MCP-8 Control Unit

Manual Number: MC095
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This manual written and designed at Valco Melton, 497 Circle Freeway Drive, Suite 490, Cincinnati, Ohio 45246.
http://www.valcomelton.com

Part Number: MC095

Written and printed in the USA.

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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:	Valco Melton A division of Valco Cincinnati, Incorporated 411 Circle Freeway Drive Cincinnati, OH 45246 USA	
Authorized Representatives in Europe:	Valco Cincinnati, Ltd. Unit 7-8 Hortonwood 32 Telford TF1 7YN England	Melton S.L.U. Pol. Industrial Agustinos calle G, n. 34 31160 Orcoyen Navarra, Spain

declares that the product:

Product Name:	Mcp-8 Control Unit

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 EN13849-1
Risk:	ISO12100:2010
EMC Emissions:	EN61000-6-4:2007 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

Table of Contents

Section 1 - Introduction

System Description

This manual has been prepared by Valco Cincinnati, Inc. to provide assistance in the installation, operation, and servicing of your MCP-8 Control Unit.

The MCP-8 Control Unit from Valco provides operators with a full-featured affordable solution to adhesive system pattern control. The control features 4-channel operation, multiple glue patterns, and an optional flow control capability. The unit allows program changes and adjustments, so you can get desired results immediately. The control has a compact design and features “plug-and-run” connectors for easy installation and quick start up.

Features/Capabilities

The MCP-8 Control Unit works with a variety of Valco’s cold-glue or hot melt adhesive dispensing valves. Features/Capabilities of the MCP-8 Unit include:

- Suited to high-speed converting, such as:

  -folding carton production

  -envelope manufacturing

  -paper-folders

  -book and magazine production

  -bag-making

  -corrugated box making
- Dual-encoder-based or timer mode
- Multi-valve, complex glue pattern capabilities
- “Continuous,” “Stitch” pattern and “Jogg” gluing
- Adjustable minimum speed
- Inch or metric calibration
- CE compliant
- Password protection for key system parameters
- Integral fluid-flow control option (EPC) and external EPC output
- Web break detection option
- Batch count/production count
- Job Storage Memory: Up to 1000 jobs
- Programmable valve output voltages depending upon base unit
- Jam Preventer w/Alarm and relay output

All hardware must be up-to-date for all new functions to work. Please see the Parts List for a compatibility chart.

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.
	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.

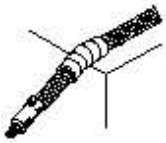
If the hot melt adhesive ignites, promptly perform the following steps:

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.

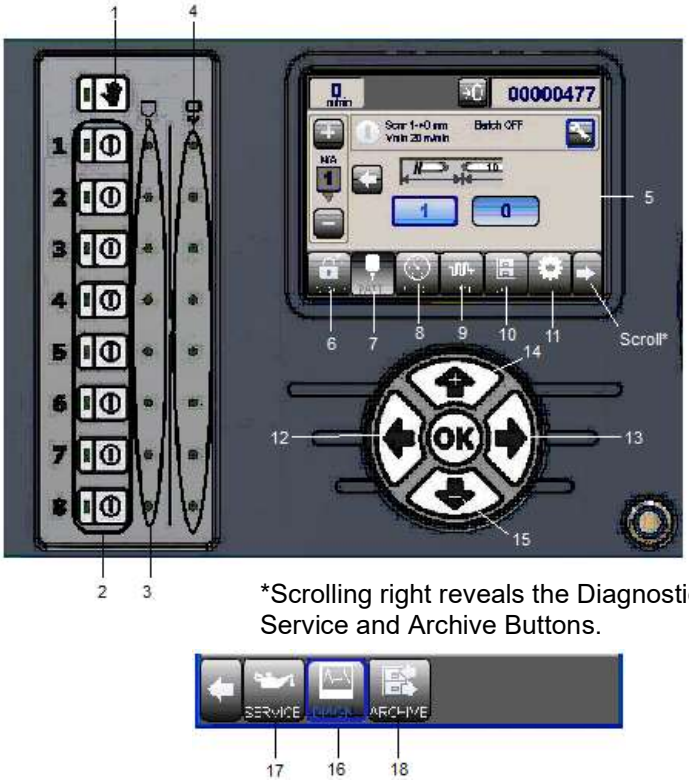
Hose Safety Information

DO NOT		DO	
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.	
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

MCP-8 Control

Front Panel



1	Purge Button
2	Valve Enable Buttons (1-8)
3	Valve LEDs
4	Trigger LEDs
5	LCD Display
6	Lock/Unlock Button
7	Pattern Button
8	Pressure Button
9	Jam Button
10	Job Storage/Recall Button
11	Setup Button
12	Left Arrow Button
13	Right Arrow Button
14	Plus (+) Button
15	Minus (-) Button
16	Diagnostics Button
17	Service Button
18	Archive Button

Figure 3-1. MCP-8 Operator Panel

Unpacking

Carefully remove the box contents. The contents include the following items:

- MCP-8 Control
- Installation Kit - includes Manual, Quick Start Guide, power cable, 8 mm tube fitting, 1/4-inch tube adapter fitting, and spare fuses.

> Look carefully for small items inside the box! The adapters and fuses are in a small bag. Put them in a safe place for future use.

CAUTION!

When the display states, **"Please Wait..." do not touch any buttons and do not turn off the unit**! Information is being retrieved or stored -- and any interruption will corrupt the data.

Follow all safety information carefully. Only qualified personnel should install and service the equipment. Read all safety information in all manuals before working with any equipment.

Mounting the MCP-8

Depending on the unit, the MCP-8 is mounted using either a Standard mounting system, or a Swivel mount if using remote display touchscreen 138xx021.

The Standard mounting system is used with:

- 074xx071 (stand-alone)
- 074xx072 (remote display)
- 074xx062 (stand-alone, used with Tri-Valve Boardrunner)
- 074xx063 (remote display, used with Tri-Valve Boardrunner)

> This system is used for either wall or panel mounting.

Standard Mounting System

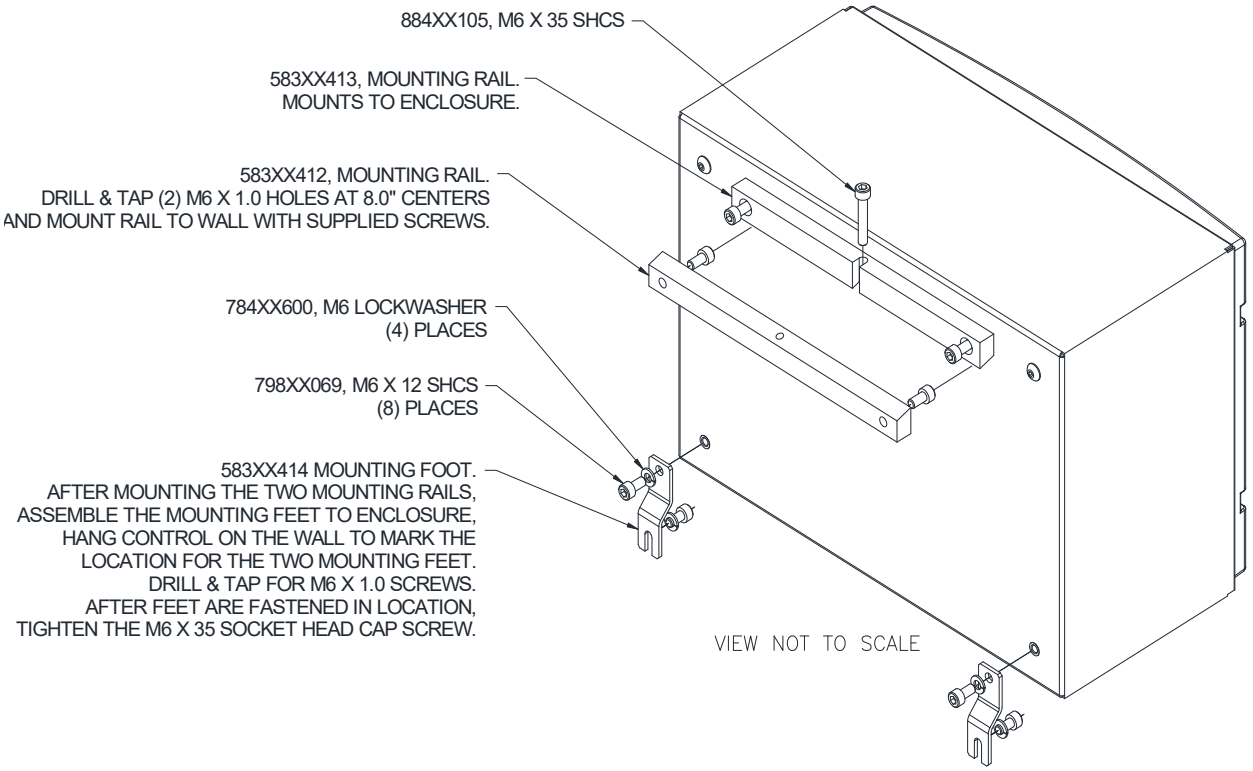


Figure 3-2. Standard Mounting System

Standard System Mounting Footprint

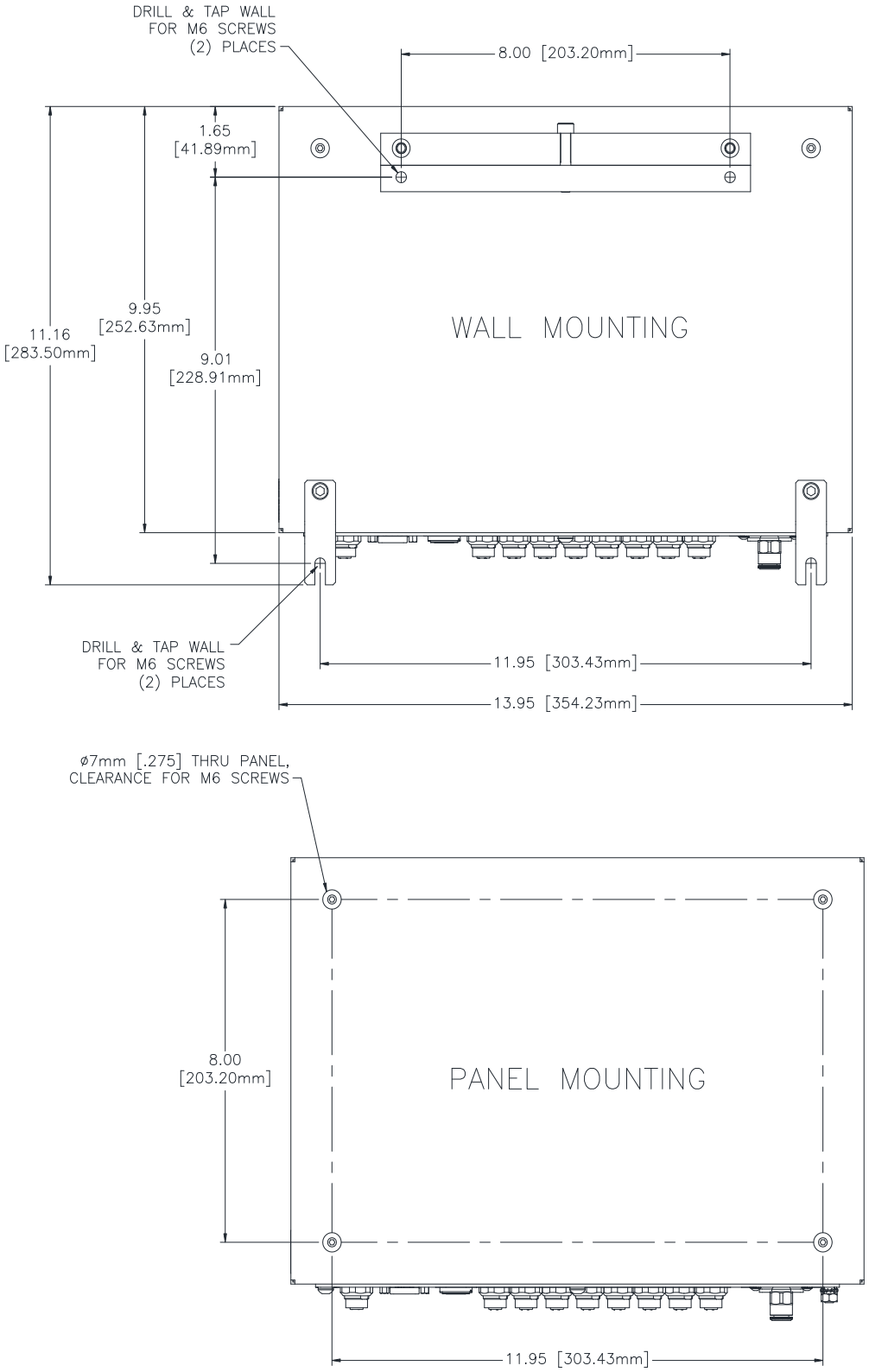


Figure 3-3. Standard Mounting Unit Mounting Footprint

Swivel Mount (used with 138xx021)

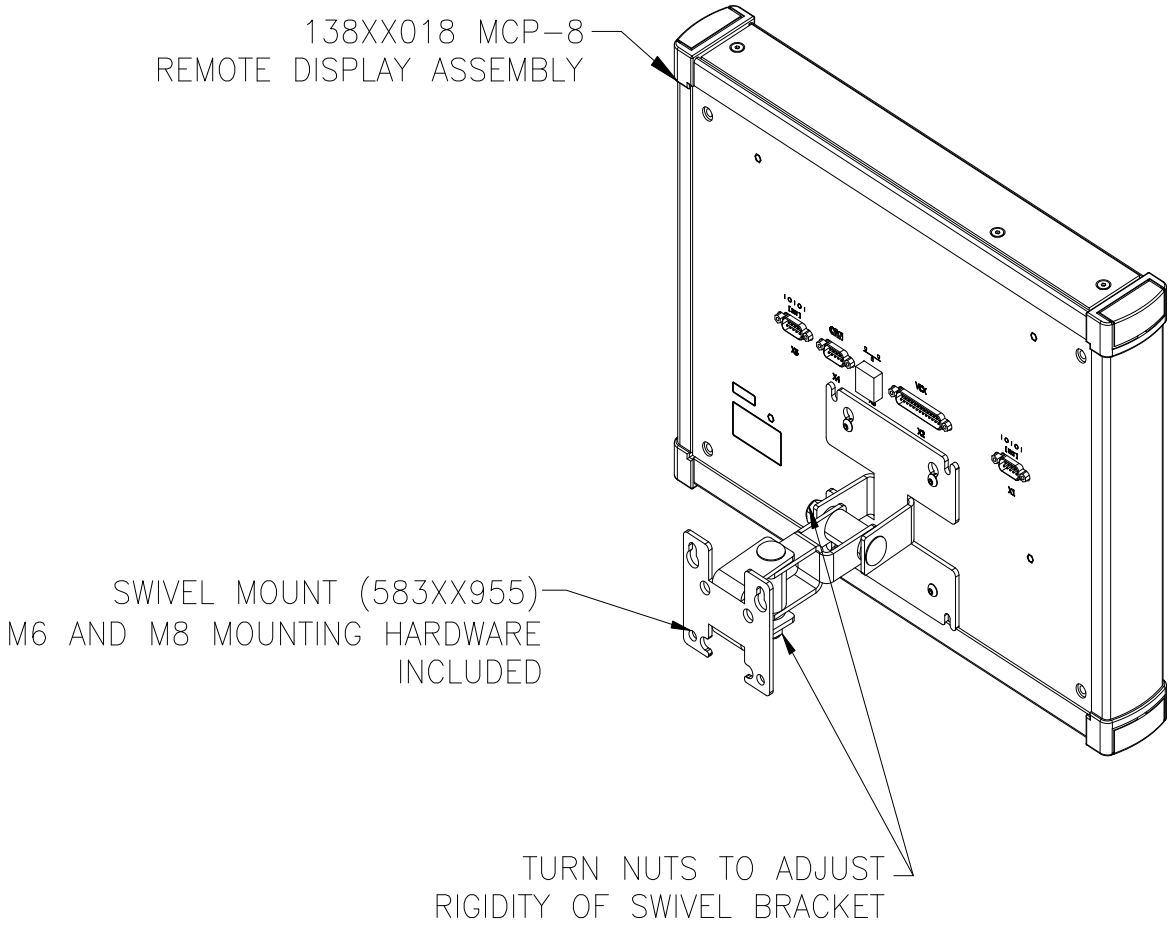


Figure 3-4. Swivel Mount

Swivel Mount Mounting Footprint

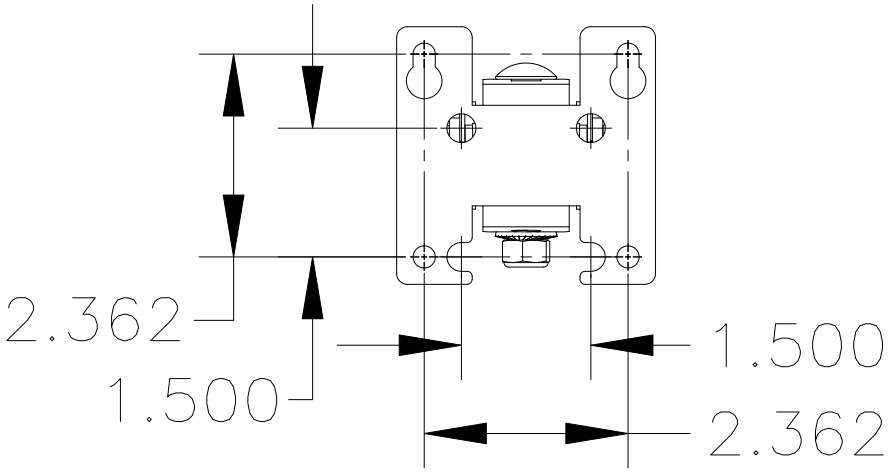


Figure 3-5. Swivel Mount Mounting Footprint

Mounting the Encoder

An encoder must be installed in order for the control to determine the speed of the parent machine. Your MCP-8 Control system 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.

To install a wheel-driven encoder, follow these steps:

1. Mount the encoder bracket to the frame of the parent machine.
2. Mount the encoder to the bracket and securely affix the wheel.
3. Ensure that the wheel of the encoder rides securely against the belt and does not slip.

> For best results, the wheel of the encoder assembly should ride on the bottom side of the belt on the drive side.

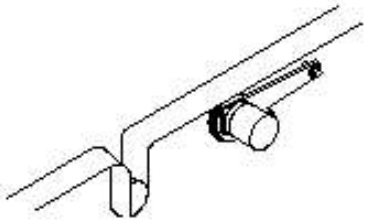


Figure 3-6. Example of a Wheel-Driven Encoder

Red Encoder Wheel		
Pulses	**Setup**	**Circumference**
1000	Metric	250 mm
	Imperial	9.84 inches
500	Metric	250 mm
	Imperial	9.84 inches
250	Metric	250 mm
	Imperial	9.84 inches

Black Encoder Wheel		
Pulses	**Setup**	**Circumference**
1000	Metric	254 mm
	Imperial	10.0 inches
500	Metric	254 mm
	Imperial	10.0 inches
250	Metric	254 mm
	Imperial	10.0 inches

Installing the Glue Station

Since the MCP-8 is compatible with any glue station, setup may vary depending on cell to gun distance and valves being used. These parameters can be programmed from the front panel of the MCP-8.

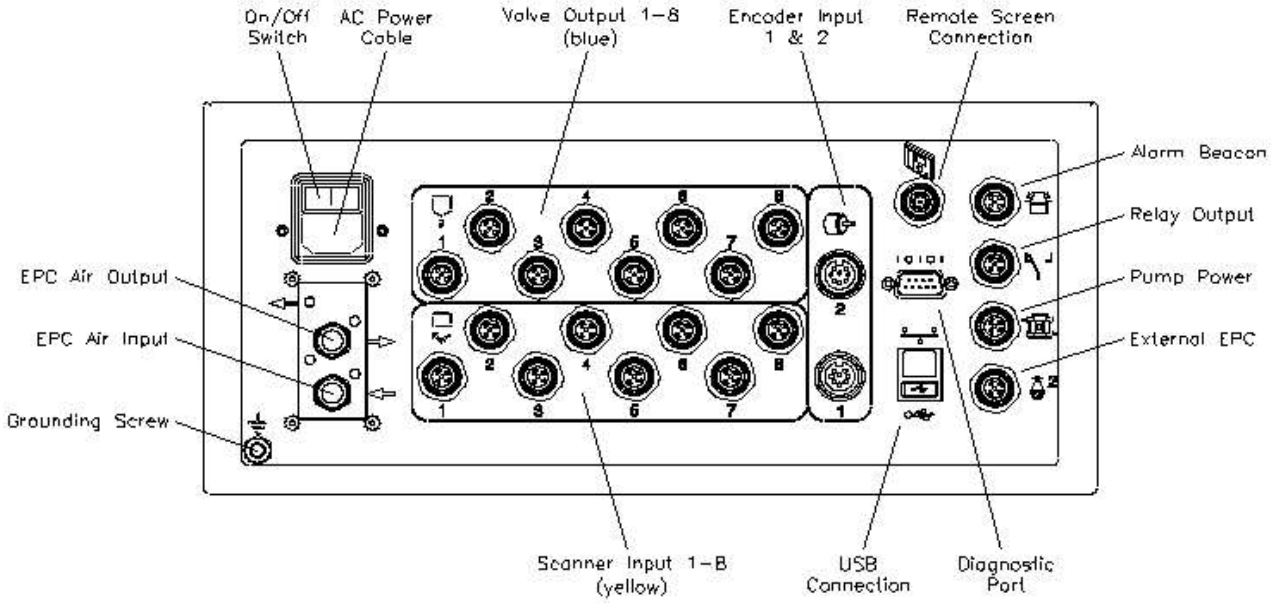
To install the Glue Station, do the following:

1. Mount the Glue Station to the parent machine.
2. Install nozzle or applicator head onto the valve if necessary.

> Do not connect the glue hoses at this time. This will be done later in the setup procedure.

