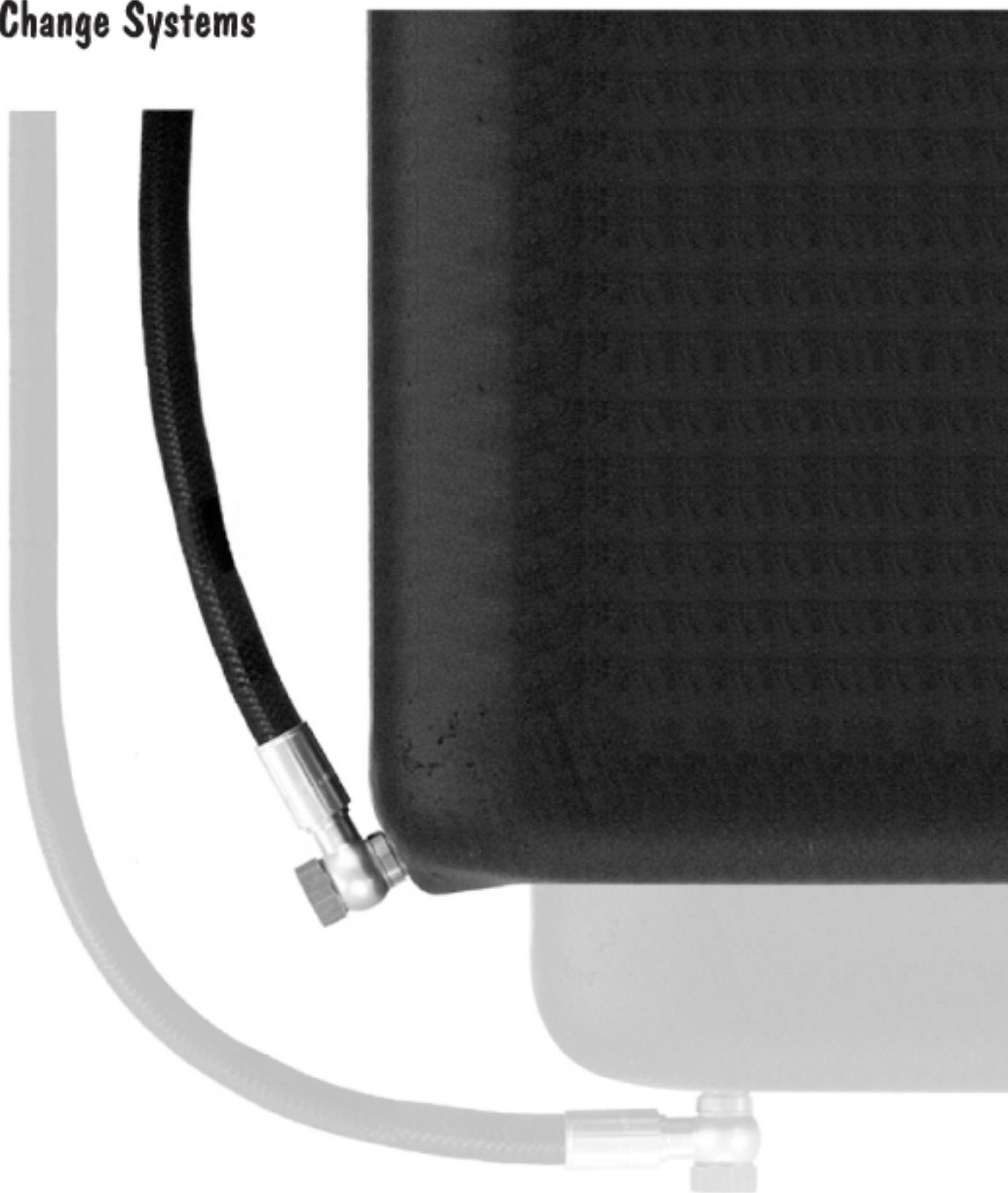




## Series SHA DRAIN HOSE ASSEMBLIES



*We Make Oil Changes  
Fast, Clean, and Safe*

# The SHA Series Drain Hose Assembly Kits Include:

- The SHA Hose Assembly (72" long) with a Banjo connection crimped on one end. The opposite end is blank to allow cutting of exact length at assembly.
- The Oil Pan Banjo Bolt Set which includes a Banjo Bolt, two (2) Seals, a Spacer and an Oilpan Gasket.
- A Reusable Upper Hose End Kit for the service connection end which comes complete with an ISO Coupler (Part # DA051), Coupler Dust Cover (Part # DA058), and Hose End (Part # HF107).
- The oil resistant drain hose which is reinforced with a high tensile steel braid and has a temperature rating that exceeds 225° F. This material exceeds SAE 100R1, has a minimum bend radius of 3-1/2 inches and a working pressure rating in excess of 2000psi.

NOTE: **CAP drain hose assemblies and components are intended only for oilpan drain purposes. Please consult factory about any other intended uses.**

The Connector Mounting Bracket is not included because of the many possible variations. Please specify this from parts listing on the back page.

## SHA Drain Hose Assemblies

### METRIC Straight Thread Series

I.D. No.	Thread Type and Size	Thread Type
SHA203M	M14 X 1.25	Metric
SHA204M	M14 X 1.50	Metric
SHA207M	M16 X 1.50	Metric
SHA401M	M18 X 1.50	Metric
SHA502M	M25 X 1.50	Metric
SHA508M	M20 X 1.50	Metric
