



Quality Built Since 1973

INSTALLATION AND SETUP MANUAL

3000 SERIES BALE LOADER

12 Volt Electric over Hydraulic

& Engine Driven or (Live) Hydraulic



Please fill out the attached warranty card and return to Besler Industries, Inc.

Keep the Following information for your own record:

Name of Dealer:_____

Date of Purchase:_____

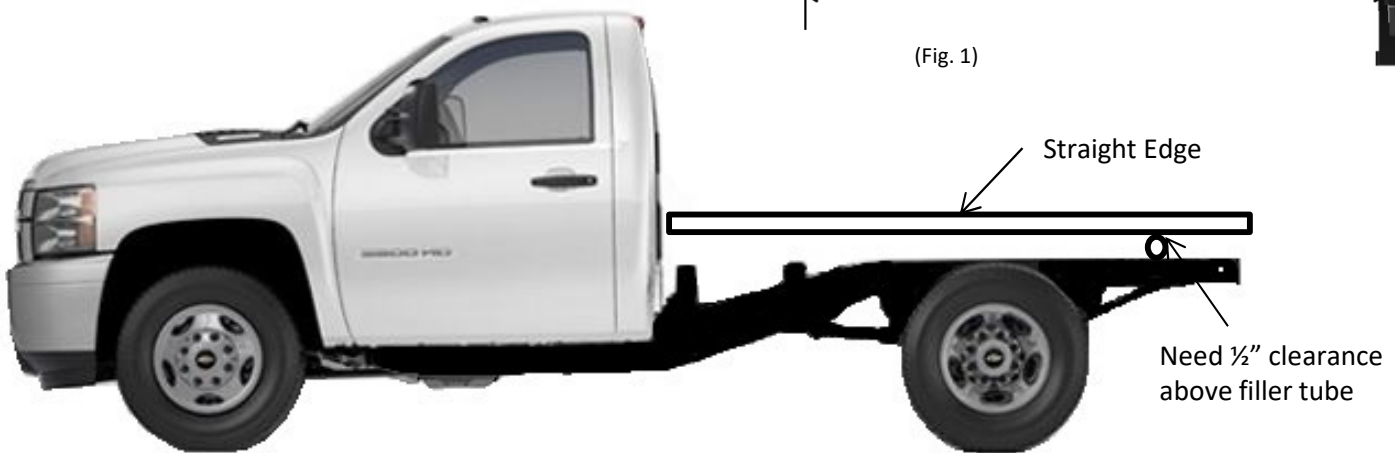
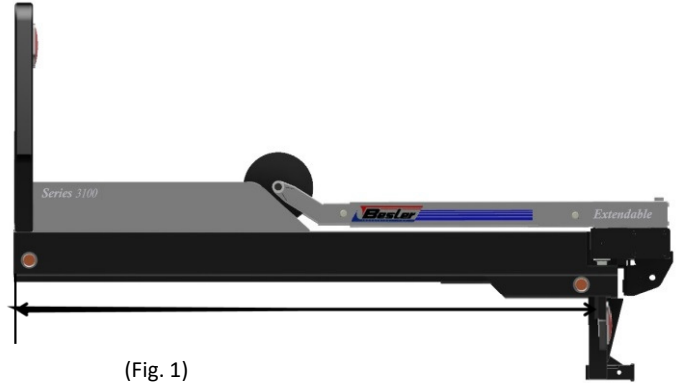
Model Number:_____

Serial Number;_____

Notes:_____

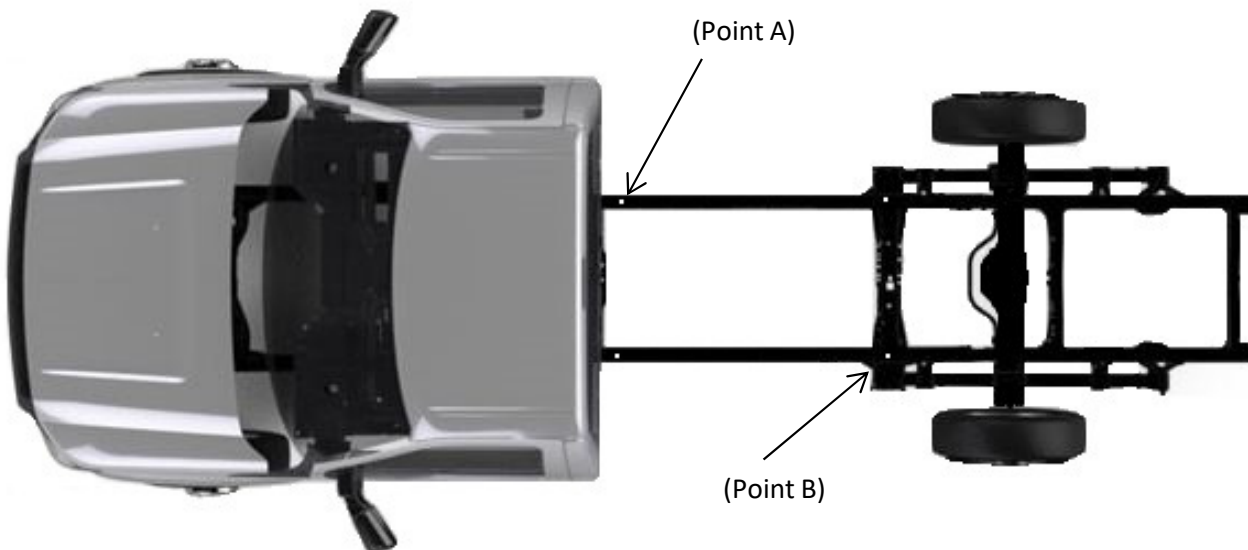
MODEL 3000 FLAT BED BALE LOADER INSTALLATION INSTRUCTIONS

- 1) Remove box from truck.
- 2) Cut truck frame to length. Measure from front of bed to backside of license plate panel. (Fig 1)(Save removed pieces for future Replacement)
- 3) Measure fuel filler tube if it is above the frame and make sure there is $\frac{1}{2}$ " clearance above it.
- 4) Lay Straight edge along and parallel to truck frame rail

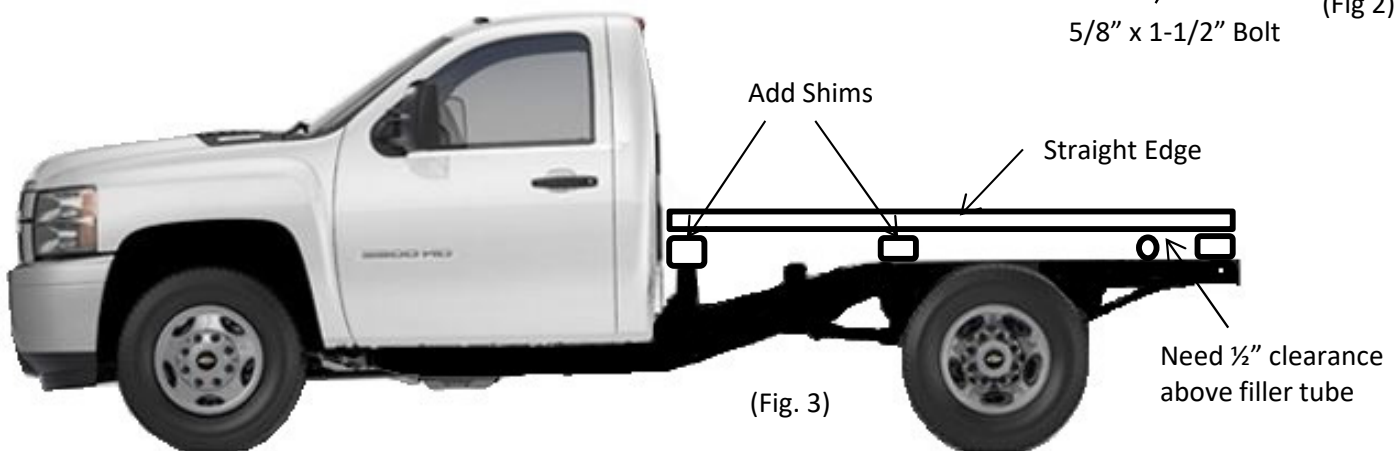
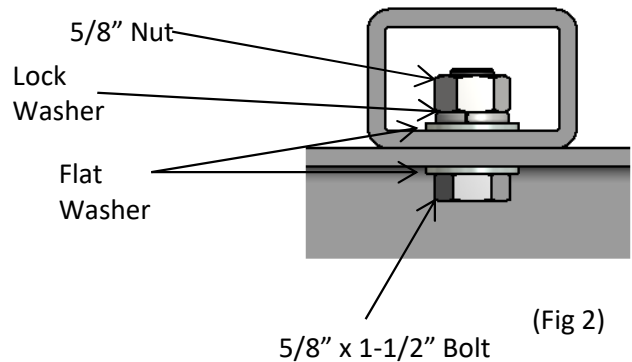


- 5) Center 2" x 3" tube at the front set of existing box mounting holes. (Point A)

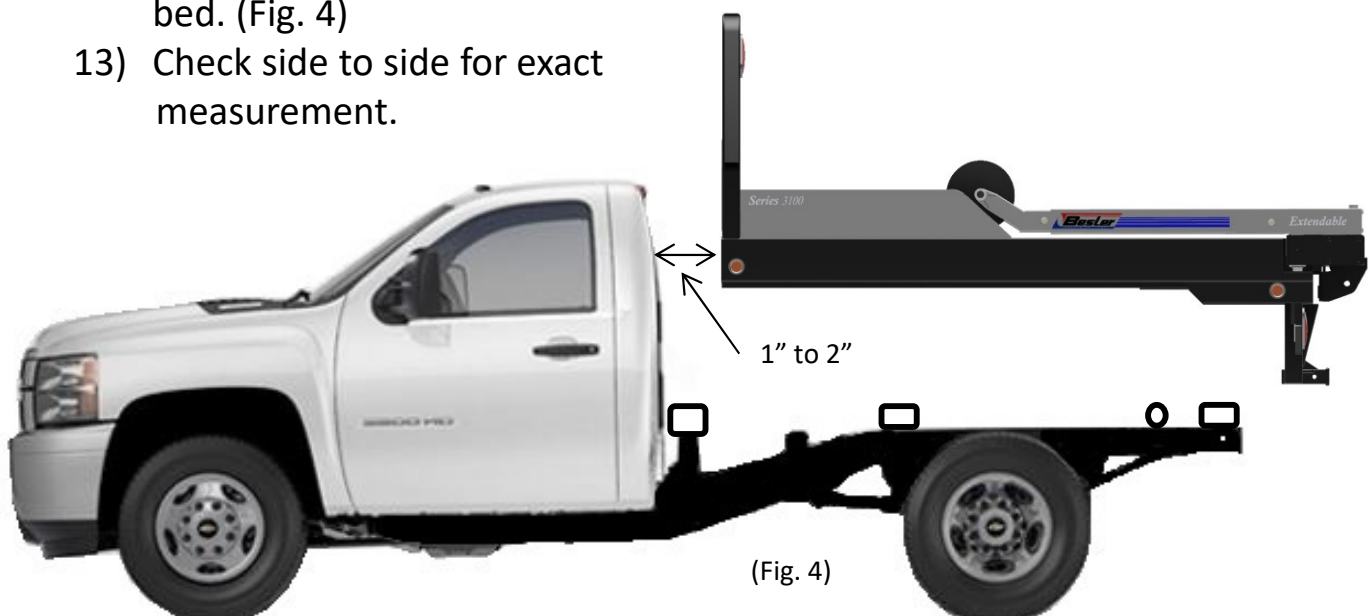
NOTE: If truck frame rails are over 38" wide, 2" x 3" tubes must be provided by the installer.



- 6) Drill tube to match existing holes in truck frame (5/8" Diameter)
- 7) Repeat Steps 5 & 6 for the 2" x 3" for (Point B)
- 8) Bolt tubes to truck frame rails using 5/8" x 1-1/2" bolts, lockwashers, washer and nuts. (Fig 2)
- 9) Add Shims to the top of tubes to get the straight edge parallel and level to truck frame. (Fig. 3)



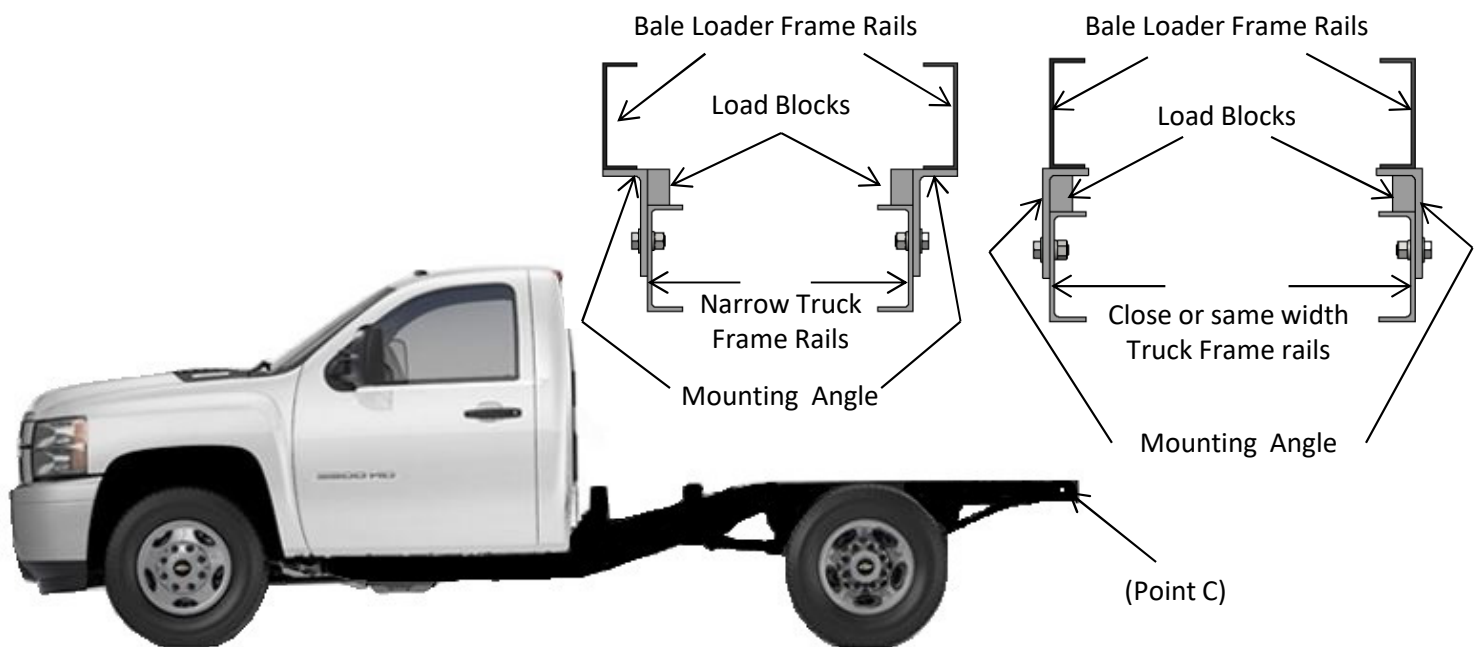
- 10) Double check clearance for fuel filler tube.
- 11) Weld Shims all around on top of crosstubes
- NOTE: All welding should be done by a qualified professional.**
- 12) Center Flat bed on truck leaving 1" to 2" from back of cab to front of flat bed. (Fig. 4)
- 13) Check side to side for exact measurement.



14) Double check all measurements and clearance

- Check cab to front of bed
- Fuel Filler Clearance
- Hydraulic Pan to truck frame

15) Bolt Angles to existing holes in truck frame (Point C)



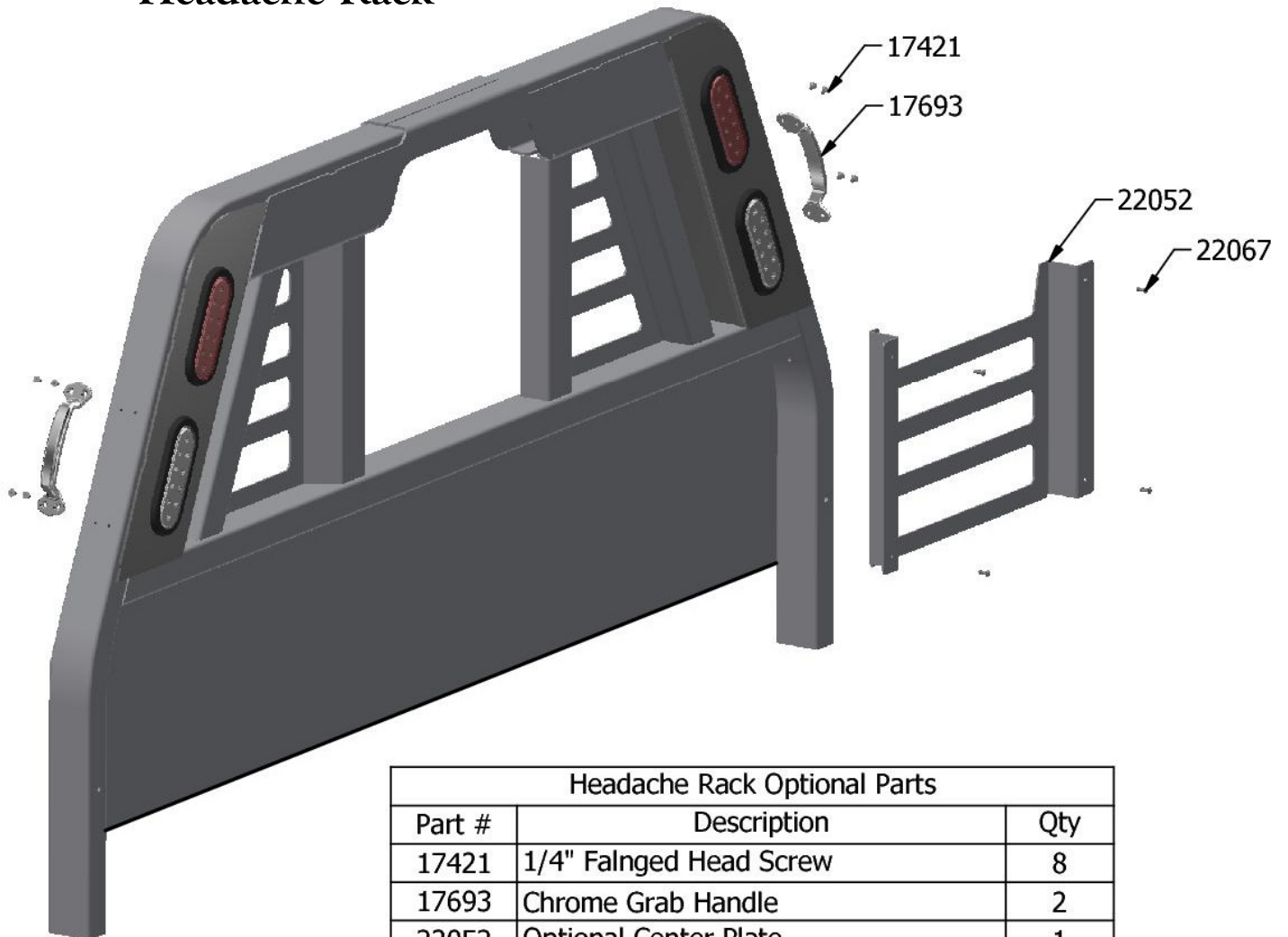
16) Cut load blocks to length and clamp to mounting angle. Load blocks will carry all of the weight of flat bed and cargo when properly installed.

17) Weld Load Blocks to mounting angles, weld angles to flat bed rails.

CAUTION: DO NOT WELD ANY PART OF THE FLAT BED TO THE TRUCK FRAME RAILS.

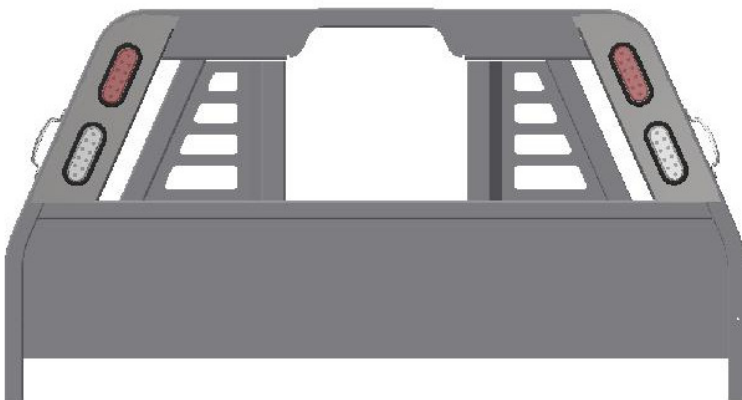
18) Weld front tubes and shims to flat bed rails.

