



SERVICE MANUAL FOR
PISTOL (ABP), ANGLE (ABN), & STRAIGHT (ABS)
TRANSDUCERIZED CORDLESS TOOLS



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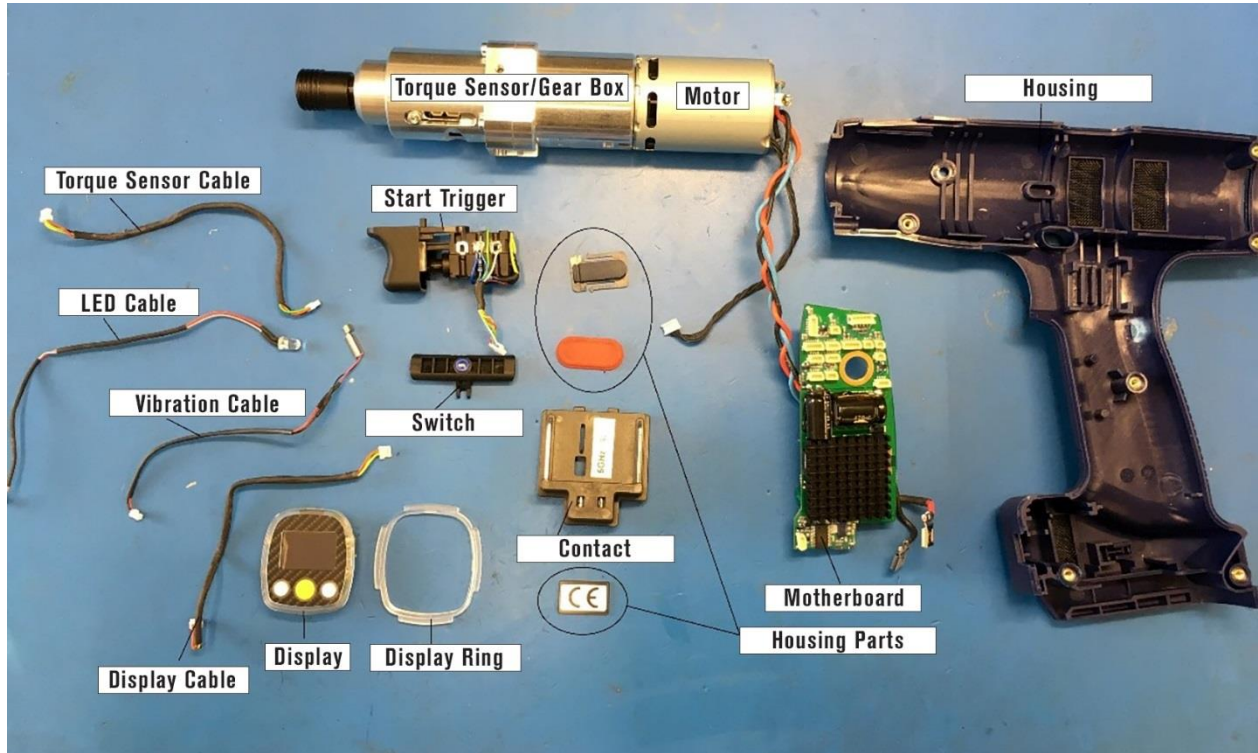
1. General Information

This Service Manual contains confidential information. Forwarding to third parties is not permitted.

- The AIMCO tool warranty is only valid if tool is unopened, with the warranty seal untouched.
- Remove the battery before performing any work on the tool
- Make sure you work in an ESD-conformed area
- Pay close attention to wires and small parts that could fall off

2. Pistol Tool

2.1. Parts overview



2.2. Assembly of single parts

Make sure the LED Cable is assembled as shown. The cable needs sufficient play around the tooling detail at the front of the housing and needs to be fixed in the tooled pocket as shown.

The vibration motor needs to be clipped into the shown position. Make sure the rotor of the motor can run free.



The unit consisting of the motherboard, motor, gear box, and torque sensor fits in the housing as shown. The correct pin assembly at the motor is:

