VCX OT-120
FlexosealPro 2 - Corrugated

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This manual written and designed at Valco Cincinnati, Inc., 411 Circle Freeway Drive, Cincinnati, Ohio 45246.

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Declaration of Conformity

(According to EN 45014)

CE

The following declaration is issued under the sole responsibility of the manufacturer:

Manufacturer:

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Authorized Representatives in Europe:

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declares that the product:

Product Name: VCX OT-120 Flexoseal 2 - Corrugated

complies with the following Council Directives:

Safety of Machinery:	2006/42/EC
Low Voltage Equipment:	2014/35/EU
EMC:	2014/30/EU
Reduction of Hazardous Substances (RoHS)	2011/65/EC

and conforms to the following standards:

Safety:	EN60204-1:2006/A1:2009 EN13849-1
Risk:	ISO12100:2010
EMC Emissions:	EN61000-6-4:2007/A1:2009 EN61000-4-2
EMC Immunity:	EN61000-6-2:2005 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-8 EN61000-4-11
Place and Date:	Cincinnati, Ohio USA CE Mark first fixed 2006
Signature:	Cincinnati, OH USA David H. Swedes, Vice President of Engineering & Manufacturing

This Declaration of Conformity has been generated electronically and is legally binding without signature

VALCO MELTON™

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SECTION 1 - INTRODUCTION

The VCX Control used with 3-Valve Boardrunner systems is a modular, integrated system for gluing control and quality assurance.

This manual provides the information necessary to setup, maintain, and troubleshoot the VCX Control system. A parts list with options is also included.

Valco Cincinnati, Inc. recommends reading this manual before beginning to use the VCX Control system.

SECTION 2 - SAFETY AND USE

Read Thoroughly Before Handling Equipment

Warning!

Read and follow all safety precautions, warnings, cautions, and other recommendations in this manual. OTHERWISE, DEATH, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

Read this entire section before handling the equipment.

Symbols

The following symbols may be used on the equipment and/or in this manual.

This symbol represents a **Caution** or a **Warning**. *Cautions* draw special attention to anything that could damage equipment or cause the loss of data. *Warnings* draw special attention to anything that could injure or kill the reader. Both Cautions and Warnings are placed before the step they apply to.

This symbol represents a **Hot Surface**.

This symbol represents a **Puncture Risk.** It is usually used in regard to nozzle cleaning appliances and other sharp instruments that can cause puncture wounds and risk exposure to bloodborne pathogens and other debris.

This symbol means that **Working Gloves** are required.

This symbol means that **Goggles** are required.

This symbol indicates a **Shock Hazard**. There is a presence of non-insulated dangerous voltage within the product's enclosure. This voltage may cause electrical shock or fire.

Continued next page

Symbols - Continued

This symbol indicates the need to **Unplug/Disconnect All Power Sources** and to let them de-energize before attempting any type of work or maintenance. Remember that there can still be energy in equipment, cords, and wires even when unplugged/ disconnected.

This symbol indicates the need to **Lock Out All Power Sources** and to let them de-energize before attempting any type of work or maintenance. If power is not locked out, the person working on the equipment may be injured or killed if someone unknowingly switches on the power to the equipment.

This symbol indicates a **Note**. Notes point out something of special interest or importance to the reader. They give tips, hints, and information in addition to what is necessary for the step preceding it.

Owner Responsibilities

The owner of the equipment is under obligation to manage all safety information. Some examples include:

- Examine all safety materials and documents as well as jurisdictional laws and make certain all laws, recommendations, and other safety/hazard laws, certification requirements, training, and instructions are followed and kept current.
- Maintain all safety materials including tags, labels, documents, and MSDS information. Make certain they are distinct and can be read/understood. Replace any that are dirty, worn, or unreadable.
- Make sure all personnel who will handle, install, maintain, operate, fix, and work around the equipment have ready access to the safety information, training, and equipment according to jurisdictional authorities.

The owner of the equipment is under obligation to make certain that all instructions, requirements, and jurisdictional laws are met. Some examples include:

- Make sure there are regular inspections of equipment and safety devices.
- Have regular safety drills and inspections supervised by the proper authorities.
- Provide all required safety items, first aid equipment, and training.

The owner of the equipment is under obligation to make certain that all personnel who will handle, install, maintain, operate, fix, and work around the equipment are qualified, trained, and up-to-date with all information regarding the equipment. Some examples include:

- Make sure all personnel have the proper safety training, equipment, education, and abilities necessary for the job function according to safety instructions and all jurisdictional laws and regulations.
- It is strongly advised that personnel receive first-responder medical care training in case of burns, medical emergencies, or other injuries. Training should be kept up to date.
- Make sure all personnel understand and can follow safety policies and procedures for the organization as well as for the specific equipment.
- Make sure that all personnel are consistently trained, evaluated, free of alcohol and medications that may impair judgment and reflexes, and are tested for banned substances according to jurisdictional authorities.

Limitations of Use

Read this document and all information regarding the equipment before handling the equipment. The intended use of the equipment is stated in Section 1 of this manual.

Do not use this equipment for anything other than its intended use. Do not modify, change, or alter the equipment in any way. If you are unsure of the intended use and the limitations of use for the equipment, contact your Valco Melton Representative before handling the equipment.

Installation/ Startup/Use Safety Information

Valco Melton hot melt units, cold glue units, controllers, inspection systems and all related accessories have the following universal safety precautions (this is not intended to be an exhaustive list; follow all instructions and safety precautions for the specific type of equipment involved):

Warning!

Only qualified personnel should install the equipment. Valco Melton strongly recommends that a Valco Melton Technician install all equipment. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

Warning!

The equipment should be installed so that it can be turned off at a location **away** from the equipment in case of injury, electrical problems, or malfunction. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Properly route all electrical wires. Never tamper with equipment. Only use approved and correct voltage, type of current, fuses, and other power supplies. Replace worn cords, hoses, etc. immediately. FAILURE TO OBSERVE WARNING MAY RESULT IN DEATH, PERSONAL INJURY, AND/OR EQUIPMENT DAMAGE.

Warning!

Poor ventilation, smoking, and open flames can cause overheated hot melt to ignite. Adequate ventilation must be provided. Smoking should be prohibited in the immediate vicinity of the molten adhesive. Open flames must be kept away from the area around molten adhesive. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

Warning!

Never use any Valco Melton equipment in an explosive environment. Explosive environments include, but are not limited to, solvent-based cleaners or adhesives, explosive materials, radioactive materials, etc. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Equipment will start automatically when remotely controlled by triggering devices. Be sure to disable all triggering devices, carefully release hydraulic pressure, and disconnect air pressure before servicing or working near guns, valves, and other triggered devices. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Shut Down Safety Information

Valco Melton hot melt units, cold glue units, controllers, inspection systems and all related accessories have the following universal safety precautions (this is not intended to be an exhaustive list; follow all instructions and safety precautions for the specific type of equipment involved):

Warning!

Purge the fluid pressure and the air pressure from the system before disconnecting/disabling any part of the system. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Disconnect and lock out all power before maintenance or other need to open the equipment. Only qualified personnel should open and service the control. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Equipment may still be energized even if unplugged! When making adjustments or performing checkout procedures, stay clear of any moving mechanical parts and do not touch exposed electrical equipment or electrical connectors. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Disconnect/disable all mechanical and/or electrical devices that send activation signals to the gun(s), valve(s), melter pump(s), etc. This includes pattern controls, timers, input/output signals, etc. Only qualified personnel should open and service the control. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Disable all triggering devices, relieve all residual pressure (hydraulic and air) and allow adhesive to cool before attempting to disconnect guns, hoses, valves, etc. Only qualified personnel should open and service the control. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Never point an adhesive dispensing gun, valve, hose, air hose, or anything else at yourself or another person. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Hot Melt Specific General Safety Information

Valco Melton hot melt units have the following universal safety precautions **in addition to all other universal precautions previously mentioned** (this is not intended to be an exhaustive list; follow all instructions and safety precautions for the specific type of equipment involved):

Warning!

Never process any polyurethane reactive (PUR) hot melt or solvent-based material in a Valco Melton unit unless you are certain that the unit is compatible and is marked “PUR”! Read all instructions and MSDS sheets carefully, following manufacturer’s instructions, especially regarding heat levels. If you have any question as to the compatibility of a Valco Melton unit for PUR hot melt, call your Valco Melton Representative before attempting to use the unit for PUR or solvent-based materials. OTHERWISE, HAZARDOUS FUMES, EXPLOSION, DEATH, OR PERSONAL INJURY COULD OCCUR.

Warning!

Keep pump cover and electrical enclosures closed except during setup, service, and checkout procedures. OTHERWISE, DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

People with respiratory problems (e.g., asthma, bronchitis, etc.) should not work in the vicinity of molten adhesive. RESPIRATORY PROBLEMS MAY BE AGGRAVATED BY THE FUMES. Do not wear a face mask when working around molten adhesive. THE MASK MAY TRAP THE FUMES AND DEATH OR PERSONAL INJURY COULD OCCUR.

Warning!

Keep hot melt hoses away from walkways and the moving parts of hot melt systems. OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

Warning!

Hot surfaces! Do not touch! Use extreme caution when refilling the unit by hand. OTHERWISE, PERSONAL INJURY COULD OCCUR.

Warning!

Wear protective gloves and goggles at all times around all machinery, especially hot melt. OTHERWISE, SERIOUS PERSONAL INJURY COULD OCCUR.

Warning!

Never use an open flame to heat hot melt components or adhesive. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

What to Do if Contact with Hot Adhesive Occurs

If hot adhesive comes in contact with the skin**,** do the following:

Warning!

Do not attempt to remove heated hot melt adhesive from the skin. OTHERWISE, SEVERE PERSONAL INJURY AND DEATH COULD OCCUR.

1. Immediately immerse the contacted area in clean, cold water.

It is strongly recommended that a source of clean, cold water be provided near the hot melt work area.

2. Cover the affected area with a clean, wet compress and call the emergency medical response system (such as 911) immediately.

3. Watch for and treat the subject for signs of shock while waiting for professional help to arrive.

What to Do if Inhalation of Adhesive Fumes Occurs

If adhesive fumes are inhaled, immediately follow these steps:

1. Take the victim away from the immediate work area.

2. Provide victim with fresh air.

3. Call the emergency medical response system (such as 911) immediately.

What to Do if Adhesive-Related Fire or Explosion Occurs

During the heating and melting process, the surface of the adhesive will be exposed to air. The mixture of polymer fumes and air can catch fire if the hot melt is overheated.

Warning!

Poor ventilation, smoking, and open flames can cause overheated hot melt to ignite. Adequate ventilation must be provided. Smoking should be prohibited in the immediate vicinity of the molten adhesive. Open flames must be kept away from the area around molten adhesive. OTHERWISE, DEATH, PERSONAL INJURY, OR DAMAGE TO EQUIPMENT COULD OCCUR.

Warning!

Exposed arcing may ignite the fume/air mixture. Shield all electrical equipment from melt fumes to avoid exposed arcing. OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

Warning!

Do not use a water extinguisher to extinguish the fire! OTHERWISE, PERSONAL INJURY OR EQUIPMENT DAMAGE COULD OCCUR.

If the hot melt adhesive ignites, promptly perform the following steps:

1. Sound a fire alarm.
2. Evacuate the immediate area.
3. Turn off all local electrical equipment at the source.
4. Leave the area immediately if conditions are unsafe.

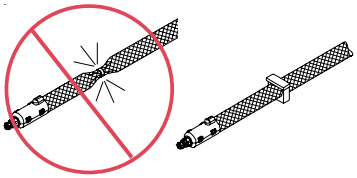
   If you feel you can fight the fire **safely**, do ***one*** of the following:

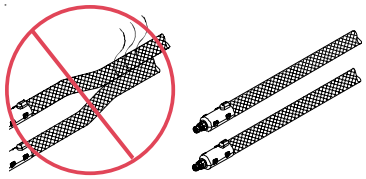
   - Smother the fire with a fire blanket.
   - Aim a CO_2 fire extinguisher at the base of the flames.
   - Aim a dry-powder fire extinguisher at the base of the flames.

Hose Safety Information

Do not use bindings, wire ties, or unapproved fasteners around the hoses.

Do use approved wrapping (P/N KAP0434), making sure the wrapping is slightly snug but not tight.



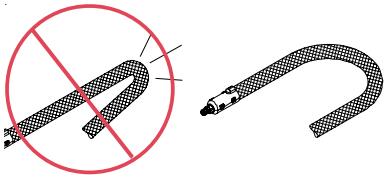


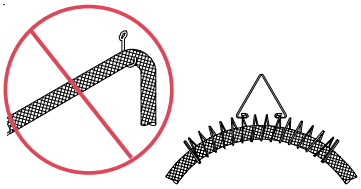
Do not place hoses close together.

Do allow at least 2 inches (5.1 cm) between hoses for proper ventilation.

Do not bend hoses sharply. **Do not** allow kinks or indentations in the hoses.

Do use a minimum bend radius of 10 inches for a 20-inch diameter coil hose.



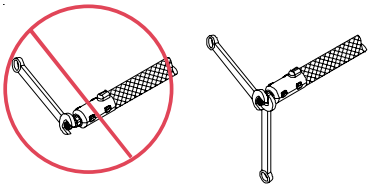


Do not use unapproved hooks to hang hoses. **Do not** wrap hoses over or around objects.

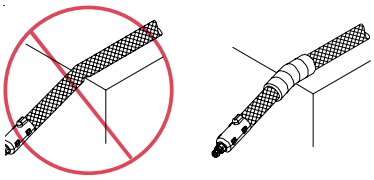
Do use a hose hanging kit (P/N 781xx827).

Do not use the “one handed/one wrench” technique to attach or remove hoses. **Do not** wrench on any surface other than the large hexagon swivel nuts.

Do use two hands and two wrenches to tighten or loosen connections on hoses. **Do** wrench only on large hexagon swivel nuts.



Hose Safety Information - Continued

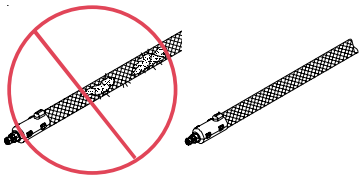


Do not allow hoses to rub against objects or to come into contact with sharp edges or points.

Do wrap the hoses in approved padding (P/N 795xx549) if the hoses must be installed where they will come into contact with objects.

Do not use worn, damaged, or bent hoses.

Do inspect all hoses regularly for damage and/or wear and replace damaged or worn hoses immediately.



SECTION 3 - BASIC FEATURES

VCX Control

The VCX Control for the 3-Valve Boardrunner gluing system consists of a Power Supply Module (148xx063) and PCM-4 Module w/EPC (074xx054) in a base assembly. Three slots are available in the base assembly for addidtional modules (Inspection Control Modules [ICM]).

Figure 3-1 illustrates the VCX Control base with the Power Supply Module and Pattern Control Module (PCM). Notice that the Power Supply Module is always on the left side of the control. Additional modules are added from left to right. Always place the Tracking Control Module(s), if used, in the slot(s) on the right.

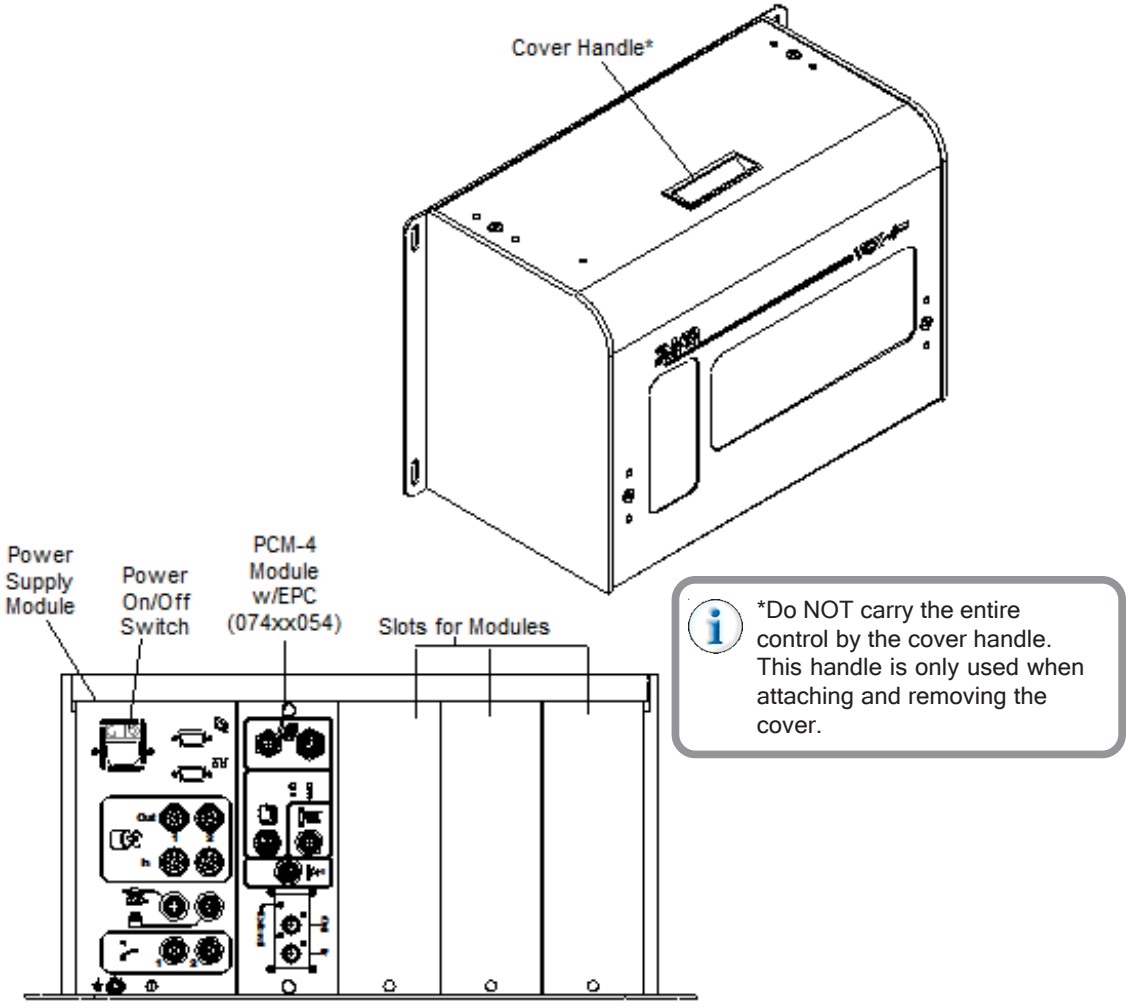
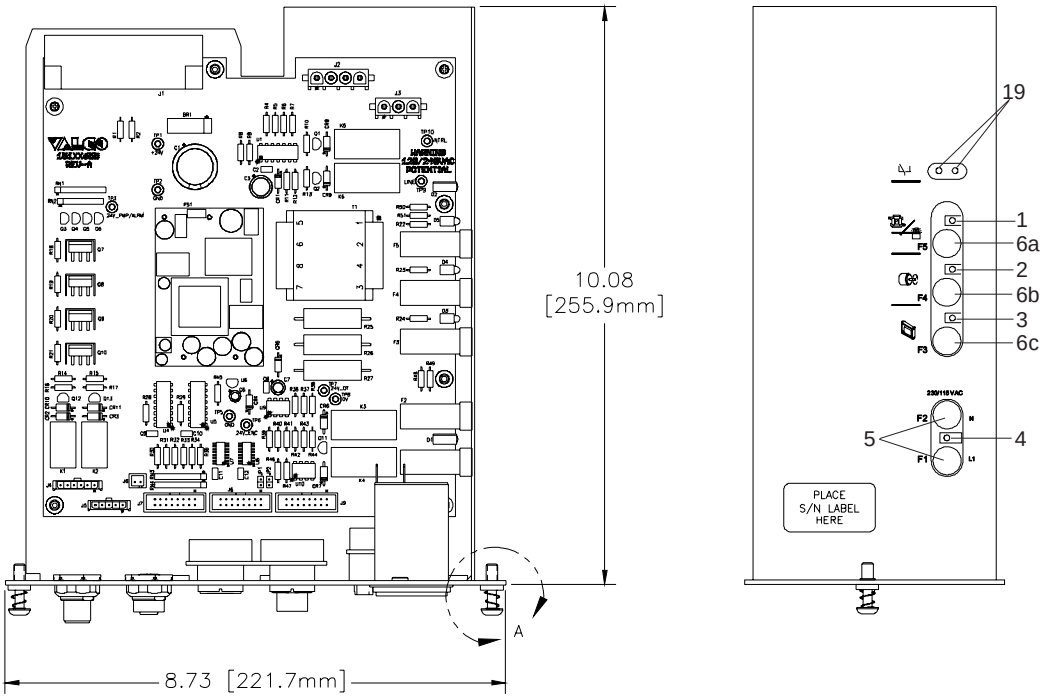
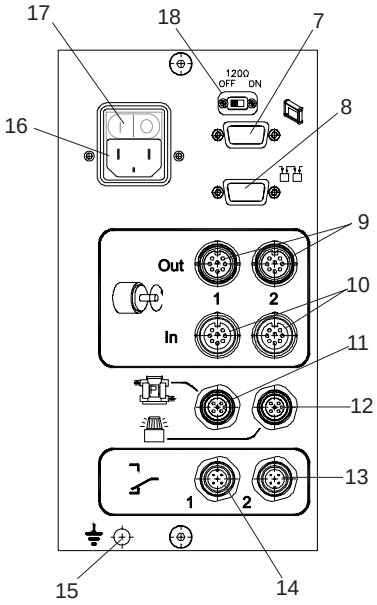


Figure 3-1. VCX Control

Power Supply Module





Power Supply Module - Continued

Power Supply Module Features
Status LEDs:

Number	Name
1	Power Supply Pump/Alarm
2	Power Supply Encoder
3	Power Supply Terminal
4	Line Voltage Selection 115/230
19	Relay

Power Supply Module Features
Connectors/Switches:

Number	Name
7	Terminal Port
8	Control Link Port
9	Encoder Out Connections (1 & 2)
10	Encoder In Connections (1 & 2)
11	Pump Connection
12	Beacon (Alarm) Connection
13	Relay Feed Stop Connection
14	Relay Machine Stop Connection
15	Grounding Stud
16	Power Cord Entry
17	Power On/Off Switch
18	CAN Switch

Power Supply Module Features
Fuses:

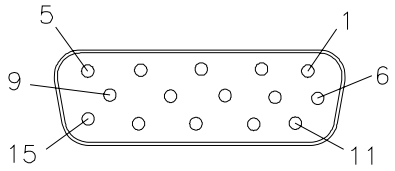
Number	Fuse	Type	Part No.
5	Main Fuse (F1&F2)	6.3A	085xx221
6a	Fuse Power Supply (F5); Pump/Alarm	2A	085xx220
6b	Fuse Power Supply (F4); Encoder	2A	085xx220
6c	Fuse Power Supply (F3); Terminal	2A	085xx220

Power Supply Module Connector Pinouts

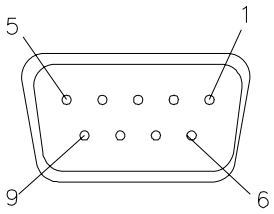
Terminal Port

Connector 7	Terminal Port
Pin #	**Description**
1	CAN - Low
2	CAN - High
3	P Button +
4	P Button -
5	Remote Out +
6	24V
7	24V
8	24V
9	OV
10	OV
11	OV
12	OV
13	OV
14	N/C
15	N/C

Pinout Drawing for Connector 7



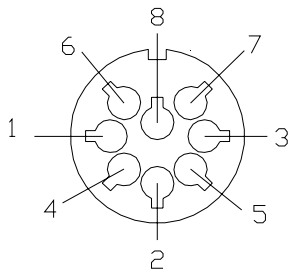
Control Link Port

Connector 8	Control Link Port
Pin #	**Description**
1	N/C
2	CAN - Low
3	CAN - Ground
4	OV
5	N/C
6	N/C
7	CAN - High
8	Remote - Out +
9	CAN +5V
Pinout Drawing for Connector 8	
	

Encoder Connections - Male/Output

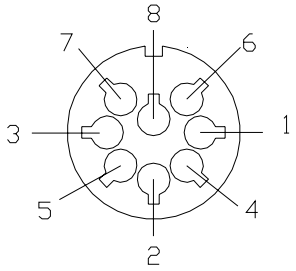
Connector 9	Encoder Connections	
Pin #	**Description**	**Color**
1	Ground	Black
2	A Signal	Orange
3	+24V/+12V	Red
4	B Signal	Yellow
5	Z Signal	Brown
6	/Z Signal	Violet
7	/B Signal	Blue
8	/A Signal	Green

Pinout Drawing for Connector 9



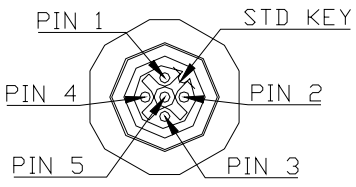
Encoder Connections - Female/Input

Connector 10	Encoder Connections	
Pin #	**Description**	**Color**
1	Ground	Black
2	A Signal	Orange
3	+24V/+12V	Red
4	B Signal	Yellow
5	Z Signal	Brown
6	/Z Signal	Violet
7	/B Signal	Blue
8	/A Signal	Green
Pinout Drawing for Connector 10		



Pump Connection

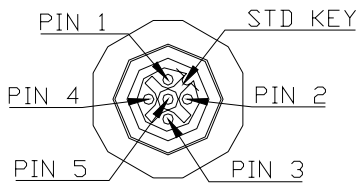
Connector 11	Pump Connection	
Pin #	**Description**	**Color**
1	24VDC	Brown
2	N.C.	White
3	24VDC	Blue
4	N.C.	Black
5	PE	Shield/Gray
Pinout Drawing for Connector 11		



Beacon (Alarm) Connection

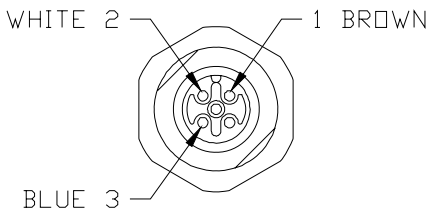
Connector 12	Beacon/Alarm Connection	
Pin #	**Description**	**Color**
1	Ground	Brown
2	Light (Glue)	White
3	Light (Jam)	Blue
4	Buzzer	Black
5	Light (LLD)	Shield/Gray

Pinout Drawing for Connector 12



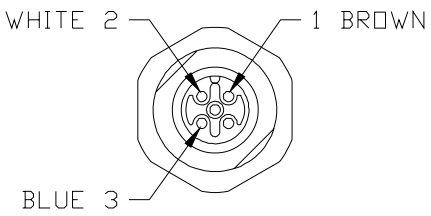
Relay Feed Stop Connection

Connector 13	Relay Feed Stop Connection	
Pin #	**Description**	**Color**
1	COM	Brown
2	N.C.	White
3	N.O.	Blue
Pinout Drawing for Connector 13		

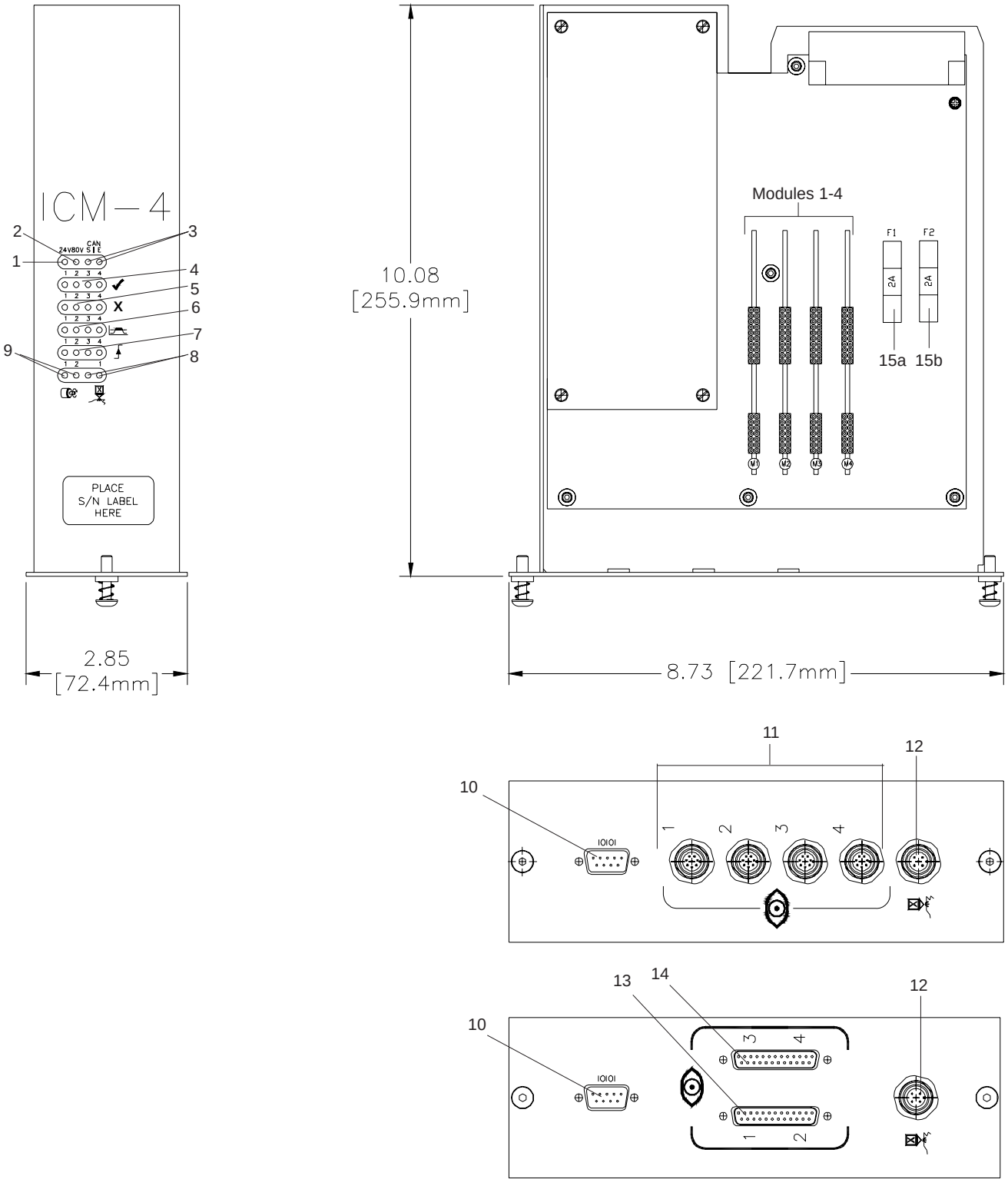


Relay Machine Stop Connection

Connector 14	Relay Machine Stop Connection	
Pin #	**Description**	**Color**
1	COM	Brown
2	N.C.	White
3	N.O.	Blue
Pinout Drawing for Connector 14		



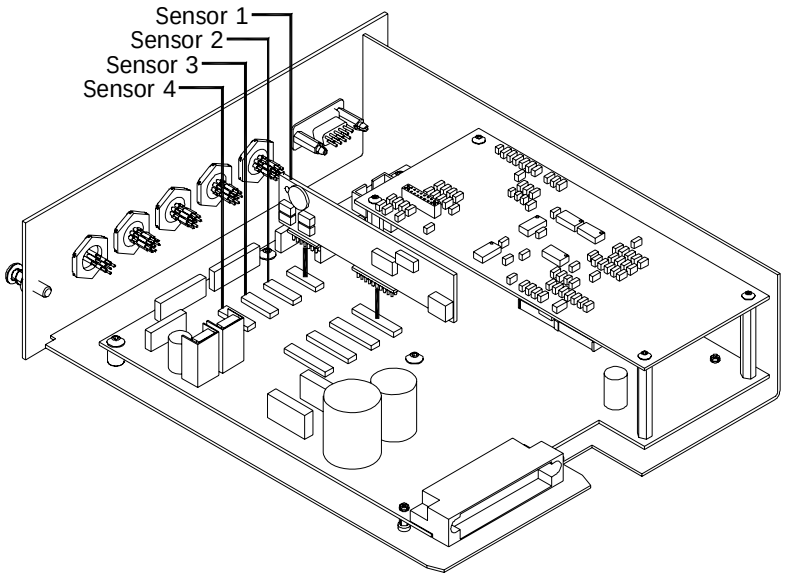
Inspection Control Module (ICM)



Inspection Control Module (ICM) - Continued

Sensor Adapter Modules

Different sensor adapter modules are available for use in the Inspection Control Module. These modules slide in as shown below:



The modules available are:

AS 601	151xx501
AS 301	151xx512
AS CGS	151xx460
Digital	151xx539
Microwave	151xx507

Inspection Control Module (ICM) - Continued

Inspection Control Module Features

Status LEDs:

Number	Name/Description
1	Sensor Power Supply LED
2	Marking Valve Power Supply LED
3	**CAN -S** - Illuminates steady green when two-way communication is occurring. Flashes green when the communication channel is open but a signal is not being received at the present time.
	CAN -E - Illuminates green when there is an error with communication.
4	Good Product Detected (1-4)
5	Bad Product Detected (1-4)
6	Glue Level Sensor (1-4)
7	Trigger (1-4)
8	Marking Valve (1-2)
9	Encoder (1-2)

Inspection Control Module Features

Connectors:

Number	Name
10	RS-232 Port
11	Sensor Connection (1-4)
12	Marking Valve Connection
13	Sensor Connection (1-2)
14	Sensor Connection (3-4)

Inspection Control Module Features

Fuses:

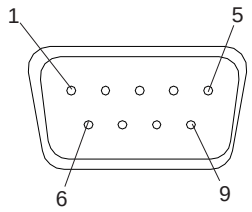
Number	Fuse	Type	Part No.
15a	Fuse Power Supply - Sensors (F1)	3.15A	085xx208
15b	Fuse Power Supply - Marking Valve (F2)	3.15A	085xx208

Inspection Control Module Connector Pinouts

RS-232 Port

Connector 10	RS-232 Port
Pin #	**Description**
1	N/C
2	RXD
3	TXD
4	N/C
5	GND
6	N/C
7	N/C
8	N/C
9	N/C

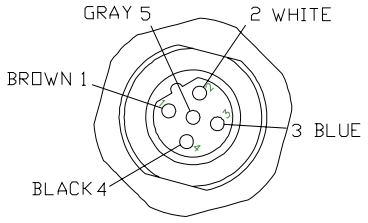
Pinout Drawing for Connector 10



Marking Valve Connection

Connector 12	Marking Valve Connection	
Pin #	**Description**	**Color**
1	Coil	Brown
2	Coil	White
3	Purge	Blue
4	Purge	Black
5	PE (Shield)	Grey

Pinout Drawing for Connector 12

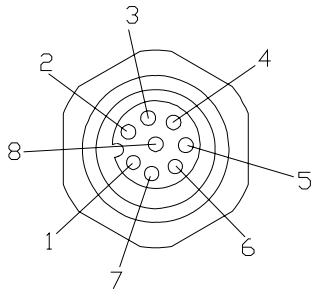


Scanner Connection

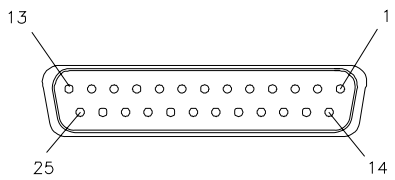
Type	Sensor Adapter Module
AS 601	151xx501
AS 301	151xx512
AS CGS	151xx460
Digital	151xx539
Microwave	151xx507

Connector 11	Sensor Connection					
Pin #	**AS 601**	**AS 301**	**CGS**	**Digital**	**Description**	**Color**
1	± 10V AN Signal	± 10V AN Signal	(0-20mA) AN Signal	IN 1 (NPN/PNP)	± 10V AN Signal	White
2	Int. Scanner/NPN	Int. Scanner/NPN	Int. Scanner/PNP	IN 3 (NPN/PNP)	N/C	Brown
3	+12V	+12V	ST. LED	OUT 1 (NPN/PNP)	+12V	Green
4	N/C	AN. GND	AN. GND	IN 2 (NPN/PNP)	N/C	Yellow
5	+12V	+24V	+24V	24V	+12V	Grey
6	-12V	-12V	N/C	OUT 2 (NPN/PNP)	-12V	Pink
7	ERR	ERR	ERR	IN 4 (NPN/PNP)	ERR	Blue
8	GND	GND	GND	GND	GND	Red

Pinout Drawing for Connector 11



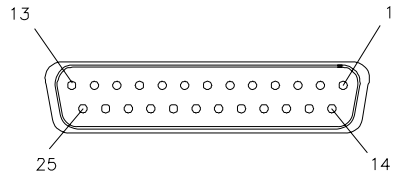
Sensors 1-2 (J-Box) Connections

Connector 13	Sensor Connections 1 & 2
Pin #	**Description**
1	Sensor 1 - 1
2	Sensor 1 - 2
3	Sensor 1 - 3
4	Sensor 1 - 4
5	Sensor 1 - 5
6	Sensor 1 - 8
7	N/C
8	Sensor 2 - 1
9	Sensor 2 - 2
10	Sensor 2 - 3
11	Sensor 2 - 4
12	Sensor 2 - 5
13	Sensor 2 - 8
14	Sensor 1 - 1
15	Sensor 1 - 3
16	Sensor 1 - 6
17	Sensor 1 - 7
18	Sensor 1 - 8
19	N/C
20	N/C
21	Sensor 2 - 1
22	Sensor 2 - 3
23	Sensor 2 - 6
24	Sensor 2 - 7
25	Sensor 2 - 8
Pinout Drawing for Connector 13	
	

For signal description reference table “Connector 11”

