



Vertical Mount Ashtray Assembly Manual

(A0.38BLK-4 Shown)

Document Number	CCC-AM-01VMA Rev. L (CCQS 915)
Affected Items:	Custom Cupholders' Vertical Mount Ashtrays
Affected Part Numbers:	A0.75BLK-1, A0.50BLK-1 and A0.38BLK-4

NOTE:

**THESE INSTRUCTIONS SHOULD BE READ THOROUGHLY
BEFORE BEGINNING ASSEMBLY OF ANY OF THE
VERTICAL MOUNT ASHTRAYS.**

A. Parts List

Item	Parts in each kit (P/N)	Qty	Description	Material
Ashtray Main Components				
1	A0.75BLK-1_RT1	1	Receptacle – Top	6061-T6
2	A0.75BLK-1_RB1	1	Receptacle – Bottom	6061-T6
3	A0.75BLK-1_CS1	1	Case	6061-T6
4	A0.38BLK-4_BZ1	1	Bezel – Included in A0.38BLK-4 kits only	6061-T6
4	A0.50BLK-1_BZ1	1	Bezel – Included in A0.50BLK-1 kits only	6061-T6
Parts Bag				
5	A0.75BLK-1_RB1-PINMOD	1	Bottom Rotating Pin (Bottom Receptacle) Modified 5-40 x 3/16 socket head screw	18-8 SS,
6	5-40 x 3/16 socket head set screw, dog point (black)	1	Top Rotating Pin (Top Receptacle)	ASME B18.3, Steel, Black Oxidized
7	4-40 x 3/16 socket head set screw, dog point	1	Side Stop Pin	18-8 SS
8a	NAS 620	2	Washer	18-8 SS
8b	NAS 620	2	Washer	18-8 SS
9	SPRCLP_.020-.25-.715	1	Bottom Spring Clip	0.020 Stainless Steel
10	SPRCLP_.010-.25-.715	2	Side Spring Clip (Bent Ends)	0.010 Stainless Steel
11	AD32 Blind Rivet	3	3/32" Blind Rivet	Aluminum
12	*Aluminum Tape (not shown)	1	Self-adhesive aluminum tape dot, 3/4" dia.	Aluminum Tape
13	*P/N Sticker (not shown)	1	Self-adhesive sticker	Sticker
Documents				
14	CCC-AM-01VMA- Basic	1	Basic Assembly Layout	Document

*NOTE: In purchases of multiple units these items may be packaged separately as a group.



Required Tools	Qty
* Hex L-Key Long Arm, 1/16"	1
* Hex L-Key Short Arm, 0.050"	1
* Hex L-Key Long Arm, 3/32"	1
Drill bit #43	1
Tapered Hand Tap, 4-40	1
** Tapered Hand Tap, 5-40	1
Blind Rivet Tool	1
*** Detailed Assembly Manual (This Document)	1

- * Included with kit(s). (Might be packaged separately).
- ** This item is only needed if plating thickness is excessive and tapped holes must be re-tapped.
- *** This item included separately from kit.

Adhesives Required	Qty
Epoxy adhesive – Recommended: Devcon Epoxy Plus 25 <i>ITW Devcon</i> <i>30 Endicott Street</i> <i>Danvers, MA 01923</i> or 3M DP100 <i>3M Adhesives</i> <i>3M Center, Building 220-E-05</i> <i>St. Paul, MN 55144-1000</i>	A/R
Loctite 222 Thread Lock <i>Henkel Corp Industrial</i> <i>1001 Trout Brook Crossing</i> <i>Rocky Hill, CT 06067</i> <i>Phone: (860) 571-5100</i>	A/R

B. ASSEMBLY WARNINGS

- 1) **Side Stop Pin holes are match drilled in each Top and Bottom Receptacle assembly. If assembling more than one Ashtray Assembly do not mix Top and Bottom Receptacles.**
- 2) **Side Stop Pin holes must be aligned when bonding Top Receptacle to Bottom Receptacle. Use a #43 drill bit as an alignment pin to make sure holes are aligned.**
- 3) **The recommended bonding epoxies and threadlocker (Loctite 222) may cause damage to some plated or coating finishes. It is recommended that the epoxy and threadlocker be tried on an expendable sample of the final finish material to confirm that the adhesive will not discolor or stain the final finish.**

