

## 1. FEATURES

- Set for refilling coolant and air bleeding
- Special funnel design features its spill-free function when disconnecting funnel from radiator adapter
- Transparent funnel chamber helps display air bubbles remaining in the coolant
- Includes three steel adapters and one universal adapter with three rubber rings
- Suitable for imported and domestic vehicles

## 2. SAFETY PRECAUTIONS



**CAUTION**



- Always read carefully the instructions before working
- This tool kit is for refilling coolant and coolant bleeding ONLY
- Always ensure tool installation on radiator filler neck is securely connected before working
- Take caution while air bleeding as coolant can be hot
- Ensure the working area has adequate lighting
- Keep children and unauthorized persons away from the working area
- Keep working area clean and tidy, dry and free from unrelated materials
- DO NOT allow untrained persons to use this tool kit
- Always wear eye protection that meets OSHA and ANSI Z87.1 standards
- Always wear hand gloves when work with the tool
- Always wear ear protection
- Disposal: Customers should follow local regulations or entrust local organization to handle used/wasted parts

## 3. SPECIFICATION



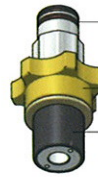
Name	FUNNEL
Material	PP
Opening	Ø125mm
Height	124mm
Outlet	Ø56.8mm

Name	CONNECTOR
Material	Nylon 6-6
ID	Ø24.5mm

Name	RUBBER RING NO. 1
Material	Rubber
Size	Ø35 × 20

Name	RUBBER RING NO. 2
Material	Rubber
Size	Ø39.5 × 20

Name	RUBBER RING NO. 3
Material	Rubber
Size	Ø44 × 20



Name	RADIATOR ADAPTER
O-ring	Ø20.4 × 2
O-ring Material	Viton
Rotor Material	Aluminum 6061
Rubber	NBR
Info	Ø30.3 × 29



Name	Cap No. 3
Material	Steel
Surface Finish	Chrome
O-ring Material	Viton



Name	Cap No. 4
Material	Steel
Surface Finish	Chrome
O-ring Material	Viton



Name	Cap No. 5
Material	Steel
Surface Finish	Chrome
O-ring Material	Viton

## 4. INSTRUCTION

1. Drain old coolant by removing the drain plug underneath the radiator.
  2. Choose a suitable adapter and connect the adapter onto radiator filler neck or recovery tank (Fig. 1 and 2)
- NOTE:** When using the universal radiator adapter with golden rotor, rubber rings can be connected to the rubber on the adapter for fitting different sizes.
3. Connect the funnel onto the adapter (Fig. 3)
  4. Pour new coolant into the radiator or recovery tank (Fig 4).
  5. Turn on the engine, and turn on the heater to maximum.
  6. Run at idle for air bleeding (about 20-30 minutes). Air bubbles may be observed through transparent funnel chamber (Fig. 5).

The transparent chamber assists mechanics to detect if there are any leaks from head gasket by observing air bubbles keep coming out from coolant even after 30-minute air bleeding.

Patent  
Pending

7. Disconnected funnel from radiator adapter without spilling (Fig. 6).

A one-way valve is inserted at the funnel connector to radiator adapter (Fig. 7)

Patent  
Pending



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

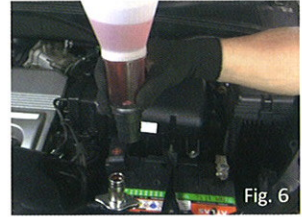


Fig. 6

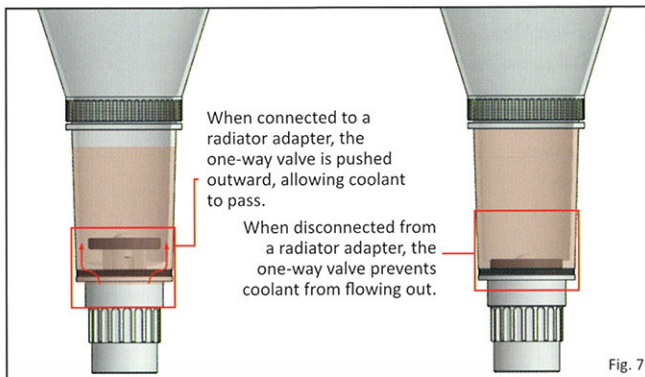


Fig. 7

## 6. APPLICATION

CAP NO.3



Buick (LeSabre: 1990-) (Park Avenue: 1991-)  
 Chrysler (Sebring: 1995-)  
 Chevrolet (Venture: 1997-)  
 Dodge (Caravan: 1989-) (Dakota: 1989-) (Startus: 1995-)  
 Jeep  
 Mercedes (W123, W124, W126, W201)  
 Oldsmobile (Silhouette: 1990-)  
 Pontiac (Bonneville: 1990-) (Grand Prix: -2003)

