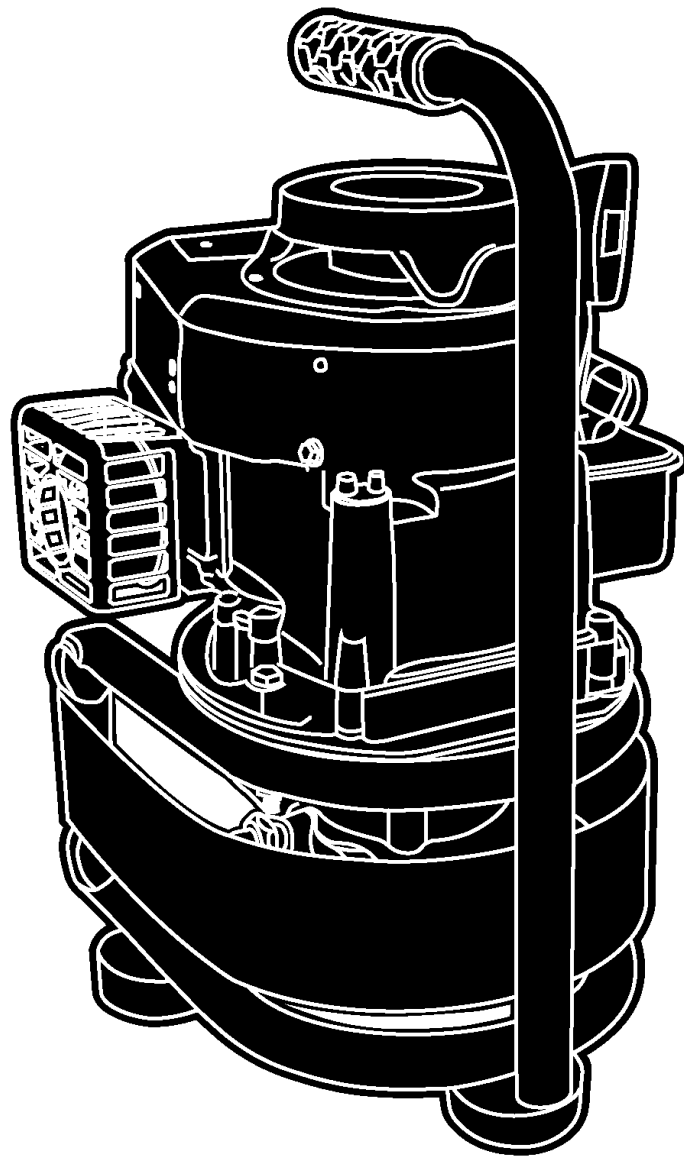


# Parts Manual

Mfg. No: 020214-2  
1,950 PSI





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