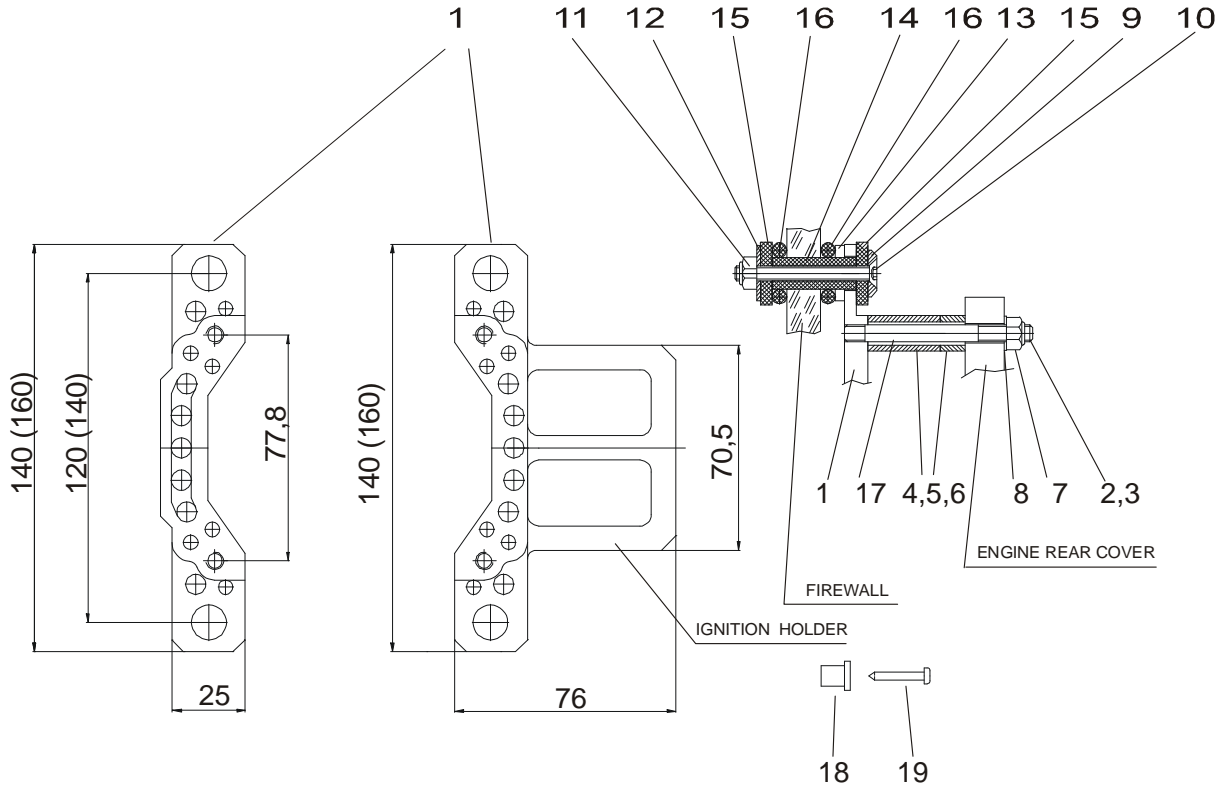


# Engine Mount for MVVS 45/50/58/80cc Assembly Instructions

(Applicable to product No: 3366, 3367)

Engine mount part numbers: 3366, 3367 are intended for flexible mounting of MVVS 45, 50, 58 and 80 cc, while allowing for adjustment of firewall distance and thrust offsets. Mounting an engine requires two sets of the basic mounting plate packages.

### Sizes of the mounting plates and assembly format:



**Table No.1: Mounting Plate package contents and part numbers**

Order No:	Part No:	Part description	Quantity [ pcs ]	Order No:	Part No:	Part description	Quantity [ pcs ]
3366 01	1	Basic plate 120 mm	1	3361 10	10	Nuts M5x48 mm	2
				3361 11	11	Lock nut M5	2
3367 01	1	Basic plate 140 mm	1	3361 12	12	Washer Ø 5x14 mm	2
				3361 13	13	Washer AL 12 mm	3
3361 02	2	Bolt M6x43 mm	2	3361 14	14	Rubber sleeve Ø 5x12 mm	2
3361 03	3	Bolt M6x64 mm	2	3361 15	15	Rubber washer Ø 5x22 mm	4
3361 04	4	Spacer 8 mm	2	3361 16	16	Rubber O-ring Ø 12 mm	4
3361 05	5	Spacer 13 mm	2	3361 17	17	Plastic spacer	1
3361 06	6	Spacer 18 mm	2	3361 18	18	Assembly sleeve	1
3361 07	7	Selfguarding nut M6	2	3361 19	19	Wood screw	1
3361 08	8	Washer 6mm	2	3361 20	20	Nut M6	1
3361 09	9	Washer AL, shaped 5 mm	2	3361 21	21	Screw M6x16	2