MCP-8 Connections

M12



Tri-Valve, Non-Contact

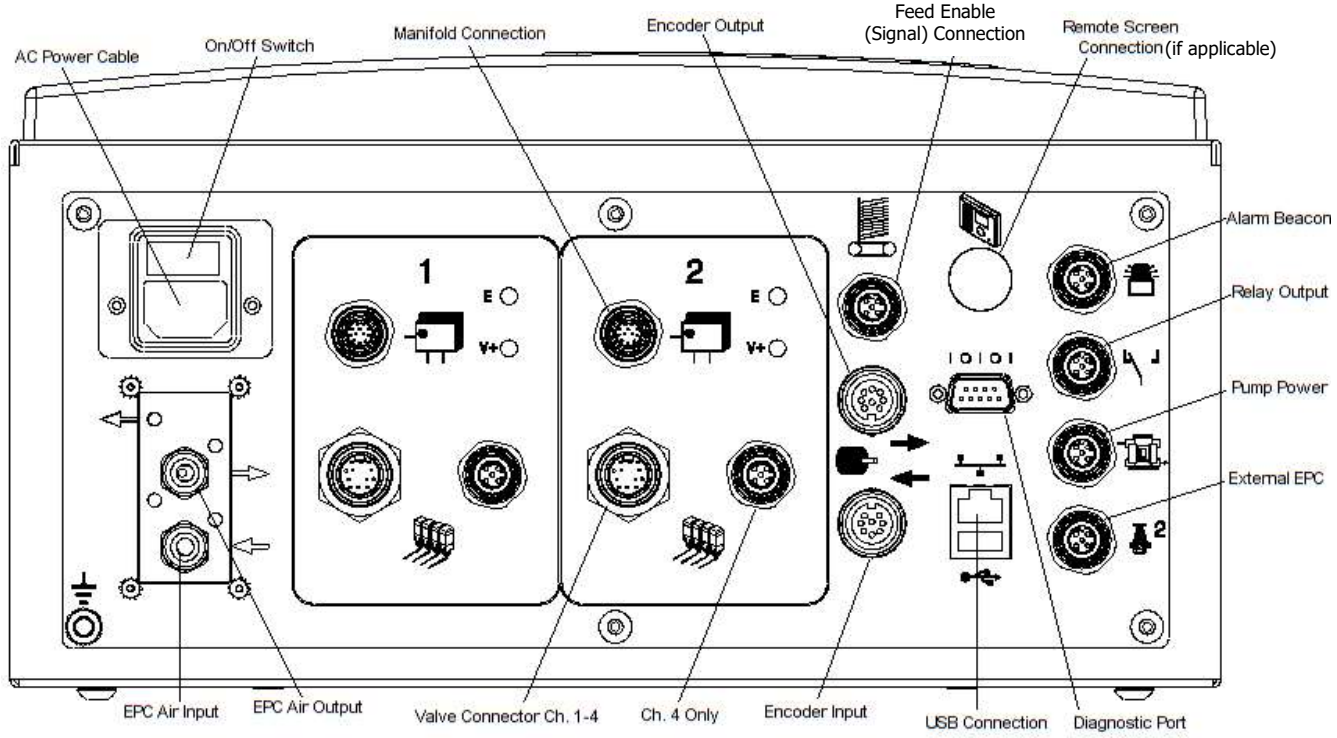
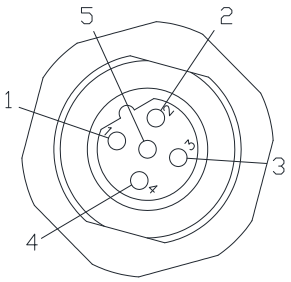


Figure 3-7. MCP-8 Connections

Pinouts, Standard

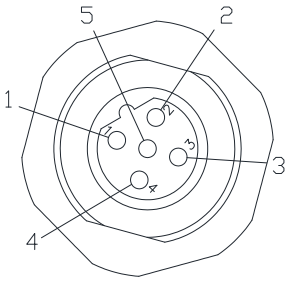
Valve Output

Valve Output		
Pin #	**Description**	**Color**
1	Coil Return	Brown
2	Coil Out	White
3	GND	Blue
4	Purge	Black
5	GNDE	Gray



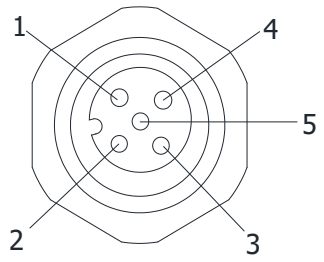
Scanner Input

Valve Output		
Pin #	**Description**	**Color**
1	+24V Fused	Brown
2	PNP Input	White
3	GND	Blue
4	NPN Input	Black
5	GNDE	Gray



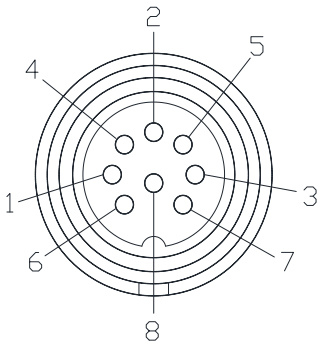
Alarm Beacon

Alarm Beacon		
Pin #	**Description**	**Color**
1	COM	Brown
2		White
3	NO Beacon	Blue
4		Black
5	Beacon Light	Gray
Pinout Drawing		



Encoder (Output/Input)

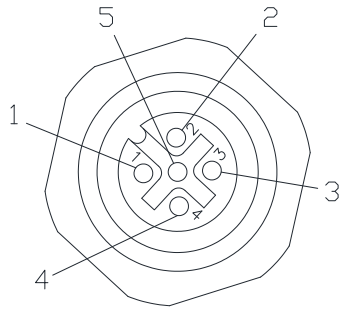
Encoder (Output/Input)	
Pin #	**Description**
1	GND
2	MCP-ENC A+
3	MCP +24V
4	MCP-ENC B+
5	MCP-ENC Z+
6	MCP-ENC Z-
7	MCP-ENC B-
8	MCP-ENC A-
Pinout Drawing	



External EPC

External EPC		
Pin #	**Description**	**Color**
1	+24V FUSED	Brown
2	GND	White
3	GND	Blue
4	SIGNAL	Black
5	GND	Gray

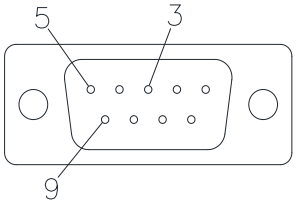
Pinout Drawing



Diagnostic Port

Diagnostic Port	
Pin #	**Description**
1	
2	
3	RX IN
4	
5	TX OUT
6	
7	
8	
9	GNDE

Pinout Drawing

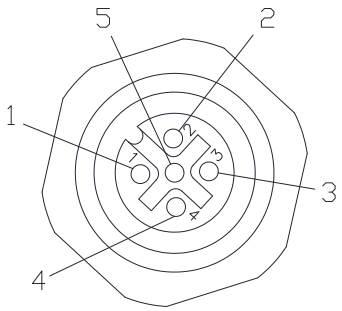


Pinouts, Tri-Valve

Feeder Signal

Feeder Signal					
Pin #	Description				Color
	J5	J6	J7	J8	
1	+24V FUSED				Brown
2	SCAN PNP1	SCAN PNP2	SCAN PNP3	SCAN PNP4	White
3	GND				Blue
4	SCAN NPN1	SCAN NPN2	SCAN NPN3	SCAN NPN4	Black
5	GNDE				Gray

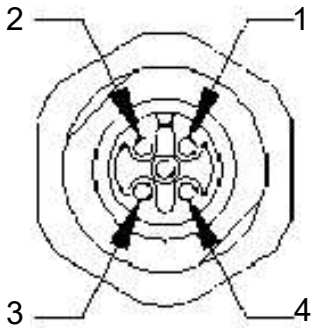
Pinout Drawing



Relay

Relay		
Pin #	Description	Color
1	COM	Brown
2	N.C.	White
3	N.O.	Blue
4	COM	Black

Pinout Drawing



Relay is rated to MAX 250VAC 1A or 30VDC 1A.

Alarm Beacon

Same as Standard

Diagnostic Port

Same as Standard

Encoder (Output/Input)

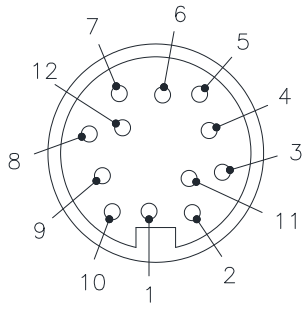
Same as Standard

Relay

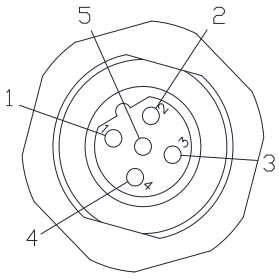
Same as Standard

Valve Connections

Valve Connections			
Pin #	**Description**	**Color**	**Panel Ref.**
Ch. 1-4			
1	V1 RET	Brown	J1-1
2	V1 OUT	Blue	J2-2
3	V2 RET	White	J1-3
4	PE	Green	J1-4
5	V3 RET	Yellow	J1-5
6	V3 OUT	Gray	J1-6
7	V4 RET	Pink	J1-7
8	V4 OUT	Red	J1-8
9	PURGE GND	Black	J1-9
10	PURGE V1	Orange	J1-10
11	PE	Tan	J1-11
12	V2 OUT	Violet	J1-12
Ch. 4 only			
1	V4 RET	Brown	J7-1
2	V4 OUT	White	J7-2
3	NOT CONNECTED	Blue	J7-3
4	PURGE GND	Black	J7-4
5	PURGE V4	Gray	J7-5
Pinout Drawing			
Ch. 1-4 (J1)			



Ch. 4 Only (J7)



MCP-8 Valve Driver Instructions

One of three wiring configurations can be used to trigger the valves. Choose the one that best fits the needs of your system. Detailed instructions for each configuration are given in the next section.

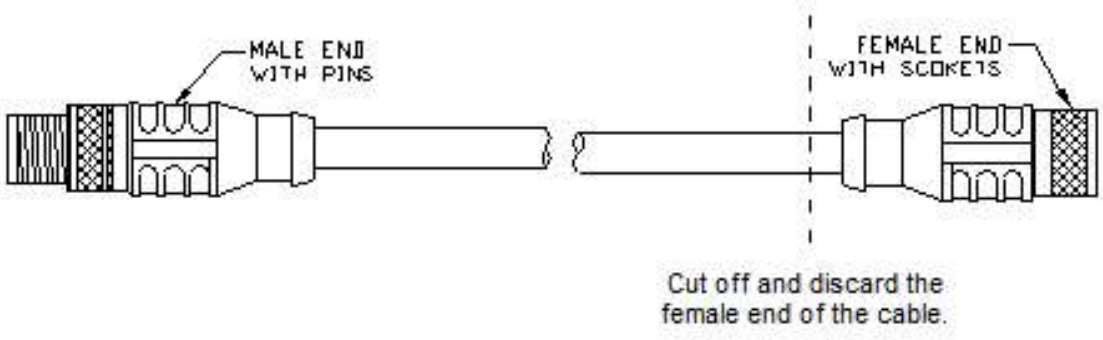
WARNING!

The triggering device used **must** be configured to output **only 24VDC**. If the control unit has a spike, it will damage the input circuit for the scanner.

Disconnect all power and input signal wiring before attempting to install or replace any part of the glue system. Otherwise, personal injury or death may occur!

Wiring the Scanner Cable

1. Make sure the MCP-8 power switch is OFF and the unit is unplugged.
2. Cut the female connector off of the Scanner 1 cable.



3. Plug the male connector (on the Scanner 1 cable) into the Scanner 1 input port on the back of the MCP-8 Control Unit (refer to Figure 3-7).
4. Carefully strip the scanner cable jacket back and strip the individual wire insulations about 0.25 inch.
5. Wire the modified scanner cable according to the Wiring Diagram (Figure 3-8).

Wiring the Scanner Cable - Continued

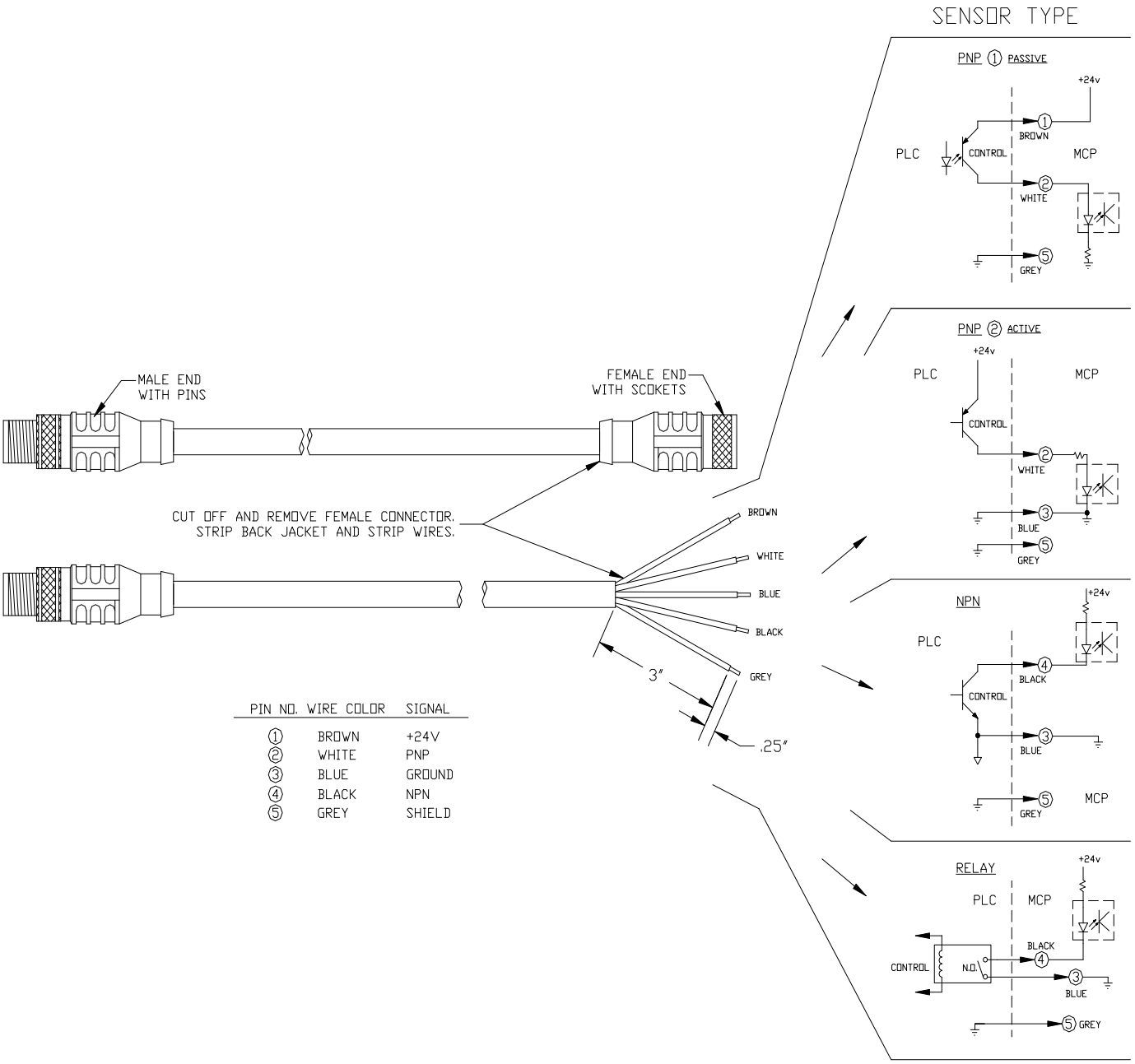


Figure 3-8. Scanner Cable Wiring Diagram

Section 4 - Programming

Programming

The Operator Interface Buttons

Refer to Figure 3-1.

The Status LEDs

Status LEDs - The Status Display LEDs show on/off status. When an LED is on (lit up), the corresponding input or output is activated (see Figure 4-2).

> Be sure the encoder, scanners, valves, and the MCP-8 Control Unit have been properly mounted to the parent machine before setting up the control. The glue and air lines are not connected until after the control is programmed.

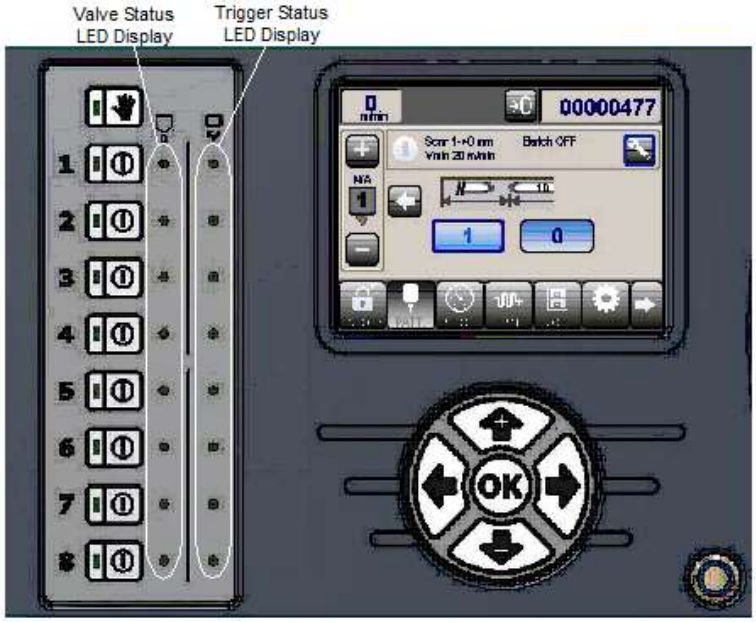
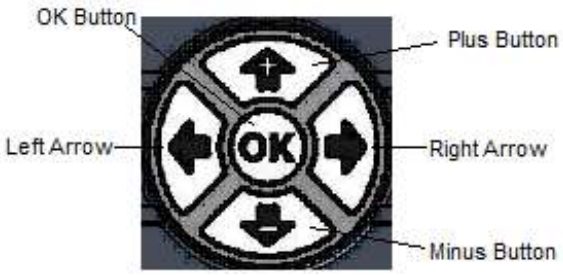


Figure 4-2. Status LEDs

Navigation and Edit Buttons

The MCP-8 is a **touchscreen** system, allowing screen buttons/fields to operate when touched. Screen navigation can also be performed using the buttons described below.



There are 2 Navigation Buttons: the Right Arrow Button and the Left Arrow Button.

Right Arrow Button - Pressing the Right Arrow Button moves the cursor to the right, highlighting each editable field.

Left Arrow Button - Pressing the Left Arrow Button moves the cursor to the left, highlighting each editable field.

There are three Edit Buttons: the Plus Button, the Minus Button and the OK Button. These Buttons are used to change/enter information.

> You can only change a value when it is highlighted.

Plus Button - Pressing the Plus Button allows you to increase the value of the input.

Minus Button - Pressing the Minus Button allows you to decrease the value of the input.

OK Button - Pressing the OK Button opens and closes the thumbwheel control. It also “opens” highlighted menu screens for editing.

Enter Password

To view, setup, and use the various functions of the MCP-8 Control Unit, passwords are used. This ensures safety and security of all settings. To enter a password, do the following:

1. Referring to the Operator Panel illustration/table on page 35, highlight the Lock/Unlock button (#6) and click OK.
   a. The Password screen will appear.

2. Enter your password (PIN), and then highlight “UNLOCK.”

Enter Password - Continued

3. Click OK.
    a. The button icon will change to ‘unlocked,’ and the password level (number) will be displayed.

Password Levels

There are five password levels:

Level 0: Protected

When the unit is set to Level 0, only basic pattern settings can be entered or changed. Level 0 provides the ultimate safety settings to prevent unauthorized and/or accidental changes. This level can be set as the “Default” level by someone with a Level 2 (Supervisor) password.

Level 1: Operator (No password required)

This is the “Default” level of operation when the unit is first turned on (unless the “Default” setting has been changed to Level 0 by a Supervisor). Level 1 allows Operators to set patterns, pressures, load jobs, and enter basic parameters necessary to run jobs.

Level 2: Supervisor (Default Password = 1234)

This is the highest user password level. At this level, the “Default” password level can be set, individual valve settings can be viewed and changed, jobs can be saved (as well as loaded), and the memory can be backed up. The Level 2 password can be changed (this is explained under the heading “Level 2 Password Options”).

Level 3: Service

This password level is reserved for Authorized Service Personnel.

Level 4: Programmer

This password level is reserved for Factory Programmers.

Level 2 Password Options

A Level 2 Supervisor has the ability to place the unit into the Protected Level Mode (Level 0) and to change the Level 2 password.

Protected Level Mode

The Protected Level Mode (Level 0) increases security by changing the Default Level of the unit from Level 1 to Level 0. This means that when the unit is turned on, it will automatically be in Level 0 instead of Level 1 (until the supervisor changes the Default Mode to Level 1). Only someone with the Level 2 password can change the Default Level of the unit.

Main Menu Buttons

There are six Main Menu Buttons (refer to the operator panel illustration/table on the previous page). The “button depressed/ normal” appearance of the Buttons indicates which Main Menu Button is selected.

Pattern Button (#7) - Pressing the Pattern Button allows you to begin to enter gluing patterns for valves 1-8.

Pressure Button (#8) - Pressing the Pressure Button allows you to begin to enter the pressure settings.

Jam Button (#9) - Pressing the Jam Button allows you to set up the Jam Detection/Alarm parameters.

Job Button (#10) - Pressing the Job Button allows you to save a job and load a job.

Setup Button (#11) - Pressing the Setup Button allows you to begin to setup the MCP-8 Control Unit.

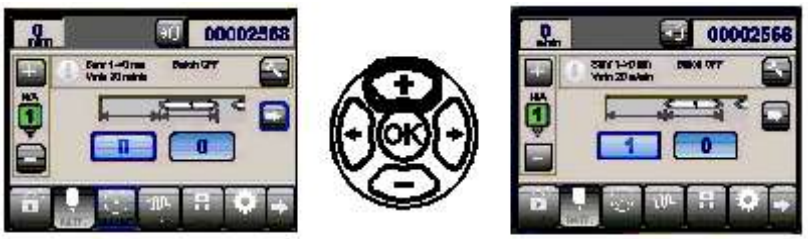
Diagnostics Button (#16) - Pressing the Diagnostics Button allows you to view the MCP-8 Control Unit diagnostics.

Single Digit vs. Thumbwheel Edit

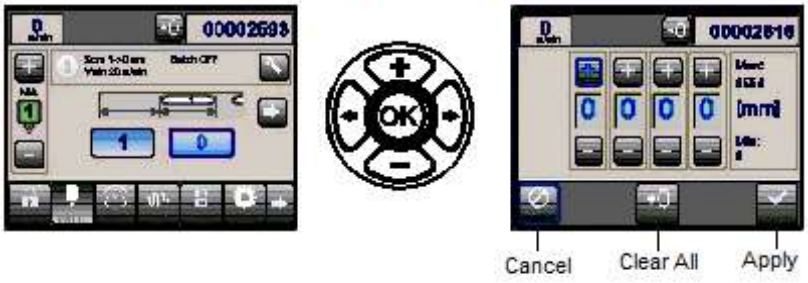
When editable information is numerical, the information may be edited with the Plus/Minus Buttons for single digit editing, or the OK Button may be pressed to bring up a thumbwheel for more detailed editing using the Plus/Minus Buttons.

In thumbwheel editing, “Cancel” closes the thumbwheel edit window, abandoning any changes. “Clear” clears all digits to zero. “Apply” confirms the new settings and closes the thumbwheel edit window.

Press the Right or Left Arrow Buttons until you highlight the desired key, and then press OK to select it.



Single Digit Editing



Thumbwheel Editing

Valve Buttons

There are 9 Valve Buttons: the Purge Button and Valve Buttons 1 through 8.

Pressing the Purge Button allows you to turn the Manual Purge Mode on and off.

> When the Purge Button LED is on, Manual Purge Mode is on. In this Mode, the Valve Buttons act as “purge buttons.” When the LED is off, the Valve Buttons turn the valves on and off.

Pressing the individual Valve Button(s) WHEN THE MANUAL PURGE BUTTON IS NOT ILLUMINATED tells the MCP-8 control which valve you are going to use for the job you will run. The LED in the upper Left hand side of the Buttons indicates which valve is selected.

Configuring the Valve/Channel Settings

The settings are preprogrammed for the specific application selected. It is best not to change any setting unless you are a trained technician and/or have assistance from a member of the Valco Technical Assistance Team.

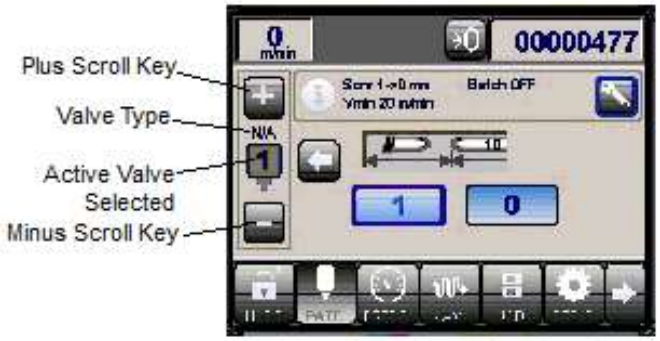
CAUTION!

Changing settings may bring unwanted consequences in the performance of your system. Valco Cincinnati, Inc. recommends having a qualified technician setup your system parameters. Otherwise, loss of production time may result from improper settings.

> All screens for configuring the valves/channels are available in all applications.

Valve Selection

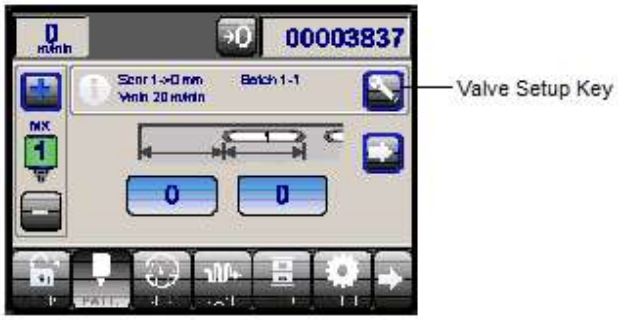
The Valve Selection Keys allow the operator to scroll between active valves. The selected valve number and type are displayed. Use the arrow keys to highlight “+” or “-”, and then press OK to scroll.



