



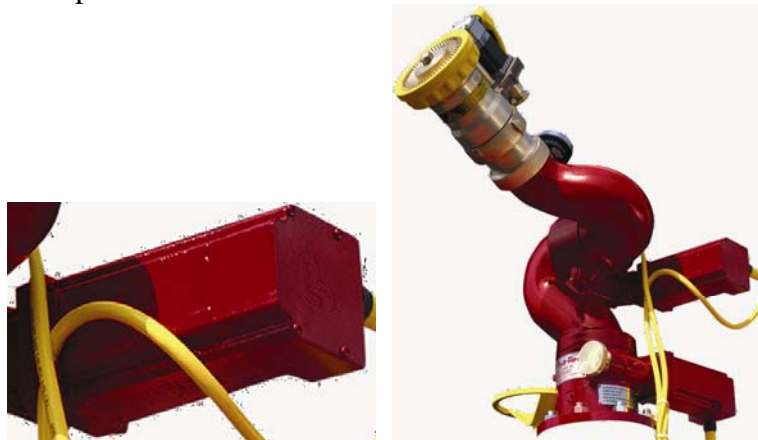
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## Industrial Monitor Motor Differences

**1<sup>st</sup> Generation Motor-Phase 1 (Pre 2006):** The first motors we had for our Industrial Monitor systems were square in shape (See Figure 1; Motor Part Number 46080000). These motors fastened directly to the worm gear shaft without a 90° Vertical Gearcase. This configuration was used until early 2006.

**1<sup>st</sup> Generation Motor-Phase 2 (2006):** This second phase of the original square motor (Motor Part Number 46080000) included a 90° Vertical Gearcase and two adapter plates to get the square motor to mate to the new gearcase. This configuration was used from early 2006 until late 2006. Figure 1 below shows the square motors mounted on the 90° gearcase. To convert this improved gearcase to the new round motor use Part Number 81503001 for the motor replacement kit and Part Number 98430000 for the kit instructions and parts list.

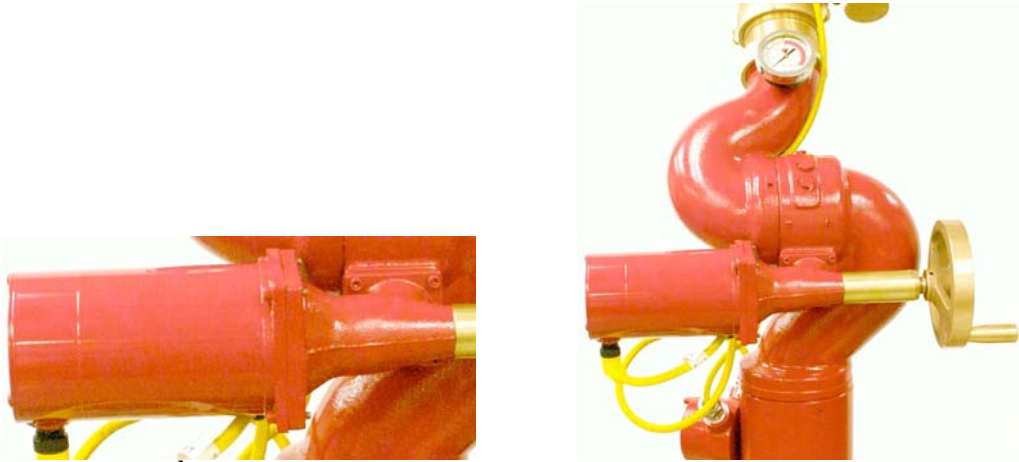


**Figure 1: 1<sup>st</sup> Generation Phase 1 & 2 Square Industrial Monitor Motors**

**2<sup>nd</sup> Generation Motor-Phase 1 (Late 2006-Mid 2008):** The second generation motor was round in shape (Motor Part Number 46090001) and weighed almost twice that of the original square motors (approx. 20 lbs.) (See Figure 2). They mated to the 90° Vertical Gearcase through the same two adapter plates that the 1<sup>st</sup> Generation-Phase 2 motor did. This configuration was used from late 2006 to mid 2008.

**2<sup>nd</sup> Generation Motor-Phase 2 (Mid 2008-2009):** This second phase of the 2<sup>nd</sup> Generation Motor (Motor Part Number 46090001) used the same round motor as the phase 1, 2<sup>nd</sup> Generation model; however, the 90° Vertical Gearcase was redesigned, which alleviated the use of the two adapter plates by allowing the motor to bolt directly to the 90° Vertical Gearcase (See Figure 2). This configuration was used from mid 2008 through 2009.

**2<sup>nd</sup> Generation Motor-Phase 3 (2010-Present Day):** This third phase of the 2<sup>nd</sup> Generation Motor used the same round motor as the 2<sup>nd</sup> Generation Phase 1 & 2 models; however, the 90° Vertical Gearcase was redesigned and the gear ratio was changed from 1:1 to 1.5:1. This gave the 90° Vertical Gearcase more torque when raising the vertical discharge of the monitor (See Figure 2). This configuration was adapted in early 2010. (\*Caution: Use of this gearcase on earlier systems will require program changes if used in conjunction with the Park function.)



**Figure 2: 2<sup>nd</sup> Generation Phase 1, 2 & 3 Round Industrial Monitor Motors**

**\*NOTE: If no problems are experienced; no upgrades are needed on the system. However, if problems are experienced with the movement of the vertical gearcase, you may need vertical gearcase retrofit kit EB# 81624001.**