





CONSULT HOSE AND FITTING MANUFACTURER'S SPECIFICATIONS FOR CORRECT MACHINE SETTINGS AND CRIMP MEASUREMENTS

ALWAYS WEAR EYE PROTECTION

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For Parts and Service, Contact: Custom Machining Services, Inc. Valparaiso, In 46383 (219) 462-6128

COMPONENT PART IDENTIFICATION \forall ¢, CRIMP **Cabinet Storage Shelves** CC1200 Hose Crimper 381mm-275mm Adapter Die Master Dies 275mm-160mm Adapter Die Hydraulic Power Unit and Controls 160S Series Dies Die Release Pins 4 3 **Reservoir Sight Glass Return Hose** 275mm-160mm Adapter Die Pressure Hose

381mm-275mm Adapter Die

CRIMPER SPECIFICATIONS AND INITIAL SET UP

SPECIFICATIONS:

MAX HEAD OPENING W/O DIES	489MM (19.25IN)
MASTER DIE INSIDE DIAMETER	
MAXIMUM DIE OPENING	DIE CLOSED DIAMETER + 125 MM
CRIMPER SIZE	44 IN WIDE X 30 IN DEEP X 74 IN HIGH
WEIGHT	6185 LB. (2904 KG)
ELECTRICAL REQUIREMENTS	220 VOLT 3 PHASE (STANDARD)
	440 VOLT 3 PHASE (OPTIONAL)
MOTOR	7.5 HP (2 STAGE PUMP)
RESERVOIR CAPACITY	50 US GAL
OIL TYPE	ISO 46 HYDRAULIC OIL
ADAPTER DIES	
HOSE CAPACITY	3IN TO 12IN INDUSTRIAL

INITIAL CRIMPER SET UP

- CHECK RESERVOIR OIL LEVEL WITH SIGHT GLASS ON THE FRONT OF THE POWER UNIT.
- CHECK ELECTRICAL CIRCUIT TO BE CERTAIN THAT IT MATCHES THE CRIMPER REQUIREMENTS AS SHOWN ON THE TAG ATTACHED TO THE CRIMPER CORD.
- MAKE CERTAIN THAT MOTOR ROTATES IN THE DIRECTION OF THE ARROW SHOWN ON THE MOTOR HOUSING.
- IF MOTOR ROTATION IS INCORRECT REVERSE ANY TWO HOT WIRES IN THE CRIMPER PLUG.
- CONNECT THE PRESSURE AND RETURN HOSES AS SHOWN AND CONNECT THE YELLOW ELECTRICAL CORD TO THE CONTROL PANEL.

AccuCrimp ACT[™] CONTROL PANEL

U.S. Patent No: 7,383,709



ACT[™] CONTROLLER QUICK START

While the ACTTM 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 2 decimal places. For a 1.5 inch die, enter 1500, ACT[™] will add 3 decimal places.

- 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.

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. ACTTM 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 (<u>Do not enter the amount of correction</u>) 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 ACTTM 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.







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 reenter 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.



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 (1-150) 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 1-150.
- Press LOAD.

The saved crimp will appear on the manual screen.



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.
- 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.



SEMI-AUT				
DIAMETER	0.000	in.	0.00	nr
DIE	0.000	in.	0.00	m
CURRENT	0.000	in.	0.00	m
COUNT		just unt	Man	ua l
Productio	on			just imp





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 ACTTM 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™ 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.



INDUSTRIAL CRIMP CALCULATOR

The Industrial Hose Crimp Calculator is part of the ACT[™] controller package on many Custom Crimp[®] crimpers capable of crimping industrial hoses. With a few simple measurements, it takes the guess work out of industrial hose crimping and eliminates the need for charts and graphs.

Note: Not all ACT[™] controllers have the Industrial Crimp Calculator software. Contact your sales specialist for information on a specific crimper.