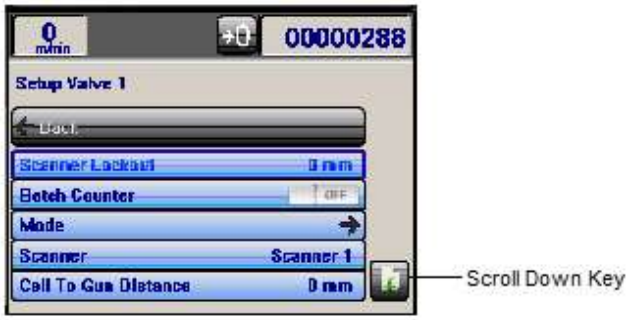
Valve Type

To set the valve type for each valve, proceed as follows:

1. Highlight the Valve Setup Key, and then press OK.



   a. The setup menu for the selected valve number will open.



2. Using the Arrow Buttons, scroll to the 'Scroll Down Key, and then use the Minus ("-") button to scroll down to "Valve Type."
3. Press OK twice to access the Valve Type menu.

> If the default valve type that appears is "not applicable" (N/A), use the Plus/Minus buttons to scroll through the list of valve types available.

4. Set the highlighted valve type by highlighting "Apply" and clicking OK.

> Selecting "Cancel" closes the menu without changing the valve type.

5. Set the valve type for each valve, as needed.

Encoder Ratio

The encoder ratio is the number of encoder pulses, for the product travel length, per encoder rotation,

To input Pulses:

1. Highlight the General Setup Button 

.
   a. The General Setup Menu will open.

2. Highlight the Encoder you wish to edit, and then press OK.
   a. The Encoder Setup Menu will open.

To edit Pulses:

3. Highlight “Pulses,” and then press OK.
   a. The Pulse Edit Screen will open.

4. Use the Arrow Buttons to highlight the “plus” or “minus” key for the digit you wish to edit.
5. Use the Plus and Minus buttons to change the setting.
6. When all digits have been edited as desired, use the Arrow Keys to highlight “Apply,” and then press OK.

Encoder Ratio - Continued

To edit Repeat Length:

7. Highlight “Repeat Length,” and then press OK.
   a. The Repeat Length Edit Screen will open.

8. Use the Arrow Buttons to highlight the “plus” or “minus” key for the digit you wish to edit.
9. Use the Plus and Minus buttons to change the setting.
10. When all digits have been edited as desired, use the Arrow Keys to highlight “Apply,” and then press OK.

The following tables may be helpful:

Red Encoder Wheel		
Pulses	**Setup**	**Circumference**
1000	Metric	250 mm
	Imperial	9.84 inches
500	Metric	250 mm
	Imperial	9.84 inches
250	Metric	250 mm
	Imperial	9.84 inches

Black Encoder Wheel		
Pulses	**Setup**	**Circumference**
1000	Metric	254 mm
	Imperial	10.0 inches
500	Metric	254 mm
	Imperial	10.0 inches
250	Metric	254 mm
	Imperial	10.0 inches

To test the encoder ratio, refer to the *Diagnostic Screen*, below. A recommended guideline: the number of pulses should be consistent for each product run, within approximately 3%. A greater fluctuation may indicate the product is slipping during transit, creating a false length reading.

Diagnostic Screen

Selecting the Diagnostic Button opens the Diagnostic Screen.

The top screen section displays the software version information, while the bottom section displays the valve status. The top numbers show the valve type. The bottom numbers will switch back and forth from showing the valve voltage to showing the valve status (enabled or disabled).

Diagnostic Button

A voltage reading of 0.0 could indicate a blown fuse. See the Parts List section for fuse numbers and placement.

Scrolling down, The “Scanner” display indicates the number of encoder pulses that occurred while the scanner was blocked. This is a useful reference for determining the encoder ratio accurately (number of pulses compared to product length)

Compensation Time

To access Compensation Time Settings:

1. Highlight the Valve Setup Button, and then press OK.

   a. The Valve Setup list menu will open.

2. Scroll down to “Ton,” “Toff,” or “Tmin” as required (see below).

On Compensation Time (Ton) - This is the amount of time (in milliseconds) from when the valve is activated to when the glue is applied. Increasing the "ON" Compensation Time will move the start of the pattern forward.

Off Compensation Time (Toff) - This is the amount of time (in milliseconds) from when the valve is turned off to when the adhesive application is stopped. Increasing the Off compensation time will make the glue line shorter.

Minimum Compensation Time (Tmin) - This is the time the valve will be open, no matter what the pattern length, the machine speed, and the "OFF" Compensation Times are set at.

Ton and Toff are determined by running the machine at slow speed, checking glue pattern placement, and then running the machine at high speed and checking glue placement.

If the pattern moves forward on the sheet, the compensation time is too high.
If the pattern moves back on the sheet, the compensation time is to short.

Compensation Time - Continued

Ton affects the beginning of the pattern. Toff affects the end.

CAUTION!

These parameters can be adjusted only if the machine can be run both at high and low speed, and should not be adjusted without preforming this test.

3. Highlight “Speed Calculation,” and then press OK.
   a. The Speed Calculation Edit Screen will open.

When set to “Average 1,” the speed calculation only affects the Transducer output. “Average 2” affects the Transducer output *and* Valve compensation.

4. Highlight the desired setting.
5. Highlight “Apply,” and then press OK.

“Immediate” is helpful if the machine starts and stops often, with products in the machine.

If the MCP-8 was set to speed averaging, and the machine restarted with a product directly in front of the valve, that box may not be glued, because the control did not think the machine was up to speed by the time the product reached the scanner for that valve.

If a machine runs at a steady speed, with little change, averaging will be a better choice to compensate for minor speed variations, due to measurement error in the encoder wheel.

Parameter/Button Access Configuration

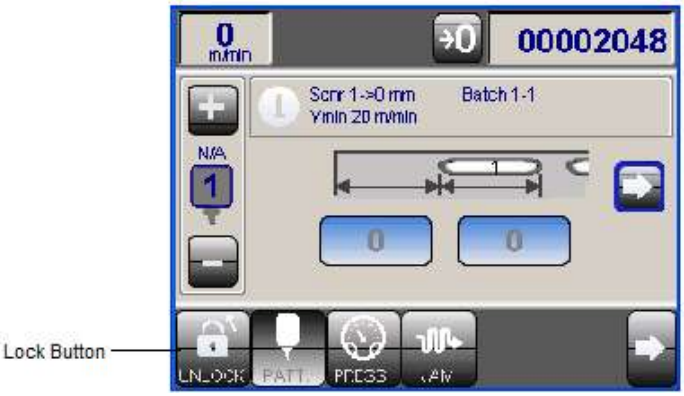
This feature allows you to customize the control display, hiding buttons that are not typically accessed by the operators, to prevent confusion and improve the user experience. For example, if the machine has a fixed repeat, there will likely be no need to change the jam length often.

CAUTION! Configuration changes should only be made by authorized Valco Melton personnel.

Level 4 (Programmer) cannot be reconfigured.

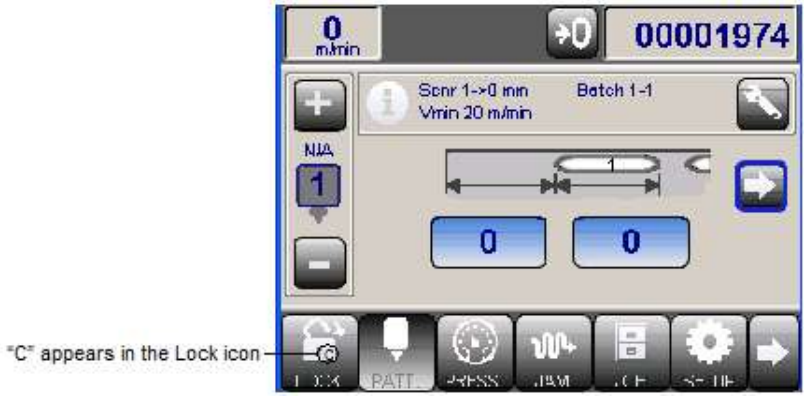
To configure parameters or buttons:

1. Select the Lock button.



2. Enter the Level 4 password for configuration access.

A "C" appears in the Lock icon.



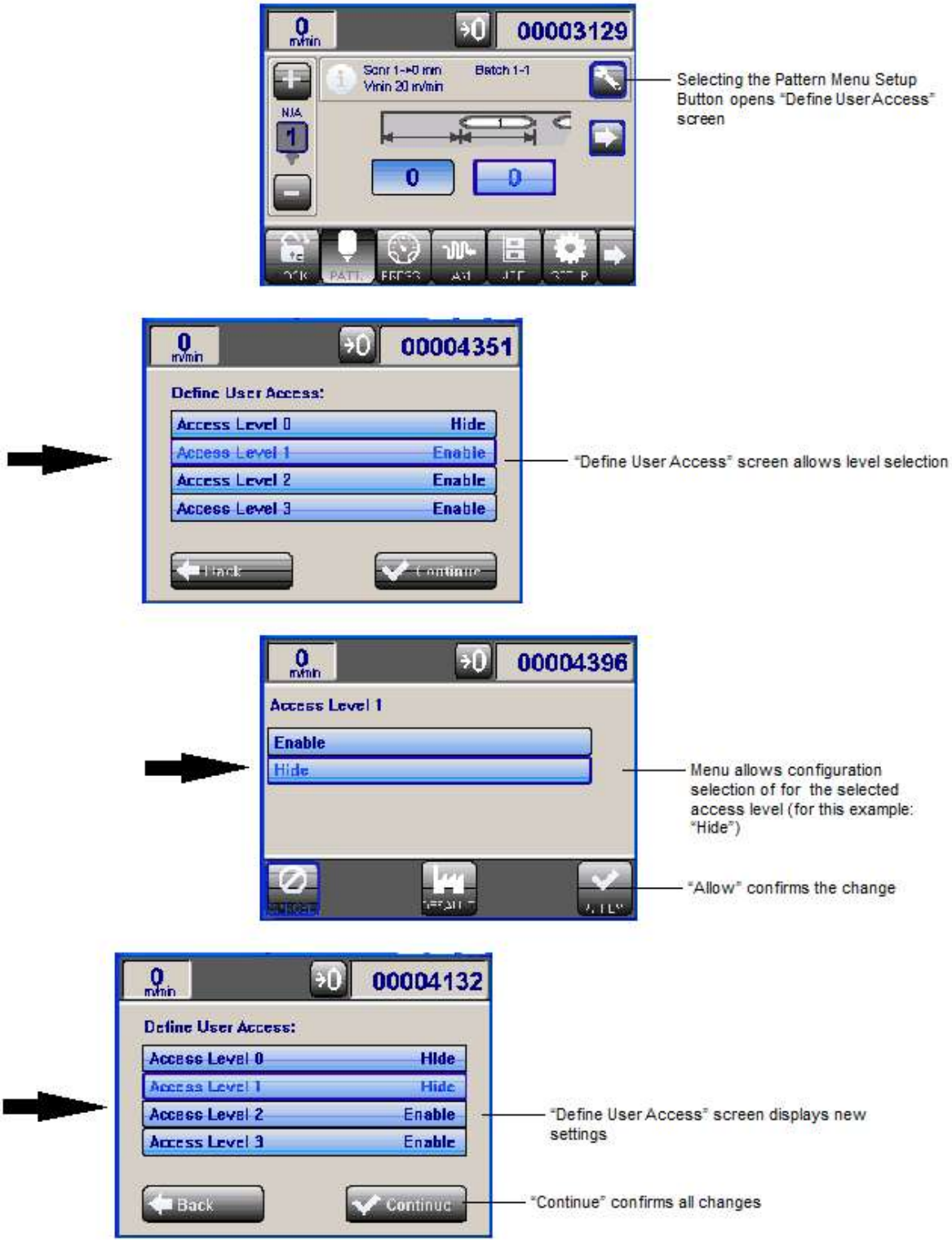
In this configuration mode, selecting a parameter/button opens a menu that allows the programmer to designate one of the following settings:

Parameter: Enable; Hide; Disable

Button: Enable; Hide

Parameter/Button Configuration – Continued

Example:



Parameter/Button Configuration – Continued

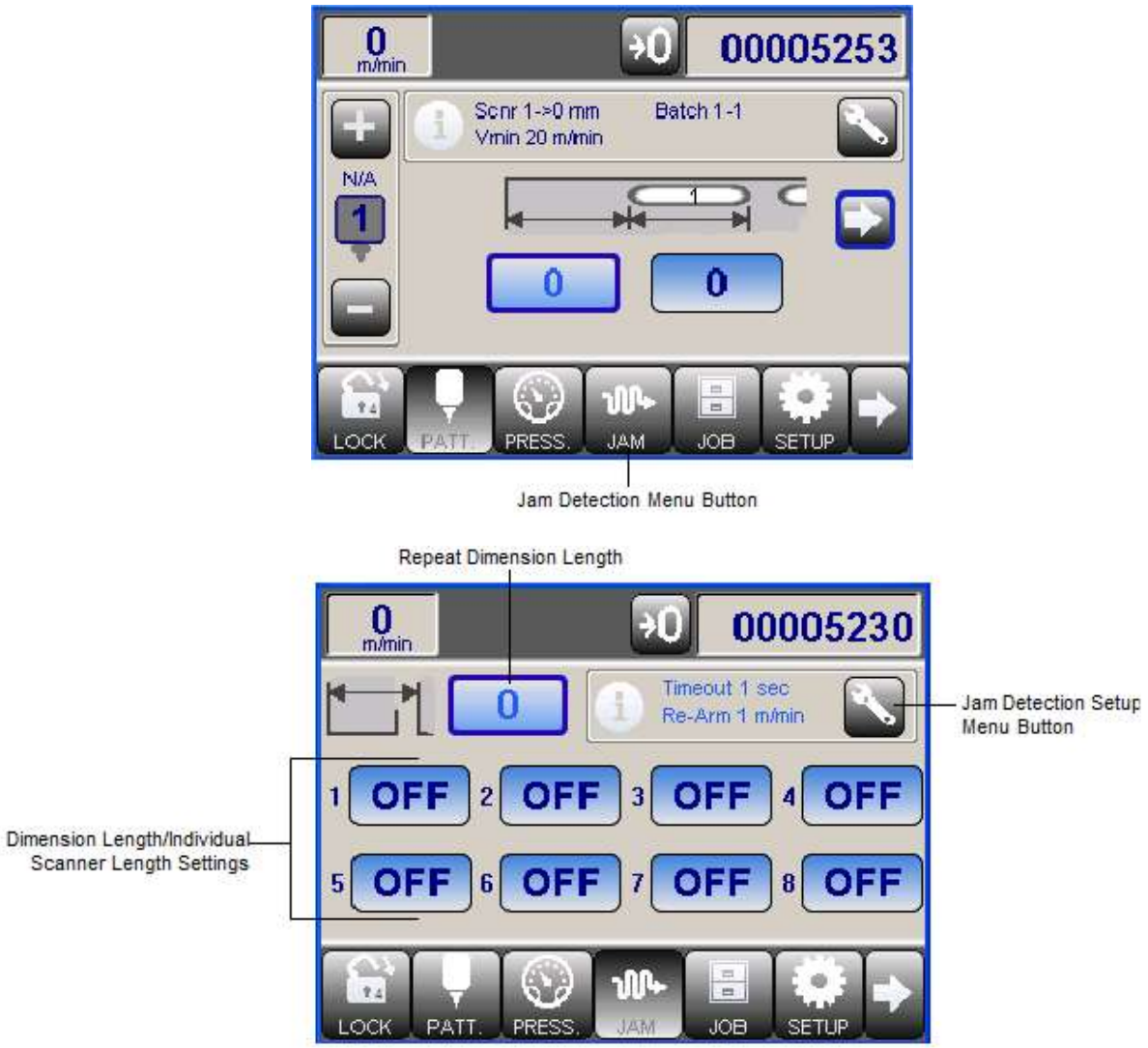
When changing a Parameter access configuration, an option is included for changing either an individual channel, or ALL channels.

Option for changing either an Individual channel, or ALL channels (click to open selection window, below).

Jam Detection

Selecting the Jam Detection Menu Button opens the Jam Detection Menu.

Jam Detection, sometimes called Jam Prevention, can stop the machine before a jam occurs. Jam prevention works by measuring the scanner activation length. If the product is double feed, then the scanner will measure the product as being too long and stop the machine. This prevents a jam from occurring when the sheet is folded and stacked. Jam detection can also stop the feeder, minimizing the magnitude of any jam that occurs. It can also measure if the flap on folded boxes has been folded back correctly.



Jam Detection Menu

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. A recommended starting point would be box length plus 20%.

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).

Jam Detection Setup Menu Button:
Opens Jam Detection Setup Menu.

Jam Detection Setup Menu

Threshold Speed:
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.

Timeout:
Indicates a “forced-stop” time (1-10 seconds) before system can be restarted.

Output 1:
On or OFF

Output 2:
On or OFF

Function:
For either Output, includes the following options:

Off
Light
Buzzer
Relay

These refer to the relay outputs on the control. For connections, refer to Section 3.

Mode:
For Output 1 only, includes the following options:

Wait V=0:
After a jam condition has been cleared, the system looks for input “0” (jam signal has been ‘lost’) to signal it can be restarted.

Continue:
System looking for Encoder input.

Tipsealer

The Tipsealer function places the nozzles onto the Tipsealer Pad during brief workflow stops, to prevent the glue from drying out.

> Tipsealer Control supports 3NC, 4NC, 3NCR and 4NCR glue stations (3NCR and 4NCR are reversible).
> This is only available on Tri-Valve MCP-8 controls.

Selecting the Setup Menu Button opens the Setup Menu.

Setup

On the Setup Menu, make sure the Application is set to “Corrugated.”

> The factory-default application setting is “Folding Carton,” which does not employ the Tipsealer feature. The application must be set to “Corrugated” to access the “Glue Station Setup.”

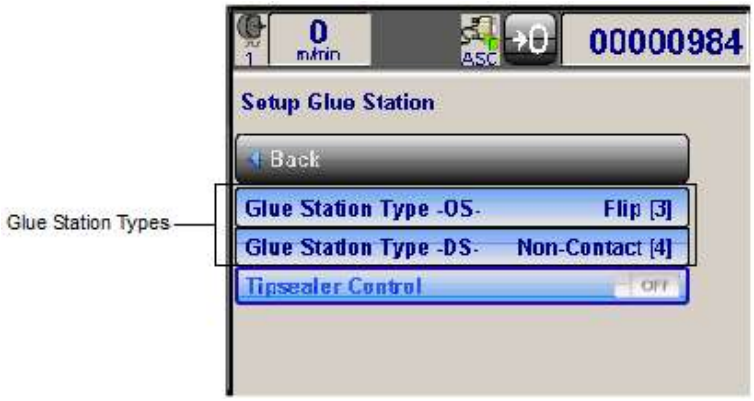
Press “Glue Station Setup” to select.

Scroll

Glue Station Setup

Tipsealer - Continued

Select the Glue Station Type, either Operator Side (OS) or Drive Side (DS), that you wish to configure.



When the station is selected, a sub-menu will open, allowing selection of a specific configuration to match the system. Select the desired configuration and touch “Apply.”

Tipsealer Control:

Allows settings to be turned on or off by pressing the command. When turned on, options below “Tipsealer Control” will be accessible. In addition, the icon will show if the valves are in the tip sealing position or in the run position.

Feeder Timeout:

When the Feeder is stopped, a programmed timeout (from 5 to 60 seconds duration) delays station movement to or from the tipsealer pad. If the Feeder is restarted before the timeout ends, the valves remain in the dispensing position.

Feed Signal Polarity:

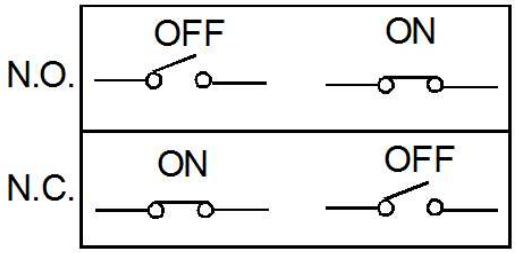
Allows the following Feed Signal options (polarity):

N.O.

Feeder is Normally Open (Off).

N.C.

Feeder is Normally Closed (On).

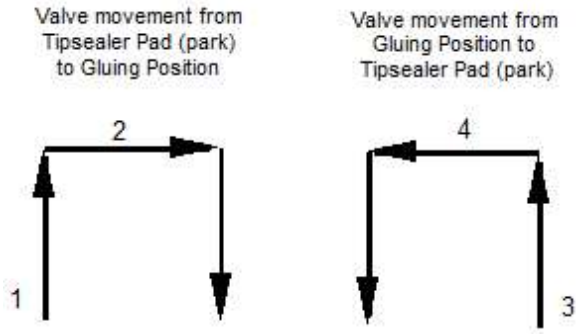


If the Valves move to the Tipsealer Pad when the Feeder is Active (ON), or move to the dispensing position when the Feeder is Off, the polarity is incorrect.

Reverse the polarity setting to correct it.

Delay Time (1-4):

These settings, designated by number (1-4), set the delay (in miliseconds) for each valve motion to or from the Tipsealer Pad (refer to the figure, below).



Output Manual Mode:

When the station is switched to Manual Mode, the controls allow an alarm to activate, or for a relay to shut down the system until the station is set back to Auto Mode.

The Manual Mode function allows to operator to manually move the valves off the Tipsealer to clean the nozzles. If the manual mode switch is not set back to auto, the Tipsealer will be disabled during future machine stops. The Manual Mode button is located on the air manifold control box, located near the glue station.

Manual Mode output options:

- Off
- Alarm 1
- Alarm 2
- Relay

Tipsealer - Continued

Output Error Mode:

When an error occurs, the controls allow an alarm to activate, or for a relay to shut down the system until the error is corrected and the system restarted.

Error Mode output options:

Off
Alarm 1
Alarm 2
Relay

Jogg on Restart:

“Jogging” dispenses a series of glue dots, rather than a continuous line. This helps to clear the nozzles of dried glue and make sure the valves are dispensing correctly. “Jogg on Restart” sets the number of boxes (0-25) that will receive a “jogg” pattern, following a restart, before glue again dispenses in the normal, programmed pattern.

Reversible Glue Station Setting

When a selected glue station offers both top-down and bottom-up operation (example: “FLIP 3”; “FLIP 4”), a Reversing Button appears.

When this button is pressed, the control automatically re-programs the patterns for correct glue placement, according to their location and the cell-to-gun distance setting.

Reversing Button

The screen will now indicate that the station setting has been reversed.

Station set for Bottom-Up Gluing

CAUTION!

Selecting a Glue Station Type **does not** set a reversible station to the correct system configuration automatically.
The Reversible Gluing Button must still be used to set the station for top-down or bottom-up gluing.

If the glue lines are being dispensed in a ‘staggered’ pattern (see below), the Reversing Button must be pressed to correct the dispensing order.

Staggered Pattern
Incorrect; press Reversing Button to correct.

Aligned Pattern
Setting is correct.

Backup (Archive)

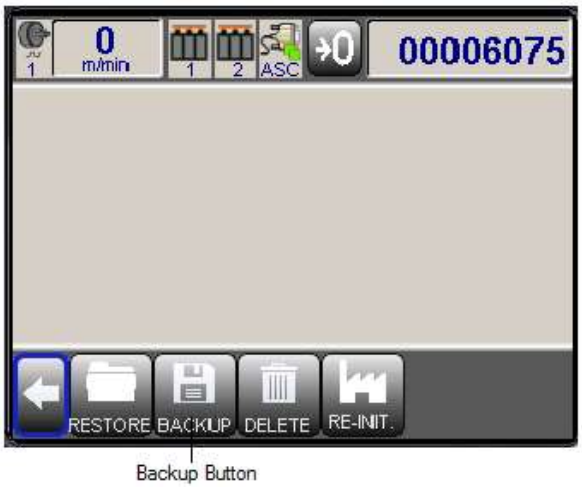
Before removing the Micro-SD card, backup your settings.

The Archive Button is not accessible at all levels.

Press the Archive Button on the MCP-8 screen.

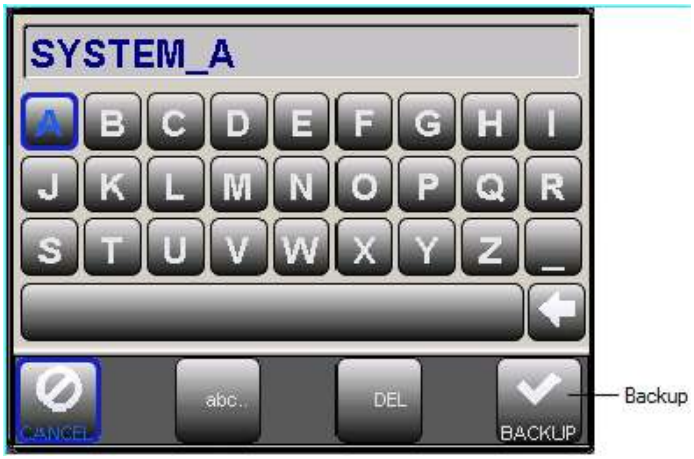
Backup (Archive) - Continued

Press the Backup Button.