C. ASSEMBLY NOTES

- 1) On A0.38BLK-4 and A0.50BLK-1 assemblies, the bezel does not need to be securely bonded to the case because it will be held in place by the case's flange once the assembly is installed. However, to make installation easier, it is recommended that a small dab of epoxy or two-sided tape be used to locate the bezel to the case prior to final installation of the ashtray assembly.
- 2) The Top and Bottom Rotating Pins and the Side Stop Pin may be adjusted for proper operation of the receptacle.
 - a) The Top Rotating Pin should be initially set so 0.030" is exposed outside of the Receptacle. This should provide a gap of 0.010" to 0.020" between the top of the pin and the case when removing the Receptacle Assembly (see Section E – Operation). If necessary, the Top Rotating Pin may be adjusted in or out to achieve this gap.
 - b) The Bottom Rotating Pin should not need adjustment once installed per the directions described in Section D.2.b. If the pin is too long first check to make sure that there are two spacer washers on the pin. To shorten or lengthen the exposed part of the pin add or remove washers as required.
 - c) The Side Stop Pin should be set initially to a height of 0.050" outside the Receptacle but may be adjusted in or out to vary the force required to overcome the detent to open and close the Receptacle.

D. ASSEMBLY INSTRUCTIONS

Final Finish Note:

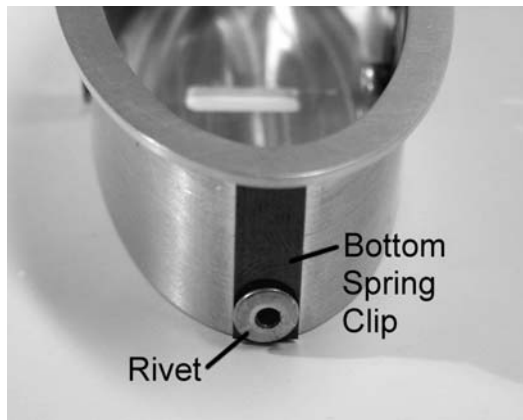
If the ashtray assembly is to receive a final finish coating (electroplating, painting, powder coat) the finishing should be done prior to beginning assembly.

If a final finish coating is applied, the two side holes and the bottom hole that will receive the 3/32" blind rivets may have to be re-drilled with a 0.096 diameter (#41) drill to remove the finish thickness.

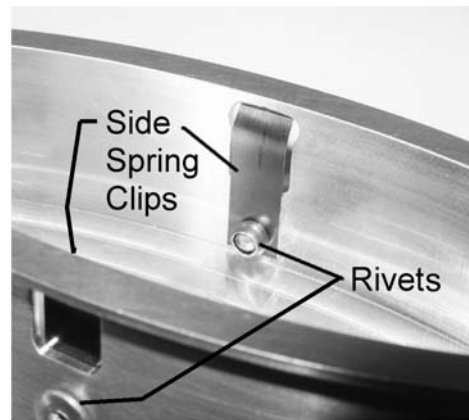
1) Case

a) Bottom Spring Clip

Locate the Bottom Spring Clip (9) on the outside end of the Case along the flat area. Align the hole in the clip with the larger hole on the flat area. Using an included #AD32 Blind Rivet fasten the clip to the case (see picture #1 below). Clip must cover the smaller hole located on the flat area immediately beneath the Case flange.



Picture #1



Picture #2

b) Side Spring Clips.

Locate the Side Spring Clips (10) on the inside of the Case along the sides at the rectangular cutout area. One Side Spring Clip on the inside of each side of the Case. Align the hole in the clip with the smaller hole in the side of the Case. The bent tabs of the Side Spring Clips face outward through the cutout. Using an included #AD32 Blind Rivet fasten the Side Spring Clips to the Case (see picture #2 above).

c) Aluminum Foil Tape

Remove the backing and adhere the piece of aluminum foil tape to the back of the case over top of the center cutout. Included foil shape may be square or round. (see picture #3 below)

d) Part Number Sticker

Attach the self-adhesive Part Number Sticker to the back of the Case. Or use a permanent marker to imprint the Part Number to the back of Case (see picture #3 below).



Picture #3

D. ASSEMBLY INSTRUCTIONS (cont.)

2) Receptacle Assembly

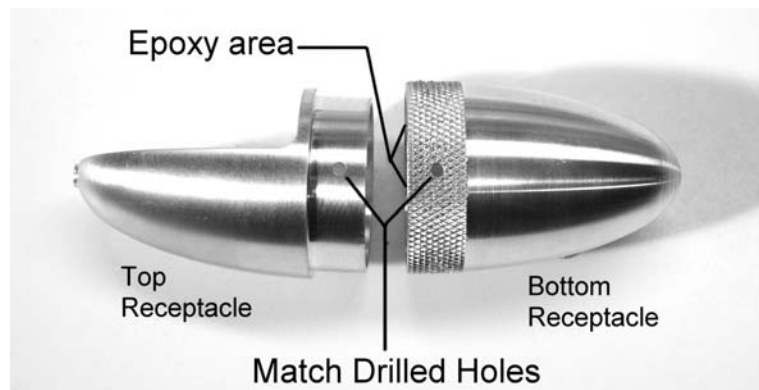
Note: If the receptacle pieces have received a final finish coating (electroplate, paint, powder coat, etc.) the holes in the top of the Top Receptacle and in the bottom of the Bottom Receptacle may need to be re-tapped. Use a #5-40 hand tap.

