
























# AndyMark Toughbox Mini (am-2236) Assembly Instructions















December 2012



## Toughbox Mini (am-2236) Bill of Material & Part Photos:

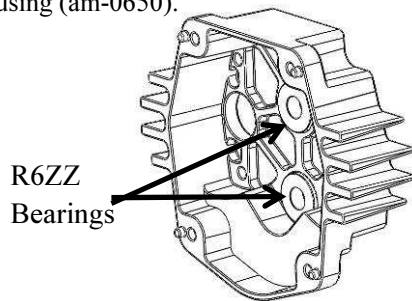
Component	Qty	Part #	Part Photo	Code
TB Mini Housing	1	<a href="#">am-0650</a>		
TB Mini Shaft Plate	1	<a href="#">am-2230</a>		
TB Output Shaft	1	<a href="#">am-0153</a>		
TB Small Hex Shaft	1	<a href="#">am-0152</a>		
50 Tooth, 3/8 Hex Gear	1	<a href="#">am-0149</a>		
48 Tooth, 1/2 Hex Gear	1	<a href="#">am-0885</a>		
16 Tooth, 3/8 Hex Gear	1	<a href="#">am-0747</a>		
14 Tooth, 8mm Key Gear	2	<a href="#">am-0034</a>		
FR6ZZ Bearing	1	<a href="#">am-0028</a>		
FR8ZZ Bearing	1	<a href="#">am-0030</a>		
R6ZZ Bearing	2	<a href="#">am-0516</a>		
2x2x10mm Machine Key	2	<a href="#">am-1121</a>		
5/16" Washer	4	am-1009 sold as pkg: <a href="#">am-1279</a>		
8mm Retaining Clip	2	<a href="#">am-0033</a>		
10-32 x 5/8" SHCS w/ Patch	4	am-1120 sold as pkg: <a href="#">am-1246</a>		

For more information on our products, please visit us on our website, [www.andymark.com](http://www.andymark.com).

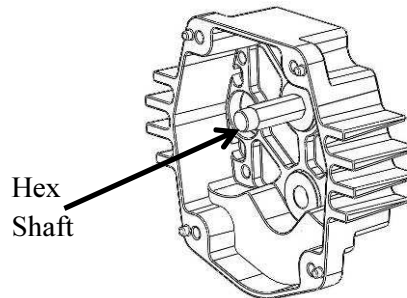
1/8" Machine Key	1	<a href="#">am-1043</a>		
10-32 x 0.75" SHCS	4	<a href="#">am-1047</a> sold as pkg: <a href="#">am-1280</a>		
10-32 Nylock Nut	4	<a href="#">am-1042</a> sold as pkg: <a href="#">am-1211</a>		
Grease Pack	4	<a href="#">am-0908</a>		
1/2" eClip Ring	1	<a href="#">am-0206</a>		
1/4" Washer	1	<a href="#">am-1027</a> sold as pkg: <a href="#">am-1069</a>		
1/4-20 x 1/2 BHCS	1	<a href="#">am-1039</a> sold as pkg: <a href="#">am-1202</a>		

### Toughbox Mini Assembly Instructions:

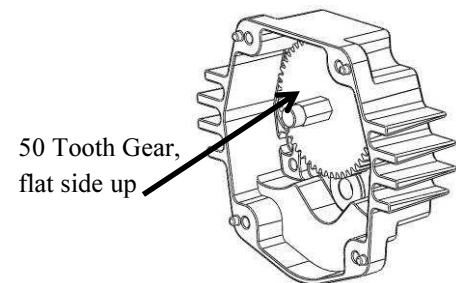
**Step 1:** Press R6ZZ Bearings (am-0516) into the two center holes of the TB Mini Housing (am-0650).



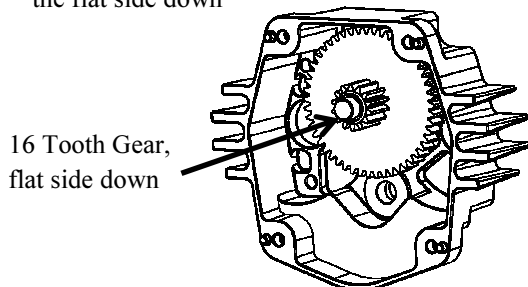
**Step 2:** Insert the TB Small Hex Shaft (am-0152) in the bearing near the flat edge of the Housing.



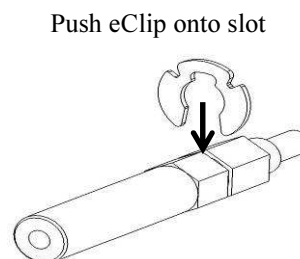
**Step 3:** Insert the 50 Tooth, 3/8 Hex Gear (am-0149) onto the Small Hex Shaft with the flat side up.



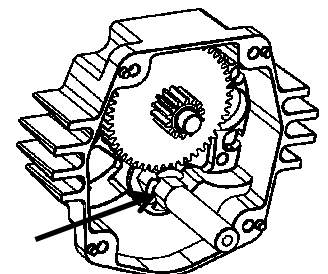
**Step 4:** Insert the 16 Tooth, 3/8 Hex Gear (am-0747) over the Small Hex Shaft with the flat side down.



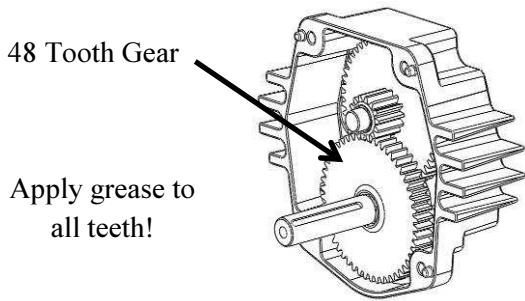
**Step 5:** Tap the 1/2" eClip Ring (am-0206) into the grooved slot of the TB Output Shaft (am-0153).