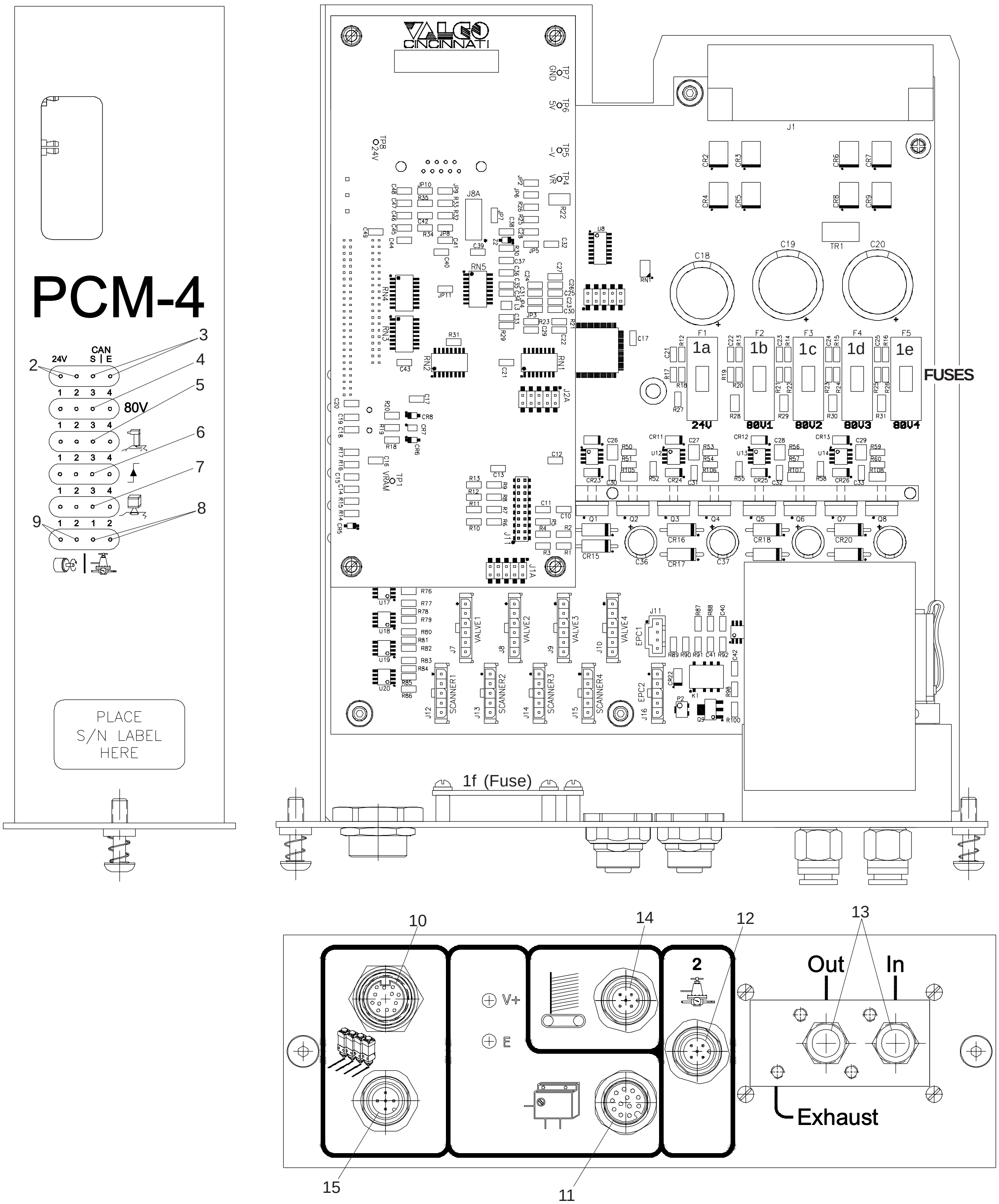
Sensors 3-4 (J-Box) Connections

Connector 14	Sensor Connections 3 & 4
Pin #	**Description**
1	Sensor 3 - 1
2	Sensor 3 - 2
3	Sensor 3 - 3
4	Sensor 3 - 4
5	Sensor 3 - 5
6	Sensor 3 - 8
7	N/C
8	Sensor 4 - 1
9	Sensor 4 - 2
10	Sensor 4 - 3
11	Sensor 4 - 4
12	Sensor 4 - 5
13	Sensor 4 - 8
14	Sensor 3 - 1
15	Sensor 3 - 3
16	Sensor 3 - 6
17	Sensor 3 - 7
18	Sensor 3 - 8
19	N/C
20	N/C
21	Sensor 4 - 1
22	Sensor 4 - 3
23	Sensor 4 - 6
24	Sensor 4 - 7
25	Sensor 4 - 8
Pinout Drawing for Connector 14	



For signal description reference table “Connector 11”

Pattern Control Module (PCM; Tri-Valve Version) (074xx054)



Pattern Control Module (PCM; Tri-Valve Version) (074xx054) - Continued

Pattern Control Module Features

Status LEDs:

Number	Name/Description
2	Supply Scanner/Logic (1 and 2)
3	**CAN -S** - Illuminates steady green when two-way communication is occurring. Flashes green when the communication channel is open but a signal is not being received at the present time.
	CAN -E - Illuminates green when there is an error with communication.
4	Valve Power Supply LEDs (1-4)
5	Valve Activation LEDs (1-4)
6	Trigger Status LEDs (1-4)
7	Input Status LEDs (1-4):
	1 - Scanner
	2 - Ext Purge
	3 - Auto/Manual
	4 - Feed Enable
8	EPC Status LEDs (1-2)
9	Encoder Status LEDs (1-2)

Connectors:

Number	Name
10	Valve Connections (1-4)
11	Manifold Connections
12	EPC 2 Connection
13	EPC 1 In/Out Connections
14	Feed Enable Connection
15	Valve Connection

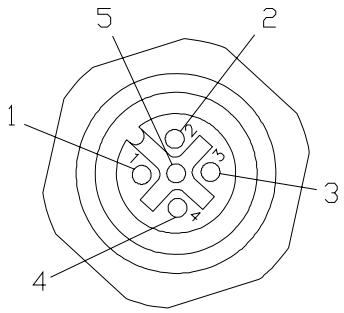
Fuses:

Number	Fuse	Type	Part No.
1a	Fuse Power Supply - Scanner, EPC, Purge (F1)	3.15A	085xx208
1b	Fuse Power Supply - Valve 1 (F2)	3.15A	085xx208
1c	Fuse Power Supply - Valve 2 (F3)	3.15A	085xx208
1d	Fuse Power Supply - Valve 3 (F4)	3.15A	085xx208
1e	Fuse Power Supply - Valve 4 (F5)	3.15A	085xx208
1f	Fuse Power Supply - Manifold	2A	085xx220

EPC2 Connection

Connector 12	EPC Connection	
Pin #	**Description**	**Color**
1	+24V	Brown
2	OV (Signal)	White
3	Ground	Blue
4	0-20 mA*	Black
5	Shield	Shield/Gray

Pinout Drawing for Connector 12

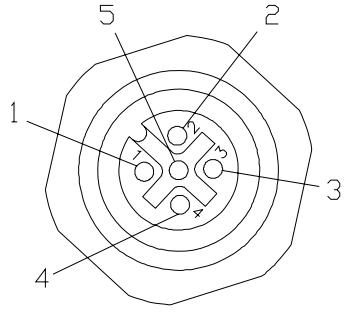


***Can be switched to 0-10V via software**

Feed Enable Connection

Connector 14	Feed Enable Connection	
Pin #	**Description**	**Color**
1	+24V	Brown
2	PNP	White
3	Ground	Blue
4	NPN	Black
5	Shield	Shield/Gray

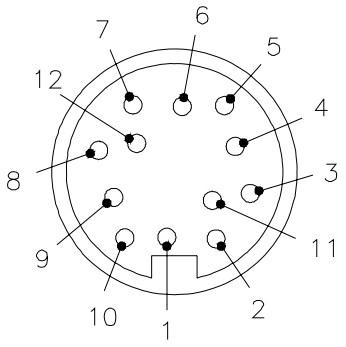
Pinout Drawing for Connector 14



Valve Connections (1-4)

Connector 10	Relay Machine Stop Connection	
Pin #	**Description**	**Color**
1	Valve 1-1	Brown
2	Valve 1-2	Blue
3	Valve 2-1	White
4	PE	Green
5	Valve 3-1	Yellow
6	Valve 3-2	Gray
7	Valve 4-1	Pink
8	Valve 4-2	Red
9	Purge-1	Black
10	Purge-2	Orange
11	PE	Tan
12	Valve 2-2	Violet

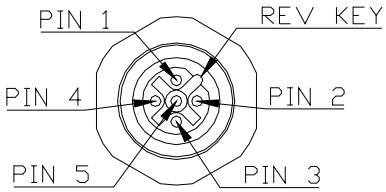
Pinout Drawing for Connector 10



Valve Connection

Connector 15	Valve Connections	
Pin #	**Description**	**Color**
1	Coil	Brown
2	Coil	White
3	Purge	Blue
4	Purge	Black
5	PE (Shield)	Green/Yellow

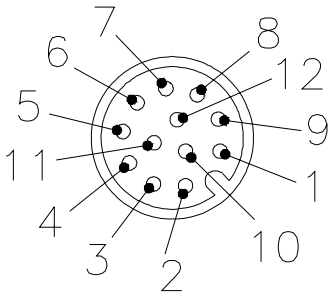
Pinout Drawing for Connector 10



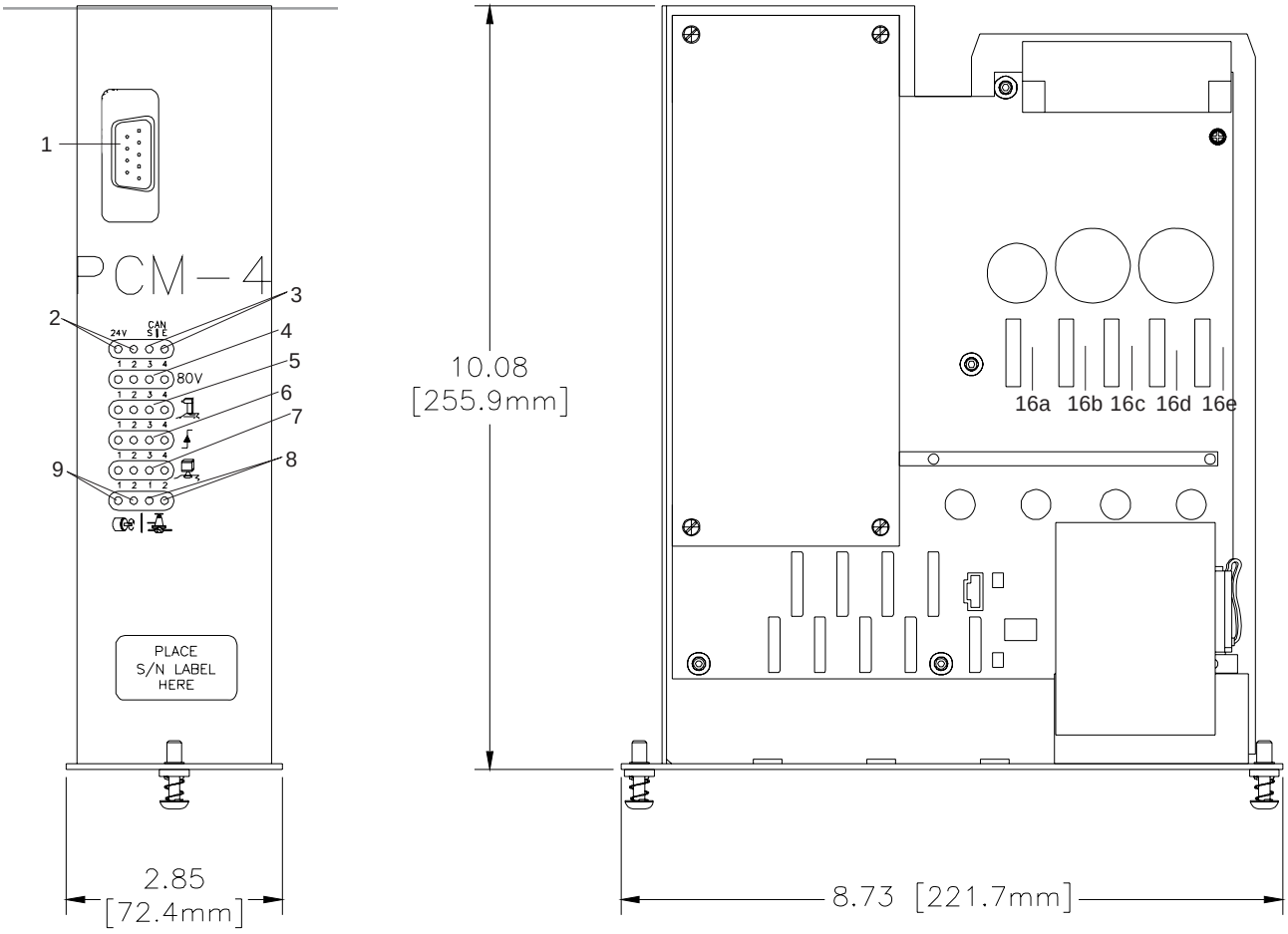
Manifold Connections

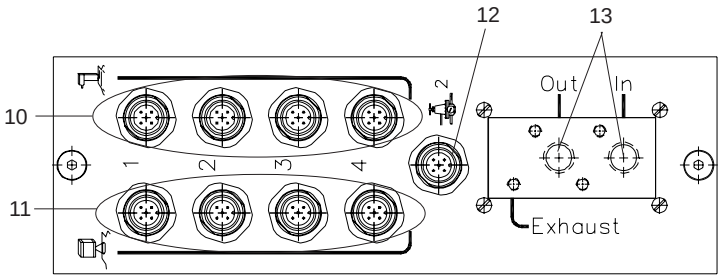
Connector 11	Relay Machine Stop Connection	
Pin #	**Description**	**Color**
1	24V	White
2	Scanner1 - PNP	Brown
3	Ground	Green
4	Scanner1 - NPN	Yellow
5	Ext Purge	Gray
6	Auto/Man	Pink
7	Valve - 1	Blue
8	Valve - Ground	Red
9	Valve - 2	Orange
10	Valve - Ground	Tan
11	Valve - 3 & 4	Black
12	Valve - Ground	Violet

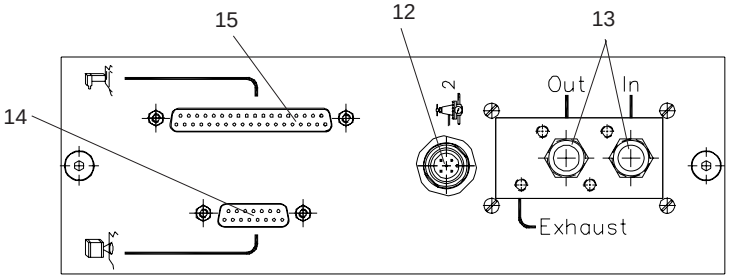
Pinout Drawing for Connector 11



Pattern Control Module (PCM), Standard (074xx043)







The bottom of the module may vary depending on the options and the style of the module. Two examples are illustrated at right.

Pattern Control Module (PCM), Standard (074xx043) - Continued

Pattern Control Module Features

Status LEDs:

Number	Name/Description
2	Supply Scanner/Logic (1 and 2)
3	**CAN -S** - Illuminates steady green when two-way communication is occurring. Flashes green when the communication channel is open but a signal is not being received at the present time.
	CAN -E - Illuminates green when there is an error with communication.
4	Valve Power Supply LEDs (1-4)
5	Valve Activation LEDs (1-4)
6	Trigger Status LEDs (1-4)
7	Scanner Status LEDs (1-4)
8	EPC Status LEDs (1-2)
9	Encoder Status LEDs (1-2)

Pattern Control Module Features

Connectors:

Number	Name
1	Diagnostic Port
10	Valve Connections (1-4)
11	Scanner Connections (1-4)
12	EPC 2 Connection
13	EPC 1 In/Out Connections
14	Scanner Junction Box (E-Box) Port
15	Valve Junction Box (E-Box) Port

Pattern Control Module Features

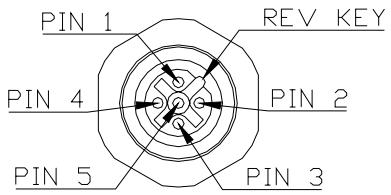
Fuses:

Number	Fuse	Type	Part No.
16a	Fuse Power Supply - Scanner, EPC, Purge (F1)	2A	085xx220
16b	Fuse Power Supply - Valve 1 (F2)	2A	085xx220
16c	Fuse Power Supply - Valve 2 (F3)	2A	085xx220
16d	Fuse Power Supply - Valve 3 (F4)	2A	085xx220
16e	Fuse Power Supply - Valve 4 (F5)	2A	085xx220

Pattern Control Module Connector Pinouts

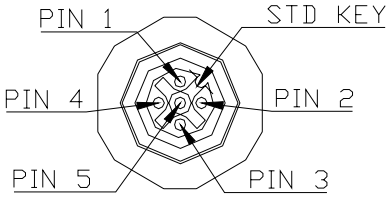
Valve Connections

Connector 10	Valve Connections	
Pin #	**Description**	**Color**
1	Coil	Brown
2	Coil	White
3	Purge	Blue
4	Purge	Black
5	PE (Shield)	Green/Yellow
Pinout Drawing for Connector 10		



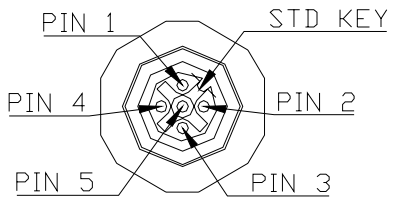
Scanner Connections

Connector 11	Trigger/Scanner Connections	
Pin #	**Description**	**Color**
1	+24V	Brown
2	PNP	White
3	Ground	Blue
4	NPN	Black
5	Shield	Shield/Grey
Pinout Drawing for Connector 11		

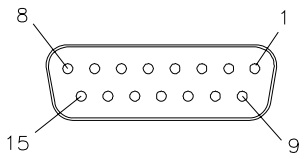


EPC 2 Connection

Connector 12	EPC 2 Connection	
Pin #	**Description**	**Color**
1	+24V	Brown
2	OV (Signal)	White
3	Ground	Blue
4	0-20 mA *	Black
5	Shield	Shield/Grey
Pinout Drawing for Connector 12		



Scanner Junction Box (E-Box) Port

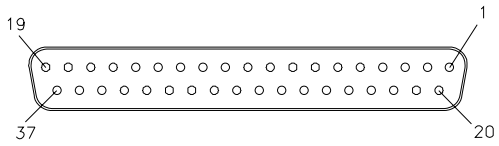
Connector 14	Scanner Junction Box Port
Pin #	**Description**
1	24V
2	Scanner 1 PNP
3	Scanner 1 NPN
4	Scanner 2 PNP
5	Scanner 2 NPN
6	Scanner 3 PNP
7	Scanner 3 NPN
8	Scanner 4 PNP
9	Scanner 4 NPN
10	N/C
11	N/C
12	N/C
13	N/C
14	N/C
15	Ground
Pinout Drawing for Connector 14	
	

ValveJunction Box (E-Box) Port

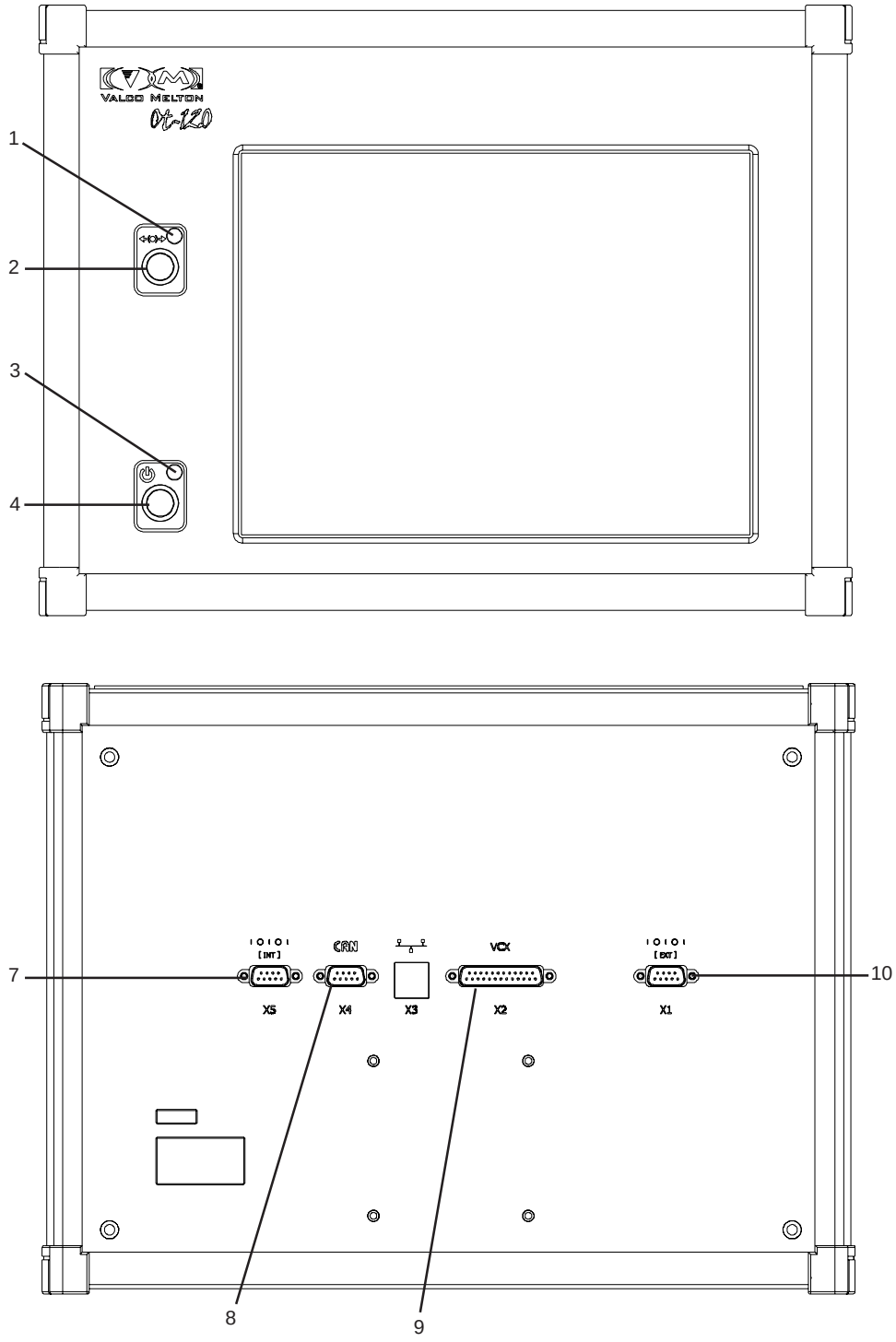
Connector 15	Valve Junction Box Port
Pin #	Description
1	Valve 1 - Coil +
2	N/C
3	N/C
4	Valve 1 - Coil -
5	Valve 2 - Coil +
6	Valve 2 - Purge +
7	Valve 2 - Purge -
8	Valve 2 - Coil -
9	Valve 4 - Coil +
10	N/C
11	N/C
12	Valve 4 - Coil -
13	Valve 3 - Coil +
14	Valve 3 - Purge +
15	Valve 3 - Purge -
16	Valve 3 - Coil -
17	N/C
18	N/C
19	N/C
20	Valve 1 - Coil +
21	Valve 1 - Purge +
22	Valve 1 - Purge -
23	Valve 1 - Coil -
24	Valve 2 - Coil +
25	Valve 2 - Coil -
26	N/C
27	N/C
28	Valve 4 - Coil +
29	Valve 4 - Purge +
30	Valve 4 - Purge -
31	Valve 4 - Coil -
32	Valve 3 - Coil +
33	N/C
34	N/C
35	Valve 3 - Coil -
36	N/C
37	N/C

ValveJunction Box (E-Box) Port - Continued

Pinout Drawing for Connector 15



OT-120 Touchscreen



OT-120 Touchscreen - Continued

OT-120 Features

LEDs:

Number	Name
1	Consecutive Faults LED (Illuminates when the (programmed) maximum number of consecutive faults is reached.)
3	Power On LED

Buttons:

Number	Name
2	Clear Faults Button*
4	Power On/Off Button

*Clear Faults Button is available in MCU Mode.

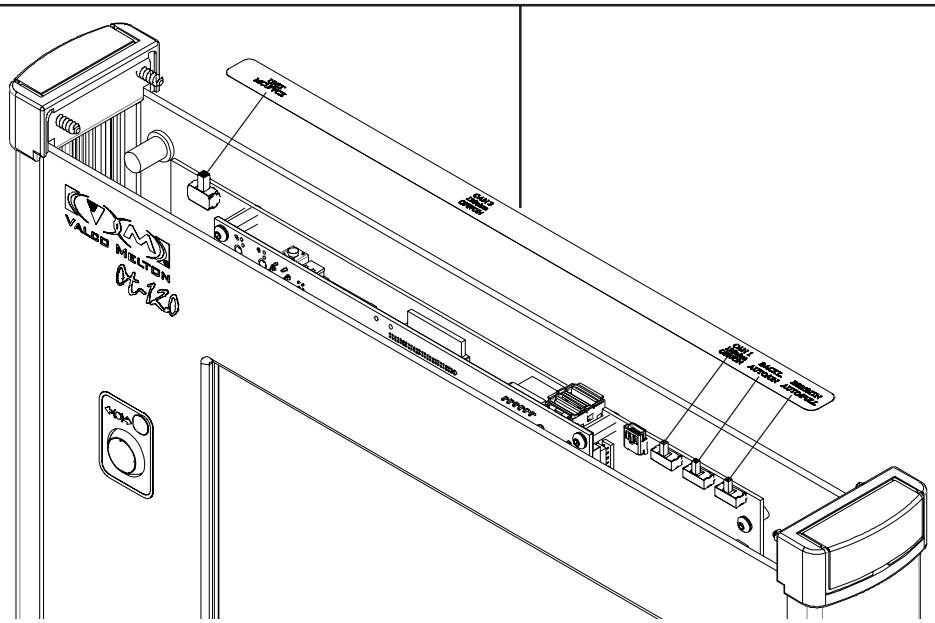
Connectors:

Number	Name
7	COM Port
8	CAN Port
9	Power/Control Port
10	Machine Communication

OT-120 Touchscreen - Continued

Top Switch Function Label

UNIT MCU/VCX	CAN 2 120 OHM OFF/ON	CAN 1 120 OHM OFF/ON	BACKL. AUTO/ON	BRIGHTN AUTO/FULL

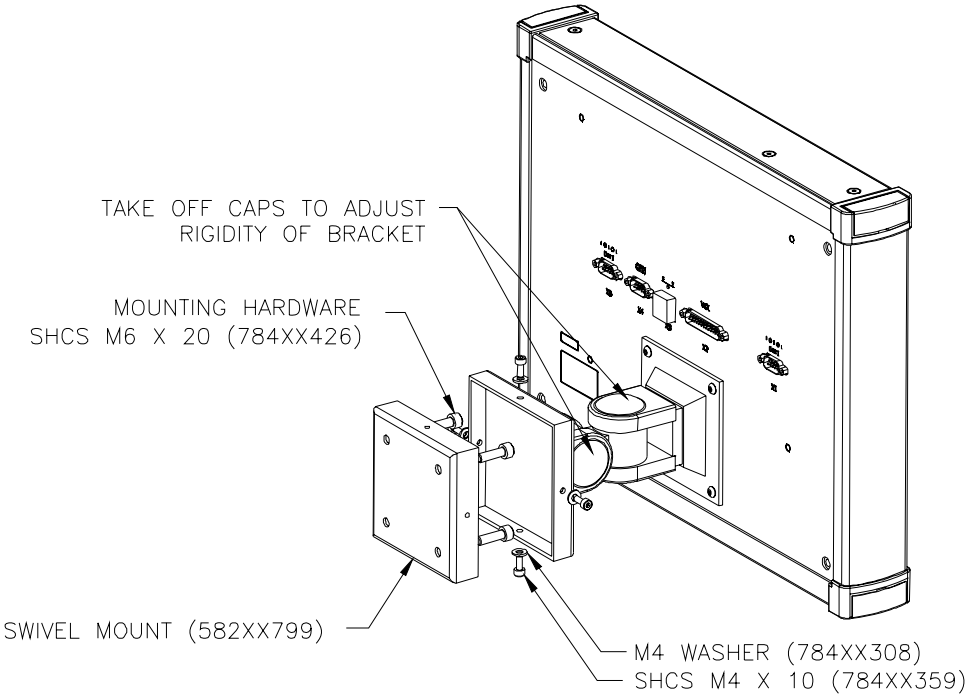


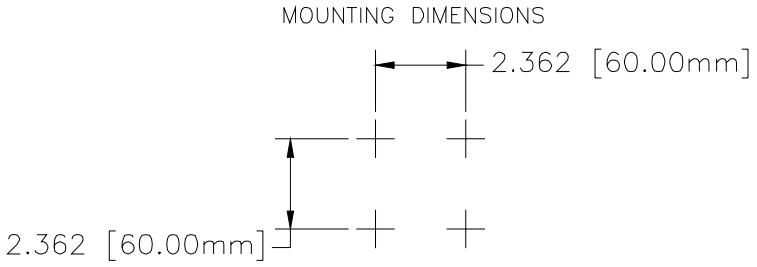
OT Cable

OT Cable, 2m: 029xx331

Mounting Bracket for OT-120 Control

The mounting bracket for the OT-120 allows the operator to swivel the control for best viewing.





Adding Modules

Removing the Cover of the VCX Control

The Power Supply Module is always on the left side of the VCX Control. Additional modules are added from left to right. Always place the Tracking Control Module(s) in the slot(s) on the right.

Module choices include Pattern Control Modules (PCM), Inspection Control Modules (ICM), Tracking Control Modules with Ejector (TCM-E), and Color Code Reader (CDS).

Warning!

Turn off all power and disconnect the power cord to the VCX Control before adding or removing modules. FAILURE TO OBSERVE WARNING MAY RESULT IN DEATH, PERSONAL INJURY, AND/OR EQUIPMENT DAMAGE.

To remove the cover of the VCX Control, use a hex wrench to turn the hex latches 1/2 turn to unhook the 4 latches that lock the cover onto the base (see Figure 4-1). Carefully remove the cover by grasping the cover “cup” handle and lifting the cover off of the unit. Reverse this procedure to replace the cover.

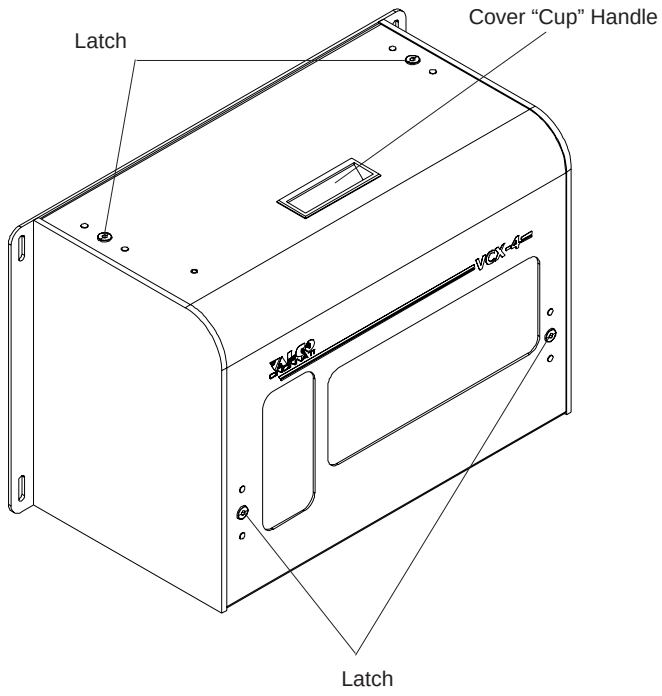


Figure 4-1. Remove the VCX Control Cover

Add Modules

To add a module, do the following:

1. Turn off all power to the unit and disconnect the power cord from the power source.

2. Remove the cover from the VCX Control as described in this section.

Caution!

Do not apply excessive force and do not use tools to seat the module! Damage to the equipment may result.

3. Slide the module into the VCX Control base as shown in Figure 4-2.

Make sure the module slides in easily. Pay attention to the connector and make sure the locator pin matches up with the mating connector.

4. Secure the module to the base rails with the screws located on both sides of the module (see Figure 4-2).

5. Connect the appropriate cables/plugs on the back of the module.

6. Reconnect the power cord and follow the powering up sequence.

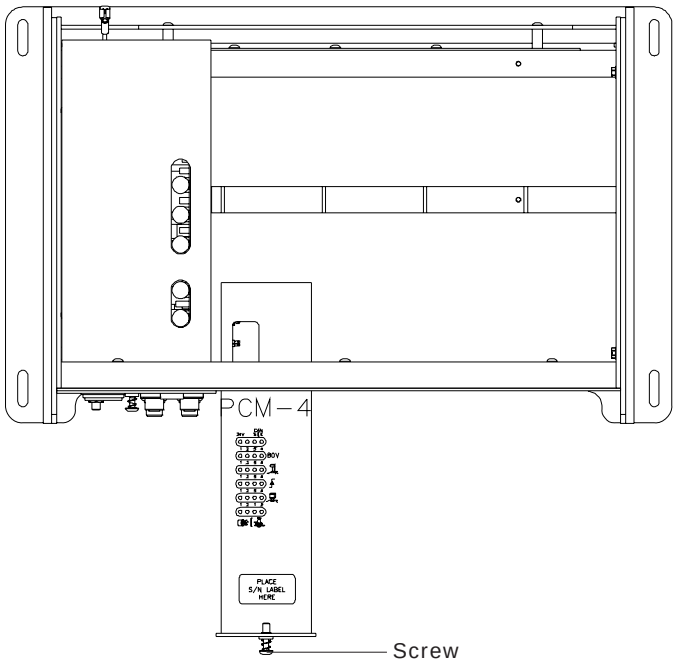


Figure 4-2. Adding/Removing a Module

Remove Modules

To remove a module, do the following:

Warning!

Turn off all power and disconnect the power cord to the VCX Control before adding or removing modules. FAILURE TO OBSERVE WARNING MAY RESULT IN DEATH, PERSONAL INJURY, AND/OR EQUIPMENT DAMAGE.

1. Turn off all power to the unit and disconnect the power cord from the power source.
2. Disconnect all cables/plugs from the back of the module.
3. Loosen the screws that secure the module to the base rails of the VCX Control base (see Figure 4-2).
4. Slide the module out of the VCX Control base (see Figure 4-2).
5. Replace the cover on the VCX Control as described in this section.
6. Reconnect the power cord and follow the powering up sequence.

VCX Specifications

DIMENSIONS AND WEIGHT	
SIZE	
Width	19" [482.6mm]
Height	12"[304.8mm]
Depth	9.5"[241.3mm]
WEIGHT	Overall weight is dependent on the configuration.
Base unit weight	33lb (15kg),
Module weight @	4.5lb (2kg)
APPLICABLE INPUT VOLTAGES AND POWER CONSUMPTION	
VOLTAGE RANGE	100-125VAC and 200-245VAC (Automatic Selection)
POWER CONSUMPTION	800W max.
INPUTS AND OUTPUTS	I/O is dependent on the configuration.

System Layout: 3-Valve, Non-Contact Boardrunner, w/VCX

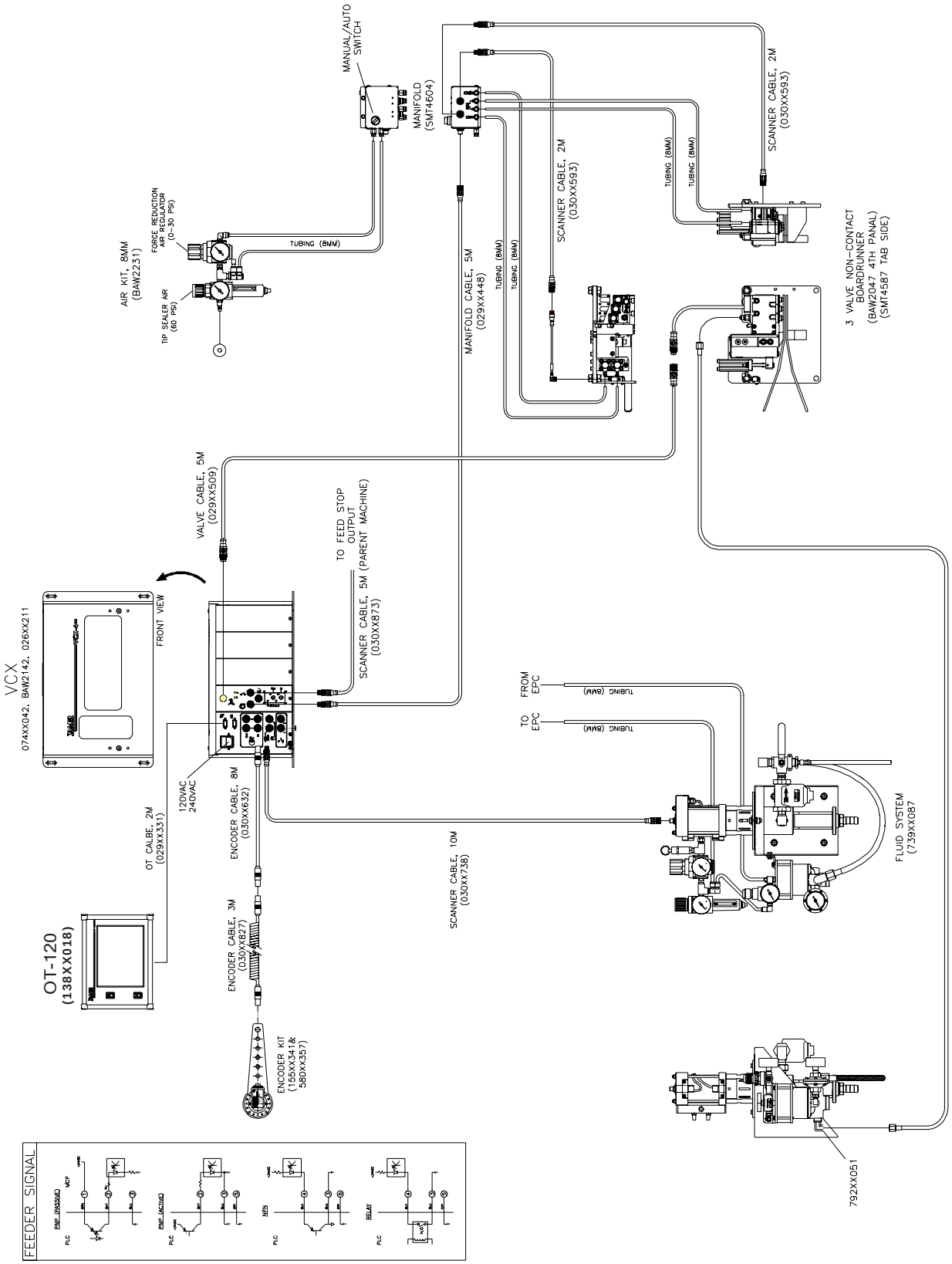


Figure 4-3a. System Layout

System Layout: 3-Valve, Contact Boardrunner, w/VCX

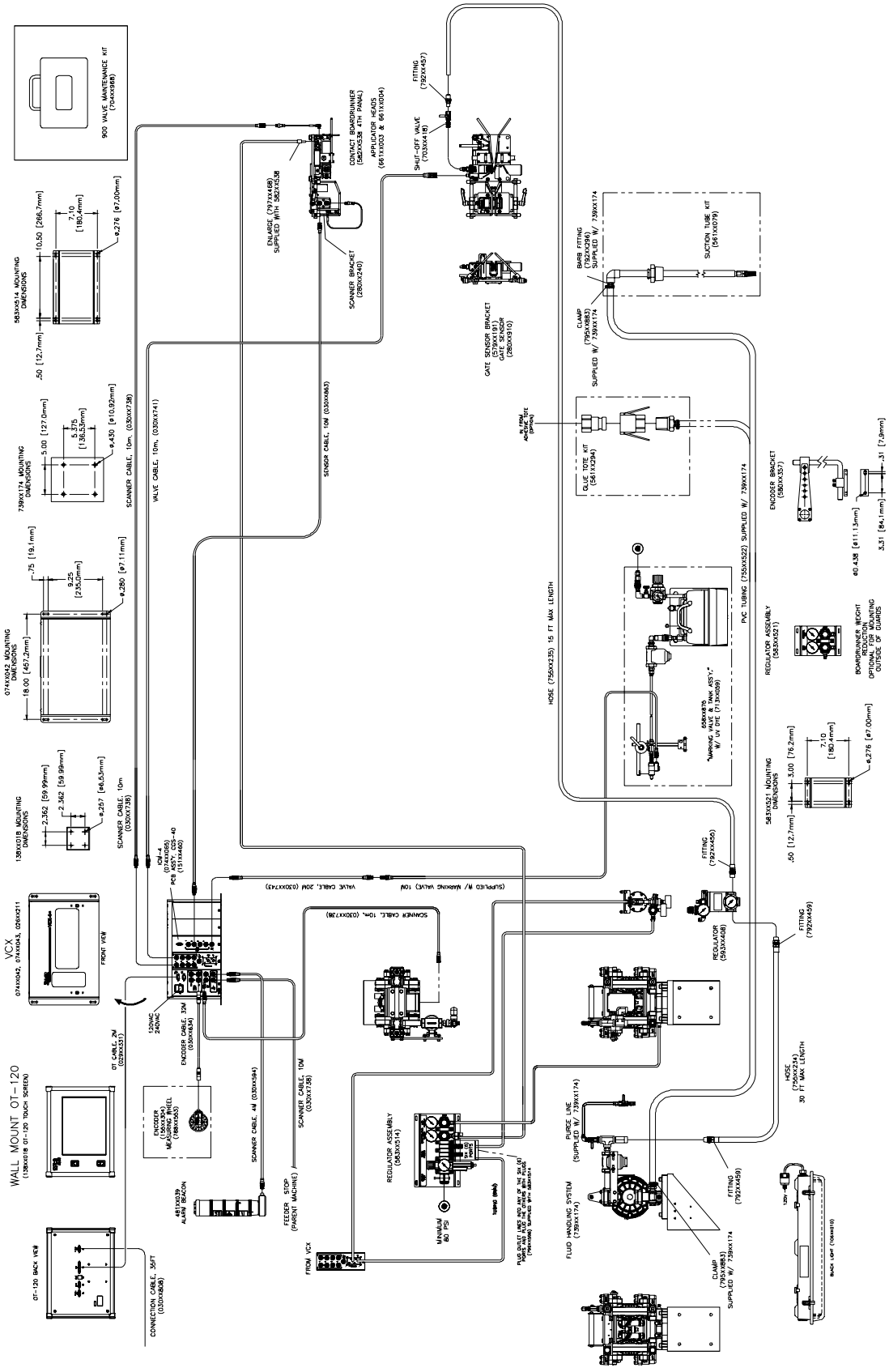


Figure 4-3b. System Layout

Bracket Mounting Pattern

Mounting pattern is enlarged to show detail.

