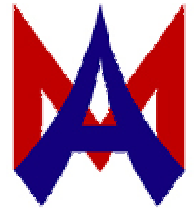


# AndyMark Toughbox Mini (am-0654) Assembly Instructions



January 2013

Parts needed to make one (1) Toughbox Mini:

Component	Qty.	Part #
Toughbox Mini Shaft Plate	1	am-0647
Toughbox Mini Housing	1	am-0650
Toughbox Small Hex Cluster Shaft	1	am-0152
toughbox Hex Output Shaft	1	am-0397
10-32 x .75" SHCS	4	am-1280
10-32 Nylock Nut	4	am-1042
E-Klipring	1	am-0206
1/2" id Flanged, Shielded Ball Bearing (FR8ZZ)	1	am-0030
3/8" id bearing, shielded (R6ZZ)	1	am-0516
3/8" id Flanged, Shielded Ball Bearing (FR6ZZ)	1	am-0028
Small Cluster Gear, 14 tooth	1	am-0151
CIM Gear, 14 tooth	2	am-0034
Large Cluster Gear, 50 tooth	1	am-0149
Large Output Gear, 50 tooth	1	am-0150

Tool needed:

5/32" Hex Head Driver

**Step 1:** Press the FR8ZZ bearing and the FR6ZZ bearing into the holes as shown.



**Step 2:** Press in remaining two bearings into the two vertical slots.



**Step 3:** Place the cluster shaft in the bearing as shown.



**Step 4:** Place the large cluster gear on the cluster shaft with circular boss facing down against bearing.



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**Step 5:** Place the small cluster gear on cluster shaft with the circular boss facing up.



**Step 6:** Snap the e-clip onto the output shaft in its groove.



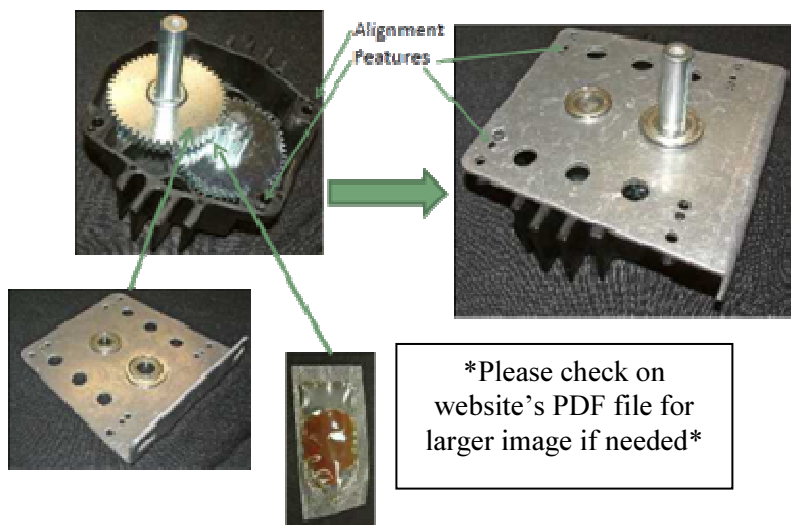
**Step 7:** Place the output shaft assembly into the housing through the bearing.



**Step 8:** Place the output gear on the shaft, making sure the circular boss on the gear is facing up.



**Step 9:** Dispense grease on the gears and then place the plate assembly on the housing, lining up the shafts and bearings, and alignment features.



\*Please check on website's PDF file for larger image if needed\*

**Step 10:** While holding the nut in the recess, drive the 10-32 X .75" SHCS from the plate side with a hex driver. Do this four times.

