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***Dura-ABS™ Direct Injection System Assembly Guide***

A close up of an engine

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**System Contents:**

Dura-ABS™ Pump & Meter System. 1-4 Units

Dura-ABS™ Direct Injection System Frame. 1 unit

Dura-ABS™ DI 2” or 3” Kit. 1-4 units. (Kit to match Nbr of pumps).

Dura-ABS™ DI 2” or 3” Gauge Kit. 1 unit.

Dura-ABS™ Direct Injection System

Shown with Four (4) ABS pumps, Four (4) – 2” Kits & One (1) 2” Gauge Kit

A close up of an engine

Description automatically generated A picture containing indoor

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Dura-ABS™ Direct Injection 2” Kit Assembly Dura-ABS™ Direct Injection 2” Gauge Assembly

A picture containing indoor, wall, floor, table

Description automatically generated A picture containing floor, indoor, sitting

Description automatically generated

Dura-ABS™ Direct Injection 3” Kit Assembly Dura-ABS™ Direct Injection 3” Gauge Assembly

**Dura-ABS™ Direct Injection (DI) 2” Kit. Contents Include:**

* **(5) DP-T4003raw 1” EPDM Hose Part A**
* **(1) DP-BAN4001raw 1” Street Elbow – 90-degree Part B**
* **(1) DP-BANNIP100-4raw Banjo 1” x 4” Poly Nipple Part C**
* **(1) DP-BANNIP100-6raw Banjo 1” x 6” Poly Nipple Part D**
* **(1) V100SL Banjo 1” 3-Way Side Load Poly Valve Part E**
* **(1) DP-BAN100Fraw 1” Male Adapter – 1” Male Thread Part F**
* **(1) DP-BAN100125CAP 1” Cap X Male Adapter Poly Cam Lever Coupling Part G**
* **(2) DP-NF10PHBraw 1” Poly Hose Barb Part H**
* **(2) DP-HC1000raw 1” Hose Clamp Part I**
* **(1) DP-BANSL100-45raw Banjo 1” Poly Street Elbow-45 Degree Part J**
* **(1) DP-BANSUV100FPraw Banjo 1” Full Port Valve Part K**
* **(1) DP-BANM100MPT 1” Flange x 1” Male Thread (NPT) Part L**
* **(1) DP-BANFC100 100 Series 1” Worm Screw Clamp Part M**
* **(1) DP-BANM100G 1” EPDM Manifold Gasket Part N**
* **(1) DP-BANM220100TEE 2” Full Port Flanged Tee x 1” Flanged Tee Part O**
* **(1) DP-BANFC220 220 Series 2” Worm Screw Clamp Part P**
* **(1) DP-BAN200G 220 Series 2” Full Port EPDM Gasket Part Q**
* **(4) DP-ATF 45x1.63x14.5 Torx Screw Part R**
* **(1) Pigtail / Meter-to-Pump SP-LWA-PM1PM-3D2 Part S**

**Dura-ABS™ Direct Injection (DI) 2” Gauge Kit. Contents Include:**

* **(1) DP-BANM220100TEE 2” Full Port Flanged Tee x 1” Flanged Tee Part OO**
* **(1) DP-BANFC220 220 Series 2” Worm Screw Clamp Part PP**
* **(1) DP-BAN200G 220 Series 2” Full Port EPDM Gasket Part QQ**
* **(1) DP-BANFC100 100 Series 1” Worm Screw Clamp Part MM**
* **(1) DP-BANM100G 1” EPDM Manifold Gasket Part NN**
* **(1) DP-BANM100PLG025 1” Flange plug with ¼” FPT Part T**
* **(1) DP-P4045 DI-Gauge Pressure Gauge, 30 PSI Max 2 ½” Part U**

A picture containing wall

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![A picture containing ground, floor, indoor, water

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**U**

**T**

**MM**

**NN**

**QQ**

**PP**

**OO**

**G**

**1**

**A**

Parts identified with “**1”** from DPEM-4312V Sys.