CAP NO.4



Acura (Integra: 1991-1993)(Legend: 1989-1990)(NSX: 1995-2004)(SLX: 1997)  
 (Vigor: 1992-1994)  
 BMW (M6: 2008)  
 Chevrolet (Nova: 1985-1998) (Spectrum: 1985-1988) (Sprint: 1986-1988)  
 Chrysler (Laser: 1991-1998) (Sebring: 1996-1998)  
 Dodge (Avenger: 1995-1999)(Colt: 1984-1991) (Ram 50: 1989-1992)  
 (Stealth: 1993-1996)  
 Eagle (Summit: 1989)(Talon: 1991-1998)  
 Ford (Aspire: 1994-1997)(Escort: 1991-2002)(Expedition: 2009-2011)  
 (Explorer: 1995-2001)(Explorer Sport Trac: 2001-2005)(F-150: 2009-2011)  
 (Festiva: 1989-1993)(Mustang: 1997-2004)(Probe: 1989-1997)  
 (Ranger: 1995-2011) (Tempo: 1992-1994)(Thunderbird: 1992-1995)  
 (Windstar: 1996-1999)  
 Geo (Metro: 1989-1993) (Prizm: 1989-1991)(Spectrum: 1989)(Storm: 1990-1993)  
 (Tracker: 1989)  
 GM (Nova, Spectrum, Sprint)  
 Honda (Accord: 1990-1993) (Civic: 1988-1991)(CRX: 1989-1990)(Motorcycles: 1991-2004)  
 (Passport: 1994-2002)(Prelude: 1990-1998)  
 Hyundai (Accent: 1995-2010)(Azera: 2006-2010)(Elantra: 1992-2011)(Entourage: 2007-2008)  
 (Excel: 1986-1994)(Genesis: 2009-2010)(Genesis Coupe: 2010)(Santa Fe: 2002-2010)  
 (Scoupe: 1994)(Sonata: 1989-2011)(Tiburon: 1998-2008)(Tuscon: 2005-2010)  
 (Veracruz: 2007-2010)(XG 350: 2004)  
 Infiniti (FX 35: 2003-2007)(G20: 1991-2002)(G35: 2004-2007)(i30: 1997-2000)  
 (i35: 2002-2004)(J30: 1996)(M30: 1990-1992)(M35: 2006-2009)(M45: 2003-2010)  
 (Q45: 1990-2006)(QX4: 1998-2003)  
 Isuzu (Amigo: 1989-2000)(Axiom: 2002-2004)(I-Mark: 1985-1989)(Impulse: 1985-1992)  
 (Rodeo: 1991-1998)(Stylus: 1991-1992)(Trooper: 1986-2002)(VehiCROSS: 1999)  
 Kia (Amanti: 2006-2009)(Borrego: 2009)(Forte: 2011)(Optima: 2002-2010)  
 (Rio: 2002-2011)(Rio5: 2007-2011)(Rondo: 2009-2010)(Sedona: 2003-2011)  
 (Sephia: 1994-2001)(Sorento: 2003-2011)(Soul: 2010-2011)(Spectra: 2000-2009)  
 (Spectra5: 2005-2009)(Sportage: 1995-2011)  
 Lexus (ES300: 1996-2003)(ES330: 2005)(LS400: 1992)(LX 450: 1996-1999)  
 (LX 470: 1998-2005) (SC400: 1992)  
 Lincoln (Navigator: 2009-2011)  
 Mazda (323: 1986-1993)(626: 1985-1999)(929: 1990-1993)(B2000: 1986-1987)  
 (B2200: 1988-1993)(B2300: 2005)(B2500: 1998-2000)(B2600: 1987-1993)  
 (B3000: 1996-2007)(B4000: 1995-2006)(CX-9: 2007-2010)(Matia: 1991-2005)  
 (Millenia: 1995-2002)(MPV: 1991-2006)(MX-5 Matia: 2006-2012)  
 (MX-6: 1991-1997)(Protegé: 1993-2003)(Protegé 5: 2002-2003)(RX-7: 1986-1995)  
 (RX-8: 2005-2009)  
 Mercury (Capri: 1991-1994)(Cougar: 1989-1992)(Cougar: 1993-1997 w/V6)  
 (Mountaineer: 1997-2000)(Topaz: 1992-1994)(Tracer: 1988-1999)  
 (Villager: 1994-2002)  
 Mitsubishi (3000GT: 1992-1996)(Cordia: 1986-1988)(Diamante: 1992-1995)(Eclipse: 1990-1999)  
 (Galant: 1989-1993)(Mighty Max: 1987-1994)(Mirage: 1985-1992)  
 (Montero: 1989-1998)(Outlander: 2003-2011)(Outlander Sport: 2011)  
 (Precis: 1988-1992)(Starion: 1984-1986)(Tredia: 1986-1988)  
 Mercedes-Benz  
 Nissan (200SX: 1984-1988)(240SX: 1990-1994)(300ZX: 1984-1996)(Altima: 1993-2006)  
 (Axxess: 1990)(Cube: 2009-2010)(D21: 1986-1994)(Frontier: 1998-2011)  
 (Maxima: 1987-2008)(Murano: 2003-2007)(NX: 1991-1993)(Pathfinder: 1987-2004)  
 (Pulsar NX: 1987-1989)(Quest: 1994-2009)(Rogue: 2009-2010)(Sentra: 1987-2011)  
 (Stanza: 1987-1992)(Versa: 2007-2011)(Xterra: 2000-2012)  
 Plymouth (Colt: 1984-1991)(Laser: 1993-1994)  
 Subaru (Baja: 2004-2005)(Brat: 1983-1987)(DL: 1983-1989)(Forester: 1999-2011)  
 (GL: 1983-1989)(GL-10: 1985-1989)(Impreza: 1993-2011)(Justy: 1988-1993)  
 (Legacy: 1990-2011)(Loyale: 1990-1992)(Outback: 2000-2011)(RX: 1986)  
 (SVX: 1994-1997)(XT: 1985-1991)  
 Suzuki (Equator: 2009-2011)(Samurai: 1986)(Sidekick: 1989-1991)(Swift: 1990-1994)  
 (XL-7: 2004-2006)