SHA510M	M24 X 1.50	Metric
SHA511M	M26 X 1.50	Metric
SHA512M	M22 X 1.50	Metric
SHA513M	M20 X 2.50	Metric

### Inch Straight Thread Series

SHA205A	9/16"-18	Inch
SHA206A	5/8"-18	Inch
SHA801A	3/4"-16	Inch
SHA801A	3/4"-16 with Aluminum Oilpan	Inch
SHA802A	3/4"-24	Inch
SHA501A	1"-18	Inch
SHA503A	7/8"-18	Inch
SHA509A	7/8"-14	Inch
SHA514A	1 1/8"-12	Inch

### Inch Tapered PIPE Thread Series

I.D. No.	Thread Type and Size	Thread Type
SHA505P	1/2"-14 NPT	NPT
SHA504P	3/4"-14 NPT	NPT
SHA506P	1"-11.5 NPT	NPT
SHA507P	1 1/4"-11.5 NPT	NPT

### British Parallel PIPE Thread Series

SHA601B	3/8"-19 BPPT	ISO1179
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### Metric ISO 6149 O-Ring Ports

SHA20-ISO	M20 X 1.50	ISO 6149
SHA22-ISO	M22 X 1.50	ISO 6149
SHA27-ISO	M27 X 2.50	ISO 6149

### Inch Straight SAE J-1926 O-Ring Port Series

SHA10-SAE	7/8"-14 with O-Ring SAE 10	SAE J1926
SHA12-SAE	1 1/16" - 12 with O-Ring SAE 12	SAE J1926
SHA14-SAE	1 3/16" - 12 with O-Ring SAE 14	SAE J1926
SHA16-SAE	1 5/16" - 12 with O-Ring SAE 16	SAE J1926
SHA20-SAE	1 5/8" - 12 with O-Ring SAE 20	SAE J1926

Other adaptors and sizes are available

**Banjo Bolt Tightening Information:** Because of the diversity of oilpan constructions and materials, CAP is unable to list applicable torque values. Please refer to the engine manufacturer's specifications for torque wrench values used to tighten oilpan drain plugs and use these specs. to tighten the Banjo Bolts in place.

