

# ACT™ CONTROLLER Set up and Operation



Introducing a new ACT™ in crimping: Automatic Crimp Technology!

Products covered by all or some of these Patents: US 7,383,709;  
US 8,230,714; EP 1,909,987 and Patents Pending.



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# ACT™ CONTROLLER Set up and Operation



## ACT™ CONTROLLER QUICK START

While the ACT™ crimper has the ability to perform a number of fully automatic functions, manual operation is also possible. To make a manual crimp, two numbers are needed:

**The closed diameter of the die** (in either in or mm).

**The finished crimp diameter** (in either in or mm).

That's all you need to know. ACT™ does the rest.

### TO MAKE A MANUAL CRIMP:

- Press **START MOTOR**.
- Select **CRIMP TO DIAMETER**.
- Enter the closed diameter of the die set in either in or mm and press ENTER. Note: for a 25mm die, enter 2500. ACT™ will add the decimal point.

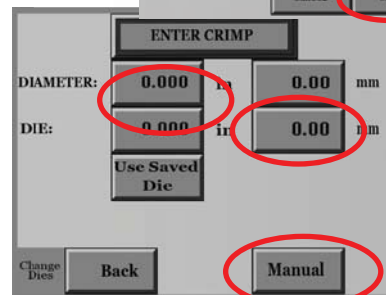
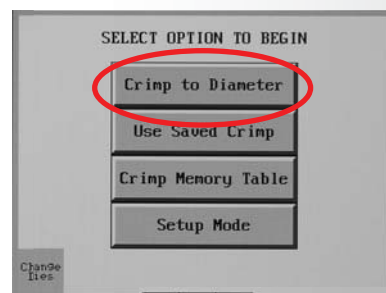
#### **Decimal point entry:**

**For 1.56 inch entry, enter 1560 (Controller supplies 3 decimal places for entries in inches).**

**For a 50.0 mm entry, enter 5000 (Controller will supply 2 decimal places for entries in mm).**

- Enter the finished crimp diameter and press **ENTER**.
- From the **ENTER CRIMP** screen, press the **MANUAL** button to put the crimper in manual mode.
- Confirm that the die and finished crimp diameters are correct and that **MANUAL MODE** is displayed.
- Press and hold the green **CLOSE** button until the crimper stops closing.
- Check the final crimp diameter. If a minor correction is required see **HOW TO MAKE MINOR CORRECTIONS**.

*Tip: Pressing the **CHANGE DIES** button allows the crimper head to be fully opened or closed with the green **OPEN-CLOSE** buttons on the controller front panel. When the **CHANGE DIES** button is blinking the dies can be opened and closed manually without altering any of the crimper settings.*



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## HOW TO MAKE MINOR CORRECTIONS

Due to variations in hose and fitting tolerances a minor crimp adjustment may be required if the measured diameter of the final crimp is not within the hose and fitting manufacturer's specifications. ACT™ technology makes minor corrections a simple process which requires no addition or subtraction.

