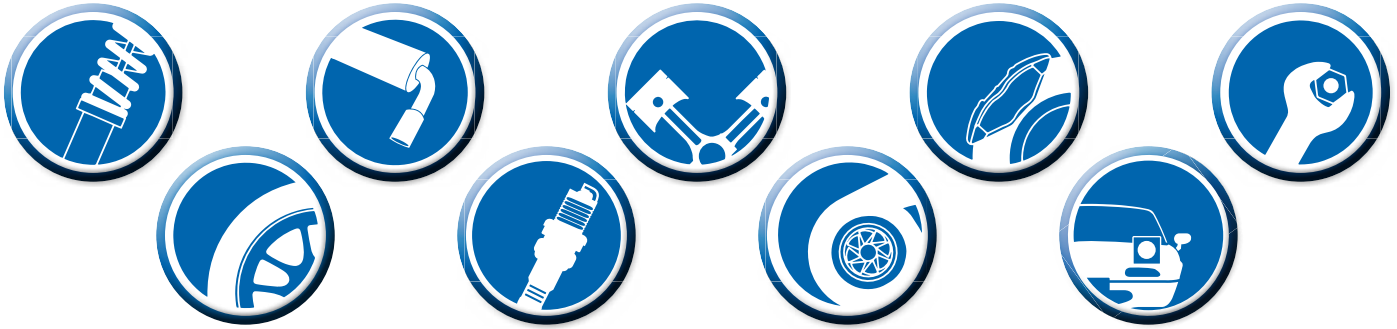


Flyin' Miata

INSTALLATION INSTRUCTIONS



“THE DEUCE” DOUBLE ELEMENT KIT BY 9LIVES RACING (1990-2005) M29-77600



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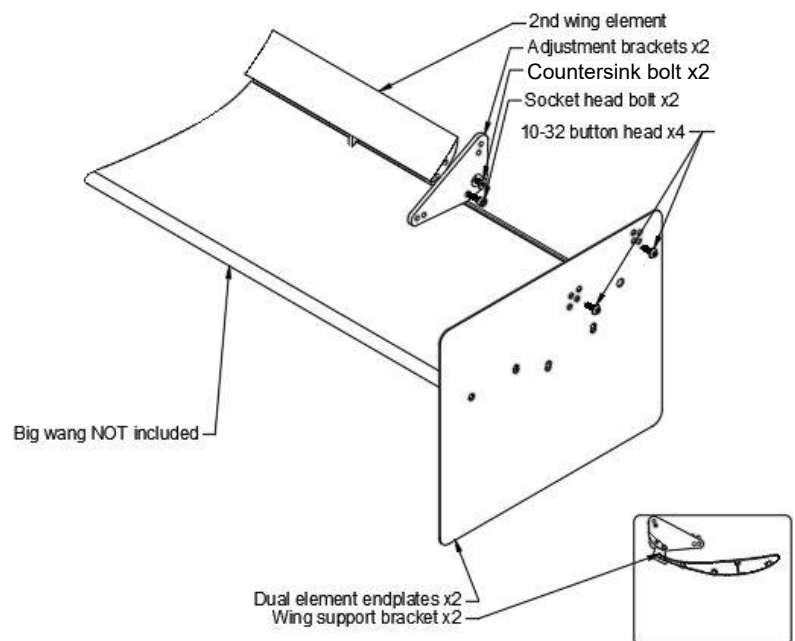
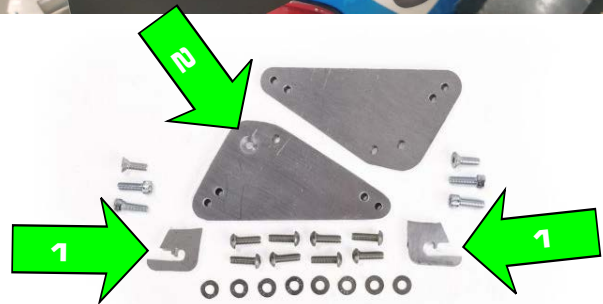
Thanks for purchasing “The Deuce” double element kit by 9Lives Racing. This dual element kit bolts on to your existing Wang with simple hand tools (1/8” & 5/32” Allen tools). If you have any questions during installation or suggestions for improvement to the product or the instructions - please don't hesitate to call or email.

WARNING: Not everyone can perform every installation. It is critical that you be honest with yourself in regards to your ability. We're more than happy to help, but there are only so many things we can do from the other end of a phone / computer. If in doubt, discuss the install with us before you dive in. Improper installation could cause injury and / or death!