Headache Rack

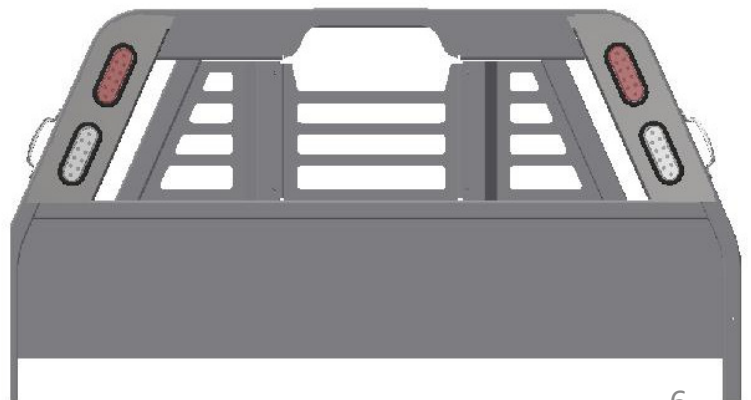


Headache Rack Optional Parts		
Part #	Description	Qty
17421	1/4" Flanged Head Screw	8
17693	Chrome Grab Handle	2
22052	Optional Center Plate	1
22067	Phillips Head SS Self Tapping Screw	4

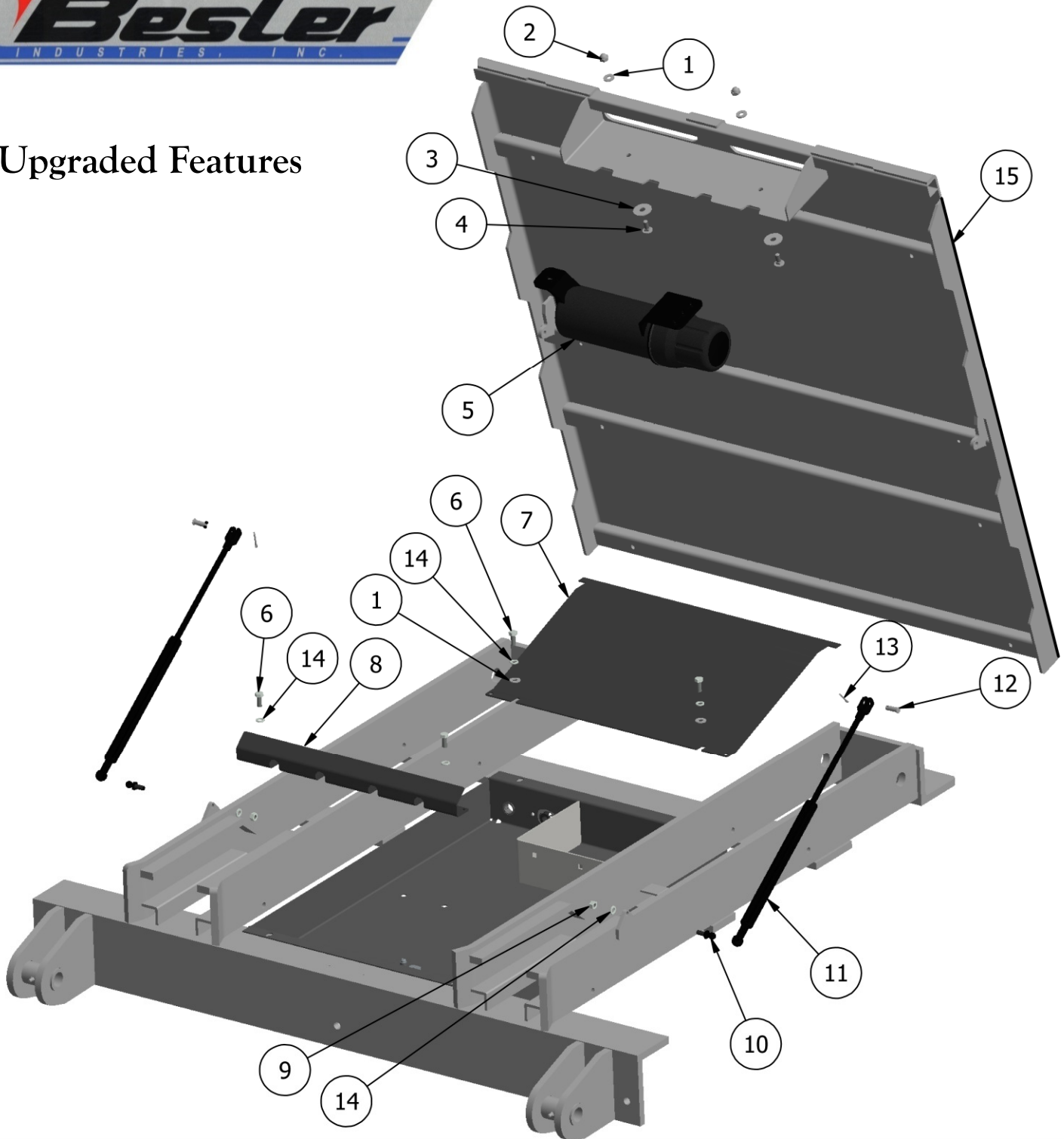
Standard Headache Rack



Optional Center Plate
Large Opening for 5th Wheel Camera



Upgraded Features

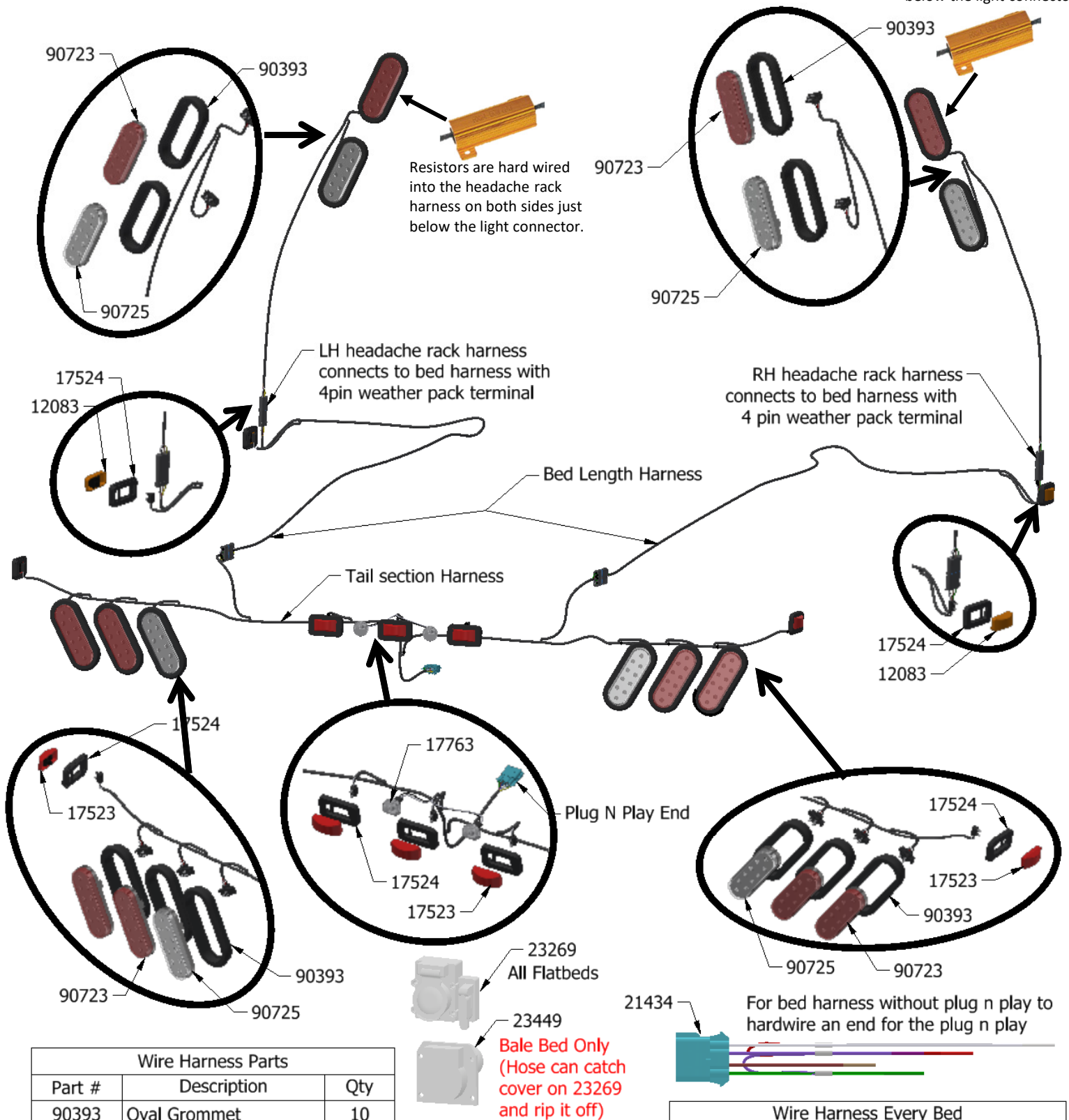


ID Tag	Part #	Description	QTY/Bed	ID Tag	Part #	Description	QTY/Bed
1	90437	1/4" Flat Washer	4	9	90253	5/16" Nut	2
2	11931	5/16" Acorn Nut	2	10	17502	Ball Stud Bolt	2
3	11971	3/8" x 1-1/4 Fender Washer	2	11	17500	Gas Spring	2
4	90469	5/16" x 3/4" Carriage Bolt	2	12	17807	5/16" x 7/8" Clevis Pin	2
5	11641	Owners Manual Tube	1	13	12163	1/8" x 3/4" Cotter Pin	2
6	90107	5/16" x 3/4" Bolt	4	14	90106	5/16" Lock Washer	6
7	17740	Front Dust Shield	1	15	17522	Pump Door	1
8	12166	Rear Dust Shield	1				



3000 Series Bale Loader Lights

Resistors are hard wired into the headache rack harness on both sides just below the light connector.

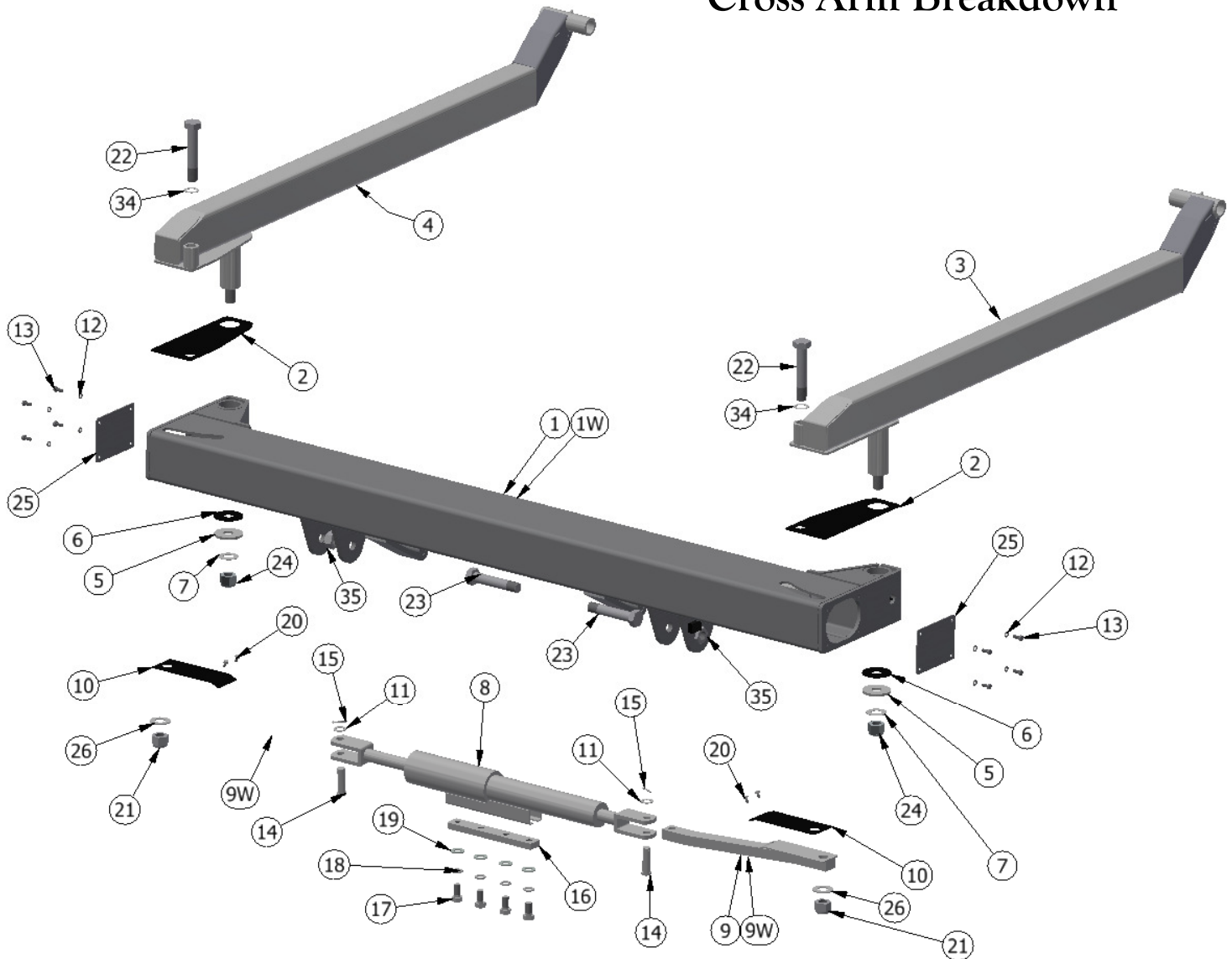


Wire Harness Parts		
Part #	Description	Qty
90393	Oval Grommet	10
90723	Red LED oval light	6
90725	White LED oval light	4
17524	Rect. Rubber Grommet	7
12083	Rect. Amber LED light	2
17523	Rect. Red LED light	5
17763	LED License PLate light	2

Bed Length harness	
Part #	Length
22070	87"
22071	103"
22072	112"
22073	136"

Wire Harness Every Bed		
Part #	Description	Qty
22068	LH headache rack harness	1
22074	Tail section harness	1
21434	Plug N Play Hard Wire Adapter	
23269	Trailer Plug - Flatbeds	
23449	Thin Trailer plug - Bale Bed	

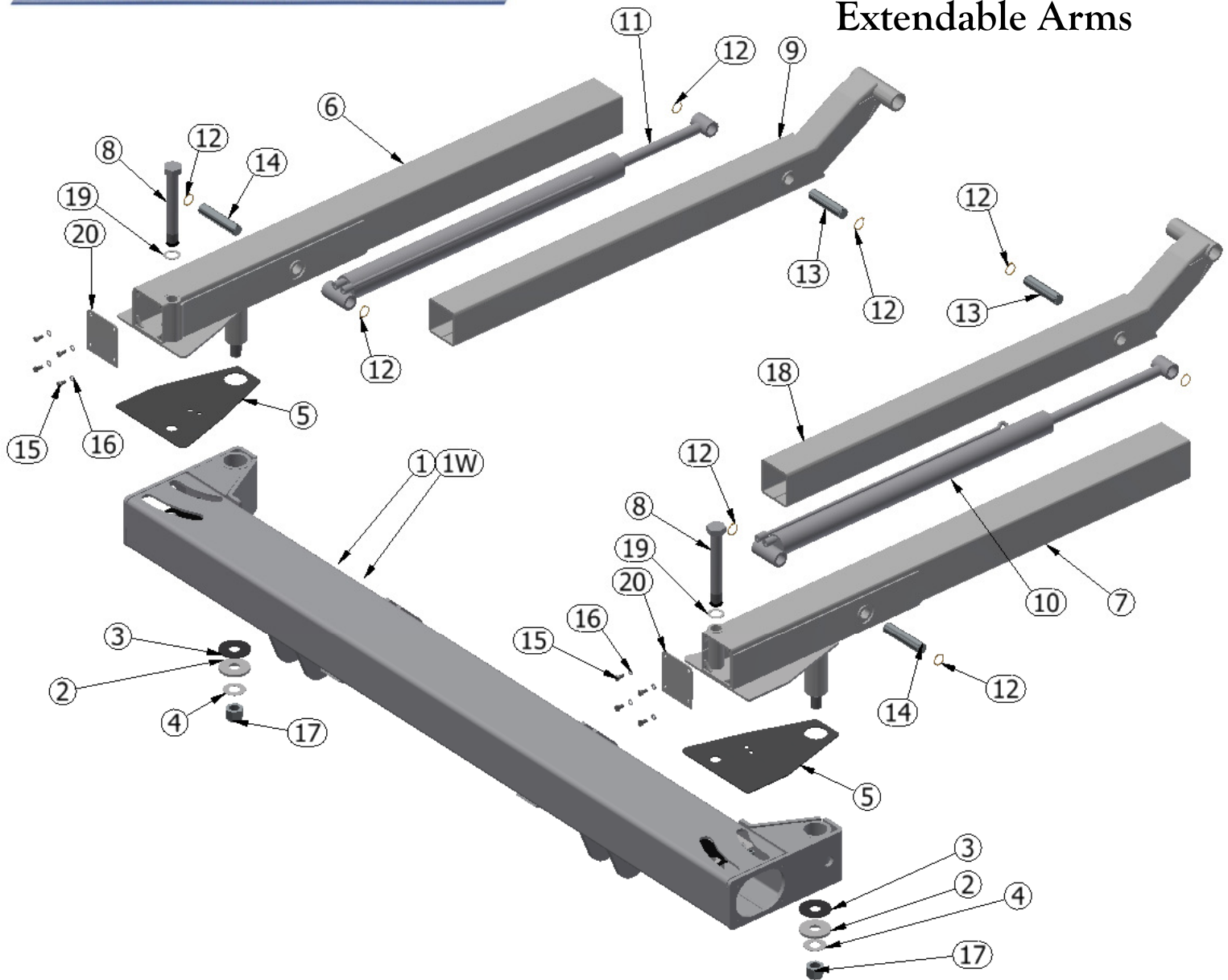
3000 Series Bale Loader Cross Arm Breakdown



PARTS LIST				PARTS LIST			
ITEM	PART #	DESCRIPTION	QTY	ITEM	PART#	DESCRIPTION	QTY
1	10501	Cross Arm Frame - Narrow	1	14	90195	Clevis Pin 3/4"	2
1W	10657	Cross Arm Frame - Wide	1	15	90105	Cotter Pin 5/32" x 1"	2
2	10514	Nylon Wear Plate	2	16	10535	Plate Threaded 5-8 UNF	1
3	10502	Loader Arm Right	1	17	90122	5/8" x 1-1/4" Bolt	4
4	10503	Loader Arm Left	1	18	90123	5/8" Lock Washer	4
5	90404	2-3/4" x 1" Washer	2	19	90124	5/8" Flat Washer	4
6	10717	Washer Nylon	2	20	90227	1/4" x 1/2" Bolt	4
7	90126	Shim 18 Gauge x 1 ID	2	21	90154	1" Nylock Nut	2
8	10518	Cylinder - Master Slave	1	22	90176	1" x 7" ALT. to 5-3/8" Bolt	2
9	10519	Cylinder Extension Bar - Narrow	1	23	90177	1" x 7" ALT. to 5-1/8" Bolt	2
9W	10730	Cylinder Extension Bar - Wide	2	24	90108	1" Nylock Nut Fine	2
10	10515	Nylon Wear Plate -Set	1	25	10522	Cross Arm End Cap	2
11	10516	Bushing 1-1/4" x 3/4"	2	26	90220	1" Washer	2
12	90106	5/16" Lock Washer	8	34	10506	Bushing 1-1/2" x 1"	2
13	90107	5/16" x 3/4" Bolt	8	35	90111	1in Deformed Nut	2