*If the finished crimp diameter is not within the required specifications:*

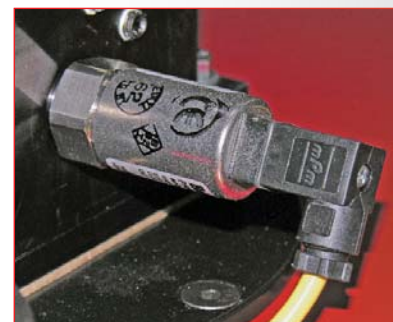
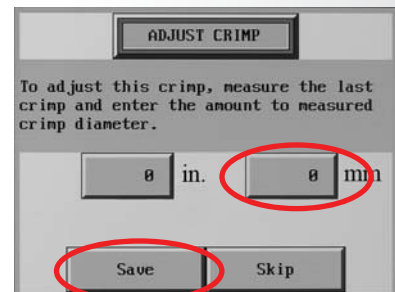
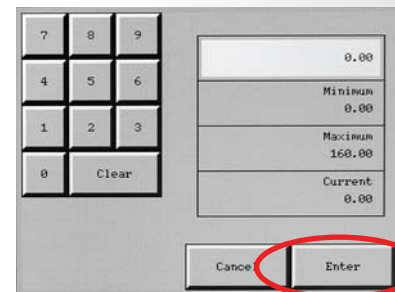
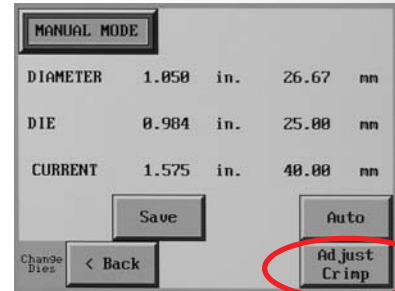
- Press the **ADJUST CRIMP** button.
- Enter the measured diameter of the fitting in either inches or mm (**Do not enter the amount of correction**) and press **ENTER**.
- Press **SAVE**.
- Make another crimp and verify that the fitting is within specifications.

**EXAMPLE:** *If the hose and fitting manufacturer specifies that the finished crimp should measure 1.500 to 1.520 and the measured crimp diameter was 1.530, simply enter the measured diameter (1530 - Controller will supply 3 decimal places) and press **SAVE**. The finished crimp diameter can be entered in either in or mm and ACT™ will make the conversion.*

While a single correction will usually bring the hose and fitting into specifications, the process can be repeated as many times as is required.

### PATENTED ACT™ TECHNOLOGY

On crimpers equipped with ACT™ controllers the sensors which sense the position of the dies are supplemented by a pressure transducer which senses the "effort" required to make a crimp and compensates for variations in hose and fitting combinations. This unique feature means that the operator can enter the finished crimp diameter and will seldom, if ever, have to enter an offset to achieve the correct finished crimp diameter.



# ACT™ CONTROLLER Set up and Operation



## HOW TO ADD A SAVED DIE

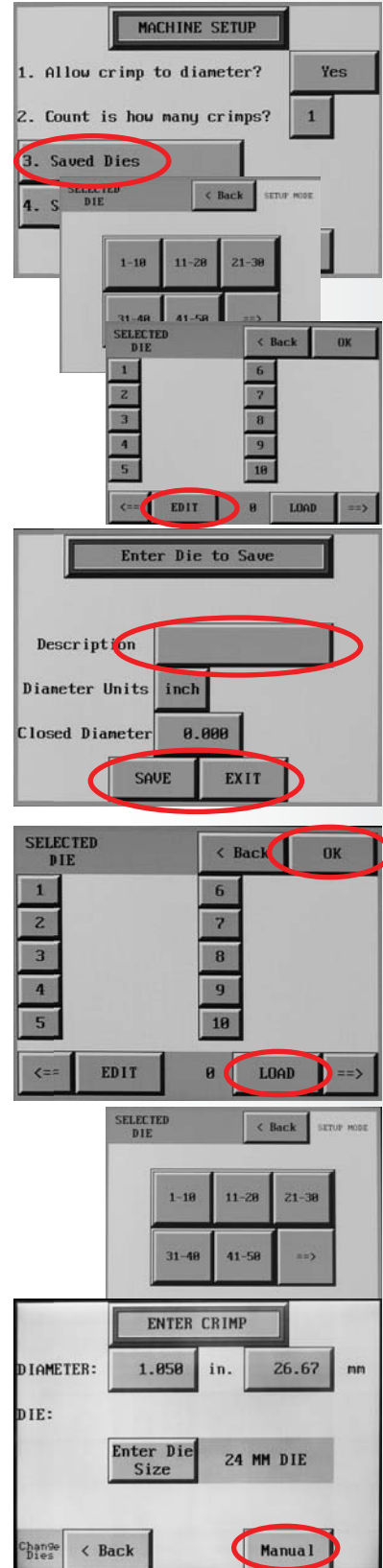
Up to 50 different dies can be saved in the computer memory. These dies can be recalled in the set up process eliminating the need to re-enter the die size each time.