- a) Apply a drop of Loctite 222 to the Top Rotating Pin (6) threads and install it from the inside of the Top Receptacle (1) into the top hole using a 5/64" Hex Key. The dog point of the Pin must be on the outside of the Receptacle. Adjust until there is 0.030 of the Pin protruding above the Top Receptacle surface (see picture #4 below left).



Picture #4

- b) The Bottom Rotating Pin (5), along with spacer Washers (8), installs from the inside of the Bottom Receptacle (2) into the bottom hole using a 3/32" hex key. The kit includes four spacer Washers (8) to help adjust the extension of the Bottom Rotating Pin (5). Two Washers are thin and two are thick. When installed, the Rotating Pin should protrude from the Receptacle 0.100" to 0.110" (see picture #4 above right). Adjust the exposed length of the Pin by removing or adding washers. Start by using the two thick Washers. Decrease the washer thickness and/or quantity to achieve a longer exposed length. Trial fit the Receptacle Assembly into the Case – See Section E for proper orientation. When the Receptacle assembly is installed into the case as far up as it can go, the exposed portion of the Bottom Rotating Pin (5) should be long enough that the Bottom Spring Clip (9) exerts a slight amount of pressure on the tip of the Bottom Rotating Pin. Once the proper number of spacer Washers have been determined, apply a drop of Loctite 222 to the Bottom Rotating Pin threads and install it along with the required spacer Washers. Do not over tighten.
- c) Bonding Top and Bottom Receptacles
- i) Apply a constant, narrow, small ring of epoxy adhesive (Devcon Epoxy Plus 25 or 3M DP100) around the inside circumference of the mating surface on the Bottom Receptacle (see picture #5 below). Care should be taken as the amount of epoxy required is normally less than anticipated.

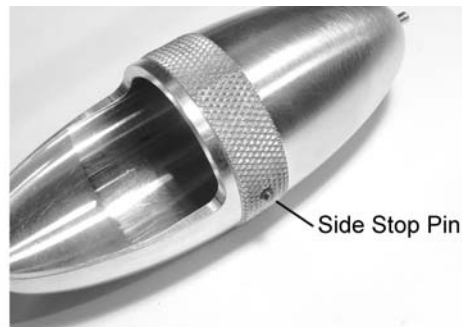


Picture #5

- ii) After adhesive is applied to the Bottom Receptacle, join with the Top Receptacle, slowly rotating the Top Receptacle while seating the two Receptacles together. The goal is to create an even layer of adhesive all around the bonding surfaces. Care must be taken to avoid adhesive squeezing out the top outside gap or into the inside of the Receptacles. Wipe off any residual adhesive immediately.
 - iii) Once the adhesive is spread evenly rotate one of the Receptacles the minimum necessary to **align the pre-drilled holes in the sides of the Receptacles**. Insert a #43 (0.0890) drill bit to maintain alignment. At this point the joined Receptacles can be installed into the case (See Section E) which will act as a jig to provide pressure on the Receptacles for proper positioning during curing. Remove the drill bit after the epoxy has cured.
 - iv) Tap the matched pre-drilled holes in the joined Receptacle Assembly with a tapered 4-40 tap
- d) Apply a drop of Loctite 222 to the Side Stop Pin (7) threads and install into the 4x40 tapped hole in the side of the Receptacle Assembly using a 0.050 Hex Key (see picture #6 below). Adjust until there is 0.050 of the pin protruding out of the Receptacle Assembly (see picture #7 below).



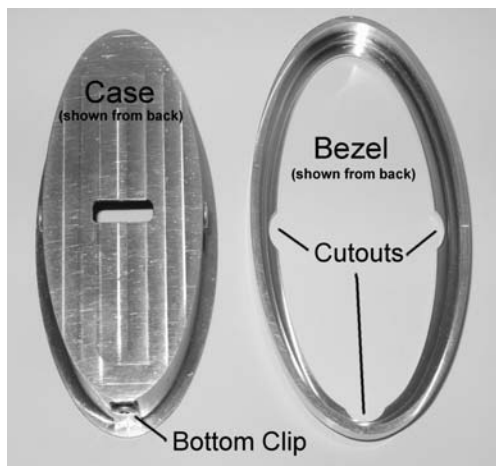
Picture #6



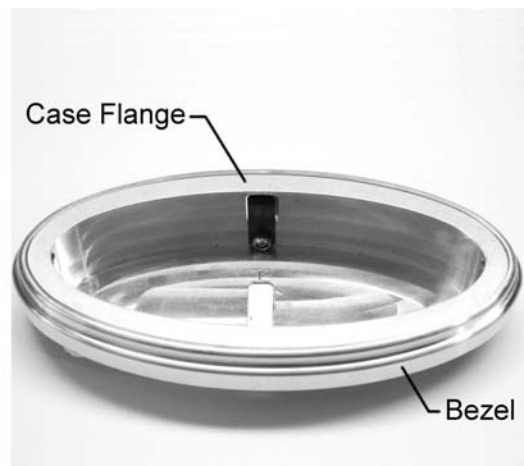
Picture #7

3) **Bezel** (Used on A0.38BLK-4 and A0.50BLK-1)

