

1.0 Application

All LCI and RTC LA-306 and LA-309 infrared furnaces with LCI Discrete Digital Control (DDC) Systems with PLC.

2.0 Scope

To provide the tech with instructions for replacing the programmable logic controller (PLC) central processing unit (CPU) with a new one.

3.0 Procedure

3.1 Disconnect power

3.1.1 Make sure the furnace is turned off.

3.1.2 Disconnect furnace from facility power source and lock out power.

3.2 Remove access panel on top of Control Console.

3.2.1 Approach furnace from rear and lift top access panel and place in a safe location.

3.2.2 Using a Philips screwdriver, unscrew control console back panel (all except end screws)



Figure 3-1 Remove control console top access panel



Figure 3-2 Lower rear access panel

3.3 Locate Programmable Logic controller (PLC)

3.3.1 See figures 3-3 and 3-4

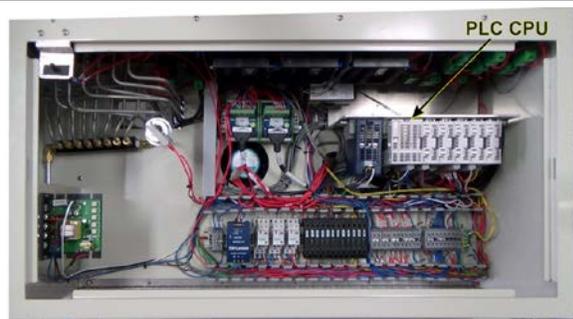


Figure 3-3 View of PLC from Top Rear

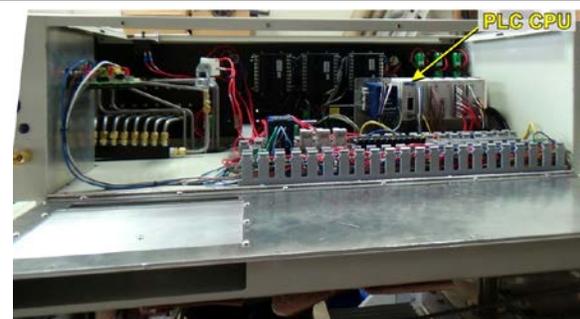


Figure 3-4 View Of PLC from Rear

3.4 Locate and remove CPU module

3.4.1 Click CPU module is located to left of PLC rack. See figure 3-5

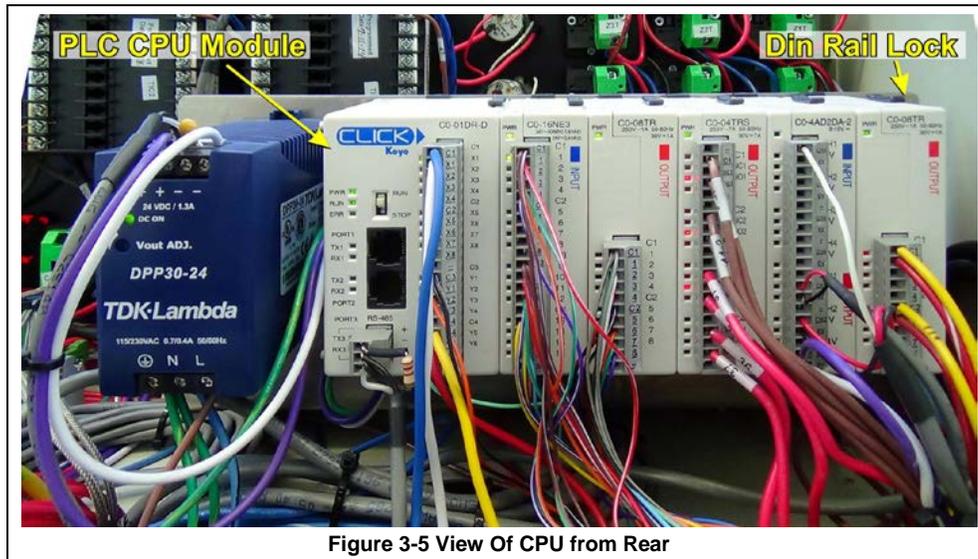


Figure 3-5 View Of CPU from Rear

3.4.2 Remove terminal connector T1 from front of CPU module. Gently pull straight out.

3.4.3 Remove terminal connector T2 from lower left of CPU module. Gently pull straight out.

3.4.4 Remove CPU module from PLC Din rail as follows:

- a) Use a flat screwdriver to loosen Din Rail Lock at far right of PLC (fig 3-5).