To enter a saved die:

- From the **OPTION** screen, press **SETUP MODE**.
- Select **SAVED DIES**.
- Select the save position (1-50) where the die is to be saved and press the **EDIT** button.
- Enter a die description (up to 12 alpha/numeric characters).
- Enter diameter units (inch or metric).
- Enter the closed diameter of the die.
- Press **SAVE** and **EXIT**.
- The saved die will now appear on the **SELECTED DIE** screen. From this screen individual dies can be cleared or edited.

## HOW TO RECALL A SAVED DIE

- Select **CRIMP TO DIAMETER**, and from the **OPTION** screen, select **USE SAVED DIE**.
- Select the saved die (1-50) and press **LOAD** and then **OK**. The die parameters will now be used for the crimp process.
- From the **ENTER CRIMP** screen press **MANUAL**.
- The saved die will now be shown on the crimp parameters screen.

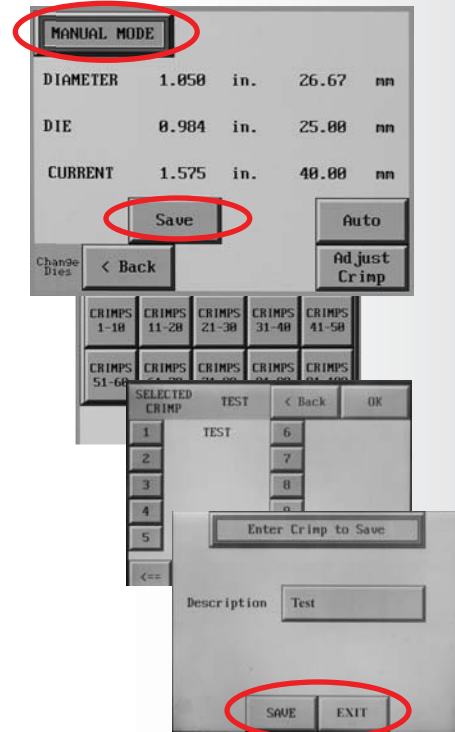


# ACT™ CONTROLLER Set up and Operation



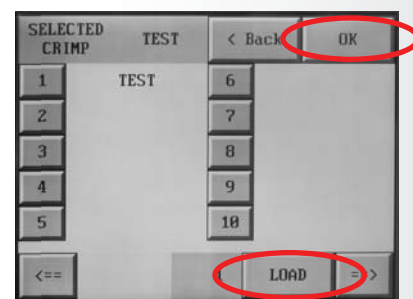
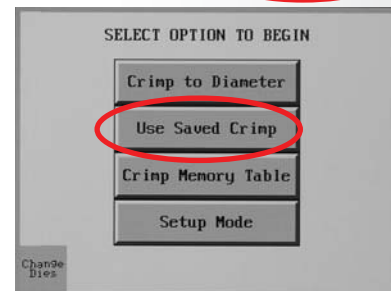
## HOW TO ADD A SAVED CRIMP

- Adjust the die diameter and crimp diameter as required and place the crimper in **MANUAL** mode.
- Press **SAVE**.
- Select a location (1-100) and press **EDIT**.
- Enter a description (up to 12 characters).
- Press **SAVE** and **EXIT**.
- The die and crimp setting can now be recalled from the saved location as required.



## TO RECALL SAVED CRIMP

- Select **USE SAVED CRIMP** from the option screen.
- Select a previously saved crimp from location 1-100.
- Press **LOAD**.
- Press **OK**.
- The saved crimp will appear on the manual screen.