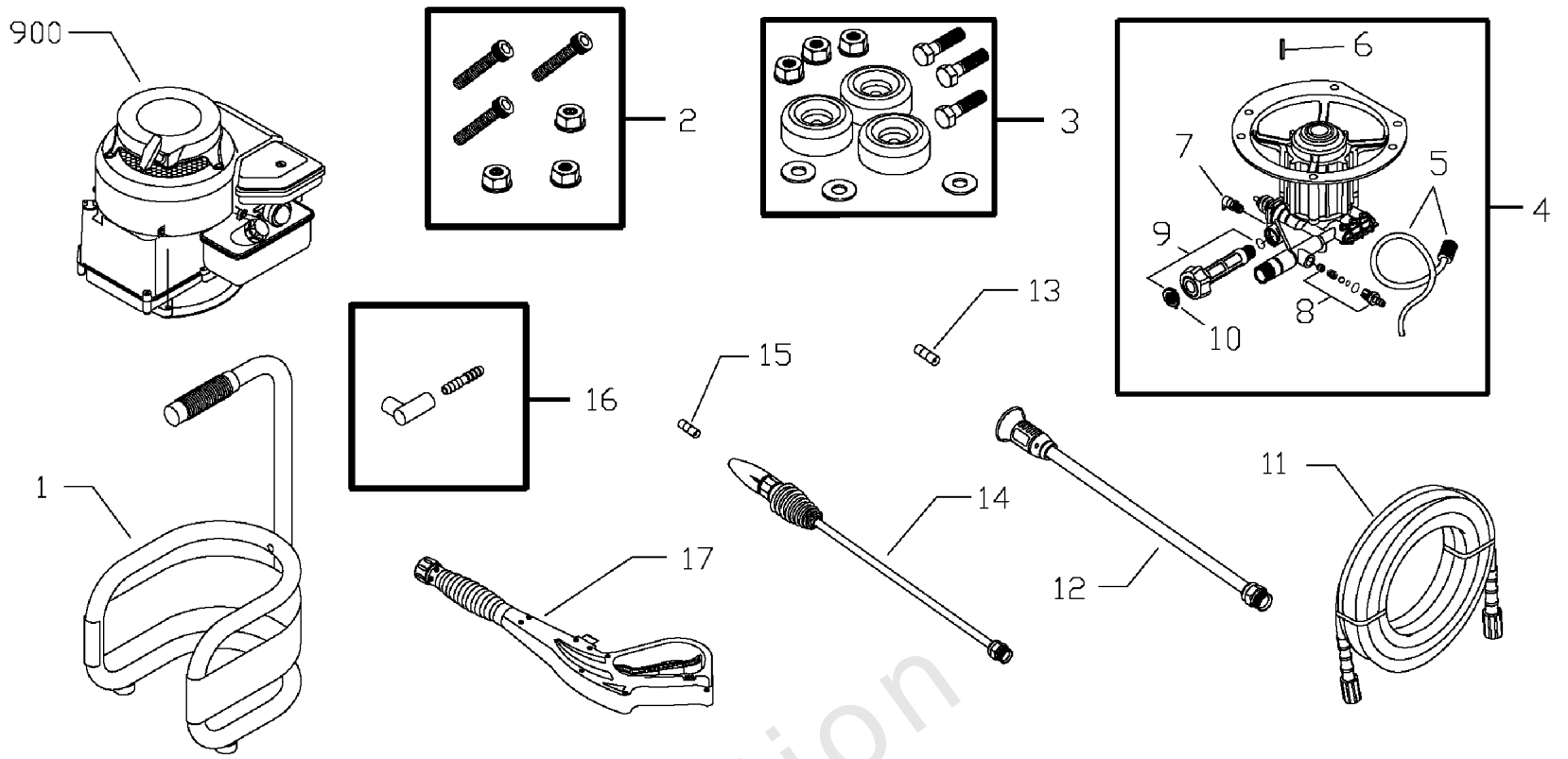
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Not For  
Reproduction

