

BTR VALVE COVER SET INSTRUCTIONS



COVERS ALL P/NS - VCA-02-xxx & VCA-03-xxx

PARTS LIST

QTY	DESCRIPTION
2	Valve cover
4	Coil mounting bracket
8	M6 x 1.80mm socket head screw
8	M6 locking nut
8	M6 flat washer
16	M5x.8 flat head socket head
16	Coil spacer, short
8	Coil spacer, long
2	Baffles / 1 right & 1 left
8	Baffle screw, 8-32 x 1/2" self-tapping
1	12AN ORB oil fill cap
1	12AN ORB port plug

SERVICE PARTS

Center bolt	BTR77215
Gasket (pair)	BTR37683-2
LS Coil bracket	VC_CBRKT2
Smart Coil bracket	VC_CBRKT3
-12 ORB to -16AN	ADPT-02-021
-12 ORB to -12AN	ADPT-02-013
LS coil harness	H151
Coil mount hw kit	VC-CBHK-BLK-02
Non-coil mount hw kit	VC-CBHK-02
ORB Oil fill funnel kit	OIL-FILL-KIT-12
Coil spacer (.700) short	VC_CBRKTSPCR1
Coil spacer (1.085) long	CBRKTSPCR3
Baffle - LF or RR	VCB_LEFT_R1
Baffle - RF or LR	VCB_RIGHT_R1

TOOLS NEEDED

1/4" drive ratchet · 1/4" socket · 5mm allen · 3mm allen · 10mm socket · In/Lb torque wrench

INSTALLATION

Note: Purchasing new gaskets is recommended, but not required. Use BTR37683 for standard replacement.

1. Remove all parts and hardware from packaging. If you have missing or damaged parts or hardware, call us at (888) 959-8865
2. Once all parts and hardware have been accounted for, install the baffles into the valve covers using the supplied 8-32 self-tapping screws. If you wish to use a thread locker, USE ONLY ONE SMALL DROP APPLIED TO THE SCREW ITSELF.
3. The baffles need to be installed with the notched portion towards the top of the valve cover as shown in **Figure 1**. Tighten the 8-32 self-tapping screws to 32 in/lbs. The use of power tools may damage threads.

Also, it is critical you FULLY SEAT the gasket BEFORE installing the cover and fully lube the bolt threads to achieve the proper bolt torque/gasket pressure.



Figure 1

4. Factory GM hardware is re-used to secure the valve cover to the engine. If you do not have the original hardware, BTR77215 can be used as a suitable replacement. Install the valve cover gasket into the valve cover, then install the valve cover onto the engine and tighten to 106 in/lbs. The OEM style valve cover bolts require torquing to 106 in/pounds. We also recommend limiting the torque of the 6mm ARP fasteners to 106 in/pounds as well since there is no bolt sleeve to help limit overall travel and support the casting. In this case over tightening may cause warping of the valve cover.
5. Install the supplied 12AN ORB oil fill cap, 12AN ORB port plug, or other optional fitting into the open ports on either end of the valve cover.
6. Coil mount (optional): Fasten coil mount brackets to valve cover using the supplied M5 flat head socket head screw, tighten to 54 in/lbs. If using coils as shown in Figure 2, use the long spacer on the right and the short spacer on the left. If using coils as shown in Figure 3, use short spacers on the left and right. Tighten the M6 bolts and locknuts to 87in/lbs. **Do NOT leave ORB ports open while engine is running. Oil can escape causing fire.**



Figure 2



Figure 3