Using the keypad, enter a name for the setup you are saving.

Press Backup to confirm and save.

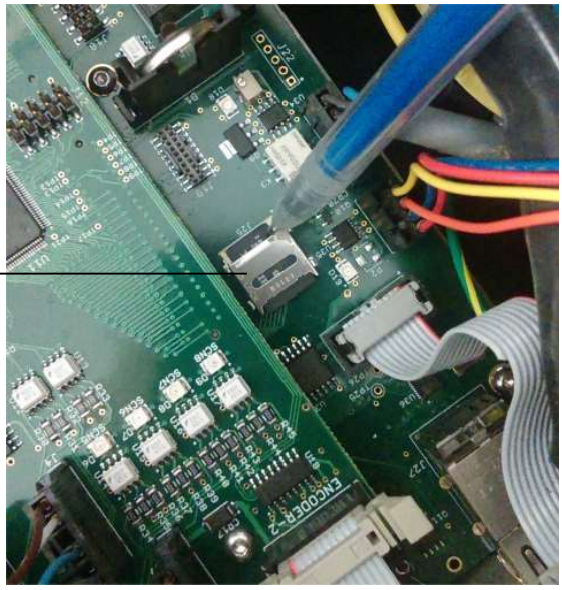


Turn the control unit OFF.

Replace Micro-SD Card

Loosen the four (4) screws holding the control cover.

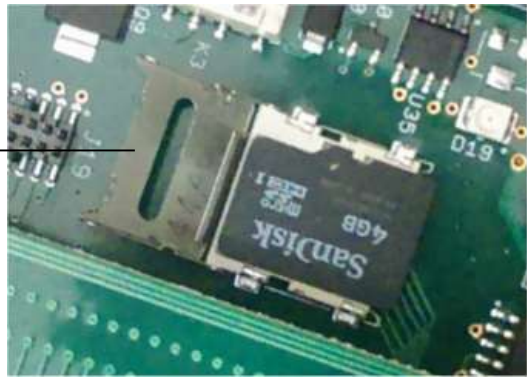
Locate the Micro-SD Card.



Replace Micro-SD Card - Continued

With a fingertip, slide the card holder in the direction shown by the arrow to release the holder cover.

Lift the holder cover.



Remove and replace the Micro-SD Card.

Close the holder cover.

CAUTION! When closing the cover, make sure the Card stays in the correct position. If the card moves out of position, it may not connect properly.

Re-lock the cover by sliding the holder back to the home position.

Replace the Control Unit Cover and screws.

Reprogram/Reinitialize

A USB Flash Drive for reprogramming will be found in the installation kit.

Insert the programming USB Flash Drive.

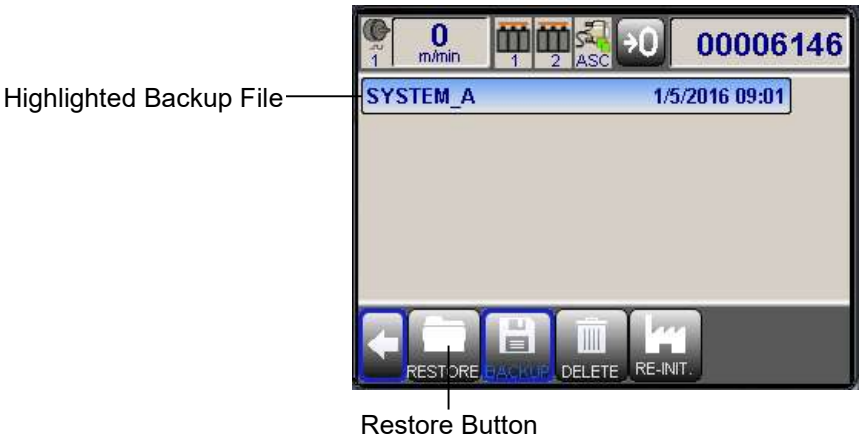
Reprogram/Reinitialize - Continued

Turn the unit ON.

> The system will take approx. 30 sec. to reprogram before the screen will appear.

Access the Archive Screen.

Highlight the backup file you created earlier, and press the Restore Button.



At the prompt (Figure 10), press “YES” to confirm restoring the backed-up settings.

Turn the unit off and remove the programming USB flash drive.

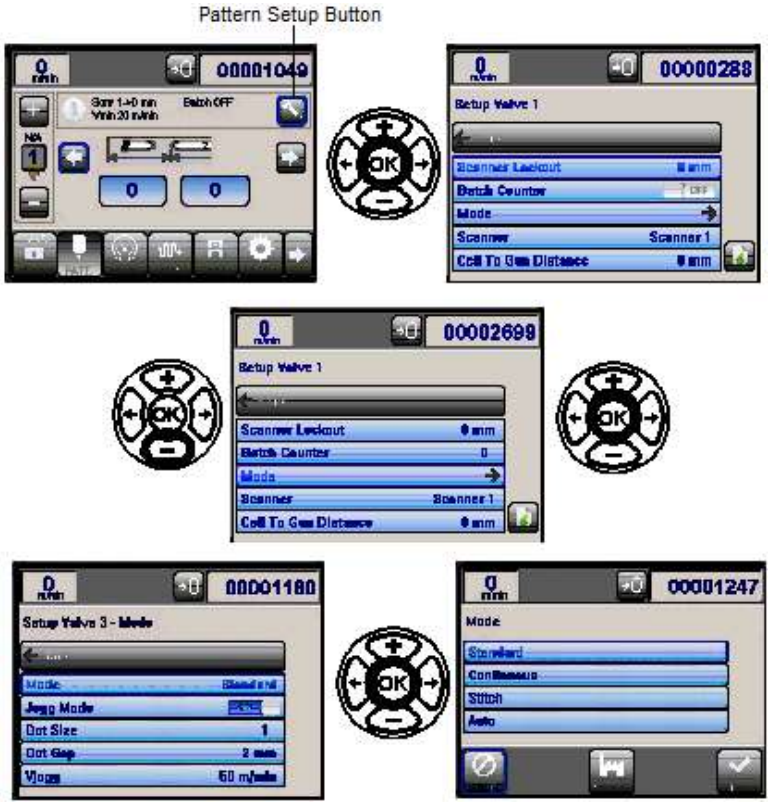
You have completed the procedure.

Section 5 - Operation

Set the Pattern Menu Information

After completing the mounting and the programming of the MCP-8 Unit, the unit is ready to operate. The first task is to input all pattern data and other essential information.

Depending on the password level, some screens may not be seen and/or available. This is a security feature of the MCP-8.

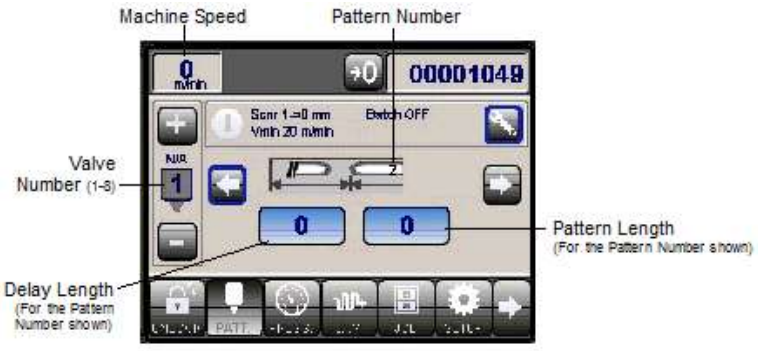


Mode - The gluing style. Use the Left/Right arrows to scroll to the Pattern Setup Button, and then click on “OK.”

Use the Plus/Minus Buttons to scroll through the choices to “Mode” and then click on “OK.”

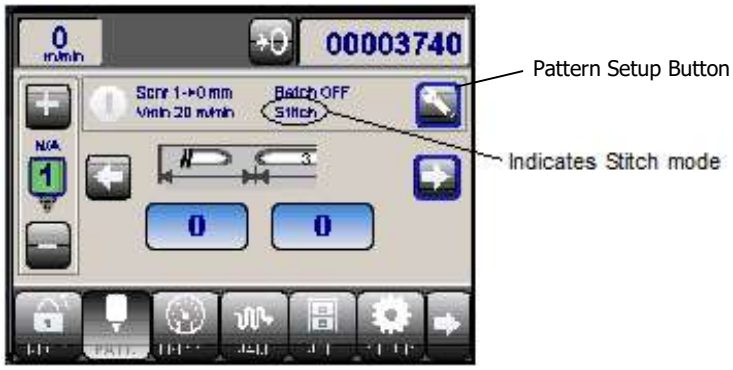
Mode choices include:

1. Standard - This is also called “pattern-skip-pattern” mode, “pattern mode” or “normal mode.”



Set the Pattern Menu Information - Continued

2. **Stitch Mode** is very similar to Standard Mode, with the exception that the glue "patterns" are applied in a stitch-like arrangement of smaller beads and gaps. The beads and gaps are entered in units of length.



a. To change a bead or gap length, press the Pattern Setup button. Select "Mode." The Mode Menu opens.

b. Select "Stitch Length" (bead) or "Stitch Gap" to edit that value. A thumbwheel sub-menu opens.

c. After changing the value, select "Apply" to set the changes.

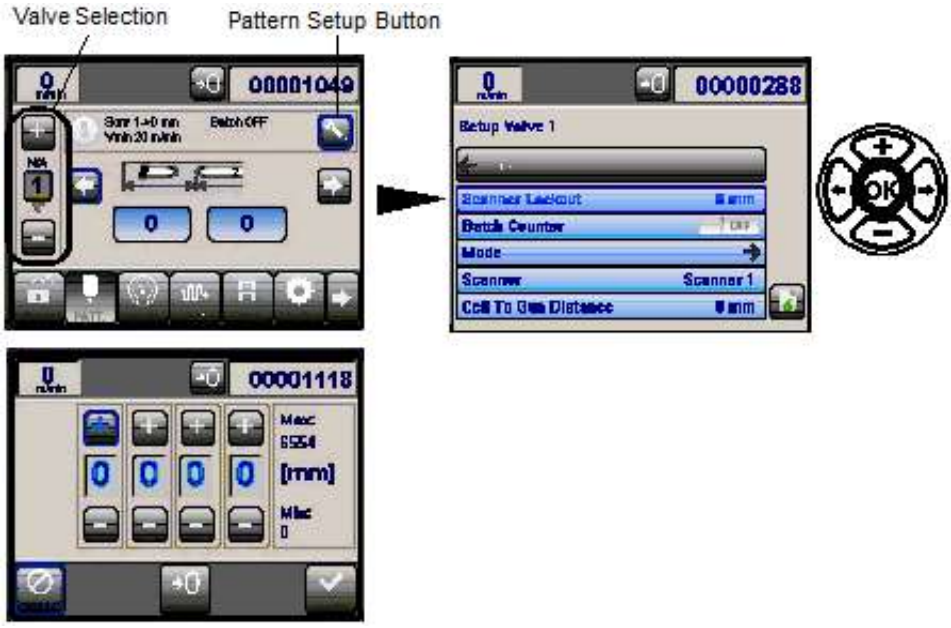
3. **Continuous** - Applies adhesive continuously when speed is higher than the Vmin setting.

4. **Auto -** Applies a strip of adhesive based on the length of the scanner signal. Input the start delay (length from the leading edge of the product to the beginning of the glue line) and the end delay (the end of the glue line to the trailing edge of the product).

> 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.

Set the Pattern Menu Information - Continued

Scanner Lockout - Enter a product length to act as a scanner lockout when holes, writing, or other items produce a false trigger by the scanner.



Batch Counter:

Batch counting is often used on a machine with manual packers. This option allows a kicker or marking valve to identify a group of products needing to be packed into a box.

Batch Counter-On/Off- Turn the batch counter on and off with the “switch” using the Plus/Minus Buttons.

Batch Counter-Skip - The total number of products for which the pattern will be skipped (no adhesive will be applied).

Batch Counter-Glue - The total number of products the adhesive pattern will be applied to, one after the other without skipping any products.

The Batch Counter must be enabled under the Setup Menu.

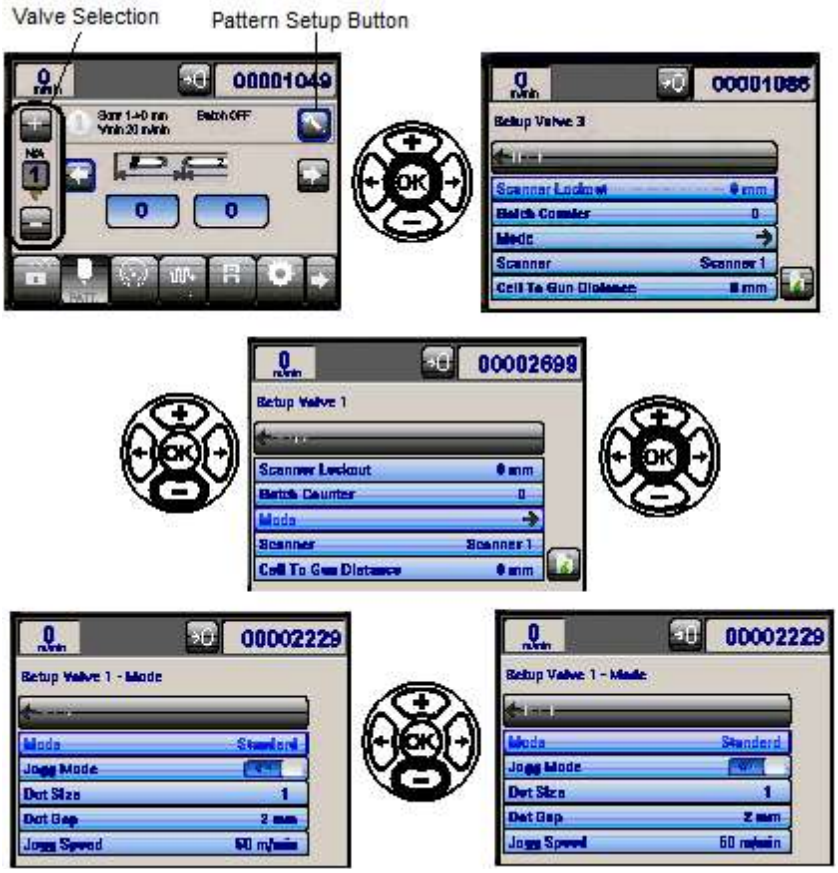
Scanner - Select a scanner from the scroll list, using the plus and minus keys to highlight, press the Left or Right arrow to highlight “Apply,” and then press OK.

Cell to Gun Distance - Measurement - The distance between the valve (gun; shown on the left of the screen) to the scanner (cell) number, shown in the upper right corner. This value must be entered accurately to achieve proper pattern placement.

Set the Pattern Menu Information - Continued

Jog Mode - The Jog Mode Parameter is only available when Jog Mode is enabled.

When jog mode is enabled, and the machine speed is below 'Jogg Speed,' the pattern will be divided into a series of dots and gaps. When the machine speed increases beyond Jogg Speed, the pattern will return to a unified bead. Jog mode is used to prevent applying excessive adhesive at slow machine speeds, as well as to help clear a dried nozzle.



Jog Mode - On/Off - Turn the jog mode on and off with the "switch" by clicking on the "OK" button.

Dot Size - The size of the adhesive dots, from 1 (smallest) to 9 (largest).

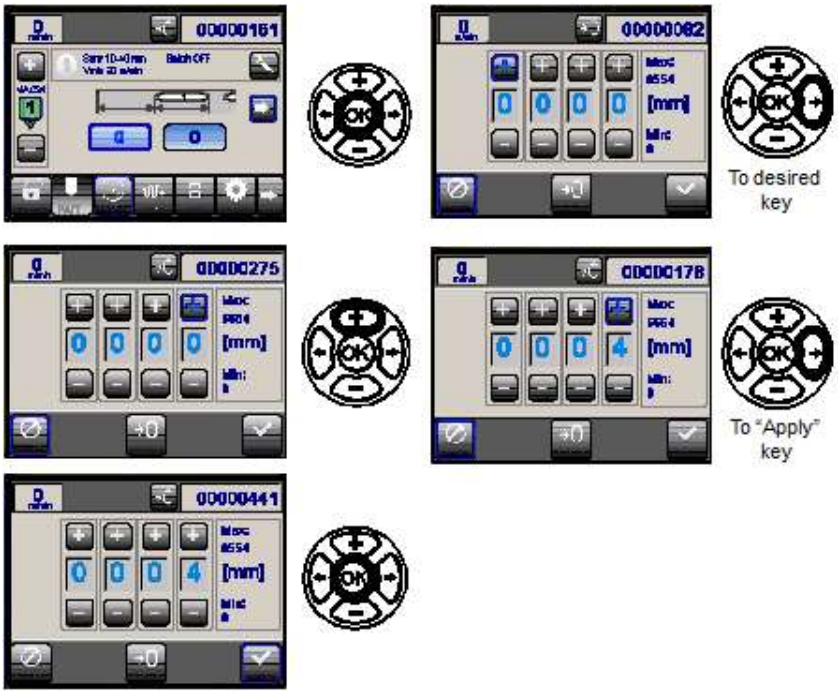
Dot Gap - This is the distance between the glue dots while the machine is running below the jogging speed threshold. Increase the distance to decrease the glue volume.

Jogg Speed - Controls the speed at which the pattern will transition from dots to a unified line, in m/min.

Set the Pattern Menu Information - Continued

SETUP EXAMPLE: The following is an example of setting up a pattern gluing mode (Standard) with three patterns for valve one:

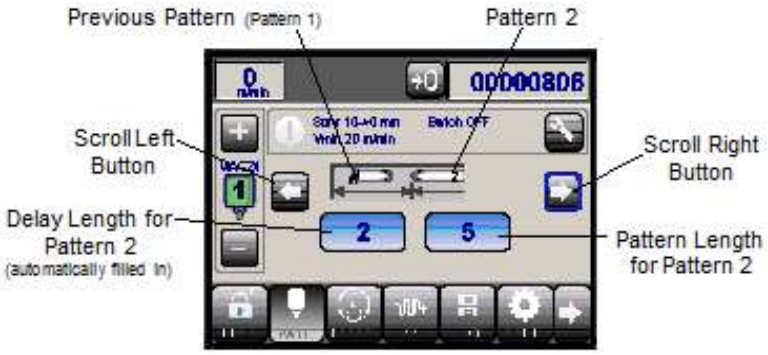
1. Set the Delay Length for pattern 1. The Delay Length for pattern 1 is the measurement from the first edge of the product to where you want the first glue line to start.



2. Press the Right Arrow Button to view the Pattern Length for pattern 1. The Pattern Length is the length of the glue line (for the pattern number indicated). Press the OK Button to view the thumbwheel, and use the Plus/Minus Buttons to change. Press the right arrow button until "Apply" is highlighted, and then press the OK Button to enter the setting.

3. Press the Right Arrow Button until the scroll right button is highlighted, and then press Okay to view the Delay Length for pattern 2. The control automatically fills in the Delay Length for pattern 2 (so the next pattern does not interfere with the previous pattern). This number can be adjusted if desired.

Set the Pattern Menu Information - Continued



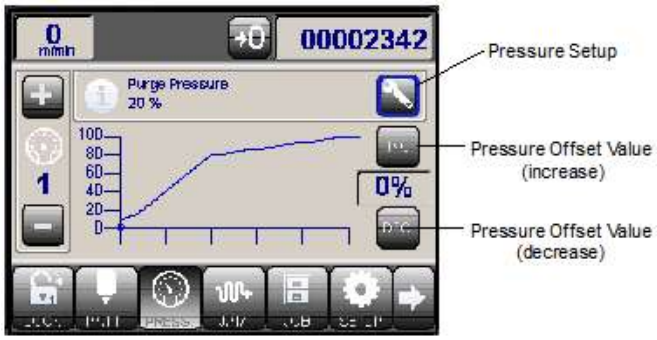
4. Press the Right Arrow Button until the scroll right button is highlighted, and then press OK to view the Pattern Length for pattern 2. Press the OK Button to view the thumbwheel, and use the Plus/Minus Buttons to change. Press the Right Arrow Button to highlight “Apply,” and then press OK to enter the setting.
5. Repeat the above procedure to set pattern 3.

All three patterns are now set. You may review them using the left and right scroll buttons.

The Pattern Glue Mode for Valve 1 is now ready.

Set the Pressures

The Pressure Button is used to enter/change the Electronic Pressure Control (EPC) parameter values. The EPC matches the fluid pressure to the machine speed, achieving consistent pattern volume. As machine speed increases, the valve remains open for a short period of time. For the same volume of adhesive to appear on the product, the adhesive must flow at a higher rate, achieved by increasing the fluid pressure.



Pressure Offset Value - Used to increase/decrease the current pressure. The Pressure Offset is used to do minor pressure adjustments instantly. It does not change the pressure table profile.

Highlight the Pressure Setup Button, and then press OK, to access the Pressure Setup screen. This screen allow scrolling (plus and minus keys) through a set of pressure setup menu keys.

Set the Pressures - Continued

Purge Pressure - The pressure setting when the machine is at zero speed.

Speed 1 - Speed (m/min) for pressure point 1.

Pressure1 - Pressure setting at point 1 in the pressure curve (%).

Speed 2 - Speed (m/min) for pressure point 2.

Pressure 2 - Pressure setting at point 2 in the pressure curve (%).

Speed 3 - Speed (m/min) for pressure point 3.

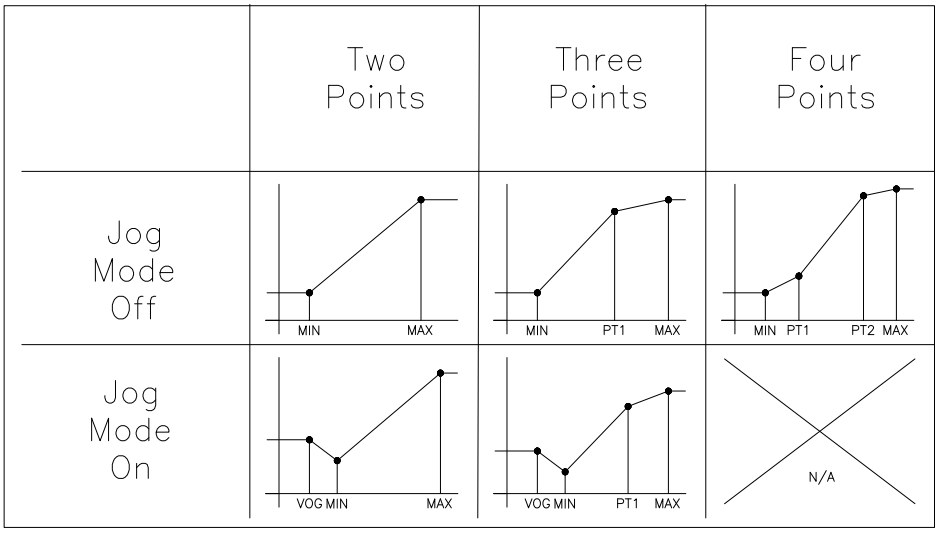
Pressure3 - Pressure setting at point 3 in the pressure curve (%).

Speed 4 - Speed (m/min) for pressure point 4.

Pressure4 - Pressure setting at point 4 in the pressure curve (%).

Encoder - Select encoder number.

The number of pressure points on the pressure curve are input during setup.



The graph above illustrates two, three, and four points on the pressure curve with Jog Mode off and on. The majority of projects will be fine with the Jog Mode off and only two points on the pressure curve. If more control is necessary, try adjusting the number of points on the pressure curve.

Purge and Test Run

1. Purge all air from the glue line, and then connect to the valve. Purge the valve by activating the push button switch on the valve.

   > Scanner and valve cables must be connected before any purging can take place. Be certain all cables and lines are connected.