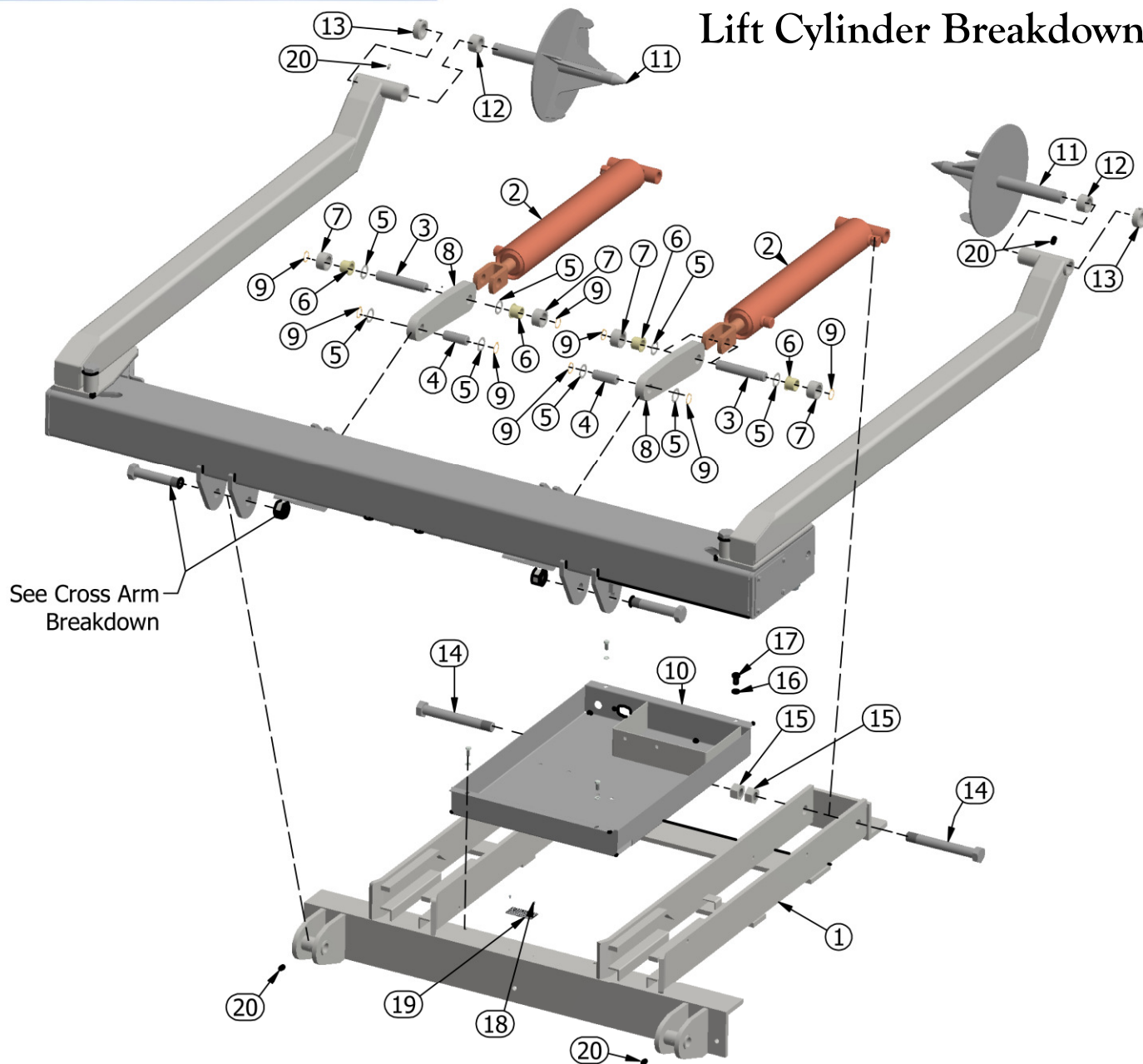


3000 Series Bale Loader Cross Arm Breakdown Extendable Arms



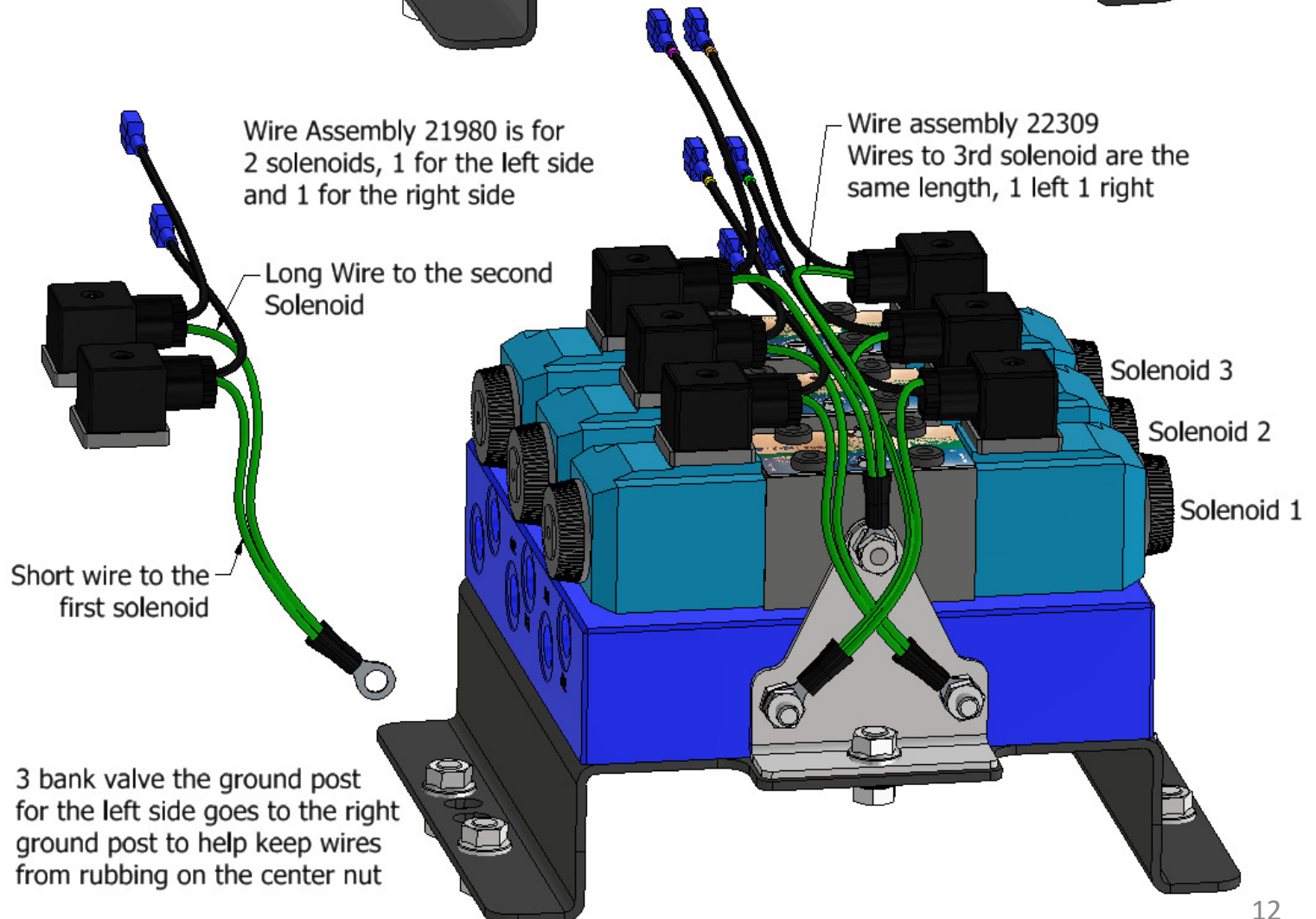
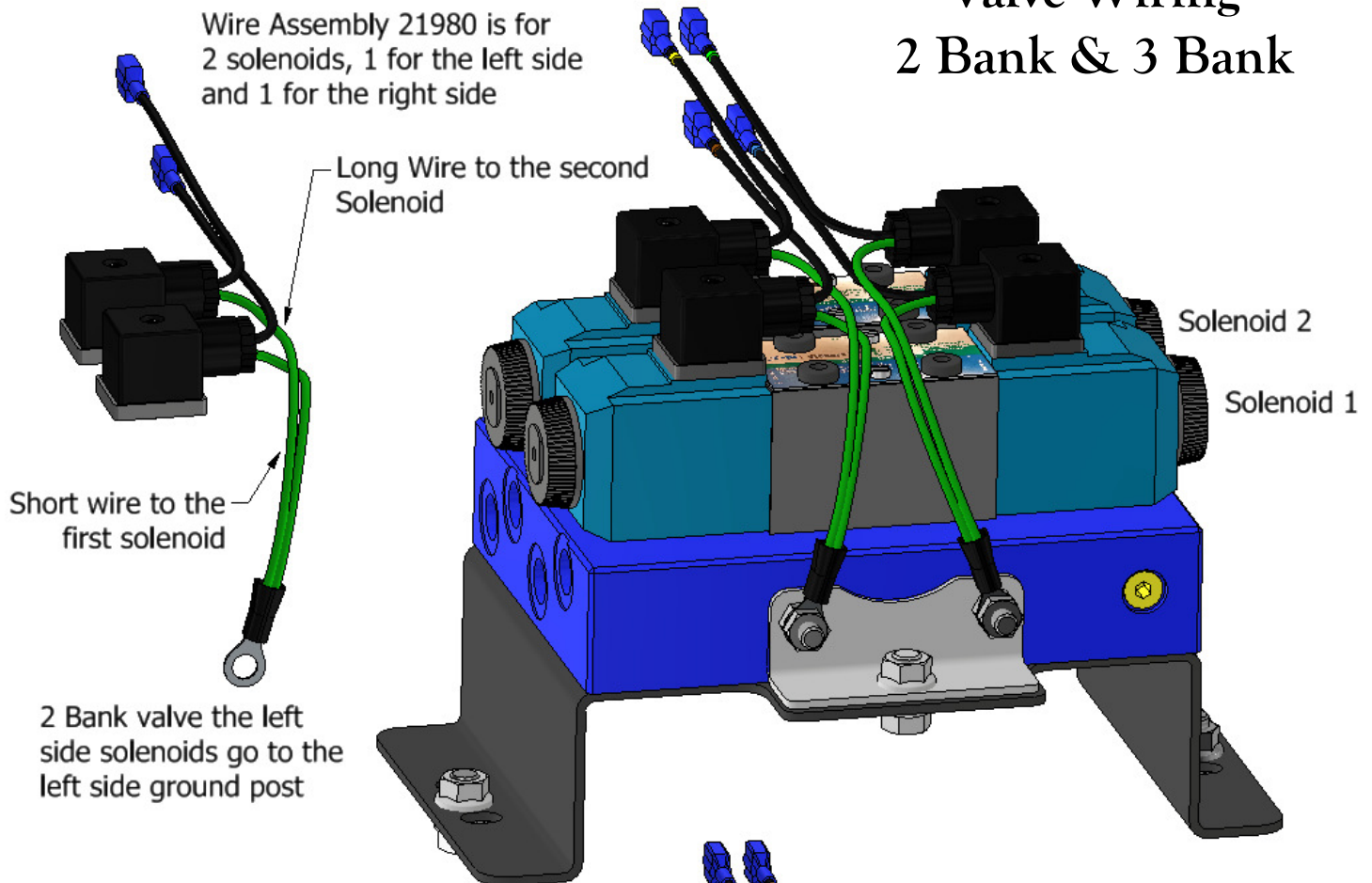
PARTS LIST				PARTS LIST			
ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	10447	Cross Arm Frame - Ext.	1	11	13589	Extendable Arm Cyl. LH	1
1W	10448	Cross Arm Frame - Wide Ext.	1	12	10943	1in Snap Ring	8
2	90404	2-3/4 x 1 washer	2	13	93028	Pin Cyl Ram - Short	2
3	10717	Nylon Spacer 2-7/8 x 1	2	14	93029	Pin Cyl Base - Long	2
4	90126	Shim 18 Gauge x 1 ID	2	15	90292	5/16" x 5/8" SS Bolt	8
5	13591	Nylon Wear Plate	2	16	90293	5/16" SS Lock Washer	8
6	13574	Arm Assy Left	1	17	90108	1" Nylock Nut Fine	4
7	13598	Arm Assy Right	1	18	13653	Extension Tube LH Complete	1
8	13579	1' x 9" ALT. to 7-1/4" Bolt	2	19	10506	1-1/2" x 1" Bushing	2
9	13596	Extension Tube RH Complete	1	20	94030	End Cap	2
10	13588	Extendable Arm Cyl. RH	1				

3000 Series Bale Loader Lift Cylinder Breakdown

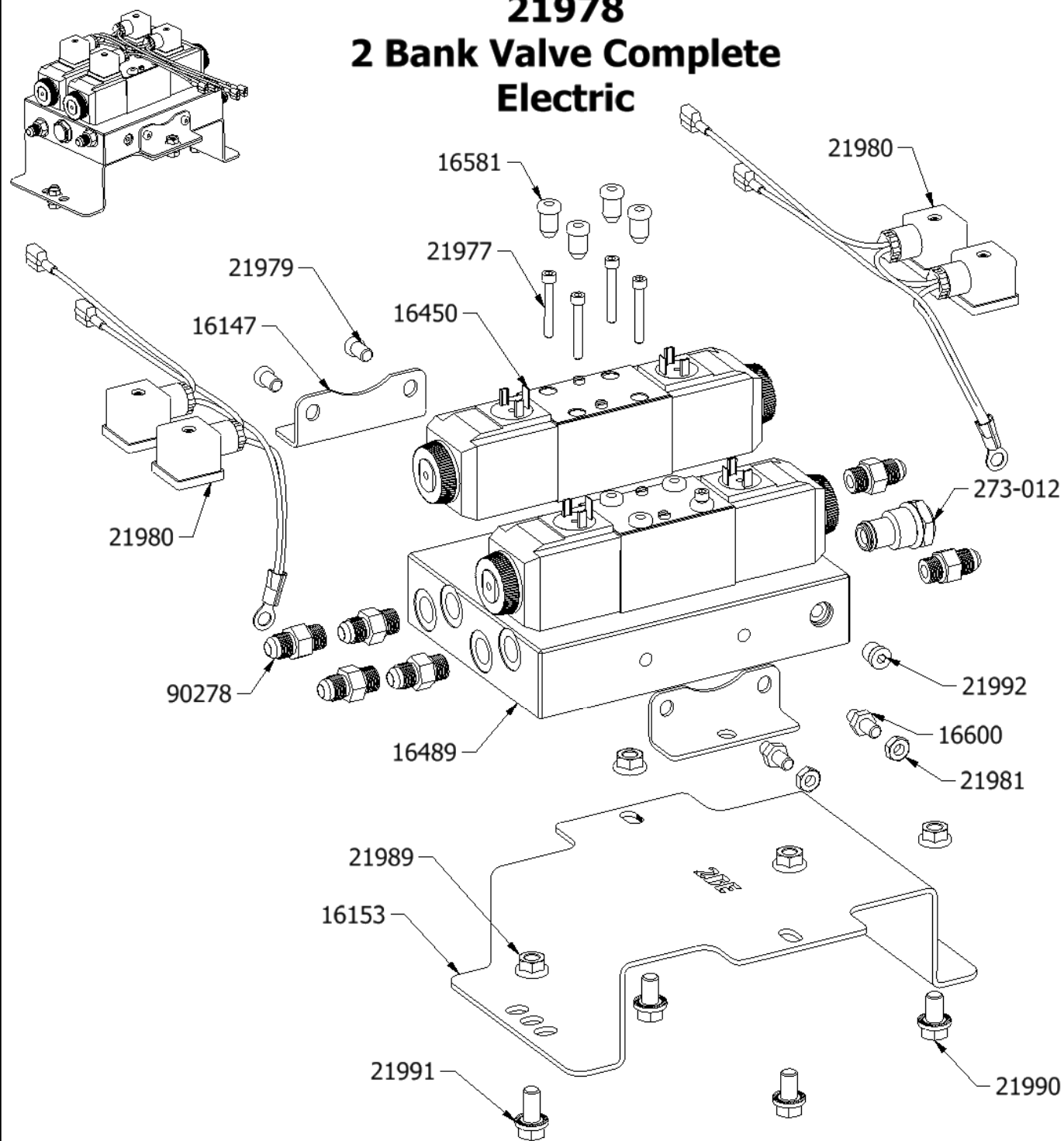


PARTS LIST				PARTS LIST			
ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	10500	3000 Elec Main Frame	1	11	10504	Spinner 15"	2
2	10512	Cylinder 3 x 20	2	12	10505	Spacer 1" x 1-1/4" x 1-3/4"-15"	2
3	10509	Pin Headless 1" x 5-1/2"	2	13	90102	Spinner lock collar 1-1/4"	2
4	10511	Pin Headless 1" x 2-1/8"	2	14	12167	1" x 9-1/2" Cut to 7-1/2" Bolt	2
5	10506	1-1/2" x 1" Bushing	12	15	90111	1in Deformed Nut	2
6	10507	Nylon Bushing	4	16	90106	5/16" Lock Washer	4
7	10508	Roller	4	17	90107	5/16" x 3/4" SS Bolt	4
8	10510	Lift Arm 2000-3000	2	18	10292	#6 x 1/4" Drive rivet	2
9	10943	1" Snap Ring	8	19	10898	Serial Number Plate	1
10	10523	Hydra Pan	1	20	90101	Zerk 1/4-28 Straight	4

Valve Wiring 2 Bank & 3 Bank

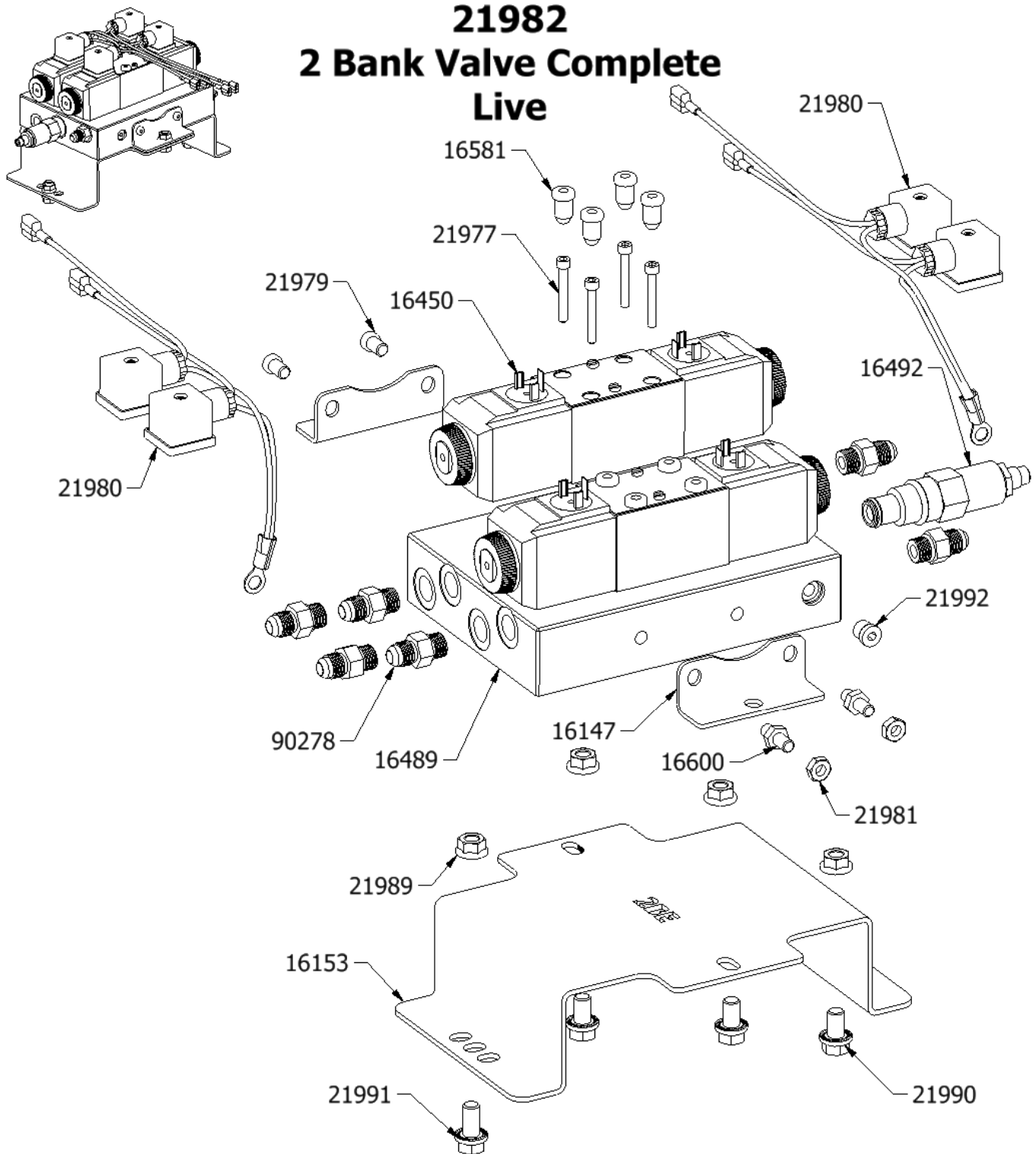


21978 2 Bank Valve Complete Electric



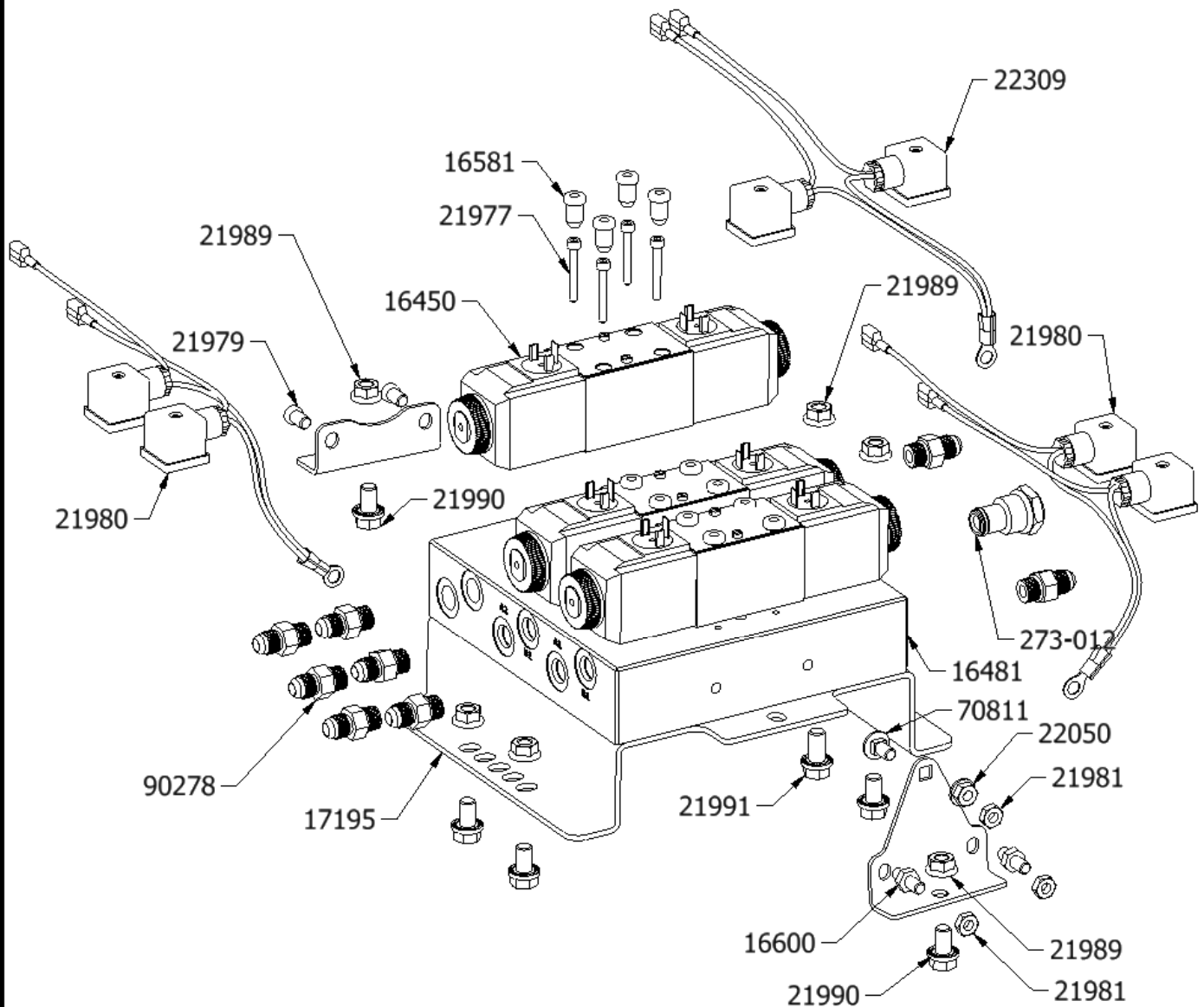
PARTS LIST			PARTS LIST		
QTY	PART #	DESCRIPTION	QTY	PART #	DESCRIPTION
1	16489	2 Bank Manifold	2	21981	.312 SS Jam Nut
2	16482	Vickers Valve 10V Coil	2	21979	.312 x .5 SS Screw
2	16147	2 Bank Valve Mount	1	16153	Manifold Stand
2	16600	.312 manifold bolt	6	90278	6 MBO to 6 JIC
8	16581	Rubber plug	4	21989	3/8" Flange Nut
8	21977	10-24 SS socket head screw	3	21990	3/8" x 5/8" Flange Bolt
2	21980	Din Wiring Vickers	1	21991	3/8" x 3/4" Flange Bolt
1	273-012	Cavity plug	2	21992	-4 Sae Plug