# Main Unit

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 020214-2



Not For  
Reproduction

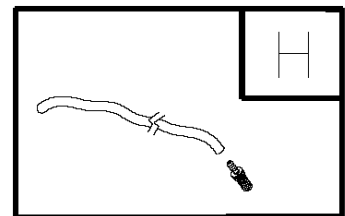
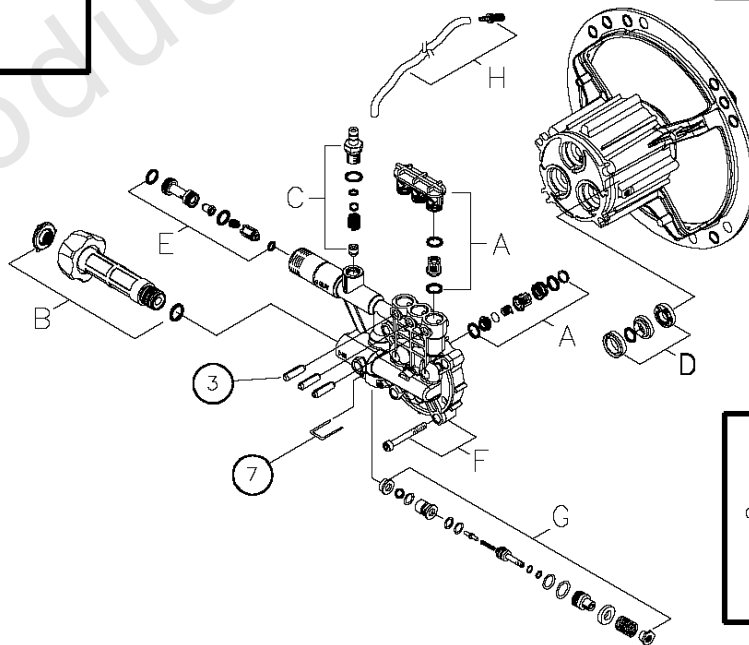
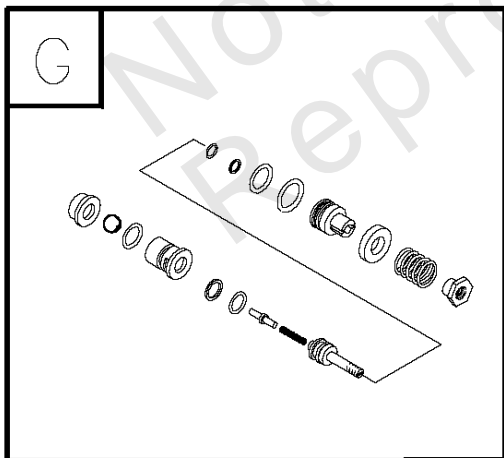
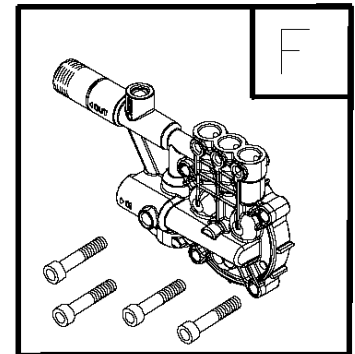
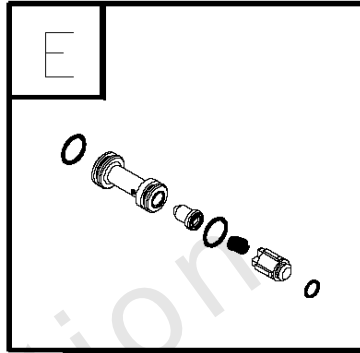
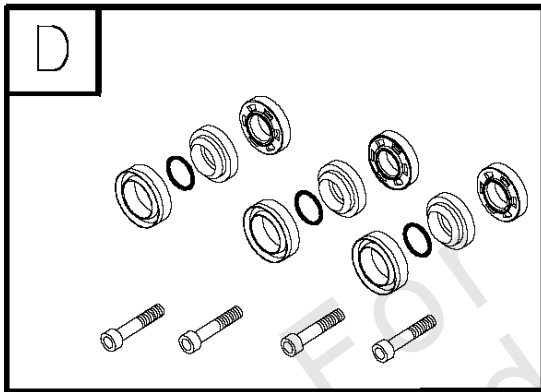
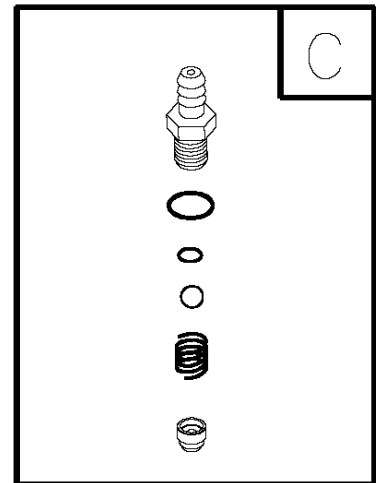
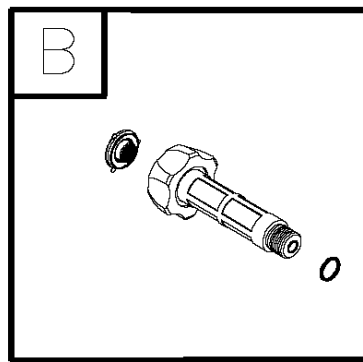
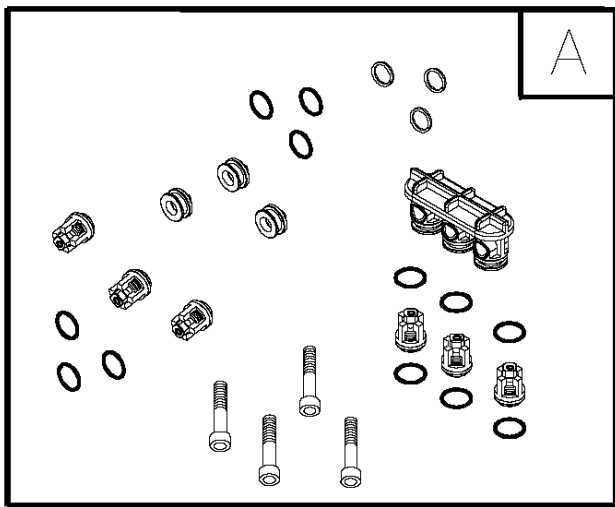
## Main Unit

