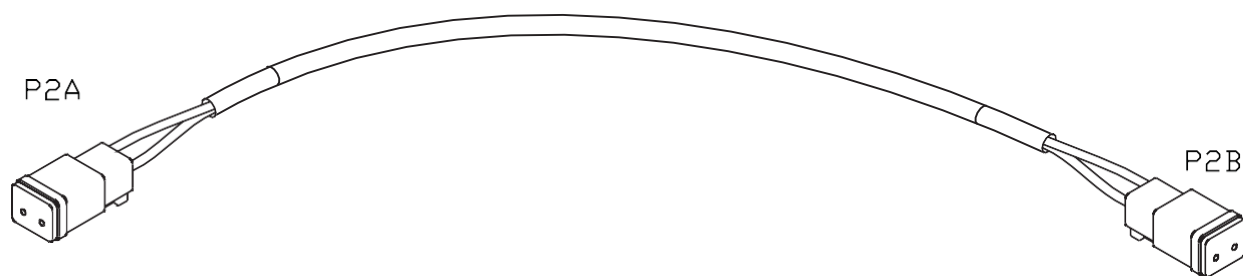
# 973P Truss Boom 120/132'



## ITEM C05: 43210-20A - CABLE UC5 NETWORK 18 AWG - 20M



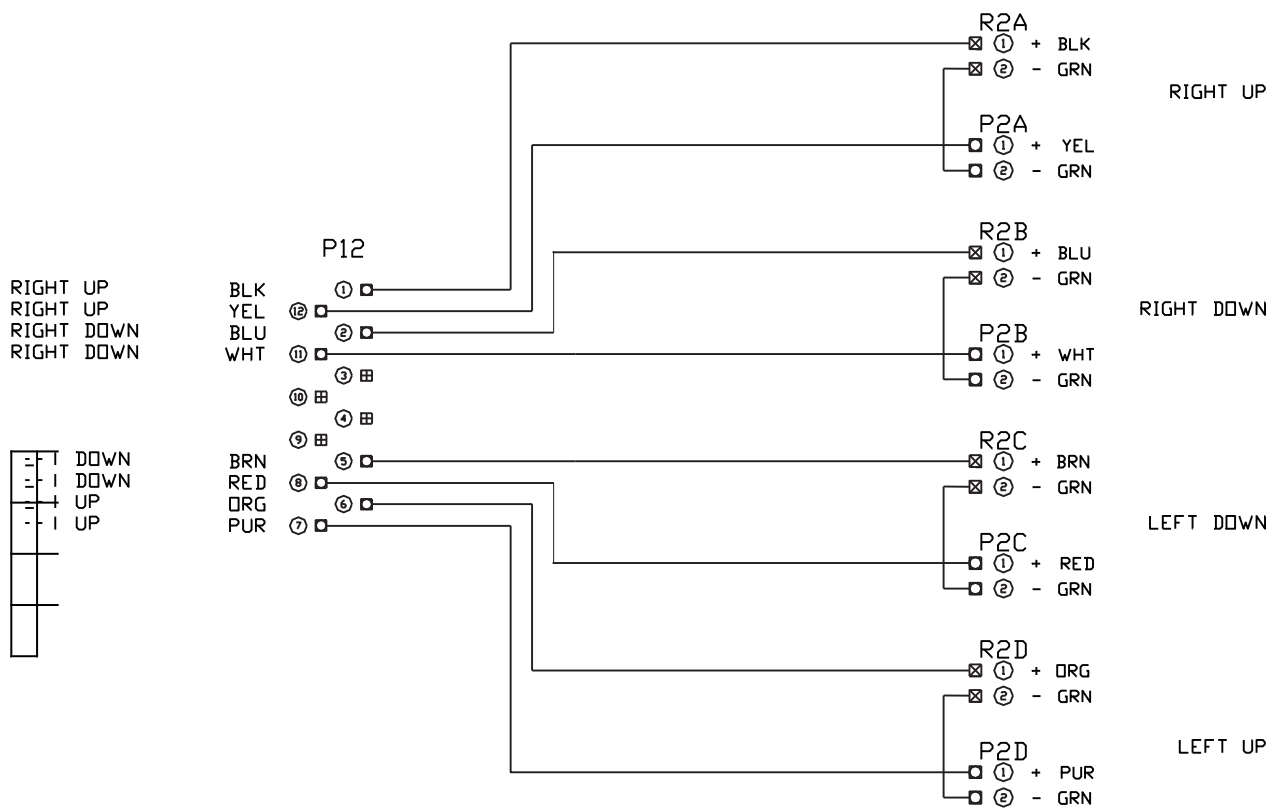
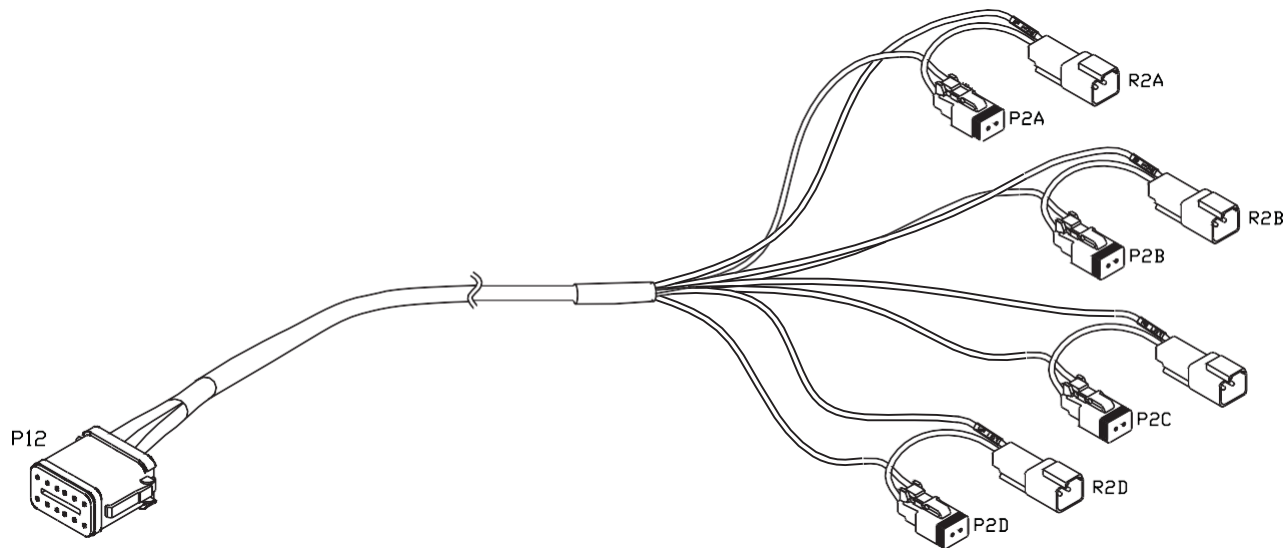
## ITEM C10: 43230-04A - CABLE UC5 VALVE DT To DT