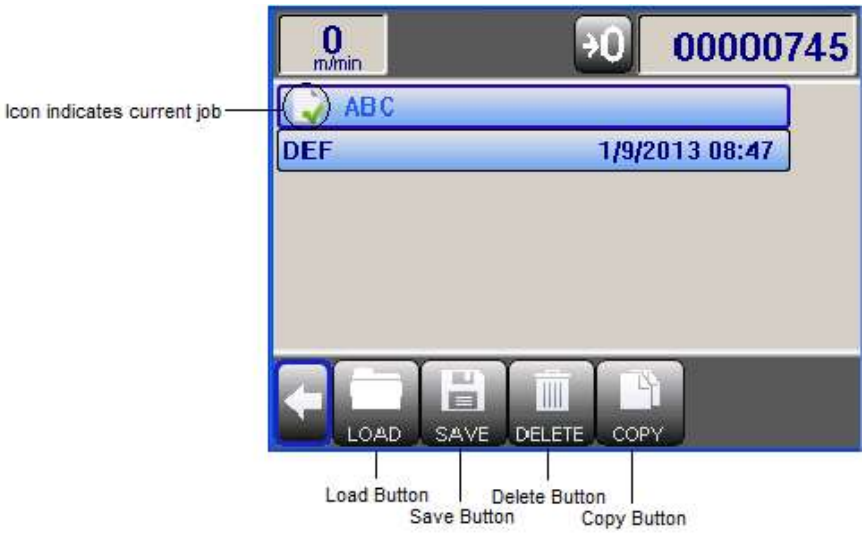
2. Run adhesive through the valve(s) until no air is present in the line.
3. Run the parent machine and stop it when the product reaches the glue station.
4. Adjust the glue station vertically to ensure the product is level.
5. Slowly jog the product through the glue station making any needed adjustments to the glue station guides and brackets as you go.
6. Start up the parent machine and run 2-4 products through the glue station.
7. Measure the glue line with a tape measure. Make sure the glue line is in the correct place on the products tested.

   > If the glue is not in the proper place on the products, review and adjust the pattern settings. See ***Set the Pattern Menu Information***, above.

8. If the glue is in the proper place on the products tested, you can run the machine at normal operating speed!

Job Screen

Selecting the Job Button  opens the Job Screen (not accessible at all levels).



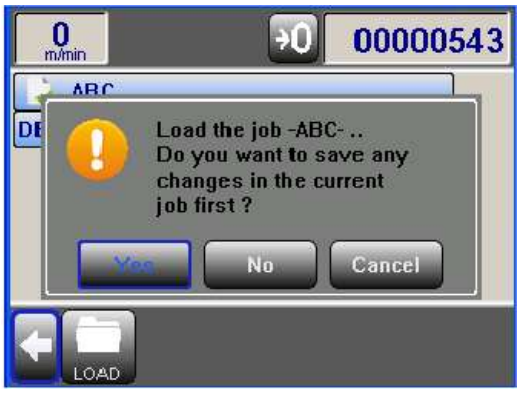
Job Screen

Loading a Job

To load a job:

1. Select the job you wish to load from the list.
2. Select the Load Button.

A prompt will appear. If you wish to save any changes to the current job, select “Yes.”



Selecting “No” opens a keyboard, allowing the current job, with any changes, to be saved as a new job name (alphabetic or numerical). Enter the new job name and select “Save.”

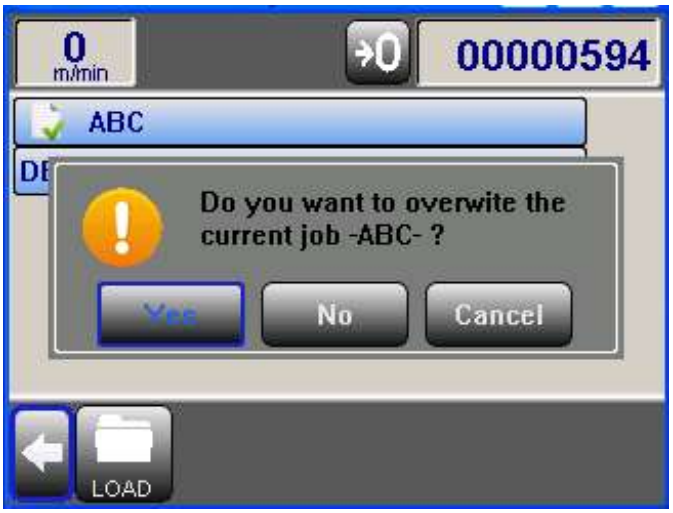
Loading a Job - Continued

Saving a Job

To save the current job:

1. Select the Save Button.

> A prompt will appear. Select “Yes” to overwrite the current job with the new changes. For a “save as” option, select “No” to open the keypad described in “Loading a Job.”



Deleting a Job

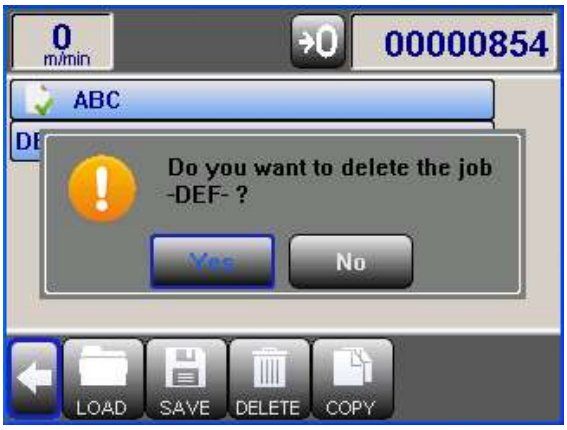
To delete a job:

1. Select the job you wish to delete from the list.

> The Current Job cannot be deleted.

2. Select the Delete Button.

> A prompt will appear. Select “Yes” to delete the selected job. Select “No” to cancel.



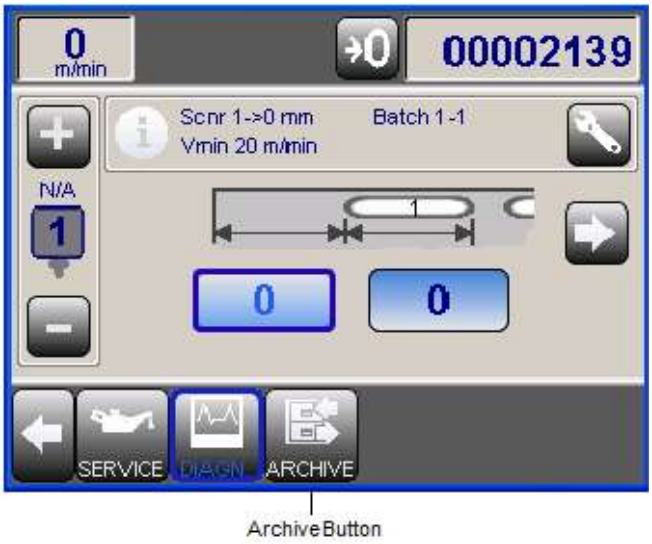
Copying a Job

To copy a job:

1. From the list, select the job you wish to copy.
2. Select the Copy Button.

A keyboard will open, to assign a new job name (alphabetic or numerical) to the copied job. Once saved, the new (copied) job appears on the list.

Archive Screen



Selecting the Archive Button (not accessible at all levels) opens the Archive Screen.

Archive Screen

Restore:
Restores selected backup to its previously-saved version.

Backup:
Creates a new backup (keyboard appears to enter ne name).

Delete:
Deletes selected backup from the list.

Re-Init:
Re-initializes all settings.

The Default configuration is locked and cannot be rewritten or deleted.

Service Screen

Selecting the Service Button 

opens the Service Screen.

Service Screen

The Service Screen keeps an update on service intervals.

When a service period/count is down to 20% from the 'deadline,' the green LED icon for that item turns yellow.

When it is down to 10%, the icon turns red.

When a deadline is reached without service being performed, the screen indicates "Service Now,"

Beyond the deadline, the screen indicates "Overdue."

Selecting an item from the service list opens a prompt:

If scheduled service has been performed, select "Yes" to reset the service period/count.

Section 6 - Maintenance

This section contains maintenance procedures for the Valco MCP-8 Control. A regular maintenance program helps ensure longer life and efficient operation of your system. A few minutes spent on maintenance greatly reduces downtime.

Purging the Adhesive

The system should be purged of air at every startup or shift change. To purge the system, follow these steps:

1. Install the applicator head onto the contact glue valve.
2. Purge adhesive until no air is present and the glue flows evenly.

> The glue valves can be purged manually using an activator located on the valve itself, by a solenoid-operated air valve, or they can be purged using the touchscreen panel and control.
>
> When using any valve in the top-down position for the first time, it might be necessary to remove the valve and hold it so that the applicator head is at the top. The fluid pressure should then be set to 4 bar, and the solenoid should be fired until all the air is out and a flow of glue is present.

Performing Downtime Maintenance

The type of downtime maintenance that is necessary for the MCP-8 Control Unit depends on the length of time the unit is down.

During short periods of downtime, such as order changeover, follow these steps:

1. Apply lithium grease or petroleum jelly to the orifice of the applicator head (contact extrusion valve) to prevent dried adhesive from clogging the valve.
2. Wipe the valve clean before restarting production.

For longer periods of downtime, follow these steps:

1. Remove the applicator head from the contact glue valve.
2. Install a stopper onto the contact glue valve in place of the applicator head.
3. Flush the applicator head with clean water.

If the system is idle for 30 days or longer, follow these steps:

1. Flush the entire glue supply system (including the pump or tank) with clean water (see Flushing the Glue System in this section).

Flushing the Glue System

Follow the procedures for your system. These are general guidelines only.

A mild vinegar-and-water solution (1 part vinegar, 10 parts water) should be used to flush the system. Water alone can be used when you are simply changing adhesives or preparing the system for an extended period of downtime.

The entire system must be flushed when the following conditions apply:

- A new adhesive formula is not compatible with the present formula. (Always consult your adhesive supplier regarding compatibility between adhesive formulas.)
- System shutdown exceeds 30 days.
- Glue-line buildup causes an excessive pressure drop.
- Excessive filter screen maintenance is required due to contaminated adhesive.

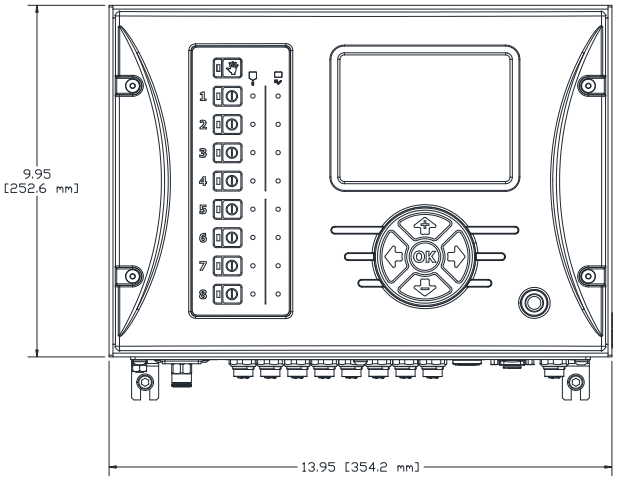
Lubricating the System

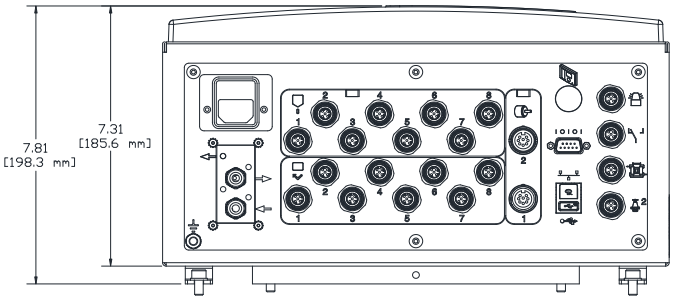
To lubricate the system, follow these steps:

1. Use lithium grease on all machined threads and fittings when servicing the system.
2. Grease quick-disconnect fittings frequently to prevent dried glue from causing excessive wear.

Section 7 - Specifications

Item	MCP-8 Unit
Control dimensions:	**Height:** 9.95 (252.6 mm) **Depth:** 7.81 (198.3 mm) **Width:** 13.95 (354.2 mm)
Input voltage:	100-240 VAC, 50-60 Hz (auto-selectable)
Number of channels:	8-channel operation with up to 8 programmable patterns per channel
Glue pattern resolution:	0.01 in. or 1 mm
Minimum Glue Pattern Length*	Approximately 2 mm for an MX valve; 5mm for cold glue valves
Maximum Glue Pattern Length	6554 mm
Number of scanner inputs:	Up to 8 with scanner lockout
Glue pattern tolerance:	Less than 1 mm (.04 inches) at 610 m/min (2000 ft/min)
Job storage memory:	Up to 1000 jobs
Miscellaneous:	Dual-encoder-based or timer mode Multi-valve, complex glue pattern capabilities “Continuous,” “Stitch” pattern and “Jogg” gluing Adjustable minimum speed Inch or metric calibration CE compliant Password protection for key system parameters Integral fluid-flow control option (EPC) and external EPC output Web break detection option Batch count/production count Programmable valve output voltages depending upon base unit Jam Preventer w/Alarm and relay output
* The minimum glue pattern lengths depend upon the valve type, due to the varying amount of time it takes to open the valve.	





Section 8 - 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.valcomelton.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

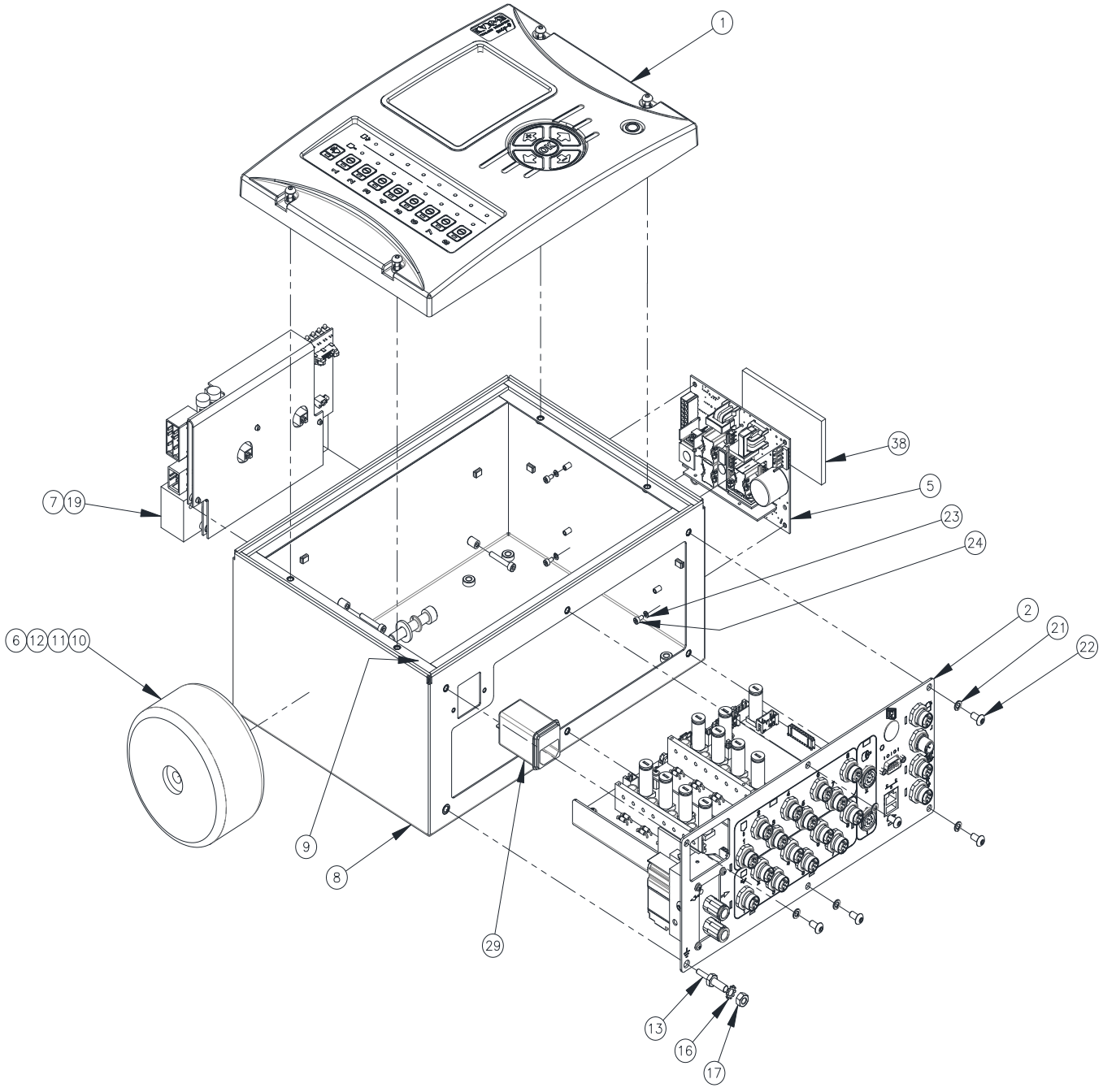
Spain

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

MCP-8 Unit - Standard, Stand-alone (074xx071)



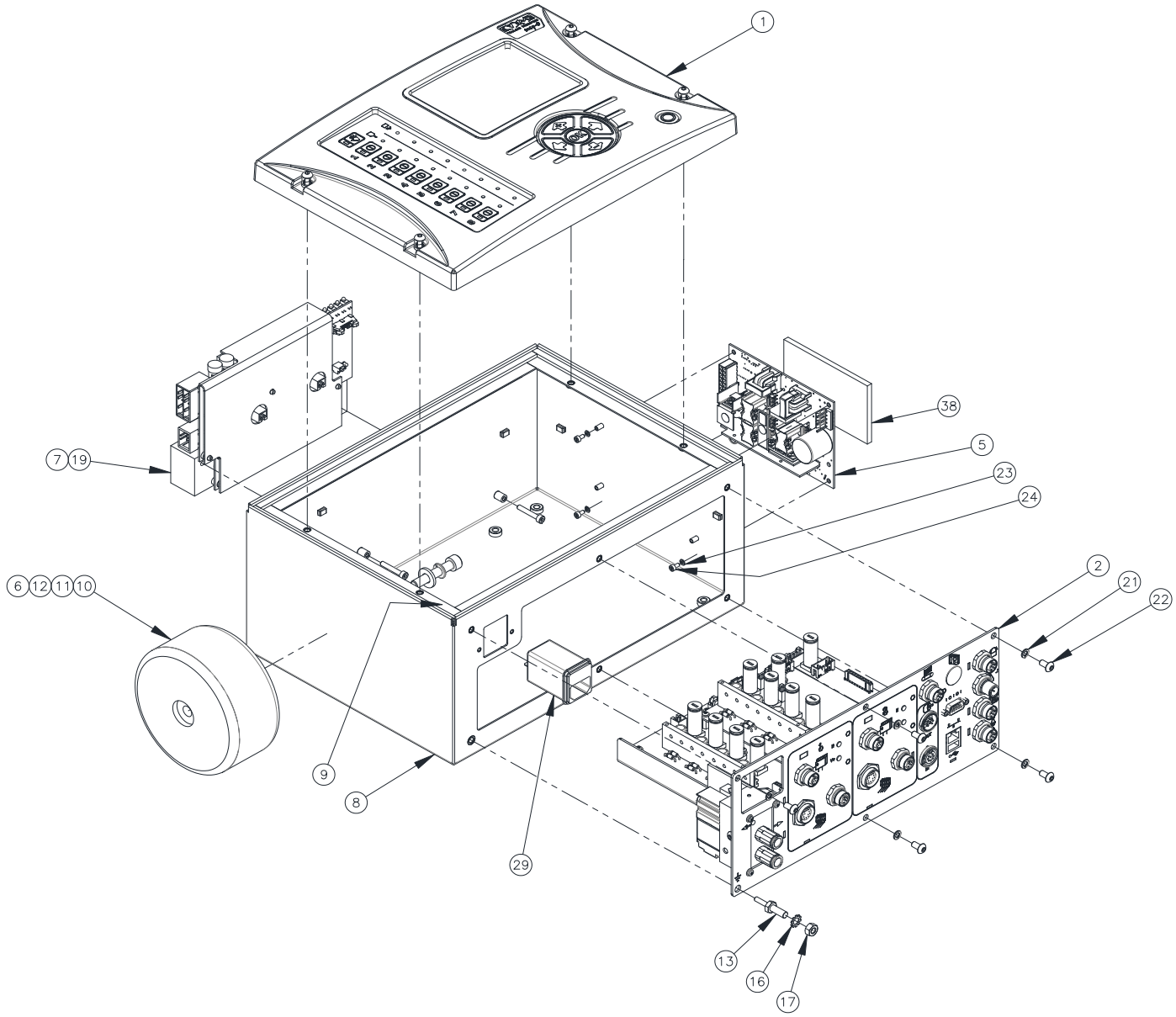
MCP-8 Unit (074xx071) - Continued

Item	Description	Part Number	QTY
1	COVER ASSY, MCP-8, UPDATE	026XX385	1
2	RACK ASSY, PCB, MCP-8	074XX070	1
5	POWER SUPPLY, 24V, 365W, 93%	148XX089	1
6	FLAT WASHER M8 SS	784XX097	1
7	SHCS M4 X 25 SS	784XX050	2
8	ENCLOSURE ASSY.; MCP-8	026XX342	1
9	GASKET; 1/8 THICK X 1/4 WIDE	746XX237	47
10	CABLE ASSY, TRANSFORMER P/S	029XX604	1
11	SHCS M8 X 45 SS	884XX069	1
12	LOCK WASHER SS 8MM	784XX663	1
13	STUD, GROUND M-M M4 TO M6 S.S.	091XX519	1
14	LABEL STOCK, SILVER	781XX780	1
15	LOCK WASHER M4 ZINC	784XX308	3
16	LOCK WASHER M6 STL	784XX375	2
17	HEX NUT M6 ZINC	798XX301	1
18	HEX NUT-M4, SS	798XX299	1
19	PCB;ASSY,POWER CONTROL, MCP-8	151XX719	1
21	SLW M5 ZINC	784XX475	5
22	BHCS M5 X 10 SS	784XX374	5
23	WASHER-LOCK,SPLIT,M3	784XX976	4
24	SHCS M3 X 6 SS	784XX049	4
25	BHCS M6 X 8 STAINLESS STEEL	784XX656	4
29	POWER ENTRY MODULE;NO FUSE	086XX075	1
30	CABLE ASSY, 2P, 2P, JST, MCP8	029XX602	2
31	CABLE,ASSY,ART,24V	029XX766	2
32	CABLE,ASSY,ART,MCP8,10P	029XX765	1
33	CABLE ASSY,RIBBON,10 PIN 2MM	033XX160	1
36	INSTALL KIT, ELEC, MCP8	091XX687	1
37	CABLE ASSY,HSD,4P,CODE-Z,0.5M	029XX740	1
38	THERMAL PAD,200MIL THK 8" X 6	101XX021	0.08
39	SLW M4 ZINC	798XX382	2
40	CABLE CLAMP, 1/4	066XX075	2
41	CABLE ASSY, SIGNAL STAND-BY	030XX791	1
42	WIRE TERMINAL; RING	075XX079	2
43	WIRE TERMINAL; FASTON	075XX014	1

MCP-8 Unit (074xx071) - Continued

Item	Description	Part Number	QTY
44	WIRE MTW 16 AWG GRN/YEL	540XX072	6
45	WIRE TERMINAL, FASTON	075XX245	1
46	WIRE PVC 18 AWG GRN/YEL	540XX051	12

MCP-8 Unit - Standard, Stand-alone, for Tri-Valve BoardRunner (074xx062)