REF NO	PART NO	QTY	DESCRIPTION
1	M190259GS		BASE, With Mounts
2	192308GS		KIT, Pump/Engine Mounting Hardware
3	197887GS		KIT, Vibration Mount
4	200200GS		PUMP, Complete -(see "Pump")
5	189971GS		KIT, Chemical Hose
6	23139GS		KEY
7	194298GS		VALVE, Thermal Relief
8	200279GS		KIT, Chemical Injection
9	200278GS		KIT, Water Inlet
10	B2384GS		FILTER
11	196006GS		HOSE
12	205015DGS		WAND, Adjustable
13	B1236DGS		ORIFICE
14	194343BGS		WAND, Turbo
15	193611GS		ORIFICE
16	195175GS		KIT, Chemical Connector 90° with Barb
17	199117GS		GUN
900	-----		ENGINE -Contact Engine Manufacturer
	197186GS		MANUAL, Operator's -Not Illustrated
	MS5573		MANUAL, Engine -Not Illustrated
	87815GS		GOGGLES -Not Illustrated
	BB3061BGS		OIL BOTTLE -Not Illustrated
	192754GS		DECAL, Warning, Heat/Burn -Not Illustrated
	187915GS		DECAL, Warning/Danger -Not Illustrated
--	191163GS		GRIP, Handle -Not Illustrated
	6048		KIT, O-Ring -Not Illustrated
	6039		PUMP SAVER -Optional Accessory

# Pump

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 020214-2



## Pump

REF NO	PART NO	QTY	DESCRIPTION
3	200274GS		PLUG, Elastic
7	190578GS		PIN
A	200298GS		KIT, CHECK VALVES -Service kits include all parts shown within the box.
B	200278GS		KIT, WATER INLET -Service kits include all parts shown within the box.
C	200279GS		KIT, CHEMICAL INJECTION -Service kits include all parts shown within the box.
D	200280GS		KIT, HIGH PRESSURE SEALS -Service kits include all parts shown within the box.
E	200281GS		KIT, CHEM INJECT VENTURI -Service kits include all parts shown within the box.
F	200282GS		KIT, PUMP HEAD, ALUM -Service kits include all parts shown within the box.
G	200283GS		KIT, BY-PASS -Service kits include all parts shown within the box.
H	189971GS		KIT, CHEMICAL HOSE -Service kits include all parts shown within the box.
	B2384GS		FILTER, Inlet -Not Illustrated
	186452GS		FILTER, Inlet, Bag of 10 -Not Illustrated

# Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs		in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs		in/lbs		in/lbs	
	ft/lbs	Nm.	ft/lbs	Nm.	ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

Thread Diameter (mm)

Inside Diameter (in)      Threads per inch

Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm)      Distance between threads (mm)      Body Length (mm)

Body Diameter      Threads per inch      Body Length (in)

Screw, 1/2- 16 x 2



## Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

## NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
  - for prevailing torque locknuts - use 65% of grade 5 torques.
  - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

## Common Hardware Types

Hex Head Capscrew



Washer



Carriage Bolt



Hex Nut

## Wrench & Fastener Size Guide

1/4" Bolt or Nut Wrench—7/16"	5/16" Bolt or Nut Wrench—1/2"	3/8" Bolt or Nut Wrench—9/16"	7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm



