

# PressureGuard Automatic Tire Inflation Systems **PARTS MANUAL**

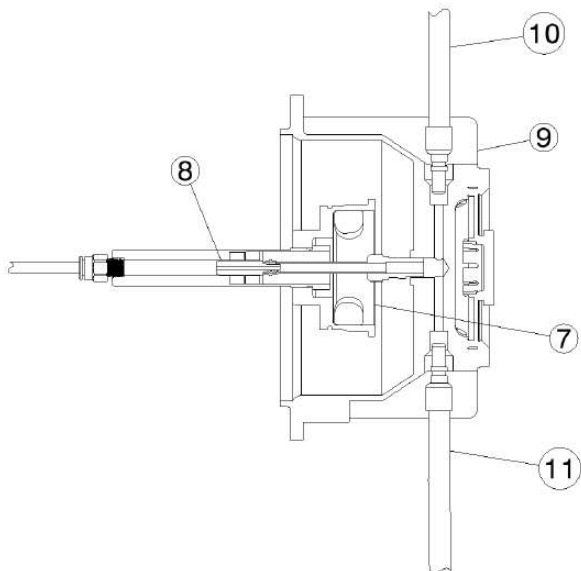
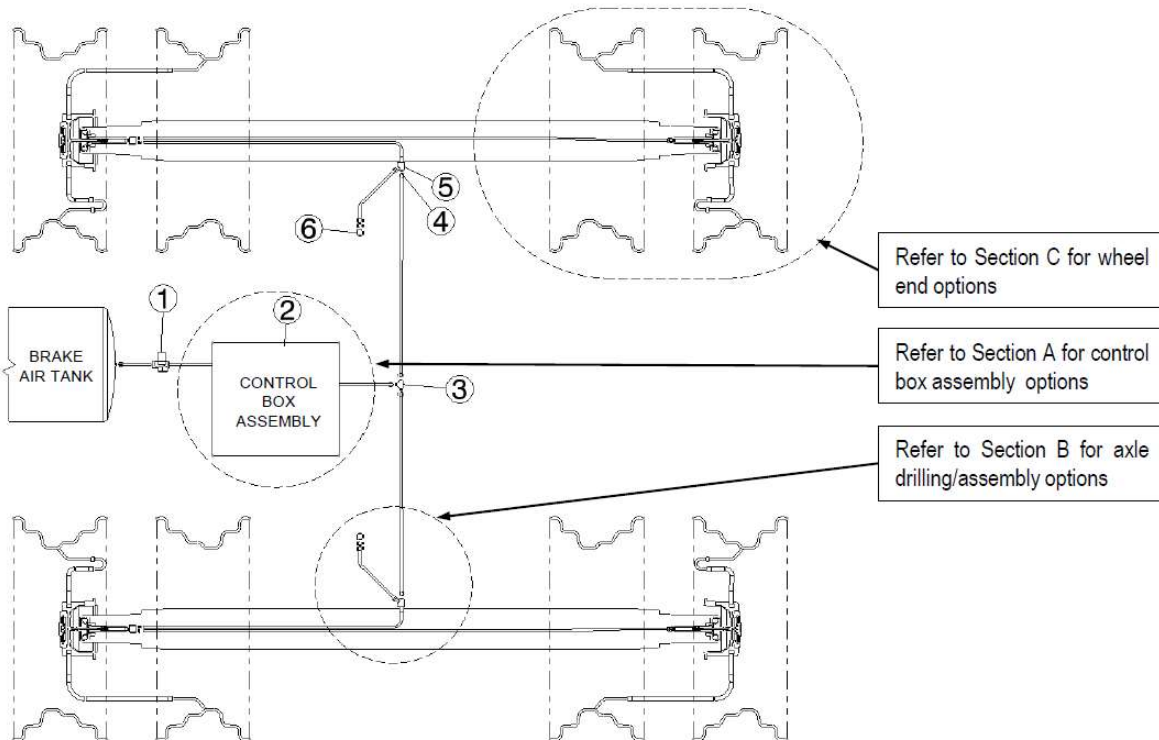
**PRESSURE** **G** **GUARD**™  
TIRE INFLATION SYSTEMS



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**SYSTEM LAYOUT EXAMPLE:** TANDEM AXLE  
DUAL TIRE  
1-HOLE AXLE DRILLING