The Bezel (4) must be orientated correctly on the Case (3) for proper operation of the ashtray. There are three small cutouts in the Bezel that correspond to the location of the Spring Clips attached to the Case (see picture #8 below). The assembled Case is inserted through the Bezel so the flange of the Case rests on the flange on the top of the Bezel (see picture #9 below).



Picture #8



Picture #9

On A0.38BLK-4 and A0.50BLK-1 assemblies, the bezel does not need to be securely bonded to the Case because it will be held in place by the case's flange once the complete assembly is installed. However, for ease of installation, it is recommended that the Bezel be tack bonded with epoxy or adhered using two-sided film tape to the Case flange.

E. OPERATION AND ADJUSTMENT OF RECEPTACLE ASSEMBLY

The Custom Cupholders VMA Ashtray is a precision machined assembly with close tolerance, moving parts and should only require very small adjustment for proper operation.

1) Receptacle Assembly Installation

With the Receptacle Assembly turned almost fully opened locate the Bottom Receptacle Pin into the hole in the bottom of the Case. Push down on the Receptacle Assembly and tilt inward (see picture #10 below). Make sure the Side Stop Pin is inside the Case opening. Align the Top Receptacle Pin with the hole in the top of the Case and release downward pressure (see picture #11 below).



Picture #10



Picture #11

NOTE: Pictures may show a different ashtray assembly however the operation will be similar.

2) Receptacle Assembly Operation and Adjustment

To open or close the Receptacle Assembly, rotate the assembly 180 degrees until it clicks into either the open or closed position. To increase the amount of force needed to rotate the Receptacle Assembly into the open or closed detent position, adjust the Side Stop Pin (7) by unscrewing it. To decrease the force required, screw the stop pin in. Only small adjustments – less than ½ rotation - are necessary to make changes in the required force.

NOTE: The side clips (10) should not rub on the knurled part of the receptacle assembly during rotation. If this is happening remove the receptacle and gently bend the side clips outward until they clear the knurled area. Re-adjust the Side Stop Pin.

3) Receptacle Assembly Removal

With the Receptacle Assembly turned almost fully open push down on the Receptacle Assembly to release the Top Rotating Pin from the Case. Tilt the Receptacle inward and remove.

F. INSTALLATION OF ASHTRAY ASSEMBLY INTO VERTICAL PANEL

Because of the many different mounting possibilities, Custom Cupholders Company does not guarantee any specific mounting method. It is the responsibility of the final installer to meet any and all structural and operational requirements.

- 1) Cutouts in vertical surface.
 - a) For ashtrays A0.75BLK-1 use the back of the Case as a template for the cutout. .
 - b) For ashtrays A0.38BLK-4 and A0.50BLK-1 use the inside of the Bezel as a template for the cutout.
- 2) To allow for proper operation of the three Spring Clips, provide 0.063" localized relief areas in the vertical panel at each of the three Spring Clip locations.
- 3) See drawing number A0.38BLK-4_INSTL, "Suggested Installation Method, Vertical Mount Ashtray, .38" thk. Bulkhead", at the end of this manual for further reference.

Revision Schedule

Date	Rev.	Explanation
010 Apr 2006	A	Corrected spelling and affected Part Numbers
016 Jun 2006	B	Eliminated P/N A0.50BLK-1
001 Nov 2006	C	Revised Required Tool and Materials Listings
018 Dec 2006	D	Revised Required Tool and Materials Listings
008 Jul 2007	E	Changed Side Clip P/N's and Rivet Callouts
018 Aug 2007	F	Added additional information and Washers (8) for installation of Bottom Rotating Pin. Corrected picture numbering sequence.
030 Nov 2007	G	Added information about side clip adjustment.
012 Dec 2007	H	Added P/N A0.50BLK-1
001 Mar 2008	I	Rivets changed to AD32. Bottom pin changed to Socket Head Screw.
019 Aug 2009	J	Updated receptacle bonding area information.
028 Aug 2009	K	Corrected receptacle bonding area information and spring clip P/N's
003 May 2012	L	Added additional information in Section D.2.c.iii