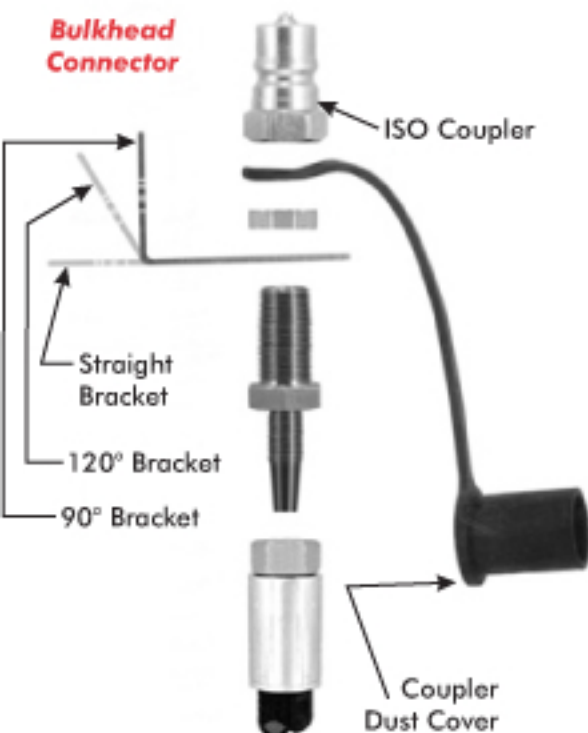
CAP manufactures Banjo Bolts from AISI type 12L14 steel which has a hardness of 160 Brinell and an ultimate strength of 80 KSI.

For assistance in determining drain plug sizes or sizes not shown please call CAP  
for an Applications Engineer at (888) 387-4973.