# ACT™ CONTROLLER Set up and Operation



## FULL AUTO MODE

With the crimper in FULL AUTO mode additional functions are available:

- The crimper will cycle automatically from the CRIMP button on the touch screen, the green CYCLE START button on the panel, or the foot switch.
- To set the position to which the dies will retract, close the crimper to the desired retract position prior to pressing the FULL AUTO button.

Note: The retraction position must be set a minimum amount above the finished crimp diameter or the crimper will not retract.

The minimum retraction diameters are:

- CC38 - Crimp Diameter plus 2 mm
- CC4-50 - Crimp Diameter plus 2 mm
- CC60 - Crimp Diameter plus 3 mm

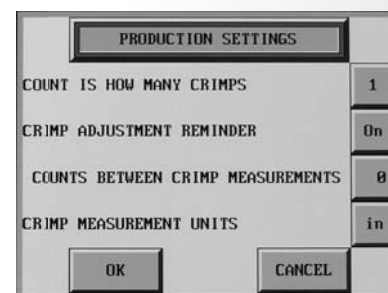
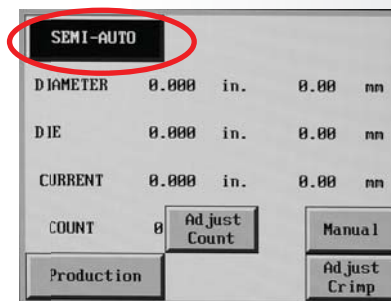
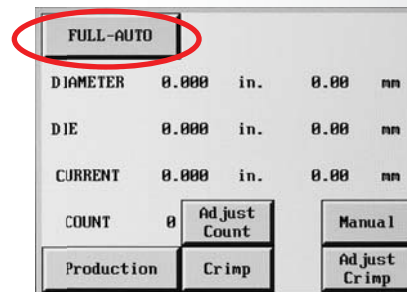
- Pressing the FULL AUTO button will toggle the crimper into SEMI-AUTO mode. In SEMI-AUTO mode, pressing the FOOT SWITCH or the CLOSE button will close the crimper head and releasing it will cause the head to stop closing. This mode allows the crimper to be jogged into position allowing more precise positioning of a fitting in the dies. Pressing the SEMI AUTO button will toggle the crimper back to FULL AUTO mode.

In FULL AUTO mode pressing the foot switch will start the crimp cycle and the dies will stop closing when the crimp cycle is complete.

- The COUNT function is activated allowing the operator to monitor the number of crimps made.
- A measurement can be required after a preset number of crimps. See SET REQUIRED MEASUREMENT.

## SET REQUIRED MEASUREMENT

- Press the PRODUCTION button.
- Determine if 1 or 2 crimps will count as a crimp.
- Toggle the CRIMP ADJUSTMENT REMINDER to ON.
- Set the COUNTS BETWEEN CRIMP MEASUREMENTS to the desired number and press OK.
- At the set interval, the ADJUST CRIMP screen will come up and the operator will be asked to measure the last crimp and enter a correction if required.



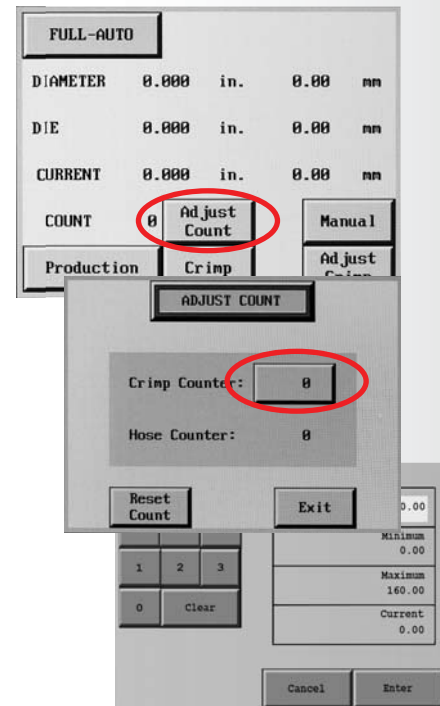
# ACT™ CONTROLLER Set up and Operation



## ADJUST CRIMP COUNT

If a production operation is interrupted for some reason, it is possible to reset the counter to where the operation was at the point of interruption.