- Press the CRIMP TO DIAMETER button
- Press the INDUSTRIAL CRIMP Button
- Press MEASURE
- Enter the stem diameter of the fitting. For example: If the stem diameter is 4 inches, you would enter 4000 and the ACT[™] controller would supply the decimal place.
- Press either MEASURE HOSE OD or HOSE WALL THICKNESS to toggle between the options where hose OD is known and wall thickness measurements are required.
- If the hose outside diameter is known or a pi tape is being used, enter the hose O.D.
- If hose O.D. is not known, press MEASURE for wall thickness options
- Measure the wall thickness of the hose. Press the right arrow and take 2 more measurements of the hose wall thickness. The Industrial Crimp Calculator will average the three measurements.
- Measure and enter the wall thickness of the ferrule
- Next enter a compression factor. While this can vary depending upon the specific hose and manufacturer, the following guidelines are a starting point:

Standard Industrial hose (approximately 1/4 inch wall thickness): 22%

Standard lay flat hose: 11%

Note: Contact your hose and fitting manufacturer for the compression factor to use on a specific hose and ferrule,

- Press **PROCESS** and enter the die diameter if you have not already done so.
- Select and install the correct die set for the combination of hose and fitting being crimped.
- Press MANUAL and proceed to crimp the hose











ADAPTER AND DIE INSTALLATION

Adapter Die Installation

381MM to 275MM and 275MM to169MM die adapters are available. With the proper combination of dies and adapters industrial hoses from 3 IN to 12 IN can be crimped. Adapter dies as well as crimping dies are removed and installed by pressing the release pins (Red Arrow) and sliding the adapter or the die horizontally out of the crimper.

The I.D. of intermediate adapter dies must match the O.D. of the corresponding adapter die or accurate crimps can not be made.

Two adapter series are available.

The 381S dies will fit the Master Die contour without adapters. A 381MM to 275 MM adapter is required for the 275S dies, and the 275 MM to 160 MM adapter will fit into the 381 MM to 275 MM adapter for the 160S dies. All dies and adapters slide in and out from either side with the press of the release button. Die options are shown in the table below with "standard" dies shown in yellow.

Industrial Die	Sizes	160S Die	275S Die	381S Die
Die Size	Effective Crimp Range (MM)	D)ie Length (MN	Л)
74 MM	74-78			
78 MM	78-83			
84 MM	84-92	130		
92 MM	92-100	130		
100 MM	100-108	130		
108 MM	108-116	130		
114 MM	114-122	130		
116 MM	116-124	130		
118 MM	118-124	130		
126 MM	126-134	130		
135 MM	135-143	130		
166 MM	166.178		205	
178 MM	178-190		205	
190 MM	190-202		205	
215 MM	215-245		205	
245 MM	245-275			203
281 MM	281-310			203
310 MM	310-345			203









INITIAL SET UP, LUBRICATION AND PLC RESET

Initial Setup

Check to be certain that the motor rotates in the direction of the arrow shown on the motor housing. If motor rotation is opposite of the direction of the arrow, reverse any two hot wires in the electrical plug.

Damage to the pump can result if the motor does not rotate in the correct direction.

Check the oil level in the sight glass on the front of the tank. 50 U.S. gallons of ISO 46 hydraulic oil are required to completely refill the tank.

Oil can be drained from either of the two ports at the bottom of the tank.

An additional oil cooler, while not normally required, can be plumbed into the two ports at the rear of the tank.

Lubrication

Lubricate the crimping head after each 100 crimping cycles or at the start of each shift if the crimper is used in a production setting.

Bring the master dies to the fully closed position, and lubricate the master dies through the 8 holes in the protective plates as illustrated.

With the dies still in the fully closed position lubricate the fittings visible through the 2 bottom lubrication holes in the protective plate of the crimper.

Use only a high quality grease. Failure to do so may result in damage to the wearing surfaces.

PLC Reset Procedure

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.
- Open the front of the Control Panel.
- 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.
- Repeat for the other PLC Unit.
- Turn the main power switch to OFF and replace the front panel.
- The PLC and the crimper should now operate normally.







STOR



TROUBLESHOOTING

PROBLEM: CRIMPER WILL NOT RUN AT ALL

- Check the E-Stop switch to be certain that it is not depressed. A slight twist is required to release switch after it has been depressed.
- PLC (Programmable Logic Control) must be reset. See instructions on the previous page.