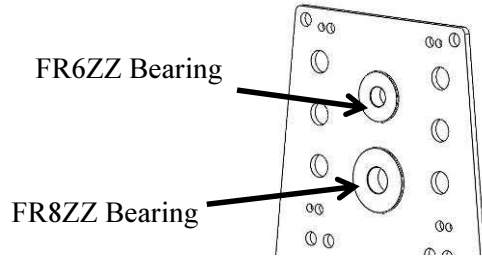
**Step 6:** Insert the Output Shaft small end into the remaining R6ZZ Bearing.



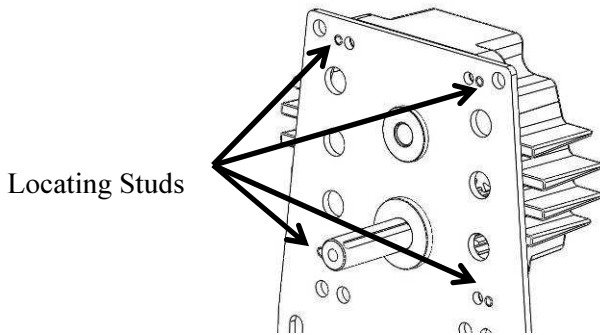
**Step 7:** Place the 48 Tooth, 1/2 Hex Gear (am-0885) onto the Output Shaft, flat side down. Use all four Grease Packs (am-0908) and apply grease to all of the gear teeth.



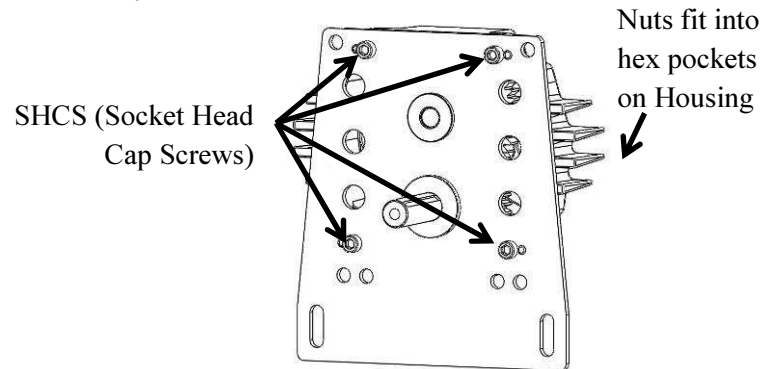
**Step 8:** Press the FR8ZZ Bearing (am-0030) in the large hole on the TB Mini Shaft Plate (am-2230). Press the FR6ZZ Bearing (am-0028) into the next larger hole.



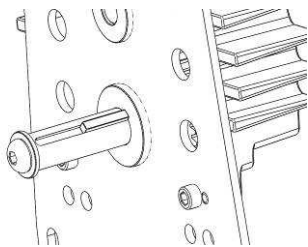
**Step 9:** Place the Plate and Bearings over the Housing's plastic locating studs. The Bearing flanges should be inside the gearbox.



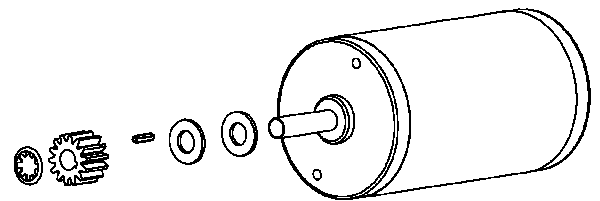
**Step 10:** Fasten the Plate to the Housing with the 10-32 x 0.75" SHCS (am-1047) and 10-32 Nylock nuts (am-1042).



**Step 11:** The picture below shows where the 1/8" Machine Key (am-1043) will be inserted, after the pulley (not pictured) is finally inserted. Insert the 1/4-20 x 1/2 BHCS (am-1039) through the 1/4" Washer (am-1027) and into the end of the Output Shaft. This will keep the pulley secure.

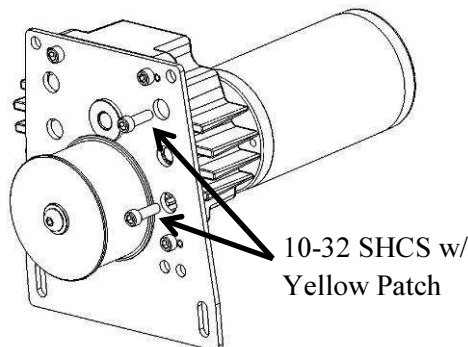


**Step 12:** Place the two 5/16" Washers (am-1009) onto the CIM Motor shaft. Place the 2x2x10mm Machine Key (am-1121) into the keyway. Push the 14 Tooth, 8mm Key Gear onto the shaft, to the face of the washers, while aligning the keyway with the Machine Key. Use a 3/8" socket to press the 8mm Retaining Clip (am-0033) onto the face of the gear.



**Tip:** Line up one of the tongs on the Retaining Ring to keep the 2x2x14 Machine Key from wiggling out of the keyway.

**Step 13:** Line up the two mounting holes of the CIM Motor with holes in the Toughbox Mini housing. Secure the motor to the gearbox with the 10-32 x 5/8" SHCS w/ Patch (am-1120).



*(Although in picture, gearbox pulley is not attached in this step.)*