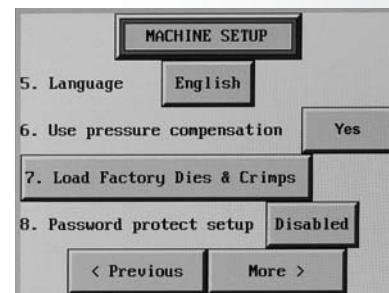
- Press the Adjust Count button from the auto crimp screen.
- Press the Crimp Counter and reset the count to the desired point.



## ACT™ ADDITIONAL FEATURES

Additional features and functions of the ACT™ controller can be accessed by pressing the MORE button on the MACHINE SET UP screen.

- When “Allow Crimp to Diameter” is set to “YES”, all of the adjustment functions of the crimper are available. When “Allow Crimp to Diameter” is set to “NO” only the settings entered as a saved crimp can be used.
- English or Spanish language options are available.
- The “Use Pressure Compensation” is set to “YES” for all crimpers equipped with a pressure transducer. A security code is required to turn this function on or off.



# ACT™ CONTROLLER Set up and Operation

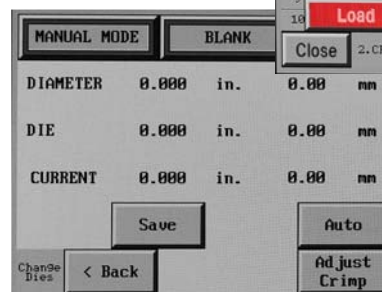
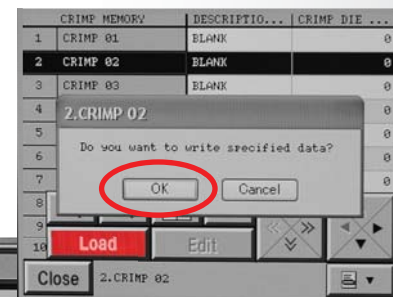
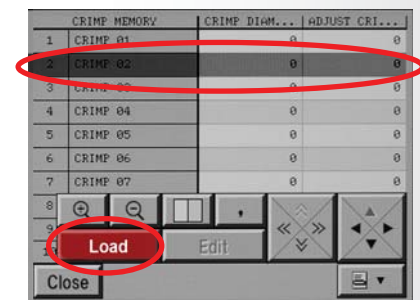
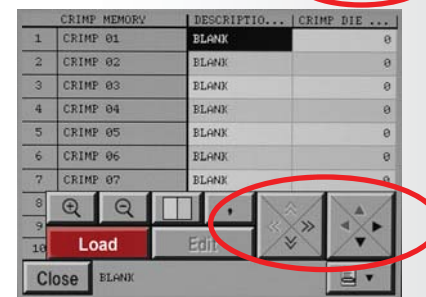
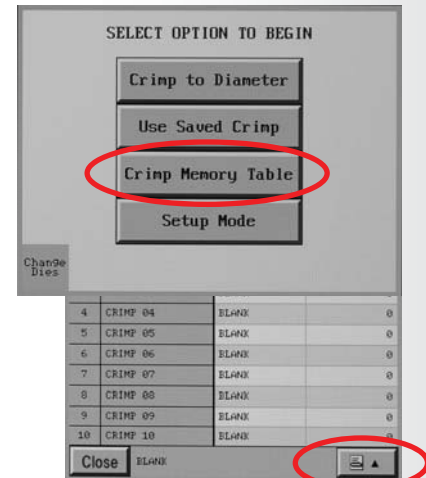