U: black

V: red

W: blue

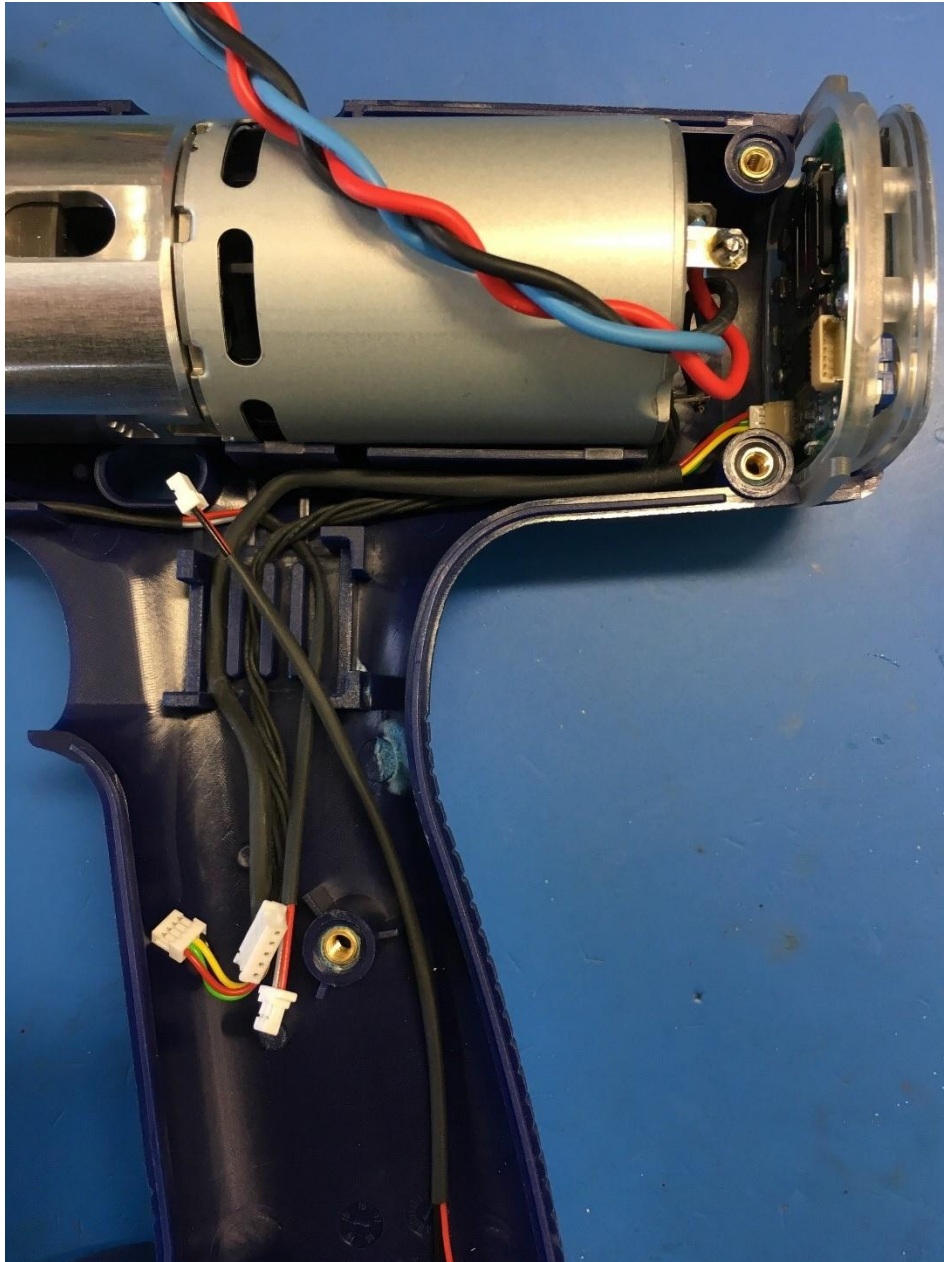


As shown in the picture, the cables of the LED and the motor Hall sensors are mounted in the tooling detail. If the tool has a motor temperature sensor (not shown in the picture), this cable will also be located in this point.

Plug the torque sensor cable into the torque sensor and guide the cable above the LED cable. Mount it in the provided location tooling.



Position the display (including the cable and the display ring) as shown. The display and display ring need to be assembled together. Make sure both are positioned correctly in the provided wire guide.



Once all cables are positioned correctly, the CW/CCW switch and the start trigger can be added. Before doing so, make sure that the CW/CCW switch assembly is complete with the pressure ball.

All cables run underneath the start trigger.