21982 2 Bank Valve Complete Live



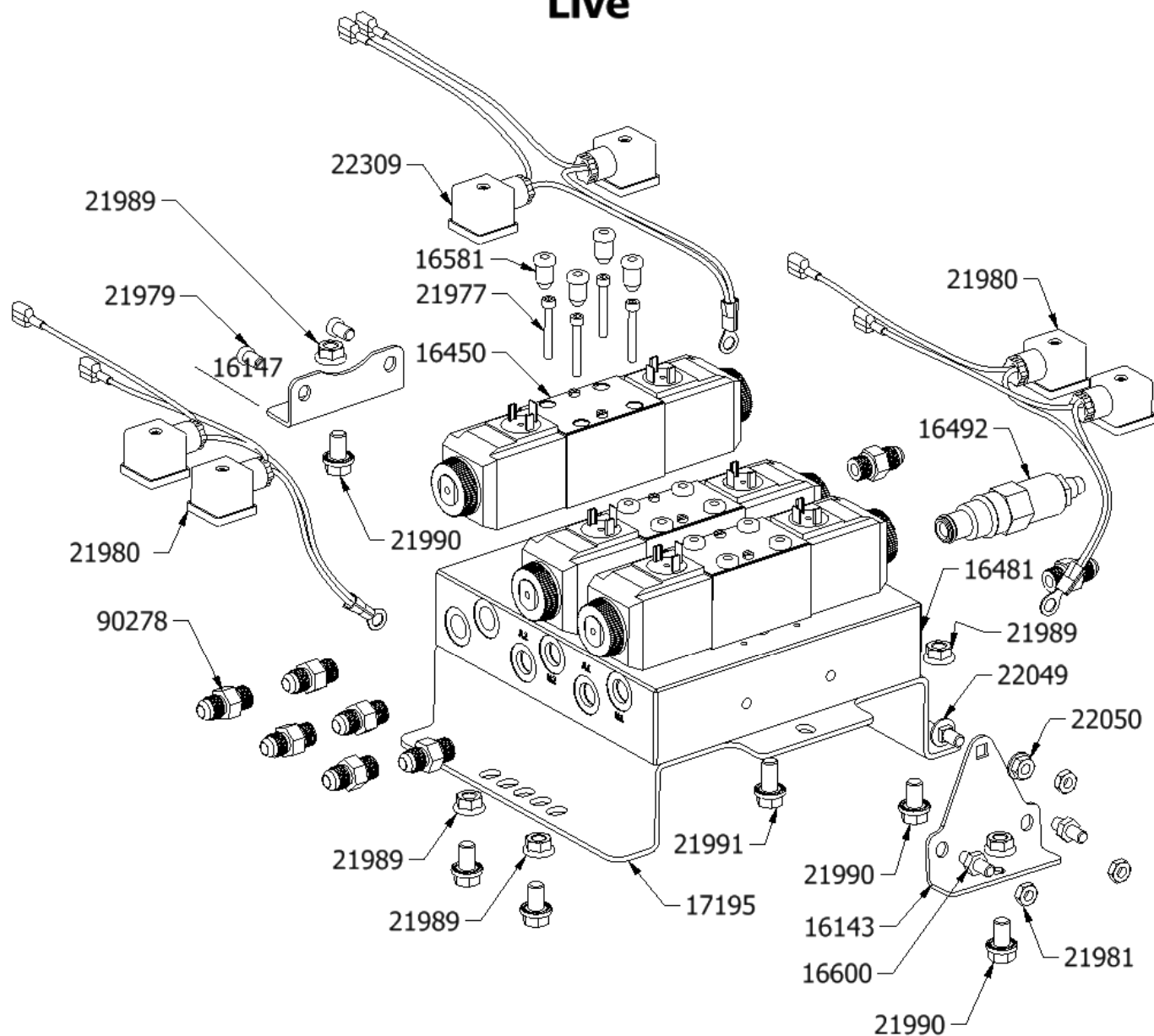
PARTS LIST			PARTS LIST		
QTY	PART #	DESCRIPTION	QTY	PART #	DESCRIPTION
1	16489	2 Bank Manifold	2	21981	.312 SS Jam Nut
2	16482	Vickers Valve 10V Coil	2	21979	.312 x .5 SS Screw
2	16147	2 Bank Valve Mount	1	16153	Manifold Stand
2	16600	.312 manifold bolt	4	21989	3/8" Flange Nut
8	16581	Rubber plug	3	21990	3/8" x 5/8" Flange Bolt
8	21977	10-24 SS socket head screw	1	21991	3/8" x 3/4" Flange Bolt
2	21980	Din Wiring Vickers	2	21992	-4 Sae Plug
1	16492	Relief valve	6	90278	6 MBO to 6 JIC

21983 3 Bank Valve Complete Electric



PARTS LIST				PARTS LIST			
ITEM	QTY	PART #	DESCRIPTION	ITEM	QTY	PART #	DESCRIPTION
1	3	16482	Vickers Valve 10V Coil	10	5	21990	3/8" x 5/8" Flange Bolt
2	2	16600	.312 manifold bolt	11	1	21991	3/8" x 3/4" Flange Bolt
3	12	16581	Rubber plug	12	1	16481	3 Bank Manifold
4	12	21977	10-24 SS socket head screw	13	1	17195	3 bank stand
5	1	273-012	Cavity plug	14	1	16143	elec valve mount bracket
6	3	21981	.312 SS Jam Nut	15	1	16147	2 Bank Valve Mount
7	2	21979	.312 x .5 SS Screw	16	1	22049	.312 x .625 carriage bolt
8	8	90278	6 MBO to 6 JIC	17	1	22050	.312 flange nut
9	6	21989	3/8" Flange Nut	18	3	21980	Din Vickers valve wiring
26	1	22309	Din wiring vickers 3 bank				

21984 3 Bank Valve Complete Live



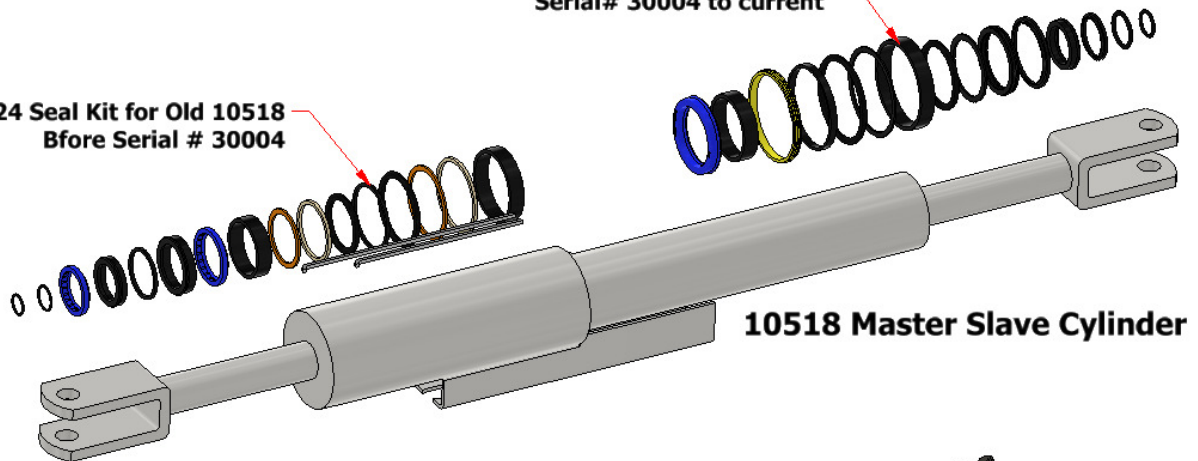
PARTS LIST				PARTS LIST			
ITEM	QTY	PART #	DESCRIPTION	ITEM	QTY	PART #	DESCRIPTION
1	3	16482	Vickers Valve 10V Coil	10	1	21991	3/8" x 3/4" Flange Bolt
2	2	16600	.312 manifold bolt	11	1	16481	3 Bank Manifold
3	12	16581	Rubber plug	12	1	17195	3 bank stand
4	12	21977	10-24 SS socket head screw	13	1	16143	elec valve mount bracket
5	3	21981	.312 SS Jam Nut	14	1	16147	2 Bank Valve Mount
6	2	21979	.312 x .5 SS Screw	15	1	22049	.312 x .625 carriage bolt
7	8	90278	6 MBO to 6 JIC	16	1	22050	.312 flange nut
8	5	21989	3/8" Flange Nut	17	2	21980	Din wiring Vickers valve
9	5	21990	3/8" x 5/8" Flange Bolt	18	1	16492	Relief valve
22	1	22309	Din wiring vickers 3 bank				



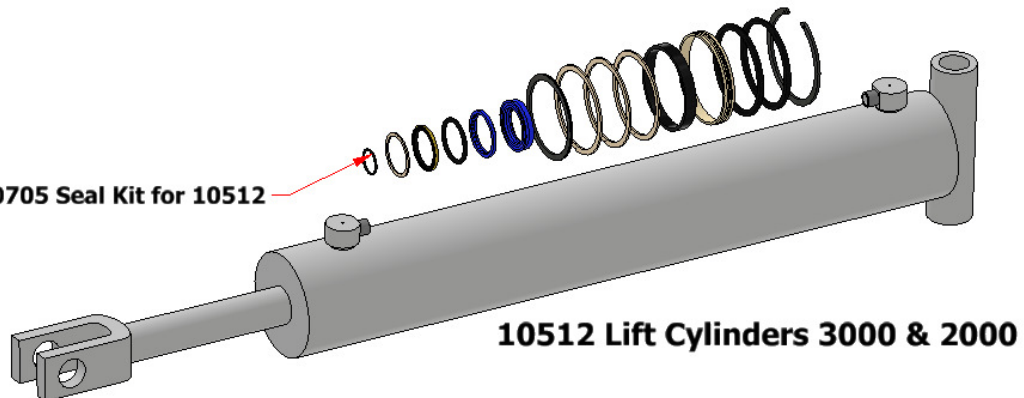
Replacement Cylinder Seal Kits

90720 Seal Kit for 10518 from
Serial# 30004 to current

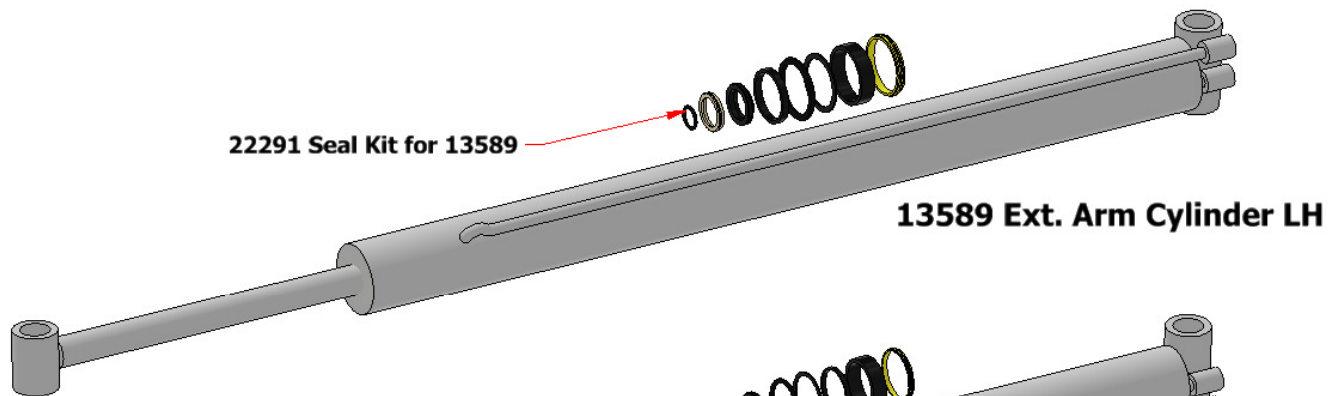
10524 Seal Kit for Old 10518
Before Serial # 30004



10705 Seal Kit for 10512

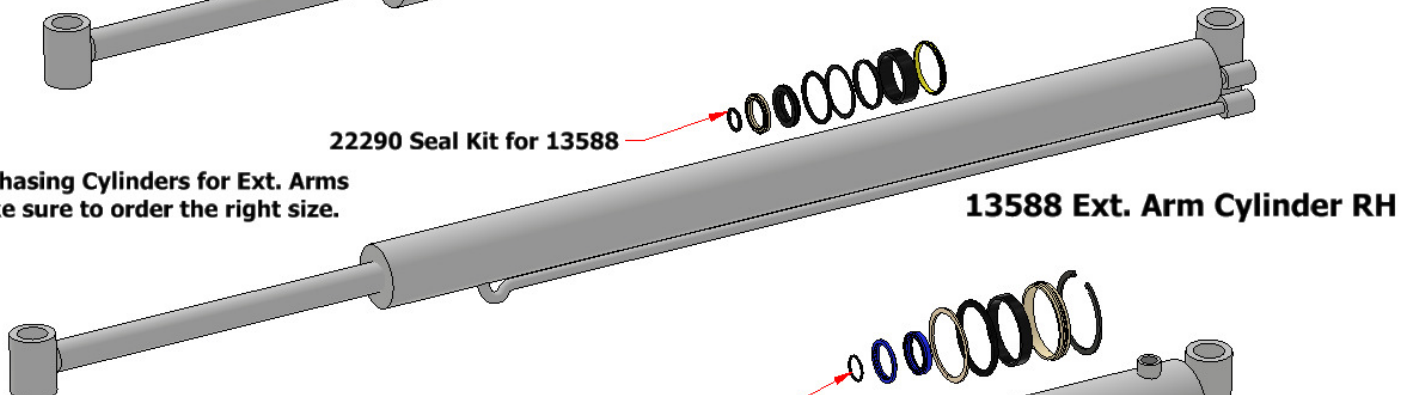


22291 Seal Kit for 13589

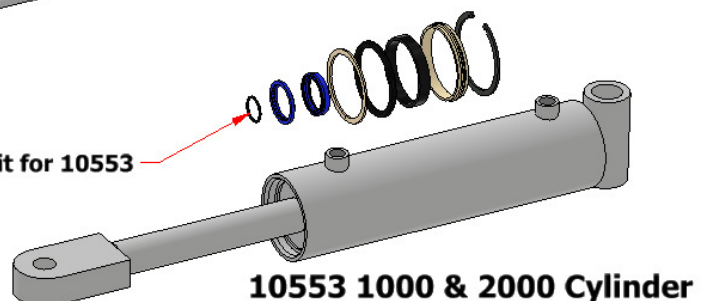


22290 Seal Kit for 13588

Rephasing Cylinders for Ext. Arms
Make sure to order the right size.

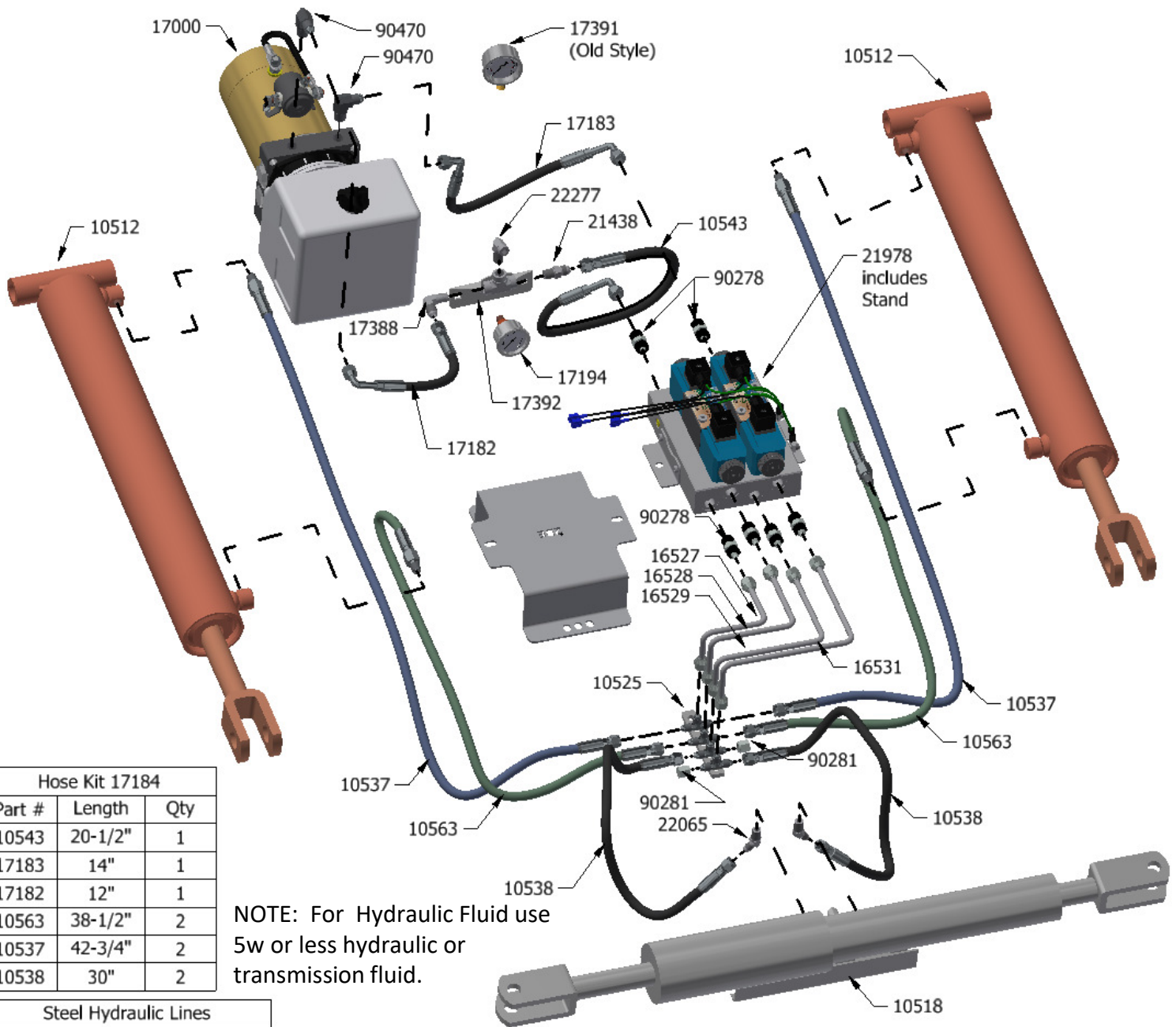


90390 Seal Kit for 10553





3000 Series Bale Loader 2 Bank Electric Hydraulic Hose Setup



Hose Kit 17184		
Part #	Length	Qty
10543	20-1/2"	1
17183	14"	1
17182	12"	1
10563	38-1/2"	2
10537	42-3/4"	2
10538	30"	2

Steel Hydraulic Lines		
Part #	Description	Qty
16527	Steel line LH Outer	1
16528	Steel line LH Inner	1
16529	Steel line RH Inner	1
16531	Steel line RH Outer	1

HYDRAULIC FITTINGS		
Part #	Description	Qty
22065	4 MJIC to 4MP 45 elbow	2
90281	4 JIC Cap	2
90278	6MB Oring to 6 JIC	6
21438	4 MP to 6JIC	1
17388	4MP to 6 JIC 90 elbow	1
90470	6 MP to 6 JIC 90 elbow	2
17391	Pressure Gauge (old Style)	1
22277	90 Elbow	1
17194	Pressure Gauge	1