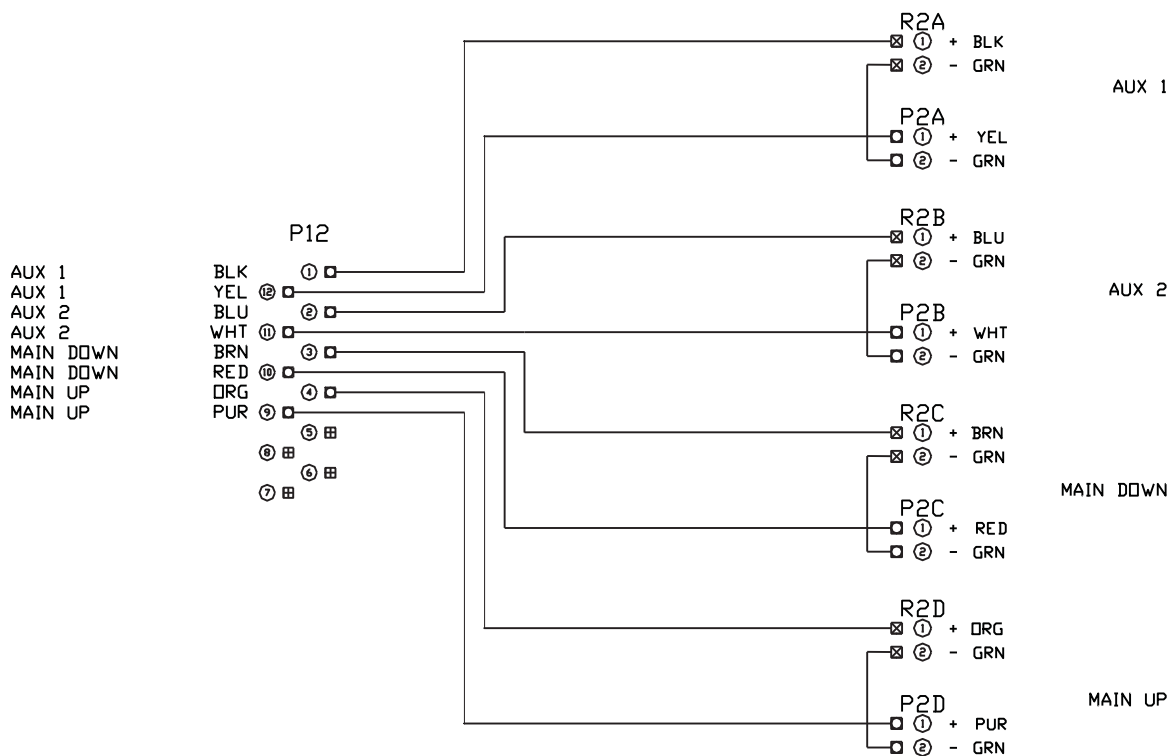
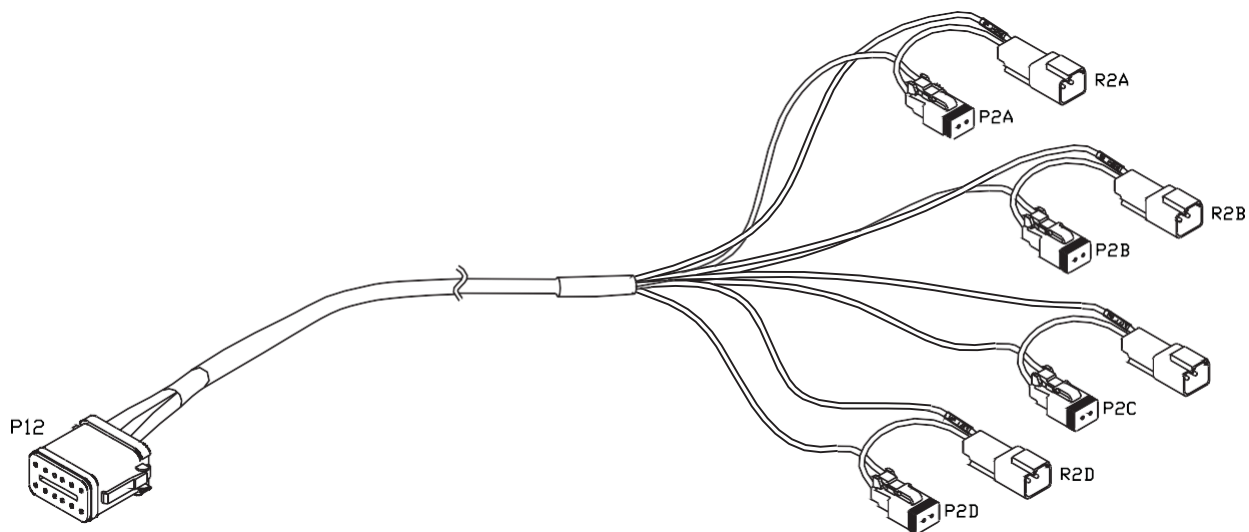