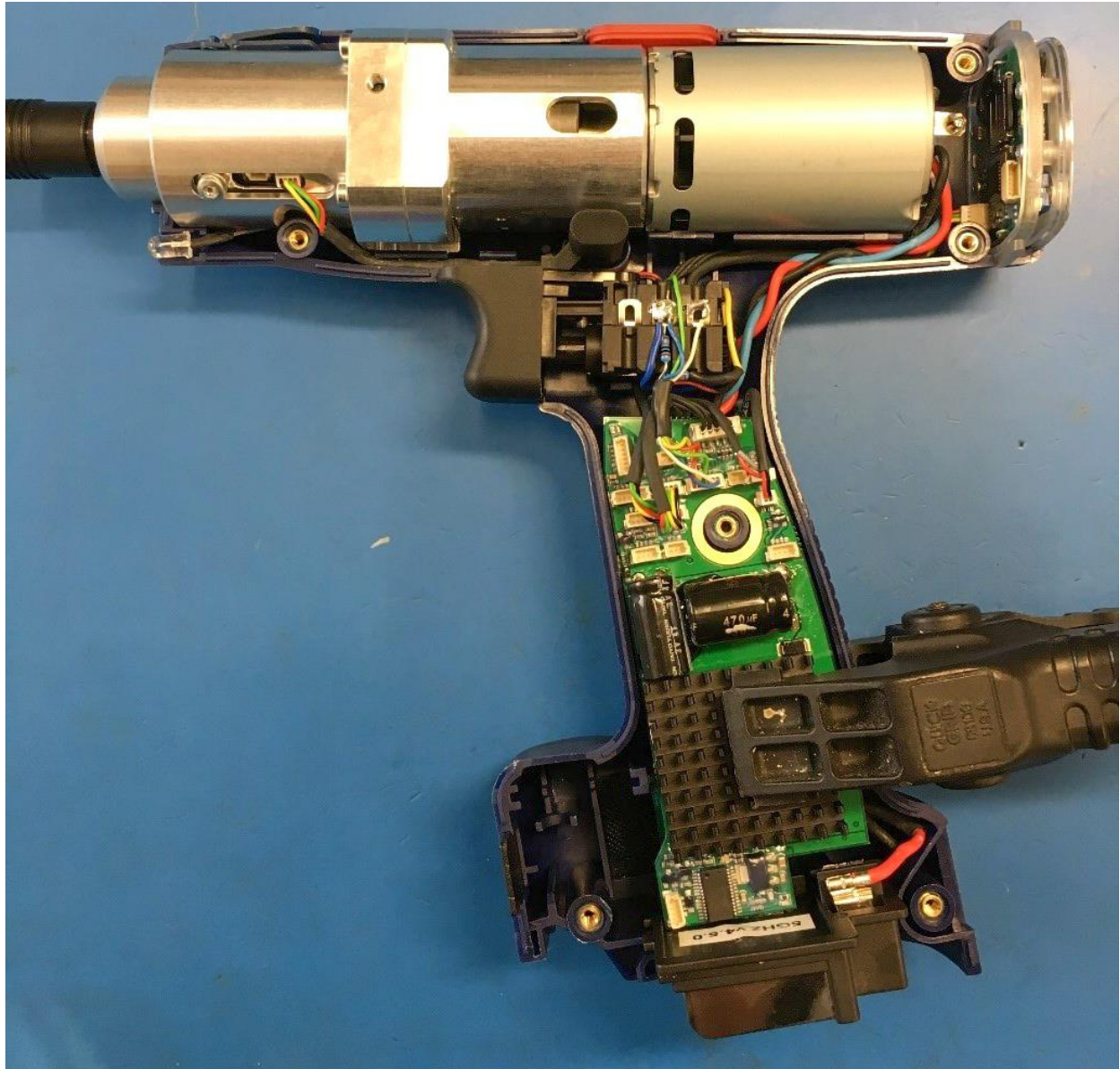


The pin of the CW/CCW switch assembly needs to be positioned in the fork of the start trigger and positioned together in the tool.

The positions marked red in the picture need to be free of cables, because the upper housing will push on the start trigger at these points.