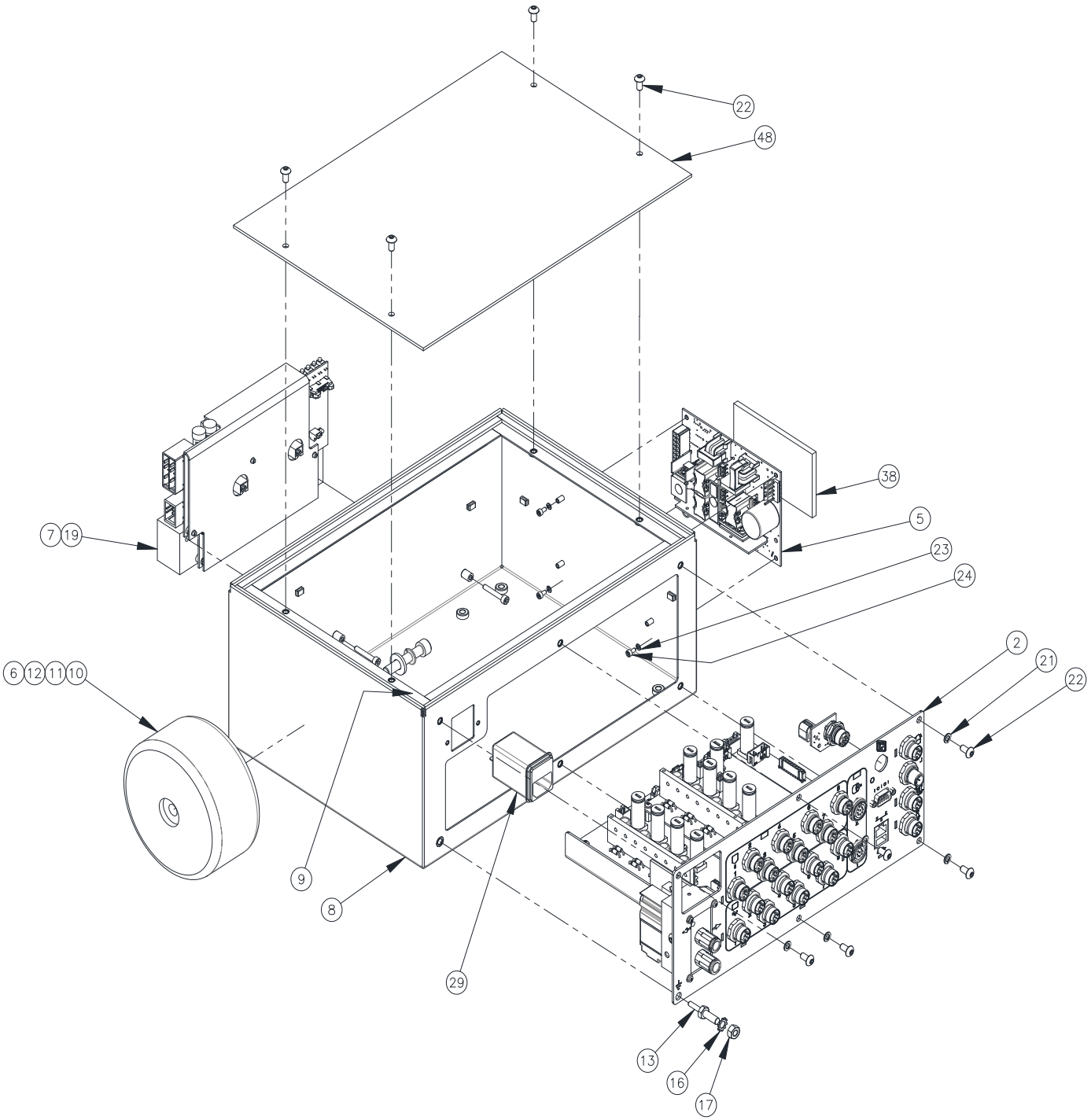
MCP-8 Unit - Standard, Stand-alone, for Tri-Valve BoardRunner (074xx062) - Continued

Item	Description	Part Number	QTY
1	COVER ASSY, MCP-8, UPDATE	026XX385	1
2	PCB RACK ASSY MCP-8 TIP SEALER	074XX058	1
5	POWER SUPPLY, 24V, 365W, 93%	148XX089	1
6	FLAT WASHER	784XX097	1
7	SCREW	784XX050	2
8	ENCLOSURE ASSY.; MCP-8	026XX342	1
9	GASKET	746XX237	47
10	CABLE ASSY, TRANSFORMER P/S	029XX604	1
11	SCREW	884XX069	1
12	LOCK WASHER	784XX663	1
13	STUD, GROUND	091XX519	1
14	LABEL STOCK, SILVER	781XX780	1
15	LOCK WASHER	784XX308	3
16	LOCK WASHER	784XX375	2
17	HEX NUT	798XX301	1
18	HEX NUT	798XX299	1
19	PCB;ASSY,POWER CONTROL, MCP-8	151XX719	1
21	LOCK WASHER	784XX475	5
22	SCREW	784XX374	5
23	LOCK WASHER	784XX976	4
24	SCREW	784XX049	4
25	SCREW	784XX656	4
29	POWER ENTRY MODULE;NO FUSE	086XX075	1
30	CABLE ASSY	029XX602	2
31	CABLE,ASSY	029XX766	2
32	CABLE,ASSY	029XX765	1
33	CABLE ASSY,RIBBON	033XX160	1
36	INSTALL KIT, ELEC, MCP8	091XX687	1
38	THERMAL PAD	101XX021	0.08
39	LOCK WASHER	798XX382	2
41	CABLE ASSY	029XX740	1
42	CABLE ASSY	030XX791	1
43	WIRE TERMINAL; RING	075XX079	2
44	WIRE TERMINAL; FASTON	075XX014	1
45	WIRE MTW 16 AWG GRN/YEL	540XX072	6

MCP-8 Unit - Standard, Stand-alone, for Tri-Valve BoardRunner (074xx062) - Continued

Item	Description	Part Number	QTY
46	WIRE TERMINAL, FASTON	075XX245	1
47	WIRE PVC 18 AWG GRN/YEL	540XX051	12

MCP-8 Unit - Standard, Remote (074xx072)



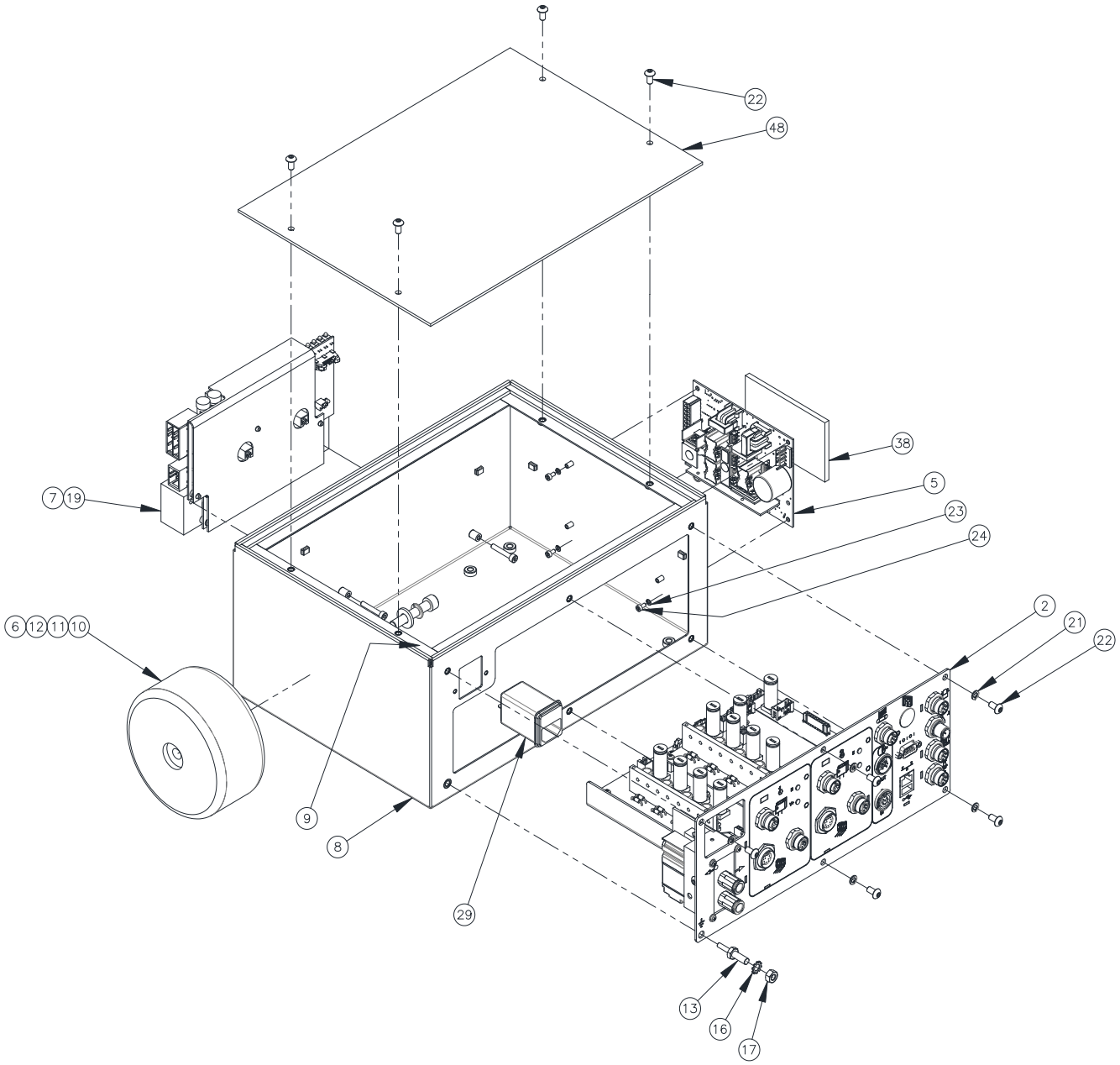
MCP-8 Unit - Standard, Remote (074xx072)

Item	Description	Part Number	QTY
2	RACK ASSY, PCB, MCP-8	074XX070	1
5	POWER SUPPLY; 24V, 365W	148XX081	1
6	FLAT WASHER M8 SS	784XX097	1
7	SHCS M4 X 25 SS	784XX050	2
8	ENCLOSURE ASSY.; MCP-8	026XX342	1
9	GASKET; 1/8 THICK X 1/4 WIDE	746XX237	47
10	CABLE ASSY, TRANSFORMER P/S	029XX604	1
11	SHCS M8 X 45 SS	884XX069	1
12	SLW M8 ZINC	784XX476	1
13	STUD, GROUND M-M M4 TO M6 S.S.	091XX519	1
14	LABEL STOCK, SILVER	781XX780	1
15	LOCK WASHER M4 ZINC	784XX308	3
16	LOCK WASHER M6 STL	784XX375	2
17	HEX NUT M6 ZINC	798XX301	1
18	HEX NUT-M4, SS	798XX299	1
19	PCB;ASSY,POWER CONTROL, MCP-8	151XX719	1
21	SLW M5 ZINC	784XX475	5
22	BHCS M5 X 10 SS	784XX374	9
23	WASHER-LOCK,SPLIT,M3	784XX976	4
24	SHCS M3 X 6 SS	784XX049	4
25	BHCS M6 X 8 STAINLESS STEEL	784XX656	4
29	POWER ENTRY MODULE;NO FUSE	086XX075	1
30	CABLE ASSY, 2P, 2P, JST, MCP8	029XX602	2
31	CABLE ASSY, MCP-8, 8P MINIFIT	029XX742	1
32	CABLE, ASSY, DP, 24V, MCP-8	029XX631	1
33	CABLE ASSY,RIBBON,10 PIN 2MM	033XX160	1
36	INSTALL KIT, ELEC, MCP8	091XX687	1
38	THERMAL PAD,200MIL THK 8" X 6	101XX021	0.04
39	SLW M4 ZINC	798XX382	2
42	WIRE TERMINAL; RING	075XX079	2
43	WIRE TERMINAL; FASTON	075XX014	1
44	WIRE MTW 16 AWG GRN/YEL	540XX072	6
45	WIRE TERMINAL, FASTON	075XX245	1
46	WIRE PVC 18 AWG GRN/YEL	540XX051	12
47	THERMAL PAD: 160 MIL THICK	101XX027	0.04

MCP-8 Unit - Standard, Remote (074xx072)

Item	Description	Part Number	QTY
48	COVER PLATE MCP-8 REMOTE BASE	026XX345	1
49	CABLE,ASSY,MCP8,REMOTE,BASE	029XX748	1

MCP-8 Unit - Remote Base Assembly, for Tri-Valve BoardRunner (074xx063)



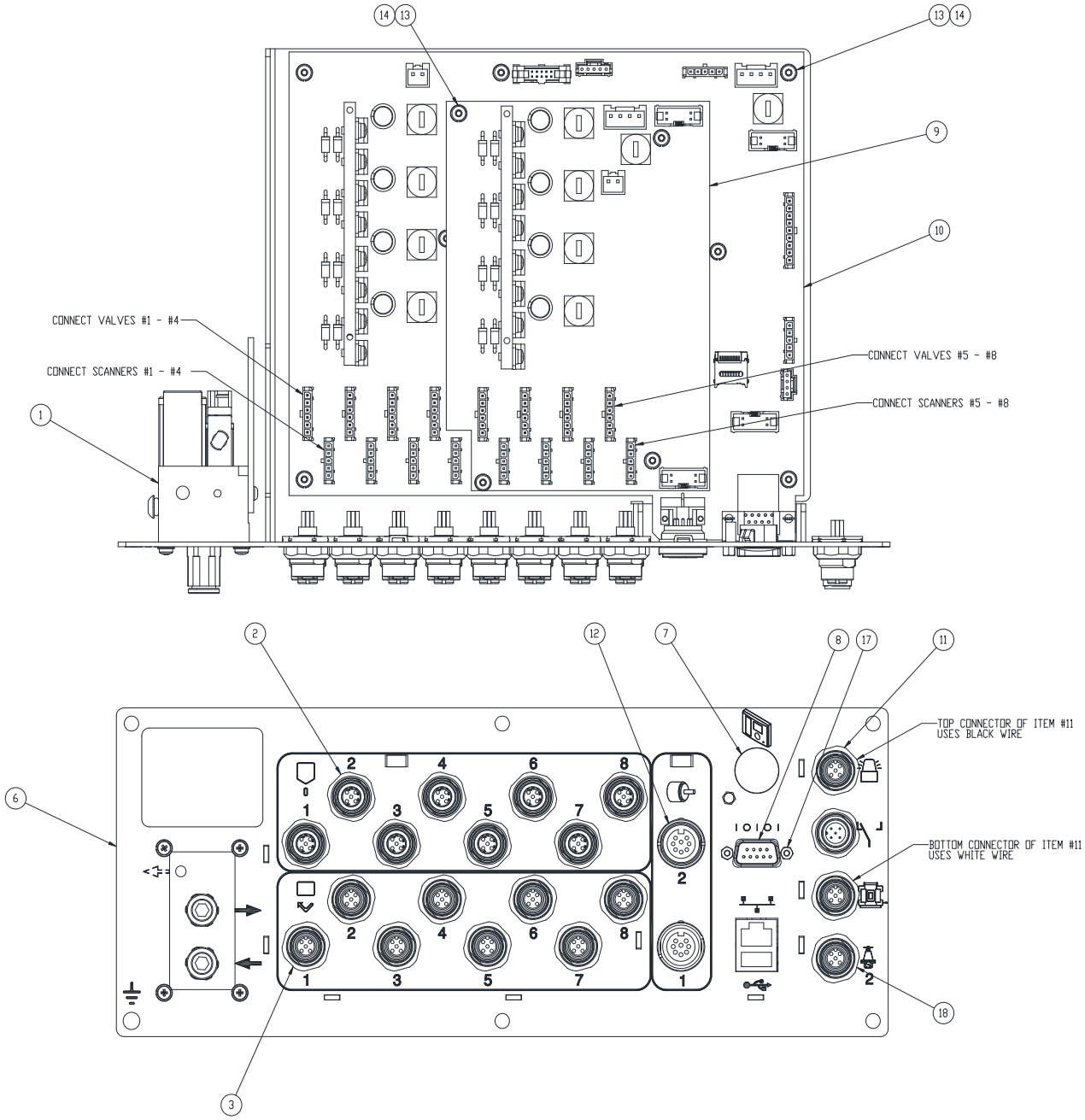
MCP-8 Unit - Remote Base Assembly, for Tri-Valve BoardRunner (074xx063) - Continued

Item	Description	Part Number	QTY
2	PCB RACK ASSY MCP-8 TIP SEALER	074XX058	1
5	POWER SUPPLY, 24V, 365W, 93%	148XX089	1
6	FLAT WASHER	784XX097	1
7	SCREW	784XX050	2
8	ENCLOSURE ASSY.; MCP-8	026XX342	1
9	GASKET	746XX237	47
10	CABLE ASSY, TRANSFORMER P/S	029XX604	1
11	SCREW	884XX069	1
12	LOCK WASHER	784XX663	1
13	STUD, GROUND	091XX519	1
14	LABEL STOCK, SILVER	781XX780	1
15	LOCK WASHER	784XX308	3
16	LOCK WASHER	784XX375	2
17	HEX NUT	798XX301	1
18	HEX NUT	798XX299	1
19	PCB;ASSY,POWER CONTROL, MCP-8	151XX719	1
21	LOCK WASHER	784XX475	5
22	SCREW	784XX374	9
23	LOCK WASHER	784XX976	5
24	SCREW	784XX049	5
25	SCREW	784XX656	4
29	POWER ENTRY MODULE;NO FUSE	086XX075	1
30	CABLE ASSY	029XX602	2
31	CABLE,ASSY	029XX766	2
32	CABLE,ASSY	029XX765	1
33	CABLE ASSY,RIBBON	033XX160	1
36	INSTALL KIT, ELEC, MCP8	091XX687	1
37	CABLE ASSY	029XX740	1
38	THERMAL PAD	101XX021	0.08
39	LOCK WASHER	798XX382	2
41	CABLE ASSY	030XX791	1
42	WIRE TERMINAL; RING	075XX079	2
43	WIRE TERMINAL; FASTON	075XX014	1
44	WIRE MTW 16 AWG GRN/YEL	540XX072	6
45	WIRE TERMINAL, FASTON	075XX245	1

MCP-8 Unit - Remote Base Assembly, for Tri-Valve BoardRunner (074xx063) - Continued

Item	Description	Part Number	QTY
46	WIRE PVC 18 AWG GRN/YEL	540XX051	12
48	COVER PLATE MCP-8 REMOTE BASE	026XX345	1
49	PCB;ASSY,CONN,REM,BASE,MCP-8	151XX728	1
50	FLAT WASHER	884XX424	2

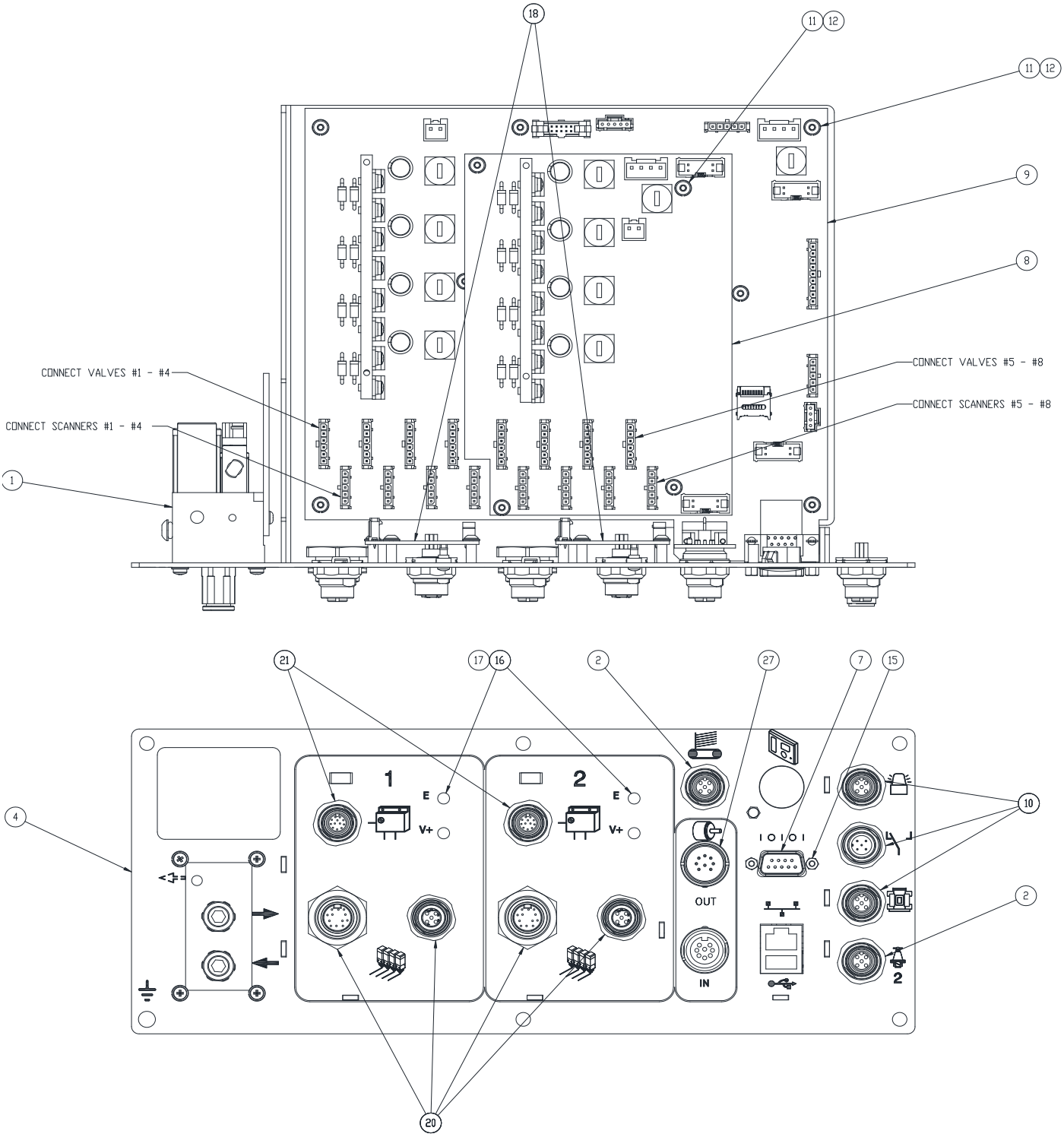
Rack Assembly (074xx070)



Rack Assembly (074xx070) - Continued

Item	Description	Part Number	QTY
1	MANIFOLD ASSY	753XX436	1
2	CABLE ASSY	029XX644	8
3	CABLE ASSY	029XX645	8
6	RACK WELDMENT	026XX343	1
7	HOLE PLUG	781XX228	1
8	RIBBON CABLE ASSY	033XX166	1
9	PCB ASSY,CHANNEL 5-8	152XX721	1
10	PCB ASSY,MAIN CONTROL	152XX715	1
11	CABLE ASSY	029XX599	1
12	PCB ASSY, ADAPTER	151XX688	1
13	SCREW	784XX541	12
14	LOCK WASHER	784XX315	12
17	SCREW	091XX267	2
18	CABLE ASSY	029XX397	1
19	CABLE ASSY	029XX657	1
20	MEMORY;MICRO SD, 4GB OR MORE	118XX187	1
21	SOFTWARE, MCP-8, BOOTLOADER	119XX272	1
22	SOFTWARE, MCP-8, APPLICATION	119XX273	1
23	SOFTWARE, MCP-8, FPGA	119XX274	1

Rack Assembly (074xx058)