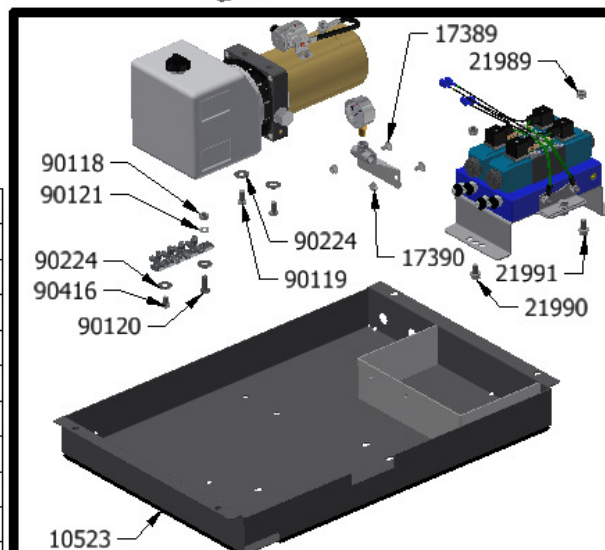
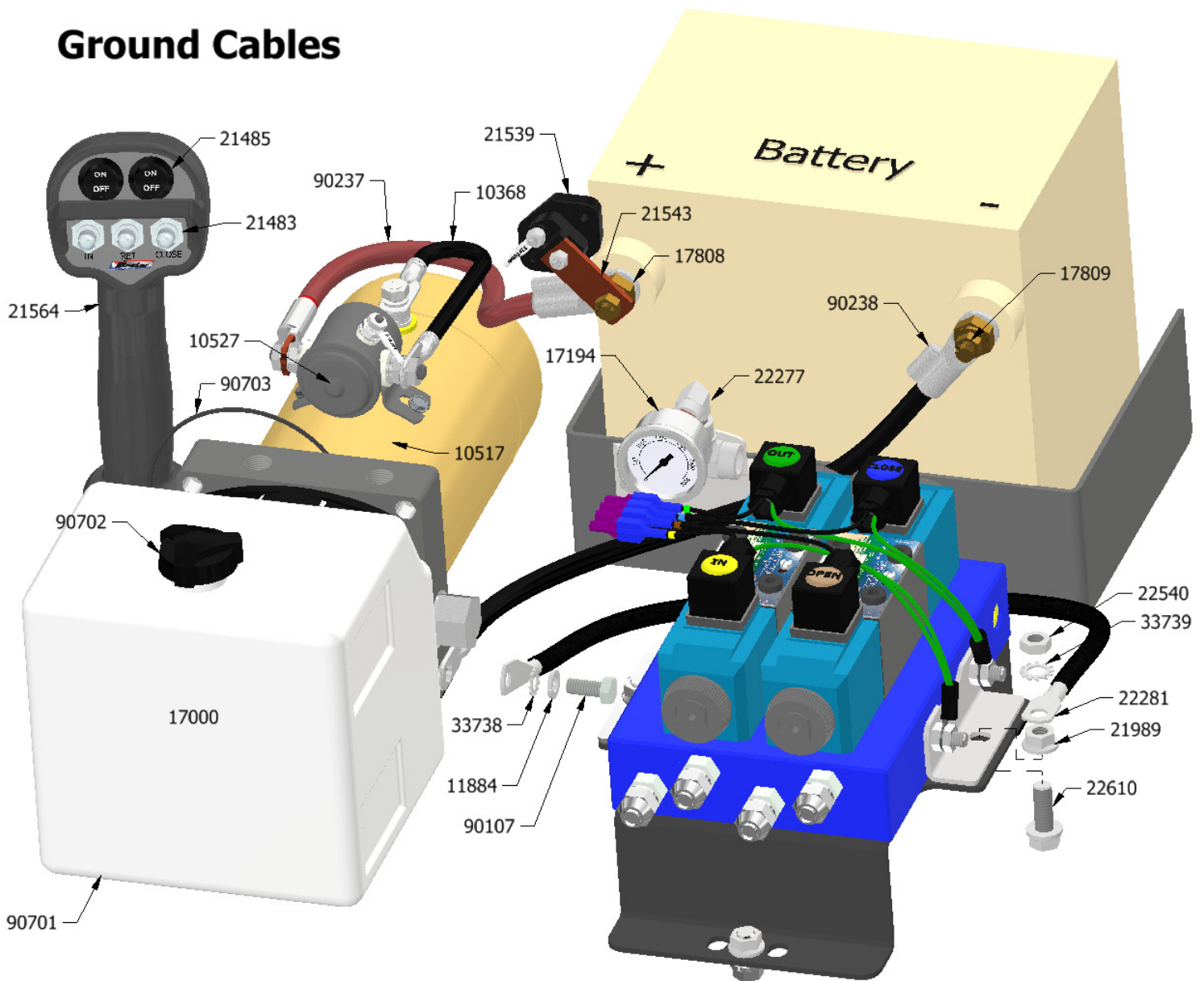


TABLE		
Part #	Description	Qty
90118	3/8" Nut	1
90121	3/8" Lock Washer	1
90224	3/8" Washer	4
90416	3/8" x 1/2" Bolt	1
90120	3/8" x 1" Bolt	1
90119	3/8" x 3/4" Bolt	2
17390	5/16" Flange Nut	2
17389	5/16" x 1/2" Carriage Bolt	2
21990	3/8" x 5/8" Flange Bolt	1
21991	3/8" x 3/4" Flange Bolt	1
21989	3/8" Flange Nut	2

Ground Cables

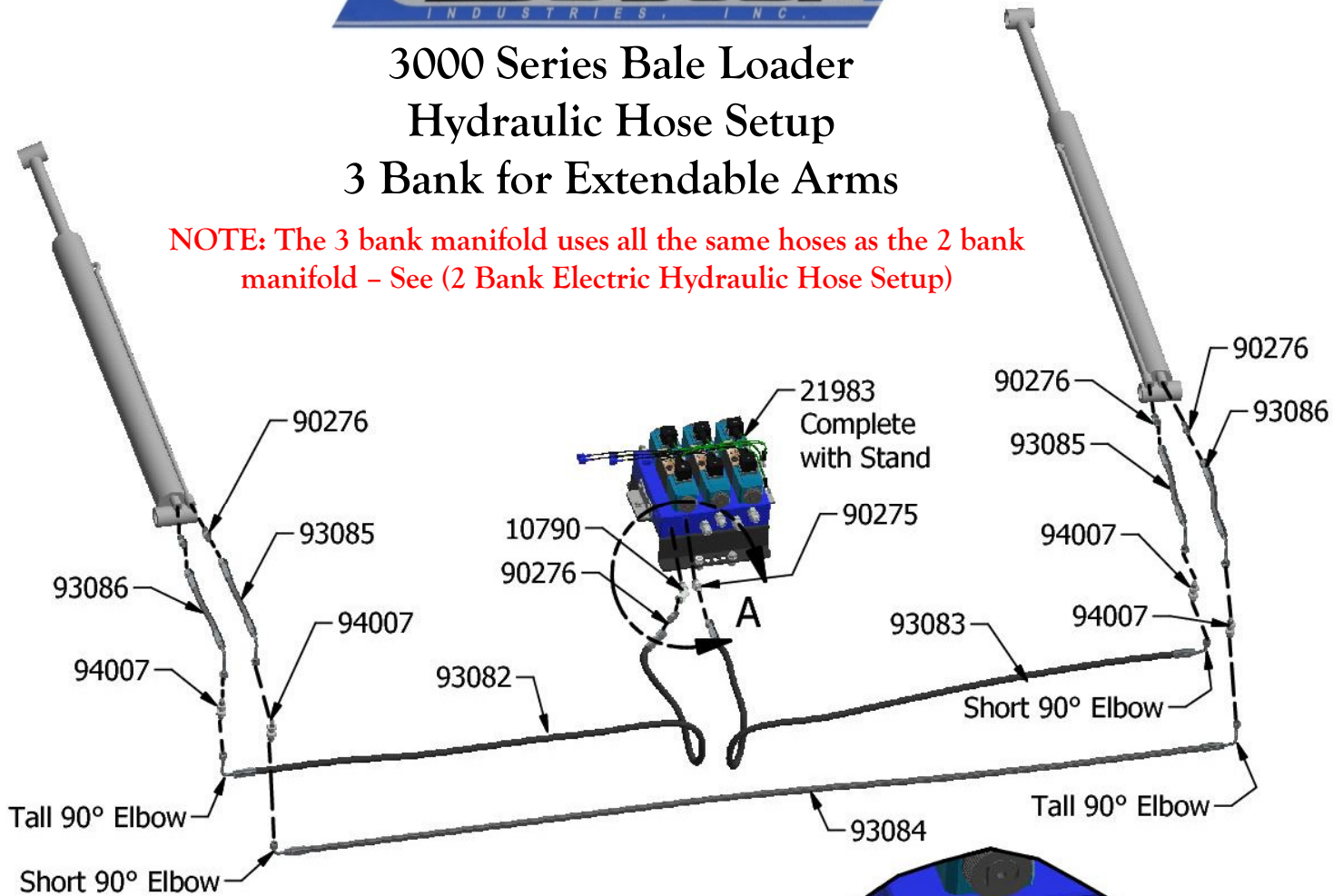


Parts List		Parts List	
Part #	Description	Part #	Description
21564	Pistol Grip With Cord	17194	Pressure Gauge 1.5"
90703	Replacement O-ring stone motor	10517	Stone Motor
90702	Plastic Tank Cap	33738	5/16" Star washer
17000	Elec/Hyd Power Unit Kit	11884	Lock Washer
90701	Tank Kit	90107	5/16" x 3/4" Bolt
21485	Round On/Off Switch	90238	Ground Cable - Battery to Pump
21483	Toggle Switch	17809	Brass terminal nut
10527	Solenoid Stone Pump	22540	3/8" Jam nut
90237	Battery Cable Positive	33739	3/8" Star Washer
10368	Solenoid Jumper Cable - Cable is black but not a ground	22281	Ground cable pump to valve - 20.5"
21539	15Amp Auto resetting circuit breaker	21989	3/8" Flange Nut
21543	Copper Bus bar	22610	3/8" x 1" serrated Flange bolt
17808	Brass terminal Stud		

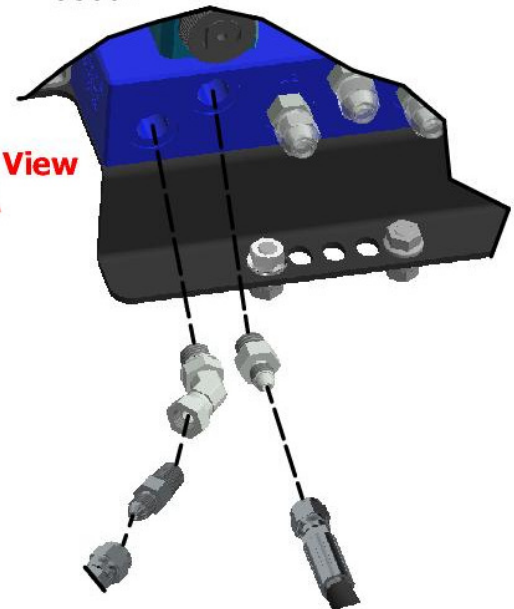


3000 Series Bale Loader Hydraulic Hose Setup 3 Bank for Extendable Arms

NOTE: The 3 bank manifold uses all the same hoses as the 2 bank manifold – See (2 Bank Electric Hydraulic Hose Setup)



**Detail View
A**



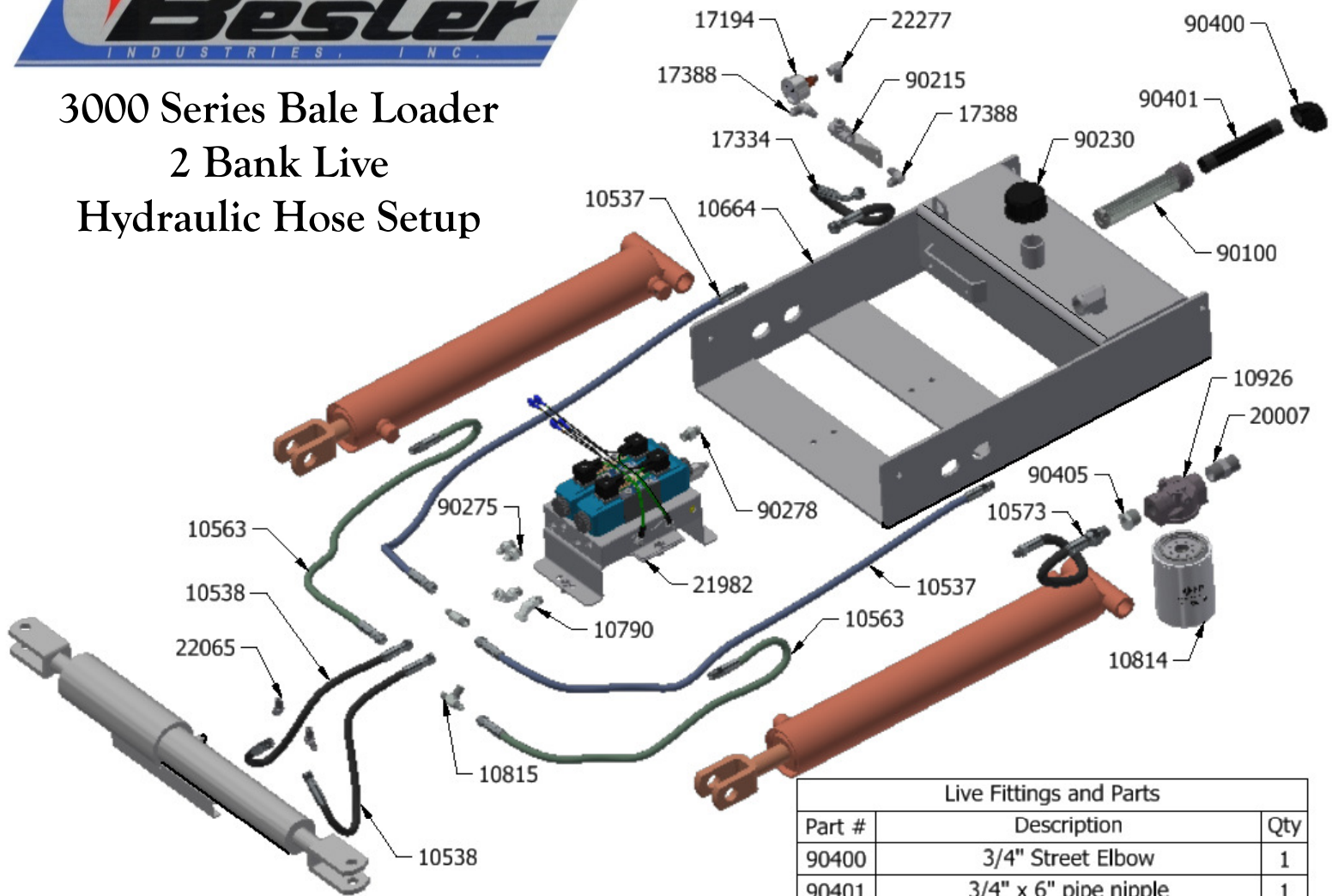
Hydraulic Fittings		
Part #	Description	Qty
90276	4MP to 4JIC	5
94007	4JIC bulkhead Union	4
10790	6MB Oring to 4MP Swivel 45 Elbow	1
90275	6MB Oring to 4JIC	1

Narrow Hose Kit 93087N		
Part #	Hose Length	Qty
93085N	9-1/2"	2
93086N	9-13/16"	2
93083N	63-3/4"	1
93082N	67-3/4"	1
93082N	78"	1

Wide Hose Kit 93087W		
Part #	Hose Length	Qty
93085W	9-1/2"	2
93086W	9-13/16"	2
93083W	69"	1
93082W	72-3/4"	1
93084W	88"	1

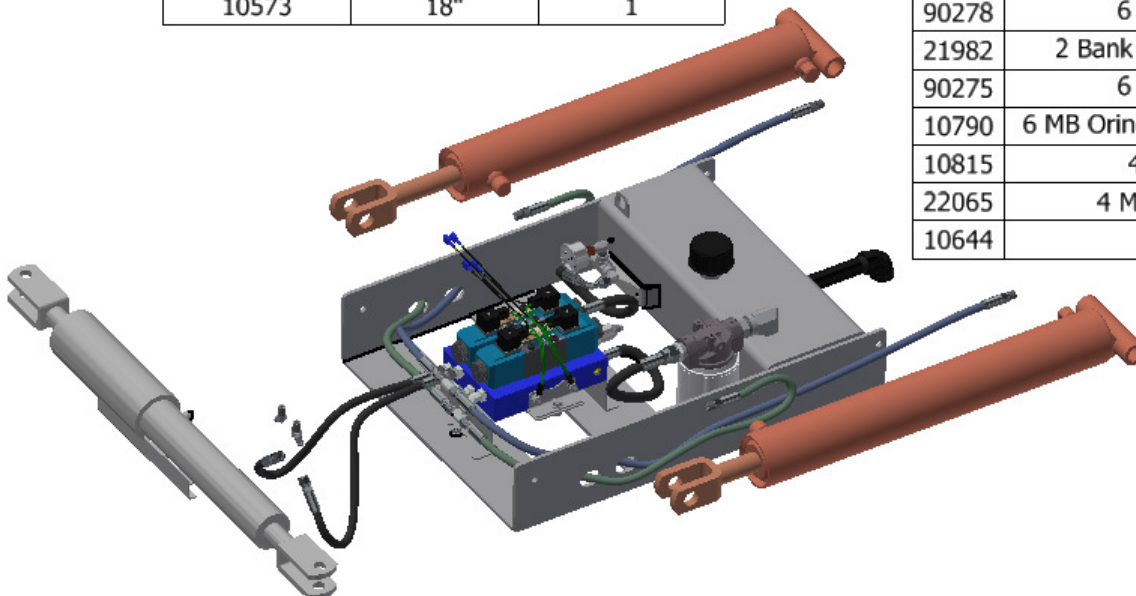


3000 Series Bale Loader 2 Bank Live Hydraulic Hose Setup



2 Bank Live Hoses		
Part #	Length	Qty
10537	42-3/4"	2
10563	38-1/2"	2
10538	30"	2
17334	20-1/2"	1
10573	18"	1

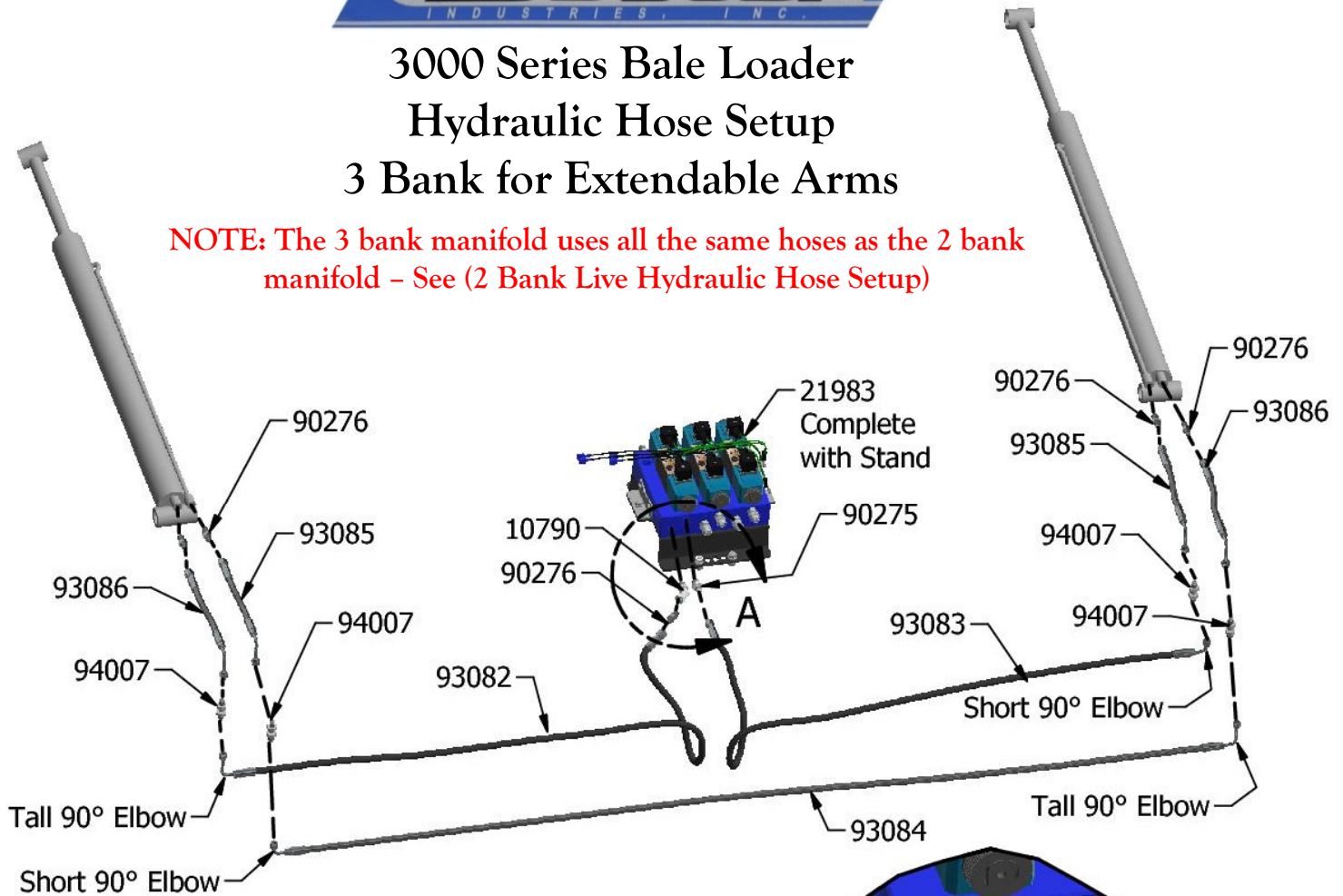
Live Fittings and Parts		
Part #	Description	Qty
90400	3/4" Street Elbow	1
90401	3/4" x 6" pipe nipple	1
90100	Suction Screen	1
17194	3000 psi gauge	1
22277	1/4" Forged street elbow	1
17388	1/4" MP to 6 MJIC elbow	2
20007	3/4" Hex Close Nipple	1
10926	Oil Filter Adapter	1
10814	Oil Filter FPE30-10N	1
90405	3/4" to 1/2" Reducer	1
90278	6 MB Oring to 6 JIC	1
21982	2 Bank Live manifold complete	1
90275	6 MB Oring to 4 JIC	2
10790	6 MB Oring to 4 MP Swivel 45 elbow	2
10815	4 MP Tee to 4 JIC	2
22065	4 MP to 4 JIC 45 Elbow	2
10644	Live Pan	1