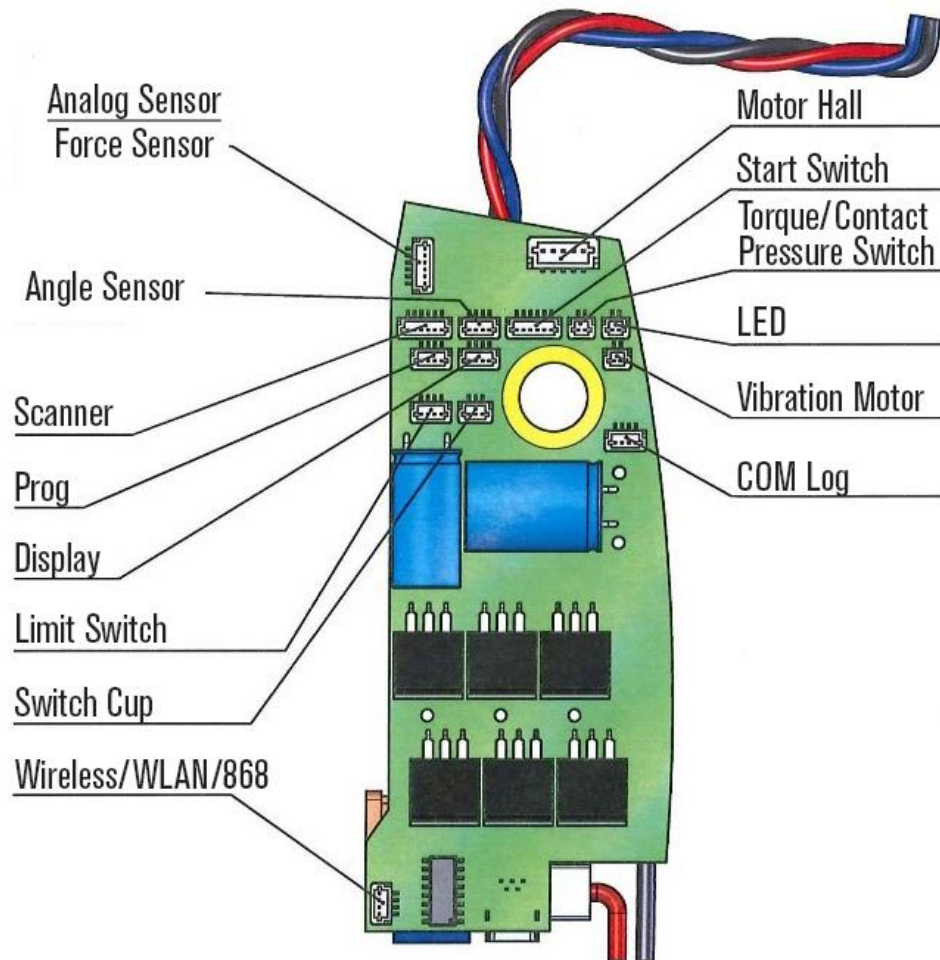
Now the motherboard can be implemented into the handle. Next to the tooling point are two pins. Position the power cable here, before the motherboard is positioned with the hole over the tightening point in the handle.

Make sure to correctly position the motor cable next to the start trigger and above the display cable.



All cables must be plugged in the interface as shown below. The interface for the motor temperature sensor is not shown in the drawing. It is the interface between "hall sensor" and "reference sensor."

Motherboard Cable Diagram



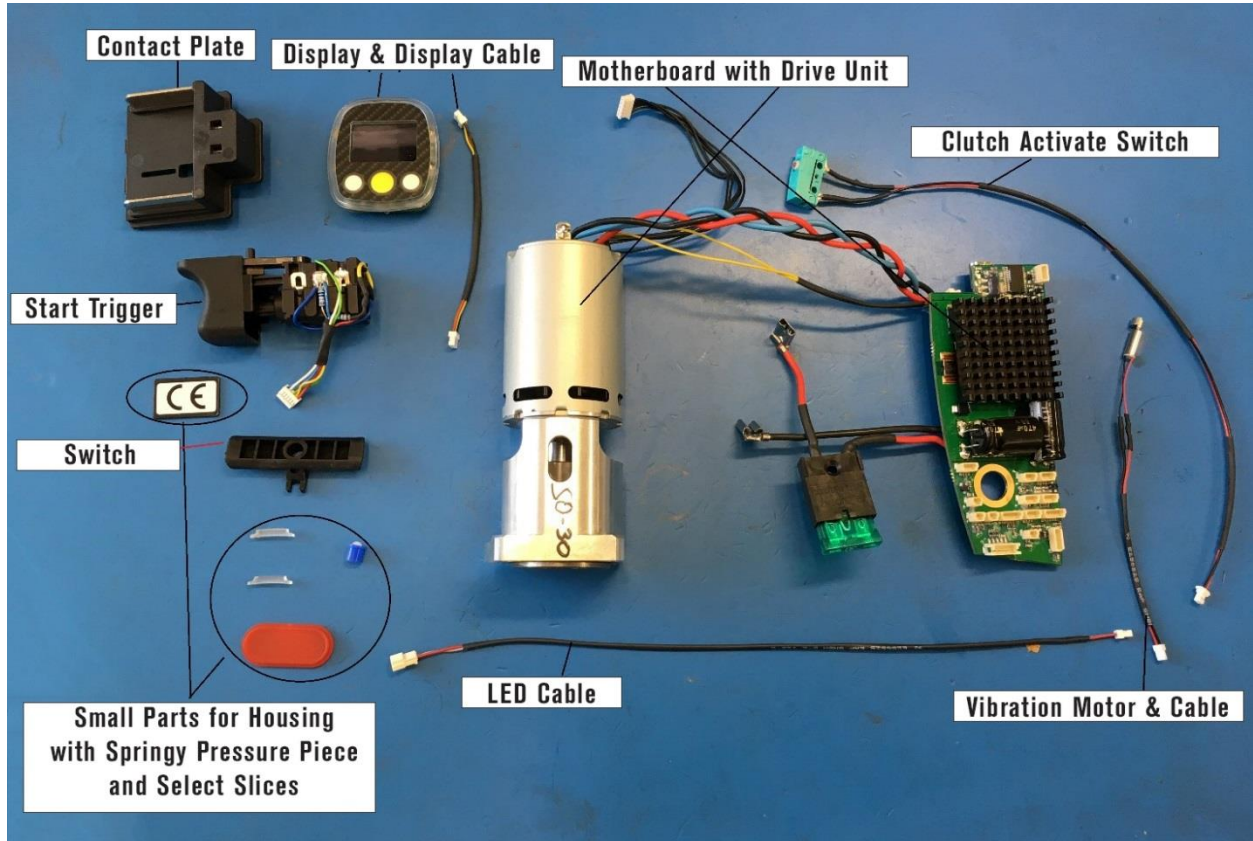
Connect the contact plate to the power cables: red = + / black = -