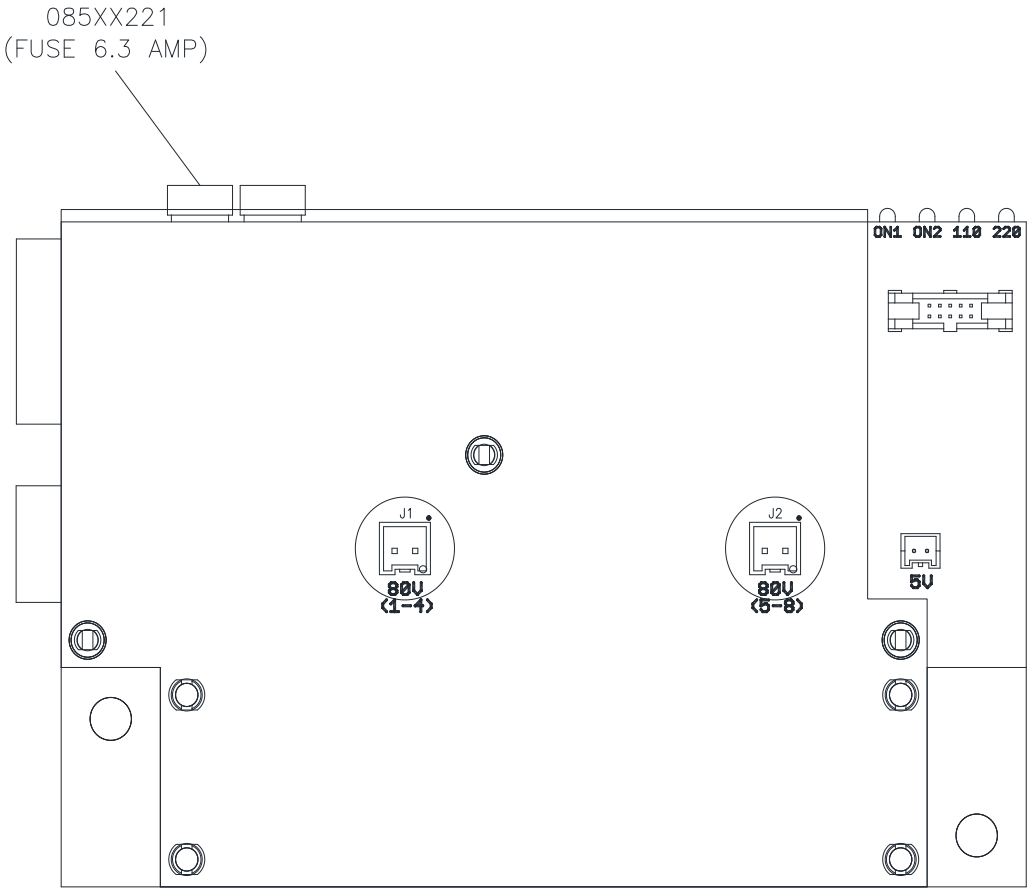


Rack Assembly (074xx058) - Continued

Item	Description	Part Number	QTY
1	MANIFOLD ASSY	753XX436	1
2	CABLE ASSY	029XX397	2
3	CABLE ASSY	029XX657	1
5	RACK WELDMENT	026XX346	1
7	RIBBON CABLE ASSY	033XX166	1
8	PCB ASSY,CHANNEL 5-8	152XX721	1
9	PCB ASSY,MAIN CONTROL	152XX715	1
10	CABLE ASSY	029XX599	1
11	SCREW	784XX541	20
12	LOCK WASHER	784XX315	20
15	SCREW	091XX267	2
16	LENS;3MM-LED,CLEAR,PANEL-MNT	105XX323	4
17	RETAINING-RING;LENS,3MM-LED	105XX322	4
18	PCB ASSY,DRIVER,TIP-SEALER	151XX674	2
20	CABLE ASSY	029XX639	2
21	MANIFOLD CABLE ASSY	029XX618	2
22	MEMORY;MICRO SD, 4GB OR MORE	118XX187	1
23	SOFTWARE, MCP-8, BOOTLOADER	119XX272	1
25	SOFTWARE, MCP-8, APPLICATION	119XX273	1
26	SOFTWARE, MCP-8, FPGA	119XX274	1
27	PCB ASSY, ENCODER OUT	151XX722	1

Recommended Replacement Parts

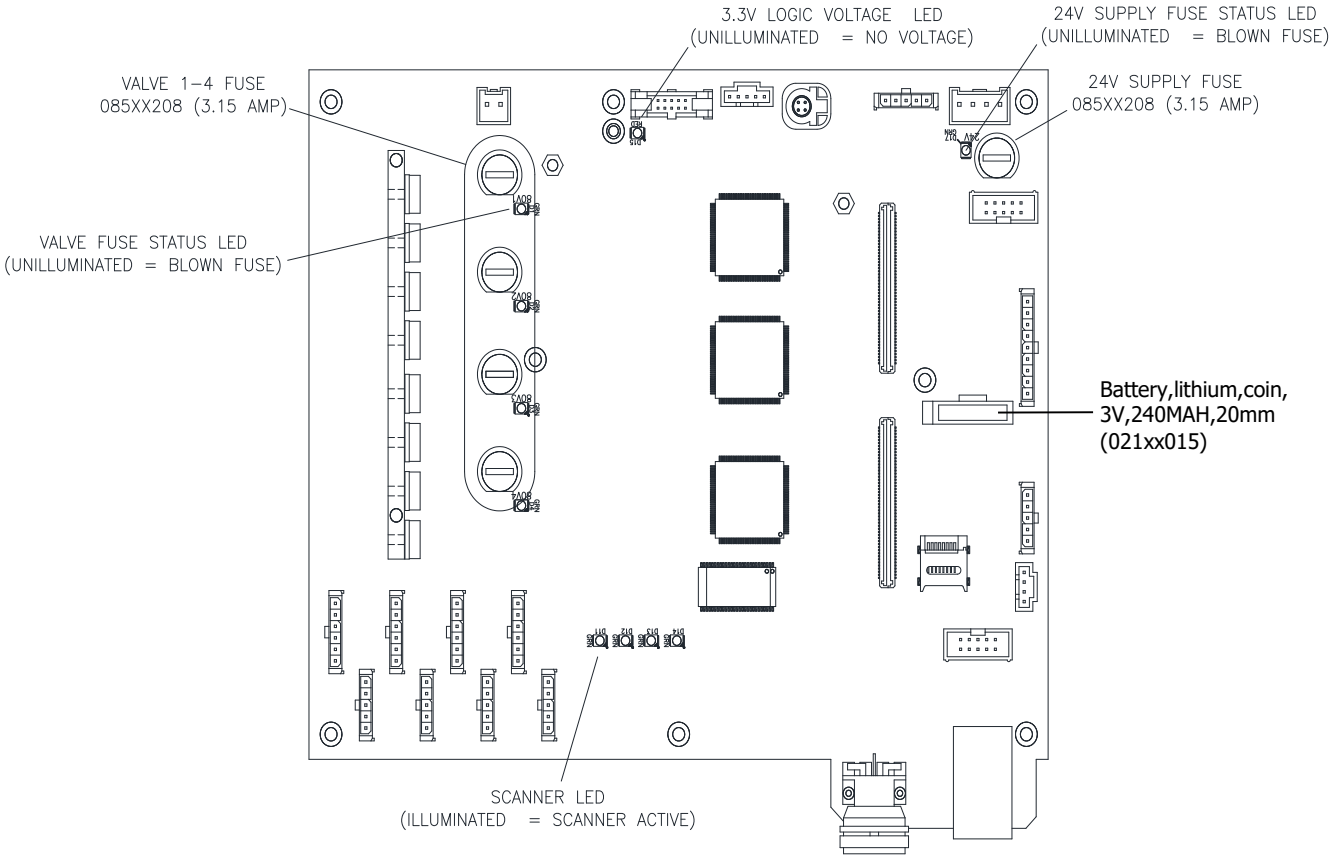
On PCB Assy., Power Control (151xx719)



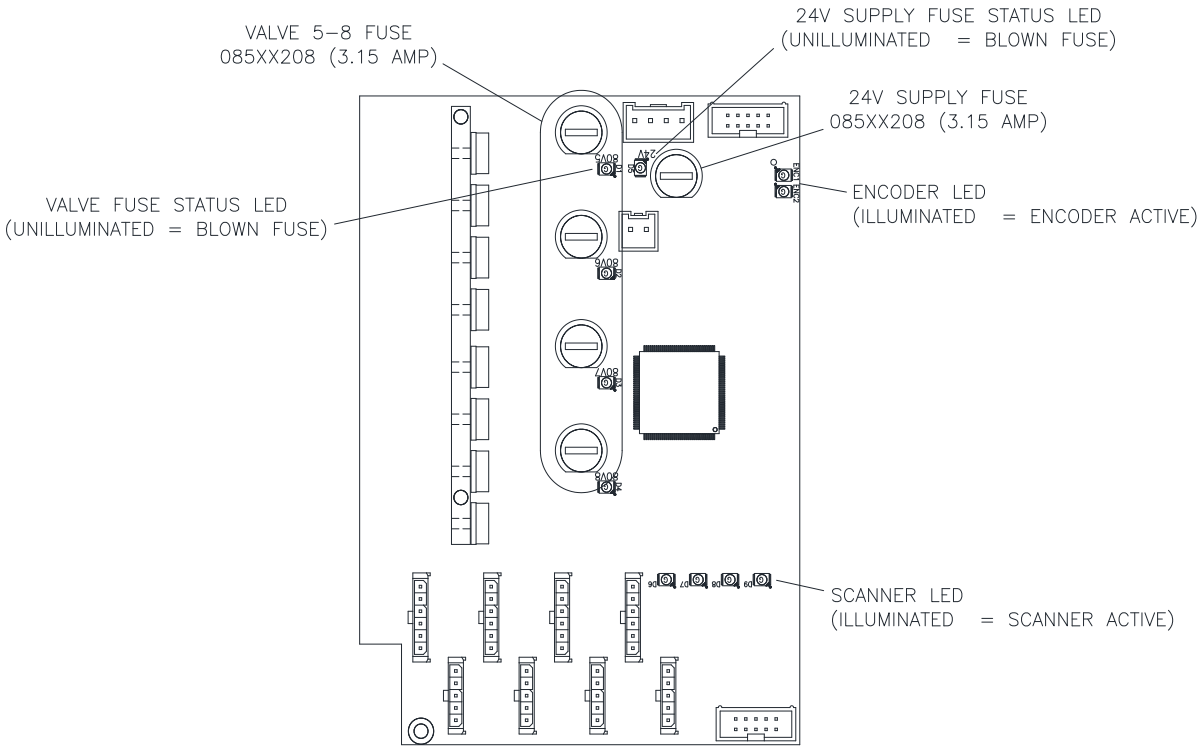
Recommended Replacement Parts - Continued

On Main PCB Assy., Valves 1-4 (152xx715)

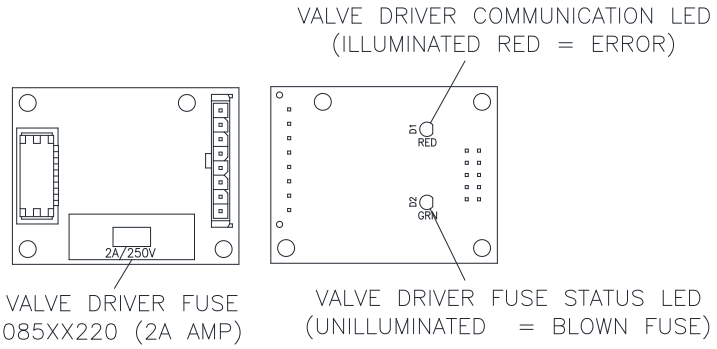
The LED notations shown below indicate power/fuse status.



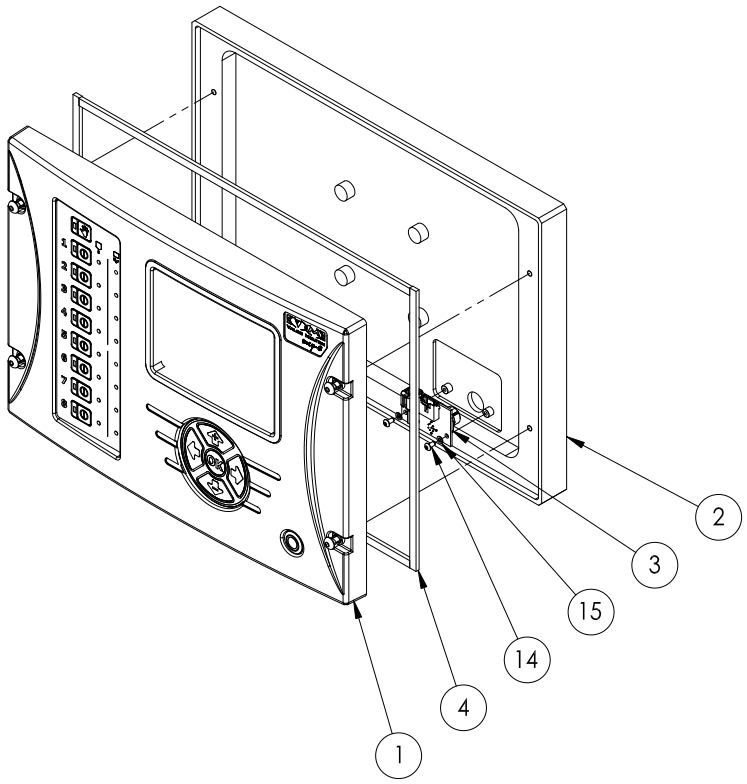
On PCB Assy., Valves 5-8 (152xx721)

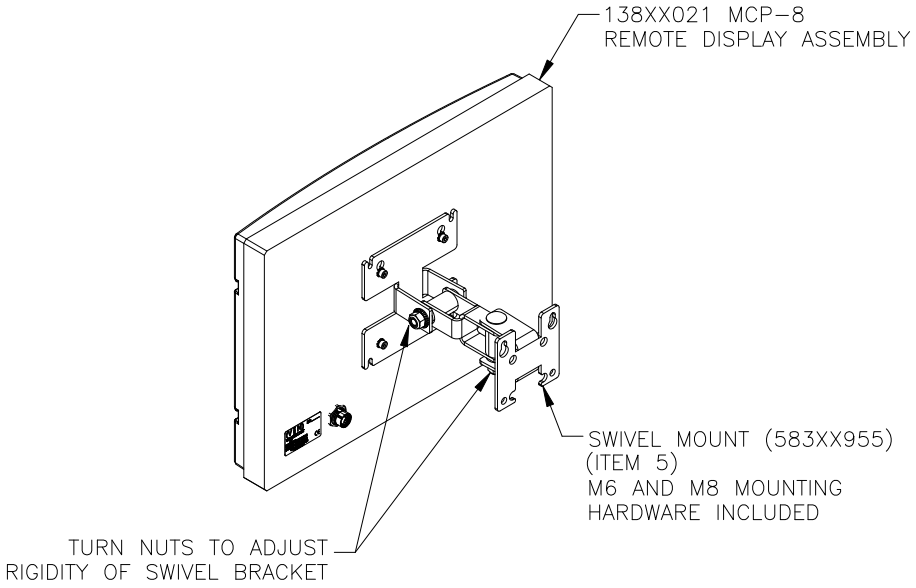


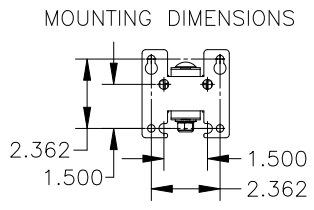
On PCB Assy., Tri-Valve Manifold (151xx674)



MCP-8 Unit - Remote Display Touchscreen (138xx021)





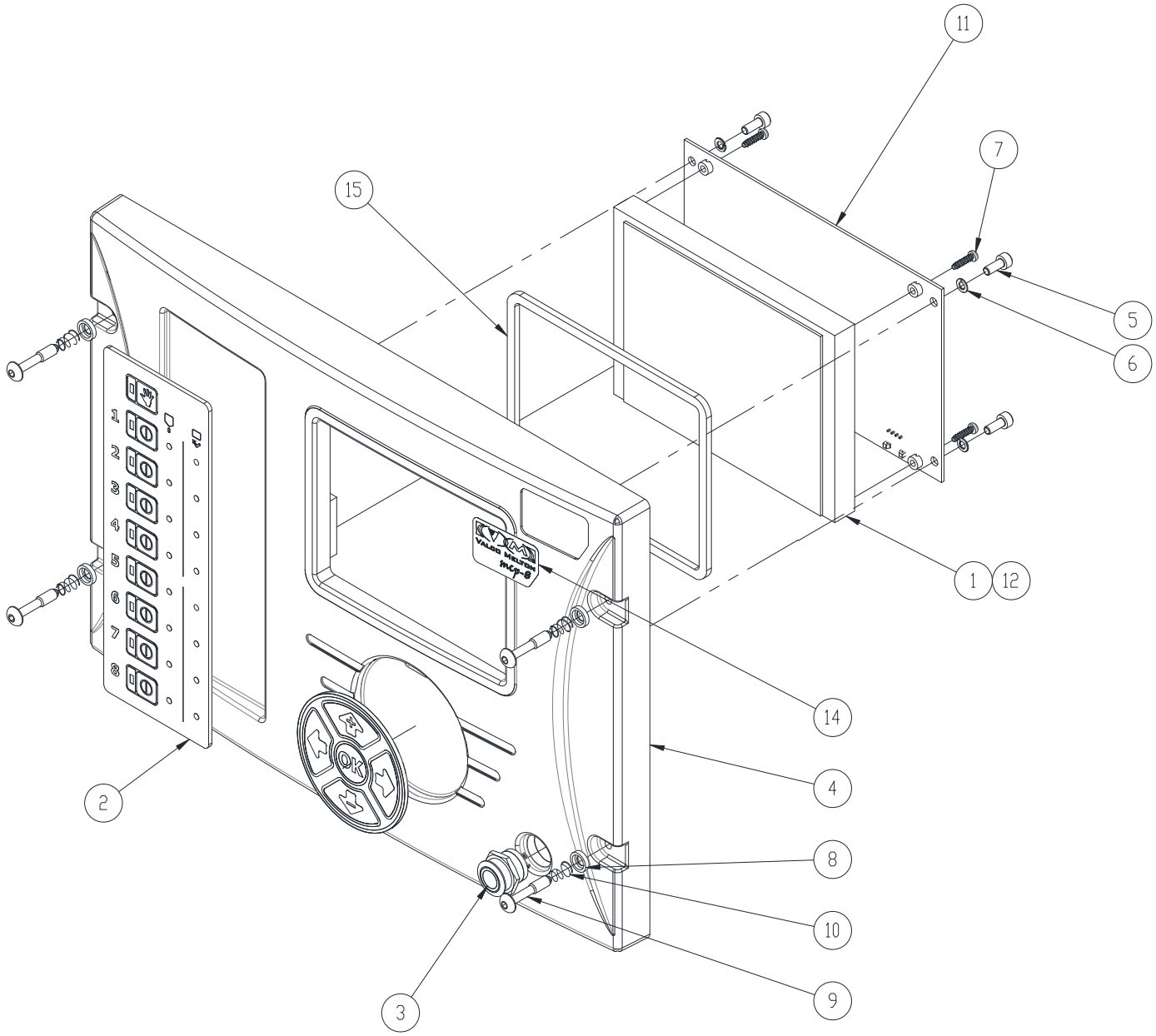


MCP-8 Unit - Remote Display Touchscreen (138xx021) – Continued

Item	Description	Part Number	QTY
1	COVER ASSY, MCP-8, UPDATE	026XX385	1
2	BACK PLATE MCP-8 REMOTE	026XX344	1
3	PCB ASSY CONN REM-DISP MCP-8	151XX729	1
4	GASKET; 1/8 THICK X 1/4 WIDE	746XX237	47
5	MONITOR MOUNT ASSEMBLY	583XX955	1
8	*WASHER-LOCK,EXTERNAL TOOTH	784XX973	4
12	*CABLE ASSY,HSD,4P,CODE-Z,0.5	029XX740	1
13	CABLE ASSY, SIGNAL STAND-BY	030XX791	1
14	BHCS M3 X 6 SS	784XX541	2
15	*WASHER-LOCK,SPLIT,M3	784XX976	2
16	FOAM SET, MCP-8 REMOTE DISPLAY	730XX115	1
17	BOX #22	730XX039	1
18	LABEL STOCK, SILVER	781XX780	1
21	SHCS M6 X 12 SS	798XX069	4
22	ILLUSTRATION DRAWING MCP-8	999XA138-04	1

Parts 5&8 are Mounting Bracket parts

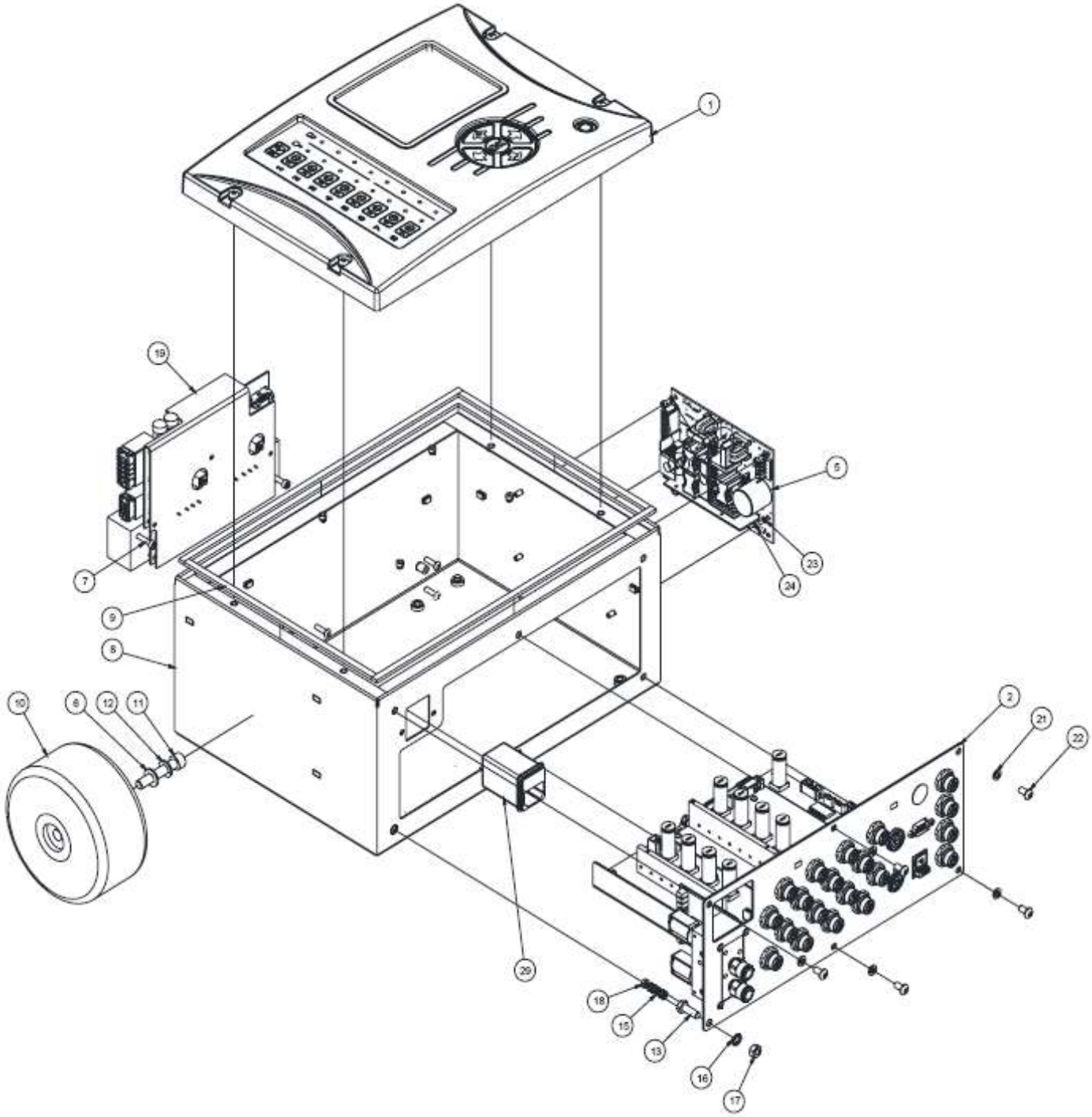
Cover Assembly (026xx385)



Cover Assembly (026xx385) - Continued

Item	Description	Part Number	QTY
1	DISPLAY; COLOR TFT, 5.7" W/TOUCHSCREEN	137XX023	1
2	OVERLAY SET; MCP-8	782XX352	1
3	CABLE ASSY., PUSH BUTTON SWITCH, MCP8	029XX597	1
4	COVER - FRONT; MCP-8 CONTROL	026XX340	1
5	SCREW	784XX423	4
6	LOCK WASHER	798XX382	4
7	SCREW	884XX317	4
8	SCREW	783XX223	4
9	SCREW	884XX318	4
10	TAPERED COMPRESSION SPRING	783XX222	4
11	PCB;ASSY,LCD/KYPD CNTRL,NEW SERIAL,MCP-8	152XX716	1
12	CABLE ASSY	033XX181	1
13	LOCK NUT	884XX009	2
14	LABEL MCP-8 FRONT COVER, W/ADHESIVE BACK	782XX424	1
15	GASKET	746XX255	1

MCP-8 Unit - Previous Version (074xx060)