PROBLEM: CRIMPER RUNS BUT IS SLOW OR NON-FUNCTIONAL

- Check supply voltage to see that it matches the voltage specified on the tag attached to the crimper. Many performance problems are the result of low voltage or inadequate electrical service.
- Check motor rotation and be certain that the motor rotates in the direction of the arrow on the motor housing. For three phase units rotation can be reversed by switching any two wires in the plug.

PROBLEM: CRIMPER WILL CLOSE ON FITTING BUT DOES NOT DEVELOP POWER TO COMPLETE THE CRIMP

• Check oil level. Position dies to the fully open position and check oil sight gage in rear of machine. Be sure the oil level is in the middle of the sight glass. Use ISO 32 or 46 weight hydraulic oil.

PROBLEM: CRIMPER WILL NOT OPEN TO RETRACT POSITION IN AUTO MODE

• Retract position must be at least 3 mm larger than the final crimp diameter.

If problems persist contact Customer Service for additional troubleshooting assistance



	CC1200) Master Die Assembly	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	104262	MASTER DIE CARRIER	1
2	104341	LINEAR GUIDE ROD	2
3	104556	LINEAR BALL BEARING	2
4	99142A480	RETAINING RING	2
5	104555	RETENTION PLUG	2
6	104532	SLID PIN ACTUATOR	2
7	98296A837	3/32" DIA 7/16" LONG ROLL PIN	2
8	9657K306	1" LONG 3/8" DIA SPRING	1
9	104533	SLID PIN DIE RETAINER	2



	CC1200 275N	1M-160MM ADAPTOR DIE ASSEMBLY	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	60-2HM4	SLIDE PIN RETAINER	2
2	LC-042E-14	SPRING	2
3	98296A837	3/32 x 7/16 ROLL PIN	2
2	06885610	0.005" THICK - 3/8 ID SHIM SPACER	2-4
5	104544	SLIDE PIN ACTUATOR	2
6	104545	FLAT SLIDE PIN	2
4	91253A261	3/8-16 X 5/8 FHCS	2
8	104480	275mm-160mm Adaptor Die	1
9	104447	SOLID CRIMP DIE KEY	1



	CC1200 381	IMM-275MM ADAPTOR DIE ASSEMBLY	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	104532	ANGLED SLIDE PIN	2
2	104533	SLIDE PIN ACTUATOR	2
1	60-2HM4	SLIDE PIN RETAINER	2
2	LC-042E-14	SPRING	2
3	98296A837	3/32 x 7/16 ROLL PIN	2
2	06885610	0.005" THICK - 3/8 ID SHIM SPACER	2-4
4	91253A261	3/8-16 X 5/8 FHCS	2
8	104479	381MM-275MM ADAPTOR DIE	1
9	104447	SOLID CRIMP DIE KEY	1



	CC120	00 160S CRIMP DIE ASSEMBLY	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	104594	381S CRIMP DIE KEY (SLOTTED)	1
2	06885610	0.005" THICK - 3/8 ID SHIM SPACER	2-4
3	103900	160MM-SIZE DIE SETS FOR CC1200	1
4	91253A261	3/8-16 X 5/8 FHCS	2



	QTY	-	-	~	-	-	16	9	4	-	~	2	2	2	4	2	~	-	-
CC1200 SHEETMETAL CABINET ASSEMBLY	DESCRIPTION	FRONT DIE CABINET ASSEMBLY	FRONT DIE CABINET POT ADJ COVER PLATE	TOP WRAP	CC 1200 BACK CABINET ASSEMBLY	CC1200 ACCESS PANEL	5/16-18 - 1/2 SCHS	1/4 - 20 × 3/8 SCHS	M6 x 1 x 10 SCHS	Limit Switch	LIMIT SWITCH ADJUSTABLE BRACKET	#10-24 × 5/8 SHCS	10-32 X 3/4 SCHS	1/4 WASHER	M4 x 25 SCHS	M12 × 50 SCHS	M10 × 100 SCHS	CC1000/1200 POTENTIOMETER BRACKET	CC1200 LINEAR POTENTIOMETER
CC120	PART NUMBER	104524	104524-7	104526	104525	104526-4	91251A578	91251A535	91290A316	914CE1-6	103349	91251A244	91251A345	98023A029	90128A217	91290A626	91290A548	103248	104639
	ITEM	-	2	3	4	2	9	7	8	6	10	11	12	13	14	15	16	17	18

