



**Number:** TSB-FC-2016-253 Focus II Rider  
IC650 Charger Interlock Failure

**Symptom:** Machine failed to turn on

**Date:** 2nd March 2016

**Urgency:** Low

**Author:** Aaron Clark

**Urgency:** **LOW:** Rework to be done if necessary

**SYMPTOM:**

The machine will not turn on with the key switch.

**PRODUCTS:**

All Focus II Rider's with a Delta-Q IC650 Onboard charger

**SYSTEM:**

Onboard battery charger and scrub deck actuator.

**ISSUE:**

The onboard charger's interlock circuit has failed preventing the machine from powering up.

**CAUSE:**

If deck actuator is drawing excessive current and the actuator is in the lowered position with the batteries disconnected, reconnecting the batteries causes excess current to be sent through the onboard charger interlock circuit. This excess current causes the onboard charger interlock circuit to fail inside the onboard charger preventing the machine from turning on.

**ECO / ODM #:**

A-11412

**PRODUCTION CORRECTIVE ACTIONS:**

The main control board firmware was changed to prevent excess current to be sent through the onboard charger interlock circuit eliminating this issue if the above sequence of events should occur.



## TECHNICAL SERVICE BULLETIN

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### **PRODUCTION SOLUTION IMPLEMENTATION DATE and / or SERIAL NUMBER:**

First production machine with new firmware installed on main machine control board as Standard equipment:

#### **Focus II Rider BOOST**

Implementation Shipping Date: 124h Dec. 2015

Serial Number: 4000102554

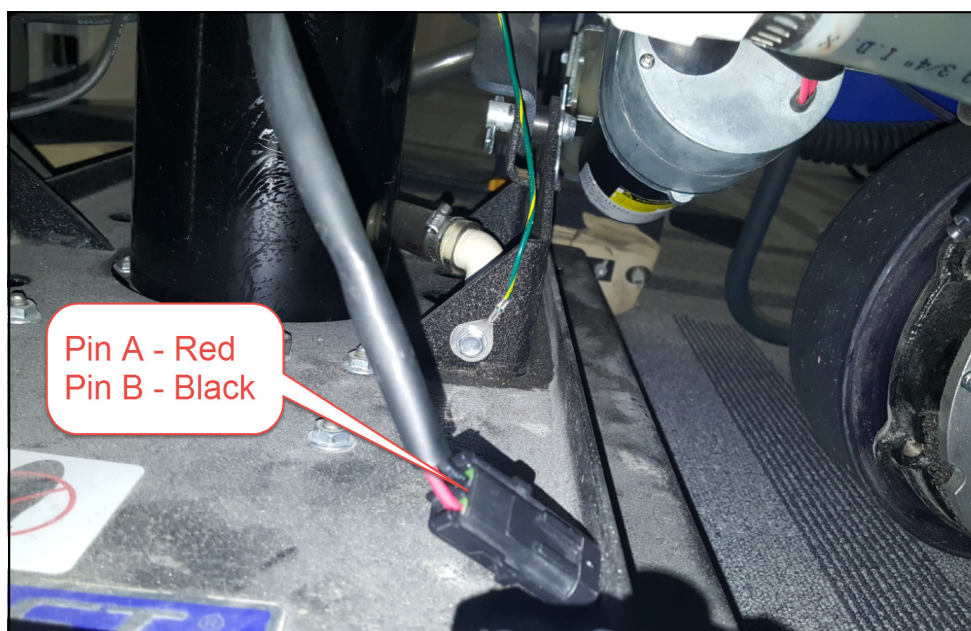
#### **Focus II Rider (non-BOOST)**

Implementation Shipping Date: 12th March 2015

Serial Number: 4000100544

**FIELD CORRECTIVE ACTIONS:** (All non-BOOST machines built prior to Serial Number 4000100544, all BOOST machines built prior to SN 4000102554)

If the charger interlock circuit has failed, please check the amp draw of the actuator installed in the machine to verify the actuator and linkage are functioning normally. Please test the amp draw of the actuator when jumped directly to the battery. It should be drawing between 2 -3 amps when raising and lowering. Pin A and Pin B of the actuator connector are for the motor (FIG.1). Reverse polarity to change direction.





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After verifying the actuator (PN 56114362) is functioning normally, replace the User Interface Panel and Onboard Charger.

### **SPARE PARTS or Kits Needed:**

#### **BOOST Machines**

**56384199** USER INTERFACE KIT-BOOST - To prevent excess current from passing through the charger's interlock circuit upon key on.

**56383856** CHARGER-ONBOARD 24V 650W - To replace onboard charger with failed interlock circuit.

#### **Non-BOOST Machines**

**56384198** USER INTERFACE KIT - To prevent excess current from passing through the charger's interlock circuit upon key on.

**56383856** CHARGER-ONBOARD 24V 650W - To replace onboard charger with failed interlock circuit.

**NOTE:** up to 1.25 hour for travel and 0.7 hours for labor.