For mounting the engine is necessary to have two sets of the basic plates. Before mounting check delivery is complete.

**Table No. 2: List of spacers and bolts used for firewall to prop spacing**

Spacing mount-firewall	12	20	25	30	33	38	43	51
Spacing required	0	8	13	18	21	26	31	39
Spacer 8mm		x			x	x		x
Spacer 13mm			x		x		x	x
Spacer 18mm				x		x	x	x
Bolt 52mm		x	x	x				
Bolt 71mm					x	x	x	x

X = use

**Table No. 3: Thrust offset angle****Table No. 4: Washer thickness for thrust offset angle**

Number of washers No.13	Thrust angle [°] by spacing:		
	82 [ mm ]	120 [ mm ]	140 [ mm ]
1	1.7	1.2	1.0
2	3.5	2.4	2.0
3	5.2	3.6	3.1

Hole spacing for fastening the mount is:  
82 x 120 mm, 82 x 140 mm

Thrust angle	Washer thickness (spacing) mm		
	82 mm	120 mm	140 mm
1.0°	1,43	2,09	2,44
1.5°	2,15	3,14	3,66
2.0°	2,86	4,19	4,89
2.5°	3,58	5,24	6,11
3.0°	4,30	6,29	7,33
3.5°	5,01	7,34	8,56
4.0°	5,73	8,39	9,78
4.5°	6,45	9,44	11,01

### Mount assembly

- 1) Measure the distance between the firewall and the front of the cowl. Determine the length of the engine from the rear cover to the front face of the prop driver. Subtract the engine length from the firewall/prop driver distance. Compare this length with table No: 2, and choose the next higher spacing.  
**Notice: If you need a different spacing, which is not in the chart, you may trim the spacers to get the exact length.**
- 2) From the table No: 2 choose the length of the bolt (pos.2, 3) and the spacer (pos. 4, 5, 6).
- 3) If the spacing is less as 12 mm, fasten the engine direct to the basic plate with the M6x16 (pos.21) screws.
- 4) Screw the shorter thread of the studs into basic plate. Use two M6 nuts locked together to tighten the studs.
- 5) Slip the correct length spacers over the studs. If you use more than one spacer, connect them with the plastic spacer inserted.
- 6) Cut the plastic insert to the required length.
- 7) Attach both mount assemblies to the engine.
- 8) If the firewall in your model has a build in thrust angle the engine must be offset from the center to properly locate the spinner/prop shaft. If this is the case your model you will not need the washer No: 13. If the firewall does not include thrust angle, it may be necessary to use washers no. 13 to establish the correct thrust angle, see table no. 3. Screw the basic plates with engine mounted onto the firewall using plastic sleeves and wood screws (pos. 18 and 19). Be sure to use the O-rings and the required number of the washers between the mount plates and the firewall.
- 9) Attach the cowl and check the position of the prop driver relative to the center of the cowl. Check the clearance of the prop driver to the cowl. Establish the correct clearance with spacers. Adjust the position of the prop driver in the cowl by changing the location of the wood screws no. 19. Check the location of the prop driver in the cowl once more. If the position is correct, mark the location of the plates on the firewall and drill four 12mm holes for rubber sleeves no. 14.
- 10) Insert the rubber sleeves no. 14 into the 12mm holes. Assemble rubber O-rings no. 16 and washers no. 13 on the rubber sleeves. Slip on the mount plates and cut off the rubber sleeve to the appropriate length.
- 11) Add the rubber washers no. 15 to both sides of the sleeve and screw everything together (parts: 9, 10, 11, 12). Tighten the mounting screws no. 10 independently to establish final engine alignment in the cowl.
- 12) After mounting we recommend to mark all the screws for possible checking up in future.
- 13) Confirm that all screws are tightened. It is recommended that you check the tightness periodically when you have been flying your model

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