**MAJOR SYSTEM COMPONENTS**

- 1 – Pressure Protection Valve (PPV)
- 2 – Control Box Assembly (refer to Section A for options)
- 3 – Air Line T-Fitting
- 4 – Axle Drill Fitting
- 5 – Axle Y-Fitting
- 6 – Breather Vent Assembly
- 7 – Spindle Plug Assembly (refer to Section C for options)
- 8 – Rotating Shaft Assembly (refer to Section C for options)
- 9 – Hubcap Assembly (refer to Section C for options)
- 10 – Inner Tire Hose Assembly (refer to Section C for options)
- 11 – Outer Tire Hose Assembly (refer to Section C for options)

## SECTION A - CONTROLS

### AIR TANK PLUMBING COMPONENTS:



10047  
Pressure protection valve



ATP1  
Air tank plumbing kit with PPV + hardware connections

### ELECTRICAL (LOW-PRESSURE WARNING LIGHT) COMPONENTS:



20093L  
LED warning light with bracket



20093  
LED warning light kit with label + hardware

### ELECTRICAL HARNESSES:



E0070  
Electrical harness for 7-way power  
*70' cable with terminals mounted: Delphi connector at low-pressure sensor and female .180 bullet connectors at low-pressure warning light (customer to cut and splice at connection to trailer 7-way power)*



E5555  
Electrical harness for 7-way power  
*Pre-assembled harness for connection to trailer 7-way power, terminals mounted: Delphi connector at low-pressure sensor, female .180 bullet connectors at low-pressure warning light, bare copper at trailer 7-way power, no cutting/splicing \* 5' length from 7-pole power connection to junction, 5' length from warning light to junction, 55' length from junction to low-pressure sensor*



E2166S  
Electrical harness for ABS power  
*Pre-assembled harness for connection to trailer ABS power, terminals mounted: Delphi connector at low-pressure sensor, female .180 bullet connectors at low-pressure warning light, Delphi connector at trailer ABS power, no cutting/splicing \* 21' length from low-pressure sensor to ABS power connection, 66' length from low-pressure sensor to warning light*

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## SECTION A - CONTROLS (CONT'D)

### ELECTRICAL HARNESES (cont'd):



**E XXY S**  
Electrical harness for ABS power

*\*CUSTOM LENGTH\* harness for connection to trailer ABS power, terminals mounted: Delphi connector at low-pressure sensor, female .180 bullet connectors at low-pressure warning light, Delphi connector at trailer ABS power, no cutting/splicing  
\* XX = length (ft.) from low-pressure sensor to ABS power connection, YY = length from low-pressure sensor to warning light*



**E10SP-EN**  
Enclosure pigtail

*\* Connects PressureGuard electrical harness to any standard inflate-only regulator in enclosure (through enclosure wall)*



**PCFA-09**  
ABS power adapter

*\* Connects PressureGuard electrical harness to ABS controller as power source*

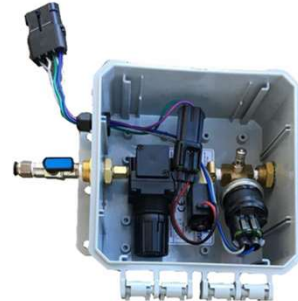
### REGULATOR & CONTROL BOX ASSEMBLIES:



**20046N (shown)**  
Regulator assembly, open-mount bracket  
*Standard inflate-only*



**20046NE (shown)**  
Regulator assembly, enclosure mount  
*Standard inflate-only*



**20046-ID (shown)**  
Regulator assembly, enclosure mount  
*Inflate - deflate*

FUNCTIONALITY	DESCRIPTION	PART NO.	TIRE PRESSURE SETTING	LOW-PRESSURE SENSOR
Inflate only	Regulator assembly, open-mount bracket	20045N	Up to 85 psi	70 psi
		20046N	90 - 105 psi	80 psi
		20047N	110 - 120 psi	100 psi
	Regulator assembly, enclosure mount	20045NE	Up to 85 psi	70 psi
		20046NE	90 - 105 psi	80 psi
		20047NE	110 - 120 psi	100 psi
Inflate - deflate	Regulator assembly, enclosure mount	20045-ID	Up to 85 psi	70 psi
		20046-ID	90 - 105 psi	80 psi
		20047-ID	110 - 120 psi	100 psi

## SECTION A - CONTROLS (CONT'D)

### REGULATOR & CONTROL BOX COMPONENTS:



46-930  
System shutoff valve (1/8" NPT)



