



Lubecore Technical Announcement

LCI Solenoid – Installation and Field Repair Practices

Solenoid Polarity

Proper connection of the LCI Solenoid:

12vdc Positive (+) to position A of 2 pin solenoid connector, Pin 1 in DT 2 pin LED connector

12vdc Negative (-) to position B of 2 pin solenoid connector, Pin 2 in DT 2 pin LED connector

10 Amp fuse max for battery and ignition leads connecting to Lubecore Timer.



The LCI Solenoid includes a “Flyback Diode” – used to eliminate flyback, which is the sudden voltage spike seen across an inductive load when its supply current is suddenly reduced or interrupted. Inclusion of this diode is electronics best practice, as it prevents voltage spikes from travelling back towards the timer when the timer stops supplying power to the solenoid. Voltage spikes or electromagnetic feedback are problematic in our world of increased computer communication and electronic memory. The diode solves this problem via proper dissipation of electrical energy stored in the solenoid coil.

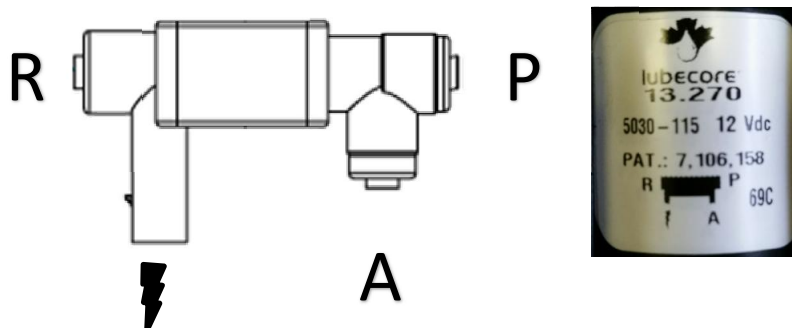
This means that the solenoid is polarity specific – and care should be taken to ensure proper connection. In-field service and replacement of other valves with the LCI solenoid must include a voltage polarity check with a multimeter – prior to connection. Correct polarity will also safeguard the LED included in Deutsch connector. Do not exceed 10 amp fuse to the timer on both ignition and battery leads in order to protect the timer circuitry from reversed polarity connection.

Information Sticker:

Each solenoid is marked with a sticker – indicating the port designations via a pictogram of the solenoid. This is to assist installation and field service – at times when documentation on the solenoid is not nearby.

Here is an explanation of the abbreviated markings on the sticker:

- a. Lightning Bolt – Indicates electrical power connection.
- b. R – Indicates “Release” – this is the release or vent port of the valve
- c. P – Indicates “Pressure” – this port connects to the compressed air source (always use secondary air supply on transport equipment)
- d. A – Indicates “Apparatus” – this port delivers air pressure to the pump when the solenoid is activated.



In-field Replacement Kit:

Lubecore introduces the 54.951 LCI Solenoid Replacement kit. This includes solenoid, power harness with LED, mating Deutsch connector kit, mounting hardware, and air connection components. This new offering substitutes for the previous replacement kit 50.005.

| New Part # | Description | Substitutes Part # |
|------------|---|--------------------|
| 54.951 | Kit, 12v LCI Solenoid Replace Kit - Harness/Hdwe/Fttgs/Tube | 50.005 |

Solenoid Installation Instructions:

Included in each solenoid kit either for installation of field replacement is an instruction sheet – part # 75.013. If you would like an electronic copy, please feel free to request one today.