3000 Series Bale Loader Hydraulic Hose Setup 3 Bank for Extendable Arms

NOTE: The 3 bank manifold uses all the same hoses as the 2 bank manifold – See (2 Bank Live Hydraulic Hose Setup)



**Detail View
A**

Hydraulic Fittings		
Part #	Description	Qty
90276	4MP to 4JIC	5
94007	4JIC bulkhead Union	4
10790	6MB Oring to 4MP Swivel 45 Elbow	1
90275	6MB Oring to 4JIC	1

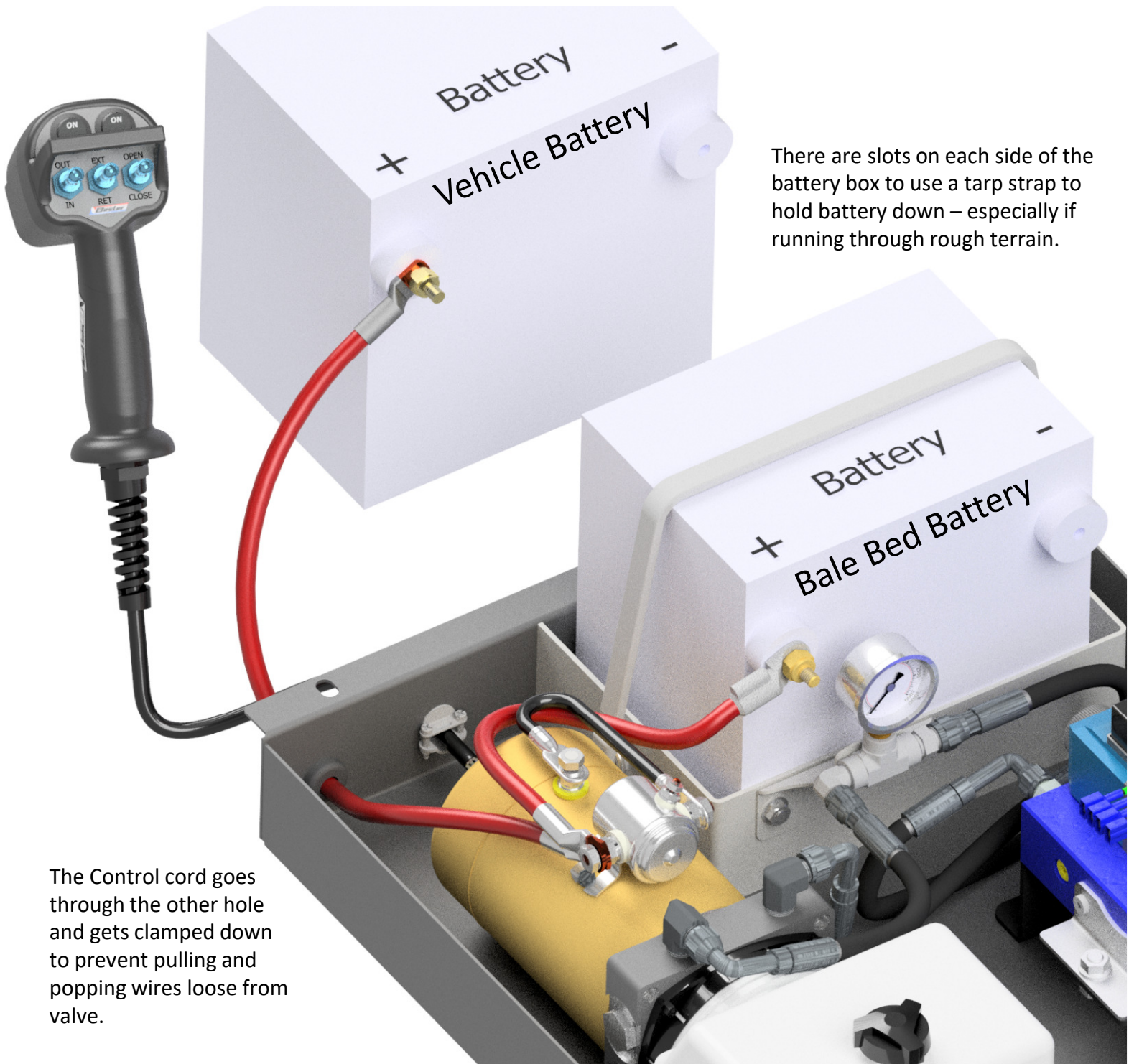
Narrow Hose Kit 93087N		
Part #	Hose Length	Qty
93085N	9-1/2"	2
93086N	9-13/16"	2
93083N	63-3/4"	1
93082N	67-3/4"	1
93082N	78"	1

Wide Hose Kit 93087W		
Part #	Hose Length	Qty
93085W	9-1/2"	2
93086W	9-13/16"	2
93083W	69"	1
93082W	72-3/4"	1
93084W	88"	1



Correct way to connect to Vehicles Battery

Run the red power cable from the battery in the vehicle through the plastic grommet on the pan as shown and connect to the solenoid on the pump as shown. DO NOT connect direct to the bale bed battery, the threads are not long enough on battery terminal and could come loose and short out. Use the short red power cable to connect from the solenoid to the bale bed battery as shown.



There are slots on each side of the battery box to use a tarp strap to hold battery down – especially if running through rough terrain.

The Control cord goes through the other hole and gets clamped down to prevent pulling and popping wires loose from valve.

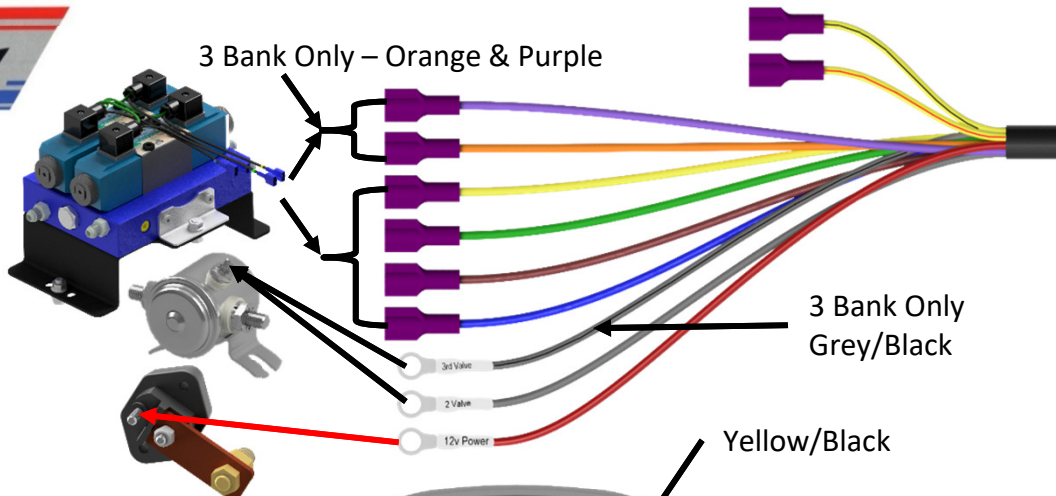


3000 Series Bale Loader Controller Cord



Grey/Black Wire

Splits into 2 black wires going to the top and bottom terminals of the center switch as shown.



Yellow/Red

Orange

Brown

Blue

Purple

Yellow/Black

Green

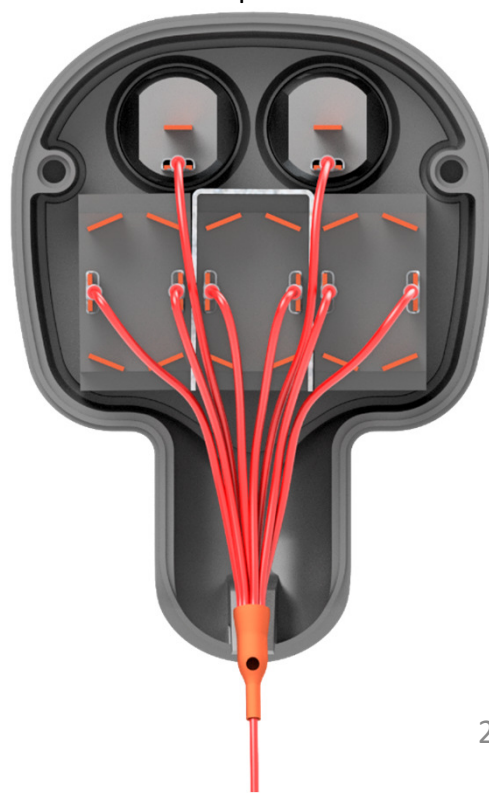
Yellow

Grey Wire

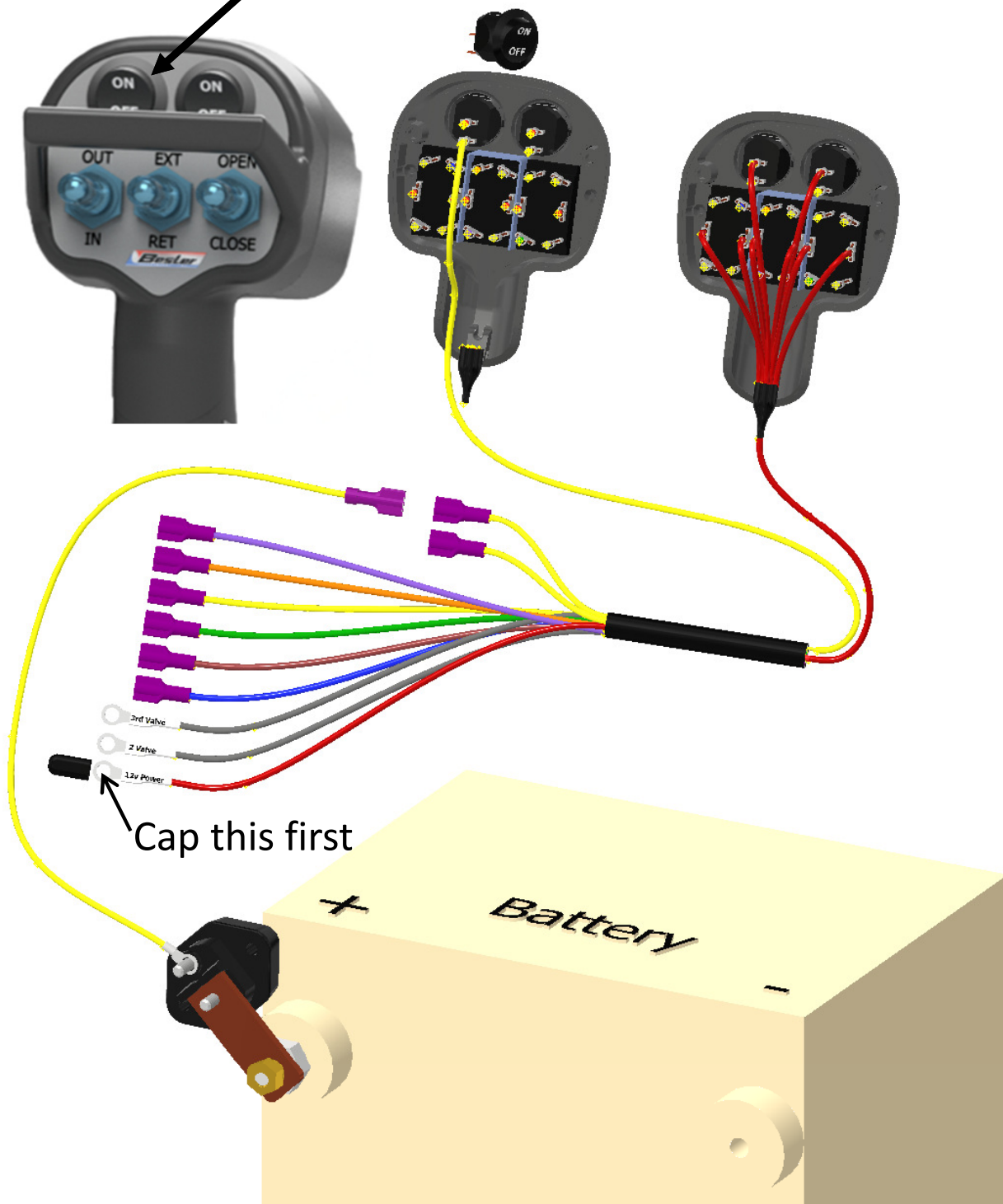
Splits into 4 black wires going to the top and bottom terminals of the LH & RH switch as shown.

Red Wire

Splits into 8 red wires going to the center terminals of the toggle switches and the bottom terminals of the top switches.



Wire Power Through ON/OFF Switch

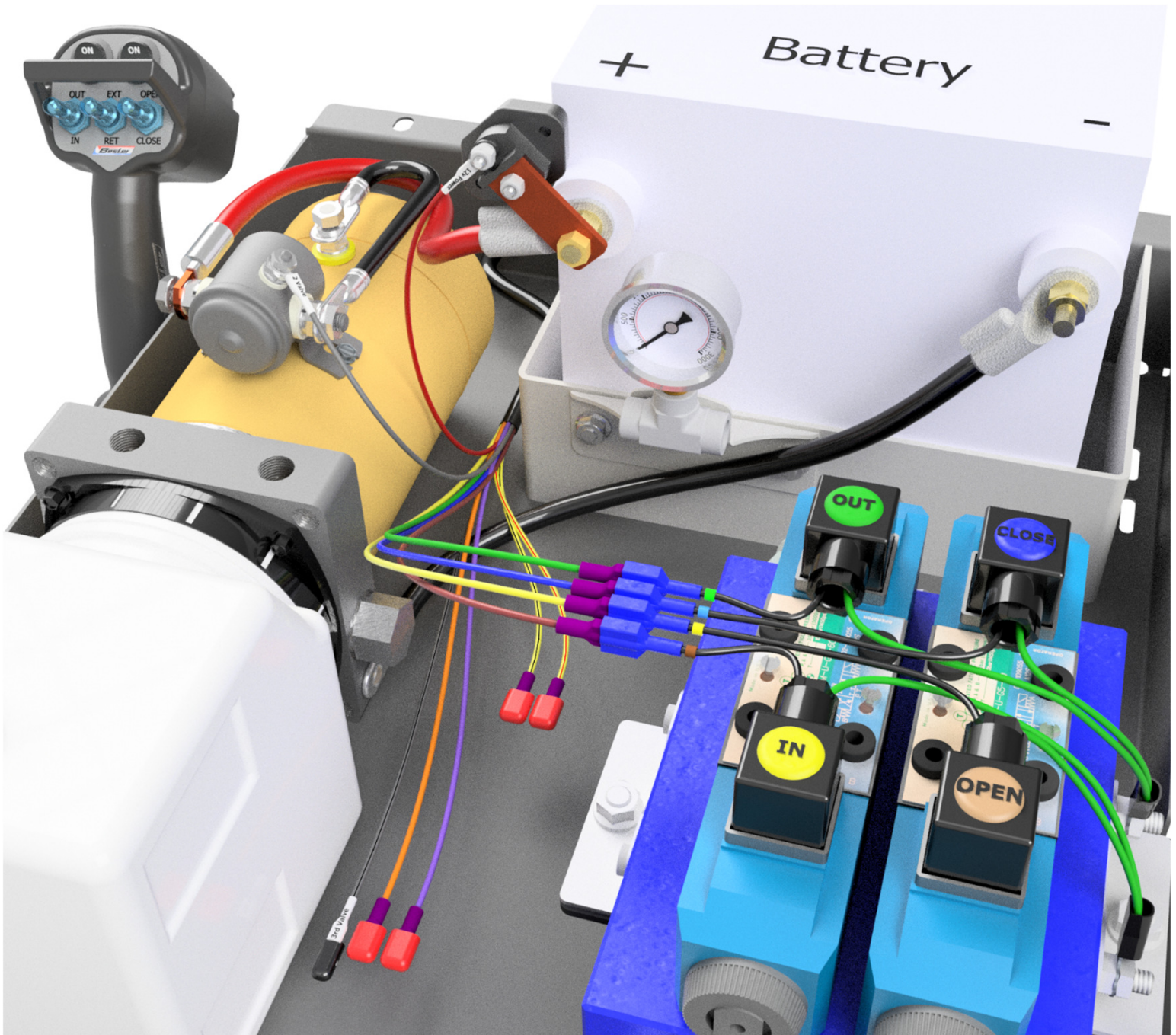


1. Cap or tape off the red 12v Power Eyelet do this first to avoid shorting out.
2. Connect the Yellow/Black or the Yellow/Red wire to the stud on the circuit breaker
3. Yellow/Red goes to one of the Round on/off switches Yellow/Black to the other.
4. The power to the controller can now be cut off using the on/off switch but the red eyelet will have power so make sure it is protected from shorting out.



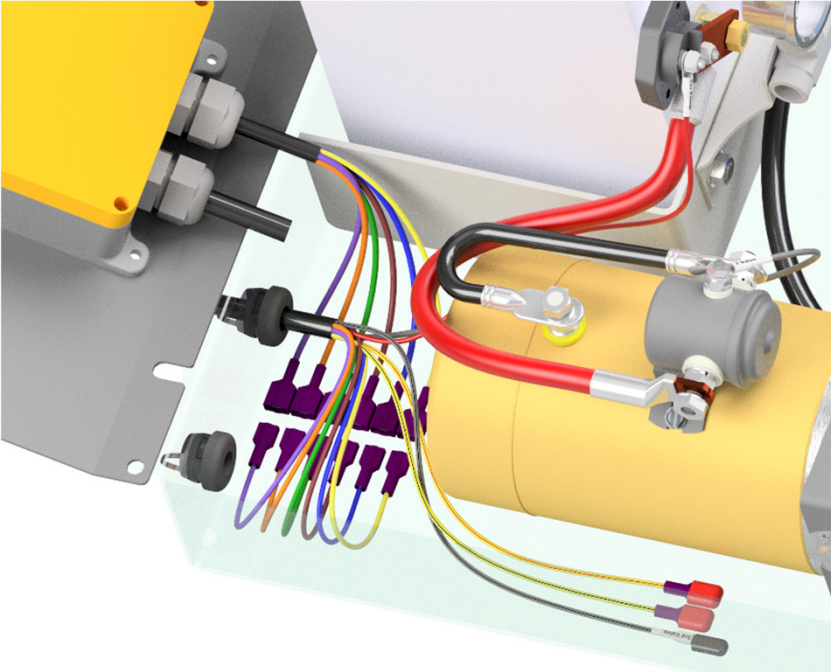
Control Cord Wiring – 2 Bank Electric

1. Plug the **Green** wire to the **Black wire with Green zip tie** from the valve.
2. Plug the **Blue** wire to the **Black wire with Blue zip tie** from the valve.
3. Plug the **Brown** wire to the **Black wire with Brown zip tie** from the valve.
4. Plug the **Yellow** wire to the **Black wire with Yellow zip tie** from the valve.
5. Make sure both **Orange** and **Purple** wires are capped or taped, they are not used.
6. Make sure the **Grey/Black** wire is capped or taped off, it is not used.
7. Connect the **Grey** wire to the small top stud of solenoid.
8. The **Yellow/Black** and **Yellow/Red** wires are 12v power controlled by the two ON/OFF switches. They can be used for external lights etc... If running something more than 10 amps, add a 20 to 30 amp relay or it could damage switch.
9. Install the 10 Amp autoresetting breaker to battery as shown. If something trips breaker when switch is off it will reset.
10. Hook up **Red** wire to the small terminal on the 10 amp breaker.



Control Cord Wiring – 2 Bank Electric With Wireless

Hooking up control cord to the wireless unit. To keep wires out of the way the short pigtail from wireless unit wrap under the Control cord and connect the colored wires as shown.