# 973P Truss Boom 120/132'

## ITEM C20: 43240-01B - CABLE UC5 INTERFACE TILT DT



## ITEM C21: 43240-07B - CABLE UC5 INTERFACE MAIN DT (WITH AUX 1 & 2)

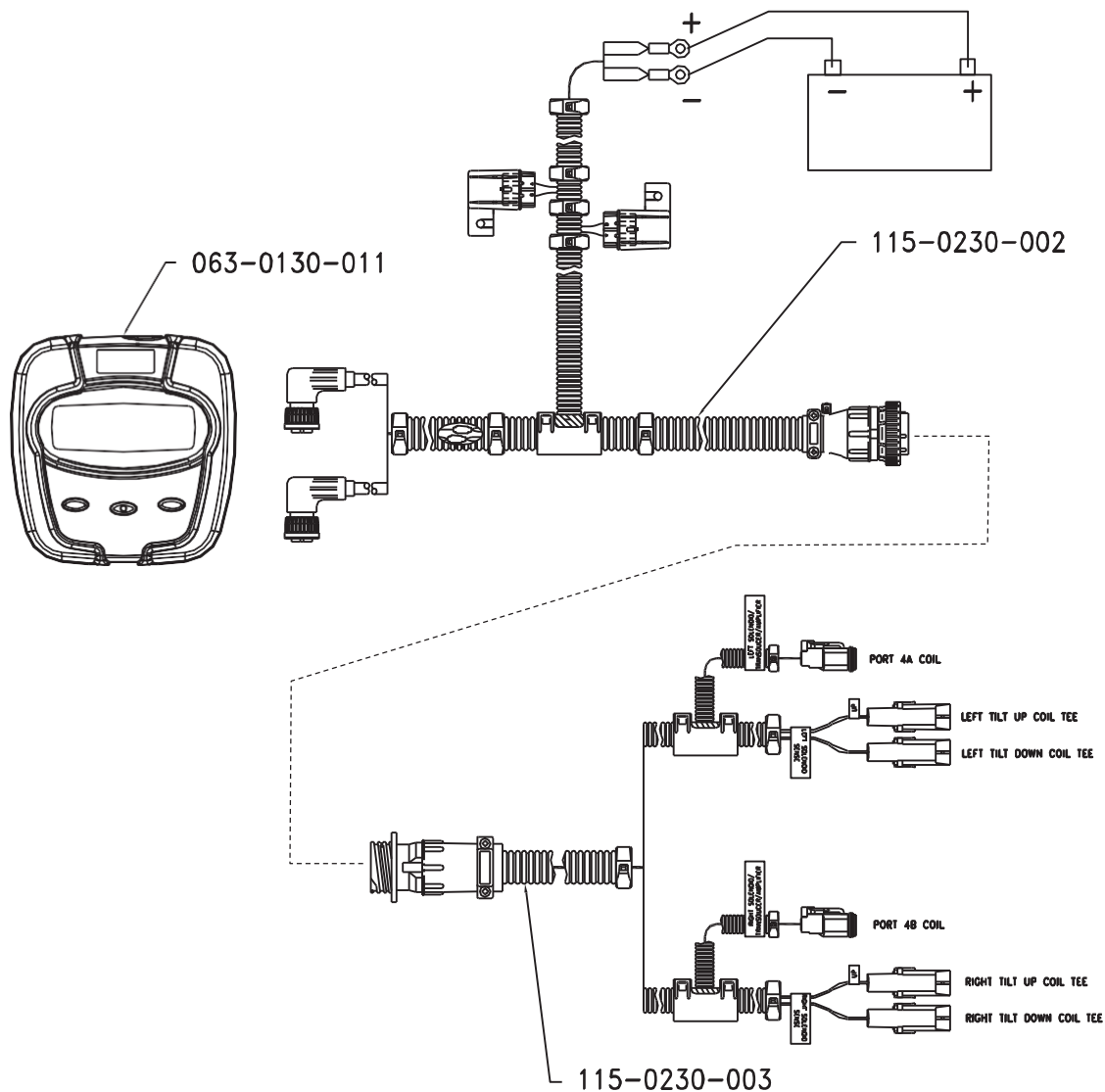




# 973P Truss Boom 120/132'

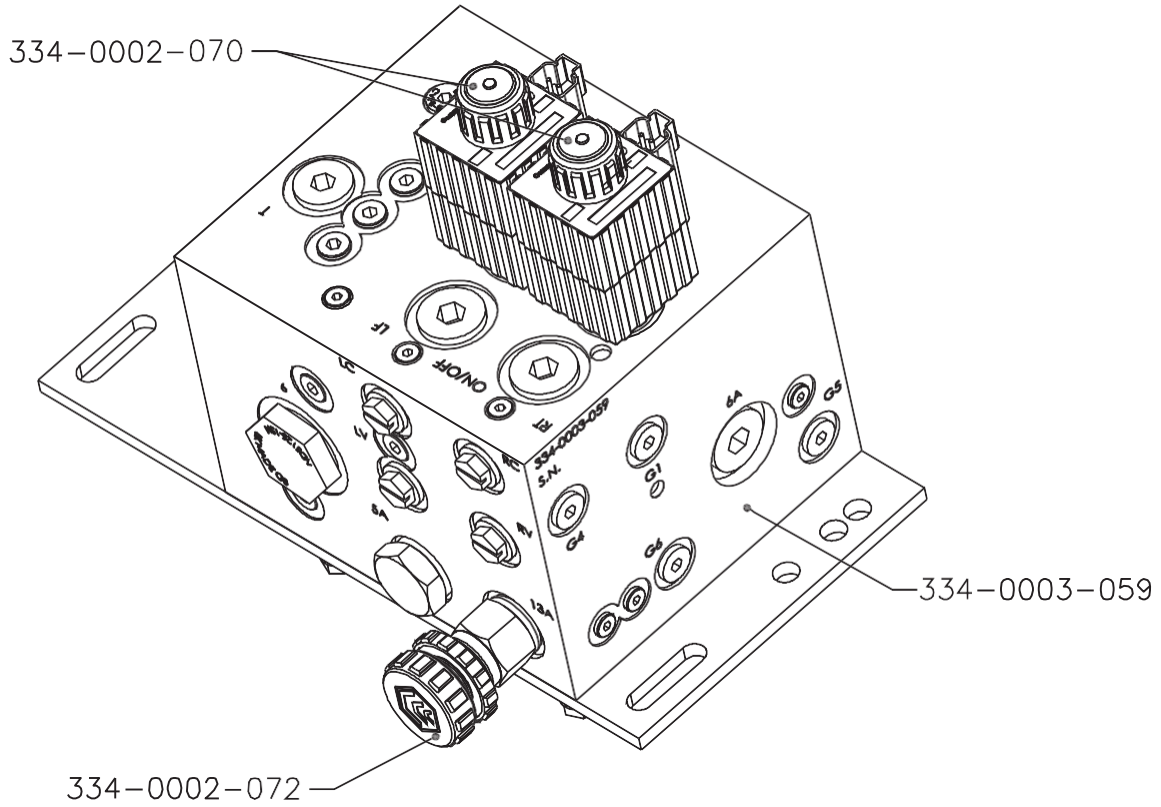
## POWERGLIDE WIRING SCHEMATIC

CONNECT LEADS TO BATTERY OR LIVE POWER SOURCE



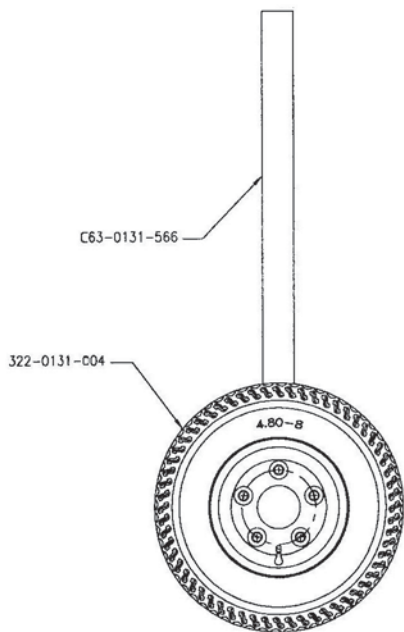