VCX Control

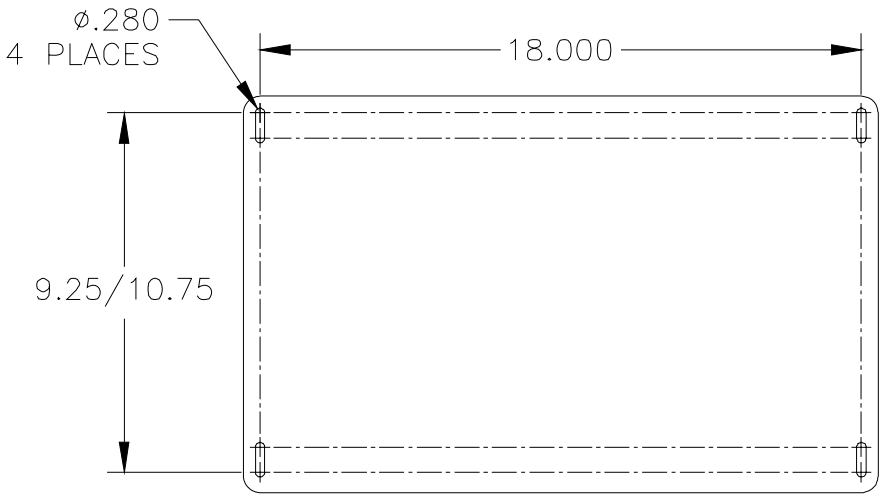


Figure 4-4. VCX Control

Pump Bracket

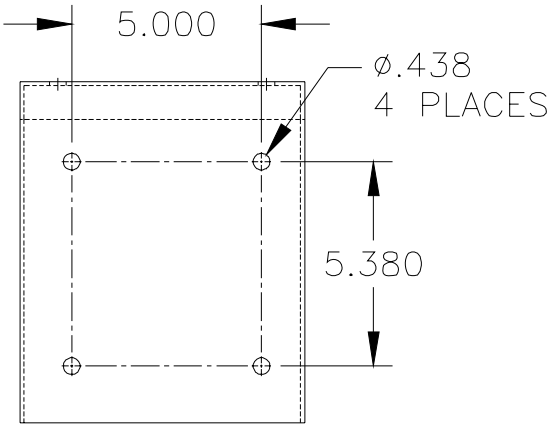


Figure 4-5. Pump Bracket

Balancing Regulator

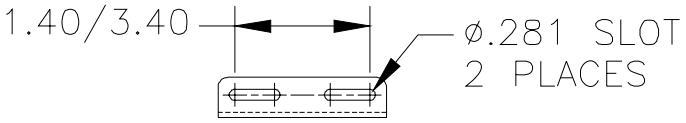


Figure 4-6. Balancing Regulator

Linking Two VCX Controls

Two VCX Controls can be linked together. To connect two VCX Controls, do the following:

Warning!

Turn off all power and disconnect the power cord to both VCX Controls and the OT Unit before linking. FAILURE TO OBSERVE WARNING MAY RESULT IN DEATH, PERSONAL INJURY, AND/OR EQUIPMENT DAMAGE.

1. Disconnect all power to all units/controls.
2. Determine the control that will be called “VCX -1.”
3. Remove the covers from both VCX Controls (see Figure 4-1).
4. Verify that the Control Selector Switch on “VCX -1” is set to “1” (see Figure 4-7).

> CAREFULLY reach under the cover plate to reach the switch with your fingers (see Figure 4-3).
>
> When the system is powered up the VCX-1 will automatically be the control where valve or/and sensor #1 is located.

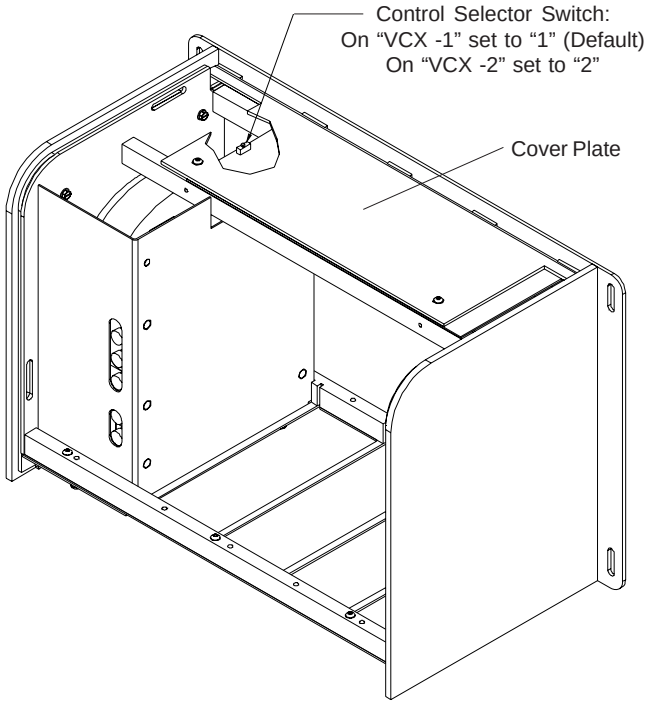


Figure 4-7. Control Selector Switch on the VCX Control

Linking Two VCX Controls - Continued

5. Set the Control Selector Switch on “VCX -2” to “2” (see Figure 4-7).
6. Replace the covers on both VCX Controls (see Figure 4-1).
7. Connect the cables on the “VCX -1,” the “VCX -2,” and the OT-120 Unit as shown in Figure 4-8.
8. Reconnect the power.
9. Perform the power up sequence.

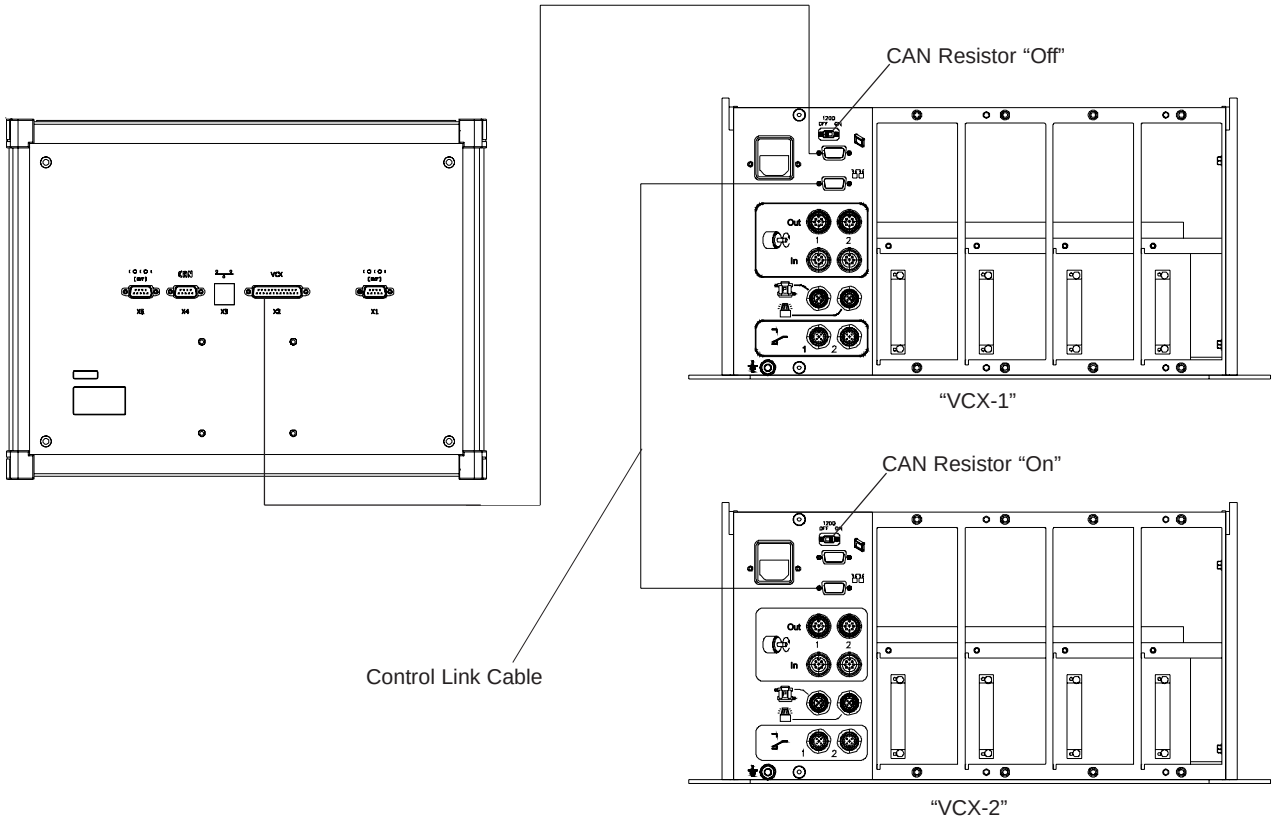


Figure 4-8. Connecting the Cables

OT-120 Setup - New Application

Checking for Preconfiguration

1. Power on the terminal.

a. If the screen (Figure 4-9) shows your application, skip to “Step 6.”

Figure 4-9. OT-120 Application Select

> The Screen should start up with this image unless it has been preconfigured.
> This manual is specific to the FlexosealPro.

b. If a different application is needed, click the locked Configuration Button, located in the bottom, left-hand corner of the terminal screen. A numeric keypad will appear (Figure 4-11).

> The Screen may appear different, depending on your application

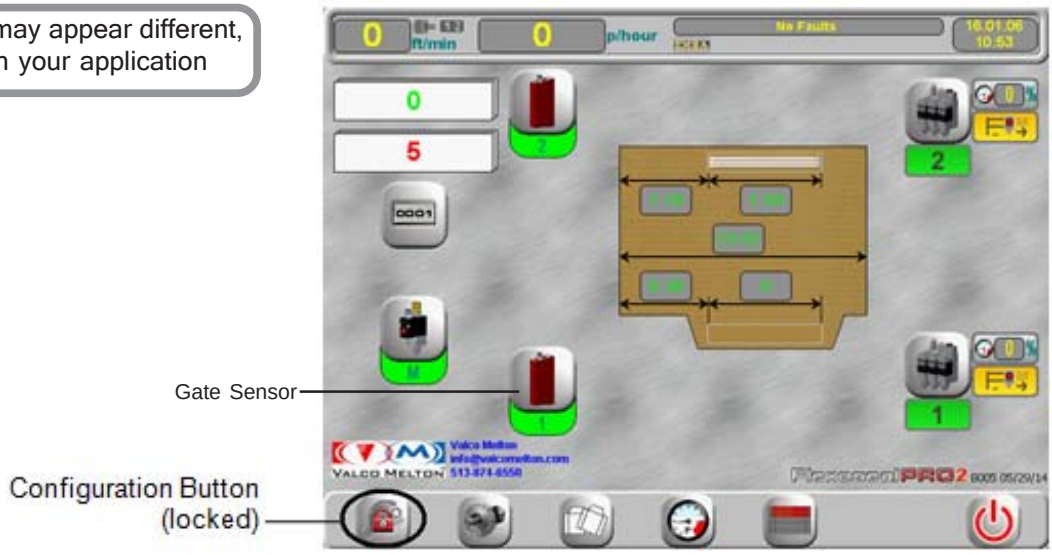


Figure 4-10. OT-120 Flexoseal Pro 2 Example

Checking for Preconfiguration - Continued

2. On the keypad, enter the level-four password, and then press the Confirmation Button. Contact Valco Melton if assistance is needed.

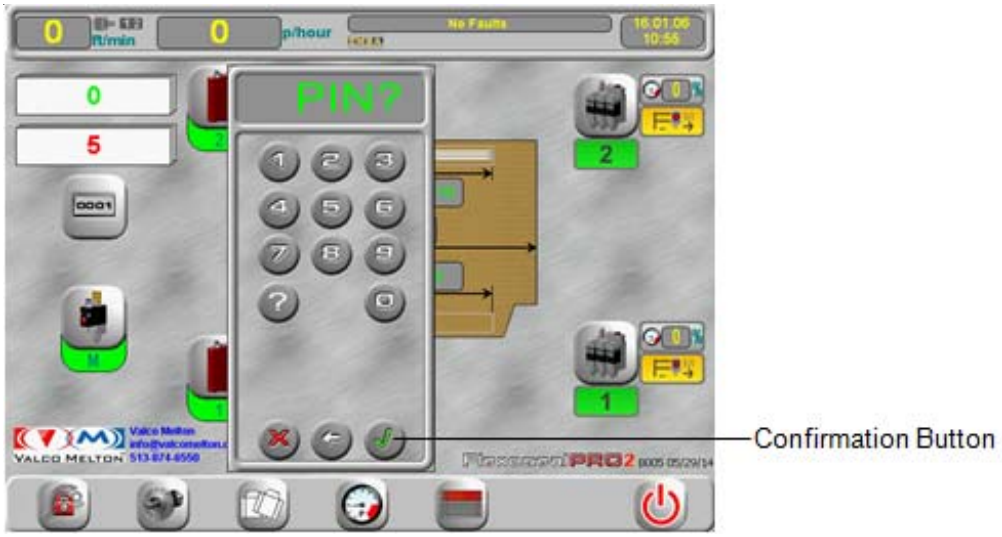


Figure 4-11 Keypad

3. After entering the password, the Configuration Button will be unlocked.

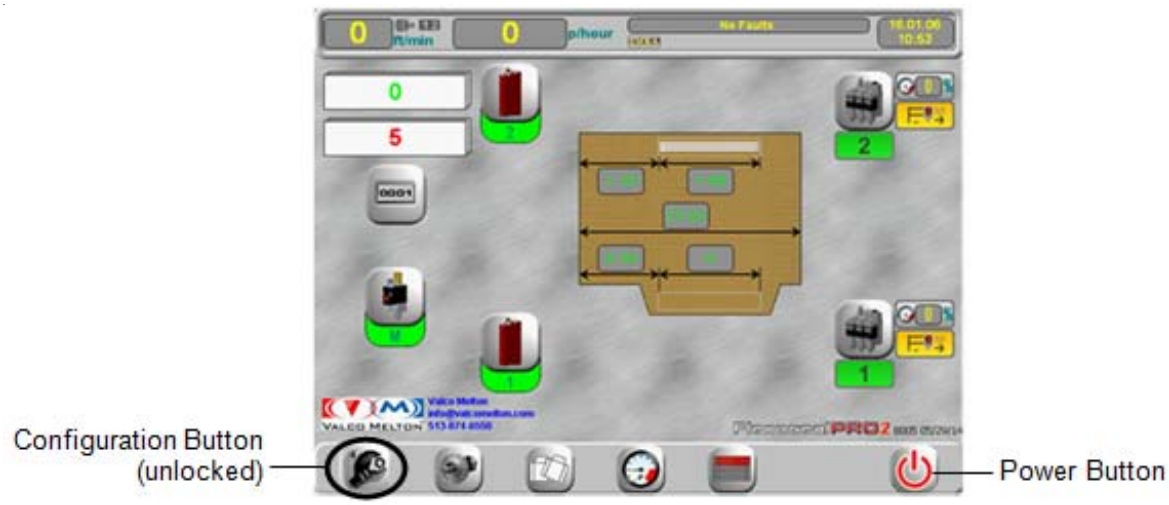


Figure 4-12. Configuration Button Unlocked

4. Click the power button in the lower right corner.

5. After the application closes, click on the “VLaunch” shortcut.

6. From the VLaunch screen (Figure 4-13), scroll to and select the appropriate application from the list, and make sure “Do not show this message again” is checked.

7. Press the Confirmation Button.

Checking for Preconfiguration - Continued

Figure 4-13. OT-120 Application Selection

OT Configuration Setup

1. After the application loads completely, click the locked Configuration Button. A numeric keypad will appear.

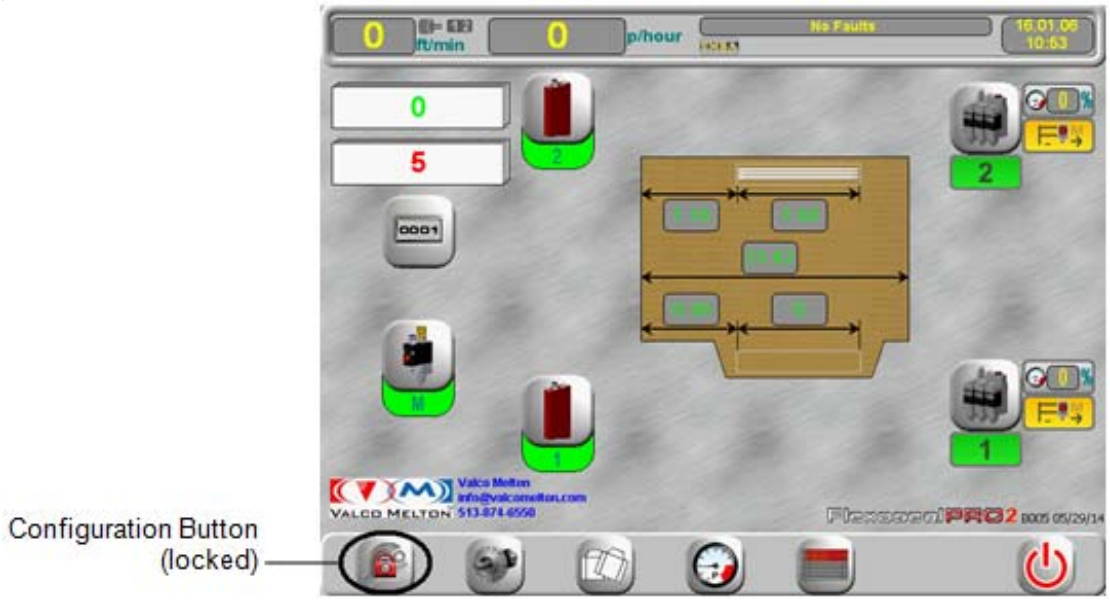


Figure 4-14. OT-120 Flexoseal Pro 2 Example

OT Configuration Setup - Continued

2. On the keypad (Figure 7), enter the pin “123” and press the Confirmation Button.

Figure 4-15. Keypad

3. In the Settings Menu (Figure 4-16), click on the “Restore” Button.

Figure 4-16. Settings Menu

OT Configuration Setup - Continued

4. Make sure “Use factory default configuration” is checked, and then click the Confirmation Button.

Figure 4-17. Restore System Settings

5. From the configuration menu (Figure 4-18), select the appropriate configuration.

Figure 4-18. Configurations Menu

6. After selecting the configuration, and clicking the Confirmation Button, the terminal will shut down. On boot-up, the terminal should automatically start up in the correct application.

This is the preferred method for setting the overall configurations. An older method is expalined below, for completeness, for setting Machine Communication.

Machine Communication Setup - Older Method

1. From the General Settings Menu, click on the Access Configuration Files Button. A Configuration Files menu will open.

Figure 4-19. General Configurations Menu

2. In the Configuration Files menu, change the Machine Communication codes as needed. Refer to the lists under “Machine Communication,” below, for the code descriptions.

Figure 4-20.Configuration Files Menu

Glue Stations

List of Glue Stations: Parameter 3100.0E

0 = Not Installed

1 = Boardrunner NC-3

2 = Boardrunner NC-4

3 = Boardrunner NC-Hybrid

4 = BoardRunner Contact Single

5 = BoardRunner Contact Dual

6 = BoardRunner 3NCR

7 = BoardRunner 4NCR

8 = Seperated Valve NC

Machine Communication

In section [MIF Parameter] set the parameter Mode to the following:

0 = No external interface

1 = Martin interface (TCP/IP)

5 = EMBA interface (9600/8/N/1)

6 = ASCII interface (9600/8/N/1)

8 = Extended ASCII interface (9600/8/N/1)

9 = MWU interface (9600/8/N/1)

10 = Martin interface, inch mode (TCP/IP)

11 = MHI interface (9600/8/N/1)”

Initialization Files Definitions

Device-Specific Profile Area									
Index (Hex)	**Sub-Index (Hex)**	**Name**	**Object Type**	**Data Type**	**Access Type**	**Comment**	**Default**	**Min**	**Max**
3100		Parameter Valve Common	RECORD			Valve Common			
	0	Number of Entries	VAR	U8	RO	Largest supported Sub-index	11		
	1	TipSealer Enable	VAR	U16	RW	0=Disabled, 1=Enabled	0	0	1
	2	TipSealer T1	VAR	U16	RW	TipSealer Time 1 in [ms]	500	100	2000
	3	TipSealer T2	VAR	U16	RW	TipSealer Time 2 in [ms]	500	100	2000
	4	TipSealer T3	VAR	U16	RW	TipSealer Time 3 in [ms]	500	100	2000
	5	TipSealer T4	VAR	U16	RW	TipSealer Time 4 in [ms]	500	100	2000
	6	TipSealer Feed Timeout	VAR	U16	RW	Timeout after Feedstop in [sec]	15	5	60
	7	TipSealer Feed Polarity	VAR	U16	RW	Polarity of Feedstop Signal	0	0	1
	8	TipSealer Pos.Switch Enable	VAR	U16	RW	Position Switch Enabled	1	0	1
	9	Copied Valve Defaults	VAR	U16	RW	0=Valve Default Parameters will be copied on next power on 1=No action	0	0	1
	A	Pulse Purge Activation	VAR	U16	RW	Number of Pulses at beginning of purge cycle	0	0	50
	B	TipSealer Status	VAR	U16	RO	TipSealer Status	0	0	255
	C	Tipsealer Output Manual	VAR	U16	RW	This output is active when the control is in the MANUAL mode. 0 = No Output 1 = Glue Fault Light (Blue) 2 = Jam Fault Light (Red) 3 = Buzzer 4 = Low Level Light (Amber) 5 = Relay 1 6 = Relay 2	0	0	6
	D	Tipsealer Output Error	VAR	U16	RW	This output is active when the control is in the MANUAL mode. 0 = No Output 1 = Glue Fault Light (Blue) 2 = Jam Fault Light (Red) 3 = Buzzer 4 = Low Level Light (Amber) 5 = Relay 1 6 = Relay 2	0	0	6
	E		VAR	U16	RW	Glue Station Type. 0 = Not Installed 1 = Boardrunner NC-3 2 = Boardrunner NC-4 3 = Boardrunner NC-Hybrid 4 = Boardrunner Contact Single 5 = Boardrunner Contact Dual 6 = BoardRunner FLP-3 7 = BoardRunner FLP-4 8 = Separated Valve NC	1	0	8
	10		VAR	U16	RW	Cycle number when the valves will switch to Jogg mode, after a restart.	0	0	25
	11		VAR	U16	RW	Valve Orientation 0 = Top Down 1 = Bottom Up	0	0	1

SECTION 5 - OPERATION

Power Up Sequence

Operation of the VCX System is managed through the OT-120 Control.

> The screen may look slightly different depending on the revision of software that is installed on the OT-120.

The power up sequence is as follows:

1. Press the Power On Button on the bottom left of the OT-120 (see Figure 5-1).

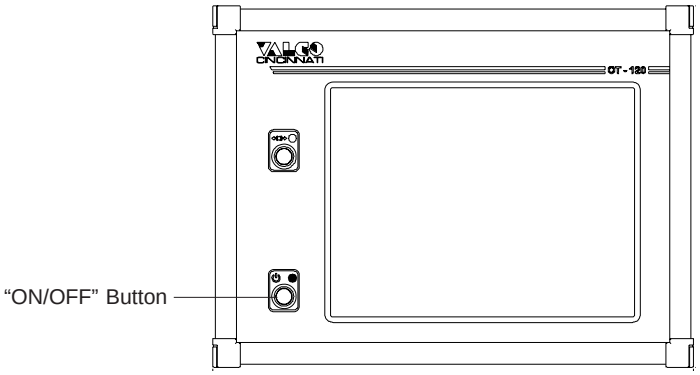


Figure 5-1. OT-120 Touchscreen

2. Plug in the VCX.

3. Flip the power switch on the back of the VCX Power Supply Module to the "On" position (see Figure 5-2).

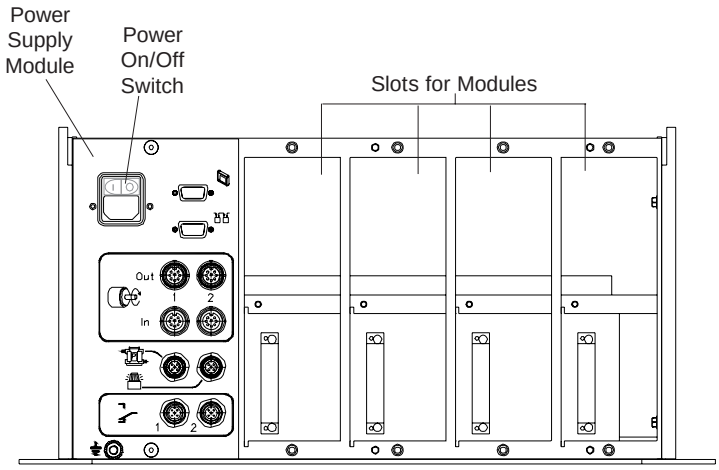


Figure 5-2. VCX Power Supply Module Power Switch

Power Up Sequence - Continued

4. The OT-120 Touchscreen will “boot up” and show the Loading Screen as it prepares for operation.

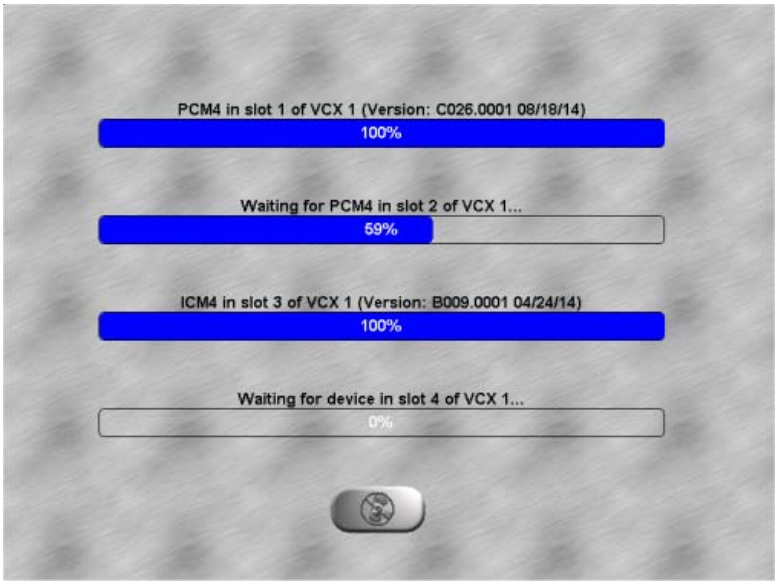


Figure 5-3. Loading Screen

5. The OT-120 Touchscreen is ready when the “Main Menu Screen” appears.

The Main Menu Screen

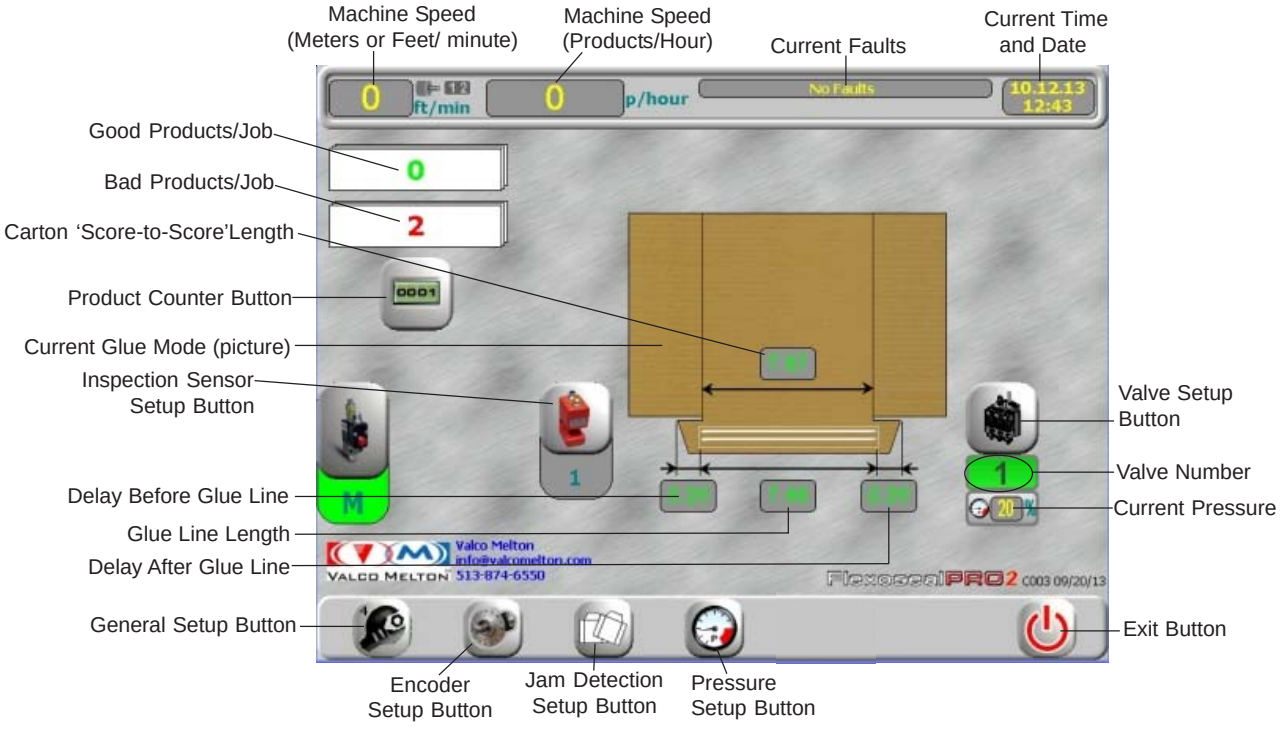
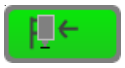


Figure 5-4. Main Menu Screen

The Main Menu Screen - Continued

Name	Use
Product Counter Button	Print and reset the product counter by shift and by job.
Good Products/Job	Displays the number of good products for the job.
Bad Products/Job	Displays the number of bad products for the job.
Machine Speed (Products/Hour)	Displays the number of products done per hour.
Machine Speed (Meters or Feet/Minute)	Displays the speed of the machine in meters or feet per minute.
Current Glue Mode (picture)	The picture of the box with a glue mode pattern shows the current glue mode. To change the glue mode, press on an unmarked area of the box.
Delay After Glue Line	Length of the area without glue after the glue valve fires.
Glue Line Length	Length of the glue (length the glue valve fires).
Delay Before Glue Line	Length of the area without glue before the valve fires.
Carton 'Score-to-Score' Length	Length of the area between 'scores' for carton folding.
Valve Setup Button	Setup glue valve information. Displays the current glue valve selected as a number value under the picture of the valve.
Valve Number	Displays current glue valve selected.
General Setup Button	Setup system parameters. Password protected levels define access permissions.
Inspection Sensor Setup Button	Setup inspection tolerances, such as glue volume and glue position.
Encoder Setup Button	Setup the encoder pulse information and values associated with product lengths.
Jam Detection Setup Button	Setup parameters for detecting carton jams.
Pressure Setup Button	Setup the purge pressure; enter the glue curve values based on minimum encoder speed associated with minimum pressure and maximum encoder speed associated with maximum pressure.
Tipsealer Status (if Tipsealer is used) **NOTE:** The Tipsealer Icon is not shown in Figure 5-4. Only available with Non-Contact Glue Station.	Displays current Tipsealer position, by number:
	Disabled = 0 (No icon)
	Valve On Parked = 1 
	Valve On Gluing = 2 
	Valve Off Parked = 3 
	Valve Manual = 4 
	Valve On Countdown = 5 
Current Pressure	Displays the current glue pressure in percentage.
Current Time and Date	Displays the current day and time.
Exit Button	Power Down (Exit) the Flexoseal PRO system. Confirmation is necessary after pressing this button.

Entering a PIN

The FlexosealPRO System is designed with programmable security levels to protect settings. Any buttons that are “grayed out” require a higher security level Personal Identification Number (PIN) for access. For detailed information on these security levels, see *Section 6 - Configuring the FlexosealPRO*.

To enter a PIN, do the following:

1. Press the “Locked” General Setup Button with the stylus. A keypad will appear asking for your PIN.

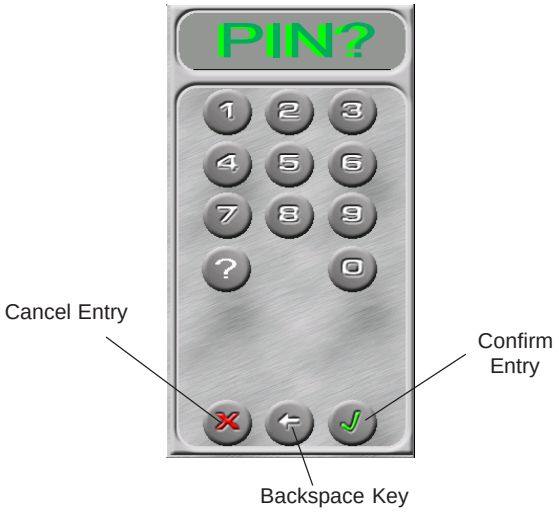


Figure 5-5. PIN Keypad

Caution!

Always use the stylus to press and select buttons on the OT-120 Touchscreen. Otherwise, damage to the unit can occur.

2. Enter your PIN on the keypad and press the Confirmation Checkmark. The main Menu Screen will appear, but with your PIN level on the General Setup Button.

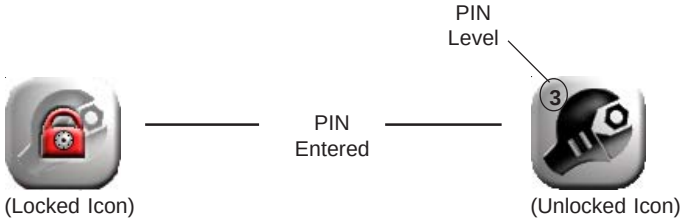


Figure 5-6. PIN level on the General Setup Button

Selecting a Glue Mode

To select a Glue Mode, do the following:

1. From the Main Menu Screen, touch any corner of the box in the picture with the stylus. The Glue Mode Selection Screen appears.

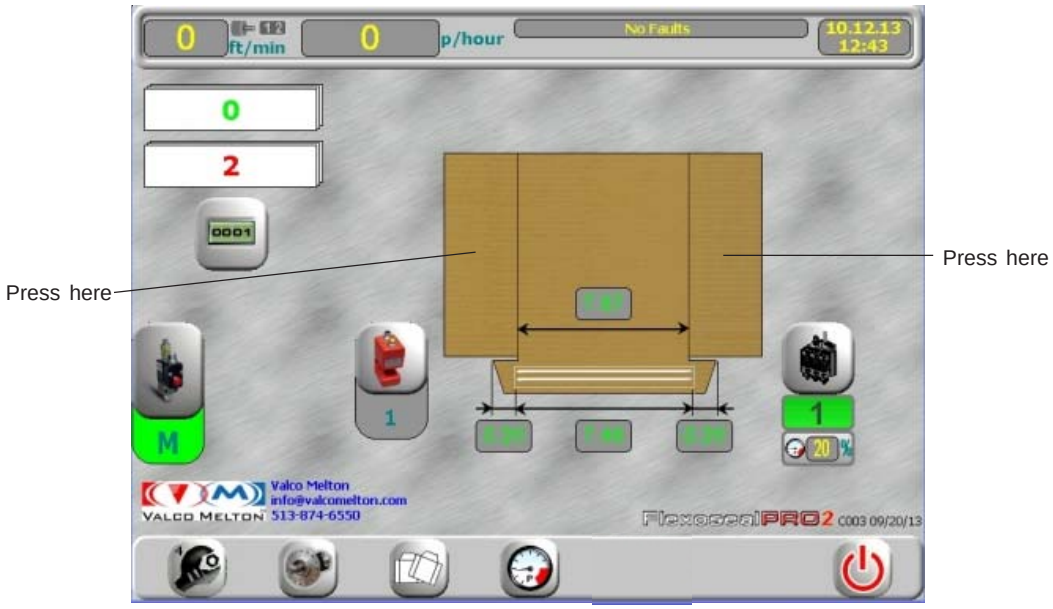


Figure 5-7. Main Menu Screen

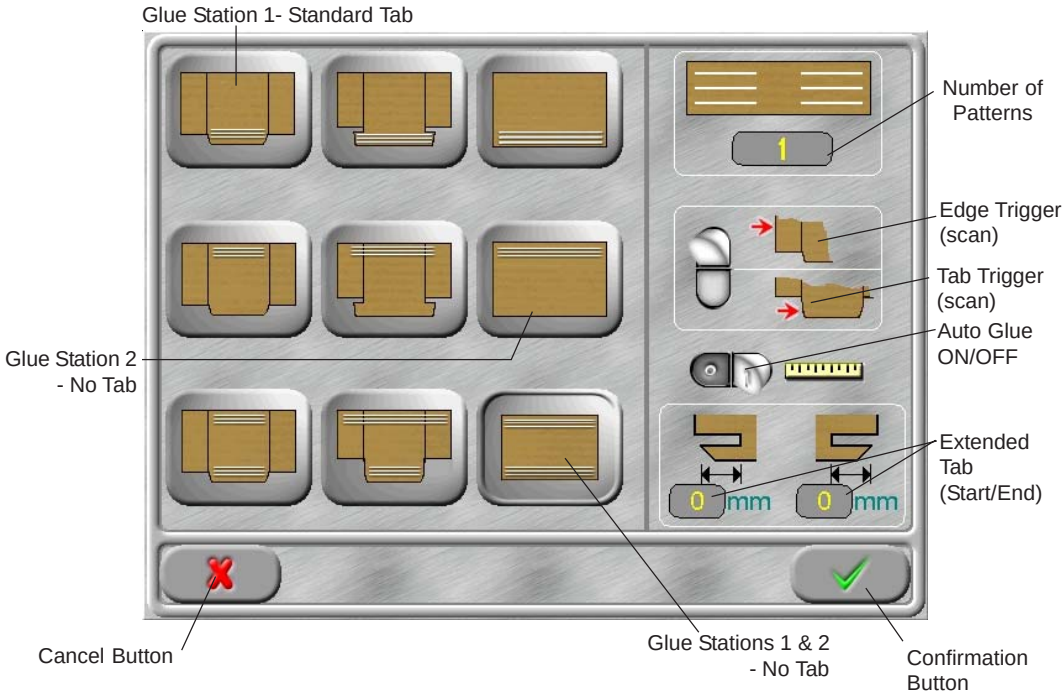


Figure 5-8. Glue Mode Selection Screen

Selecting a Glue Mode - Continued

Name	Use
Glue Station 1- Standard Tab	Glue Station 1 (operator side) applies glue in a standard tab pattern.
Glue Station 2 - No Tab	Glue Station 2 applies glue in a no tab pattern.
Glue Stations 1 & 2 - No Tab	Glue Stations 1 & 2 apply glue in a no-tab pattern.
Number of Patterns	Number of Patterns, up to four.
Edge Trigger/Tab Trigger	Either the edge or the tab will trigger the sensor, depending on the setting.
Auto Glue ON/OFF	Switch between Auto Glue (ON) setting and Manual Glue (OFF) setting.
Extended Tab Start/End	Adjust the length of the start tab and the end tab for extended tab settings.
Confirmation Button	Press to enter the new settings. (No settings are changed until this is pressed.)
Cancel Button	Cancel the new settings and return to the previous settings. (Use before pressing the Confirmation Button.)

