



AMCOL Corporation

Electronic Timing Controller for 3063 Systems

PS04.3063-ETC.PB (R2), 4/11/22, AA-0025, Approved for Use, Page 1 of 4

A Quick Solution to Control Billet and Dummy Block Spray Systems

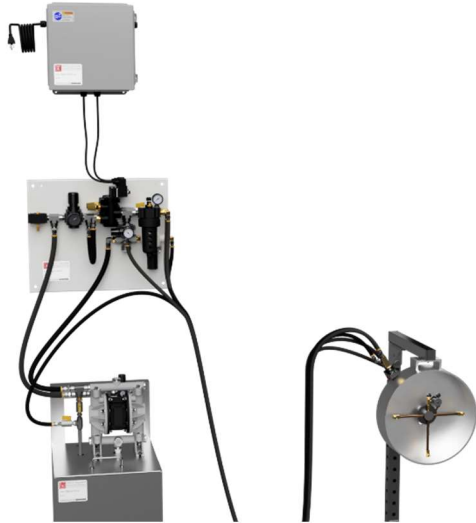


Figure 1

AMCOL 3063 Spray Systems come standard with dual poppet valves that control the air and liquid flow of the system (system shown in Figure 1). These valves must open and close at precise times in order for the system to operate correctly and effectively.

In many situations, the electronic control of 3063 systems comes from the machine or PLC. Programming a PLC and installing additional wiring for the two valves is not always easy or practical. **AMCOL has created a quick and simple solution to allow a single PLC or machine output to control two valves with no additional wiring or programming.**

Introducing the 3063-ETC Electronic Timing Controller

The 3063-ETC is a self-contained PLC that is preprogrammed to interface directly with your machine to **easily control a 3063 Spray System with only 1 machine output or control signal.**

The first output actuates the Air Timing Valve (ATV) that remains on for the complete spray cycle. This valve allows air to flow through the atomizer to the spray tips. It also allows air to flow to the air motor used to drive the spinner and spray assembly. The second output actuates the Liquid Timing Valve (LTV) that opens the safety switch on the valve pack and the air pilot on the atomizer, allowing liquid to flow through the valve pack and atomizer to the spray tips.

The 3063-ETC gives you the ability to quickly and accurately increase or decrease settings in the operating cycle of a 3063 Spray System (Figure 2) at the push of a button without the need for PLC programming.



Figure 2

More About the 3063-ETC

The 3063-ETC is designed to quickly and easily allow a single 110VAC or 24VDC machine or PLC output to operate the dual valve controls of a 3063 Spray System. Using this controller, you will no longer need to reprogram or modify your current PLC programming to operate a 3063 Spray System. The ETC also only requires one wiring connection—the control signal from your PLC or machine that tells the ETC when to operate the 3063.

A clear viewing screen shows the spray cycle settings. *Figure 3* shows the main screen (top left) with the minimum possible cycle settings. The default screen shows current settings. Additional screens allow the operator to increase or decrease each event time in 50ms (0.05s) increments.



Figure 3

The 3063-ETC Electronic Timing Controller includes:

- Preprogrammed PLC.
- 6' grounded power cord with plug.
- Open cable gland to insert your existing control output and make connection.
- NEMA 12/13 sealed steel electrical enclosure.
- Lighted coil caps for the poppet valves.

There are four available control packages.

1. 3063-ETC-24 – Your control output is 24VDC.
2. 3063-ETC-110 – Your control output is 110VAC.
3. 3063-ETC-24-LLI – Your control output is 24VDC, system has optional low level light.
4. 3063-ETC-110-LLI – Your control output is 110VAC, system has optional low level light.

Connecting the 3063-ETC to Your Machine



Figure 4

Integrating the 3063-ETC is simple:

1. Mount the control box in a position where it is easy to access, protected from damage, and a short distance from your AMCOL 3063 Spray System. Output wires from this controller to the spray system are standard at 6'. In order to extend these wires, they should be properly connected to a junction box and extended using conduit.
2. Insert your machine output through the available cable gland and connect to the controller at input 00 as shown in *Figure 4*.

3. Connect the prewired caps with lights to the poppet valves. The leftmost cable should connect to the Air Timing Valve (ATV), and the rightmost cable should connect to the Liquid Timing Valve (LTV).
4. Plug in power cord.

You are ready to operate.

Operating the 3063-ETC



Figure 5

3063-ETCs have two operating modes:

1. **Automatic** — This will operate when your machine output power is on. It is designed to automatically turn on per the settings and begin the spray cycle when your machine output is energized. Automatic mode is the standard mode of operation for 3063-ETCs.
2. **Manual** — This will turn the spray system on for one full cycle and will only operate when the left arrow (<) is pressed (See Figure 5). Manual mode should be used for setup, testing, and troubleshooting.

Settings can be modified by pressing the right arrow (>) to move to the desired timing screen. The individual timing can be increased using the up arrow (^) or decreased using the down arrow (v) (See Figure 6). Settings can be increased or decreased in 50ms (0.05s) increments. Settings cannot be decreased below their minimum value. Minimum values for each time can be seen in Figure 2 above. See the AMCOL 3063 Operator's Manual to understand the recommended settings and when to modify them.