- b) Slide black locks L1 & L2 located on top and bottom of module toward front of module (UNLOCK) to release CPU module from adjacent modules (fig 3-6).
- c) Using a long flat screwdriver insert in Locking Tab L3 at bottom of module, press down and gently lift CPU module from Din rail.

3.4.5 Remove terminal connector T3 from bottom of module.

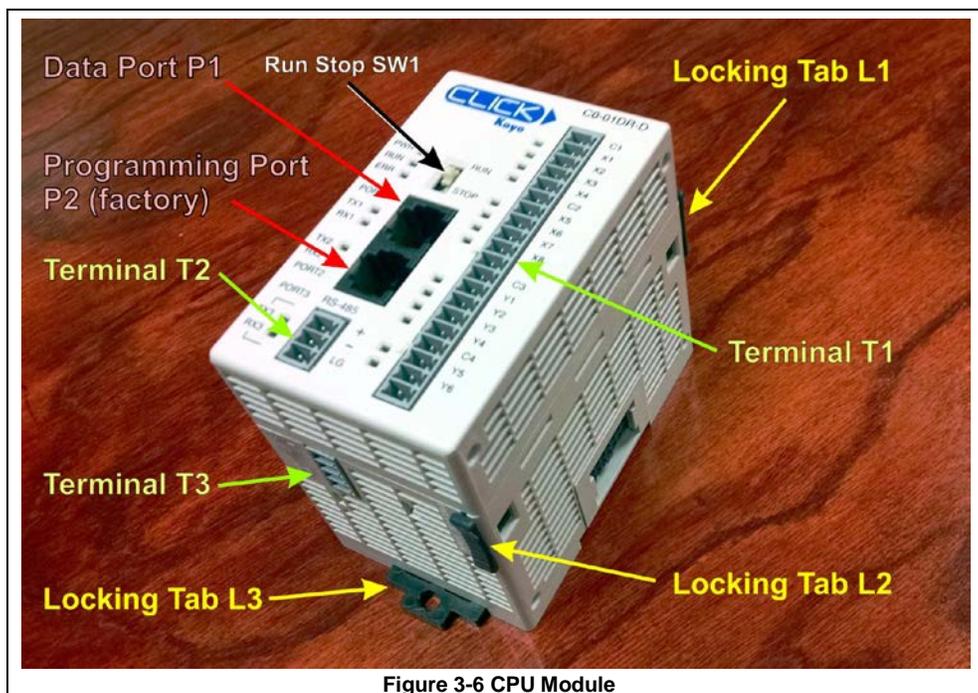


Figure 3-6 CPU Module

3.4.6 Set aside original module for return to factory.

3.5 Install new CPU module

3.5.1 Locate new CPU module shipped from factory.

3.5.2 Pull down Locking Tab L3 and slide Locking Tabs L1 and L2 to Unlock position (toward front of module).

3.5.3 Insert Terminal block T3 into terminal T3 on bottom of module.

3.5.4 Place CPU module to the left of the other PLC modules (in same position as the one previously removed).

3.5.5 Hook back of module over top of Din rail and gently press into place. Using finger or long flat screw driver push up on Locking Tab L3 to secure onto rail.

3.5.6 The modules communicate via connectors on the side of each. Slide CPU to right and seat module's connector against first module on the right. Once in place, slide top and bottom Locking Tabs L1 and L2 to secure into place (toward back of module).

- a) Use a flat screwdriver to tighten Din Rail Lock at far right of PLC (fig 3-5).

3.5.7 Insert terminals T2 and T1 into respective sockets on front of CPU module.

3.6 Run mode

3.6.1 Make sure the Run/Stop switch SW1 on front of module is in RUN position. If not, push switch up to RUN.

3.7 CPU installation is complete