Selecting a Glue Mode - Continued

2. Choose a glue pattern. For example, choose Glue Station 1 Standard Tab.

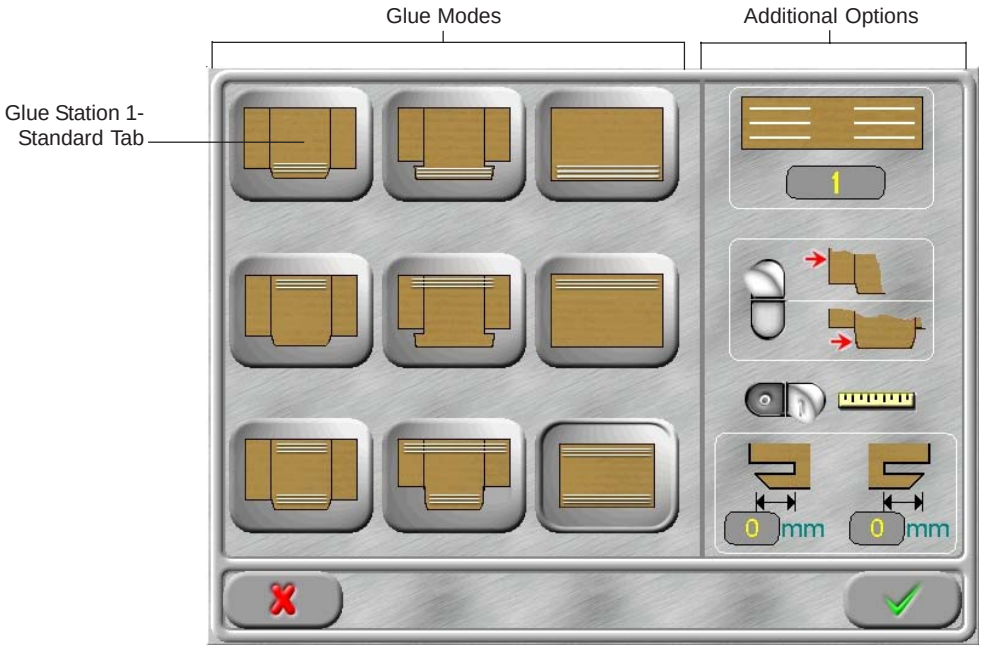


Figure 5-9. Glue Mode Selection Screen

3. The additional option buttons on the Glue Mode Selection Screen will be enabled or disabled depending on the mode selected. For example, in the Glue Station 1 Standard Tab Mode, all buttons except the Extended Tab Start/End Values can be selected and changed.

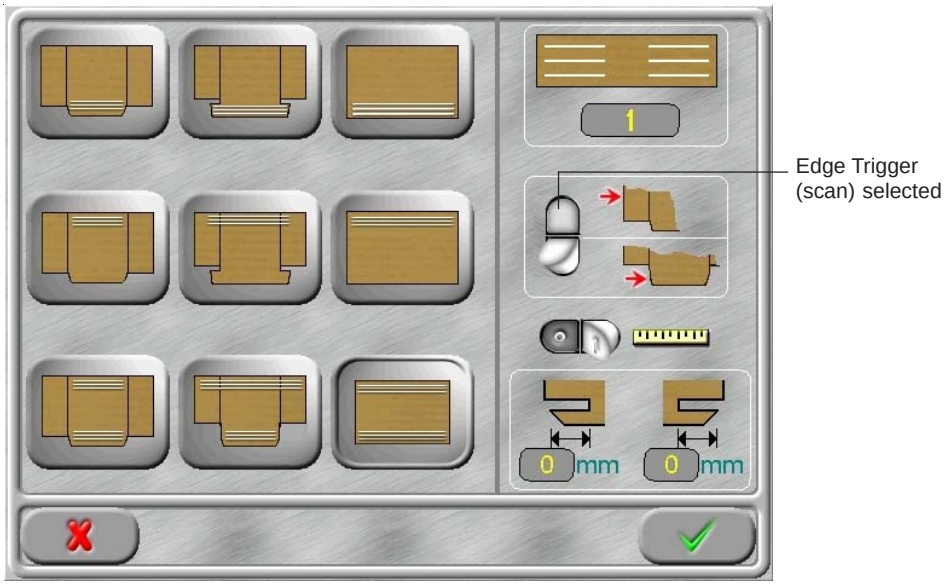
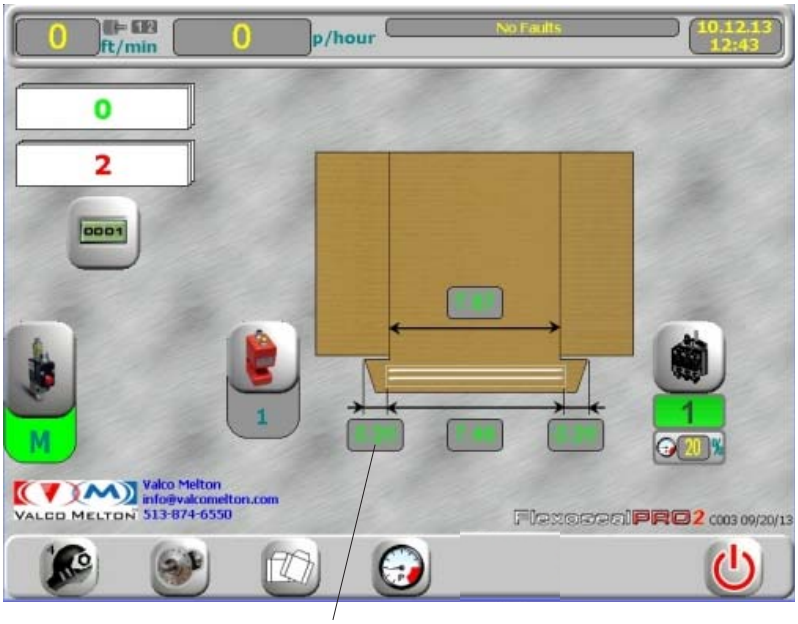


Figure 5-10. Glue Mode Selection Screen

Selecting a Glue Mode - Continued

4. When all desired information and settings are entered, press the Confirmation Button.



Distance from Leading Edge to Tab (Edge Trigger Scan On)

Figure 5-11. Main Menu Screen After Mode Change

5. After a Mode Change, the Main Menu Screen may have different features and look slightly different. The example above shows the Leading Edge to Tab Measurement that is not shown when the mode is set on “Tab Trigger (Scan).”

Multiple Pattern Gluing

The machine may be set for multiple pattern gluing.

1. On the Glue Mode Selection Screen, press the Glue Station 2 button. Pressing this button automatically sets the gluing mode to three (3) patterns.

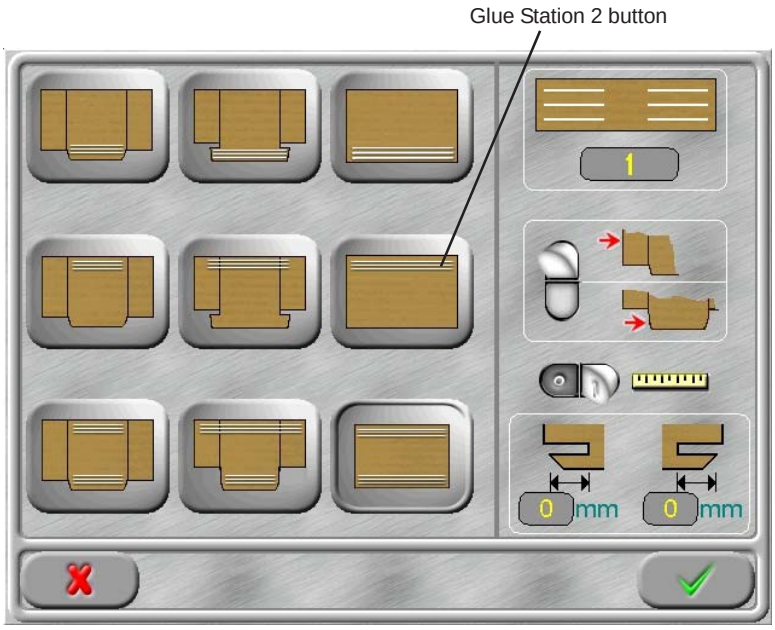


Figure 5-12. Glue Mode Selection Screen

Enter Tab and Glue Lengths

To enter the glue lengths, do the following:

1. On the Main Menu Screen, press a length value with the stylus and a keypad will appear. Enter the desired value and confirm. Continue until all values are set for the job. Some values are automatically calculated by the unit.

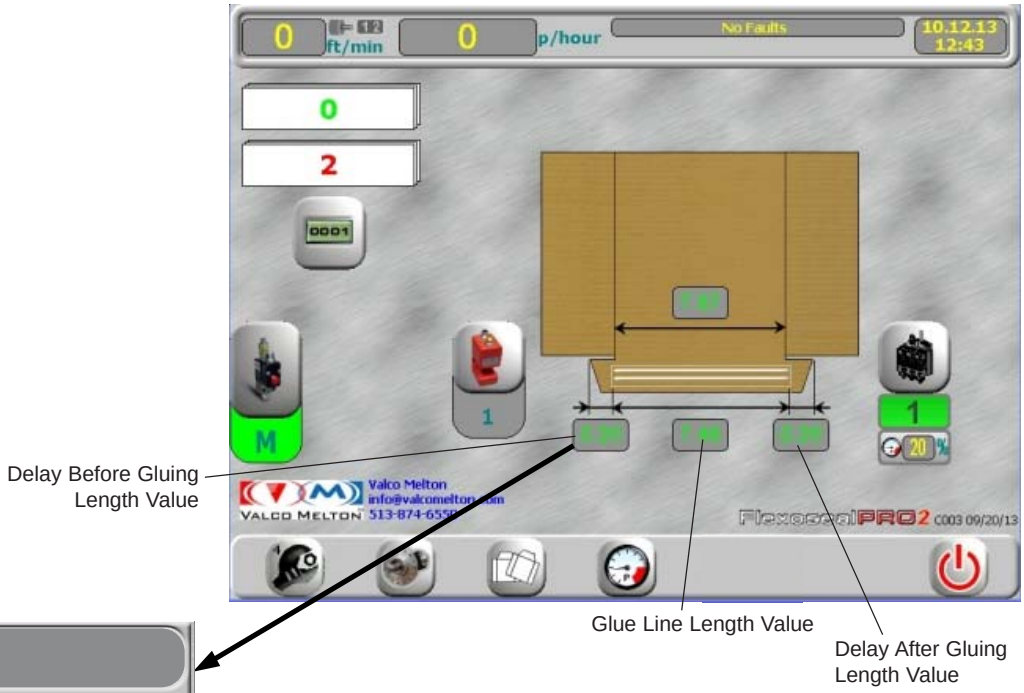


Figure 5-13. Main Menu Screen

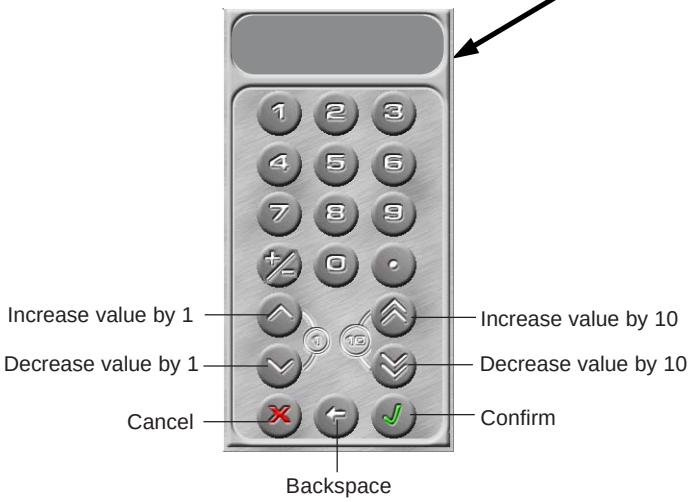


Figure 5-14. Numeric Keypad

The minimum glue pattern lengths depend upon the valve type, due to the varying amount of time it takes to open the valve.
The **minimum** would be approximately 2 mm for an MX valve; 5mm for cold glue valves.
The **maximum** is 6554 mm.

Configure the Glue Valves

To Configure the Glue Valves, do the following:

1. On the Main Menu Screen, press the applicable Glue Station Setup Button. The Valve Configuration Screen will appear.

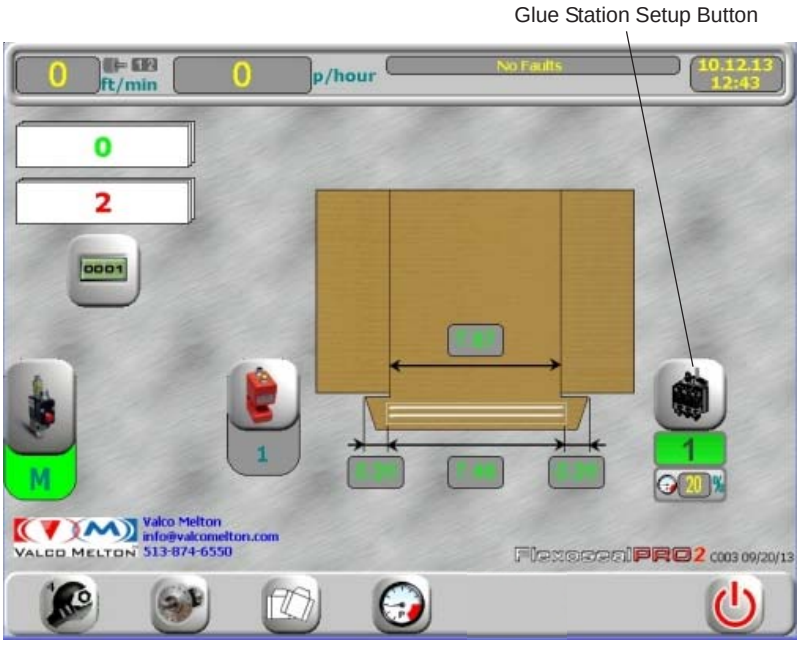


Figure 5-15. Main Menu Screen

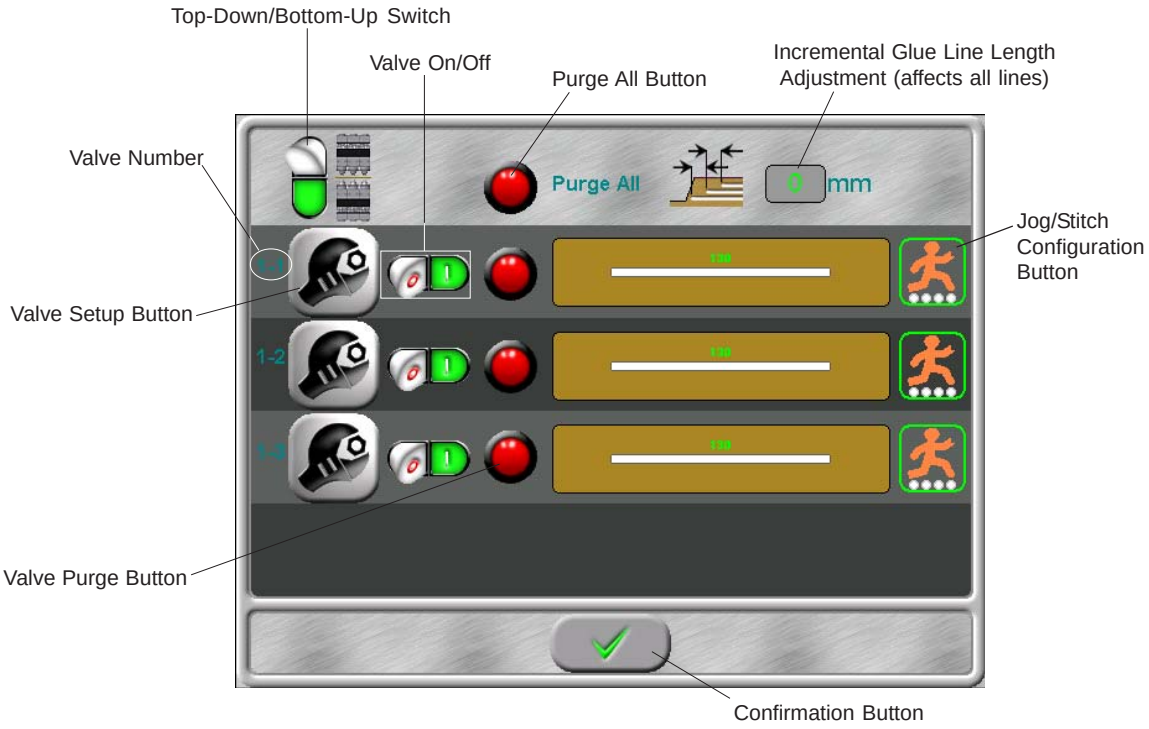


Figure 5-16. Valve Configuration Screen

Configure the Glue Valves - Continued

2. On the Valve Configuration Screen, you can turn the valve on or off, access the Valve Setup Screen, or purge the valve as desired.

3. Press the Valve Setup Button on the Valve Configuration Screen. The Valve Setup Screen appears.

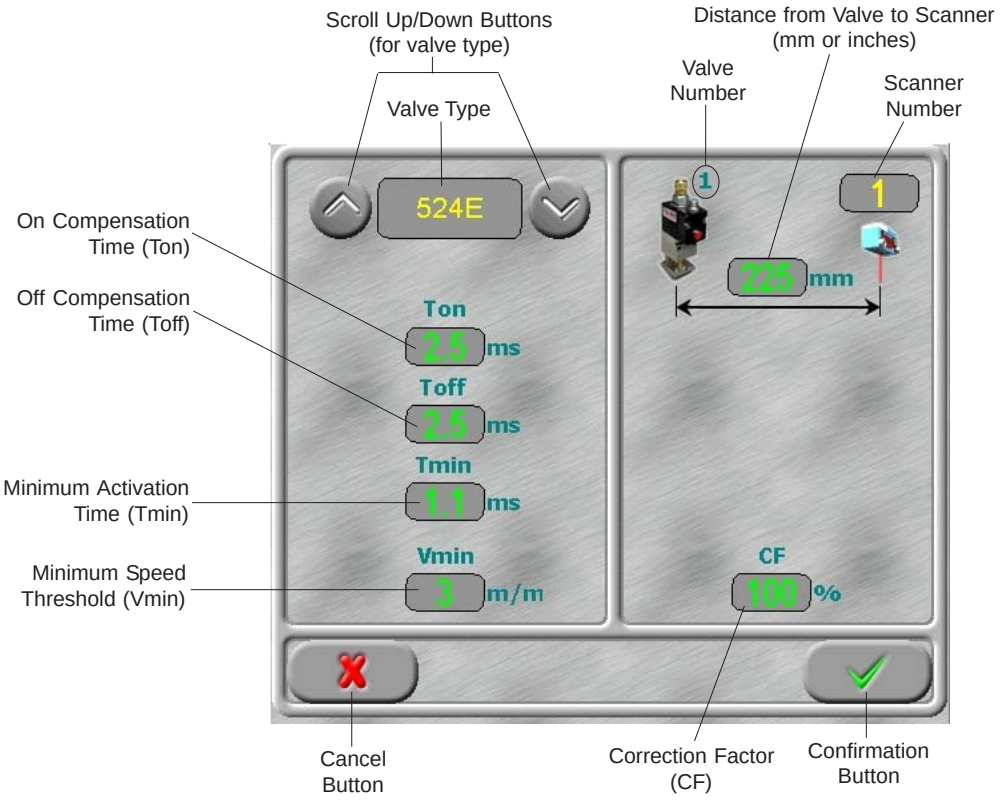


Figure 5-17. Valve Setup Screen

Configure the Glue Valves - Continued

Name	Use
Scanner Number	Displays the number of the scanner that is assigned.
Valve Number	Displays the number of the valve that is assigned.
Valve Type	Displays the type of valve used. Select type by pressing the up and down arrows and press on your choice from the list displayed.
Distance from Valve to Scanner	Displays the distance (in millimeters or inches) between the valve and the scanner.
Minimum Speed Threshold	The minimum speed the product must reach before glue is applied.
Minimum Activation Time (Tmin)	The minimum peak valve activation signal (for dot patterns).
Off Compensation Time (Toff)	The amount of time (in ms) that passes from when a valve is turned off and when it stops applying glue.
On Compensation Time (Ton)	The amount of time (in ms) that passes from when a valve is activated and it begins to apply glue.
Correction Factor	For right angle machines or 2 machines running at different speeds. The correction factor allows for synchronization.
Confirmation Button	Press to enter the new settings. (No settings or values are entered until this is pressed.)
Cancel Button	Cancel the new settings and return to the previous settings. (Use before pressing the Confirmation Button.)

CAUTION!

If using a reversible glue valve station:

When setting the system for Bottom-Up gluing for the first time, the “Distance from Valve to Scanner“ setting must be entered manually. This is because the valve order is physically reversed when the station is inverted.

Activation and compensation times might also require minor adjustment.

After that initial setup, the system retains the settings in memory. When the Top-Down/Bottom-Up Switch (Figure 5-16) is used, the settings for the selected configuration will be applied automatically.

Configuration Selection for Reversible Glue Stations (3NCR; 4NCR)

After the initial setup, the system retains the settings in memory (See *Section 6 - Customize the Settings, Configuring Reversible Glue Stations [3NCR; 4NCR]*).

Clicking on the Top-Down/Bottom-Up Switch (Figure 5-18) iapplies the settings for the selected configuration automatically.

Figure 5-18. Valve Configuration Screen - Top-Down/Bottom-Up Switch

CAUTION!

Make sure the selected configuration corresponds to the actual equipment, otherwise the glue pattern will be incorrect, a reversal of what is desired.

Jog/Stitch Configuration Button

Pressing the Jog/Stitch Configuration Button on the Valve Configuration Screen opens the Jog/Stitch Configuration Dialog.

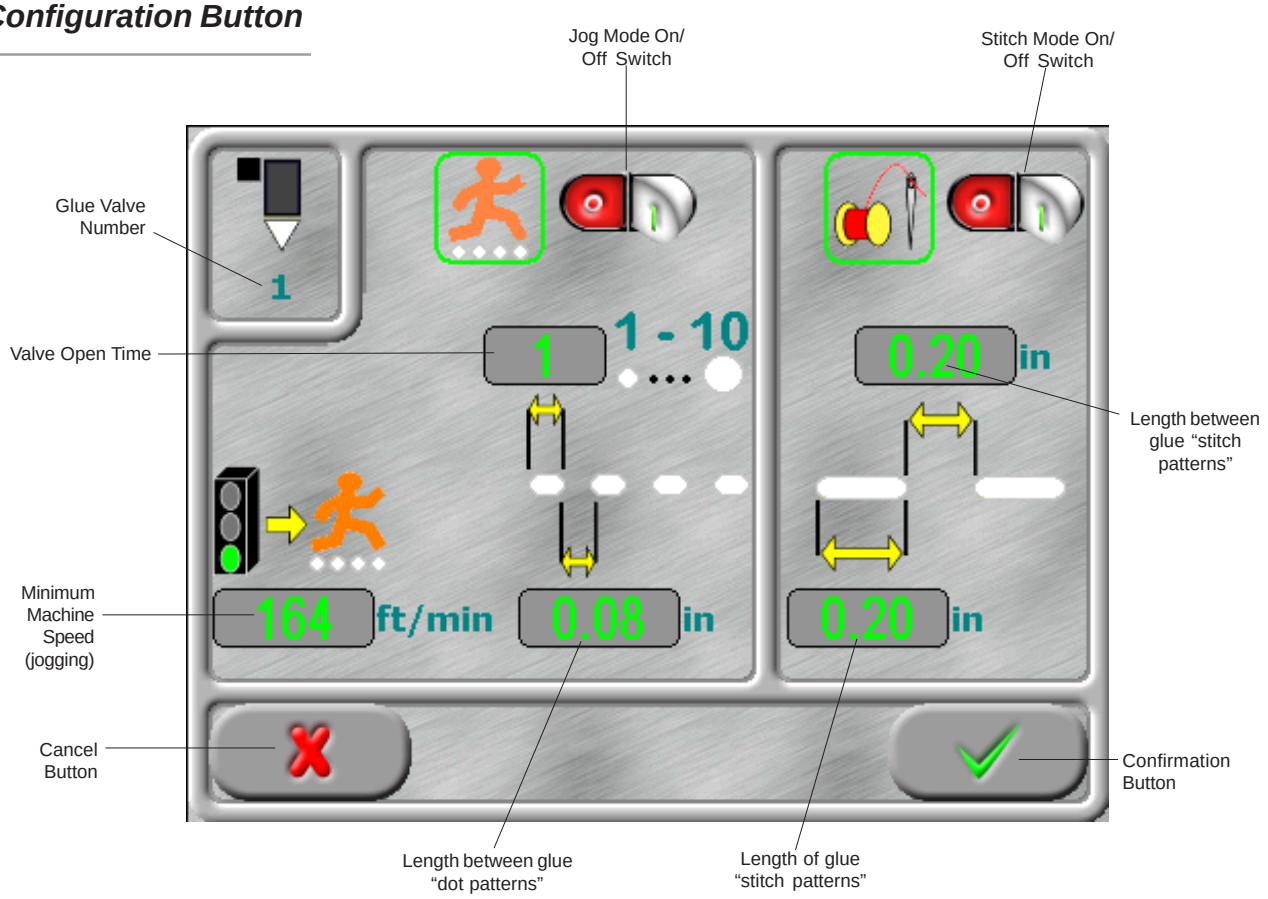


Figure 5-19. Jog/Stitch Configuration Dialog

Name	Use
Glue Valve Number	Displays the number of the valve that is being configured.
Jog Mode On/Off Switch	Turns the Jog Mode feature on or off.
Stitch Mode On/Off Switch	Turns the Stitch Mode feature on or off.
Length between "stitch patterns"	A length that will be unglued between "stitch patterns" of adhesive.
Valve Open Time	The amount of time the valve stays open to dispense glue.
Length between glue "dot patterns"	A length that will be unglued between "dot patterns" of adhesive.
Length of glue "dot patterns"	The length of the glue "dot patterns."
Minimum Machine Speed (for jogging)	This is the minimum machine speed at which the adhesive will be applied in a jogging pattern.
Confirmation Button	Press to enter the new settings. (No settings or values are entered until this is pressed.)
Cancel Button	Cancel the new settings and return to the previous settings. (Use before pressing the Confirmation Button.)

Glue Modes

Normal Mode
Normal mode is the default gluing mode.

Stitch Mode
Stitch mode is used for discontinuous lines. This mode is useful for economical application of long lines of glue. It allows different input possibility of bead length and gap length. Intermittent gluing is also possible. The control will then take into account that each pattern ends with applied glue (not with a gap). It can cause the gap to deviate slightly from the entered value.

Jogging Mode
Jogging mode is used for extremely low speeds. Jog-speed gluing is activated or deactivated using the V-jogging speed setting, input possibility of dot size, and gap length.

Pressure Setup

The Pressure Menu Button accesses the Pressure Menu. The menu displays the pressure curve in real time. A red dot in the Pressure Curve Display shows the pressure status.

To use the Pressure Menu Button, do the following:

1. Press the Pressure Menu Button on the Main Menu Screen. The Pressure Menu opens.

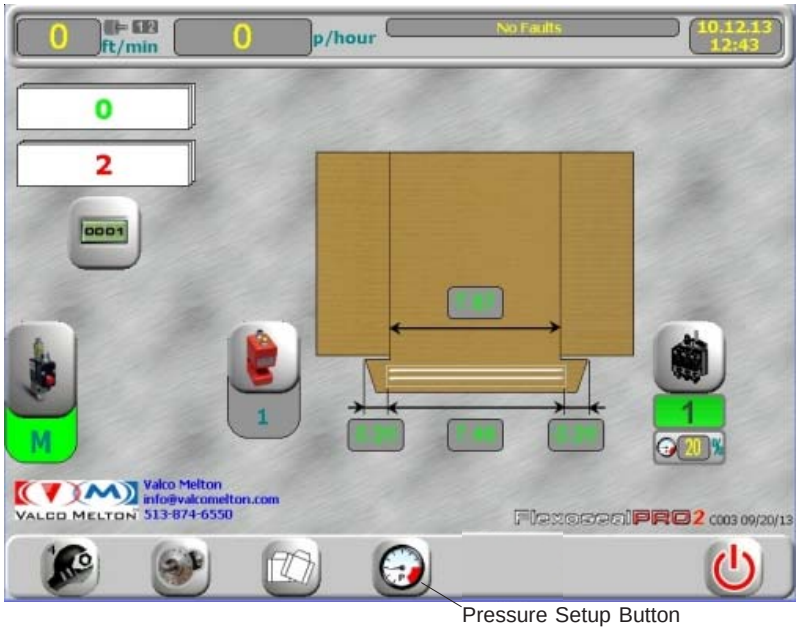


Figure 5-20. Main Menu Screen

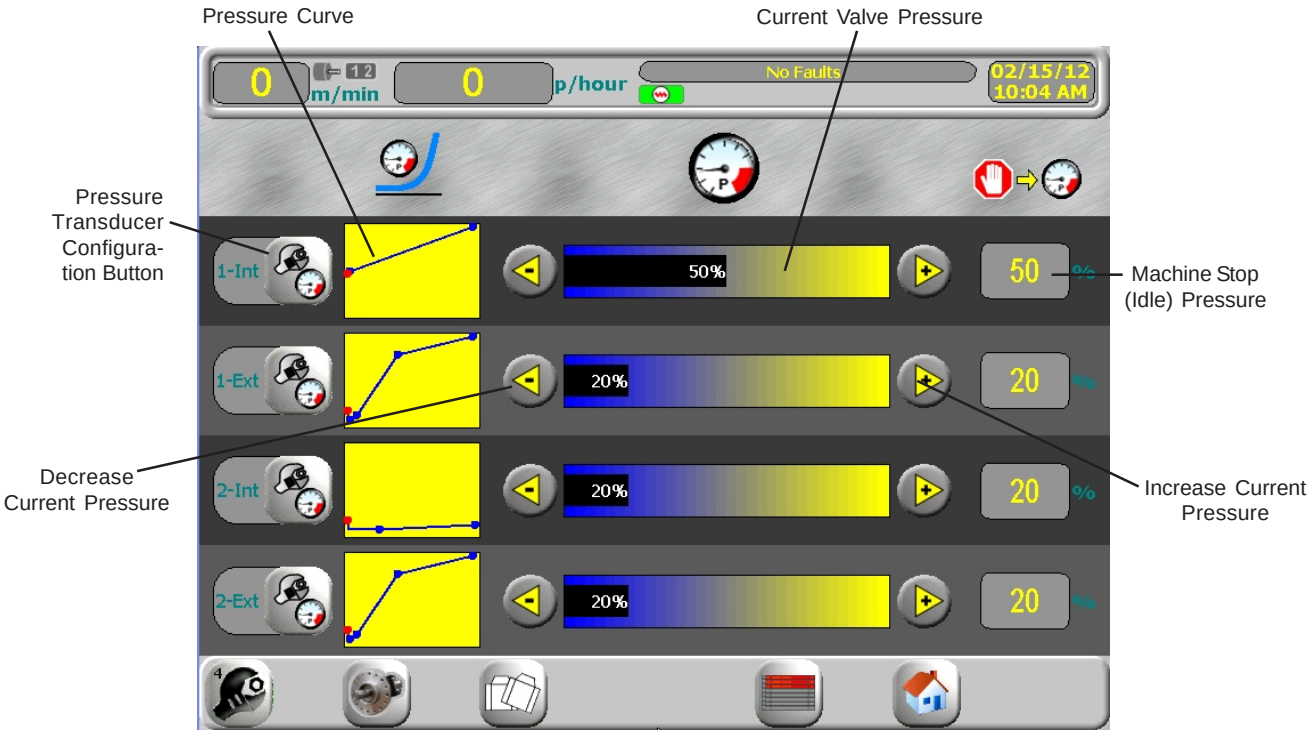


Figure 5-21. Pressure Menu Screen

Pressure Setup - Continued

Name	Use
Pressure Transducer Configuration Button	Press for Pressure Transducer Setup Dialog to adjust the configuration of the transducer.
Pressure Curve	Displays a visual representation of the pressure curve for the transducer.
Current Valve Pressure	Displays the current valve pressure.
Decrease Current Valve Pressure	Press to decrease the current valve pressure.
Increase Current Valve Pressure	Press to increase the current valve pressure.
Machine Stop (Idle) Pressure	When the machine stops, the valve will automatically be set to this pressure. Use to keep adhesive ready to apply but not dispensing during machine stops. Press for numerical keypad to edit.

Pressure Transducer Setup Dialog

Pressing a Pressure Transducer Configuration Button on the Pressure Menu Screen opens the Pressure Transducer Setup Dialog for the selected pressure transducer.

In this dialog, the number of points on the pressure curve can be adjusted. The speed and pressure for each point on the pressure curve, as well as the idle pressure, can be edited. Press the edit fields that display values in green to open the keypad.

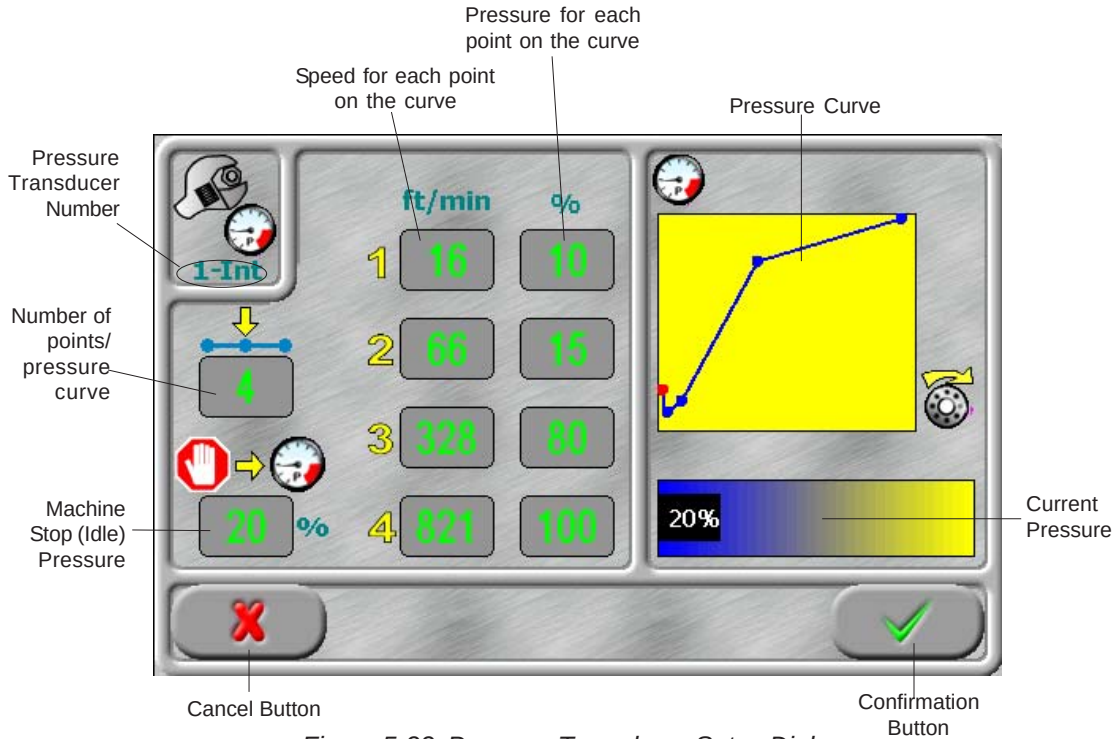


Figure 5-22. Pressure Transducer Setup Dialog

Pressure Transducer Setup Dialog - Continued

Name	Use
Pressure Transducer Number	The number of the pressure transducer being edited.
Speed for each point on the curve	Displays the speed of the machine at each point on the pressure curve.
Pressure for each point on the curve	Displays the pressure (%) of the valve at each point on the pressure curve.
Pressure Curve	Displays a visual representation of the pressure curve for the transducer.
Current Pressure	Displays the current pressure.
Number of Points on the Pressure Curve	Displays the number of points in the pressure curve. Press for a numerical keypad to edit.
Machine Stop (Idle) Pressure	When the machine stops, the valve will automatically be set to this pressure. Use this feature to keep adhesive ready to apply (but not dispensing) during machine stops. Press for a numerical keypad to edit.
Confirmation Button	Press to enter the new settings. (No settings or values are entered until this is pressed.)
Cancel Button	Cancel the new settings and return to the previous settings. (Use before pressing the Confirmation Button.)

Encoder Setup

To setup the encoder, do the following:

1. On the Main Menu Screen, press the Encoder Setup Button. The Encoder Setup Screen appears.

Figure 5-23. Main Menu Screen

2. On the Encoder Setup Screen, press the Repeat Length Value and/or the Encoder Pulse Value to change a value. When the keypad appears, enter the desired value and press the Confirmation Button on the keypad.