CAP NO.4	Toyota	(4Runner:1986-1995)(Avalon 1995-2004)(Camry:1983-1991) (Camry: 1994-1999 4cylinder)(Celica:1983-1989)(Corolla:1983-1992) (Cressida:1985-1992)(Land Cruiser:1993-2007)(MR2: 1989-1995)(Previa: 1991-1997) (Sienna: 1998-2006)(Solara 1999-2008)(Starlet: 1983-1984)(Supra: 1987-1990) (T100:1995-1998)(Tacoma: 1996-2004)(Tercel: 1983-1990)
CAP NO.5	Acura	(CL: 1997-2002)(Integra: 1994-2000) (Legend: 1993-1995)(MDX: 2001-2011) (RDX: 2009-2012)(RL: 1996-2010)(RSX: 2002-2005)(TL:1996-2011)(TSX: 2007-2012)
	Chevrolet	(Metro: 1999-2000)(Prizm: 1998-2002)(Tracker: 1998-2004)
	Chrysler	(Sebring: 2001)
	Dodge	(Colt:1993-1994)(Stratus: 2001-2004)
	Eagle	(Summit:1992-1996)
	Geo	(Metro: 1995-1997) (Prizm: 1993-1997)(Tracker: 1997)
	Honda	(Accord: 1994-2011)(Civic: 1992-2010)(Civic del Sol: 1993-1997)(CR-V: 1997-2010) (CR-Z: 2011)(Element: 2003-2010)(Fit: 2008-2009)(Insight: 2001-2011) (Odyssey:1998-2010)(Pilot:2003-2011)(Prelude: 1999-2001)(Ridgeline: 2007-2011) (S2000: 2006-2009)
	Isuzu	(Oasis: 1997)(Rodeo: 1999-2000)(Rodeo Sport: 2003)
	Lexus	(ES250: 1990-1991)(ES350: 2008-2012)(GS300: 1993-2003)(GS350: 2007-2009) (GS430: 2004-2007)(GX470: 2004-2005)(LS300: 2003)(LS350: 2009-2012) (LS430: 2001-2003)(LX570: 2011-2013)(RX300: 1999-2006)(RX350: 2008-2010) (RX400h: 2006-2008)(SC300: 1992-2010)
	Mazda	(Mazda 2: 2011)(Mazda 5: 2008-2010)(Protegé: 1995-2003)
	Mercedes	(ML-class, W163, W164))
	Mitsubishi	(Diamante:1996-2004)(Eclipse: 2000-2010)(Endeavor: 2006-2011)(Expo: 1992-1995) (Expo LRV: 1992-1994)(Galant:1994-2011)(Mirage: 1993-2002) (Montero Sport: 1997-2003)
	Plymouth	(Colt: 1992-1994)
	Pontiac	(Vibe: 2003-2010)
	Scion	(FR-S: 2013)(iQ: 2012)(tC: 2005-2010)(xA: 2006)
	Subaru	(B9 Tribeca: 2006-2007)(Tribeca: 2008-2010)
	Suzuki	(Aerio: 2003-2007)(Esteem: 1995-2002)(Sidekick: 1991-1998)(Swift: 1999-2001) (SX4: 2007-2009)(Vitara: 1999-2003)(X-90: 1996-1998)(XL-7: 2002-2003)
	Toyota	(4Runner:1969-2011)(Avalon: 2005-2010)(Camry: 1990-1991 V6 w/ auto.trans.) (Camry:1992-2011)(Celica:1990-1999)(Corolla: 1993-2012)(Echo: 2001-2005) (FJ Cruiser: 2007-2010)(Highlander: 2001-2011)(Land Cruiser: 2009) (Matrix: 2003-2011)(Paseo: 1992-1998)(Prius: 2001-2009)(RAV4: 1996-2003) (Sequoia: 2001-2011)(Sienna: 2007-2011)(Supra: 1990-1998)(Tacoma: 2005-2011) (Tercel: 1991-1998)(Tundra: 2000-2011)(Venza: 2009-2011)(Yaris: 2008-2011)
	VW	(Touareg: 2004)

**When rotating the rotor on radiator adapter, the rubber size increases  
Rubber rings are connected to the radiator adapter**



Maximum  
application range  
Ø37.2mm



Maximum  
application range  
Ø40.7mm



Maximum  
application range  
Ø43.8mm



Maximum  
application range  
Ø47.9mm