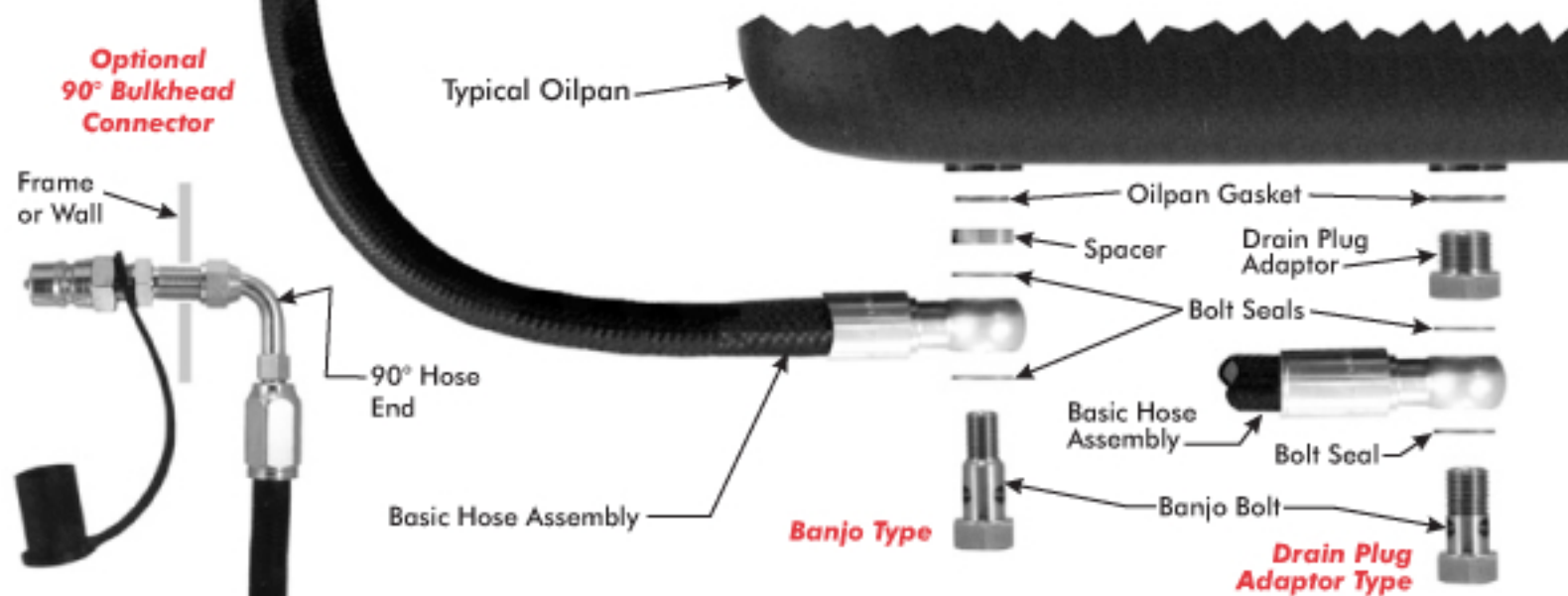
# RECOMMENDED INSTALLATION PROCEDURE

## For SHA Hose Assembly

All Drain Hose Assemblies, Banjo Bolts and other fittings are intended to be installed by professional mechanics using state-of-the-art professional tools in good condition. Creative Automotive Products has attempted to be helpful by publishing or distributing technical bulletins that will assist the professional. Your questions, comments and recommendations are always welcome. Please contact us by phone at (888) 397-4973 or e-mail us at [sales@capoilchangesystems.com](mailto:sales@capoilchangesystems.com)



- STEP 1:** Select the desired location for the upper mounting bracket and coupling.
- STEP 2:** Determine the hose route to the oil pan drain location. Be sure that the routing clears all exhaust pipes, manifolds and other HOT components by at least 4-5 inches and that the hose does not interfere with any steering linkages or other moving parts.
- STEP 3:** After ascertaining that the routing is appropriate, mount Coupling Mounting Bracket to vehicle.
- STEP 4:** Assemble Banjo Bolt, **without** Seals, Spacer and Oilpan Gasket. **Hand tighten bolt only.**
- STEP 5:** Run blank end of hose to Mounting Bracket and mark (or measure) for proper length. Please read Bulletin # TECH 99-2 "Hose Installation Considerations" and allow for flexing of hose during engine movement.
- STEP 6:** Cut hose to proper length. If hose cutting equipment is not available, a hacksaw is suitable. **Do not use a shear or scissor type cutting device.** (These types of cutting devices will deform the wire reinforcement in the hose wall.)
- STEP 7:** Install reusable hose end. See CAP Hose End Installation Technical Bulletin # 99-1
- STEP 8:** Assemble hose fitting into Mounting Bracket and secure with ISO Coupler. **Hand tighten only.**
- STEP 9:** Route hose as previously planned and secure to oilpan with Banjo Bolt, Seals, Spacer and Oilpan Gasket. Carefully position as desired and tighten Banjo Bolt **to specifications** with torque wrench.
- STEP 10:** Remove Coupler from Mounting Bracket.
- STEP 11:** Install loop of coupler cover over thread. Replace thread back in Mounting Bracket.
- STEP 12:** Reattach ISO Coupler and **tighten securely.**
- STEP 13:** Refill with proper engine oil and check for leaks at engine operating temperature.





# Drain Hose Mounting Accessories and Options



Straight Mounting Bracket  
(Part # DA301)



90° Mounting Bracket  
(Part # DA302)



120° Mounting Bracket  
(Part # DA300)



Optional 90° Bulkhead  
Union Connector Assembly  
(Part # HF105)



1/2" and 3/8" Hose Size  
Plastic Coated Loop Clamp  
(Part # DA303)

## Other Cost Saving Products Available



**TT-28**  
Engine Oil Extractor



**TT-28MB**  
with Fluid Level Indicator



**OD-28**  
Oil/Fluid Dispenser



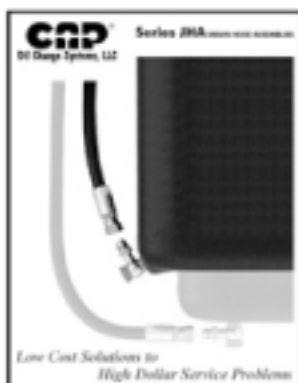
**FH-28**  
Fluid Handler/Filter



**Quick Coupler  
Drain Plugs**



**SATELLITE**  
Portable Service Tanks



**Series JHA**  
Drain Hose Assembly



**Series LHA**  
Drain Hose Assembly



**Oil Change  
Accessories**

*Additional Innovative Products are Currently Being Developed*



## Oil Change Systems

1543 Brownlee Ave., Roanoke, VA 24014

Toll Free: 888-387-4973

Toll Free Fax: 888-387-4981

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

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