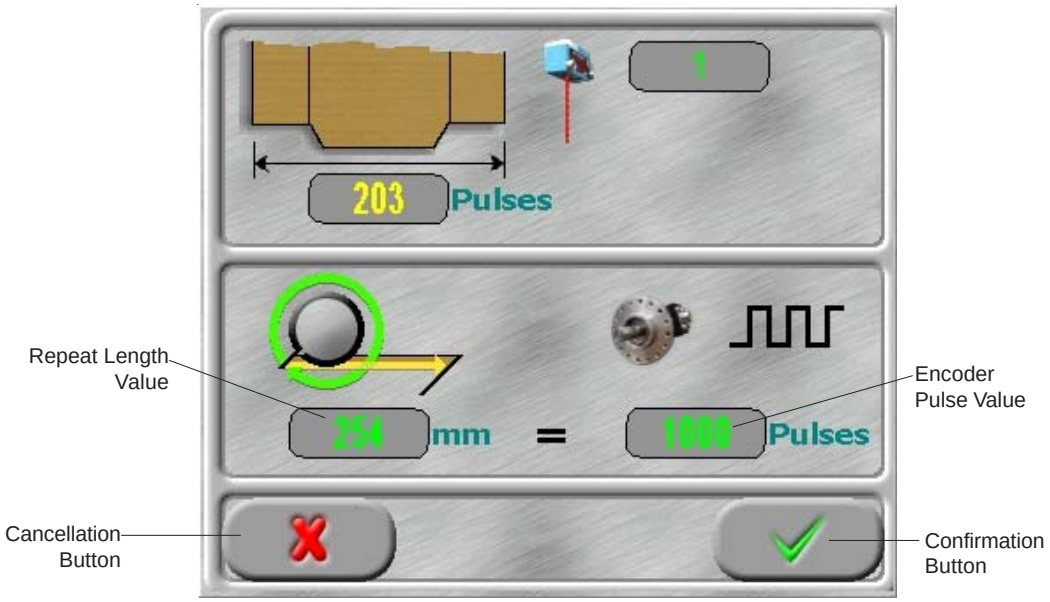


Figure 5-24. Encoder Setup Screen

Encoder Setup - Continued

Name	Use
Repeat Length Value	Length of one revolution of the measuring wheel.
Encoder Pulse Value	Number of pulses per one revolution of the measuring wheel.
An encoder must be installed in order for the control to determine the speed of the parent machine. You can use either a wheel-driven VDD encoder and a measuring wheel or a hollow shaft encoder. For optimal results, use a VDD-1000 encoder for one of the following resolutions: a 10 inch wheel = 100 pulses/inch; a 250mm wheel = 4 pulses/mm.	
Confirmation Button	Press to enter the new settings. (No settings or values are entered until this is pressed.)
Cancel Button	Cancel the new settings and return to the previous settings. (Use before pressing the Confirmation Button.)

Jam Detection Menu Button

Press the Jam Detection Menu Button on the Function Bar to open the Jam Detection Menu Dialog.

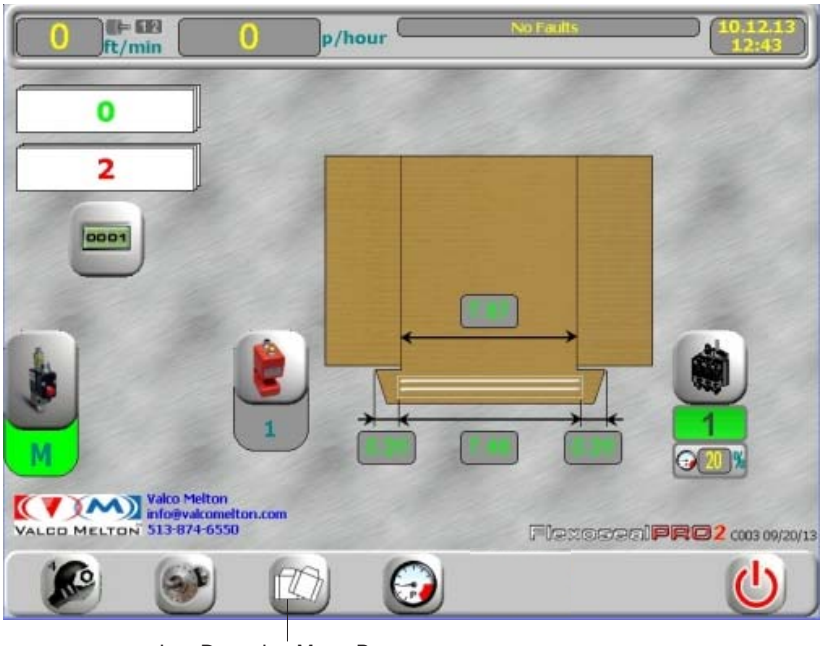


Figure 5-25. Jam Detection Menu Button

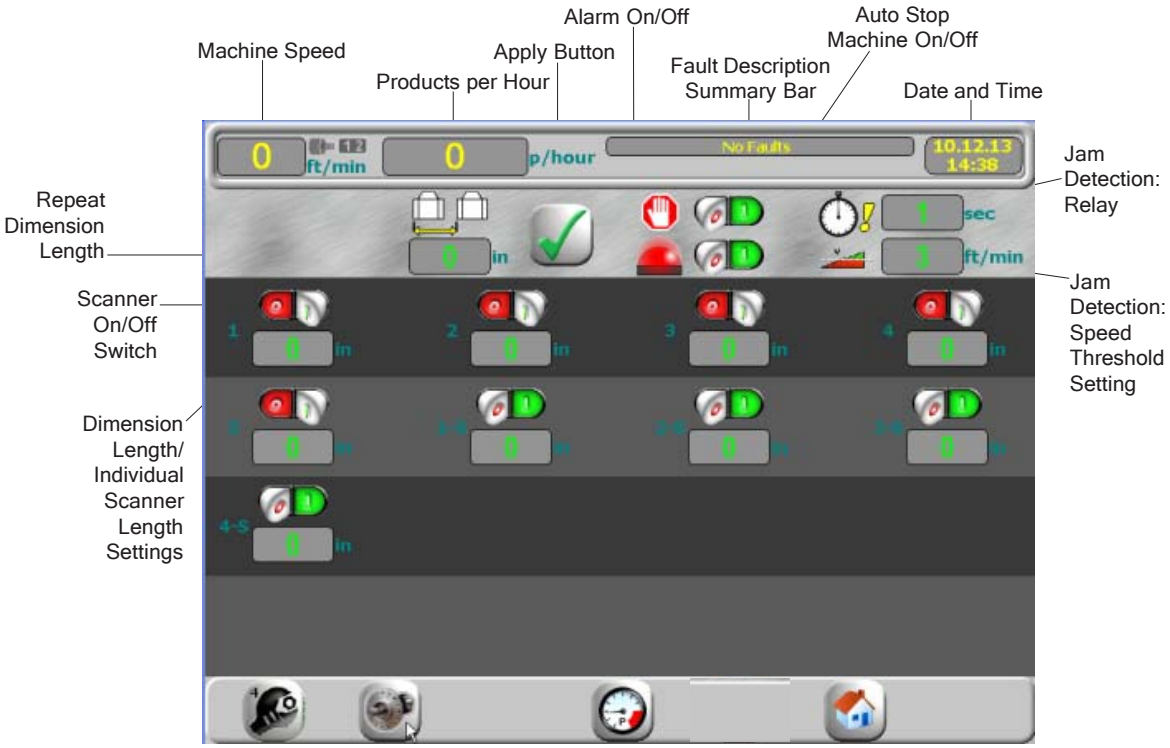


Figure 5-26. Jam Detection Menu

Jam Detection Menu Dialog - Continued

Name	Use
Machine Speed	The current speed of the machine.
Products per Hour	The current number of products per hour.
Apply Button	Applies the Jam Dimension Length to all scanners that are on.
Alarm On/Off	Turn the alarm on or off.
Auto Stop Machine On/Off	Auto stop stops the machine when a jam is detected. This switch turns the auto stop feature on and off.
Fault Description Summary Bar	Displays the most recent fault(s).
Date and Time	The current date and time.
Jam Detection: Relay	This value determines how many seconds the machine stop signal will remain active after an active scanner detects a jam and the machine is stopped. NOTE: This feature will only work if the Auto Stop Machine On/Off Switch is “On.”
Jam Detection: Speed Threshold Setting	The active scanners will not scan for jams until the machine is running at or above this speed. The speed is measured in meters per minute or feet per minute.
Scanner On/Off Switch	Use to turn the scanners on and off. Note: The assigned scanner must be on for Jam Detection to function properly.
Dimension Length/ Individual Scanner Length Settings	Set an individual detection length for each active scanner. When the scanner detects any product longer than this length, it will signal a jam.
Repeat Dimension Length	Use to set the Dimension Length for all scanners that are on (must press the Apply Button for this to take effect)

Configure the Inspection Sensor(s)

To configure the inspection sensor(s), do the following:

1. On the Main Menu Screen, press the Inspection Sensor Button. The Inspection Sensor Configuration Screen appears.

Figure 5-27. Main Menu Screen

2. On the Inspection Sensor Configuration Screen appears, you can set different tolerances. Press the tolerance you want to change and a keypad will appear. Enter the desired tolerance and press the Confirmation Button on the keypad to return to the Inspection Sensor Configuration Screen.

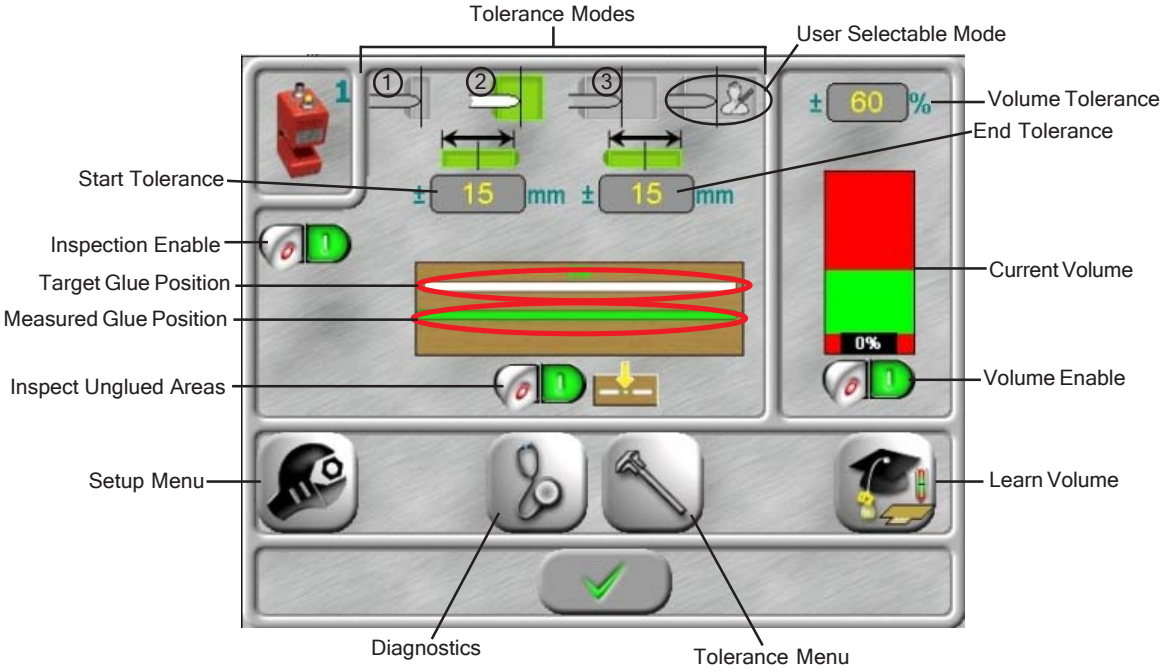


Figure 5-28. Inspection Sensor Configuration Screen

Configure the Inspection Sensor(s) - Continued

Name	Use
Sensor Number	Displays the number of the current inspection sensor.
Start Tolerance	The inspection tolerance for the start of the glue line. (Changes with the tolerance level.)
End Tolerance	The inspection tolerance for the end of the glue line. (Changes with the tolerance level.)
Tolerance Mode (Level Adjustment)	Quickly adjusts the inspection tolerance to a small amount (1), a medium amount (2), or a large amount (3). There is also a User Selectable adjustment mode, allowing more exact settings for start/end tolerance.
Inspect Unglued Areas On/Off Switch	When on, the inspection sensor will inspect these unglued areas according to the tolerances entered. When off, these areas are ignored.
Target Glue Position	The desired glue position, per settings.
Measured Glue Position	The actual, measured glue position.
Volume Enable On/Off Switch	Turns the Glue Volume Inspection on or off. The sensor will not inspect the glue volume if this switch is off.
Volume Tolerance	The inspection tolerance for the amount of glue on the product (not available if the Glue Volume Inspection Switch is off). (Changes with the tolerance level.)
Inspection Enable On/Off Switch	Switches the inspection sensor off and on. If bad products are going through without being sensed, check to make sure this switch is on.
Glue Line Length Sensor	Displays the length of the glue line (appears blank if the Inspection Valve is turned off).
Setup Menu Button	Press to make adjustments to the sensor.
Tolerance Menu Button	Press to fine-tune the inspection tolerances. This is covered in *Section 6 - Customize the FlexosealPRO.*
Learn Volume	Press to “teach” the sensor the glue volume while glue is being applied. This is covered in *Section 6 - Customize the FlexosealPRO2.*
Diagnostics Button	Press to use the Diagnostics. This is covered in *Section 6 - Customize the FlexosealPRO2.*
Confirmation Button	Press to enter the new settings and go back to the Main Menu.

Configure the Inspection Sensor(s) - Continued

3. On the Inspection Sensor Configuration Screen, press the Sensor Setup Button. The Sensor Setup Screen appears.

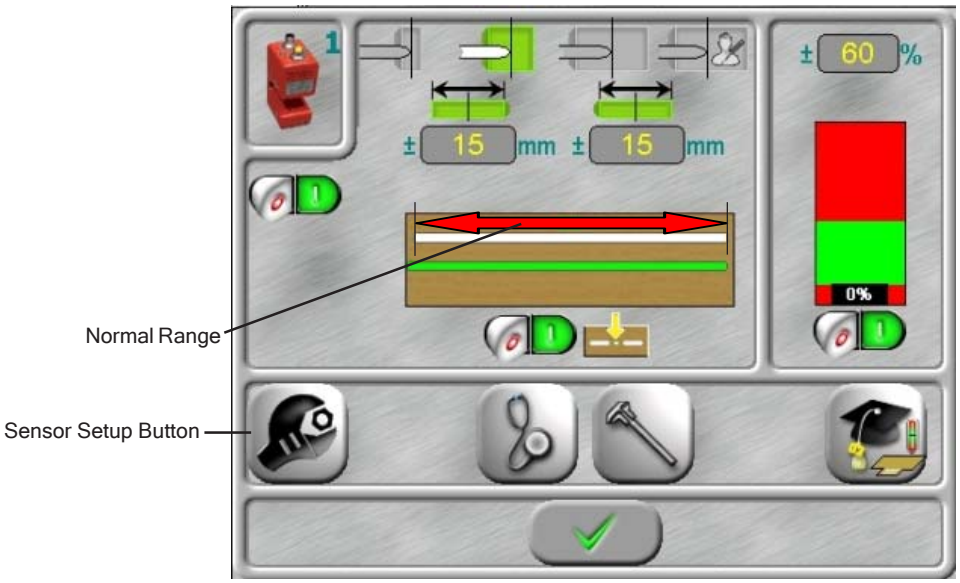


Figure 5-29. Inspection Sensor Configuration Screen

4. On the Sensor Setup Screen, change the settings as necessary for your job. Make sure the correct scanner is selected (assigned scanner or an internal scanner). Press the Confirmation Button to save your settings. The Inspection Sensor Configuration Screen appears.

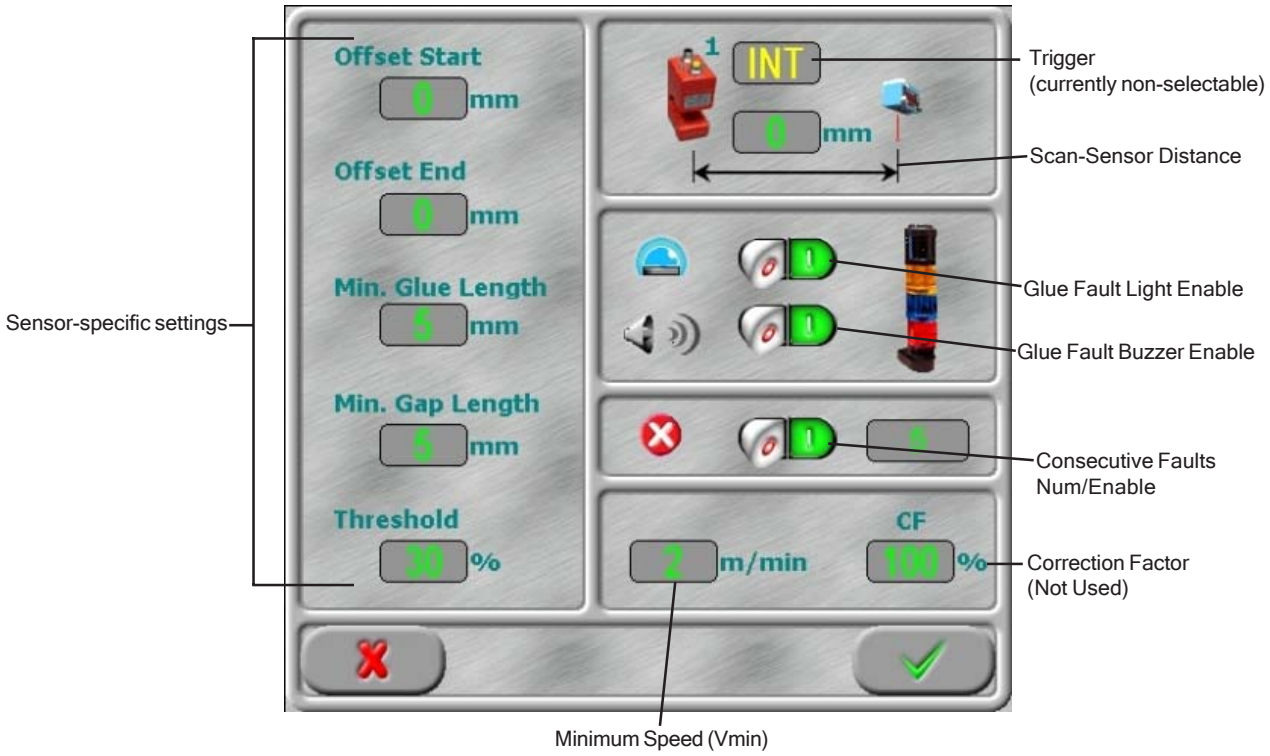


Figure 5-30. Sensor Setup Screen

Configure the Inspection Sensor(s) - Continued

Name	Use
Trigger (Non-selectable)	Indicates if the inspection scanner is the internal scanner (INT) or an assigned scanner.
Scan-Sensor Distance	The distance from the inspection sensor to the scanner being used for inspection.
Minimum Speed Threshold	The minimum speed necessary for the inspection sensor to inspect the glue lines.
Correction Factor	Not Used.
Offset Start	Used to adjust the start of the glue line due to sensor width. (A positive number forces an earlier start and a negative number forces a later start.)
Offset End	Used to adjust the end of the glue line due to sensor width. (A positive number forces a later end and a negative number forces an earlier end.)
Min. Glue Length	The minimum length of glue the sensor will be allowed to detect.
Min Gap Length	The minimum gap (without glue) the sensor will be allowed to detect. Gaps smaller than this will appear as glue.
Threshold	Used to influence the inspection to look for glue at percentage levels of the sensors output signal. A higher threshold percentage is used to require a higher glue output signal for the sensor to recognize glue. Often a higher percentage is used when inspecting boxes that have printing.
Consecutive Faults Num/Enable	Number of consecutive faults that may occur before the system shuts down.
Glue Fault Light Enable	Turns the Fault-Alert Light on or off.
Glue Fault Buzzer Enable	Turns the Fault-Alert Buzzer on or off.
Confirmation Button	Press to enter the new settings and go back to the Main Menu.
Cancel Button	Cancel the new settings and return to the previous settings.

Exit and Shutdown

To exit and shutdown the Flexoseal PRO System, do the following:

1. On the Main Menu Screen, press the Exit Button. A Confirmation Screen will appear.

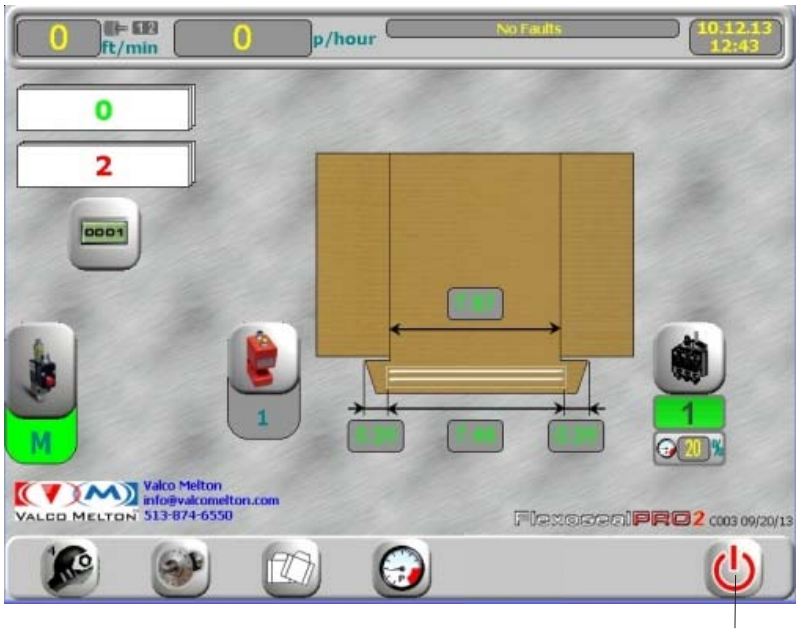


Figure 5-31. Main Menu Screen

2. On the Confirmation Screen, press the Cancel Button to cancel the exit and go back to the previous screen, or press the Confirmation Button to exit the FlexosealPRO program.

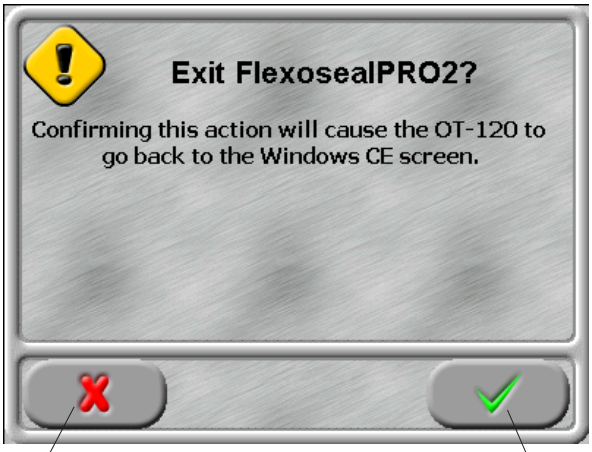


Figure 5-32. Exit FlexosealPRO Confirmation Screen

Exit and Shutdown - Continued

3. After the screen goes blank, press the red On/Off Button on the OT-120 (see Figure 5-33).

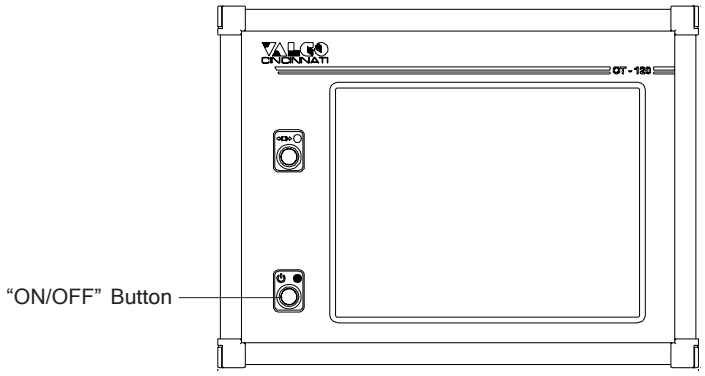


Figure 5-33. OT-120 Touchscreen

4. Flip the power switch on the back of the VCX Power Supply Module to the "Off" position (see Figure 5-30).

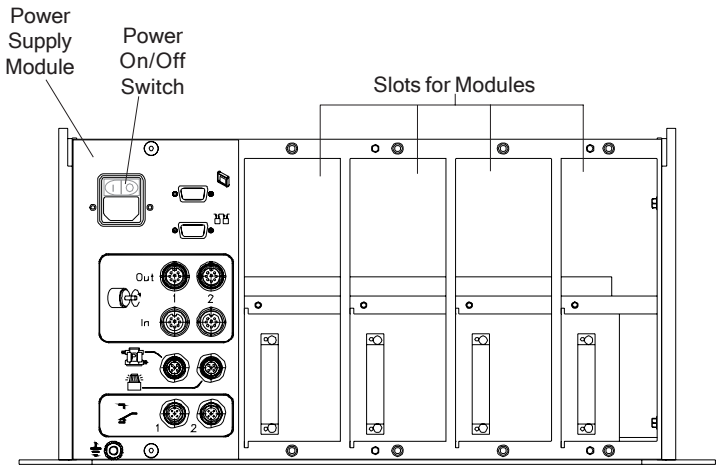


Figure 5-34. VCX Power Supply Module Power Switch

SECTION 6 - CUSTOMIZE THE SETTINGS

Sensor Diagnostics

To see the current readings for the selected sensor, do the following:

1. On the Main Menu Screen, press the Inspection Sensor Setup Button. The Inspection Sensor Configuration Screen appears.

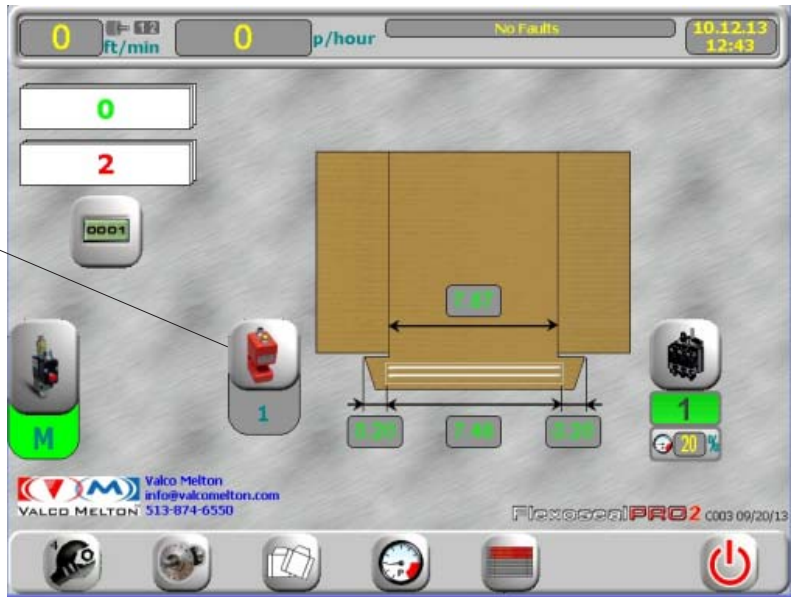


Figure 6-1. Main Menu Screen

2. On the Inspection Sensor Configuration Screen, press the Diagnostic Button. The Diagnostic Screen is displayed.

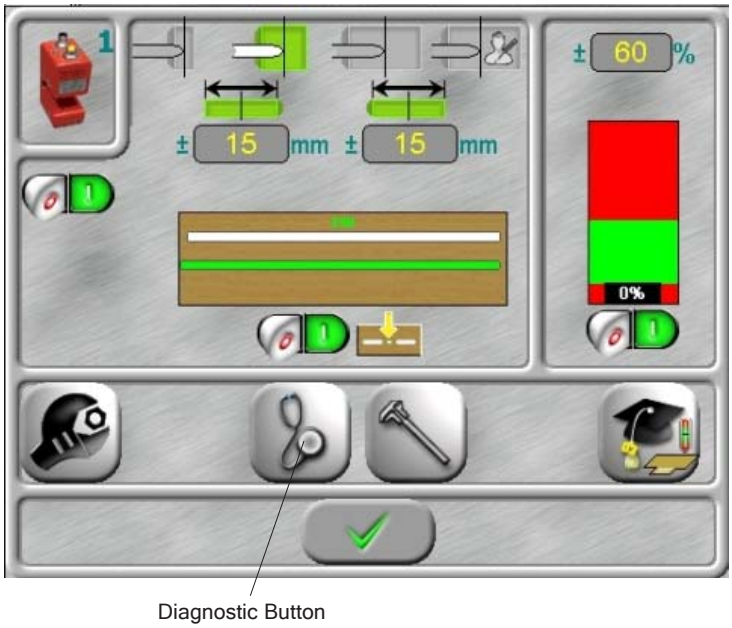


Figure 6-2. Inspection Sensor Configuration Screen

Sensor Diagnostics - Continued

3. On the Sensor Diagnostics Screen, you can view the diagnostics for the selected sensor, as follows:

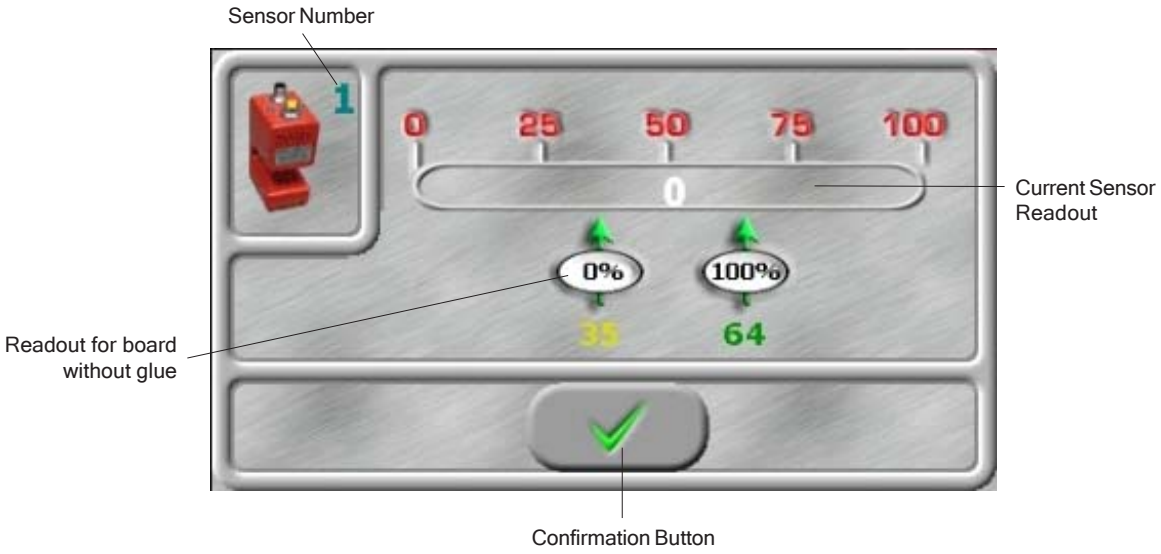


Figure 6-3. Sensor Diagnostics Screen

4. When you are done, press the Confirmation Button on the Sensor Diagnostics Screen (shown above). The Inspection Sensor Configuration Screen appears. Press the Confirmation Button on the Inspection Sensor Configuration Screen to return to the Main Menu Screen.

Inspection Sensor Tolerance Setup

To adjust the Inspection Sensor Tolerance, do the following:

1. On the Main Menu Screen, press the Inspection Sensor Setup Button. The Inspection Sensor Configuration Screen appears.

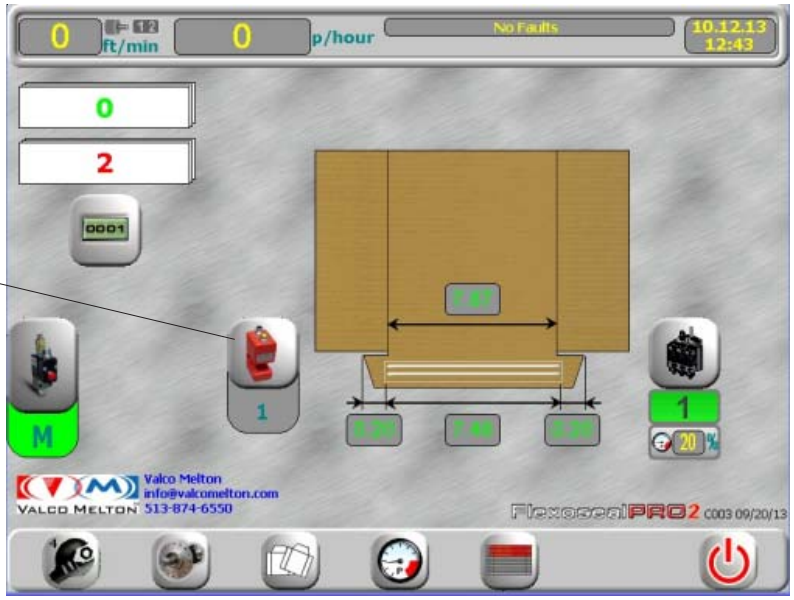


Figure 6-4. Main Menu Screen

2. On the Inspection Sensor Configuration Screen, press the Tolerance Setup Button. The Tolerance Setup Screen is displayed.

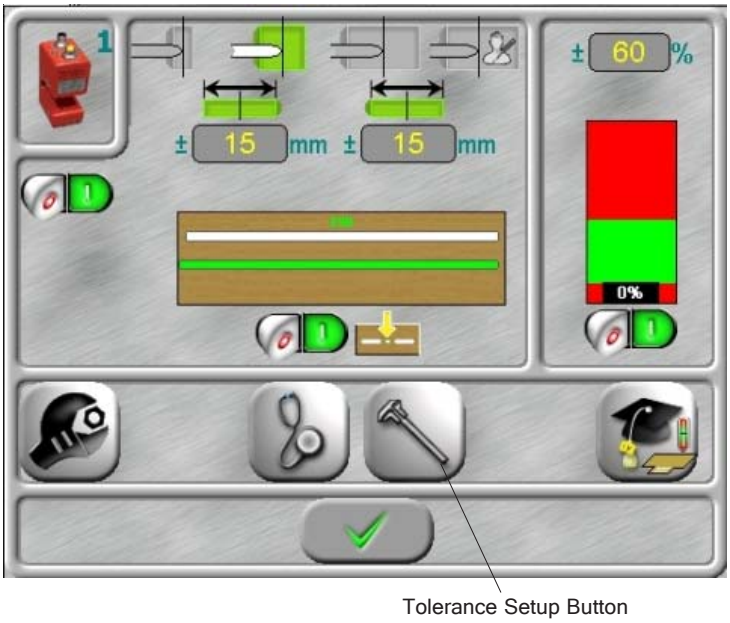


Figure 6-5. Inspection Sensor Configuration Screen

Inspection Sensor Tolerance Setup - Continued

3. On the Tolerance Setup Screen, you can define the tolerances for the 3 different levels (small, medium, and large)--each level has an individual setting. You can set the tolerances for the glue line start, the glue line end, the gaps between the glue lines, and the volume. Just press on a tolerance value, and a keypad will appear.

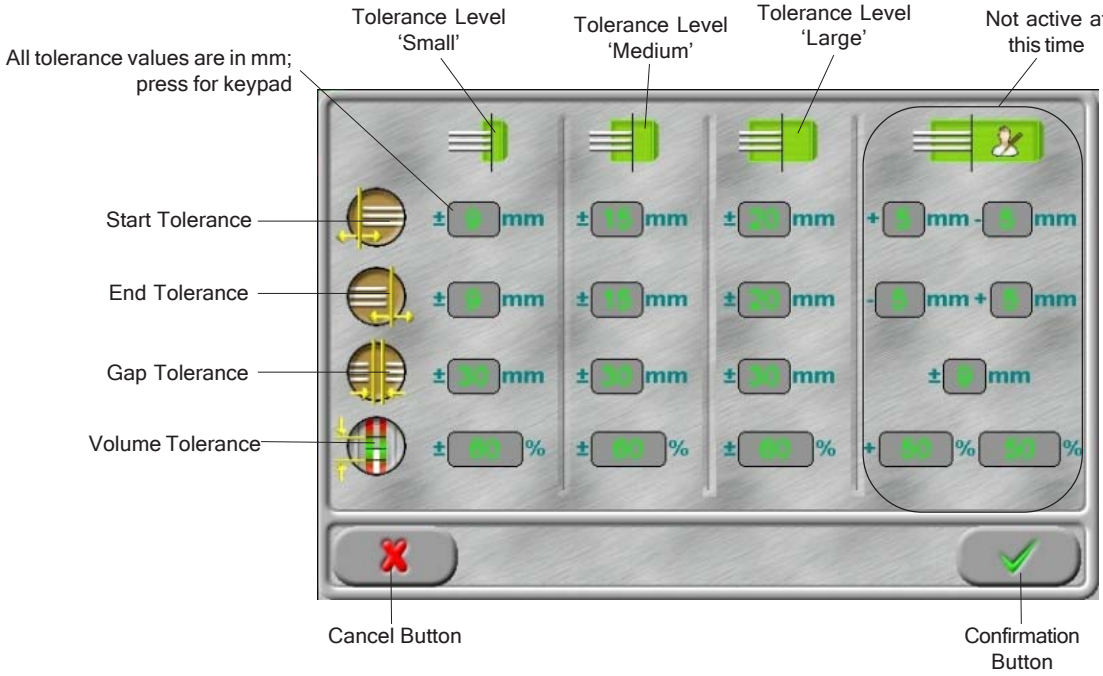


Figure 6-6. Tolerance Setup Screen

4. When the keypad appears, enter the desired value and press the keypad Confirmation Button. Continue this same process with each value until all changes are made.

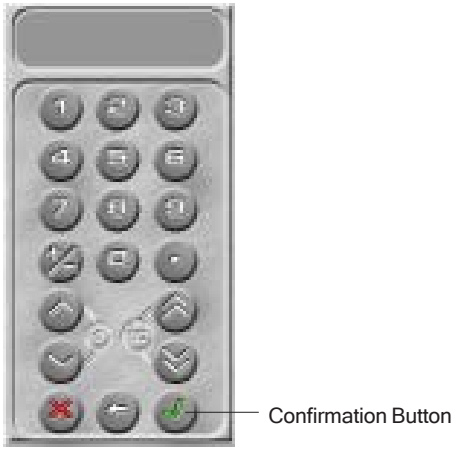


Figure 6-7. Keypad

Inspection Sensor Tolerance Setup - Continued

5. When the tolerances have been defined, press the Confirmation Button. Then, set the inspection sensor to use the small, medium, or large tolerances. Press the corresponding tolerance picture and the values automatically change to the programmed values! Press the Confirmation button to return to the Main Menu Screen.

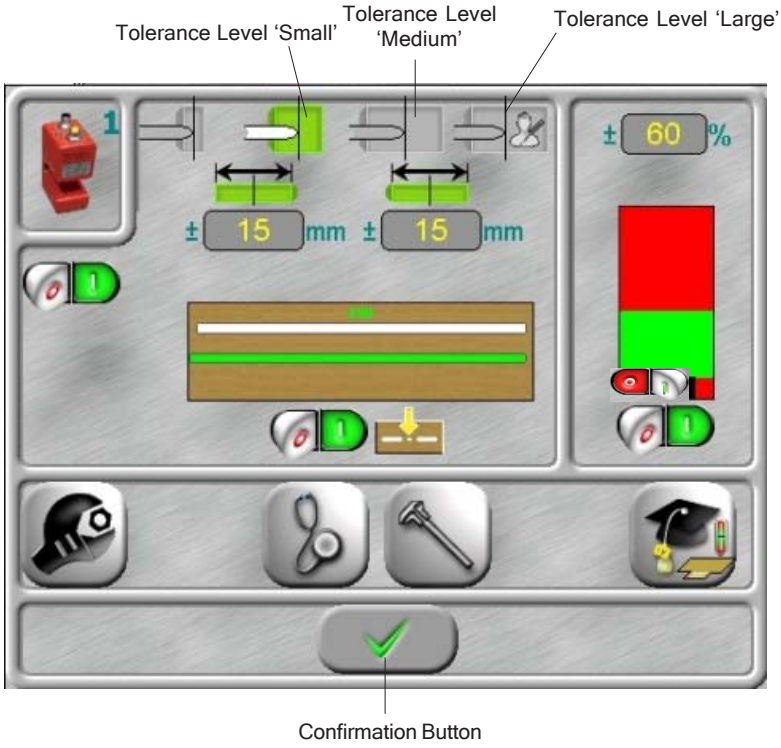


Figure 6-8. Inspection Sensor Configuration Screen

Learn Volume Procedure

To make the FlexosealPRO System learn the glue volume, first make sure the glue line the system is producing on the product is satisfactory, and then do the following:

1. On the Main Menu Screen, press the Inspection Sensor Setup Button. The Inspection Sensor Configuration Screen appears.