POWERGLIDE HYDRAULIC BLOCK

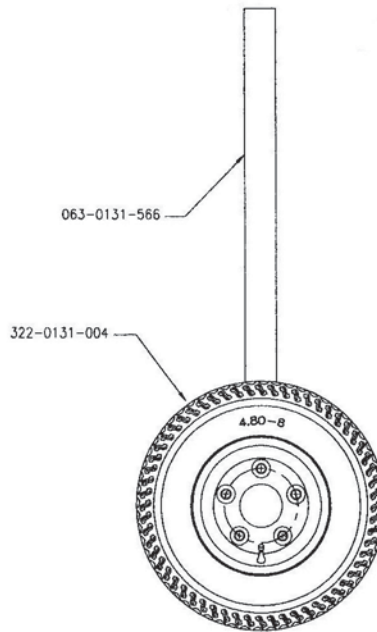


## POWERGLIDE SOLID AXLE

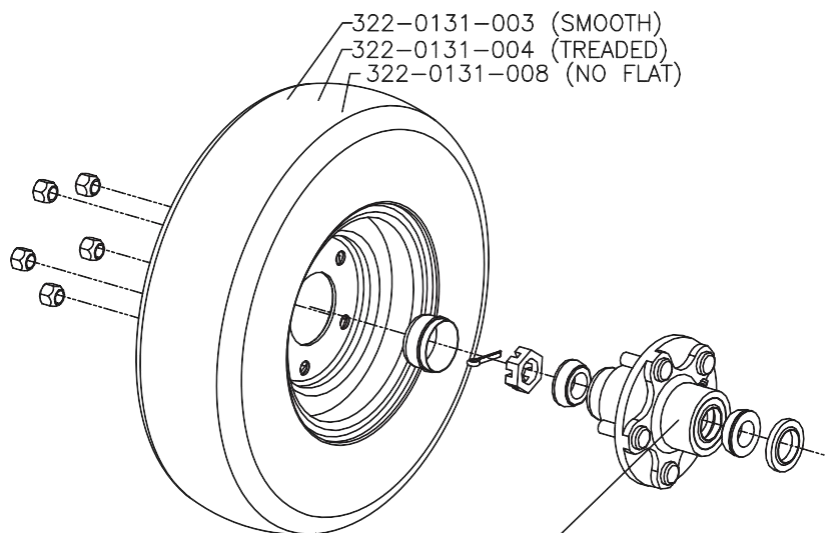
LEFT SIDE  
WHEEL ASSEMBLY



RIGHT SIDE  
WHEEL ASSEMBLY



## HUB BREAKOUT



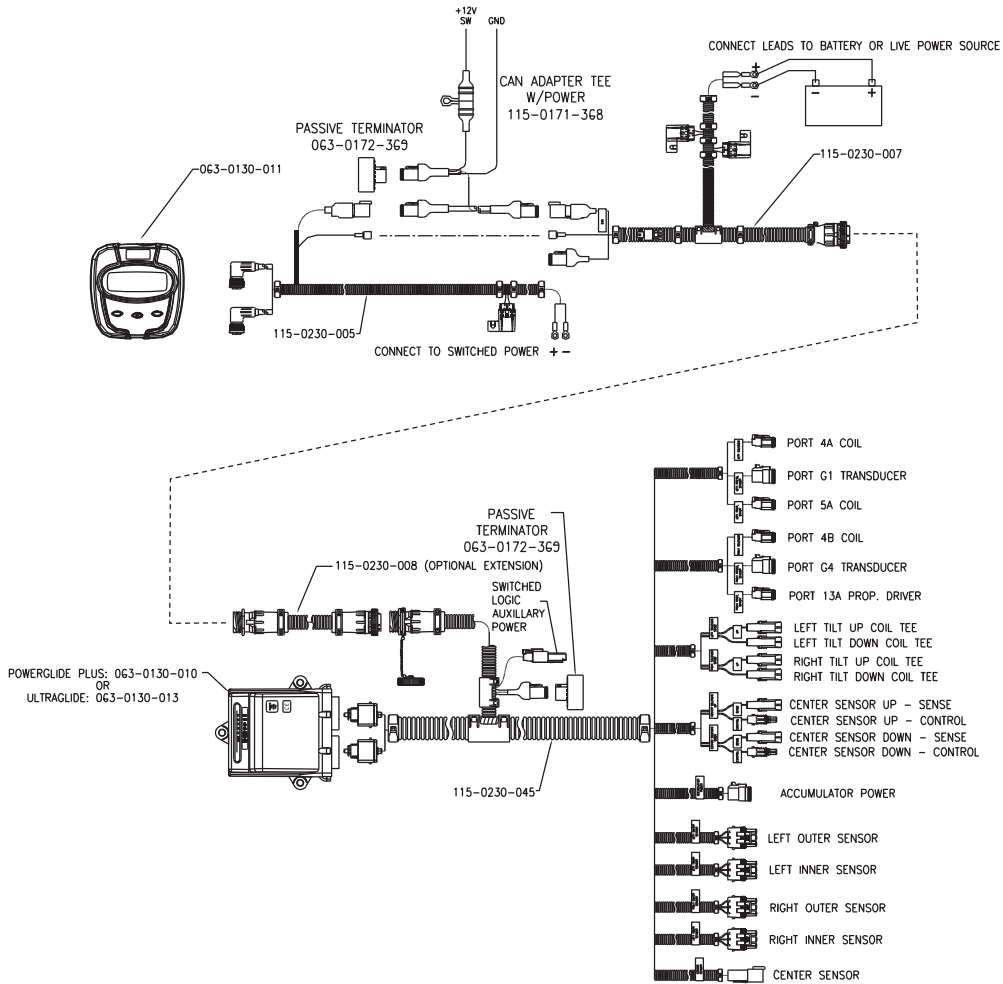
- 116-0000-001 (HUB ASSEMBLY  
INCLUDES INTERNAL ITEMS SHOWN)
- 2 - BEARING WHEEL 325-0000-022
- 1 - SEAL 219-0000-131
- 2 - RACE 325-0000-023