10280 (shown)  
Low-pressure sensor

- 10270 = 70 psi
- 10280 = 80 psi
- 10200 = 100 psi

## SECTION B - PLUMBING

### AIR LINE COMPONENTS:



10050-DOT  
1/4" air line  
*\* Use only PressureGuard approved tubing*



10107  
1/4" split loom



10028  
1/4" air line tee

### AXLE DRILL FITTINGS:



10042D  
Axle drill fitting  
1/8" NPT x 1/4" tubing  
*\* Standard PressureGuard axle drilling*



10040D  
Axle drill fitting  
1/4" NPT x 1/4" tubing  
*\* Hendrickson axle drilling*



10040C  
Low-profile axle drill fitting  
1/4" NPT with internal air line to spindle plug  
*\* Intraax/Vantraax axle drilling*

### BREATHER VENT ASSEMBLIES:



28006  
1-hole breather assembly  
*\* Only for 1/8" NPT 1-hole axle drilling*



28003 (shown)  
3-hole breather assembly

- 28003 = 1/8" NPT axle drilling
- 28004 = 1/4" NPT axle drilling, 45° fitting
- 28005 = 1/4" NPT axle drilling, straight fitting

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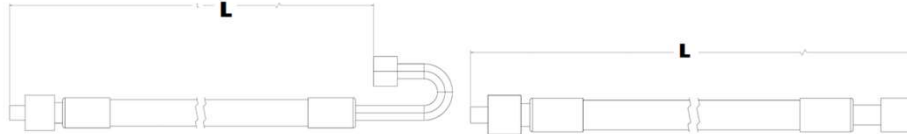
## SECTION C - WHEEL-ENDS

TIRE HOSES:



38001 (shown)  
Outer tire hose for integral hubcap, 22.5"+ dual tire

38000 (shown)  
Inner tire hose for integral hubcap, 22.5"+ dual tire



PRESSUREGUARD HUBCAP STYLE	WHEEL TYPE	TIRE SIZE	WHEEL MATERIAL	TIRE POSITION	TIRE-END FITTING	HOSE PART NO.	"L" DIM. (ABOVE)
 <b>INTEGRAL HUBCAPS</b> 	Dual	17.5"	Aluminum, Steel or Combination	Inner	Straight	38003	12.5"
				Outer	180°	38004	9.5"
		19.5"	Aluminum	Inner	Straight	38003	12.5"
				Outer	180°	37004	11.0"
		Steel or Combination	Inner	Straight	37003	14.0"	
			Outer	180°	38004	9.5"	
		22.5"	Aluminum	Inner	Straight	38000	14.5"
				Outer	180°	38001	11.0"
	Steel or Combination	Inner	Straight	37000	16.5"		
		Outer	180°	37001	12.5"		
	24.5"	Aluminum	Inner	Straight	38000	14.5"	
			Outer	180°	37001	12.5"	
		Steel or Combination	Inner	Straight	37000	16.5"	
			Outer	180°	38001	11.0"	
Single	22.5"	Aluminum	Single	Straight	38002	12.5"	
		Steel	Single	180°	38001	11.0"	
 <b>ROTATING &amp; SCREW-ON HUBCAPS</b> 	Dual	17.5"	Aluminum, Steel or Combination	Inner	Straight	37003	14.0"
				Outer	180°	37004	11.0"
		19.5"	Aluminum	Inner	Straight	37003	14.0"
				Outer	180°	37001	12.5"
		Steel or Combination	Inner	Straight	37000	16.5"	
			Outer	180°	38001	11.0"	
		22.5"	Aluminum	Inner	Straight	37000	16.5"
				Outer	180°	37001	12.5"
	Steel or Combination	Inner	Straight	37000	16.5"		
		Outer	180°	37001	12.5"		
	24.5"	Aluminum	Inner	Straight	37000	16.5"	
			Outer	180°	37001	12.5"	
		Steel or Combination	Inner	Straight	37000	16.5"	
			Outer	180°	37001	12.5"	
Single	22.5"	Aluminum	Single	Straight	38002	12.5"	
		Steel	Single	180°	37001	12.5"	

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## SECTION C - WHEEL-ENDS (CONT'D)

### HUBCAP ASSEMBLIES:

#### PressureGuard Integral Hubcap Assemblies



75166 (shown)  
Tapered spindle axles  
(N, TN, F22, etc.)

\* 5.50" bcd



85128 (shown)  
Parallel spindle axles  
(P, TP, F24, etc.)

\* 6.75" bcd

Axle Spindle  
Lubricant  
Application (Tires)  
Gasket Part No.  
Bolt Part No.  
Assembly Part No.