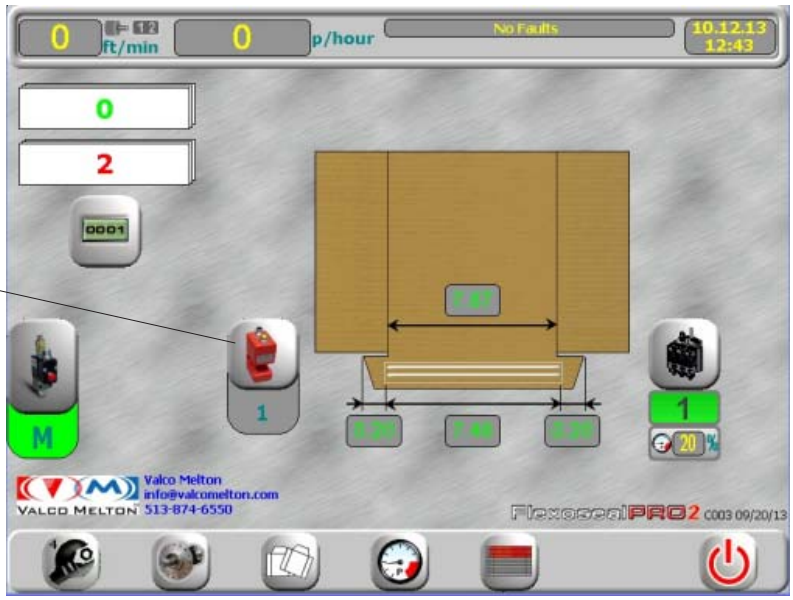


Figure 6-9. Main Menu Screen

The recommended default setting for the Volume Inspector Switch is OFF. Turn it ON only when performing the system Learn Glue Volume procedure.

2. On the Inspection Sensor Configuration Screen, make sure the Volume Inspection switch is “ON” and the Inspection Sensor Switch is “ON.”

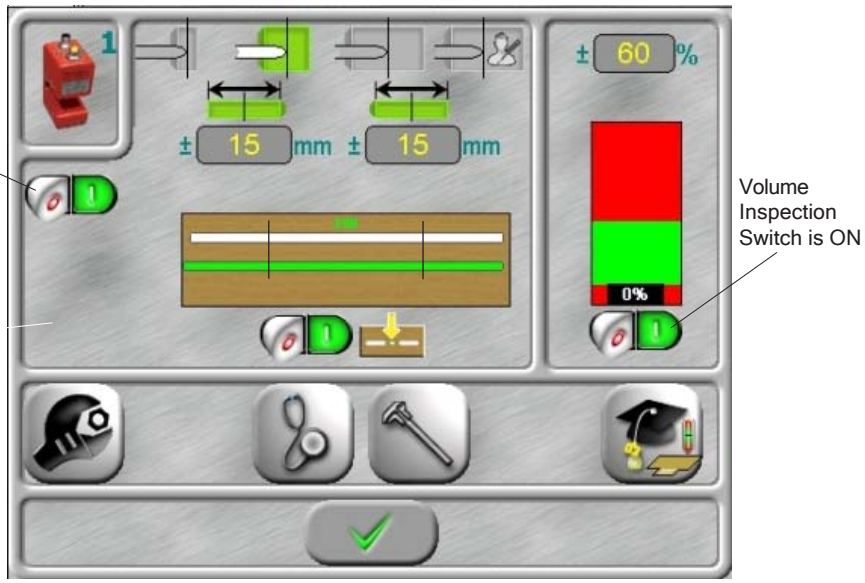


Figure 6-10. Inspection Sensor Configuration Screen

Learn Volume Procedure - Continued

3. On the Inspection Sensor Configuration Screen, press the Learn Volume Button. The Learn Volume Screen is displayed.

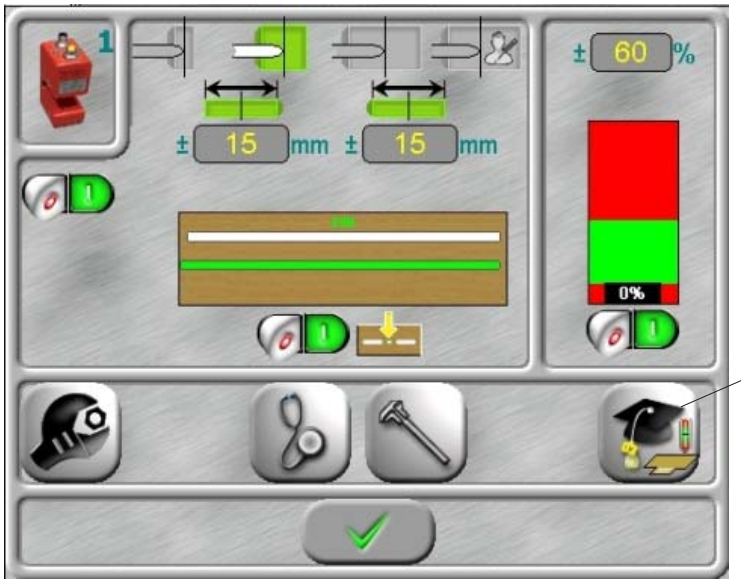


Figure 6-11. Inspection Sensor Configuration Screen

4. When the Learn Volume Screen appears, follow the directions on the screen.

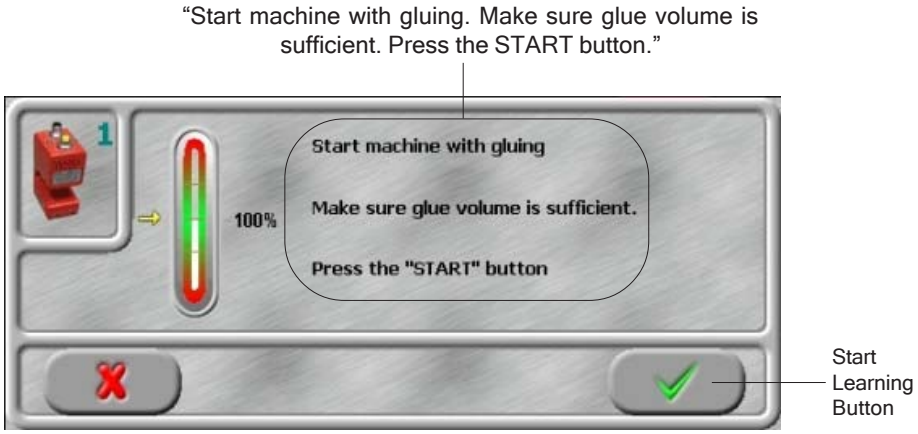


Figure 6-12. Learn Volume Screen

Learn Volume Procedure - Continued

5. When the FlexosealPRO System is processing and learning the glue volume, an hourglass window will appear. Please wait while the machine processes your request.

Figure 6-13. Learn Started Screen

To cancel the request, press the Cancel button.

6. After processing, the FlexosealPRO System will display one of the following messages:

Message Displayed	Information
Learn Impossible!	The system cannot learn; the machine may not be running or the Volume Inspection switch may be off.
Learn in Process!	The system is processing the glue volume information; please wait
Learn Successful!	The system has successfully learned the glue volume.
Learn Failed!	The system did not learn the glue volume.
Timeout!	The system timed out before learning the glue volume. The learn was not successful; try again.
Learn Cancelled!	The system has received your cancellation and has cancelled the learning request.

7. When finished, press the Confirmation Button to return to the Inspection Sensor Configuration Screen. Press the Confirmation Button on the Inspection Sensor Configuration Screen to return to the Main Menu Screen.

Device Status Information

To check on the version, revision, and other information regarding your device and software applications, a Device Status Information Screen is available. To access this feature, do the following:

1. On the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

Figure 6-14. Main Menu Screen

2. On the General Setup Screen, press the Access Parameters Button. The CAN Device Configuration Screen appears.

Figure 6-15. General Setup Screen

Device Status Information - Continued

3. Press the Device Status Information Button on the CAN Device Configuration Screen. (This screen is explained in detail later in this section, under “Access Parameters.”)

Figure 6-16. CAN Device Configuration Screen

4. The Device Status Information Screen will appear.

Figure 6-17. Device Status Information Screen

5. When done, press the Confirmation Button on each screen until the Main Menu Screen appears.

Configure the Language

To change the language of operation, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

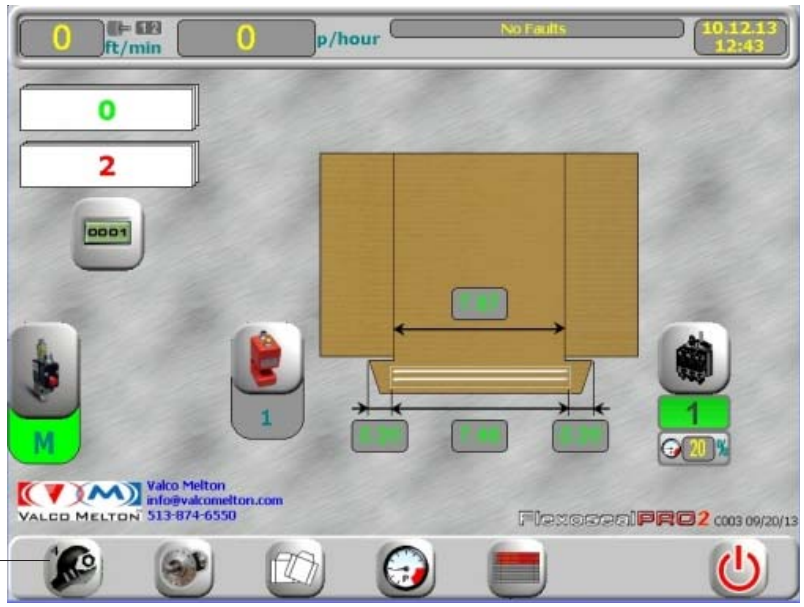


Figure 6-18. Main Menu Screen

Figure 6-19. General Setup Screen

Configure the Language - Continued

2. Choose one of two methods:

   Method 1:

   -On the General Setup Screen, scroll through the languages with the up and down arrow keys until the desired language is highlighted and then press the Home Button to return to the Main Screen.

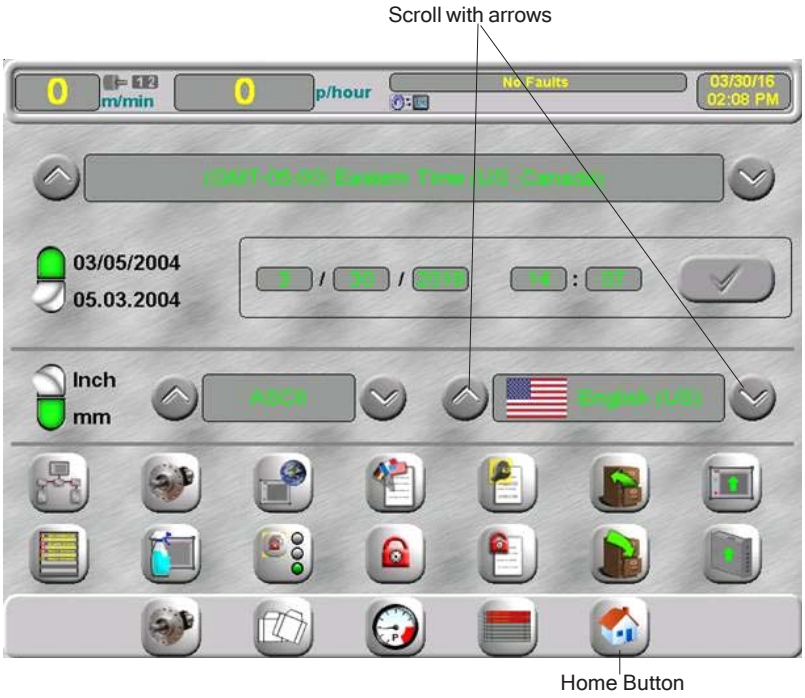


Figure 6-20. General Setup Screen

Configure the Language - Continued

Method 2:

-On the General Setup Screen, press the current language. You will see a list of languages you can choose by pressing your selection, and then press the Home Button to return to the Main Screen.

Figure 6-21. General Setup Screen

Figure 6-22. List of Languages Screen

3. After finishing, press the Home Button on the General Configuration Screen to return to the Main Menu Screen.

Configure the Time Zone

To configure the time zone, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

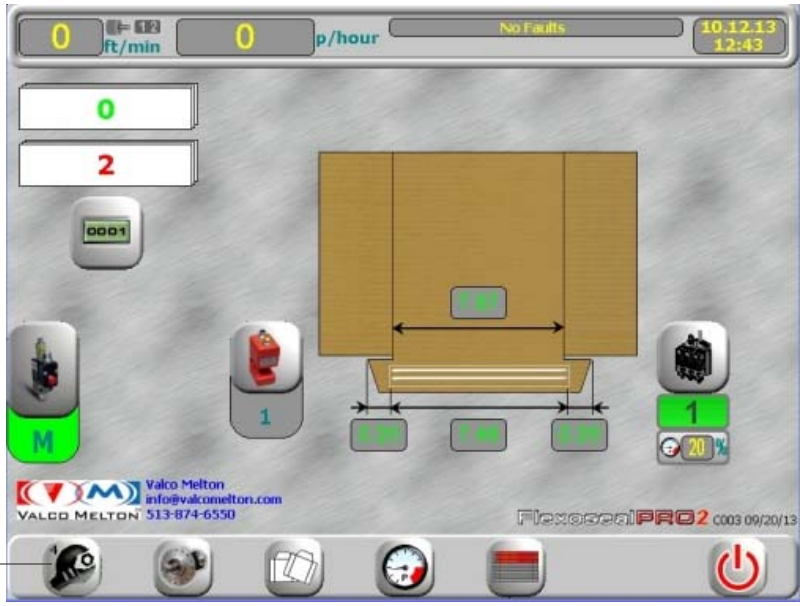


Figure 6-23. Main Menu Screen

2. On the General Setup Screen, press the time zone. A list of time zones will appear.

Figure 6-24. General Setup Screen

Configure the Time Zone - Continued

3. On the list of time zones, scroll until you find your time zone, and then press your choice to highlight it. Then, press the Confirmation Button to return to the General Setup Screen.

Figure 6-25. List of Time Zones Screen

4. Press the Set Button. This must be done or your changes will not take effect.

Figure 6-26. General Setup Screen

5. After finishing, press the Home Button on the General Configuration Screen to return to the Main Menu Screen.

Change and Format the Time/Date

To change and format the date and time, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

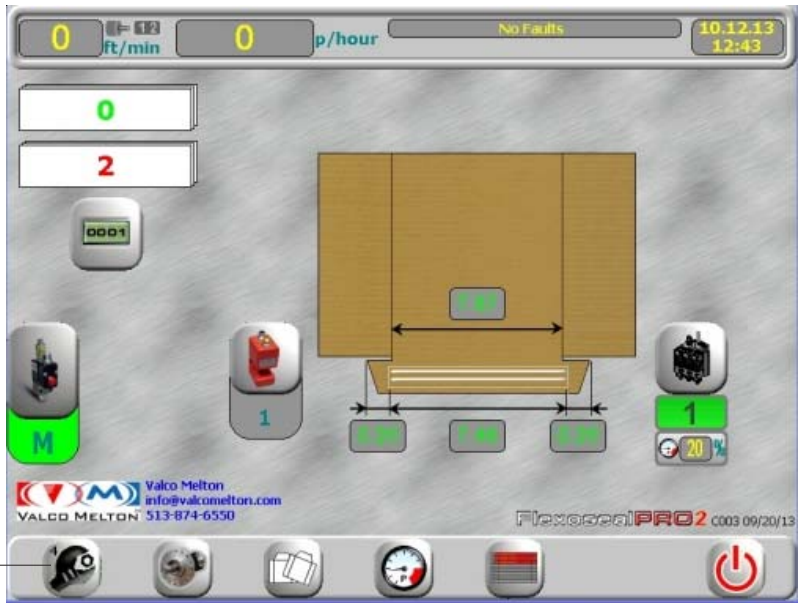


Figure 6-27. Main Menu Screen

2. On the General Setup Screen, press the time and date value you wish to change. A keypad will appear.

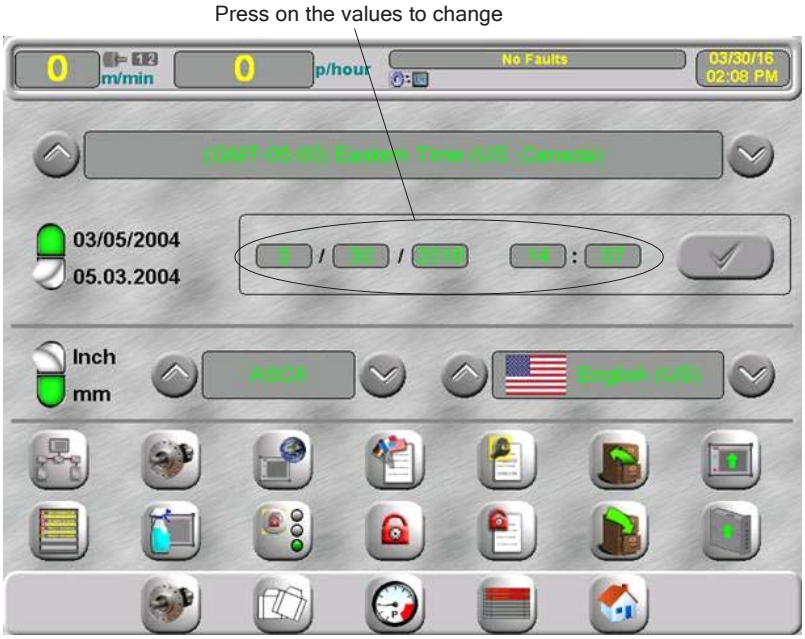


Figure 6-28. General Setup Screen

Change and Format the Time/ Date - Continued

3. When the keypad appears, enter the desired value and press the keypad Confirmation Button. Continue this same process with each value until all changes are made.

Figure 6-29. Keypad

4. Press the Set Button. This must be done or your changes will not take effect.

Figure 6-30. General Setup Screen

Change and Format the Time/ Date - Continued

5. When done, choose the format of the display with the Date Format Switch. Then press the Home Button to return to the Main Menu Screen.

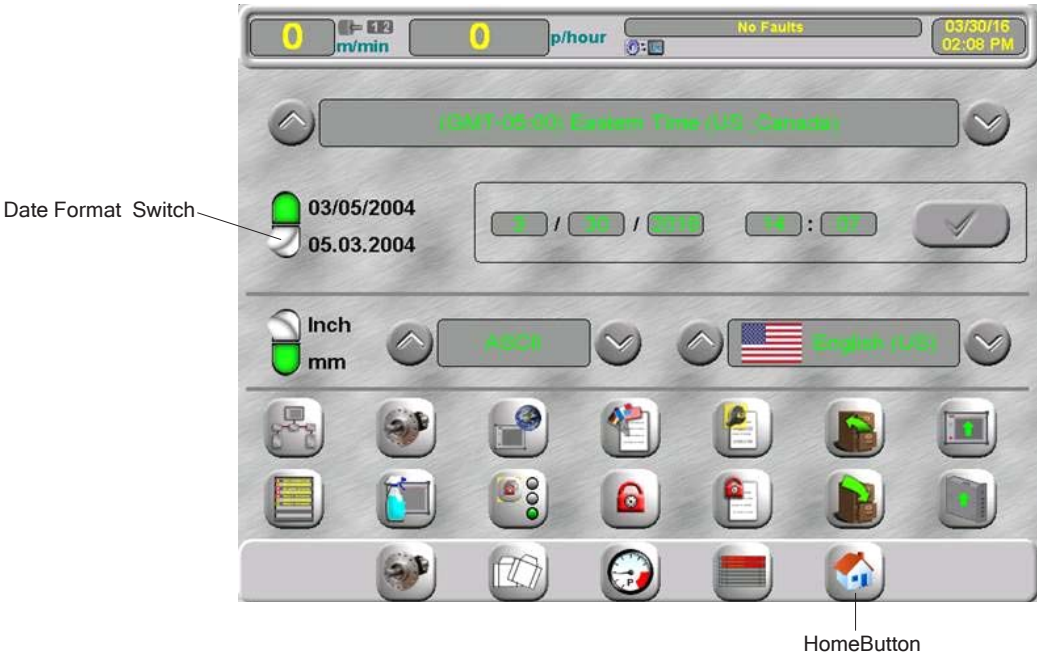


Figure 6-31. General Setup Screen

Access Parameters

To access parameters, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

Figure 6-32. Main Menu Screen

2. On the General Setup Screen, press the Access Parameters Button. The CAN Device Configuration Screen will appear.

Figure 6-33. General Setup Screen

Access Parameters - Continued

3. On the CAN Device Configuration Screen, use one of the following methods to access the parameters:

Method 1:

-Enter an MCP parameter number in the Edit Field. The other fields will be filled out with the applicable data to this specific parameter.

Figure 6-34. CAN Device Configuration Screen

Method 2:

-Enter two “new” numbers in the Dual Edit Fields.

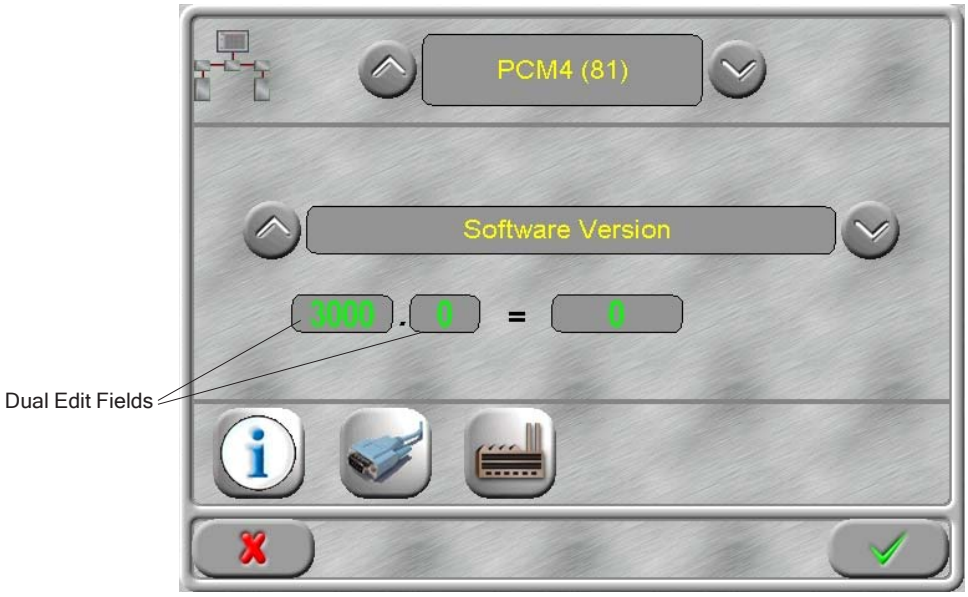


Figure 6-35. CAN Device Configuration Screen

Access Parameters - Continued

A user may scroll to the desired parameter using the up/down arrows located next to the current parameter selection or click on the current selection to access a list of all possible parameters.

Print/Capture Parameter Values

To print/capture the parameter values, do the following:

1. Connect a computer or a printer to the COM port on the MCP-12 Unit. Each module has its own COM port.

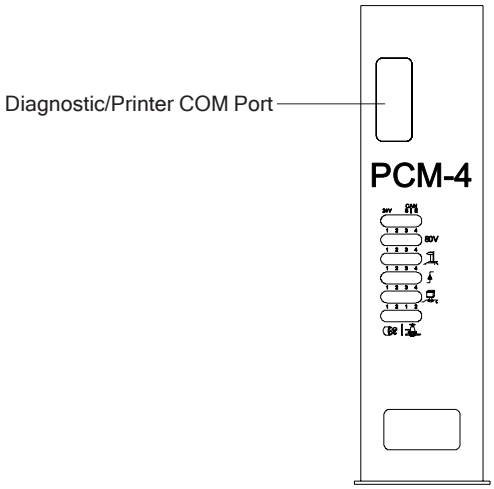


Figure 6-36. Model MCP-12/4 Control Unit - Connection Module (PCM-4)

2. On the CAN Device Configuration Screen, press the COM Port Button. Press the Confirmation Button to return to the Main Menu Screen.

Figure 6-37. CAN Device Configuration Screen

Access Password Configuration Files

To access password configuration files, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

Figure 6-38. Main Menu Screen

> Password access can be customized. See the topic “Access General Configuration Files” in this Section for more information.

2. On the General Setup Screen, press the Access Password Files Button.

Figure 6-39. General Setup Screen

Access Password Configuration Files - Continued

3. The Password Configuration Screen will appear.

Figure 6-40. Password Configuration Setup Screen

Access Password Configuration Files - Continued

4. Use the stylus to highlight the object you wish to change. Use the Input Panel like a keyboard to enter data. For example:

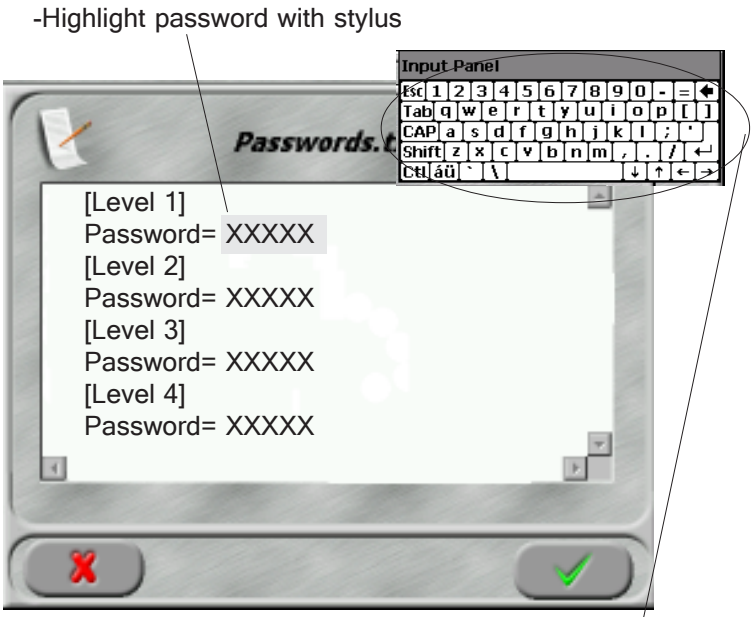


Figure 6-41. Password Configuration Setup Screen

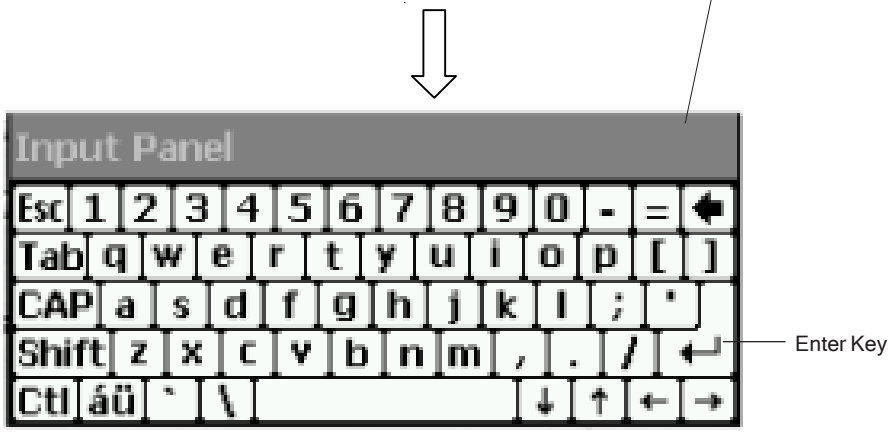


Figure 6-42. Input Panel (Keyboard)

Warning! Use ONLY NUMBERS for the password! The system only uses passwords in all-number form.

-"Type" in a new password with the stylus, and then press the Enter Key.

Access Password Configuration Files - Continued

5. When done, press the Confirmation Button on the screen. The General Setup Screen appears.

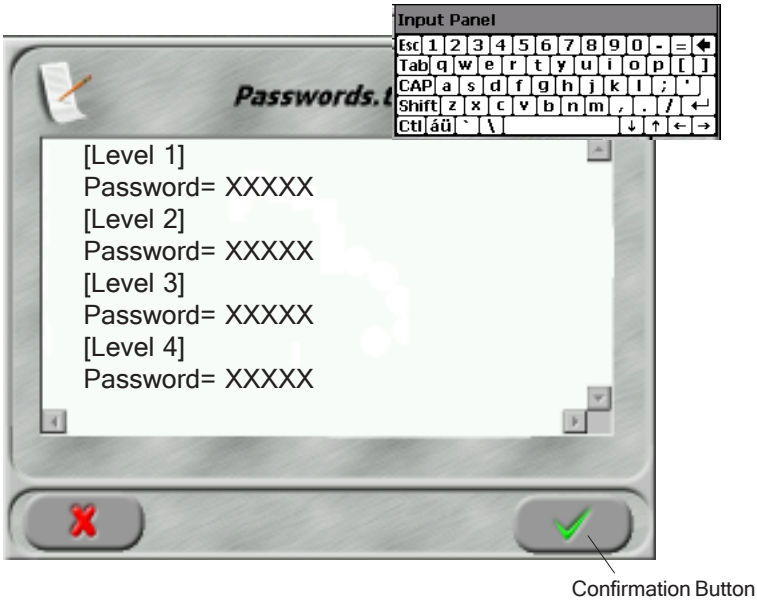


Figure 6-43. Password Configuration Setup Screen

6. On the General Setup Screen, press the Home Button to return to the Main Menu Screen.

Figure 6-44. General Setup Screen

Access/ Change Language Translation Files

The translation of one language to another may vary depending on dialect and region. If the translations from English to your preferred language are not what you would like, you can change the translation files.

To change the translation files, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

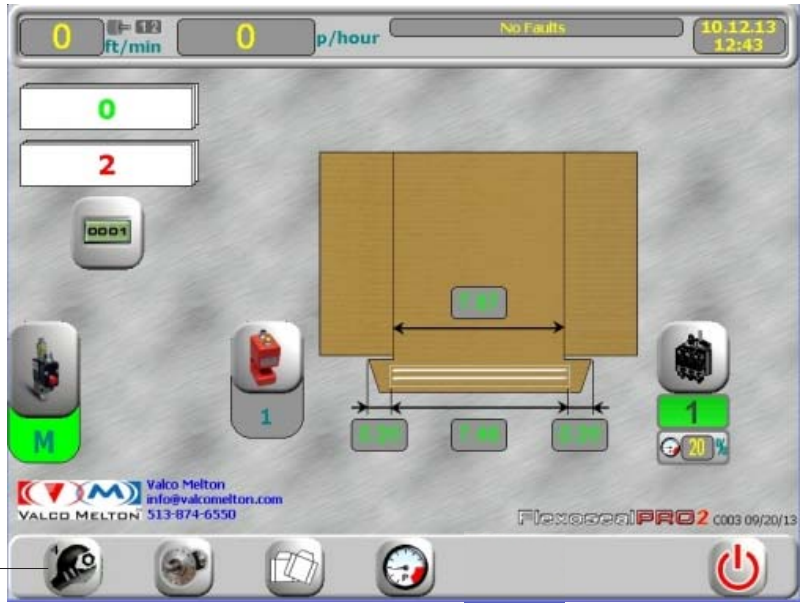


Figure 6-45. Main Menu Screen

2. On the General Setup Screen, press the Access Language Translation Files Button.

Figure 6-46. General Setup Screen

Access/Change Language Translation Files - Continued

3. The Language Translation Files Configuration Screen will appear. (The following is only an example.)

Figure 6-47. Language Translation Files Configuration Screen

4. Use the stylus and the Input Panel to change the printout template to the desired format. For example, “Ton” is not a term you could easily remember. You would prefer the Italian translation to read “Tempo Sopra.” Therefore, highlight the term “Ton” with the stylus.

Figure 6-48. Language Translation Files Configuration Screen

Access/Change Language Translation Files - Continued

5. Use the keypad to type in Tempo Sopra.

Figure 6-49. Language Translation Files Configuration Screen

6. Press the Confirmation Button. The General Setup Screen appears. Press the Home Button on the General Setup Screen to return to the Main Menu Screen.

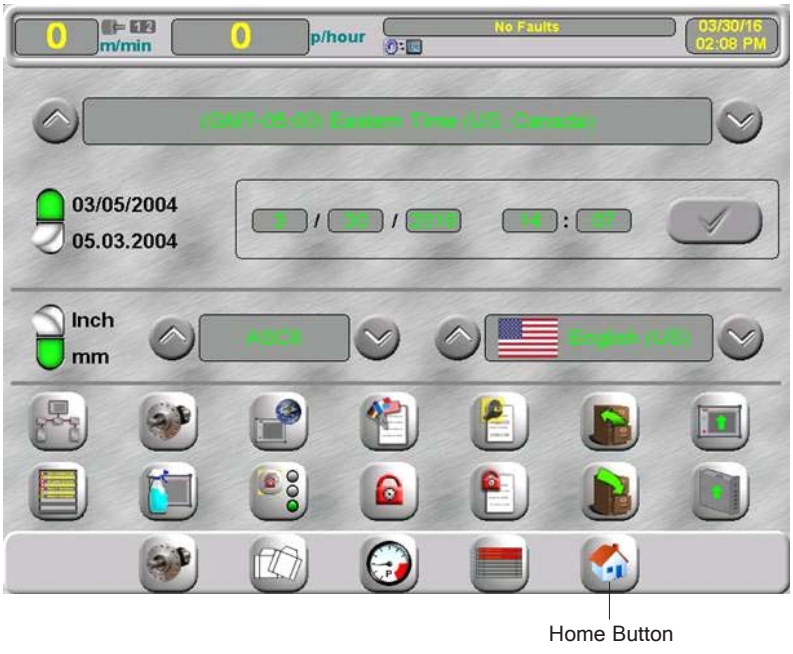


Figure 6-50. General Setup Screen

Access Configuration Files

To access general configuration files, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

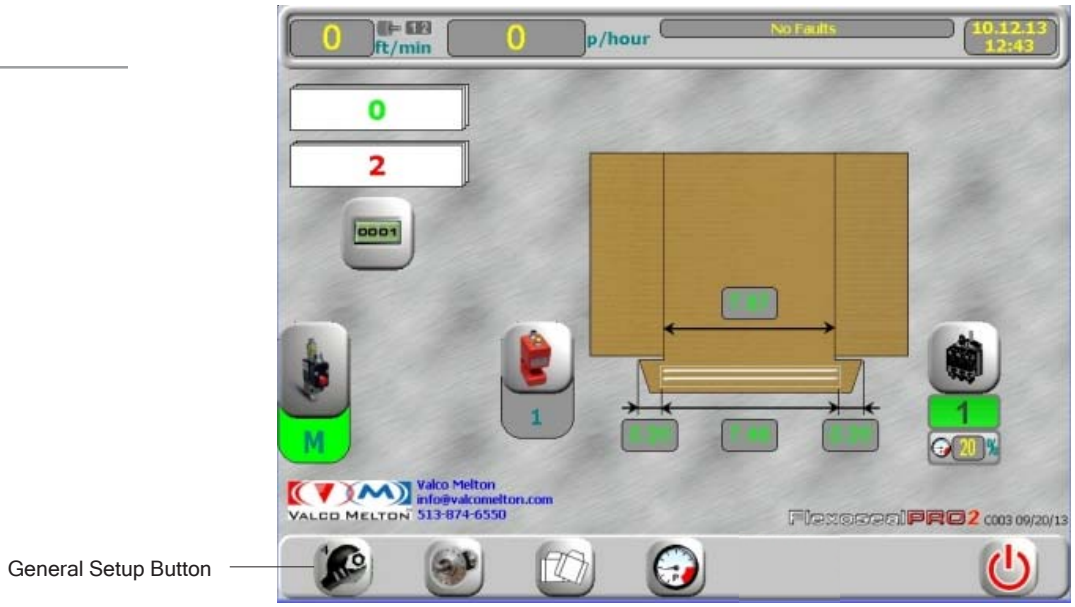


Figure 6-51. Main Menu Screen

2. On the General Setup Screen, press the Access Configuration Files Button. The Configuration Files Screen appears.

Figure 6-52. General Setup Screen

Access Configuration Files - Continued

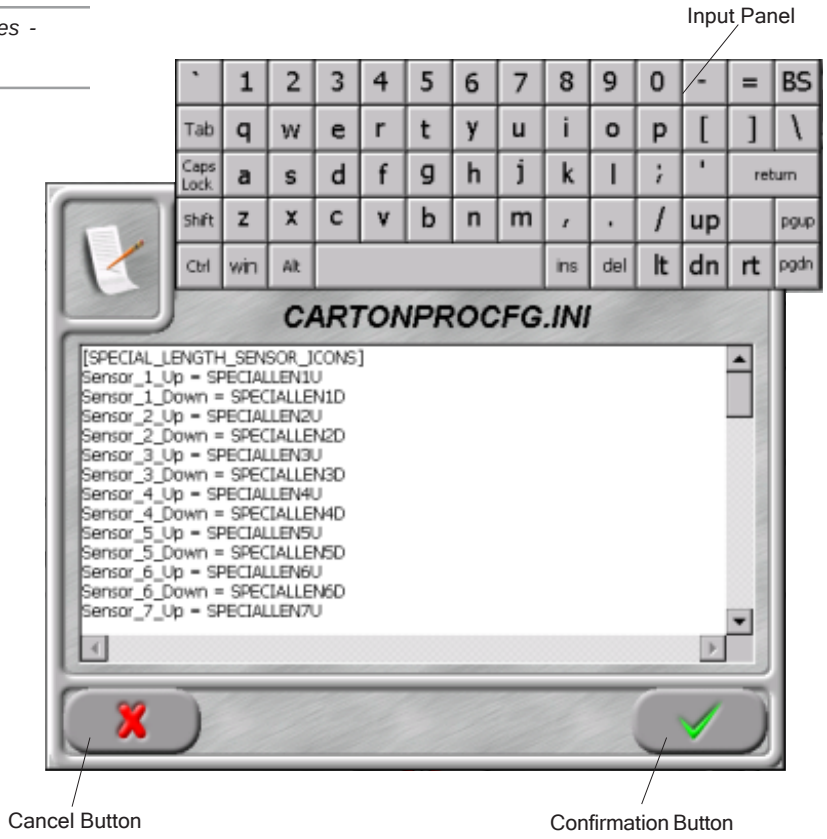


Figure 5-53. Configuration Files Screen

3. On the Configuration Files Screen, use the Input Panel and stylus to make changes.

> It is recommended that only ValcoMelton installation and service personnel make changes to the configuration.

4. Press the Confirmation Button to save the changes.

Password Access Configuration Dialog

To access the Password Access Configuration Dialog, do the following:

1. From the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

Figure 5-54. General Setup Screen - Password Access Configuration Button

2. On the General Setup Screen, press the Password Access Configuration Button.

3. The Password Access Configuration Dialog will appear.

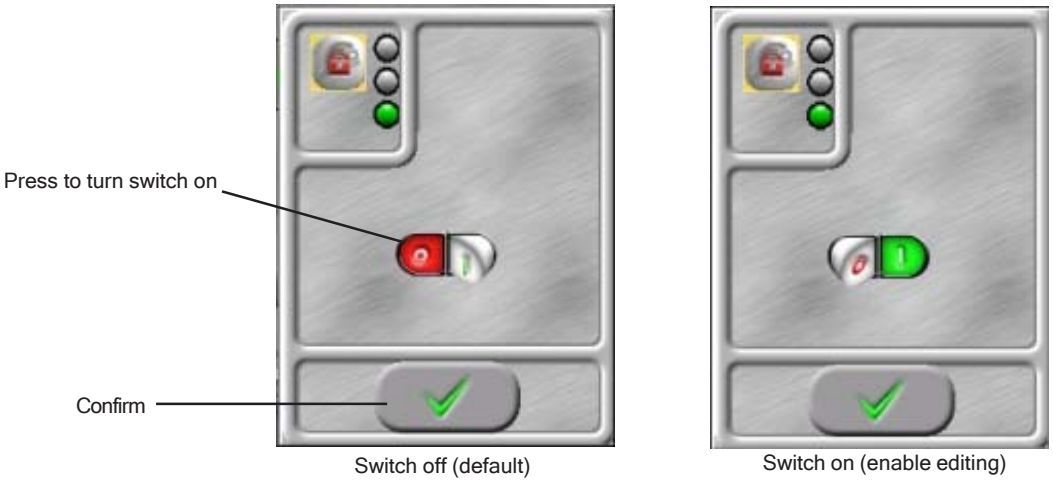


Figure 5-55. Password Access Configuration Dialog

Password Access Configuration Dialog - Continued

4. The switch in the selection window will be off (default setting). Pressing the switch will turn it on, enabling the Icon Configuration function.