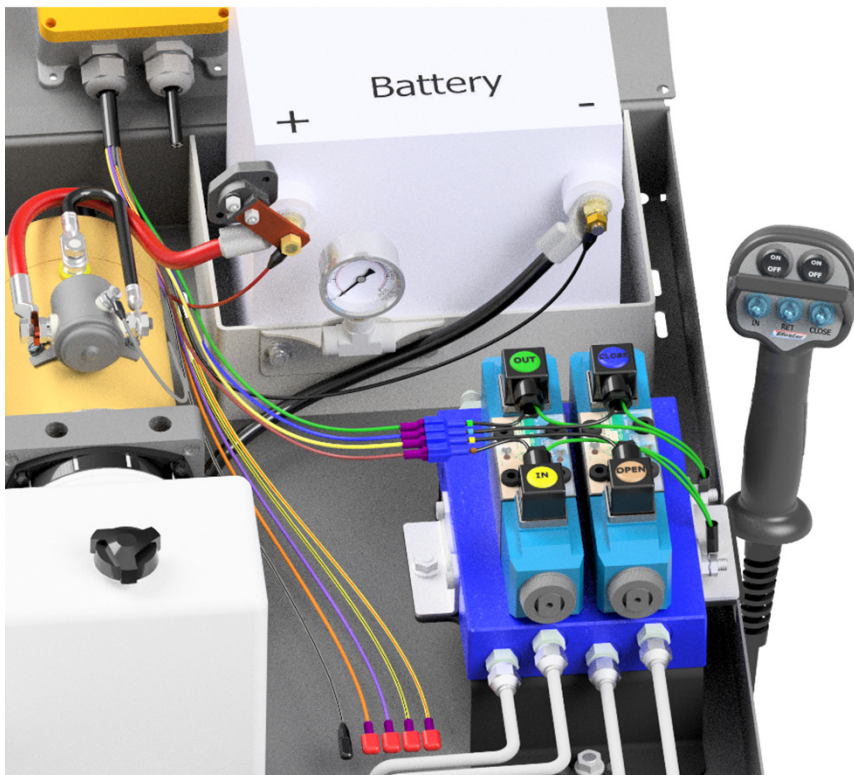


Control Cord to Wireless & Pump

1. **Yellow** wire to the **Yellow** wire.
2. **Blue** wire to the **Blue** wire.
3. **Brown** wire to the **Brown** wire.
4. **Green** wire to the **Green** wire.
5. **Orange** wire to the **Orange** wire.
6. **Purple** wire to the **Purple** wire.
7. **Yellow/Black** wire should be capped.
8. **Yellow/Red** wire should be capped.
9. **Grey/Black** wire should be capped.
10. **Grey** wire to the top stud on solenoid of pump.
11. **Red** wire to the stud on the auto resetting breaker.

The Yellow/Black and the Yellow/Red wires can be used For lights, cake feeder, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the control cord only, the ON/OFF buttons on wireless are not connected to control cord.

Hooking up the long pigtail from the wireless unit.



Wireless to Pump & Valve

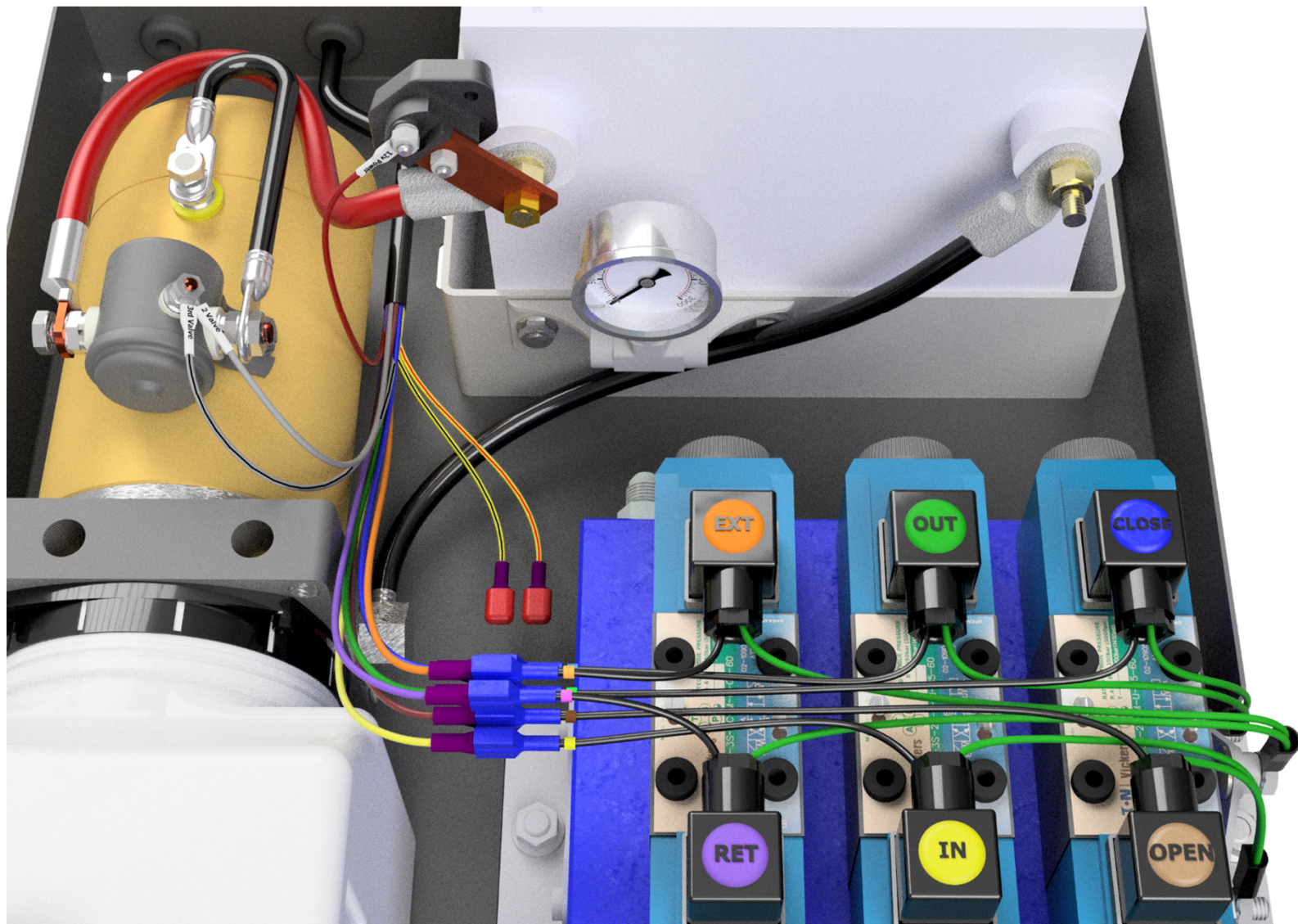
1. **Yellow** wire to the **Black wire with yellow zip tie** on the valve.
2. **Blue** wire to the **Black wire with Blue zip tie** on the valve.
3. **Brown** wire to the **Black wire with the Brown zip tie** on the valve.
4. **Green** wire to the **Black wire with the Green zip tie** on the valve.
5. **Orange** wire is capped.
6. **Purple** wire is capped.
7. **Yellow/Black** wire should be capped.
8. **Yellow/Red** wire should be capped.
9. **Grey/Black** wire should be capped.
10. **Grey** wire to the top stud on solenoid of pump.
11. **Black** wire to the negative stud on battery terminal.
12. **Red** wire to the positive stud on battery terminal.

The Yellow/Black and the Yellow/Red wires can be used For lights, cake feeder, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the wireless remote only, the ON/OFF buttons on control cord are not connected to wireless.



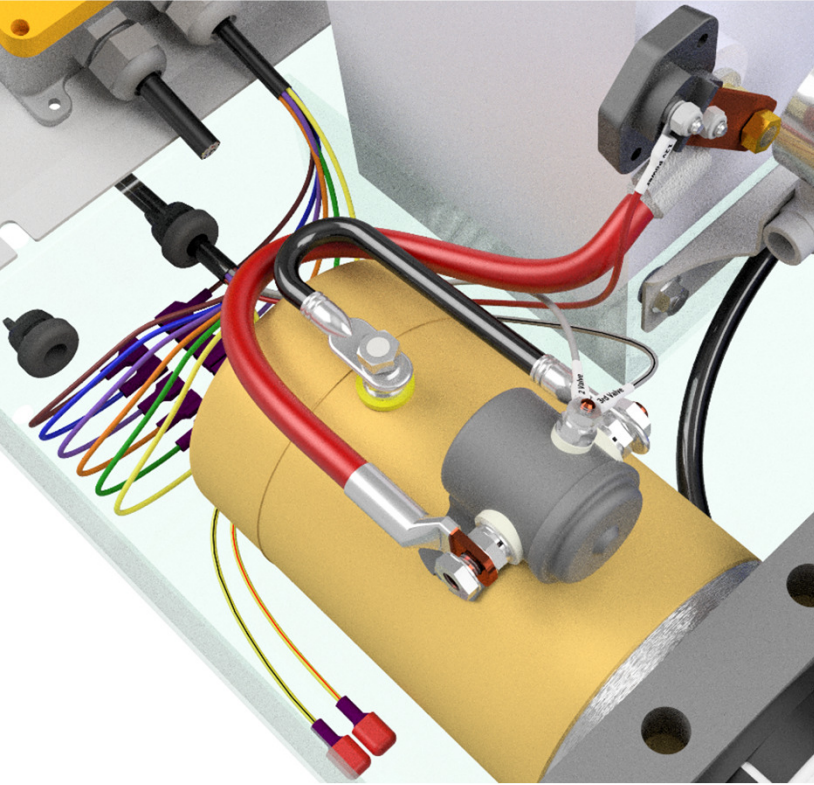
Control Cord Wiring – 3 Bank Electric

1. Plug the **Green** wire to the **Black wire with Green zip tie** from the valve.
2. Plug the **Blue** wire to the **Black wire with Blue zip tie** from the valve.
3. Plug the **Brown** wire to the **Black wire with Brown zip tie** from the valve.
4. Plug the **Yellow** wire to the **Black wire with Yellow zip tie** from the valve.
5. Plug the **Orange** wire to the **Black wire with Orange zip tie** from the valve.
6. Plug the **Purple** wire to the **Black wire with Purple zip tie** from the valve.
7. Connect the **Grey/Black** wire to the small top stud of solenoid.
8. Connect the **Grey** wire to the small top stud of solenoid.
9. The **Yellow/Black** and **Yellow/Red** wires are 12v power controlled by the two ON/OFF switches. They can be used for external lights etc... If running something more than 10 amps, add a 20 to 30 amp relay or it could damage switch.
10. Install the 10 Amp autoresetting breaker to battery as shown. If something trips breaker when switch is off it will reset.
11. Hook up **Red** wire to the small terminal on the 10 amp breaker.

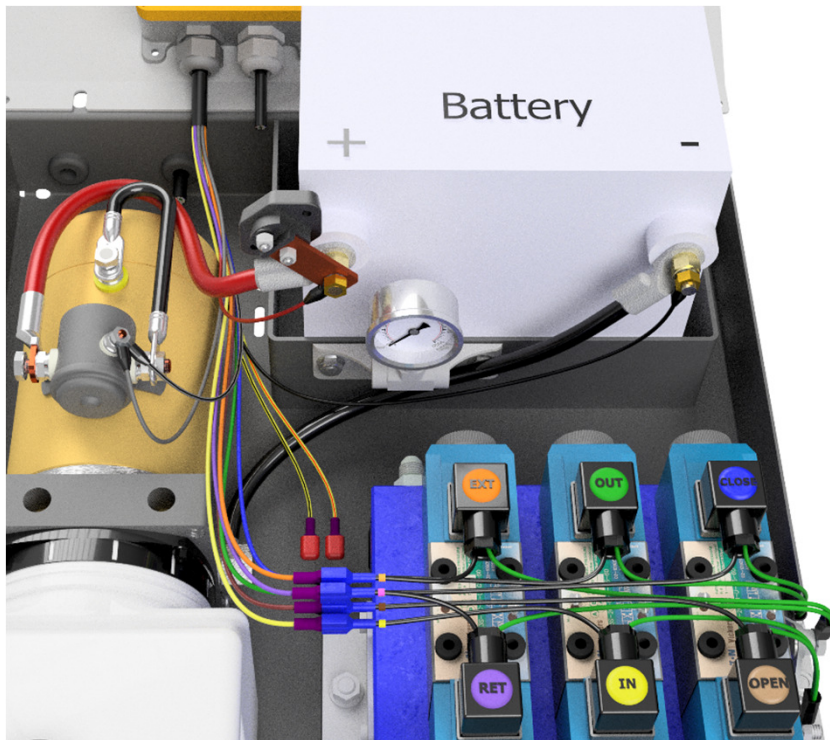


Control Cord Wiring – 3 Bank Electric With Wireless

Hooking up control cord to the wireless unit. To keep wires out of the way the short pigtail from wireless unit wrap under the Control cord and connect the colored wires as shown.



Hooking up the long pigtail from the wireless unit.



Control Cord to Wireless & Pump

1. **Yellow** wire to the **Yellow** wire.
2. **Blue** wire to the **Blue** wire.
3. **Brown** wire to the **Brown** wire.
4. **Green** wire to the **Green** wire.
5. **Orange** wire to the **Orange** wire.
6. **Purple** wire to the **Purple** wire.
7. **Grey/Black** wire to the top stud on solenoid of pump.
8. **Grey** wire to the top stud on solenoid of pump.
9. **Yellow/Black** wire should be capped.
10. **Yellow/Red** wire should be capped.
11. **Red** wire to the stud on the auto resetting breaker.

ON/OFF Buttons– (Control Cord)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, cake feeder, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the control cord only, the ON/OFF buttons on wireless are not connected to control cord.

Wireless to Pump & Valve

1. **Yellow** wire to the **Black wire with yellow zip tie** on the valve.
2. **Blue** wire to the **Black wire with Blue zip tie** on the valve.
3. **Brown** wire to the **Black wire with the Brown zip tie** on the valve.
4. **Green** wire to the **Black wire with the Green zip tie** on the valve.
5. **Orange** wire to the **Black wire with the Orange zip tie** on the valve.
6. **Purple** wire to the **Black wire with the Purple zip tie** on the valve.
7. **Grey** wire to the top stud on solenoid of pump.
8. **Grey/Black** wire to the top stud on solenoid of pump.
9. **Yellow/Black** wire should be capped.
10. **Yellow/Red** wire should be capped.
11. **Black** wire to the negative stud on battery terminal.
12. **Red** wire to the positive stud on battery terminal.

ON/OFF Buttons– (Wireless)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, cake feeder, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the wireless remote only, the ON/OFF buttons on control cord are not connected to wireless.

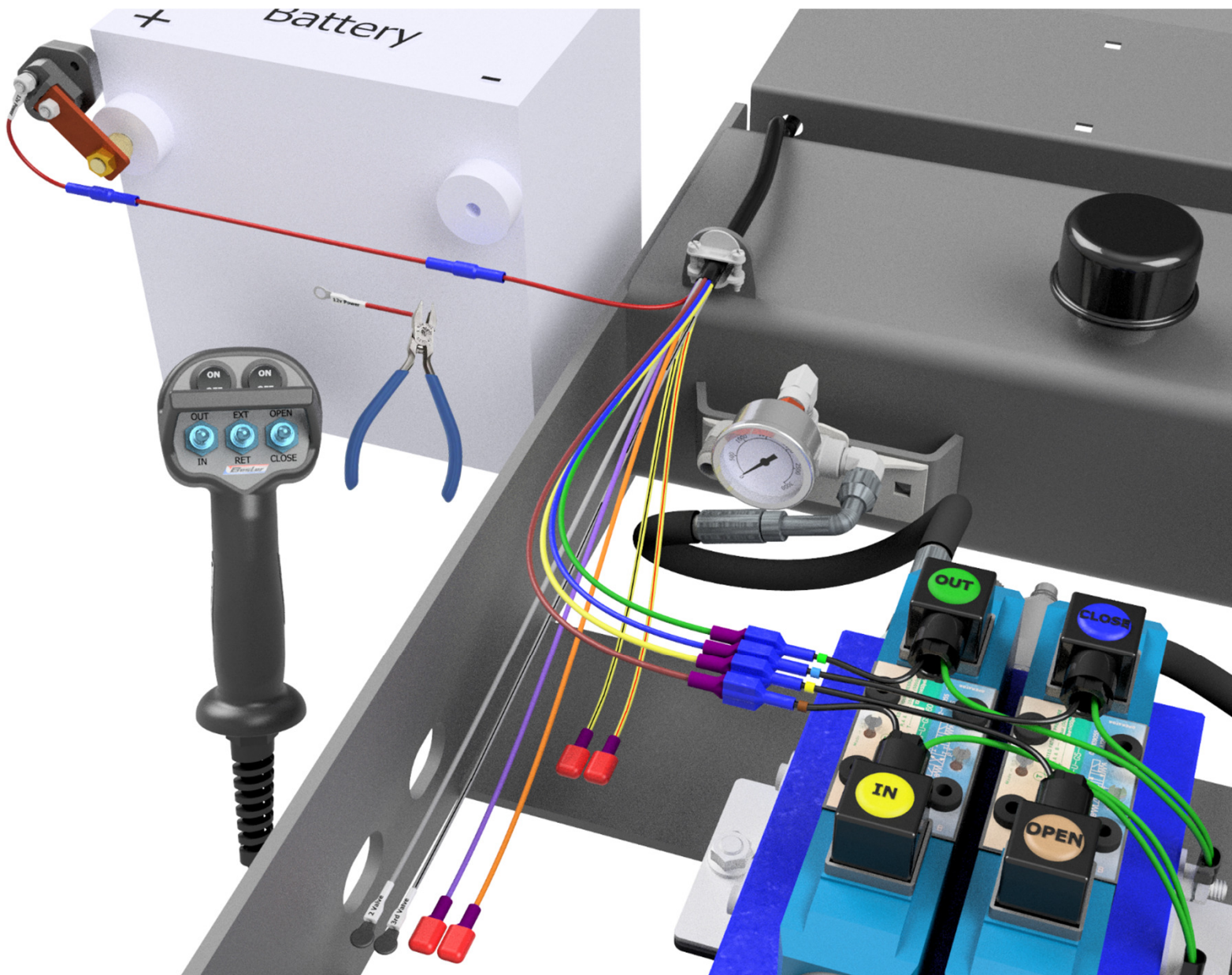


Control Cord Wiring – 2 Bank Live

1. Install Copper bar and auto resetting circuit breaker on the vehicle's battery.
2. **Green** wire connects to the **Black wire with Green zip tie** on the valve.
3. **Blue** wire connects to the **Black wire with Blue zip tie** on the valve.
4. **Yellow** wire connects to the **Black wire with Yellow zip tie** on the valve.
5. **Brown** wire connects to the **Black wire with Brown zip tie** on the valve.
6. **Orange** wire is capped.
7. **Purple** wire is capped.
8. **Grey** wire is capped.
9. **Grey/Black** wire is capped.
10. **Yellow/Black** wire is capped but can be used as power to live pump – top left ON/OFF switch.
11. **Yellow/Red** wire is capped but can be used as power to live pump – top right ON/OFF switch.
12. **Red wire** – cut roughly 2" from ring terminal. Add butt connector and run power wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on circuit breaker.

ON/OFF Buttons– (Control Cord)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, hyd pump, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the control cord.

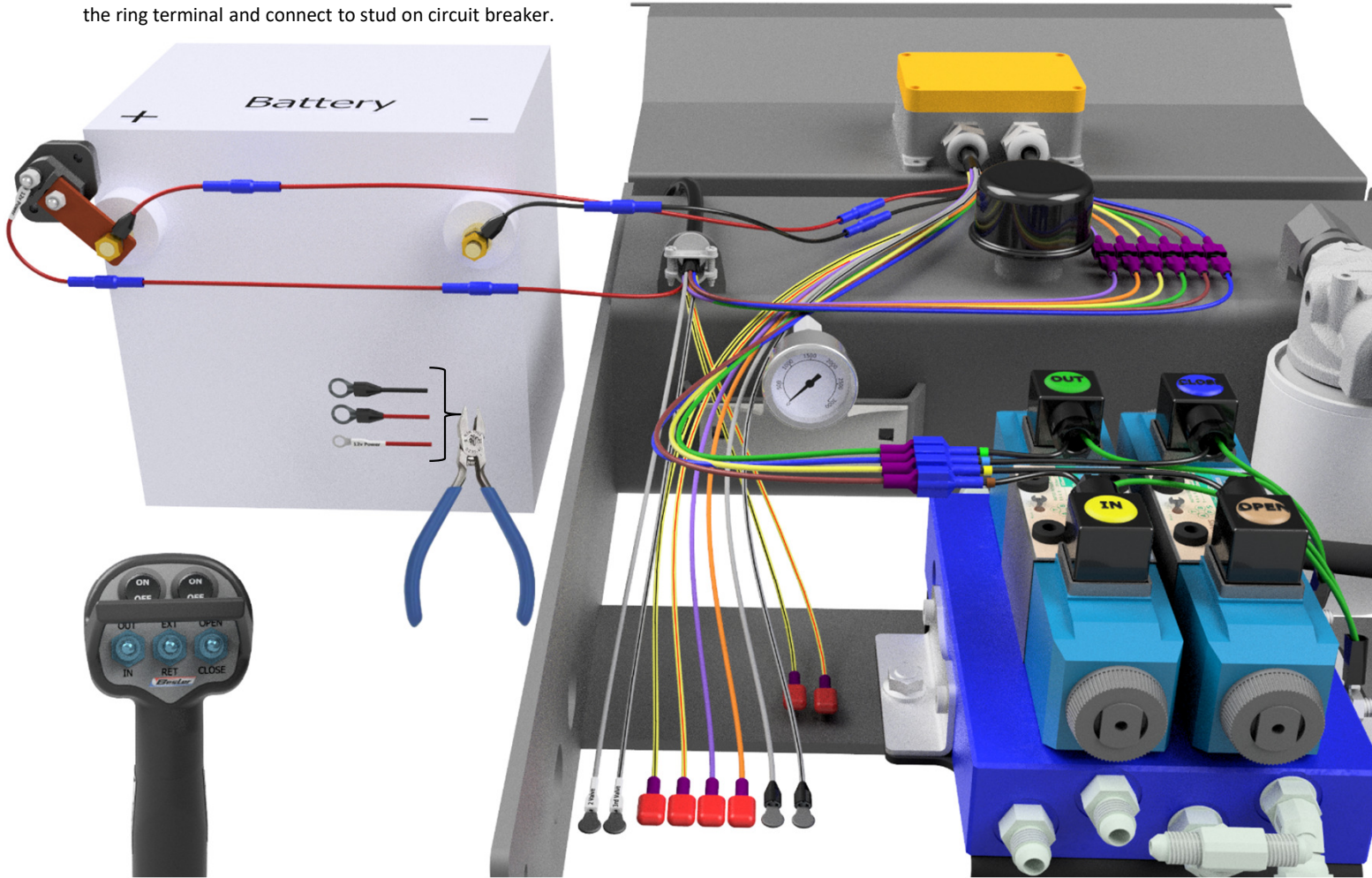


Control Cord to Wireless – (Short Pigtail)

1. Install Copper bar and auto resetting circuit breaker on the vehicle's battery.
2. **Green** wire connects to the **Green** wire of wireless.
3. **Blue** wire connects to the **Blue** wire of wireless.
4. **Yellow** wire connects to the **Yellow** wire of wireless.
5. **Brown** wire connects to the **Brown** wire of wireless.
6. **Orange** wire connects to the **Orange** wire of wireless.
7. **Purple** wire connects to the **Purple** wire of wireless.
8. **Grey** wire is capped.
9. **Grey/Black** wire is capped.
10. **Yellow/Black** wire is capped but can be used as power to live pump – top left ON/OFF switch.
11. **Yellow/Red** wire is capped but can be used as power to live pump – top right ON/OFF switch.
12. **Red wire** – cut roughly 2" from ring terminal. Add butt connector and run power wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on circuit breaker.

