



**A world first - New solar powered “Auto alert” compactor installation – Arjo Wiggins:**

Highlander have provided waste management and recycling services to Arjo Wiggins since 2013 and during that time, have pioneered innovations such as solar powered compactors and “smart” alert compactors which text and / or email you when needing emptied. We have now however combined both technologies to install the world’s very first solar powered “smart” compactor machine! With cost savings firmly in mind, we suggested provision and installation of 1 x new solar powered “Auto-alert” compactor system, which alerts Highlander & Arjo staff whenever the compactor is  $\frac{3}{4}$  full and requires emptying. This means that we only empty the compactor unit when we need to thus improving the cost-per-ton of each collection. The unit also provides electronic self-diagnosis meaning if any fault develops with the machine, the manufacturer can inform engineers in advance as to what the problem is meaning the parts required can be taken with them in advance, resulting in quicker machine repair times.

In this instance however, the location where we hoped to place the machine could not economically support a power supply being brought to it, so we used solar panels and marine batteries to ensure a readymade, free and abundant power source for the machine without having to spend tens of thousands of pounds in cabling and digging cable trenches. The machine also came with a side tipper unit which is designed to accommodate wheeled bins from size 240 litre to 1100 litre meaning waste can be collected from different departments within the Arjo site and brought to a central location for bin tipping, waste compaction which will result in reduced transport and disposal costs. The tipper system was also provided to restrict access to general waste disposal routes, to wheeled bins only – we have found that since the general waste open skip has been removed making this disposal route “difficult”, recycling has been “compelled” and recycling rates have increased, again bringing costs down and improving revenues by way of rebate enhancements. Images of the machine are as below and they can be supplied anywhere in Scotland at competitive weekly rental costs:



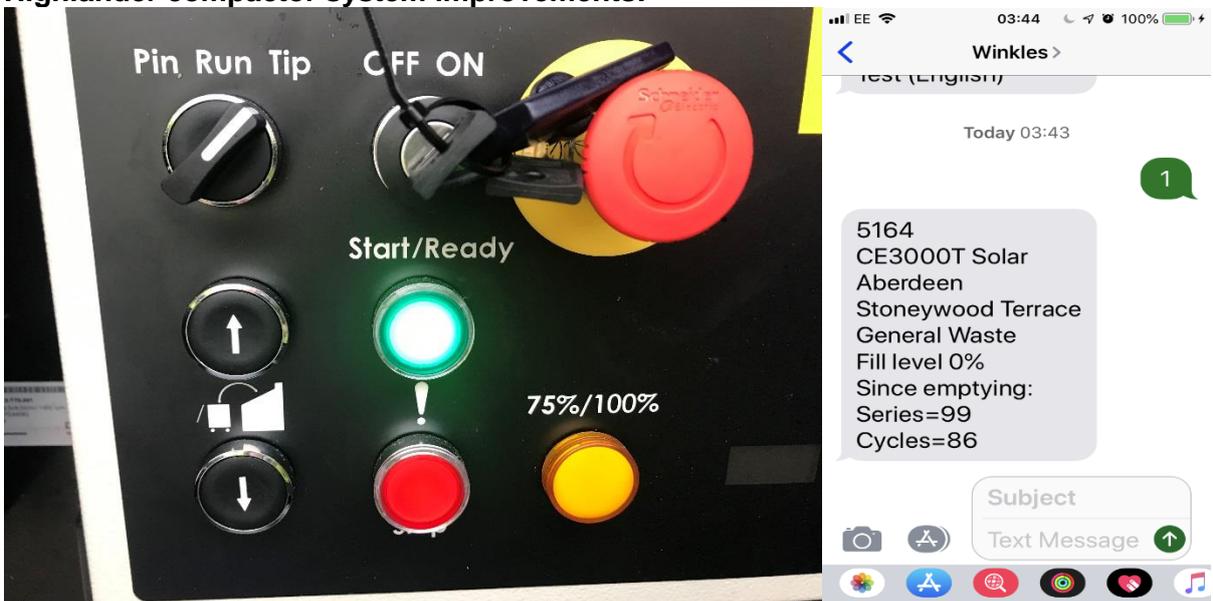




**New “Auto-alert” compactor system:**

Traditional compactor systems operate by a pressure switch activating, when the “back pressure” on the compactor ram reaches a certain level, which happens when the material starts to build up in the adjoining compactor container. All compactor machines have an illuminating ¾ (three quarter) light which comes on when the container is needing swapped over - the limitations of this system are that if the machine is in a remote area and no-one actually sees the ¾ light come on, no-one will in turn alert the waste contractor to come and change the container over – consequently, this will lead to the container being over-full and the compactor system coming to a complete stop. Even an employee at the factory who perhaps does notice the ¾ light is on but “forgets” to call the waste contractor in time, can inadvertently lead to the waste compactor becoming unavailable and potentially causing waste disposal issues – as well as potential lost production at your business. Traditional compactor systems – while clearly useful – definitely do have their limitations.....until now!

**Highlander compactor system improvements:**



As well as incorporating the old illuminating light systems, we now have an “auto-alert” system in place for the new Arjo waste compactor, which transmits an e-mail and / or text message to nominated operators (up to 7 is possible) who can then take appropriate action. Whether the action is to simply exchange the container over at ¾ full, or a fault has developed with the machine meaning a repair or maintenance is required, this alert system allows an interactive experience with the compactor machine meaning improved operation efficiency all-round, and we have already seen improvements – the average collection efficiency has improved 25%!