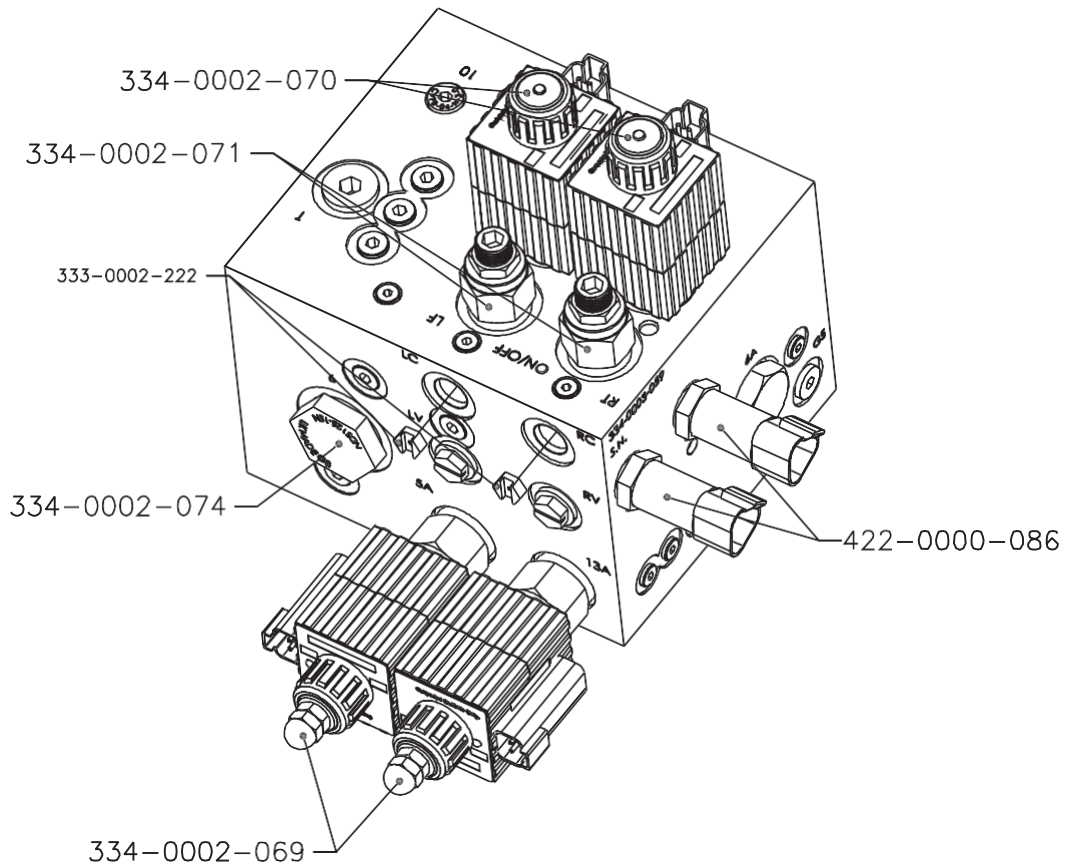


# 973P Truss Boom 120/132'

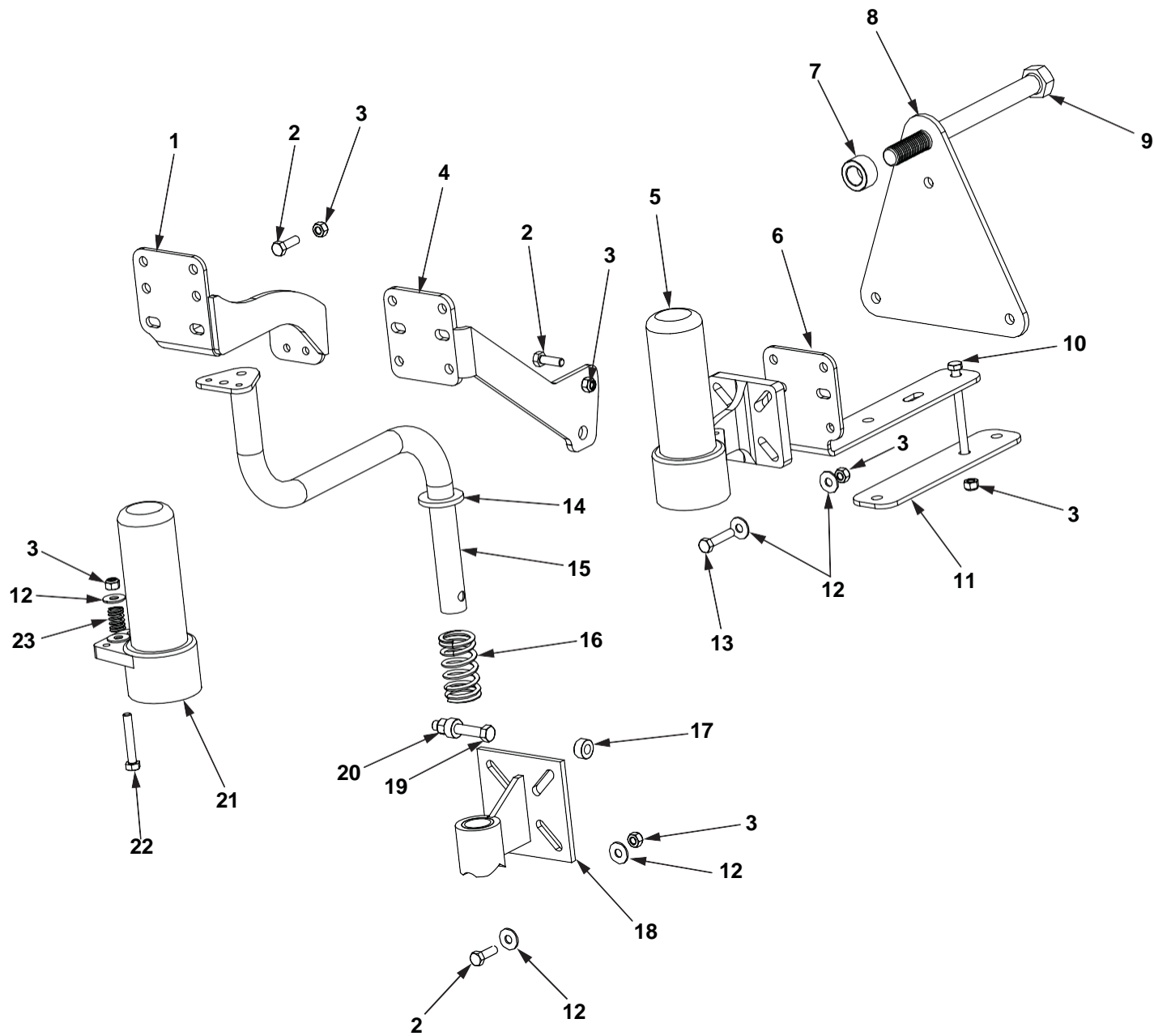
## POWERGLIDE PLUS WIRING SCHEMATIC



## POWERGLIDE PLUS HYDRAULIC BLOCK



## ULTRAGLIDE