Insert all remaining housing parts.

Ensure that all cables are positioned correctly and won't be squeezed by the housing. Close the housing and tighten the screws — torque 1.5 Nm.

3. Angle Tool

3.1. Parts overview



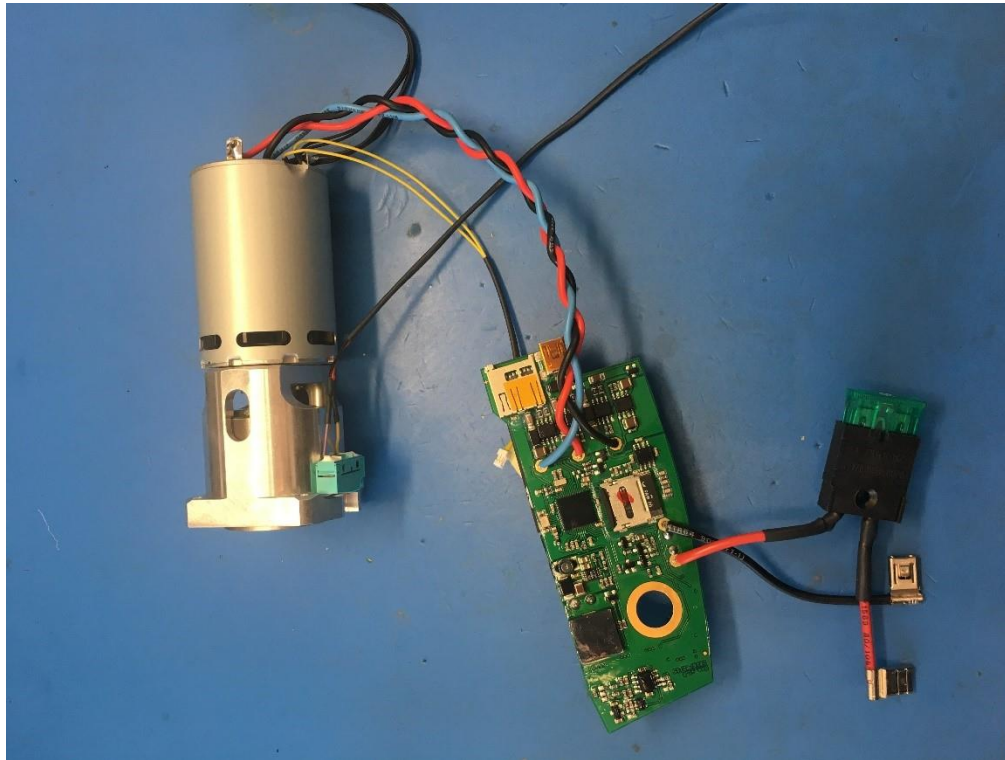
3.2. Assembly of single parts

Carefully assemble the two small display windows (shown below). The display windows are wrapped in foil, which needs to be removed before assembly.



Clip the vibration motor in his position as shown. The rotor of the motor must run free.

Prepare the motherboard and the drive unit. To do this, after it has been programmed and adjusted, solder the motherboard to the completed drive unit, following the same pattern as in the pistol screwdriver. In addition, glue to the engine the temperature sensor with heat-conductive adhesive. As shown, mount the switch of the shut-off clutch on the engine. If an EC screwdriver is built, it will not be mounted, but an EC sensor cable will be installed. Because the EC sensor is installed in the angle head extension, the sensor cable must protrude accordingly for a long time (approx. 10 cm) from the screwdriver.