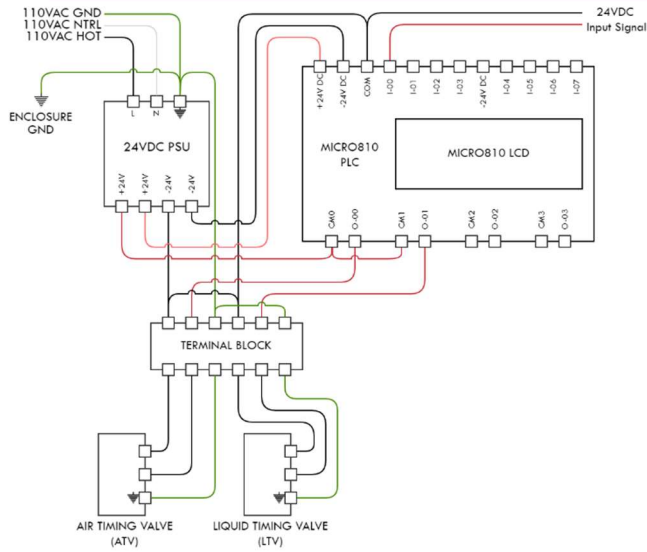
Figure 6



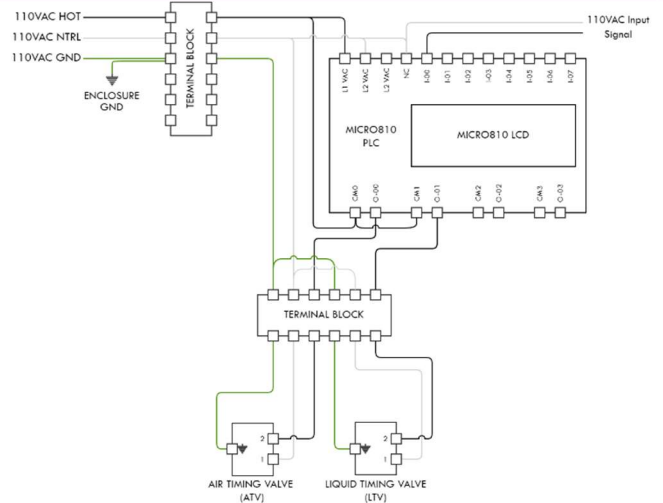
Figure 7

As an optional addition, 3063-ETCs can be ordered with a low level indicator light that interfaces with the 10 or 30 gallon reservoir of the 3063 Spray System. This indicator light will flash when the reservoir is low, ensuring your system never runs dry. Installation is simple—connect the cable gland and the prewired cable from the ETC to your existing low level switch on the reservoir. This option requires that your reservoir is equipped with a low level switch.

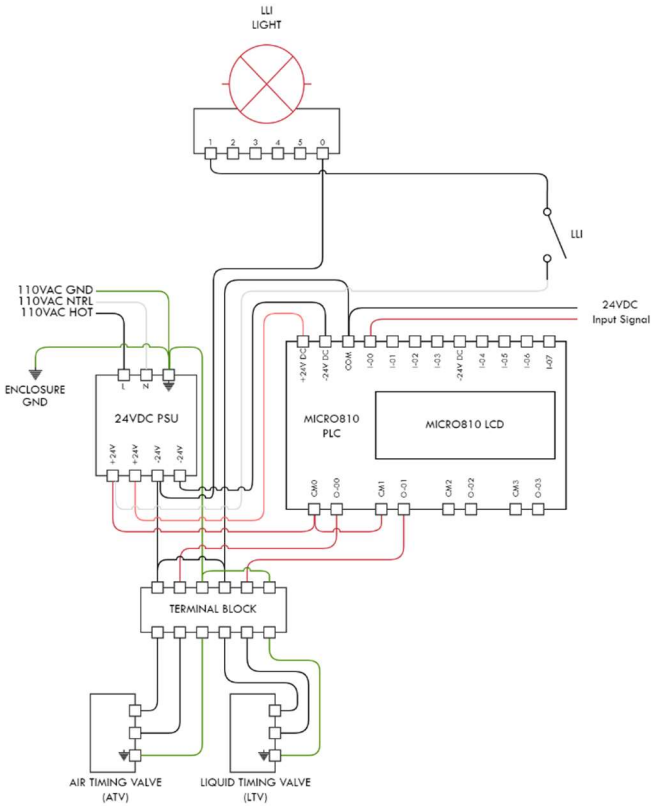
3063-ETC Schematics



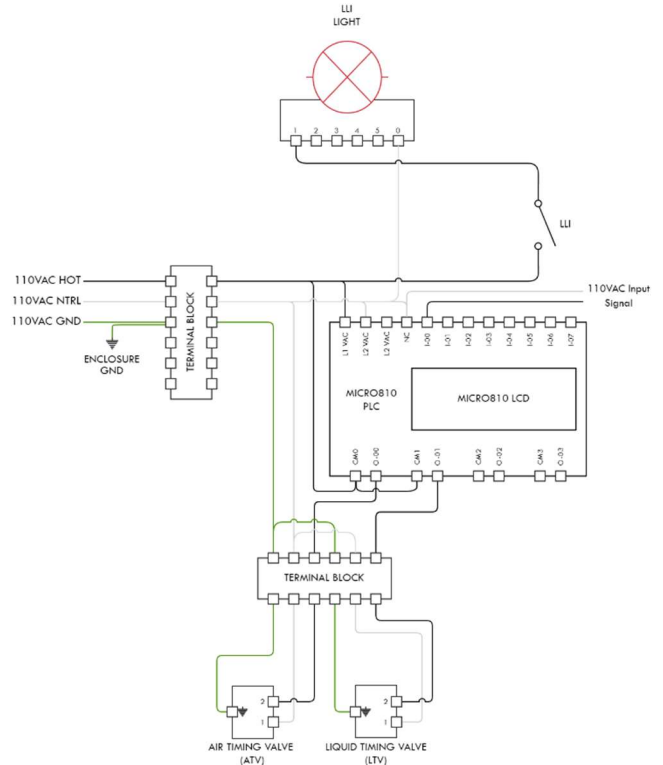
3063-ETC-24



3063-ETC-110



3063-ETC-24-LLI



3063-ETC-110-LLI