MOUNTING PARTS



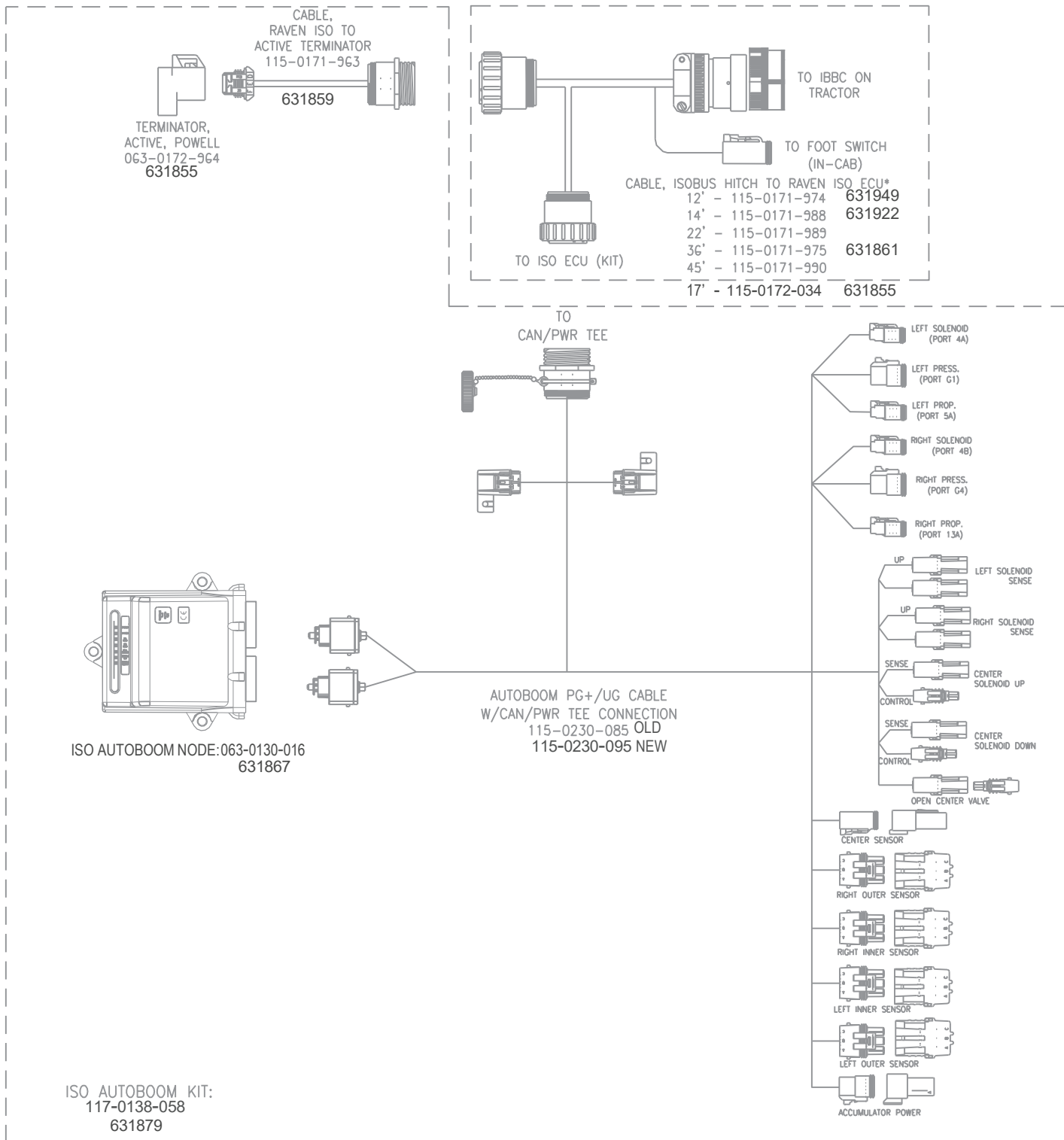




# 973P Truss Boom 120/132'

## ISO AutoBoom WITHOUT ISO PRODUCT CONTROL

ORDER SEPARATELY, CABLE SHOULD REACH FROM ECU OR TEE TO 3' IN FRONT OF HITCH MINIMUM