5. Press Confirm to close the dialog. The system will now allow Icon configuration.

6. To configure an Icon, press on that Icon. An Icon configuration dialog will open (example shown is for the Pressure Icon).

Figure 5-56. Icon Configuration Dialog for Pressure Icon

A. Options for the five password levels (0, 1, 2, 3) include:

Enable - Icon visible and active.
Disable - Icon visible, but inactive.
Hide - Icon not shown, and inactive

B. In the example shown, (Figure 5-43), the Pressure Icon is enabled for all levels except “0,” which is displayed, but inactive.

7. Pressing an alternate password option-selection button will change the configuration.

8. When configuration is complete, press “Confirm” to save the new configurations and close the dialog window.

9. Pressing “Cancel” closes the window without saving the configuration changes.

Forgotten Passwords

It is possible that the Administrator password may be lost. In this case, an Administrator needs to regain access to the system by obtaining a new Administrator password. To regain access, do the following:

1. On the Main Menu Screen, press the General Setup Button with the lock on it.

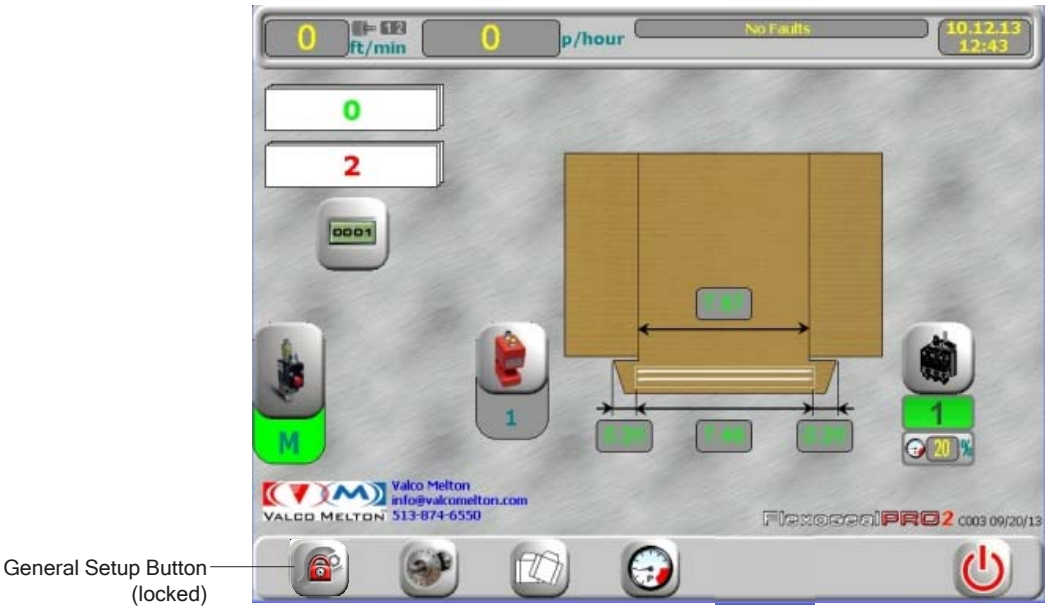


Figure 6-57. Main Menu Screen

2. When the keypad appears, press the question mark button to retrieve a special number. Be sure to write this number down.

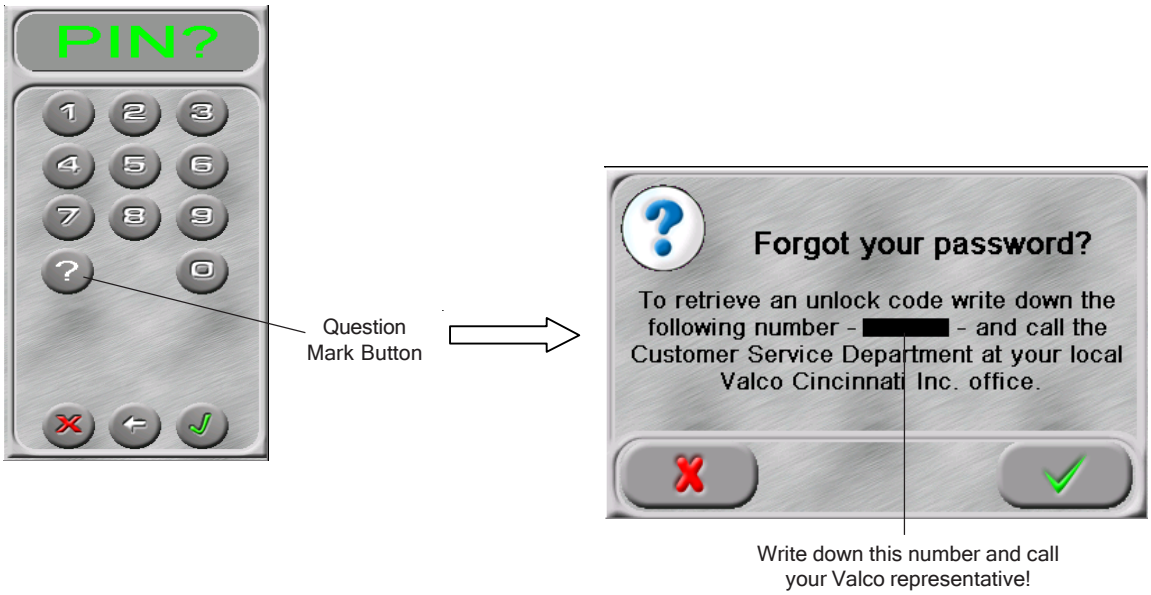


Figure 6-58. Password Screen

Forgotten Passwords - Continued

3. Call your local Valco representative and be ready to give the special number to the service personnel. You will receive a special PIN code that will allow the Administrator's password to be changed.

4. Press the Confirmation Button. The keypad will appear.

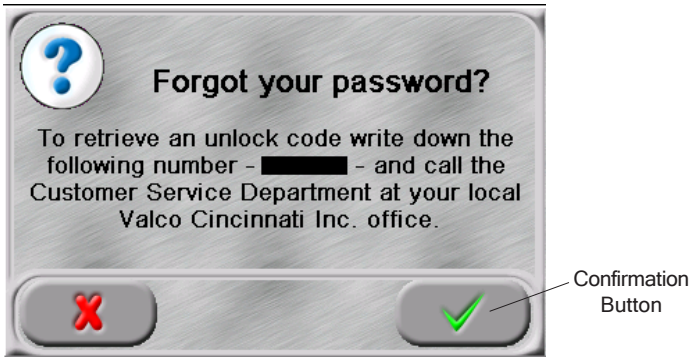


Figure 6-59. Code Number Screen

The old Administrator password will not be retrieved. Instead, the old Administrator password will be changed to whatever the user is told to enter.

5. Enter the PIN code given by the Valco representative and press the Confirmation Button. A new keypad saying "Enter New PIN" appears.

Figure 6-60. Keypad

Forgotten Passwords - Continued

6. On the “Enter New PIN” keypad, enter a new Administrator password--a password you choose--and press the Confirmation Button. Be sure to keep this new password in a safe place!

Figure 6-61. Keypad

7. When the Password Changed Screen appears, the password change was successful. The Administrator password has been permanently changed.

Figure 6-62. Password Changed Screen

At this point, the Administrator password has been changed and it can be used to gain *Administrator* privileges. Note that once the Administrator password has been changed, the special access PIN code that allows a user to change the Administrator password will be rendered invalid. If the Administrator password is lost again, the procedure for obtaining a special access PIN code for change of the Administrator password needs to be repeated.

Forgotten Passwords - Continued

8. Press the Confirmation Button to return to the Main Menu Screen.

Figure 6-63. Password Changed Screen

Lockout Configuration Access

To signout and lockout the system (so that correct passwords must be re-entered for configuration changes), do the following:

1. On the Main Menu Screen, press the General Setup Button. The General Setup Screen appears.

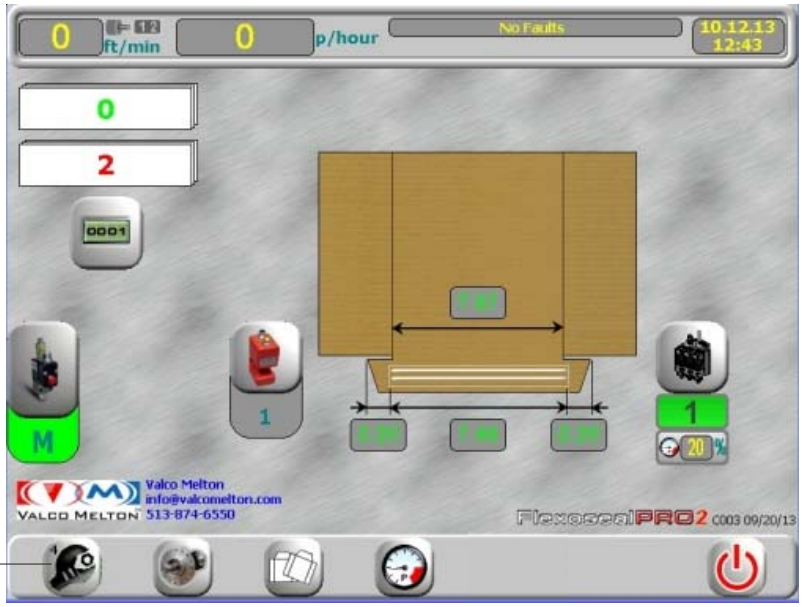


Figure 6-64. Main Menu Screen

2. On the General Setup Screen, press the Exit Level and Lock Button. The Main Menu Screen will appear with a locked General Setup Button.

Figure 6-65. General Setup Screen

Lockout Configuration Access - Continued

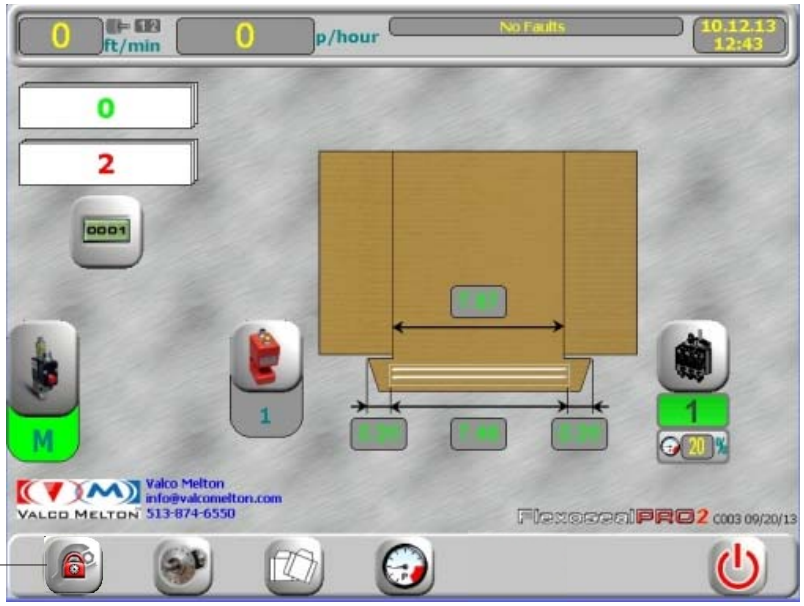


Figure 6-66. Main Menu Screen with Locked General Setup Button

Tipsealer Air Cylinder Timing Values

Only available with Non-Contact Glue Station.

Timing values for firing the air cylinders are accessed as follows:

1. On the Main Menu Screen, press the General Setup Button.

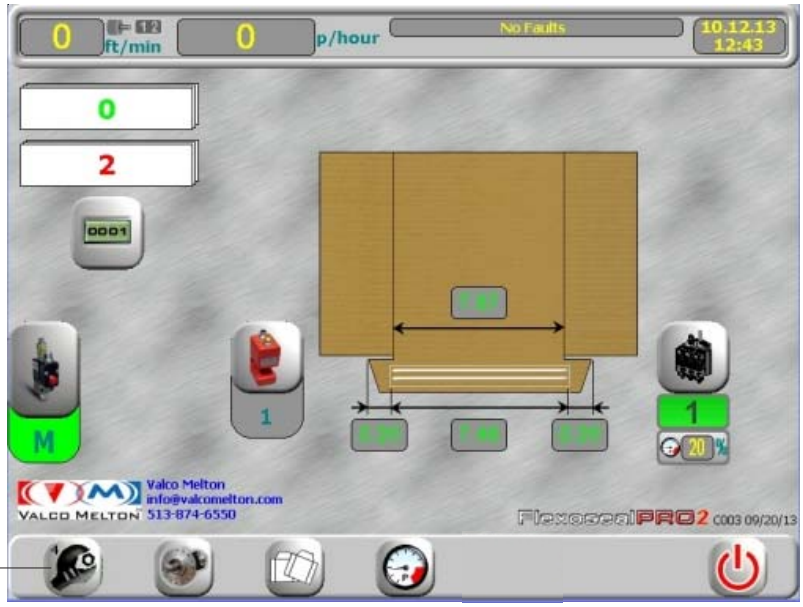


Figure 6-67. Main Menu Screen

2. On the General Setup Screen, press the CAN Device Configuration Dialog Button.

Figure 6-68. General Setup Screen

Tipsealer Air Cylinder Timing Values - Continued

3. On the CAN Device Configuration Screen, click on the CAN Device Field to access the Tipsealer Timing Values Screen.

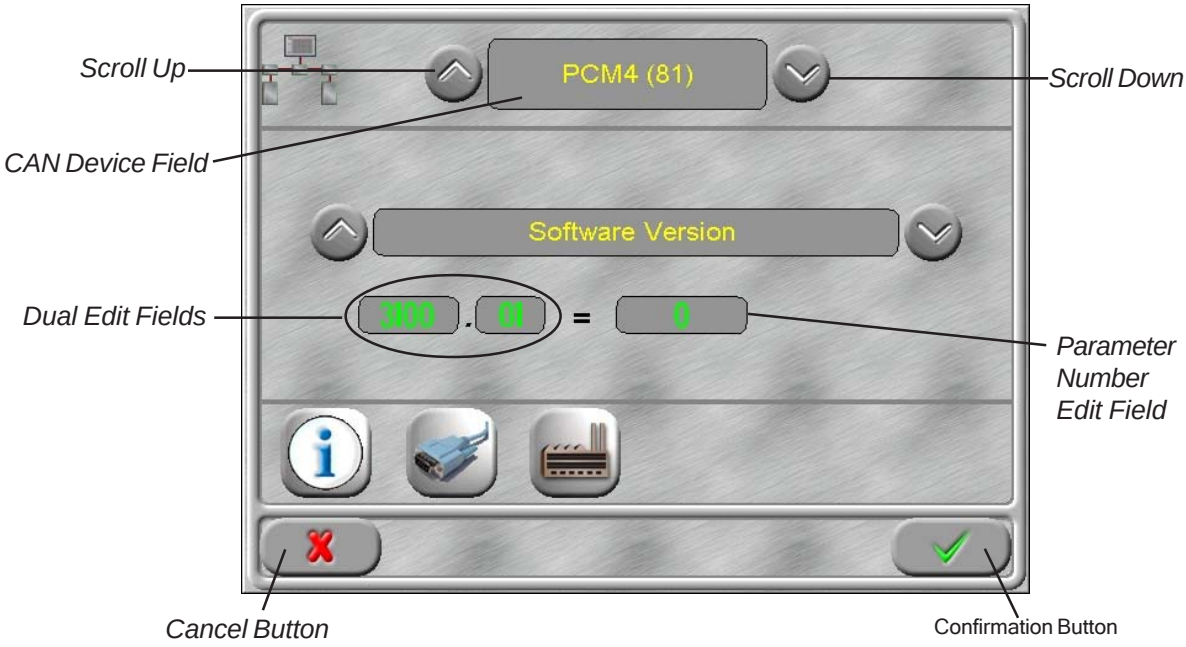


Figure 6-69. CAN Device Configuration Screen

4. Clicking on an item is the list field will highlight it. Pressing the Confirmation Button will select that item, returning the user to the CAN Device Configuration Screen. The screen will now display the name of the selected item in the CAN Device Field, and the values for that item in the Dual Edit and Parameter Number Edit fields.

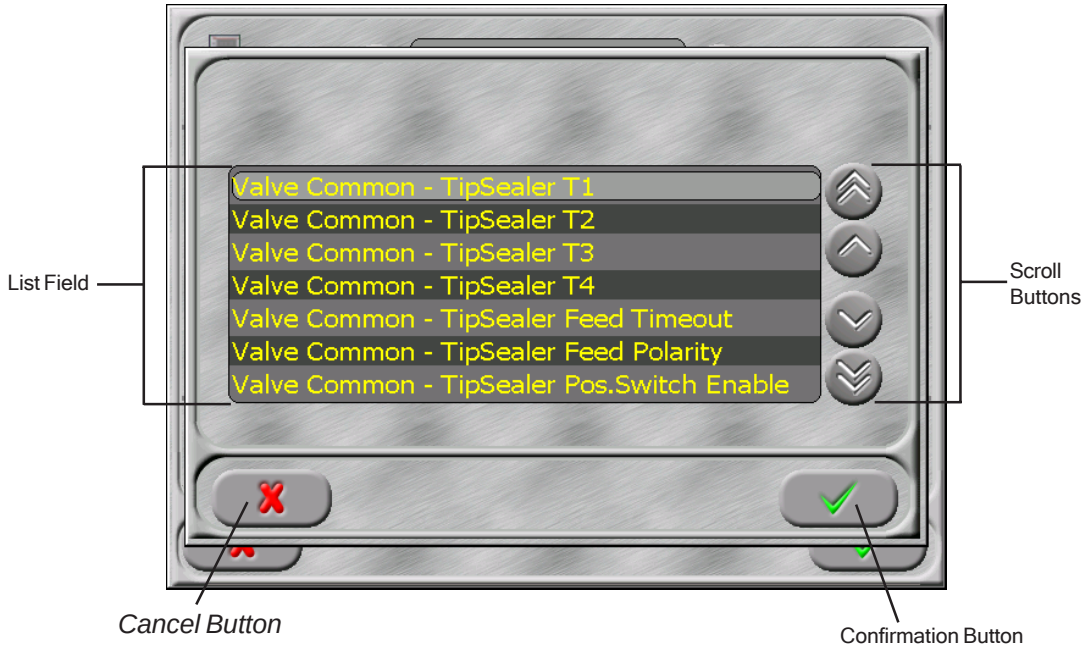


Figure 6-70. Tipsealer Timing Values Screen

Tipsealer Air Cylinder Timing Values - Continued

TipSealer Air Cylinder Timing Values				
Name	**Comment**	**Default**	**Min**	**Max**
Tipsealer Enable	0 = Disabled, 1 = Enabled	0	0	1
TipSealer T1	TipSealer Time 1 in [ms]	500	100	2000
TipSealer T2	TipSealer Time 2 in [ms]	500	100	2000
TipSealer T3	TipSealer Time 3 in [ms]	500	100	2000
TipSealer T4	TipSealer Time 4 in [ms]	500	100	2000
TipSealer Feed Timeout	Timeout after Feedstop in [sec]	15	5	60
TipSealer Feed Polarity	Polarity of Feedstop Signal	0	0	1
TipSealer Pos.Switch Enable	Position Switch Enabled*	0	0	1
Pulse Purge Activation	Number of Pulses at beginning of purge cycle	0	0	50
Tipsealer Output Manual	This output is active when the control is in the MANUAL mode. 0 = No Output 1 = Glue Fault Light (Blue) 2 = Jam Fault Light (Red) 3 = Buzzer 4 = Low Level Light (Amber) 5 = Relay 1 6 = Relay 2	0	0	6
Tipsealer Output Error	This output is active when the control is in the MANUAL mode. 0 = No Output 1 = Glue Fault Light (Blue) 2 = Jam Fault Light (Red) 3 = Buzzer 4 = Low Level Light (Amber) 5 = Relay 1 6 = Relay 2	0	0	6
Glue Station Type 1	Glue Station Type. 0 = Not Installed 1 = Boardrunner NC-3 2 = Boardrunner NC-4 3 = Boardrunner NC-Hybrid 4 = Boardrunner Contact Single 5 = Boardrunner Contact Dual 6 = BoardRunner FLP-3 7 = BoardRunner FLP-4 8 = Separated Valve NC	1	0	8
Tipsealer Jog On Restart	Cycle number when the valves will switch to Jogg mode, after a restart.	0	0	25
* The Position Switch is an optional feature.				

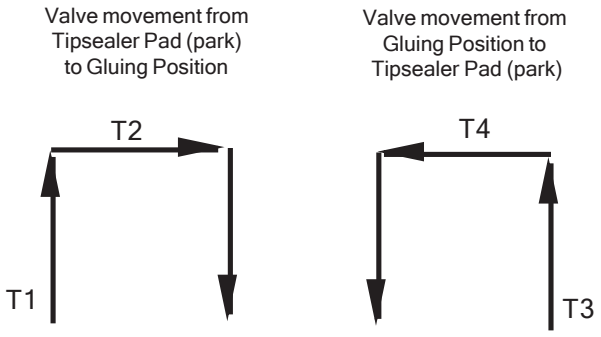


Figure 6-71. Tipsealer Air Cylinder Timing Values

Configuring Reversible Glue Stations (*3NCR; 4NCR)*

When setting the system for Bottom-Up gluing for the first time, the “Distance from Valve to Scanner“ setting must be entered manually. This is because the valve order is **physically reversed** when the station is inverted.

Activation and compensation times might also require minor adjustment.

After the initial setup, the system retains the settings in memory.

Clicking on the Top-Down/Bottom-Up Switch (Figure 6-72) iapplies the settings for the selected configuration automatically.

Figure 6-72. Valve Configuration Screen - Top-Down/Bottom-Up Switch

CAUTION! Make sure the selected configuration corresponds to the actual equipment, otherwise the glue pattern will be incorrect, a reversal of what is desired.

Upgrade Procedure

Before upgrading the software, it is important to have the USB flash drive containing the upgrade ready to place on the USB port of the OT-120. This involves removing the USB access cover.

To upgrade the software with the USB VInstall flash drive, do the following:

1. Locate the USB access cover on the OT-120 (see Figure 6-73, A or B, as applicable).

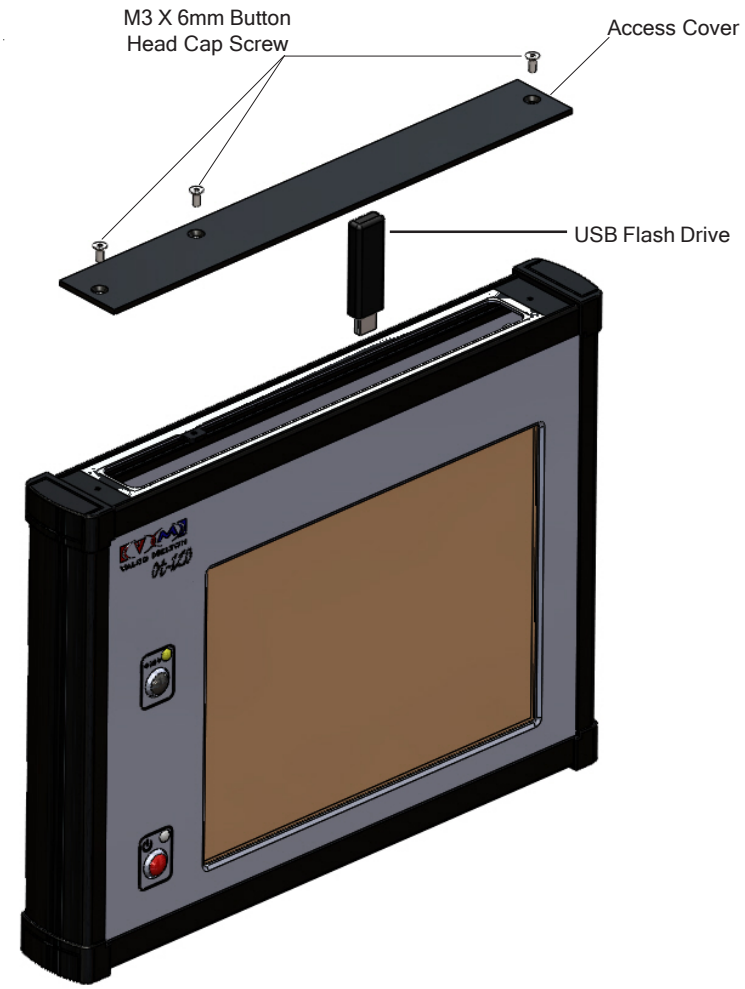


Figure 6-73A - USB Access Cover Removal/Installation (138xx018)

Upgrade Procedure - Continued

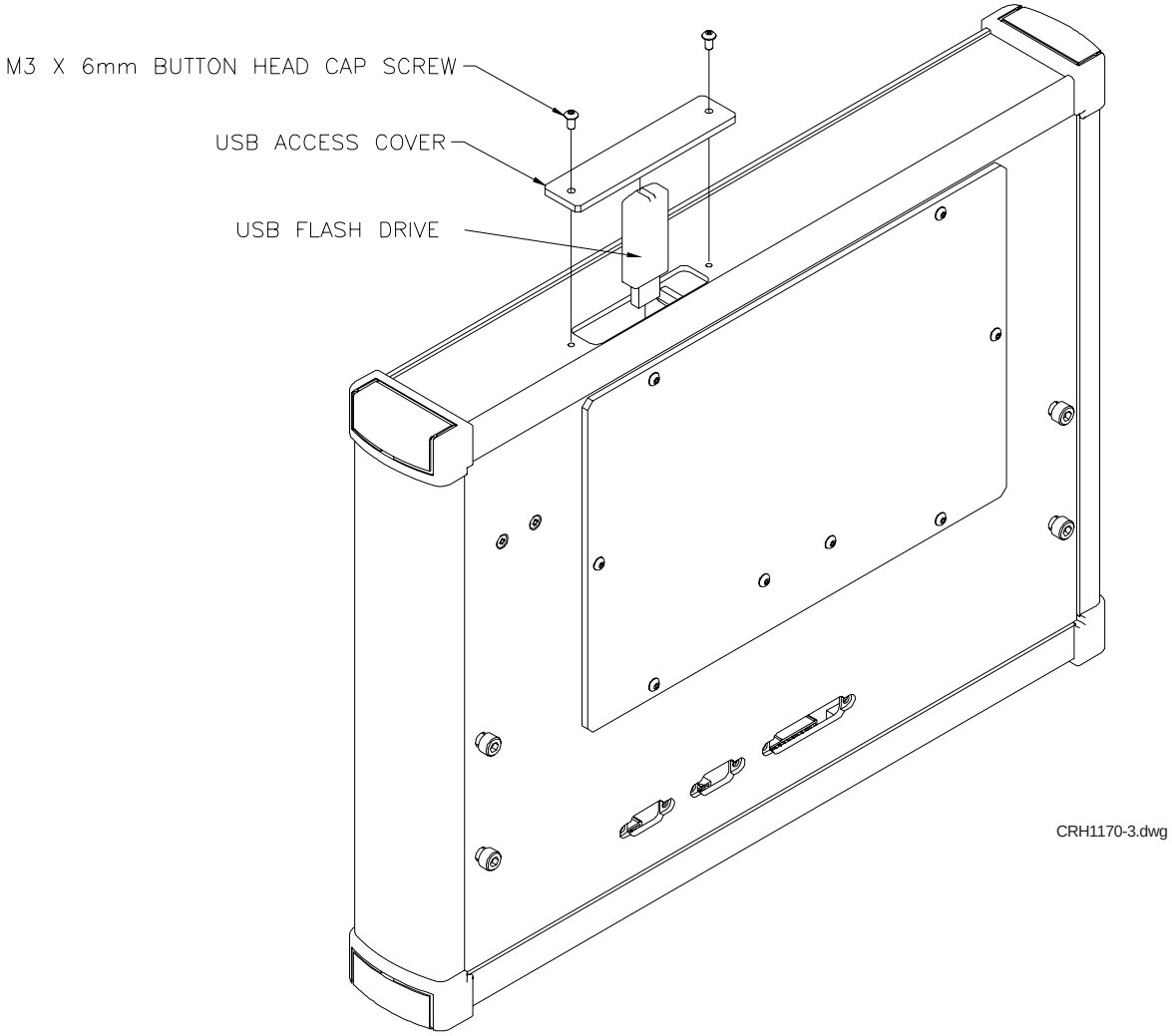


Figure 6-73B - USB Access Cover Removal/Installation (138xx007)

2. Remove the screws holding the USB access cover in place and keep them for later use.

3. Remove the USB access cover and set it aside for later use.

4. Place the upgrade USB Flash Drive into the USB slot.

5. Press the Main Configuration Menu Button (Figure 6-74).

Upgrade Procedure - Continued

Figure 6-74 - Main Configuration Menu Button (On Menu Bar, Locked)

6. Type the Level 4 password with the keypad.

7. Press the Confirmation Button to unlock the Menu.

Figure 6-75 - Type in Password and Press Confirmation Button

8. Press the (unlocked) Main Configuration Button to open the Main Configuration Menu (see Figures 6-75 and 6-76).

Figure 6-75 - Main Configuration Button (On Menu Bar, Unlocked)

Upgrade Procedure - Continued

Figure 6-76 - Main Configuration Menu

9. Press the Upgrade Button to begin the upgrade (see Figure 6-77).

Figure 6-77 - Upgrade Button

Upgrade Procedure - Continued

10. Press the Confirmation Button when the dialog box appears.

> The application will shutdown and launch the updating application VInstall.

Figure 6-78 - Dialog Box

11. Press the box next to “Full Install” for a checkmark to appear.

12. Press Install Button.

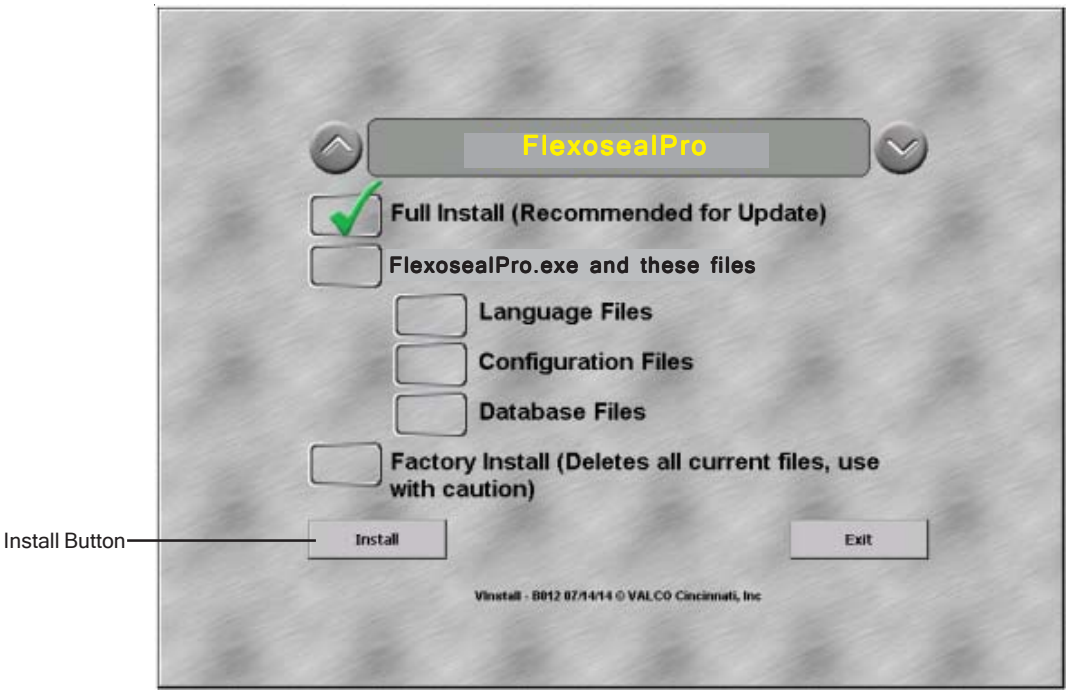


Figure 6-79 - Click Full Install and Press Install Button

Upgrade Procedure - Continued

13. Press the Exit Button after the upgrade completes.
14. Press the Exit Button again to return to the application.
15. Remove the USB flash drive.
16. Replace the USB access cover that was removed in Step 3 (see Figure 6-72, A or B, as applicable).
17. Replace the screws for the USB access cover that were removed in Step 2.

The upgrade is now complete.

Part Number

USB Memory Drive	119XX220 (138XX007 & 138XX008 ONLY) 119XX266

Replacing the SD Memory Card in the OT-120

To replace the SD memory card, do the following:

1. Turn the unit OFF.
2. Remove the top cover from the OT-120 unit.

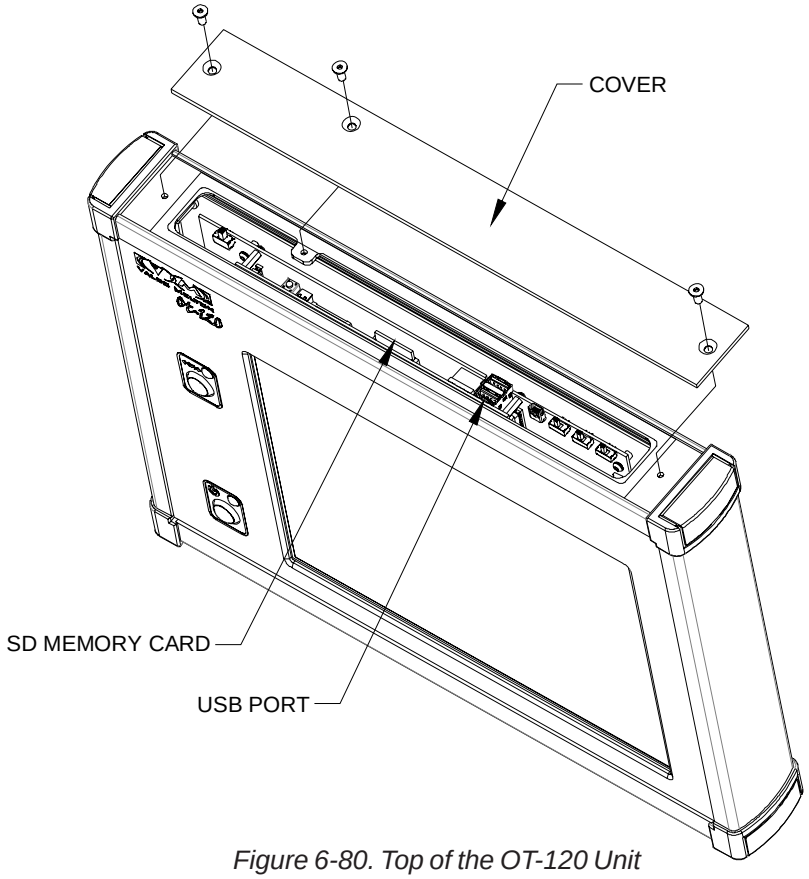


Figure 6-80. Top of the OT-120 Unit

3. Remove the SD memory card and replace it with the update card.
4. Replace the cover.
5. Turn the unit on.

Backup Dialog

From the General Configuration Screen, press the Backup Button to back up your new settings (Figure 6-81). A confirmation window will appear (Figure 6-82). Press the Confirmation Button to backup the settings.

Figure 6-81. General Configuration Screen

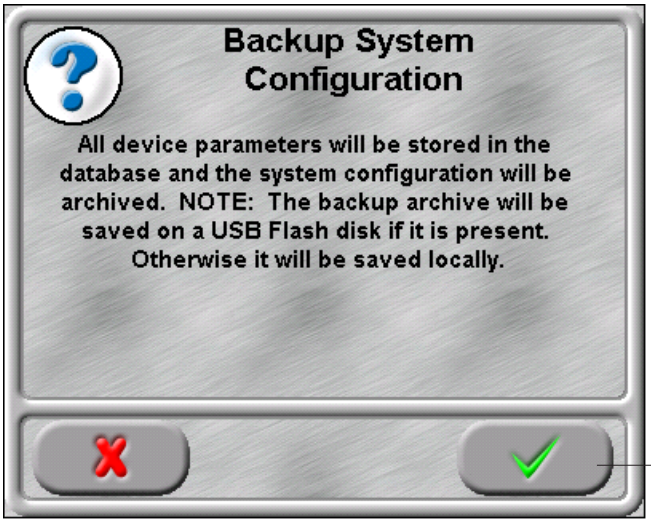


Figure 6-82. Backup Confirmation Screen

Restore Dialog

From the General Configuration Screen, press the Restore Button to restore the previous settings (Figure 6-81). A “Restore System Settings” menu will appear (Figure 6-83). Click on either Local Backup or Factory Default, and then click the Confirmation Button.

Figure 6-83. Restore System Settings Menu

If selecting Local Backup, a selection menu will appear, from which you may select a previous configuration to which to restore the system (Figure 6-84).

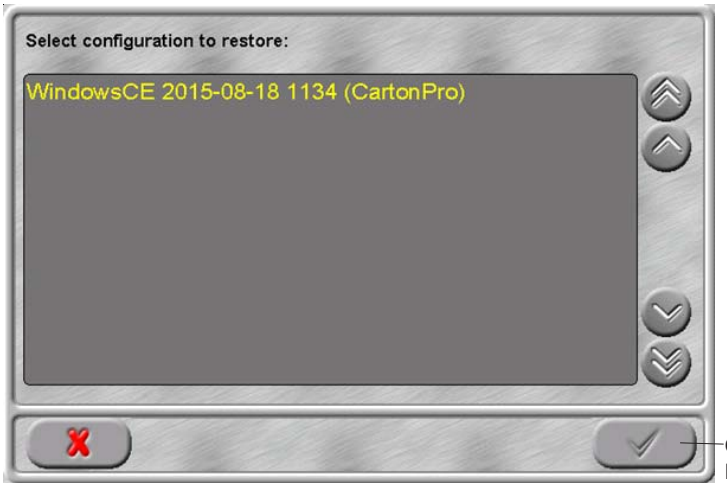


Figure 6-84. Restore: Local Backup Selection Menu

Click on a listing to highlight it, and then click the Confirmation Button.