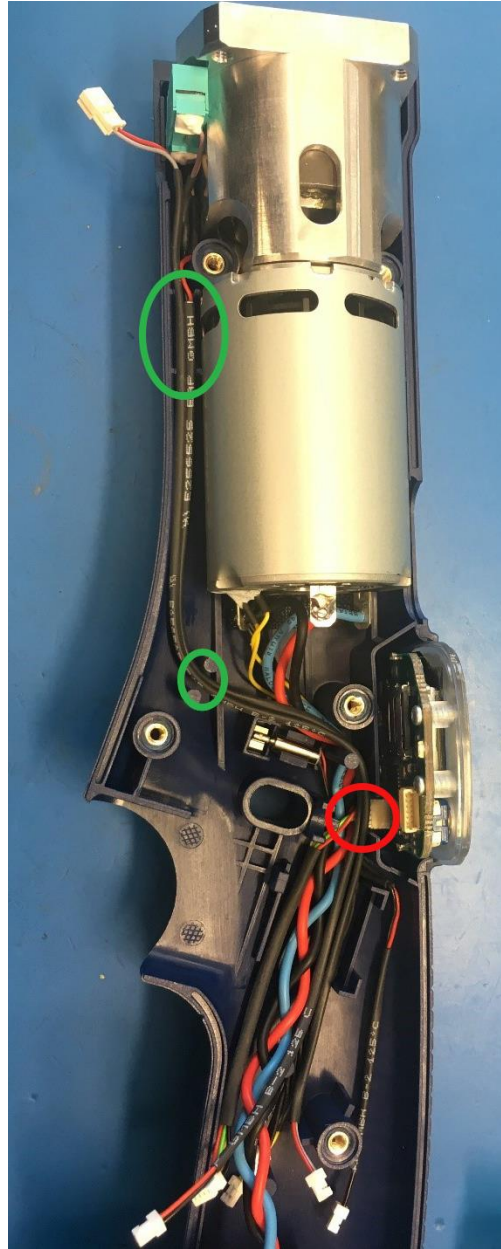


Position motor and hall sensor cable as shown. Within the red marked area, cables can't be higher than the gap, because this could break the display cable.

Within the green marked area, cables can be positioned as they fit.