Parts A thru S = 2” Kit

Double Letters = Gauge Kit

**J**

**O**

**Q**

**1**

**A**

**C**

**I**

**H**

**E**

**F**

**R**

**D**

**B**

**1**

**1**

**K**

**1**

**1**

**L**

**M**

**N**

**P**

**1**

**1**

**S**

**1**

**A**

**1**

**1**

**1**

1” Hose Barb & 1” Hose Clamp at source.

**Layout of Dura-ABS™ DI 2” System with 2” Gauge Kit**

***Assembly Steps for 2” DI System***

1. Unpack DI Frame from box.
2. Assemble Meter Display to frame using the 4 Hex bolts & nuts.
3. Insert 2 tube caps on front corners of the frame.
4. Place Battery Plate on left rear side of the frame, tighten with 2 Hex nuts.
5. Unpack Pump System(s).

**NOTE: Parts from the two Accessory kits in the Pump System box along with parts from the 2” DI kit will be used to assemble entire set-up.**

1. Using Instruction sheet from the DP-AB001 Accessory kit – (included in the pump box), plumb the pump.
2. Place pump into the DI frame, secure using 3 snap pins (1). Two in front, one in the rear.
3. Attach (B) to outlet of the meter.
4. Attach either (C) or (D) to (B).
   1. For position 1 and 2, use (C).
   2. For position 3 and 4, use (D).
5. Attach 1” Elbow Hose Barb (1) to the inlet of the meter.
6. Attach meter to the Meter Display using 4 Torx screws (R).
7. Insert (S) between pump power cord and the meter power cord.
8. Attach (E) to (C) or (D).
9. Attach (F) to the top of (E).
10. Place (G) on top of (F).
11. Insert (H) into bottom of the (E).
12. Attach 1” hose from inlet of meter to outlet of pump. Tighten with 1” Hose Clamp. Can cut hose to length.
13. Starting from Manifold
    * Attach (O) to (L) using parts (M) & (N).
    * Attach 1” Check Valve (1), make sure arrow on check valve points toward (O).
    * Attach 1” Poly Nipple (1) to Check Valve (1).
    * Attach Ball Valve (K).
    * Attach (J) to (K).
    * Attach 1” Hose barb (1) to (J).
    * Attach 1” hose from step 17 to the 1” hose barb (1) & tighten with 1” hose clamp (1).
14. To attach Gauge kit to Manifold
    * Attach (O) to (OO) using parts (P) & (Q).
    * Attach (T) to (OO) using parts (MM) & (NN).
    * Attach (U) to (T).
    * Attach (PP) and (QQ) to outlet of (OO).
15. Attach 1” hose from bottom of (E) to manifold.
16. Attach long power cord (I) from meter to battery.

**Dura-ABS™ Direct Injection (DI) 3” Kit. Contents Include:**

* **(5) DP-T4003raw 1” EPDM Hose Part A**
* **(1) DP-BAN4001raw 1” Street Elbow – 90-degree Part B**
* **(1) DP-BANNIP100-4raw Banjo 1” x 4” Poly Nipple Part C**
* **(1) DP-BANNIP100-6raw Banjo 1” x 6” Poly Nipple Part D**
* **(1) V100SL Banjo 1” 3-Way Side Load Poly Valve Part E**
* **(1) DP-BAN100Fraw 1” Male Adapter – 1” Male Thread Part F**
* **(1) DP-BAN100125CAP 1” Cap X Male Adapter Poly Cam Lever Coupling Part G**
* **(2) DP-NF10PHBraw 1” Poly Hose Barb Part H**
* **(2) DP-HC1000raw 1” Hose Clamp Part I**
* **(1) DP-BANM300TEE 3” Flanged Tee Part J**
* **(1) DP-BANFC300 300 Series Worm Screw Clamp Part K**
* **(1) DP-BAN300G 300 Series EPDM Gasket Part L**
* **(1) DP-BANM300PLG100 3” Flange Plug with 1” FPT Part M**
* **(1) DP-BANSUV100FPraw Banjo 1” Full Port Valve Part O**
* **(4) DP-ATF 45x1.63x14.5 Torx Screw Part P**
* **(1) Pigtail / Meter-to-Pump SP-LWA-PM1PM-3D2 Part Q**