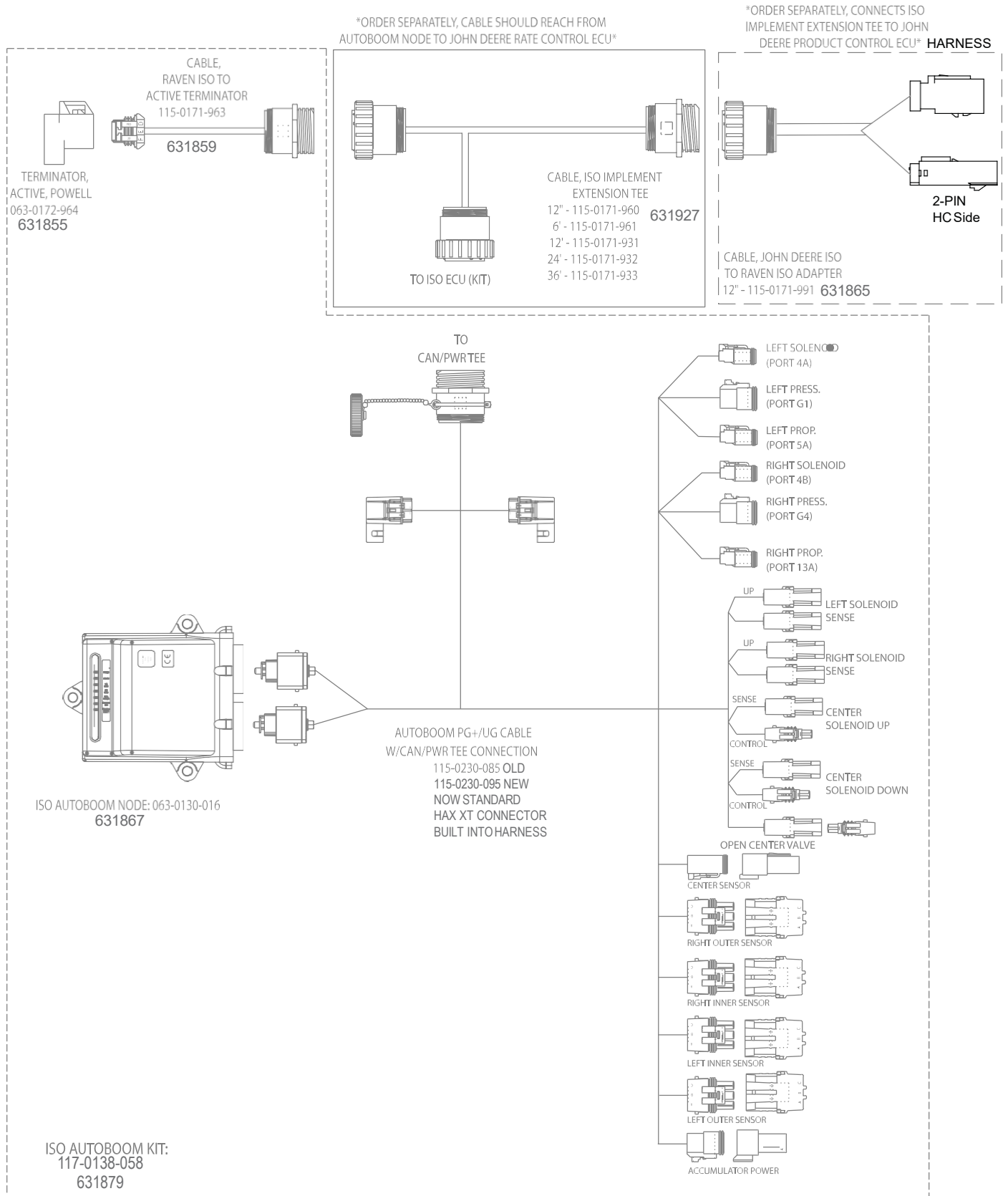




# 973P Truss Boom 120/132'



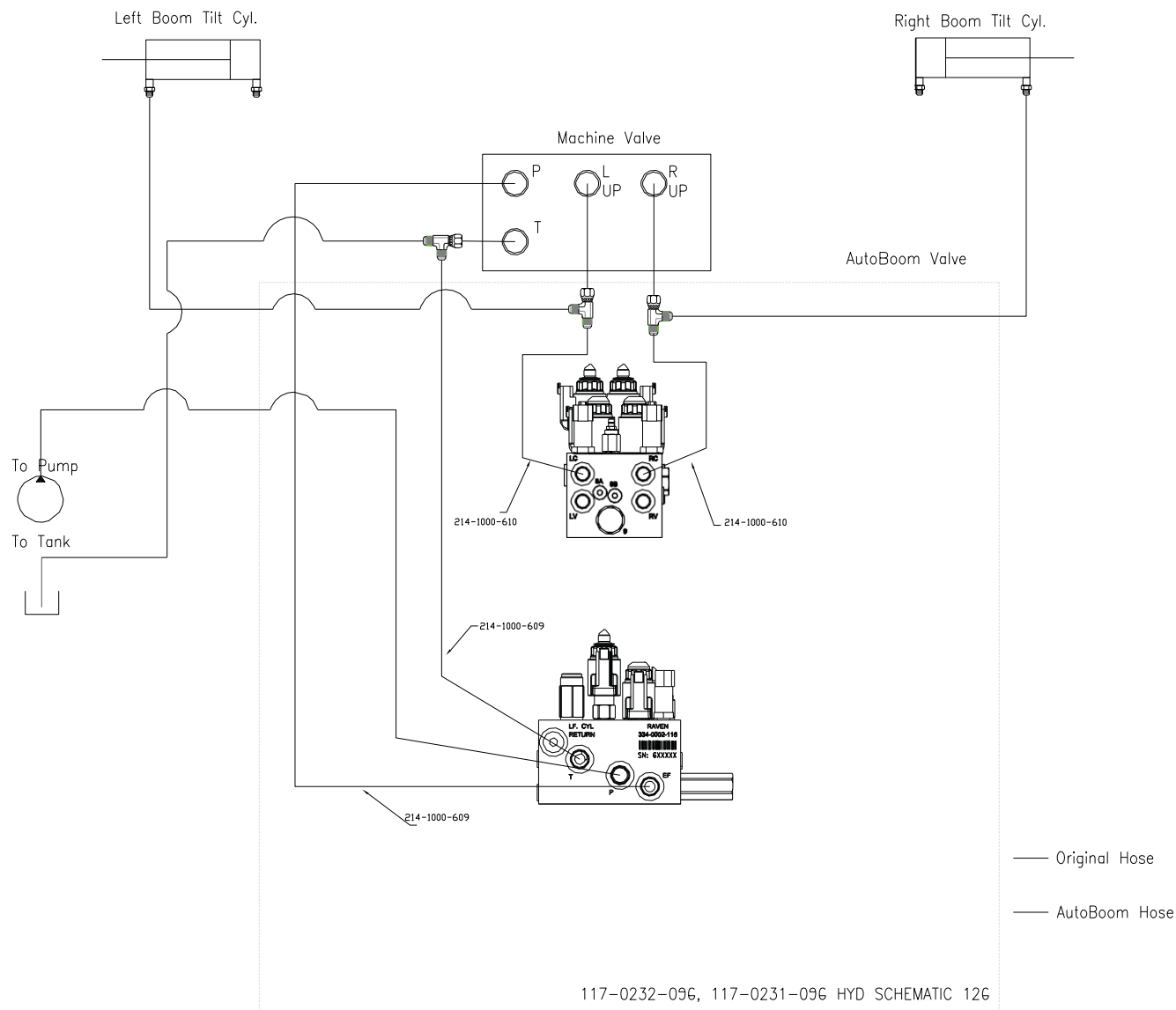
## RAVEN ISO AutoBoom WITH JOHN DEERE PRODUCT CONTROL