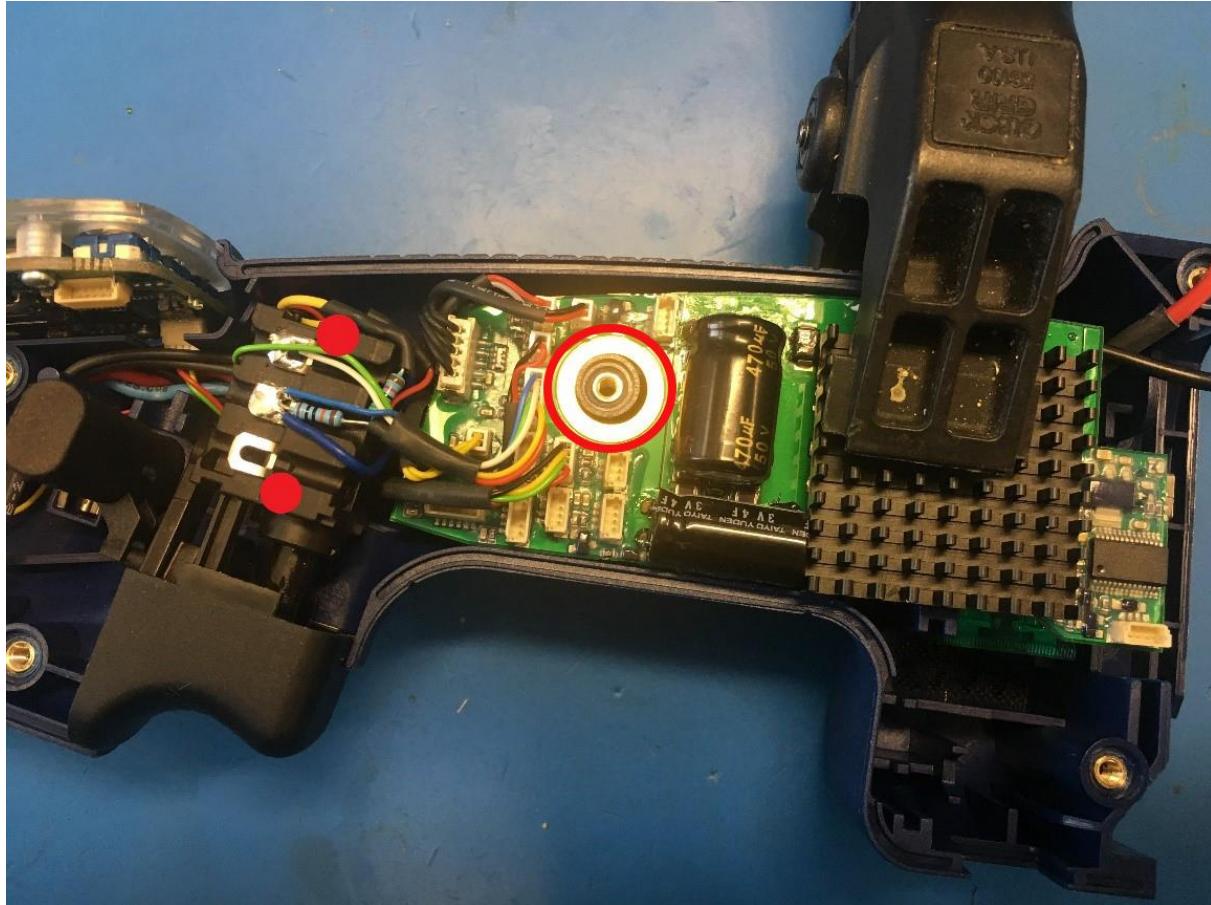


Position the display and cable in the housing.



The sensor and LED cables can be positioned in the green marked area. Check that all cables are positioned correctly.

Put the start trigger in the housing. Make sure that no cables are squeezed and that the positions shown in red are cable free. The upper housing will push on the start trigger at these points. The golden ring on the motherboard also needs to be free of cables.



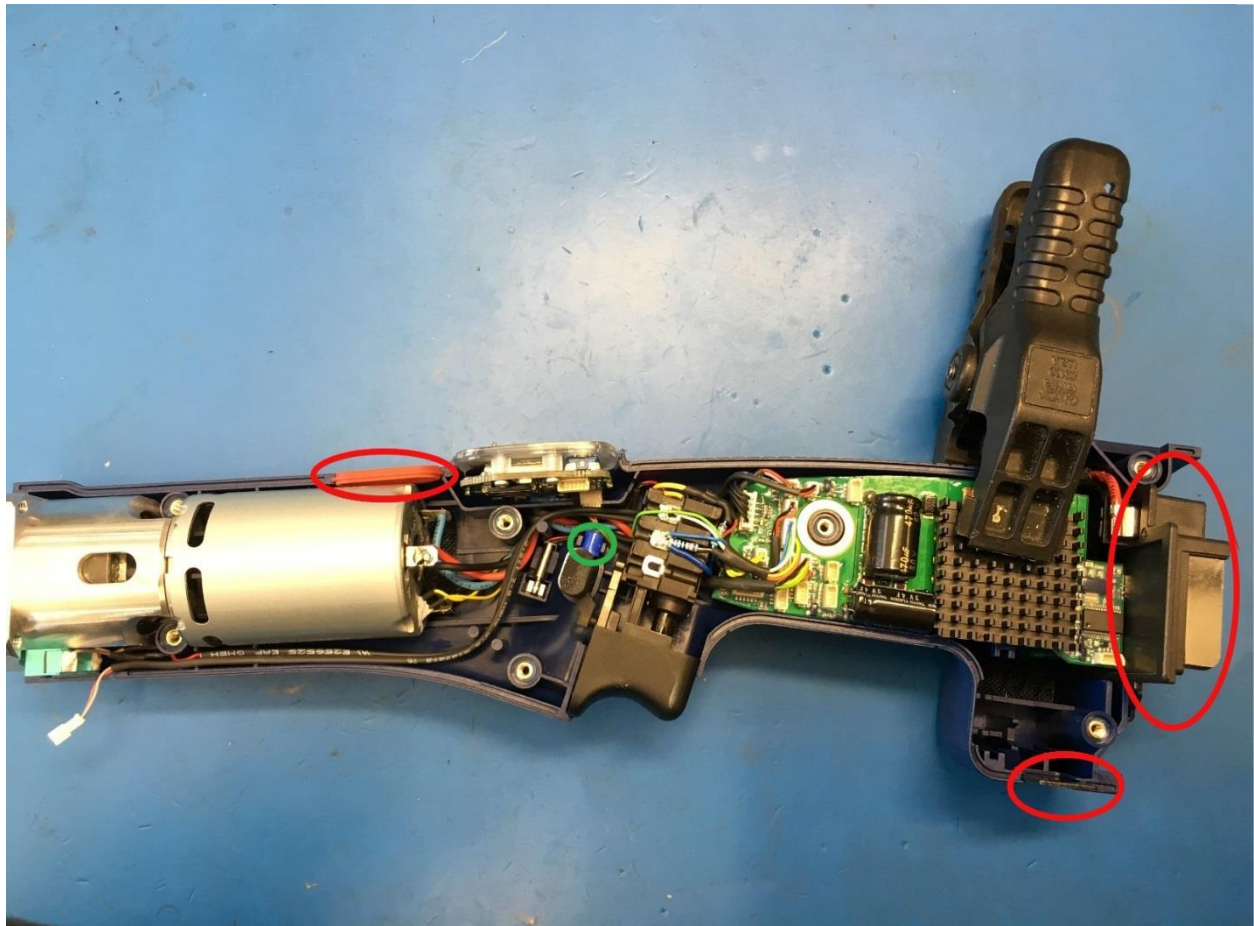
The power cable runs underneath the motherboard next to the tooling location, similar to the pistol tool.