**Dura-ABS™ Direct Injection (DI) 3” Gauge Kit. Contents Include:**

* **(1) DP-BANM300TEE 3” Flanged Tee Part JJ**
* **(2) DP-BANFC300 300 Series Worm Screw Clamp Part KK**
* **(2) DP-BAN300G 300 Series EPDM Gasket Part LL**
* **(1) DP-BANM300PLG075 3” Flange Plug with 3/4” FPT Part R**
* **(1) DP-BANRB075-025raw 3/4” MPT x ¼” FPT Reducing Bushing Part S**
* **(1) DP-P4045 DI-Gauge Pressure Gauge, 30 PSI Max 2 ½” Part T**

**A close up of a device

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**R**

**T**

**S**

**LL**

**KK**

![A clock on top of a wooden table

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**A**

1” Hose Barb & 1” Hose Clamp at source.

**KK**

**LL**

**JJ**

**K**

**L**

**O**

**1**

**1**

**M**

**L**

**K**

**J**

**I**

**H**

**1**

**I**

**H**

**G**

**F**

**E**

**D**

**C**

**B**

**P**

**AQ**

**A**

**Q**

**1**

**1**

**1**

**1**

**1**

**1**

**1**

**1**

Double Letters = Gauge Kit

Parts A thru S = 3” Kit

Parts identified with “**1”** from DPEM-4312V Sys.

Parts identified with “**1”** from DPEM-4312V Sys.

**Layout of Dura-ABS™ DI 3” System with 3” Gauge Kit**

***Assembly Steps for 3” DI System***

1. Unpack DI Frame from box.
2. Assemble Meter Display to frame using the 4 Hex bolts & nuts.
3. Insert 2 tube caps on front corners of the frame.
4. Place Battery Plate on left rear side of the frame, tighten with 2 Hex nuts.
5. Unpack Pump System(s).

**NOTE: Parts from the two Accessory kits in the Pump System box along with parts from the 3” DI kit will be used to assemble entire set-up.**

1. Using Instruction sheet from the DP-AB001 Accessory kit – (included in the pump box), plumb the pump.
2. Place pump into the DI frame, secure using 3 snap pins (1). Two in front, one in the rear.
3. Attach (B) to outlet of the meter.
4. Attach either (C) or (D) to (B).
   1. For position 1 and 2, use (C).
   2. For position 3 and 4, use (D).
5. Attach 1” Elbow Hose Barb (1) to the inlet of the meter.
6. Attach meter to the Meter Display using 4 Torx screws (P).
7. Insert (Q) between pump power cord and the meter power cord.
8. Attach (E) to the (C) or (D).
9. Attach (F) to the top of (E).
10. Place (G) on top of (F).
11. Insert (H) into bottom of the (E).
12. Attach 1” hose from inlet of meter to outlet of pump. Tighten with 1” Hose Clamp. Can cut hose to length.
13. Starting from Manifold
    * Attach (J) to (M) using parts (K) & (L).
    * Attach 1” Poly Nipple to (M).
    * Attach 1” Check Valve (1), make sure arrow on Check Valve points toward (J).
    * Attach 1” Poly Nipple (1) to Check Valve (1), attach Ball Valve (O).
    * Attach 1” Hose barb (1) to Ball Valve (O).
    * Attach 1” hose from step 17 to the 1” hose barb (1) & tighten with 1” hose clamp (1).
14. To attach Gauge kit to Manifold
    * Attach (J) to (JJ) using parts (K) & (L).
    * Attach (JJ) TO (R) using parts (KK) & (LL).
    * Attach (S) to (R).
    * Attach (T) to (S).
15. Attach 1” hose from bottom of (E) to manifold.
16. Attach long power cord (I) from meter to battery.