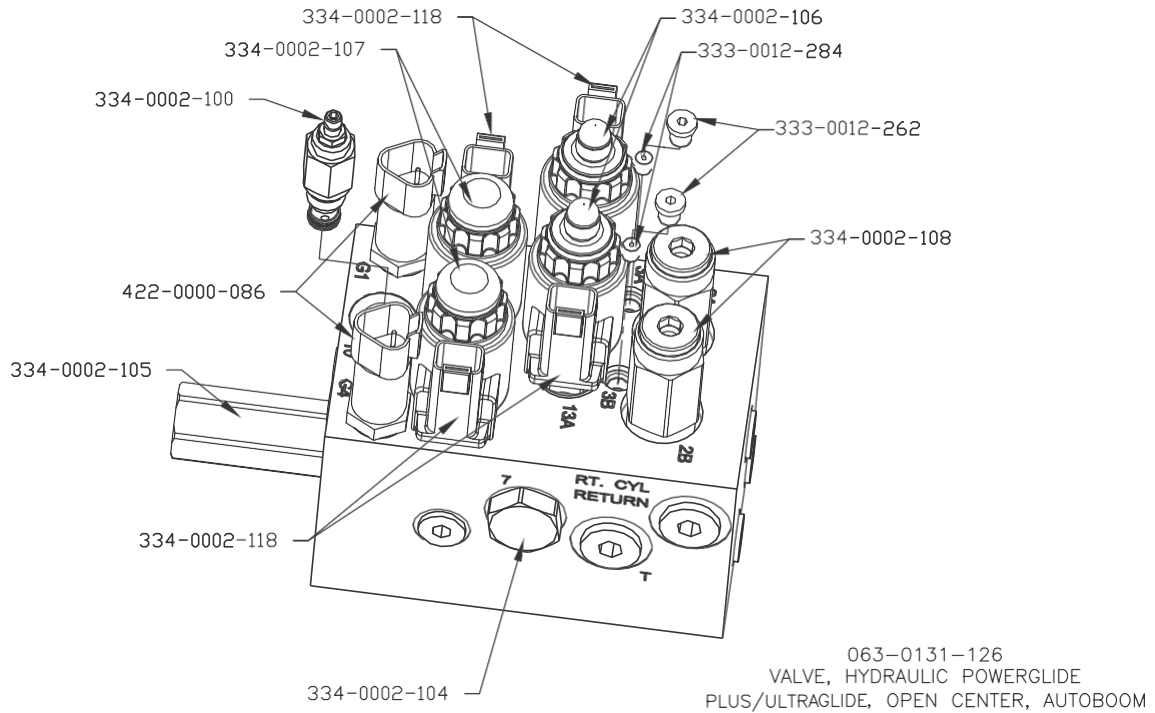


# 973P Truss Boom 120/132'

## ULTRAGLIDE HYDRAULIC SCHEMATIC

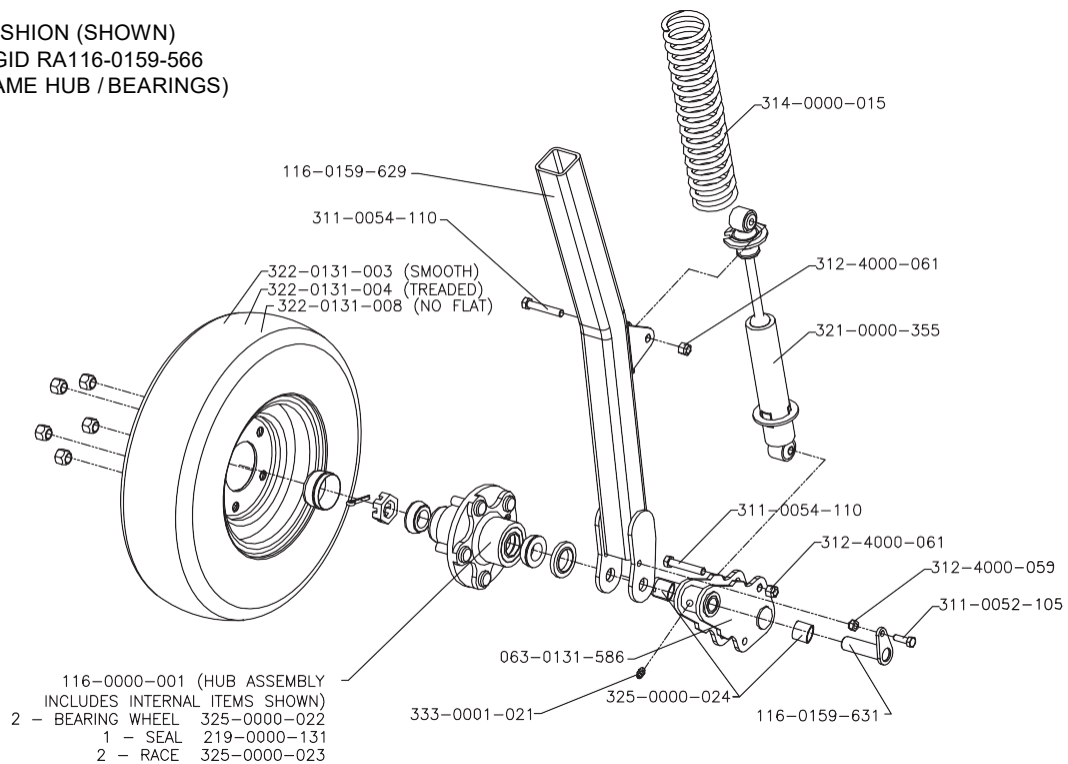


## POWERGLIDE PLUS AND ULTRAGLIDE VALVE REPLACEMENT PARTS



## WHEELS

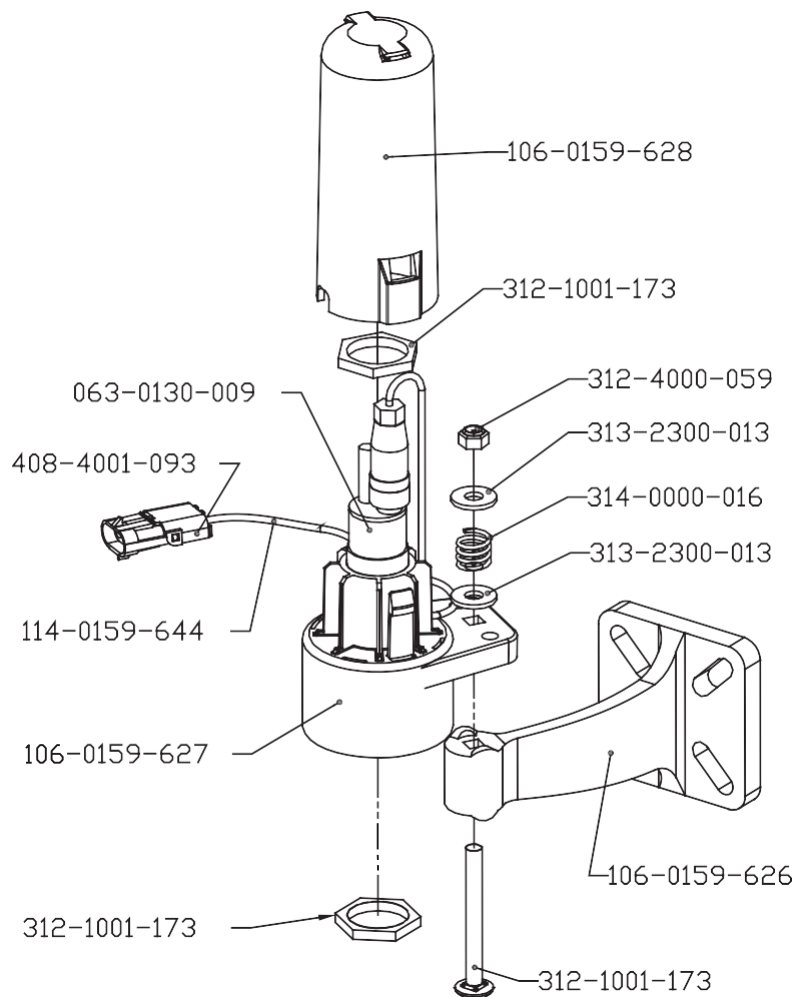
CUSHION (SHOWN)  
RIGID RA116-0159-566  
(SAME HUB / BEARINGS)





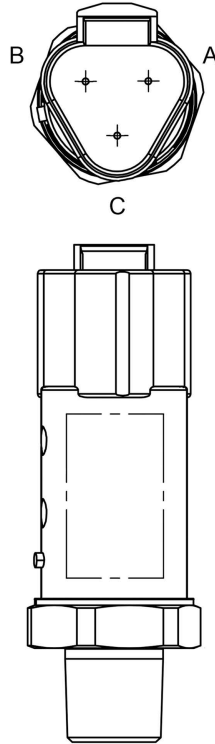
# 973P Truss Boom 120/132'

## SENSORS



# 973P Truss Boom 120/132'

## PRESSURE TRANSDUCER



Item	Vendor Part #	Fast Part#	Description	Qty.
		530400	2" EPDM GASKET	1
		530401	2" FULL PORT FLANGE - 2" MALE ADAPTER	1
		632036	2" FULL PORT FLOW METER	1







**FAST GLOBAL SOLUTIONS**

4130 Commerce Boulevard

Windom, MN 56101

1-800-772-9279 Toll Free

1-507-427-3861 Voice

1-507-427-3030 Fax

[www.fastsprayers.com](http://www.fastsprayers.com)