All cables are plugged into the same interfaces as the pistol tool, see page 10.

Insert the switch and the spring ball as shown in the green area of the picture below.

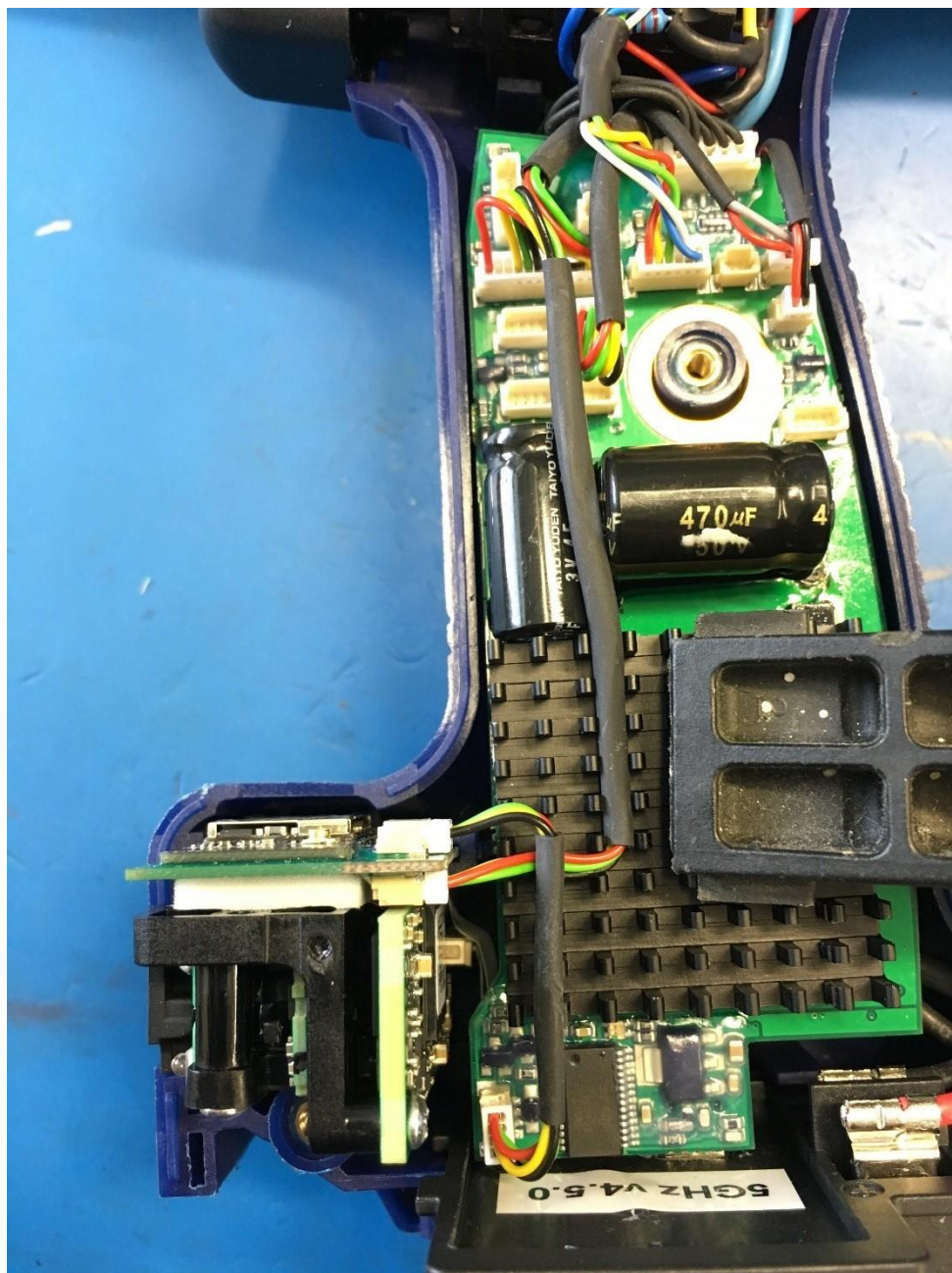
Insert all remaining housings parts.

Ensure that all cables are positioned correctly and won't be squeezed by the housing. Close the housing and tighten the screws — torque 1.5 Nm.



4. Wi-Fi and Barcode Reader

When assembling the Wi-Fi/Scanner unit, make sure not to damage the scanner ribbon cable during assembly. Plug in Wi-Fi and Scanner as shown in the interface drawing. Position the cables as shown in the picture below.





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