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	(CC1200 MIRROR BRACKET AND PAD ASSEMBLY	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	103308-3	MOUNTING BRACKET	1
2	103308-2	SUPPORT ARM	1
3	103308-1	SWIVEL BRACKET	1
4	103308-4	BOTTOM SWIVEL BRACKET	1
5	104528	CC 1200 FRONT DIE CABINET NEOPRENE MAT	1
6	104529	CC 1200 BACK DIE CABINET NEOPRENE MAT	1
7	9194T31	12x12 MIRROR	1
8	103345	CC440/650/1000/1200 MIRROR BRACKET ROD	1
9	103307	MIRROR BRACKET LEG	4
10	94846A031	3/8-16 HEX NUT	2
11	91255A624	3/8 - 16 x 1 BHCS	4
12	91239A620	M12 x 40 BHCS	2
13	103761	TOWER BOX	1
14	11665A3	DOOR HANDLES	2



	CC120	0 WEAR PLATE PARTS LIST	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	104265	CC1200 MASTER DIE WEAR PLATE	4
2	103366	CC1200/600 WEAR PLATE T-NUT	8
3	91290A144	M4x10 SHCS	24
4	91294A332	M10x30 FHCS	8



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CC1200 POWER UNIT ASSEMBLY	BER DESCRIPTION	M8x1.25 x 90 SCHS	M8 Lock Washer	CC-60/CC-450 Manifold Block	D05 Directional Valve	DUAL PUMP MANIFOLD	Manifold Intermediate Block	Relief Valve	Pressure Transducer	Single Pilot Check Valve	Barksdale Pressure Switch
CC120	PART NUMBER	91290A466	91169A200	102523	102826	103331	102574	102526	103723	102525	103791
	QT√	4	4	-	-	-	٢	2	-	2	~
	ITEM QTY	-	2	ო	4	5	9	7	80	6	10







ELECTRICAL BOX ASSEMBLY (103759)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	102368	Relay Block	1
2	102367	Fuse Block	1
3	102365	Ground Block	2
4	102371	Power Supply	1
5	102369	Contactor with Overload Protector	1
6	CHMD2	MIDGET 5 AMP FUSE HOLDER	2
7	103782	Relay	3
8	102368-White Motor Block	Relay	1
9	103050	50 Amp Disconnect Switch	1
10	69915K56	3/4 NPT Cord Grip	2
11	69915K57	Cord Grip	3



QTY 9

CC1200 WARRANTY



CustomCrimp "No-Nonsense" Warranty Statement

All CustomCrimp Products are warranted to be free of defects in workmanship and materials for one year from the date of installation. This warranty ends when the product becomes unusable for reasons other than defects in workmanship or material.

Any CustomCrimp Product proven to be defective in workmanship or material will be repaired or replaced at no charge. To obtain benefits of this warranty, first, contact Warranty Repair Department at Custom Machining Services at **(219) 462-6128** and then deliver via prepaid transportation the complete hydraulic product to:

ATTN: WARRANTY REPAIR DEPT. Custom Machining Services, Inc. 326 North Co. Rd 400 East Valparaiso IN 46383

If any product or part manufactured by CustomCrimp is found to be defective by CustomCrimp, at its option, CustomCrimp will either repair or replace the defective part or product and return via ground transportation, freight prepaid. Custom Crimp will not cover any incoming or outgoing freight charges for machines sold outside The United States.

This warranty does not cover any product or part which is worn out, abused, altered, used for a purpose other than for which it was intended, or used in a manner which was inconsistent with any instructions regarding its use.

Electric motors are separately warranted by their manufacturer under the conditions stated in their separate warranty.

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