

# ***Altronic Service Bulletin #527 A***

ISSUED: 06/10/22

## **Altronic V-NG Upgrade Improvements**

There are a number of improvements in the Altronic V-NG that are detailed in this Bulletin, "A" adds further details.

Although most V-NG upgrades have been trouble-free, there have been some high vibration applications that have prompted some ongoing product improvements. The Magnet Holder Gear is an item that is assembled at Altronic, and is a one piece assembly and is only sold assembled as shown. The Gear and the Magnet holder are now attached with longer screws, improved washer size and type, and a thread locking agent is being applied. This is assembled while being held in a fixture to ensure proper centering between these components.

## **Improved hardware on the 570410-x Magnet Holder Gear assembly**



## **Improved adhesive on the main storage capacitor**

The Main Storage capacitor will now be secured to the pcb with a high strength epoxy vs. silicone adhesive. Field tests have revealed this to be a more robust method of attachment.



## Modified Upgrade instructions to include provisions to measure the gap between the Magnet Holder and the Hall-Effect sensors

The Upgrade Kits are being installed into Altronic V back-cover housings that may have been manufactured over the course of almost 50 years. We are finding that due to tolerance stack-up that some upgrades are seeing an interference between the magnet holder gear assembly and the pcb mounted Hall-Effect components. Newly manufactured back-covers do not have this issue, but field upgrades of the V-NG Kits have been observed to have the magnet holder rub on the components which damages them. It was envisioned that the shims beneath the legacy V driven-gear would no longer be needed, but due to this interference it will be necessary when installing an upgrade kit to check this gap with plastic feeler gauges and add shims to maintain the proper gap. The proper gap is .020-.030", and such plastic feeler gauges can be ordered from McMaster-Carr as noted.



**McMASTER-CARR.**

plastic feeler gauges

36 Products

### Color-Coded Feeler Gauges

Since each thickness is a different color, there's no need to read the feeler gauge to tell your measurement. They are used to check gaps, alignment, and narrow slots. Gauges are nonmagnetic, nonmarring, noncorrosive, nonsparking, and resistant to oil.

Thick.	Color	Lg.	Wd.	Pkg. Qty.	Pkg.
<b>Plastic</b>					
0.001"	Amber	12"	1/2"	5	21035A11 \$3.05
0.0015"	Purple	12"	1/2"	5	21035A12 3.05
0.002"	Red	12"	1/2"	5	21035A13 3.05
0.003"	Green	12"	1/2"	5	21035A14 3.05
0.004"	Tan	12"	1/2"	5	21035A15 3.05
0.005"	Blue	12"	1/2"	5	21035A16 3.05
0.0075"	Cream	12"	1/2"	5	21035A17 3.85
0.01"	Brown	12"	1/2"	5	21035A18 4.82
0.0125"	Black	12"	1/2"	5	21035A19 6.41
0.015"	Pink	12"	1/2"	5	21035A21 7.87
0.02"	Yellow	12"	1/2"	5	21035A22 9.15
0.025"	White	12"	1/2"	5	21035A23 9.79
0.03"	Orange	12"	1/2"	5	21035A24 11.08
0.04"	Clear	12"	1/2"	3	21035A28 9.15
0.05"	Clear	12"	1/2"	3	21035A29 11.08
0.06"	Clear	12"	1/2"	3	21035A31 13.48

Location of the H-E components:

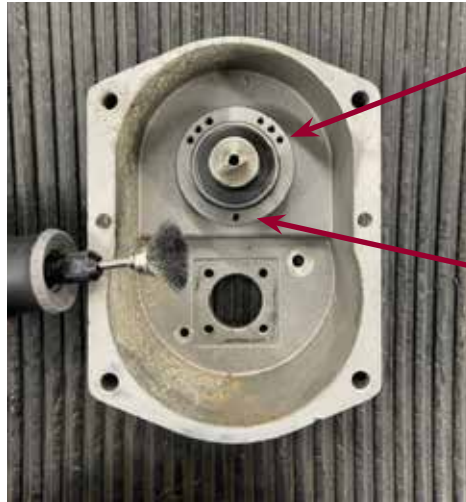
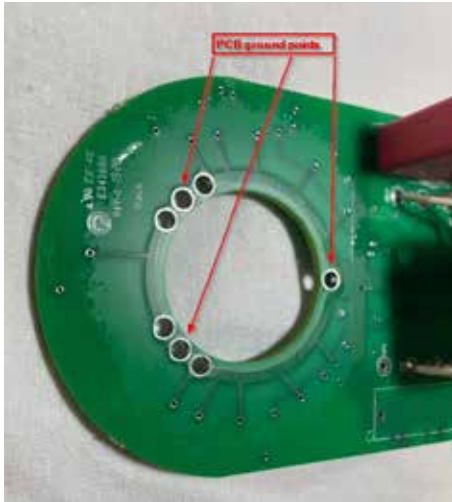
The easiest gap to measure is that between the components located at the 4 and 8 o'clock positions. The GO feeler gauge is yellow and is .020" and should slide between the magnet holder and the H-E component. The NO-GO gauge is orange and is .030" and should not fit between the magnet holder and the H-E component.

