

E-1000 INSTRUCTION SHEET



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INSTALLATION
INSTRUCTION
E-1000

CARBURETOR FLOAT KIT

666-1000
MODELS MA-3 & MA-4SPA

READ ENTIRE INSTRUCTIONS BEFORE PROCEEDING WITH WORK. REMOVE CARBURETOR FROM ENGINE. REFER TO THE APPROPRIATE CARBURETOR PART NUMBER EXPLODED VIEW

AND PARTS LIST FROM VOLARE' CARBURETORS CARBURETOR FULL SERVICE MANUAL; FORM #MSAFSM AND AIRCRAFT CARBURETOR SERVICE MANUAL; FORM #FSM-OH1

KIT PARTS DATA

- (1) 16-B85 Gasket-Throttle Body to Bowl
- (1) 16-B75 Gasket-Throttle Body to Bowl
- (1) 16-223 Gasket-Float Valve (.016")
- (1) 16-224 Gasket-Float Valve (.031")
- (1) 29-184 Clip, Float Valve
- (1) 30-864 Float & Baffle Assy
- (1) 32-32 Shaft-Float Lever
- (4) 78-A110 Washer-Throttle Body to Bowl Screw
- (1) 82-11 Pin-Cotter, Float Lever Shaft
- (1) E-1000 Instructions

1.0 DISASSEMBLY

- 1.1 Separate the throttle body and bowl by bending the tabs on the washers and removing throttle body to bowl screws. Discard the washers. NOTE: If necessary to loosen, tap casting lightly with a soft faced hammer and pull apart.
- 1.2 Remove float shaft cotter pin, float assembly, float shaft, and clip. Discard these pieces.
- 1.3 Remove and discard the throttle body to bowl gasket. Consult the Volare' Carburetors Full Service Manual to determine the correct throttle body to bowl gasket. Discard the unused throttle body to bowl gasket.

- 1.4 Remove the float valve seat and float valve gasket using tool #M-104. Discard the used float valve gasket.

STOP! Further disassembly of the carburetor is not necessary to install the float kit.

2.0 INSPECTION

- 2.1 Before reassembly, thoroughly inspect the carburetor per Volare' Carburetors Aircraft Carburetor Service Manual. If additional maintenance is required, now is the time to do it to assure the airworthiness of the carburetor and your work.
- 2.2 Inspect the float valve and seat very carefully. If it exhibits indications of wear, replace it.
- 2.3 Insure that the float valve seat and especially the tip of the float valve are clean when assembled. Wipe the rubber float valve tip between a clean thumb and finger with a rotating motion.



3.0 FLOAT INSTALLATION

CAUTION: Exercise care during the following operations to prevent damage to the float.

3.1 Install the float valve seat and 16-224 (.031") float valve gasket using tool #M-104. Torque to 10-12 foot pounds. **NOTE:** Initial run-in torque must be at least 6 inch-pounds. If run-in torque is less than 6 inch-pounds, the nylon locking element is degraded or damaged, and the float valve assembly must be replaced.

3.2 Position the clip onto the float lever as clip on float as shown in **Figure 1**.

FIGURE 1



3.3 Place the float valve into the forked clip on float as shown in **Figure 2**.

FIGURE 2



3.4 To install the float and float valve, place the throttle body with the flange down and install the proper throttle body to bowl gasket

3.5 Place the float and float valve assembly into the float bracket with the float valve in the float valve seat, as shown in **Figure 3**.

FIGURE 3



3.6 Insert the float shaft through the float bracket and float.

3.7 To adjust the float properly it is suggested a 7/32" drill rod be used as shown in **Figure 4** to measure the adjusted clearance between the throttle body to bowl gasket and float, measured near the tip of each pontoon.

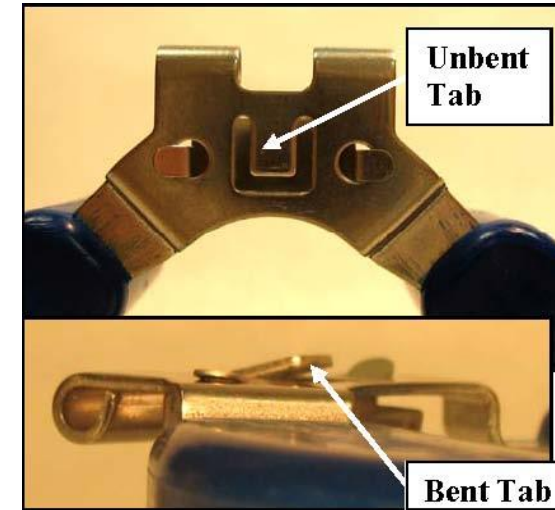
FIGURE 4



3.8 If adjustment is required, remove the float and bend the adjustment tab (**Figure 5**) located over the float valve to achieve the 7/32" setting. A small screwdriver bent 30° approximately 1/4 inch from its tip is a useful tool for making this adjustment. Do not bend tab more than .030". Ensure that the

float valve is free and not binding in clip. Reinstall float. If additional adjustment is required, return to step 3.1 and use the 16-223 (.016") float valve gasket or a combination of the 16-223 and 16-224 float valve gaskets.

FIGURE 5



CAUTION: Both Float Pontoons Must Be The Same Height Above The Gasket. Float Lever May Be Bent Slightly If Required to Correct Pontoon Height. **DO NOT APPLY PRESSURE TO THE VALVE AND SEAT DURING ADJUSTMENT BENDING.**

3.9 Insure that the float shaft is free to rotate in the float and that the float valve movement is not restricted between the fully open and fully closed position of the float valve. If the float shaft binds in the clip, the clip may be removed and bent a small amount to allow the shaft to rotate freely.

3.10 Insure that proper clearance exists between the float and carburetor bowl using gage M-510 and a .081" drill rod as prescribed in Volare' Carburetors Aircraft Carburetor Service Manual. If proper clearance does not exist, the float bracket may be repositioned laterally by loosening the attachment screws, repositioning, and re-torturing as prescribed in Volare' Carburetors Aircraft Carburetor Service Manual.

3.11 With the throttle body held inverted, insure that a minimum of .015" clearance exists between the forked clip and the float valve seat, as shown in **Figure 6**. If additional clearance is required, bend the tips of the clip slightly and/or use a thinner float valve gasket. If a thinner float valve gasket is used, return to step 3.1 and repeat adjustment procedure. Ensure that the needle is free to move, and does not bind on the clip.

FIGURE 6



3.12 When the adjustments have been completed, install the float shaft cotter pin through the float shaft. Bend the ends of the float shaft cotter pin all the way back.

4.0 FINAL ASSEMBLY AND TEST

- 4.1 Assemble the throttle body and bowl as prescribed in the Volare' Carburetors Aircraft Carburetor Service Manual.
- 4.2 Perform the float valve and seat test as prescribed in the Volare' Carburetors Aircraft Carburetor Service Manual.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN ADVERSE CARBURETOR PERFORMANCE AND ENGINE OPERATION.