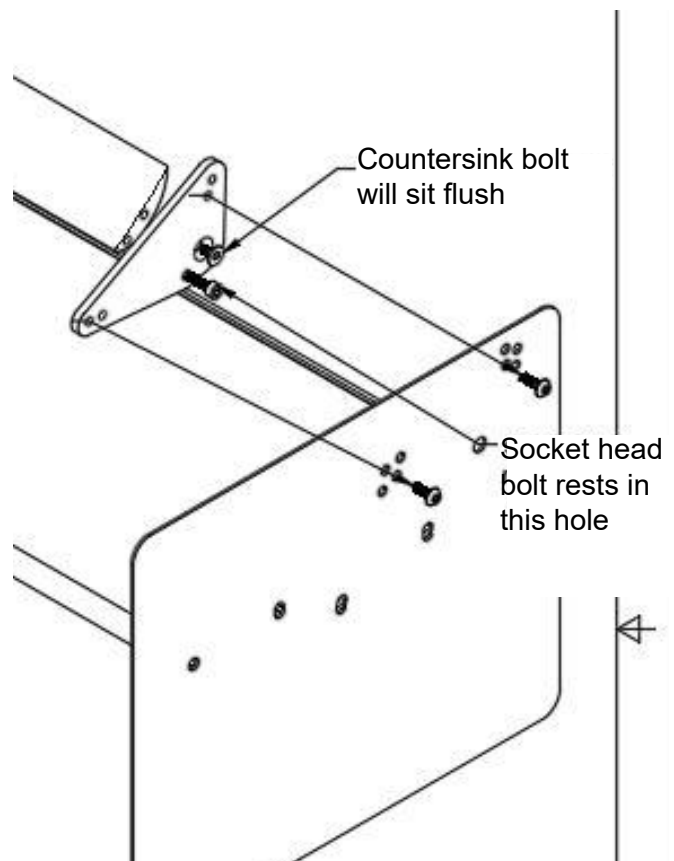
Required tools:

- 1/8" Allen tool
- 5/32" Allen tool
- Angle finder/gauge (setting angle of attack, AOA)
- RTV (optional)

1. Begin by removing the end plates currently installed on your wing. Remove the gurney flap if you have one installed.
2. Fully install one of the new end plates using the hardware from the original end plates as well as two additional 10-32 button head bolts supplied with the kit.
3. Install the two element spacers (1) into the groove at the back of the main element. Slide them down the channel until they are equally spaced from each other as well as the end plates. The element spacers can move around once installed, which can cause scratching and/or occasional repositioning. To hold them in place you can use a small dab of RTV.
4. Loosely install the second end plate, again reusing hardware from the original end plates as well as two additional button head bolts supplied with the kit. Leave the fasteners about 1/4" from being fully seated.
5. To assemble the second element, locate the two aluminum adjustment brackets, two countersink bolts, and two socket head bolts. On each side, orient the aluminum adjustment bracket so that the counter sink hole faces away from the element (2). Install the countersink bolt into that hole in the plate and then thread it into the element's rear most hole. Then install the socket head bolts through the plate into the element's front most hole.



6. Take the assembled second element and install it into the end plates so that the protruding socket bolt heads are located in the larger opening within the end plate. That is the second element's pivot point.
7. Now you can fully tighten the second end plate.
8. Pivot the second element until the desired angle of attack (AOA) is achieved and a set of holes in the end plates line up with the aluminum adjustment plates. Use the remaining (4) 10-32 button head bolts to secure the adjustment plates to the end plates (2 per side).
9. For future second element adjustments, remove the four button head bolts and readjust the element as you see fit.
10. Take a look at the bottom of the chart below to see the CFD testing results with the dual element set to various angle of attack settings.



Name	Drag @ 60mph	Downforce @60mph	Drag @100 mph	Downforce @100 mph	Drag @140 mph	Downforce @140 mph
Wang @0 aoa	3	42	9	126	17	259
Wang @ 5 aoa	5	64	14	181	28	357
Wang @10 aoa	7	73	20	199	39	389
Wang @0 aoa + 1/2" gurney	4.3	52.1	12.1	144.8	24	288.3
Wang @5aoa + 1/2" gurney	6.8	74.8	18.9	207.8	37.5	413.7
Wang @10 aoa + 1/2" gurney	10.1	86.2	28.2	239.3	56.1	476.5
Wang @0 aoa + 3/4" gurney	5.4	60.4	15	167.7	29.8	333
Wang @5aoa + 3/4" gurney	8.1	85.6	22.4	237.8	45.5	473.5
Wang @10 aoa + 3/4" gurney	11.7	92.2	32.6	256	64.8	509.8
Wang-Dual elemnt @35 aoa	9	92	25	255	50	508
Wang-Dual elemnt @40 aoa	12	111	34	308	68	613
Wang-Dual elemnt @45 aoa	11	101	32	201	63	560