SECTION 7 - PART NUMBER LIST

How to Order Parts

To order parts, please contact your closest Valco office by mail, phone, or Email:

USA:

Valco Cincinnati, Inc.
497 Circle Freeway Drive
Suite 490
Cincinnati, OH 45246
Tel: (513) 874-6550
Fax: (513) 874-3612
Email: sales@valcomelton.com
Web: http://www.valcocincinnatiinc.com

England:

Valco Cincinnati Limited
Hortonwood 32
Telford, TFI 7YN, England
Tel: (+44) 1952-677911
Fax: (+44) 1952-677945
Email: sales@valco.co.uk
Web: http://www.valco.co.uk

Germany:

Valco Cincinnati GmbH
Bonnerstrasse 349
40589 Dusseldorf-Benrath, Germany
Tel: +49 211 984 798-0
Fax: +49 211 984 798-20

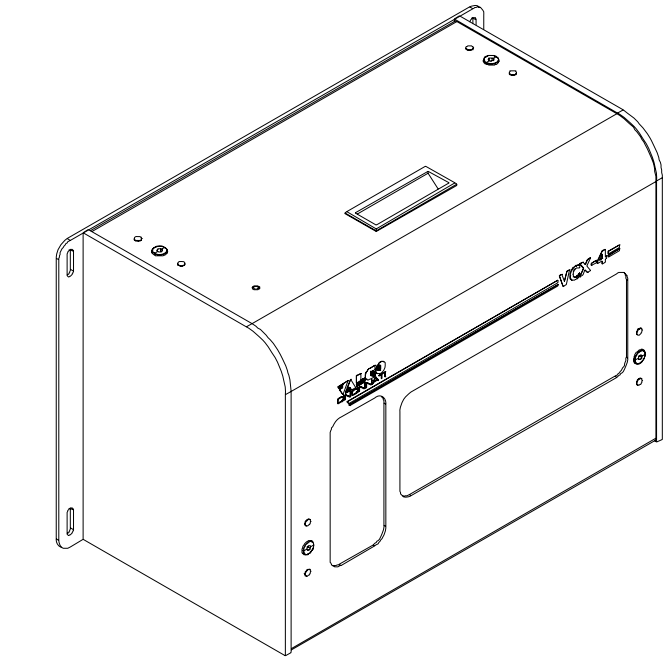
Spain:

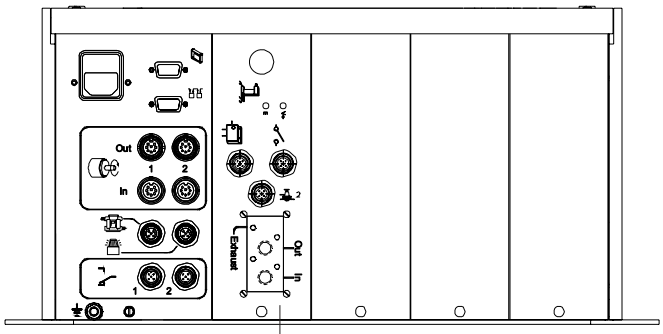
Melton S.L.U.
Pol. Industrial Agustinos
calle G, n. 34
31160 Orcoyen, Navarra, Spain
Tel: (34) 948-321-580
Fax: (34) 948-326-584

France:

Valco Melton France
Technoparc des Hautes Faventines
32 Rue Jean Bertin
26000 Valence
Tel: +33 (0)4 75 78 13 73
Fax: +33 (0)4 75 55 74 20

VCX-4 Control Base (074xx042)





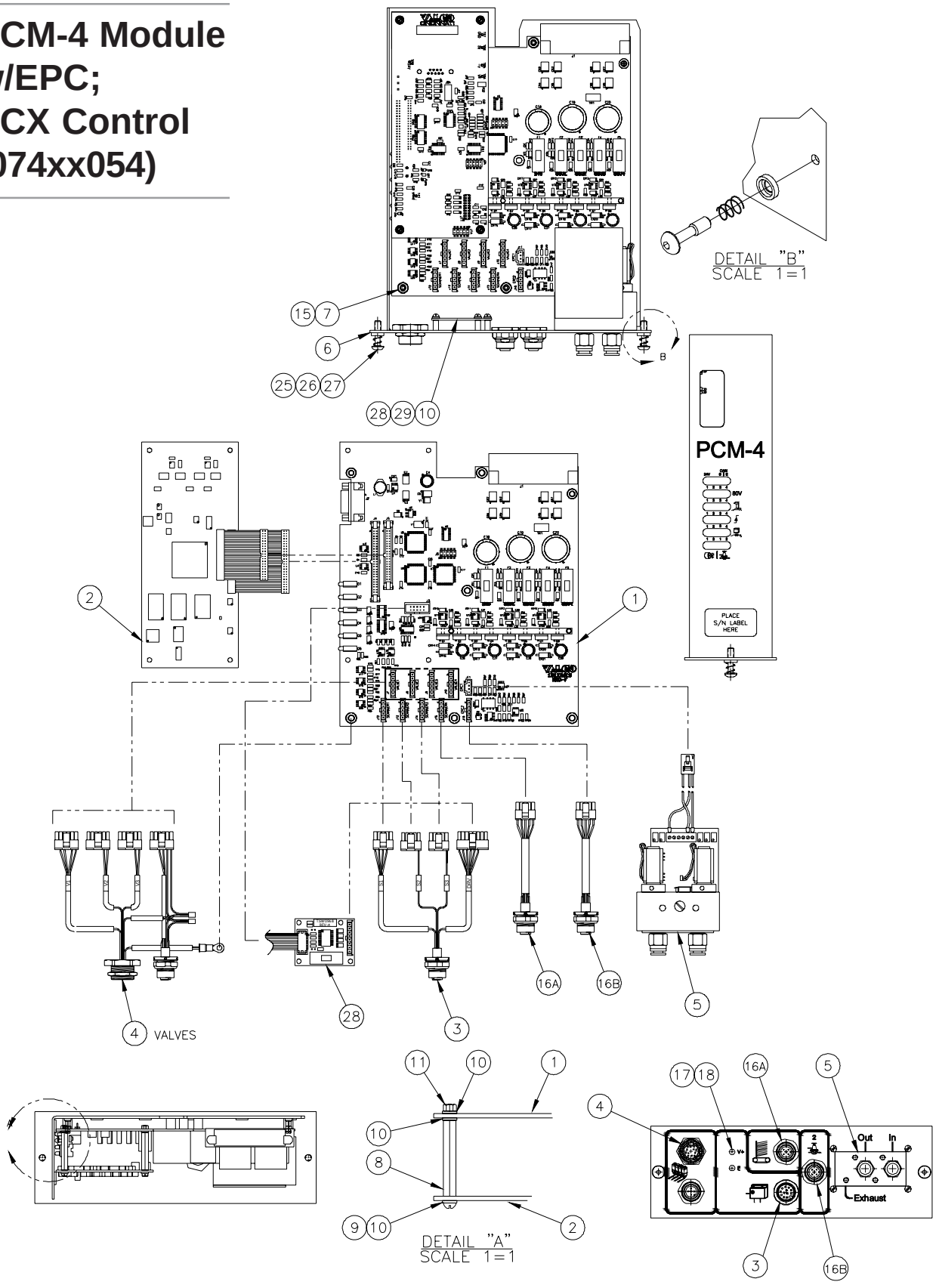
PCM-4 Module w/EPC
(BAW2142) - REF.

VCX-4 Control (074xx042) - Continued

Description	Part Number	Quantity
Left End Plate	026xx200	1
Right End Plate	026xx201	1
Top Mounting Rail	026xx208	3
Front Mounting Rail	026xx206	1
FHM Screw M4 X 12 SS	784xx407	26
Terminal, Tab, 0.25", Stud Mount	091xx453	2
Lock Washer, M4 Zinc	784xx308	7
Hex Nut, M4 SS	798xx299	3
Grounding Stud	091xx619	1
PCB Assembly, Top Plane, 4-Pos VCX	151xx626	1
Transformer, Torroid, 56V, VCX	551xx019	1
Split Lock Washer, M8, Zinc	784xx476	1
SHC Screw, M8 X 50 SS	784xx434	1
Power Supply Module	148xx063	1
Nut, M6	793xx491	1
Button Head Cap Screw	884xx040	2
Button Head Cap Screw	784xx680	8
SM Screw, #8 X 3/8 ZINC	798xx861	8
Wire Terminal, Ring	075xx079	2
Wire Terminal, Faston	075xx217	2
Back Mounting Rail	026xx207	1
Bottom Cover Plate	026xx205	1
Back Plate	026xx204	1
Left End Cap	026xx203	1
Right End Cap	026xx202	1
Wire, PVC, Green/Yellow, 18 AWG	540xx051	31
Lock Washer, M6, STL	784xx375	2
Control Cover	026xx209	1
Foam Rubber Strip	023xx109	16.33
Gasket, Closed Cell Sponge	023xx101	51
Flat Washer, M8	884xx039	1
BHC Screw, M3 X 14MM LG SS	784xx653	6
Installation Kit Assy, VCX	091xx624	1
Transformer Gasket	746xx174	1

It is not necessary to place a module in every slot of the VCX Control base. A blank module cover (026xx211) is used to cover each empty slot.

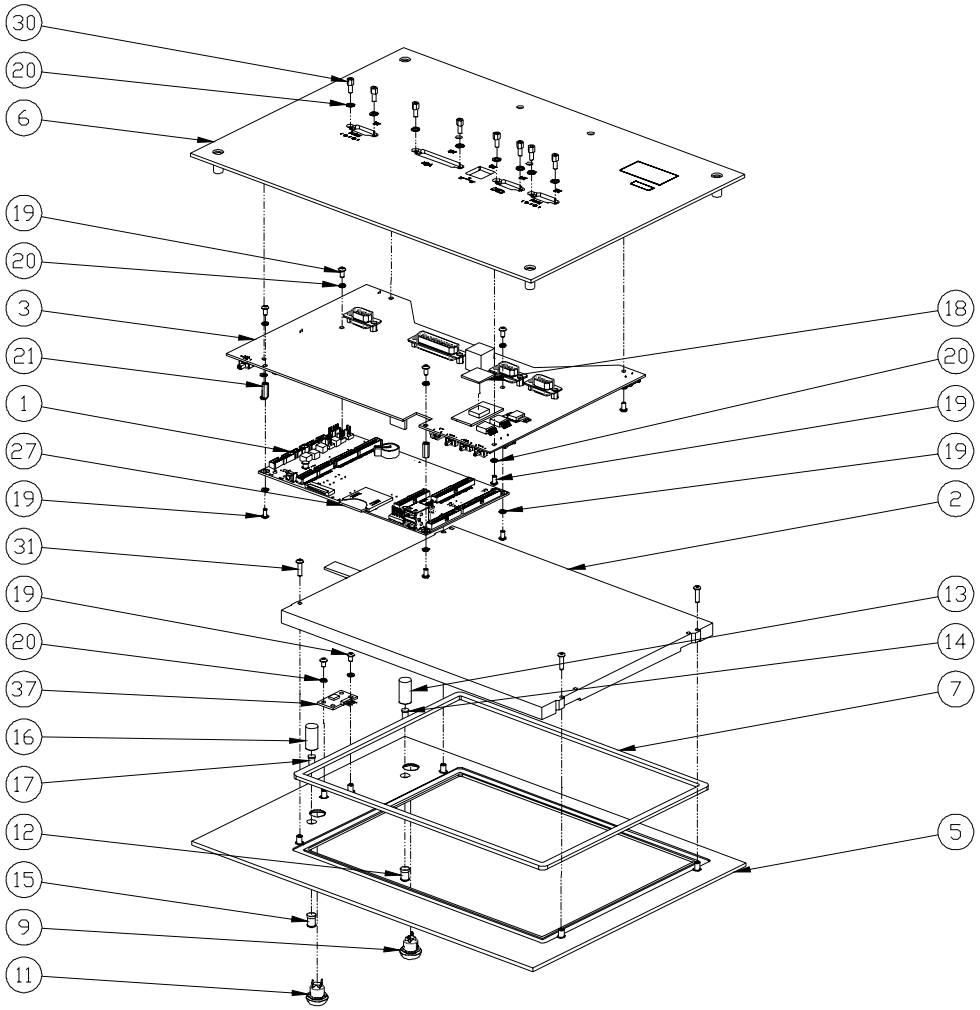
PCM-4 Module w/EPC; VCX Control (074xx054)

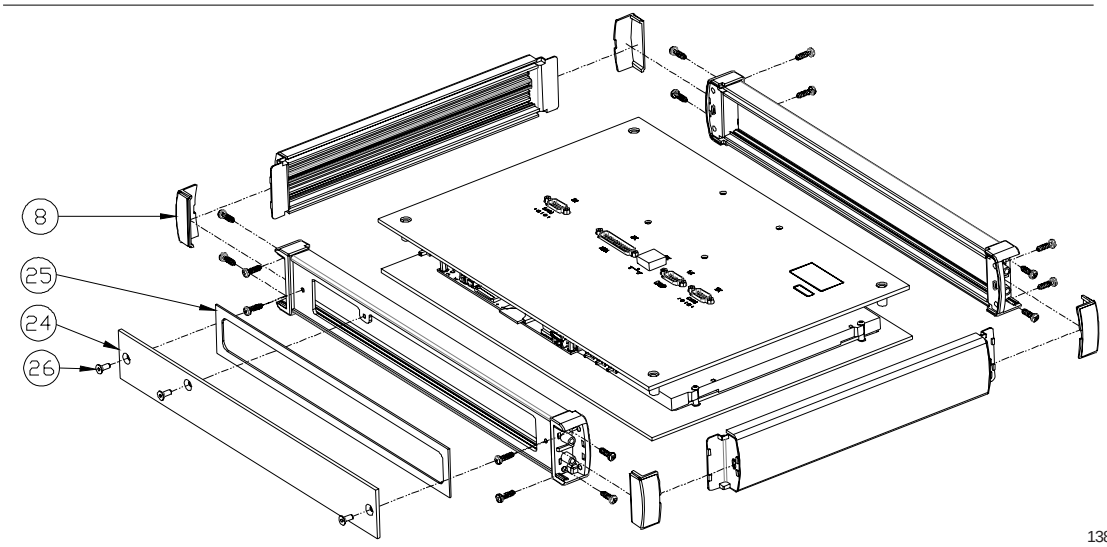


PCM-4 Module w/EPC; VCX Control (074xx054) - Continued

UNIT	DESCRIPTION	PART #	QTY
1	PCB;ASSY;PCM4 APPLICATION,VCX	151XX619	1
2	PCB;ASSY,CPU32MOD,VCX	151XX631	1
3	CABLE ASSY: PCM-4	029xx618	1
4	CABLE ASSY: VALVE/PCM-4	029xx639	1
5	MANIFOLD ASSY,MCP-4 0-10V	753XX436	1
6	MODULE FRAME; VCX	026xx329	1
7	SCREW,BUTTON HEAD SOCKET CAP	784XX985	5
8	*STANDOFF;M/F,M3 X 30MM,5MM HX	091XX615	4
9	SCREW PAN HEAD M3 X 8MM,S.S.	784XX968	4
10	LOCK WASHER M3	784XX315	16
11	NUT,HEX M3 ZINC	798XX489	4
15	LOCK WASHER M4 ZINC	784XX308	5
16	*CABLE ASSY,5P M12 F T0 5P MCT	029XX397	2
17	*LENS;3MM-LED,CLEAR,PANEL-MNT	105XX323	2
18	*RETAINING-RING;LENS,3MM-LED	105XX322	2
19	*FUSE;GLASS,2A,250V,T/D,5X20MM	085XX220	2
20	TUBE END EXP/RED, 1/4 TO 5/16	799XX478	2
25	CAPTIVE SCREW,M5	783XX221	2
26	TAPERED COMPRESSION SPRING	783XX222	2
27	SCREW BEZEL	783XX223	2
28	PCB ASSY: SOLENOID DRIVER	151XX674	1
29	BHCS M3 X 6 SS	784XX541	4
30	*STANDOFF; M/L, 4MM X 8MM	091XX622	1

Standard OT-120 (138xx018)



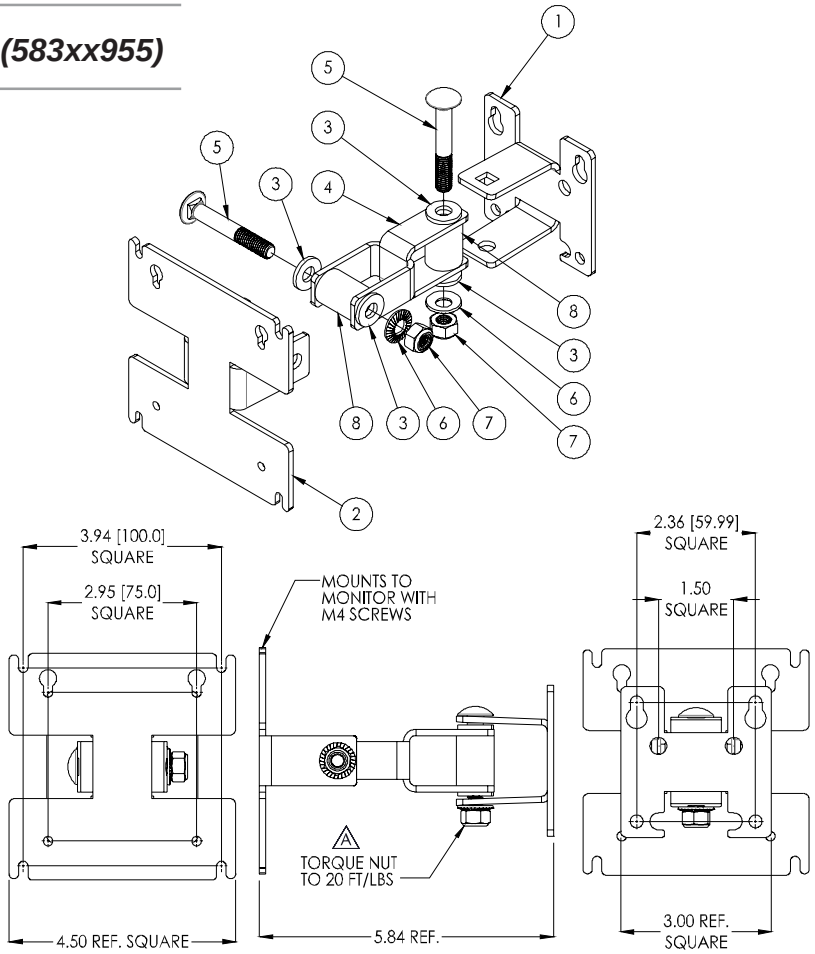


138xx018.DWG

Standard OT-120 (138xx018) - Continued

Item	Description	Part Number	Quantity
1	SBC,OMAP3703,800MHZ,512M DDR	151XX704	1
2	DISPLAY/TOUCH ASSY,OT-120	138XX022	1
3	PCB ASSY INTERF VT/DSP OT-120	151XX705	1
4	CABLE, LVDS, 20PIN, 18" LONG	029XX690	1
5	PLATE ASSEMBLY, OT-120	026XX371	1
6	PLATE ASSEMBLY, OT-120	026XX372	1
7	GASKET,OT-120 TOUCHSCREEN	746XX157	1
8	ENCLOSURE MODIFICATION, OT-120	026XX370	1
9	CABLE ASSY, OT, SWITCH	029XX713	1
10	LABEL - OT-120, SWITCHES	782XX521	1
11	CABLE ASSY, OT, SWITCH, GREY	029XX723	1
12	LENS, LED, CLEAR, 5MM	105XX341	1
13	CABLE, LED, 6", 3P, WHT/BLK/R	029XX717	1
14	LED,RED/GRN,5MM,C/C,PCB	107XX045	1
15	LENS, LED, AMBER, 5MM	107XX076	1
16	CABLE: LED, 8", 2P, WHT/BLK	106XX016	1
17	LED YEL 5MM 0.1-PITCH PCB	107XX006	1
18	THERM PAD 406X203X1.0MM PINK	101XX037	0.006
19	BHCS M3 X 6 SS	784XX541	12
20	LOCK WASHER M3	784XX360	12
21	STANDOFF HEX F/F M3 12MM AL	091XX782	4
22	SOFTWARE,LICENSE WINDOWS CE	119XX154	1
23	LABEL STOCK, SILVER	781XX780	1
24	COVER, TOP, OT-120	026XX373	1
25	GASKET, COVER, OT-120	746XX249	1
26	FHSS M4 X 10 SS	784XX190	3
27	MEMORY CARD SD 512MB SLC	118XX204	1
30	SCREW,JACK,HEX,4-40,12MM	091XX267	8
31	SHCS M3 X 10MM SEMS TYPE	784XX899	6
32	SOFTWARE, CARTON PRO	119XX267	1
33	SOFTWARE, FLEX PRO 2	119XX268	1
34	SLW M4 ZINC	798XX382	4
37	PCB SUBA ADAPT FLEX OT-120	152XX712	1
39	MANUAL, CARTON PRO OT-120,USB	MC101CD	1
40	VCX OT-120 CNTRL SYS. MANL,USB	MC091CD	1
41	MONITOR MOUNT ASSEMBLY	583XX955	1
44	WASHER LOCK EXT-TOOTH M4 STEEL	784XX308	4
46	ILLUSTRATION DRAWING	999XA138-03	1
47	OT120 SET-UP INSTRUCTION SHEET	IS0283	1
48	CABLE ASSY, BACKLIGHT, OT-120	029XX768	1
53	BOX #22	730XX039	1
54	FOAM PAD SAW CUT 22 X 8 X 2"	730XX034	1
55	FOAM PAD SAW CUT 22 X 8 X 1"	730XX035	1
56	FOAM SET, OT-120 CONTROL	730XX066	1
57	SOFTWARE, ENVELOPE PRO 2	119XX270	1
58	FLAT WASHER M3 SS	798XX753	4
59	SHCS M4 X 10 STAINLESS	784XX423	4

OT-120 Bracket Assembly (583xx955)

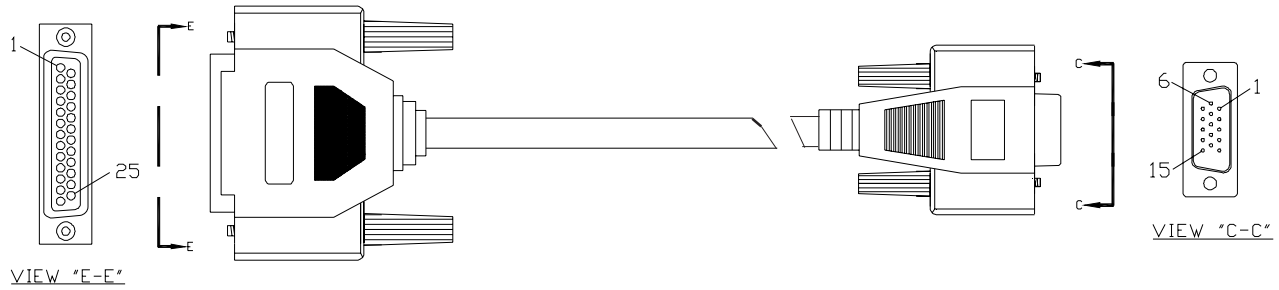


Item	Description	Part Number	Quantity
1	BRACKET MOUNTING MONITOR	583XX953	1
2	BRACKET MOUNTING	583XX954	1
3	WASHER 8.4MM X 18MM X 2MM	884XX552	4
4	JOINT KNUCKLE	583XX952	1
5	BOLT CARRIAGE M8 X 55	884XX551	2
6	WASHER LOCK BELLEVILLE M8	783XX406	2
7	NUT LOCK M8 X 1.25 ZINC	884XX492	2
8	SPACER UNTHREADED 3/4 X 1	884XX553	2
9	SHCS M8 X 16 SS	784XX275	4
10	FLAT WASHER M8 SS	784XX097	4
11	T-NUT DOUBLE M8	583XX507	2
12	SHCS M4 X 10 STAINLESS	784XX423	4
13	FLAT WASHER M4 SS	784XX435	4
14	SHCS M6 X 12 SS	798XX069	4
15	FLAT WASHER M6 SS	784XX183	4

Cables

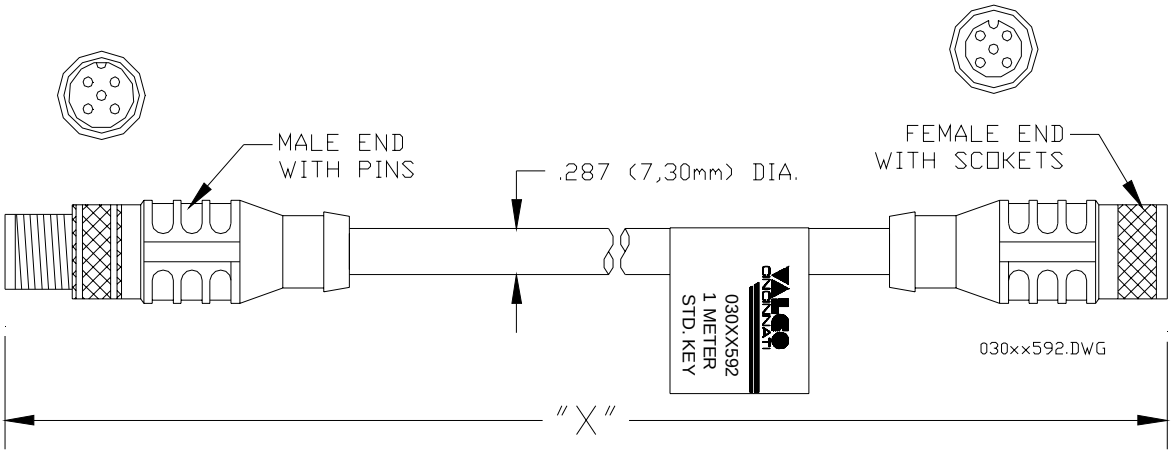
OT-120 Cables

Description	Part Number
OT-120 Cable, 2m	029xx331
OT-120 Cable, 5m	029xx126
OT-120 Cable, 10m	029xx147



WIRE CONNECTION CHART			
DB-25F (PIN #)	SIGNAL	WIRE COLOR	DB-15M (PIN #)
10	STBY - SW+	YELLOW - TW. PAIR 1	4
9	STBY - SW-	ORANGE - TW. PAIR 1	3
17	REM - STAT	BLACK/WHITE	5
22	STAT - GND	ORANGE/WHITE - TW. PAIR 2	10
18	STBY_LED - COM	ORANGE - TW. PAIR 2	9
23	GND	BLUE	11
24	GND	RED	12
25	GND	PINK	13
11	+24V	BROWN	6
12	+24V	GREEN	7
13	+24V	LIGHT GREEN	8
19	CAN LOW	WHITE/BLUE - TW. PAIR 3	1
20	CAN HIGH	BLUE/WHITE - TW. PAIR 3	2
21	STBY_LED - RED	GREY - TW. PAIR 4	14
7	STBY_LED - GRN	VIOLET - TW. PAIR 4	15
CONNECTOR SHELL	SHIELD	SHIELD	CONNECTOR SHELL

Scanner Cables

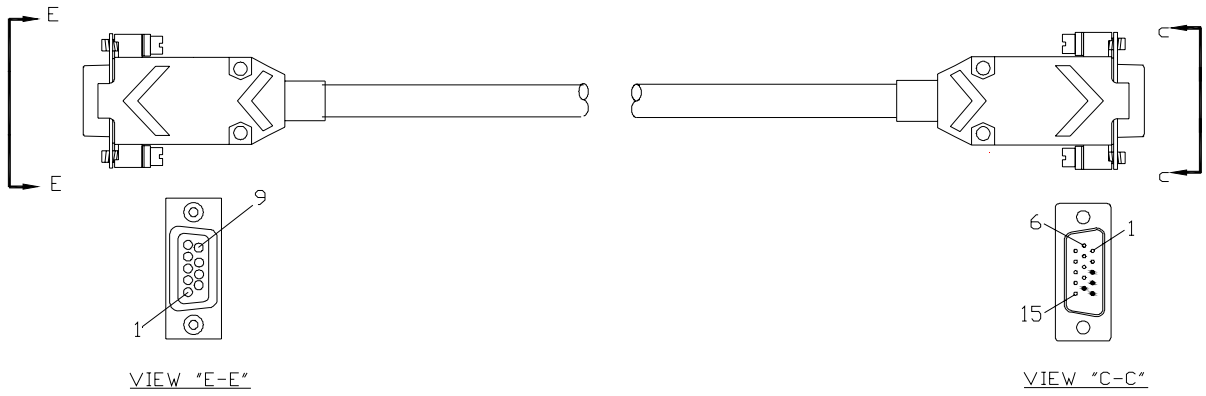


P/N	"X"
030XX592	1 METER
030XX593	2 METER
030XX891	3 METER
030XX594	4 METER
030XX873	5 METER
030XX555	6 METER
030XX892	7 METER
030XX595	8 METER
030XX738	10 METER
030XX739	15 METER
030XX740	20 METER

PIN NO.	WIRE COLOR
1	BROWN
2	WHITE
3	BLUE
4	BLACK
5	GREY

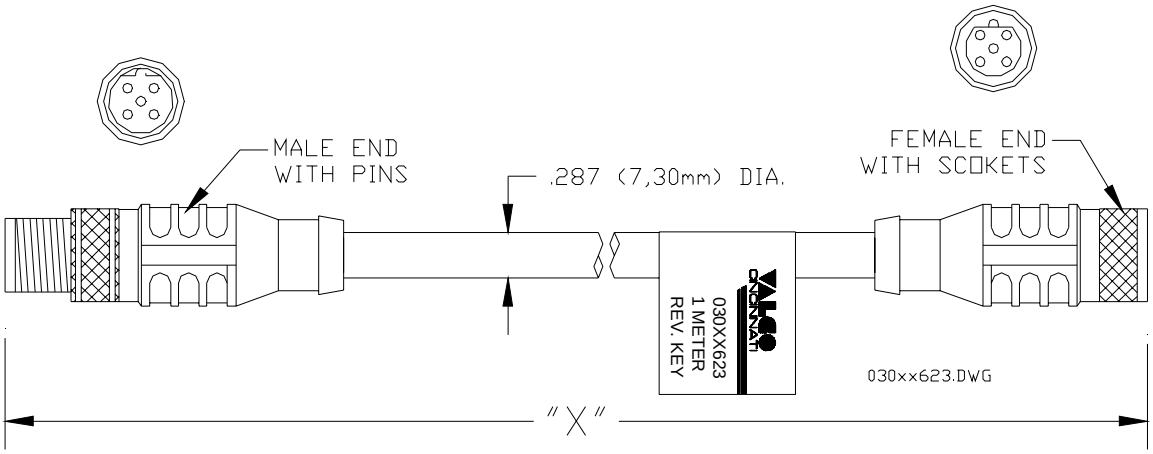
Link Cables

Description	Part Number
Link Cable, 3m	029xx418
Link Cable, 6m	029xx417



WIRE CONNECTION CHART			
DB-9M (PIN #)	SIGNAL	WIRE COLOR	DB-15M (PIN #)
8	REM_OUT	BROWN	5
2	CAN_LO	BLUE	1
7	CAN_H	WHITE	2
4	0V	BLACK	13

Valve Cables



P/N	"X"
030XX623	1 METER
030XX624	2 METER
030XX889	3 METER
030XX625	4 METER
030XX874	5 METER
030XX877	6 METER
030XX890	7 METER
030XX626	8 METER
030XX741	10 METER
030XX742	15 METER
030XX743	20 METER

PIN NO.	WIRE COLOR
1	BROWN
2	WHITE
3	BLUE
4	BLACK
5	GREY

SECTION 8 - WARRANTY

Warranty Information

Valco Cincinnati, Inc. warrants its equipment worldwide against defects in material and workmanship as outlined in this section.

Liability of the company is limited to repair of the product, or replacement of any part shown to be defective, and does not extend to defects caused by accidents, misuse, abuse, neglect, tampering or deterioration by corrosion. This warranty does not cover those items determined by Valco Cincinnati, Inc. to be normal wear items such as seals, O-rings, diaphragms, springs, etc.

Reconditioned equipment, unless specified otherwise at the time of purchase, will be warranted as described above for a period of ninety (90) days from the date of shipment by Valco Cincinnati.

Components purchased by Valco Cincinnati, Inc. from others for inclusion in its products are warranted only to the extent of the original manufacturer's warranty. In no event shall Valco Cincinnati, Inc. be liable for indirect or consequential damages arising out of the use of Valco Cincinnati products.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to Valco Cincinnati, Inc. for examination and verification. If claimed defect is verified, repairs or replacements will be made F.O.B. Cincinnati, Ohio, U.S.A. or ex-works Telford, U.K. If the inspection of the equipment does ***not*** disclose any defect of workmanship or material, any necessary repairs will be made at a reasonable charge and return transportation will be charged.

This is the only authorized Valco Cincinnati, Inc. warranty and is in lieu of all other expressed or implied warranties, representations or any other obligations on the part of Valco Cincinnati, Inc.

Cold Glue Equipment and Electronic Controls

The warranty for cold glue equipment and electronic controls for a period of one (1) year from the date of shipment by Valco Cincinnati, Inc.

Hot Melt Units, Hoses, Valves, Guns, and Related Equipment

All hot melt components except cast-in heating elements are warranted for a period of six (6) months from the date of shipment by Valco Cincinnati. Cast-in heaters carry an additional, pro-rated warranty not to exceed three (3) years from the date of shipment by ValcoMelton, a Valco Cincinnati, Inc. company.

SECTION 9 - SERVICE

If a problem with your system persists, contact a ValcoMelton Technical Support representative. If your need is urgent, we encourage you to contact our corporate office in Cincinnati, Ohio, U.S.A. at (513) 874-6550. If the problem cannot be resolved, Valco Cincinnati, Inc. will promptly arrange to have a technical representative visit your facility. Any charges for a service call will be quoted at that time. Any part that fails during the warranty period shall be returned prepaid to Valco Cincinnati, Inc. by the customer for disposition.

Upon request, ValcoMelton personnel are available to repair or replace such parts at the customer's facility. Charges for this service include travel time and expenses.

If an equipment problem is the result of customer abuse, improper installation or operation, all travel time, labor, parts, and expenses will be charged to the customer.

If the responsibility for a problem cannot be absolutely determined, the customer will be charged for travel time and expenses only. No charge will be made for parts and labor.

APPENDIX A - MONITOR COMMANDS

PCM4 Monitor Commands

```
PCM4 - 4 CHANNEL GLUE CONTROLLER
119xx209 C015.0099 01/06/10 (C) 2010 VALCO Cincinnati, Inc
>help
```

sgv	Set Global Variable	sgv <Index> <SubIndex> <Value> [<EchoOff>]
ggv	Get Global Variable	ggv <Index> <SubIndex> [<DataOnly>]
pgv	Print Global Variable	pgv <Index>
pcf	Print Configuration	pcf
igv	Re-Initialize all Global Variables	igv
peh	Print Event History	peh
stm	Set Time	stm <HH> <MM>
sdt	Set Date	sdt <mm> <dd> <yy>>
dmp	Dump Memory	dmp <Start> <Length>
efm	Erase Flash Memory	efm <Area>
dir	Directory	dir
del	Delete File	del <File name>
ren	Rename File	ren <Old file name> <New file name>
dlf	Download File	dlf
ulf	Upload File	ulf <File name>
bak	Backup	bak
res	Restore	res
rst	Reset System	rst
tec	Test Encoder	tec <Encoder#> <Samples>

ICM4 Monitor Commands

```
ICM4 - 4 CHANNEL INSPECTION CONTROL MODULE
119xx___ B002.0008 10/12/09 (C) 2009 VALCO Cincinnati, Inc
Date: 01/07/2010  Time: 11:34:17
>help
```

sgv	Set Global Variable	sgv <Index> <SubIndex> <Value> [<EchoOff>]
ggv	Get Global Variable	ggv <Index> <SubIndex> [<DataOnly>]
pgv	Print Global Variable	pgv <Index>
pcf	Print Configuration	pcf
igv	Re-Initialize all Global Variables	igv
peh	Print Event History	peh
stm	Set Time	stm <HH> <MM>
sdt	Set Date	sdt <mm> <dd> <yy>>
dmp	Dump Memory	dmp <Start> <Length>
efm	Erase Flash Memory	efm <Area>
dir	Directory	dir
del	Delete File	del <File name>
ren	Rename File	ren <Old file name> <New file name>
dlf	Download File	dlf
ulf	Upload File	ulf <File name>
bak	Backup	bak
res	Restore	res
rst	Reset System	rst
tec	Test Encoder	tec <Encoder#> <Samples>>
psd	Print Sensor Data	psd <Sensor#>
csd	Capture Sensor Data	csd <Sensor#> <Mode: 1-Bad, 2-Good, 3-Next>
gpd	Get Product Data	gpd <Sensor#> <#OfProducts>
gss	Get Current Sensor Signal Level	gss <Sensor#>
psr	Print Sensor Results	psr <Sensor#>
pac	Print All Sensor Counters	pac <Sensor#>
ptc	Print Total Counters	ptc
rtc	Reset Total Counters	rtc
sls	Set Learn Status	sls <Sensor#> <Mode#: 0-None, 10-Ref, 20-Vol, 80-Pattern, 15(138)-MakeReadyRef, 85(208)-MakeReadyPattern>
grs	Get Relay2 Status	grs
sbr	Set Baud Rate	sbr <Sensor#> <BaudRate>
sgr	Set Good Read	sgr <Sensor#> <GoodRead>
sbn	Set Bar Number	sbn <Sensor#> <BarNumber>
sbc	Send Barcode Scanner Command	sbc <Sensor#> <CommandID>
ssp	Set Sensor Power	ssp <Sensor#> <On/Off>
gcm	Get Current Master Code	gcm <Sensor#>
srt	Set Read Rate Test	srt <Sensor#> <On/Off>
gcr	Get Current Read Rate	gcr <Sensor#>
smw	Set Measurement Window	smw <Sensor#> <Start> <Length>
sbo	Send Barcode One Character	sbo <Sensor#>

APPENDIX B - DIAGNOSTICS

Encoder Diagnostics

The parent machine must be operating in order to verify the operation of the encoder. (It is not necessary to be gluing the product.) All gun-selector switches must be turned off.

> Encoder diagnostics should be done only after internal diagnostics have proven that the control's main board is operating properly.

To verify operation of the encoder, follow these steps:

1. Ensure that the "ENC" LEDs on the control's main board or front panel are illuminated.

2. If these LEDs are not illuminated, complete either step 3 or step 4:

3. On a shaft-mounted encoder assembly, check for the following:

   Worn timing belt or gears*
   Incorrect belt tension*
   Damaged encoder cable
   Loose cable connections

   > * *These items may cause diagnostic LEDs to falsely indicate proper encoder operation.*

4. On a wheel-mounted encoder assembly, check for the following:

   Worn rubber on the wheel*
   Incorrect tension between the wheel and the drive belt*
   Damaged encoder cable
   Loose cable connections

   > * *These items may cause diagnostic LEDs to falsely indicate proper encoder operation.*

5. Replace the encoder if the diagnostics listed above do not solve the problem.

Scanner Diagnostics

The parent machine does not have to be operating in order to verify the operation of the scanner.

> Scanner diagnostics should be done only after internal diagnostics have proven that the control's main board is operating properly.

To verify operation of the scanner, follow these steps:

1. Ensure that the red LED on the body of the scanner illuminates when product is detected.

   > The "SCAN" light LED on the main board should also illuminate.
   >
   > The "SCAN" light goes out on a VC-350, V-401, and V-451 main board.

2. If the LED on the scanner body does not illuminate, adjust the sensitivity of the scanner:

   2a. Verify the distance from scanner to product is 1-2" (maximum distance can be 4" with increased error).

   2b. Adjust the scanner gain screw so that product is sensed 1" past the normal product location.

3. If the sensitivity adjustment fails to correct the problem, or if the LED on the scanner body is illuminated but the SCAN light LED is not, ensure that the scanner cable is not damaged and that there are no loose scanner cable connections.

   > The scanner will not operate properly if the bracket is loose on the machine. This causes vibrations as the product travels.

4. Replace the scanner if the diagnostics listed above do not solve the problem.

APPENDIX C - ELECTRICAL DIAGRAM

Electric Wiring for VCX w/ Tipsealer