## ACT™ ADDITIONAL FEATURES

### Pre-Loaded Crimp Specifications

In addition to the ability to store up to 50 user entered dies and 100 user entered crimp settings, the ACT™ Controller has the capability of accepting pre loaded manufacturer's crimp specifications. CustomCrimp® does not maintain these specifications as they are proprietary to the individual hose and fitting manufacturer. If, however, your ACT™ Controller was pre loaded with a manufacturer's crimp specifications or if they are available to you, they are accessed in the following manner:

- Press the Crimp Memory Table Button.
- Press the access button to bring up the stored crimp specifications.
- Scroll through the crimp specifications to select the correct one. The right hand rocker button moves through the crimp specs one line at a time and the left hand rocker button moves one screen at a time.
- When the correct crimp specification is selected, press the highlighted selection and then the Load button and select OK to write the data to the ACT™ Controller.
- This will bring up the familiar crimp screen and the crimper can then be operated in the normal manner.





# ACT™ CONTROLLER Set up and Operation



## ACT™ ADDITIONAL FEATURES

### Pressure Monitoring System

The Pressure monitoring system is helpful in detecting crimps where the pressure is outside of the expected normal range. For example, if a fitting has not been drilled through or if a ferrule is thicker or thinner than expected. The pressure monitoring system helps to detect problems which would result in an unsatisfactory crimp.

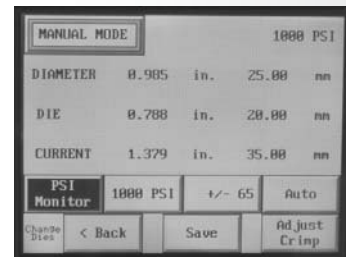
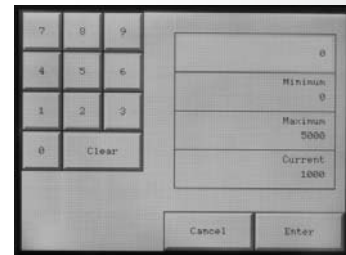
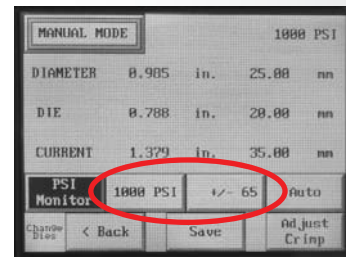
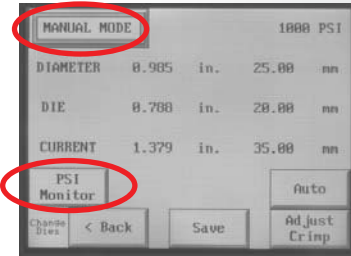
To set up pressure monitoring, the crimper must be in Manual Mode. Press the PSI Monitor Button to bring up the Pressure Monitoring Screen where the expected pressure and the acceptable range can be viewed.

To adjust the expected pressure, press the pressure button and a keypad will pop up where the desired pressure can be entered.

Key in the expected nominal pressure for the combination of hose and fitting being crimped and press enter.

Press the +/- button and enter the acceptable range of pressure on the keypad. Press enter and review the settings.

If the pressure required to make a crimp is outside of the acceptable range, a warning will appear on the screen.