ON/OFF Buttons– (Control Cord)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, hyd pump, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the control cord only, the ON/OFF buttons on wireless are not connected to control cord.



Wireless to Valve – (Long Pigtail)

1. **Green** wire connects to the **Black wire with Green zip tie** on the valve.
2. **Blue** wire connects to the **Black wire with Blue zip tie** on the valve.
3. **Yellow** wire connects to the **Black wire with Yellow zip tie** on the valve.
4. **Brown** wire connects to the **Black wire with Brown zip tie** on the valve.
5. **Orange** wire is capped.
6. **Purple** wire is capped.
7. **Grey** wire is capped.
8. **Grey/Black** wire is capped.
9. **Yellow/Black** wire is capped but can be used as power to live pump – top left ON/OFF switch.
10. **Yellow/Red** wire is capped but can be used as power to live pump – top right ON/OFF switch.
11. **Black wire** – cut roughly 2" from ring terminal. Add butt connector and run ground wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on negative side of battery.
12. **Red wire** – cut roughly 2" from ring terminal. Add butt connector and run power wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on circuit breaker.

ON/OFF Buttons– (Wireless)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, hyd pump, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the wireless remote only, the ON/OFF buttons on control cord are not connected to wireless.

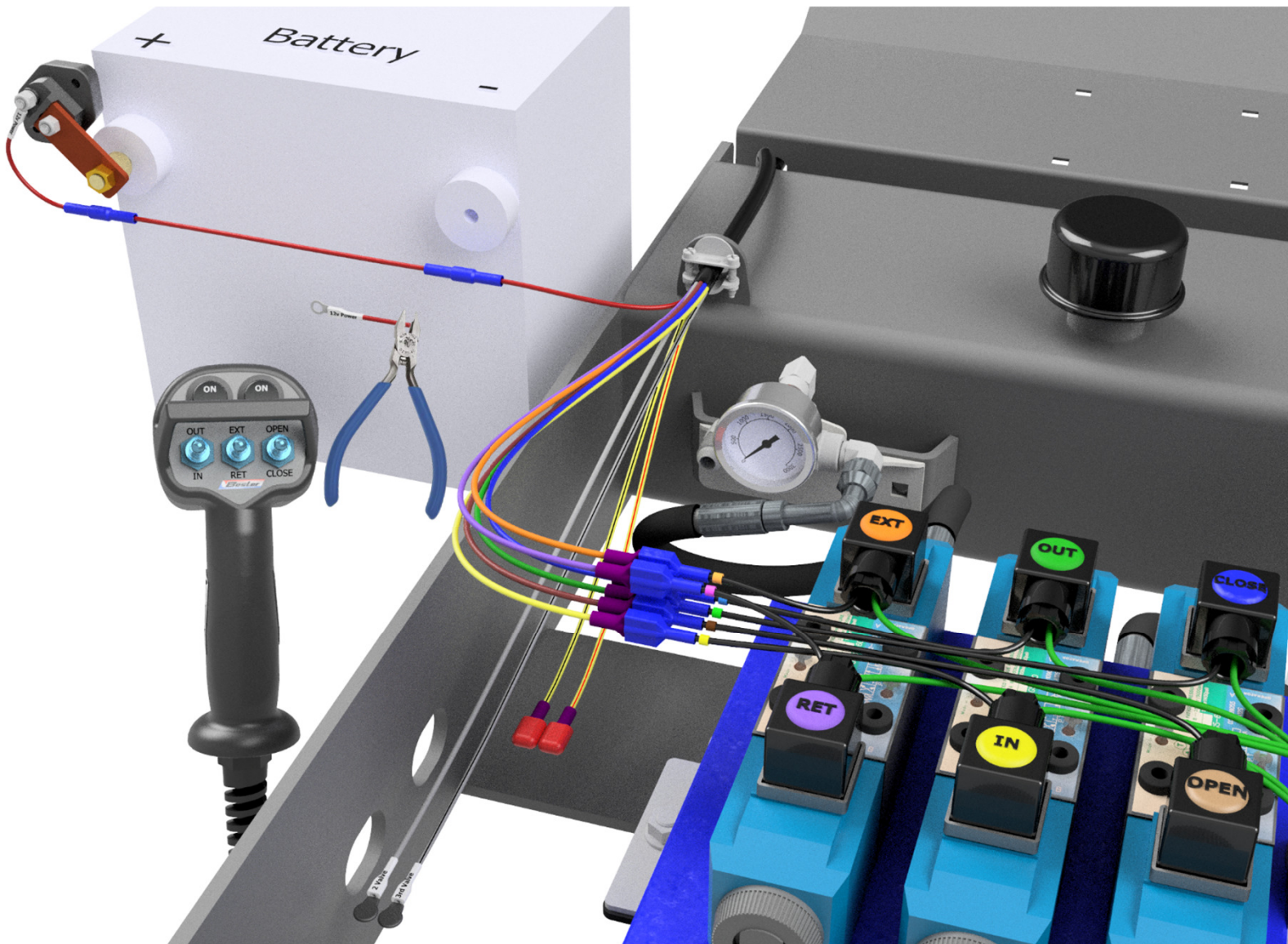


Control Cord Wiring – 3 Bank Live

1. Install Copper bar and auto resetting circuit breaker on the vehicle's battery.
2. **Green** wire connects to the **Black wire with Green zip tie** on the valve.
3. **Blue** wire connects to the **Black wire with Blue zip tie** on the valve.
4. **Yellow** wire connects to the **Black wire with Yellow zip tie** on the valve.
5. **Brown** wire connects to the **Black wire with Brown zip tie** on the valve.
6. **Orange** wire connects to the **Black wire with Orange zip tie** on the valve.
7. **Purple** wire connects to the **Black wire with Purple zip tie** on the valve.
8. **Grey** wire is capped.
9. **Grey/Black** wire is capped.
10. **Yellow/Black** wire is capped but can be used as power to live pump – top left ON/OFF switch.
11. **Yellow/Red** wire is capped but can be used as power to live pump – top right ON/OFF switch.
12. **Red wire** – cut roughly 2" from ring terminal. Add butt connector and run power wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on circuit breaker.

ON/OFF Buttons– (Control Cord)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, hyd pump, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the control cord.

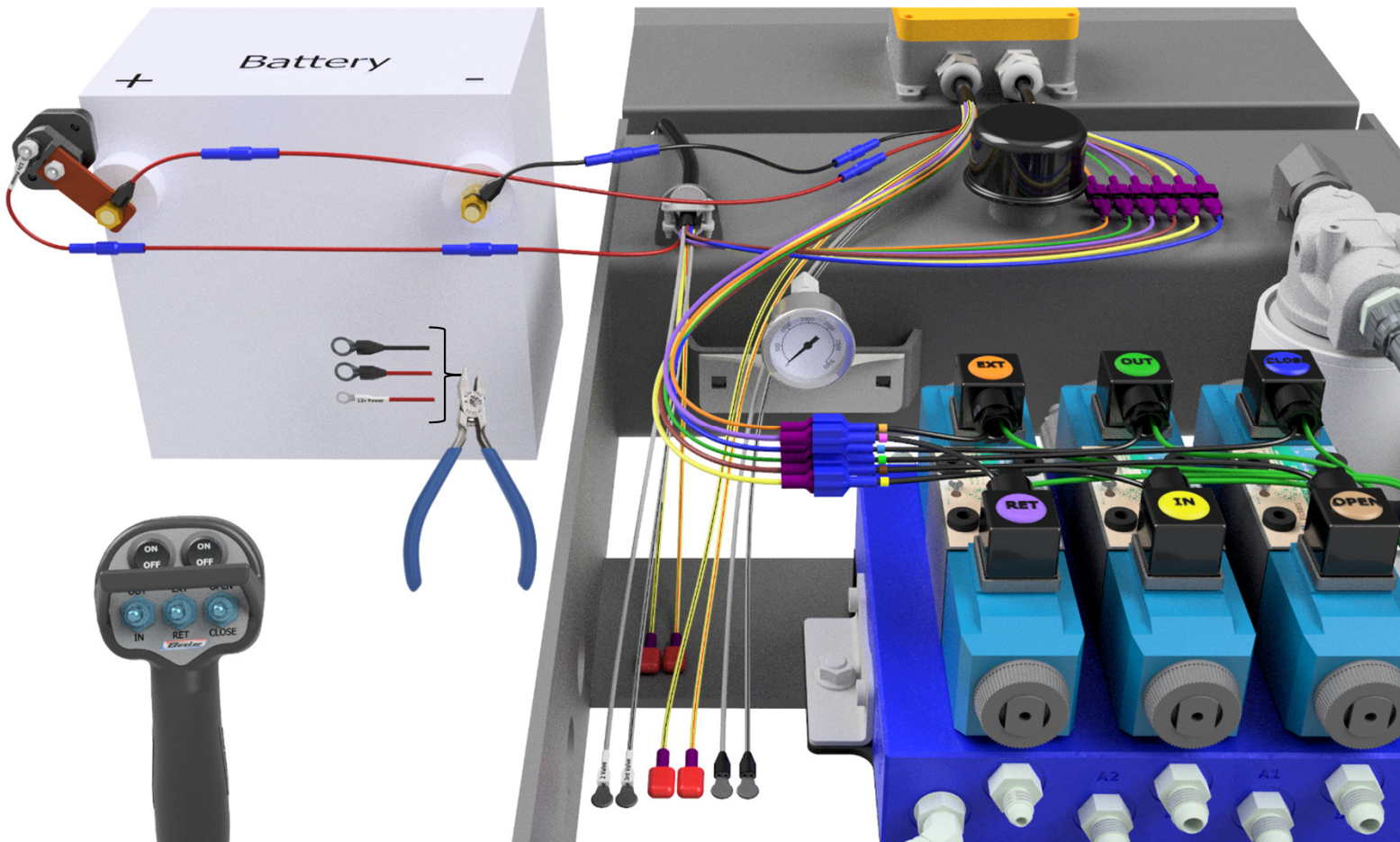


Control Cord to Wireless – (Short Pigtail)

1. Install Copper bar and auto resetting circuit breaker on the vehicle's battery.
2. **Green** wire connects to the **Green** wire of wireless.
3. **Blue** wire connects to the **Blue** wire of wireless.
4. **Yellow** wire connects to the **Yellow** wire of wireless.
5. **Brown** wire connects to the **Brown** wire of wireless.
6. **Orange** wire connects to the **Orange** wire of wireless.
7. **Purple** wire connects to the **Purple** wire of wireless.
8. **Grey** wire is capped.
9. **Grey/Black** wire is capped.
10. **Yellow/Black** wire is capped but can be used as power to live pump – top left ON/OFF switch.
11. **Yellow/Red** wire is capped but can be used as power to live pump – top right ON/OFF switch.
12. **Red** wire – cut roughly 2" from ring terminal. Add butt connector and run power wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on circuit breaker.

ON/OFF Buttons– (Control Cord)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, hyd pump, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the control cord only, the ON/OFF buttons on wireless are not connected to control cord.



Wireless to Valve – (Long Pigtail)

1. **Green** wire connects to the **Black wire with Green zip tie** on the valve.
2. **Blue** wire connects to the **Black wire with Blue zip tie** on the valve.
3. **Yellow** wire connects to the **Black wire with Yellow zip tie** on the valve.
4. **Brown** wire connects to the **Black wire with Brown zip tie** on the valve.
5. **Orange** wire connects to the **Black wire with Orange zip tie** on the valve.
6. **Purple** wire connects to the **Black wire with Purple zip tie** on the valve.
7. **Grey** wire is capped.
8. **Grey/Black** wire is capped.
9. **Yellow/Black** wire is capped but can be used as power to live pump – top left ON/OFF switch.
10. **Yellow/Red** wire is capped but can be used as power to live pump – top right ON/OFF switch.
11. **Black** wire – cut roughly 2" from ring terminal. Add butt connector and run ground wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on negative side of battery.
12. **Red** wire – cut roughly 2" from ring terminal. Add butt connector and run power wire up to vehicles battery. Add another butt connector to attach the ring terminal and connect to stud on circuit breaker.

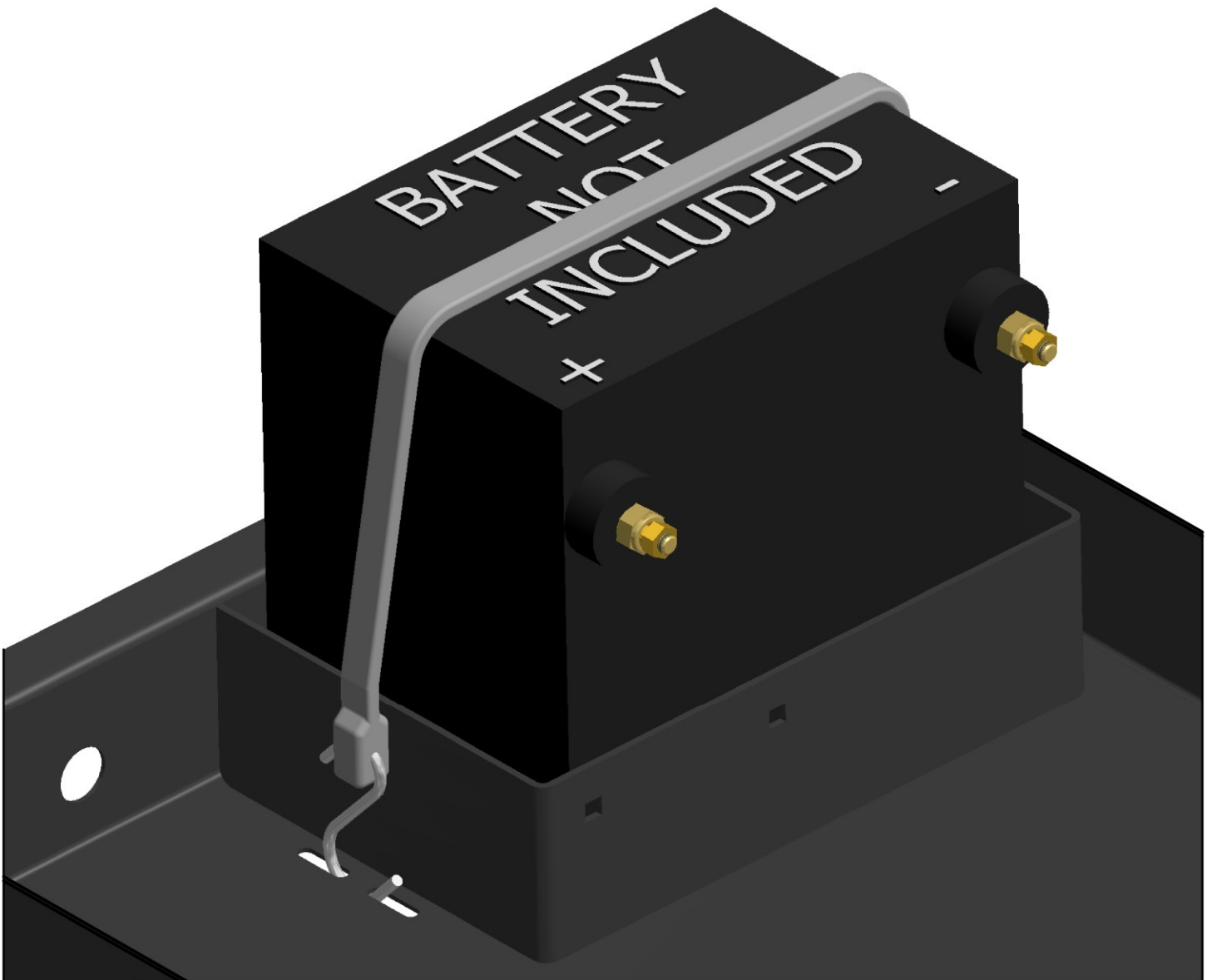
ON/OFF Buttons– (Wireless)

The **Yellow/Black** and the **Yellow/Red** wires can be used For lights, hyd pump, etc... If running something that pulls more than 10 amps, use a relay or switch could be damaged. These two wires are controlled by the ON/OFF buttons on the wireless remote only, the ON/OFF buttons on control cord are not connected to wireless.

Battery Installation



Make sure the Battery is strapped down before operation of the bale bed. Bouncing through fields could possibly make battery jump out and cause terminals to short out. We recommend a medium duty 19in. Tarp strap. Depending on how old the bed is there will either be a hook on either side of battery box or cutout slots as in image below to hook the strap to.



BESLER INDUSTRIES, INC.

BESLER BALE BED & BALE UNROLLER TWO YEAR LIMITED WARRANTY

STATEMENT OF WARRANTY

1) WHAT IS COVERED BY THIS WARRANTY:

Besler Industries, Inc. warrants to the original retail purchaser only, that all equipment, parts and accessories which it manufactures are free from defects in material or workmanship under normal use, service, proper setup and adjustment. The duration of this warranty is two (2) years from the date of delivery with some limitations on specific parts mentioned below.

This warranty is limited to repair or replacement of part or parts, to the original purchaser, found by the manufacturer, through the authorized selling dealer, to be defective in material or workmanship in the warranty period. This warranty shall be effective only when the part or parts have been authorized for return or replacement by Besler Industries, Inc., and returned prepaid by the dealer or purchaser to Besler Industries, Inc. Consult your dealer before removing any parts or making repair. For Warranty claim, notify the selling dealer.

2) WHAT IS NOT COVERED BY THIS WARRANTY:

Besler Industries, Inc., does not warranty: (a) damage caused by use for purposes other than those for which it was designed: (b) repairs made by unauthorized persons: (c) damage caused by neglect, abuse, abnormal use, improper or unreasonable use, accident, or misuse: (d) damages caused by unauthorized attachments, alterations, or modifications: (e) damage caused by improper service, setup or adjustments: (f) Besler equipment which has had a serial numbers removed or made illegible: (g) normal wear (h) transportation to and from authorized dealer's place of business or Besler Industries, Inc.

3) LIMITATIONS TO WARRANTY

The following parts are covered under the original warranty for the specified time indicated by each item.

Two (2) Years from time of purchase:

Structure and welds

One (1) Year from time of purchase:

Cylinders, Valves, Pump, Hydraulic Hoses, Electric Motor

Warning: Low Voltage and /or running motor continuously for excessive periods of time may result in motor damage. This is considered misuse and will not be covered by the manufacturer.

Six (6) Months from time of purchase:

Paint, Wear Plates, Toggle Switches

*Warranty on merchandise not of Besler Industries, Inc., supplied in piece or in component assemblies will be dependent on the manufactures warranty, some limitations may apply.

4) DISCLAIMER OF WARRANTY:

The foregoing warranties are in lieu of all other warranties of merchantability and fitness for a particular purpose. Any implied warranty of merchantability or fitness for a particular purpose is limited to the duration of this limited warranty. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

5) Besler Industries, Inc. reserves the right to improve products through modifications and changes in design or material without being obligated to incorporate such changes in prior manufacture.

6) WARRANTY REGISTRATION:

The Warranty registration card must be completed and forwarded to Besler Industries, Inc., Box B, Cambridge, NE 69022. Within 10 days following date of purchase. Warranty will not be granted unless a warranty card is on file at Besler Industries, Inc. The Date of purchase constitutes delivery.