Add shims beneath the Magnet Holder Gear as necessary to attain the proper gap. The shims are part number 902579 and are the same part used in the Legacy Altronic V for this same purpose.



## Grounding requirements for the PCB and V-NG Unit

The Altronic V housings will typically have oxidation that must be removed before mounting the PCB. Be sure to wire-wheel the housing where the legacy trigger plates were removed to provide proper grounding of the PCB.



This area is oxidized and needs to be cleaned with the wire wheel.

This area has already been cleaned with the wire wheel and is ready for pcb mounting.

## Hardware changes

PCB mounting hardware has been improved to allow for variances in the tapped hole depth in legacy back covers. The revised screw is shorter (5/16" vs. 3/8") and includes a nylon thread locking patch for vibration resistance. The conical washers have serrations that lock the assembly even further. Items 18 and 20 in the Service Manual detail the part numbers for these items, and are sold in bulk packs of 25 pieces should additional items be required beyond these items in the hardware pack.

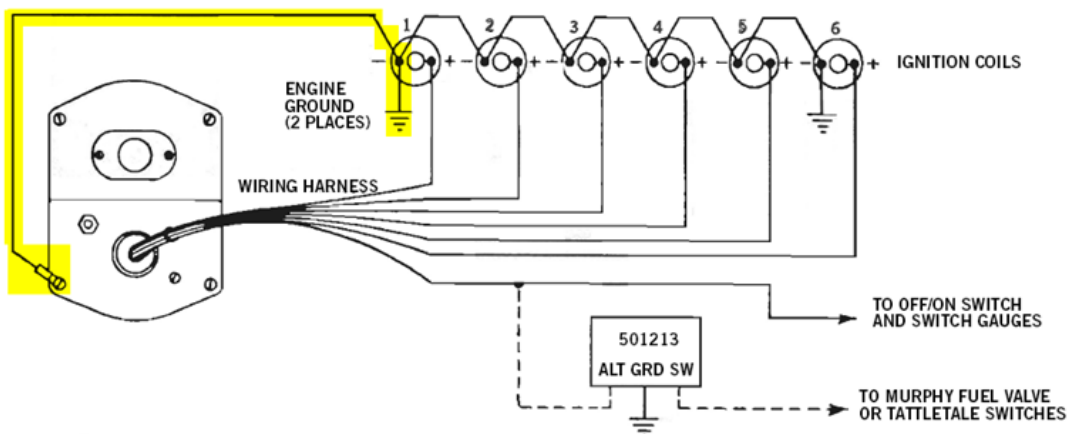
The Hardware pack included in every Upgrade Kit includes these screws and washers, as well as the Ground Wire and Ground Warning Label:

- (3) 4-40 5/16" screw with thread locking nylon patch
- (3) 4-40 conical washer
- (1) Ground wire with ring terminals
- (1) Ground Warning Label



Stainless Steel

Be sure to follow the Installation Instructions regarding proper unit grounding. The Ground for the 4-6 cylinder V and V-NG units includes the ground wire from the back cover to the coil ground/engine block in the Installation Instructions. This ground wire is imperative with the V-NG units. V units with 3 outputs and less are grounded by the "D" wire in the harness and grounding will only be improved by adding this external ground wire.



## Shim Washers

Item 36 notes the part numbers for the shim washers that “may” be needed based on tolerances in older back covers. The procedure using feeler gauges to determine if shims are required is detailed in this Bulletin.

## Ground Wire & Warning Label

The ground wire will be installed on all complete V-NG units, as well as getting the warning label. (Items 34 & 35)



V-NG Upgrade Kits will include a hardware pack that includes the ground wire (34), warning label (35), 4-40 x 5/16 screw with nylon patch (20, qty 3) and 4-40 conical washer (18, qty 3).