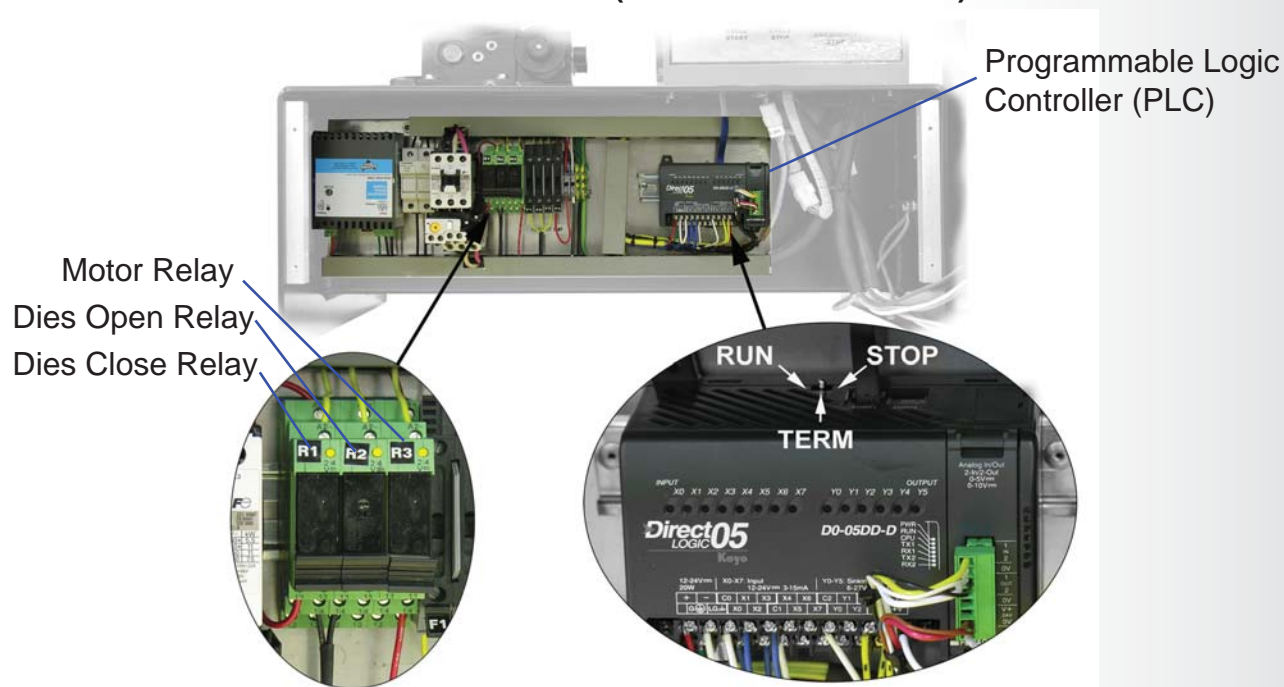


# ACT™ CONTROLLER Set up and Operation



## PLC RESET/RELAY REPLACEMENT

### Electrical Panel (Front Cover Removed)



The PLC (Programmable Logic Controller) requires a relatively constant source of electrical power. Power surges, outages or drops in power can cause the PLC to lose its settings. This may result in missing or misplaced information on the controller screen.

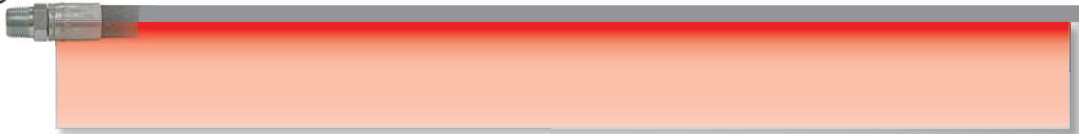
### Resetting the PLC to its original settings is a simple procedure

- Turn the main power switch to OFF.
- Remove the 4 screws holding the front panel in place and set the panel aside without disconnecting any wires.
- Power up the crimper from the main power switch. The crimper must be powered on during the PLC reset procedure.
- Move the three position toggle switch on top of the PLC right to the STOP position and then left to the RUN position.
- Return the toggle switch to the center TERM position.
- Turn the main power switch to OFF and replace the front panel.
- The PLC and the crimper should now operate normally.

### Relay Replacement

- There are 3 relays which control the motor operation and dies open and dies close functions of the crimper. If one of these functions is inoperable these relays can be replaced.
- If the pilot light adjacent to the “R1”, “R2”, and “R3” is lit and the function does not operate. This indicates that the relay is receiving power but not performing its function.
- All 3 relays are identical and interchangeable.

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