Tapered (N, TN, F22, etc.) - 5.50" bcd			
Grease		Oil	
Dual	Single	Dual	Single
50008	50008	50008	50008
10021	10021	10021	10021
75166	75166-S	75168	75168-S

Parallel (P, TP, F24, etc.) - 6.75" bcd			
Grease		Oil	
Dual	Single	Dual	Single
80008	80008	80008	80008
10021	10021	10021	10021
85126	85126-S	85128	85128-S

\* All PressureGuard integral hubcap assemblies include hubcap gaskets and 6 hubcap bolts

#### PressureGuard Rotating Hubcap Assemblies



203P-OD (shown)  
Tapered spindle axles  
(N, TN, F22, etc.)

\* 5.50" bcd



257P-OD (shown)  
Parallel spindle axles  
(P, TP, F24, etc.)

\* 6.75" bcd

Axle Spindle  
Lubricant  
Application (Tires)  
Gasket Part No.  
Bolt Part No.  
Assembly Part No.

Tapered (N, TN, F22, etc.) - 5.50" bcd			
Grease		Oil	
Dual	Single	Dual	Single
116	116	116	116
10021	10021	10021	10021
203P-GD	203P-GS	203P-OD	203P-OS

Parallel (P, TP, F24, etc.) - 6.75" bcd			
Grease		Oil	
Dual	Single	Dual	Single
111	111	111	111
10021	10021	10021	10021
257P-GD	257P-GS	257P-OD	257P-OS

\* All PressureGuard rotating hubcap assemblies include hubcap gaskets and 6 hubcap bolts

#### PressureGuard Screw-on Hubcap Assemblies



274P-GD (shown)  
Parallel spindle axles  
(P, TP, F24, etc.)

Axle Spindle  
Lubricant  
Application (Tires)  
O-ring Part No.  
Assembly Part No.

Parallel (P, TP, F24, etc.) - 6.75" bcd			
Grease		Oil	
Dual	Single	Dual	Single
10080	10080	10080	10080
274P-GD	274P-GS	274P-OD	274P-OS



## SECTION C - WHEEL-ENDS (CONT'D)

### SPINDLE PLUG ASSEMBLIES:

1.75" spindle i.d. (N, TN, F22 spindle) applications	
 <p><b>21750</b> 1.75" spindle plug assembly for 3-hole axle drilling and roadside 1-hole axle drilling</p>	 <p><b>21750-1H</b> 1.75" spindle plug assembly for curbside 1-hole axle drilling</p>

2.75" spindle i.d. (P, TP, F24 spindle) applications ** GREASE LUBE **		
 <p><b>22750</b> 2.75" spindle plug assembly for 3-hole axle drilling and roadside 1-hole axle drilling</p>	 <p><b>22750-1H</b> 2.75" spindle plug assembly for curbside 1-hole axle drilling</p>	 <p><b>22750S</b> 2.75" spindle plug assembly for 3-hole Intraax/Vantraax axle drilling</p>

2.75" spindle i.d. (P, TP, F24 spindle) applications ** OIL LUBE **		
 <p><b>22750M</b> 2.75" spindle plug assembly for oil lube, 3-hole axle drilling and roadside 1-hole axle drilling</p>	 <p><b>22750M-1H</b> 2.75" spindle plug assembly for oil lube, curbside 1-hole axle drilling</p>	 <p><b>22750MS</b> 2.75" spindle plug assembly for oil lube, 3-hole Intraax/Vantraax axle drilling</p>

Solid spindle (A26, K30, certain SSA) and pre-2007 spindle plug applications
 <p><b>20072</b> Air cylinder with seal, no spindle plug, for directly-threaded (solid spindle) applications and for use with all spindle plugs prior to 2007</p>

## SECTION C - WHEEL-ENDS (CONT'D)

### ROTATING SHAFT ASSEMBLIES:



10565

Rotating shaft assembly

*\* 5" OAL for all integral hubcap applications with N spindle axles and certain rotating and screw-on applications with P spindle axles*



10865

Rotating shaft assembly

*\* 6" OAL for all integral hubcap applications with P spindle axles*



10665ML (shown)

Cut-to-length rotating shaft assembly

Part no. 10665 = 1" steel shaft

Part no. 10665ML = 1.75" steel shaft

Part no. 10665XL = 2.75" steel shaft

*\* For all UNKNOWN spindle/hub combinations*