LINCOLN ELECTRIC EUROPE

Service Notice N°: **ESN0069 Rev.0**
Date: **09 NOV 2017**

Y028 Graphic User Interface (GUI) rework

Product	K Number	Code Number	Serial Numbers
SPEEDTEC 200C	K14099-1	50328	From P11702xxxxx to P1171001163
SPEEDTEC 200C AUS.	K14099-2	50281	From P11702xxxxx to P1171001163
SPEEDTEC 200C BR.	K14099-3	50317	From P11702xxxxx to P1171001163
SPEEDTEC 215C	K14146-1	50314	From P11702xxxxx to P1171001163
SPEEDTEC 215C AUS.	K14146-2	50324	From P11702xxxxx to P1171001163

⚠ WARNING

Be sure that only qualified individuals perform all installation, operation, maintenance and repair procedures. Lincoln Electric is not responsible for damages caused by improper installation, improper care or abnormal operation.

Before opening or disassembling any parts of the product, the power must be turned OFF and the product must be disconnected from the input power source. Only Lincoln trained service technicians are authorized to perform these modifications.

Explanation of the Problem

In welding devices type Speedtec 200C and Speedtec 215C, which were produced from February 2017, we observed an increase of failure rate on display module Y028.
The LCD display doesn't turn ON when machine is switched ON.

Verification of the Problem

In welders Speedtec 200C and Speedtec 215C with serial numbers from P11702xxxxx to P1171001163 it should be increased the capacitance of C13 capacitor in Y028 GUI module (see red ellipse in Fig.1). The problem can be verified by turning ON the welder and visual check of LCD display. If the LCD display is OFF and dark or blinking then the Y028 PCB GUI module has to be reworked. If the LCD display is ON and it displays standard welder screen, then the Y028 PCB GUI module is good but is also recommended to rework it to prevent a future failure. **Y028 PCB GUI modules with production number greater or equal to 38/17 (see blue ellipse in Fig.1) do not need the rework.**

Correction of the Problem

1. To rework of Y028 GUI modules is needed the following ceramic capacitor (one capacitor for each Y028 board) and electro-insulating paint:

   - Ceramic capacitor MLCC SMD; 47uf; 0805; 10V; X5R; 20%.

     There are following capacitors available on the market:

Type of capacitor	Manufacturer
GRM21BR61A476ME15K, GRM21BR61A476ME15L	Murata Electronics
C2012X5R1A476M125AC	TDK
LMK212BBJ476MG-T	Taiyo Yuden

   - Electro-insulating lacquer: DC1-2620, ISOTEMP; ELASTOPLASTIC CONFORMAL COATING.

2. Y028 module reworks should be processed as follows:
   - The red ellipse indicates the position of the capacitor C13 that has to be replaced.
   - The blue ellipse indicated the board production date, <u>PCBs with production dates greater or equal to 38/17 are OK and do not need capacitor rework.</u>
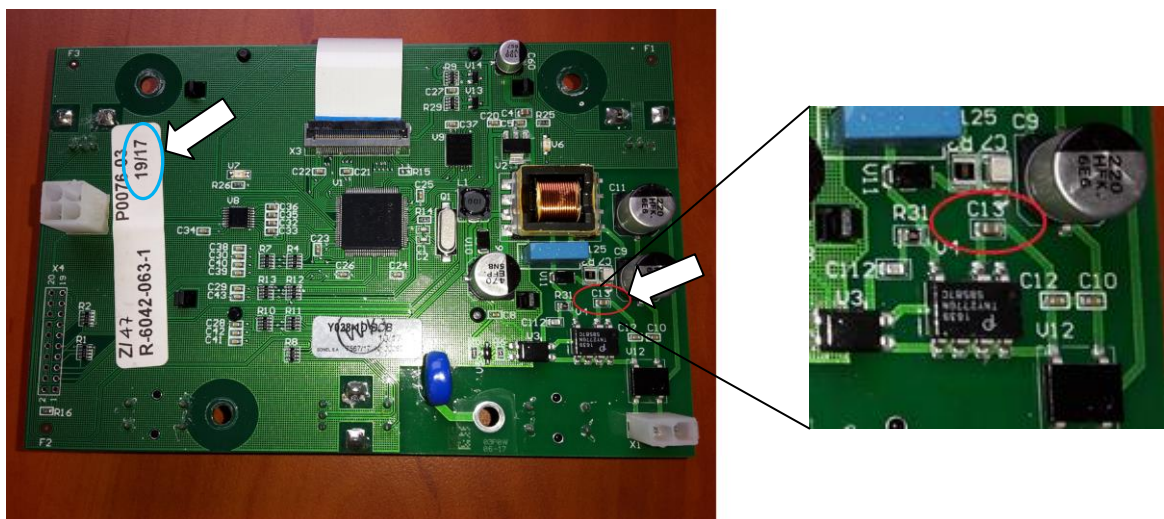

Fig. 1.

   a. Remove the varnish from the capacitor C13.
   b. Unsolder the capacitor C13
   c. Remove old tin from pads after C13 capacitor.
   d. Solder the new capacitor 47uF; 10V; X5R; SMD 0805

   Capacitor C13 and its surroundings on the board should be painted with DC1-2620, ISOTEMP; ELASTOPLASTIC CONFORMAL COATING.
   Wait until the paint has dried before reinstalling the board inside the machine.

3. Insert the board back into the machine.
   Turn on the Speedtec and verify that the LCD display is working correctly.