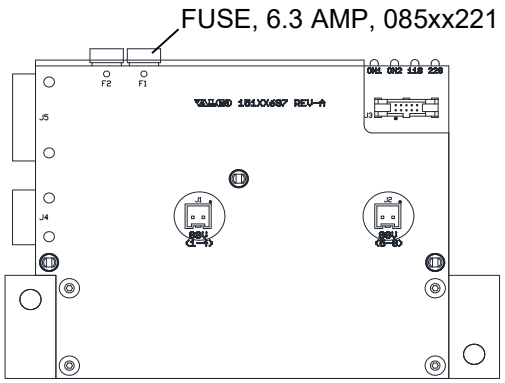


MCP-8 Unit - Previous Version (074xx060) - Continued

Item	Description	Part Number	QTY
1	COVER ASSY.; MCP-8	026XX341	1
2	PCB RACK ASSY; MCP-8	BJK0394 Kit	1
5	POWER SUPPLY; 24V, 365W	148XX081	1
6	FLAT WASHER M8 SS	784XX097	1
7	SHCS M4 X 25 SS	784XX050	2
8	ENCLOSURE ASSY.; MCP-8	026XX342	1
9	GASKET; 1/8 THICK X 1/4 WIDE	746XX237	47
10	CABLE ASSY, TRANSFORMER P/S	029XX604	1
11	SHCS M8 X 45 SS	884XX069	1
12	SLW M8 ZINC	784XX476	1
13	STUD, GROUND M-M M4 TO M6 S.S.	091XX519	1
14	LABEL STOCK, SILVER	781XX780	1
15	LOCK WASHER M4 ZINC	784XX308	3
16	LOCK WASHER M6 STL	784XX375	2
17	HEX NUT M6 ZINC	798XX301	1
18	HEX NUT-M4, SS	798XX299	1
19	PCB,ASSY,POWER CONTROL,MCP-8	151XX697	1
21	SLW M5 ZINC	784XX475	5
22	BHCS M5 X 10 SS	784XX374	5
23	WASHER-LOCK,SPLIT,M3	784XX976	4
24	SHCS M3 X 6 SS	784XX049	4
25	BHCS M6 X 8 STAINLESS STEEL	784XX656	4
29	POWER ENTRY MODULE;NO FUSE	086XX075	1
30	CABLE ASSY, 2P, 2P, JST, MCP8	029XX602	2
31	CABLE, ASSY, DP, 5VSB, MCP-8	029XX630	1
32	CABLE, ASSY, DP, 24V, MCP-8	029XX631	1
33	CABLE ASSY,RIBBON,10 PIN 2MM	033XX160	1
34	CABLE ASSY; GND STRAP 16AWG	030XX796	1
35	WIRE ASSY., GND STRAP 16.0"	029XX646	1
36	INSTALL KIT, ELEC, MCP8	091XX687	1
37	CABLE ASSY; ETHERNET	029XX648	1
38	THERMAL PAD,200MIL THK 8" X 6	101XX021	0.08
39	SLW M4 ZINC	798XX382	2
40	CABLE CLAMP, 1/4	066XX075	2

Recommended Replacement Parts

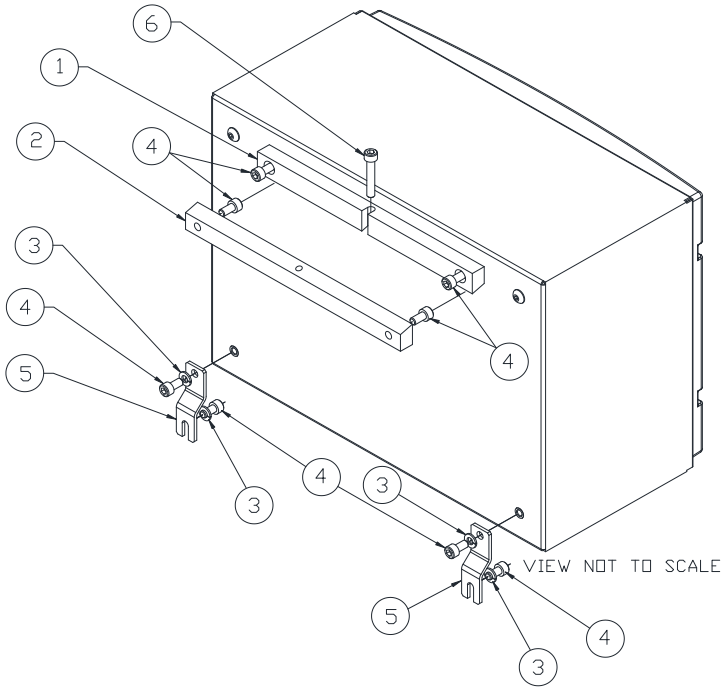
(On PCB Assembly, 151xx697)



On PCB Assembly,152xx715

See page 93.

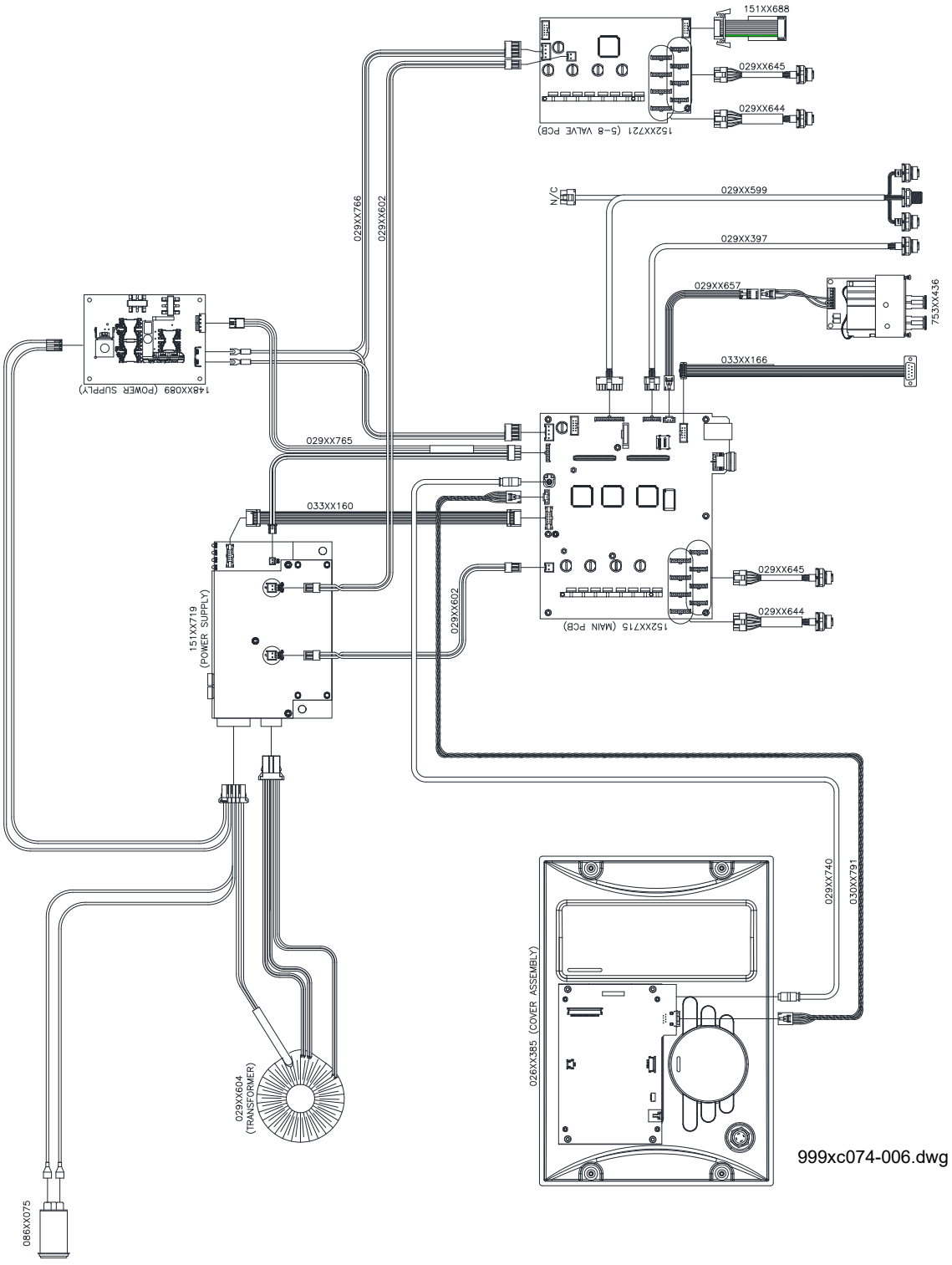
Standard Mounting System



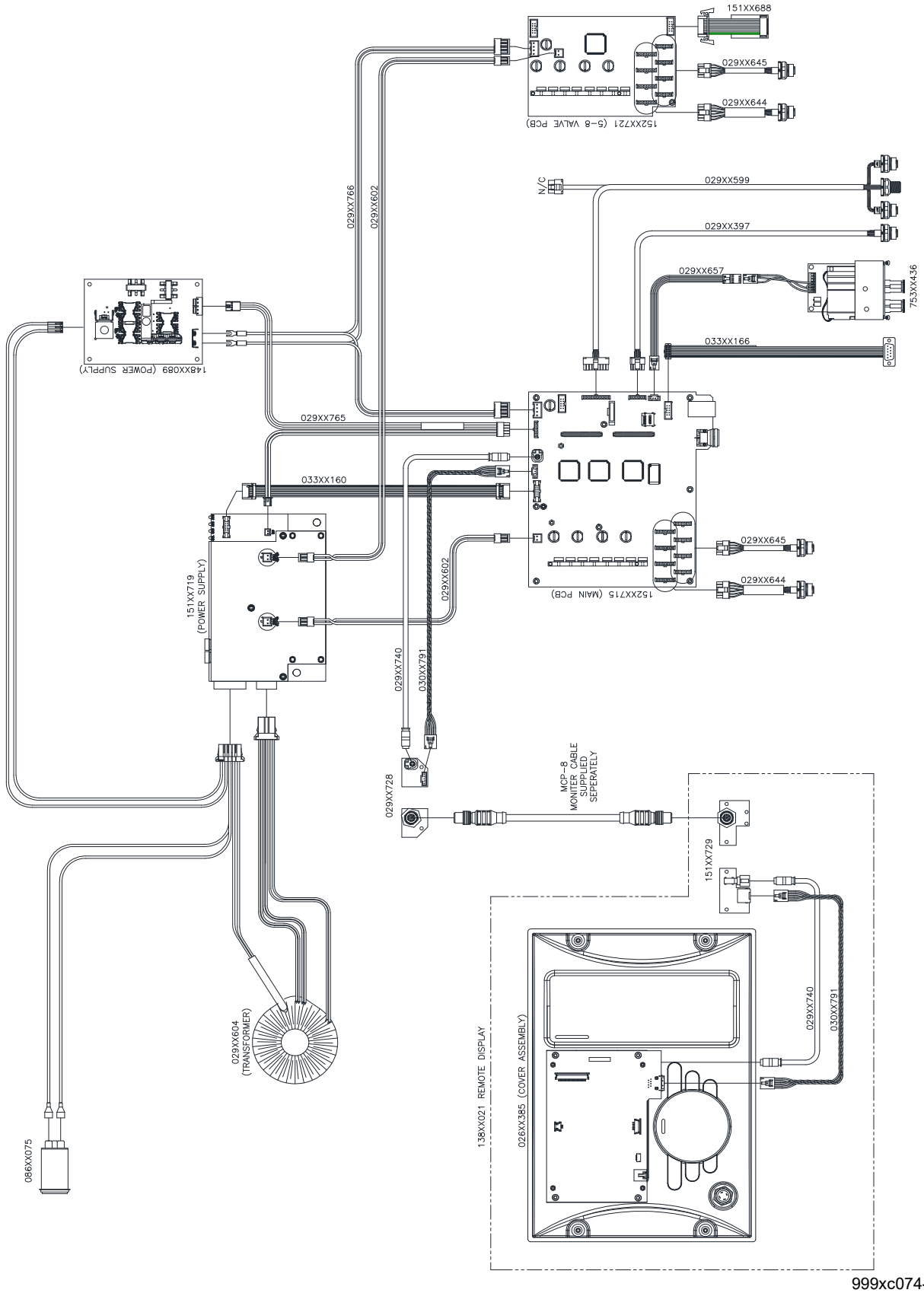
Item	Part Number	Description	QTY
1	583xx413	Mounting Rail, to enclosure	1
2	583xx412	Mounting Rail, to wall/panel	1
3	784xx600	Lockwasher, M6	4
4	798xx069	SHCS, M6 x 12	8
5	583xx414	Mounting Foot	2
6	884xx105	SHCS, M6 x 35	1

Wiring Diagrams

FlexoSEAL with MCP-8, Stand-alone Standard [074xx071]

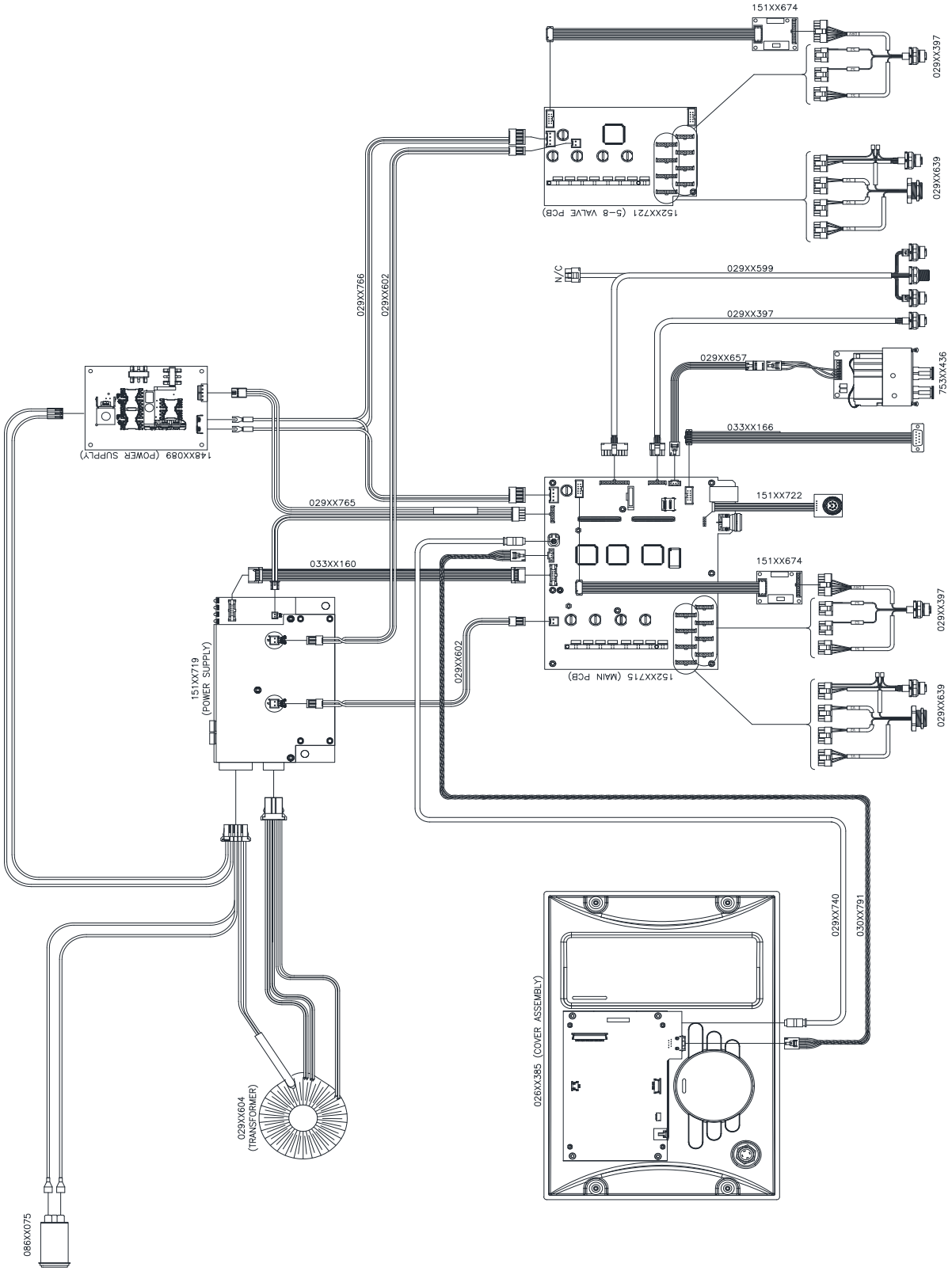


FlexoSEAL with MCP-8, Remote Standard [074xx072]



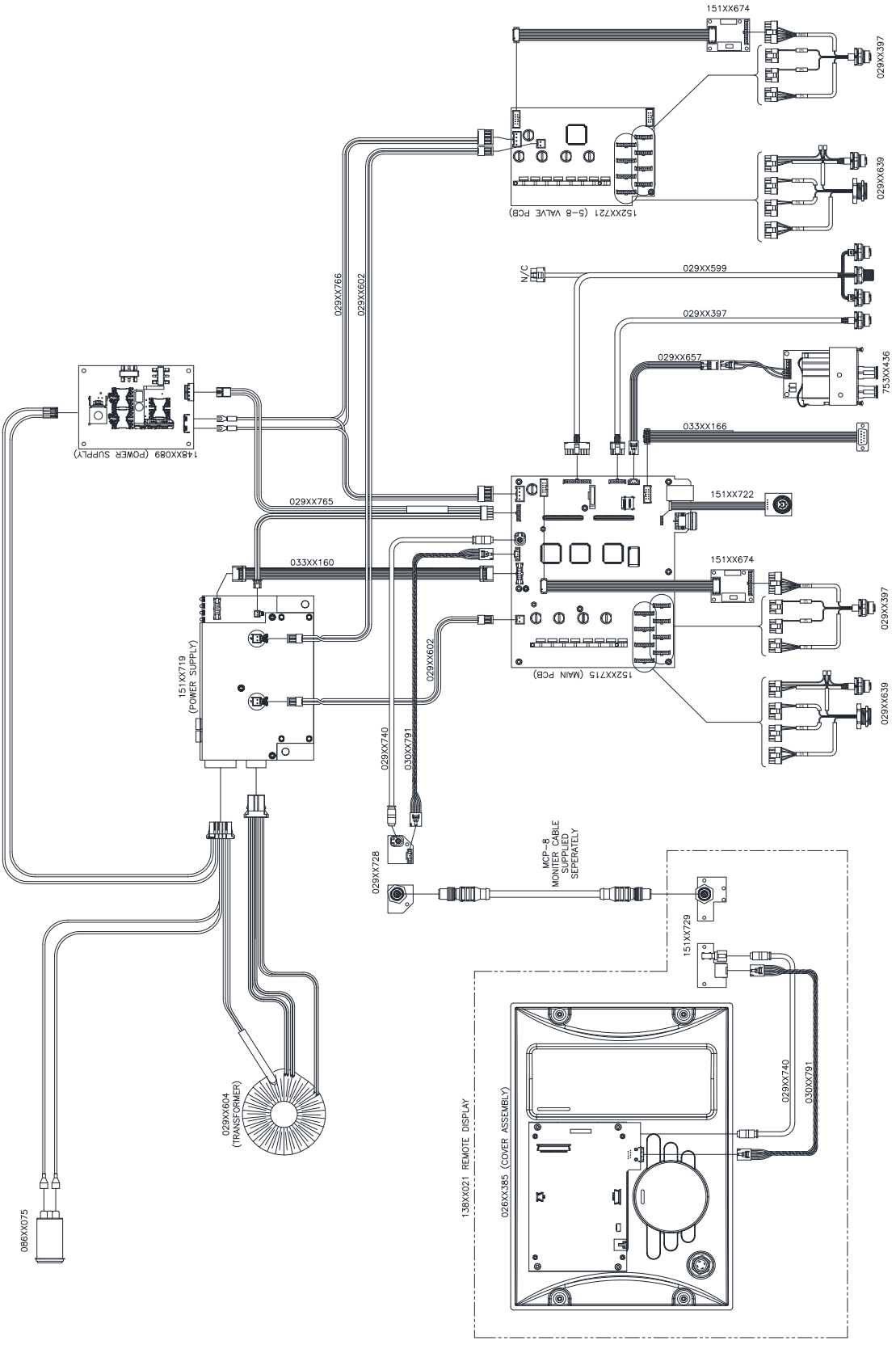
999xc074-007.dwg

FlexoSEAL with MCP-8, Stand-alone Tri-valve non-contact [074xx062]



999xc074-008.dwg

FlexoSEAL with MCP-8, Remote Tri-valve non-contact [074xx063]



999xc074-009.dwg

Section 9 - 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 10 - 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 - Job Charts

Use the following table to record saved jobs for quick reference, and to prevent duplication/erasure of important job information. The table may be copied for use.

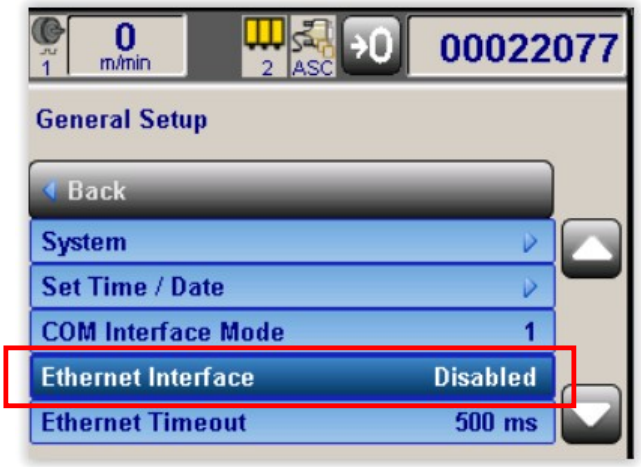
Job Number	Job Name	Description

Appendix B - System Connectivity (Clearvision)

MCP-8

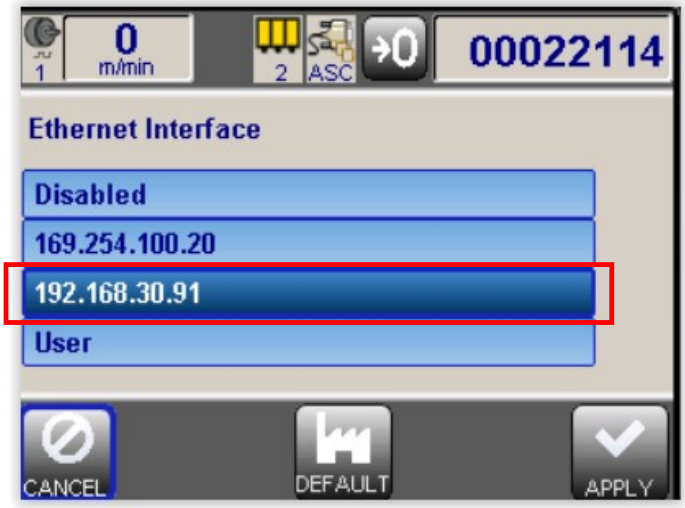
1. Go to MCP-8 System and unlock the control to access level 4
2. Select the Setup Menu

3. Select option Ethernet Interface



4. Select the option “192.168.30.91” and apply changes.

MCP-8 - Continued

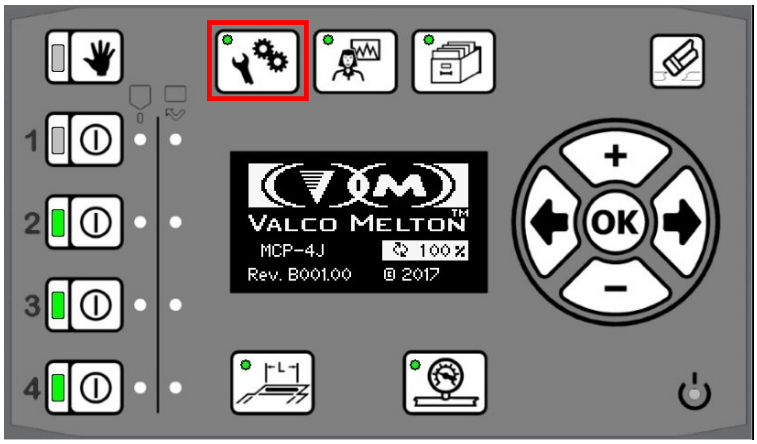


5. Reset the system using the main power switch.

MCP-4

6. Go to MCP-4 System and unlock the control to access level 4

7. Select the Setup Menu



8. Select the Communication (“COMM”) icon

MCP-4 - Continued

9. Change the IP Address option to ‘192.168.30.91’

10. Restart the system using the main power switch.

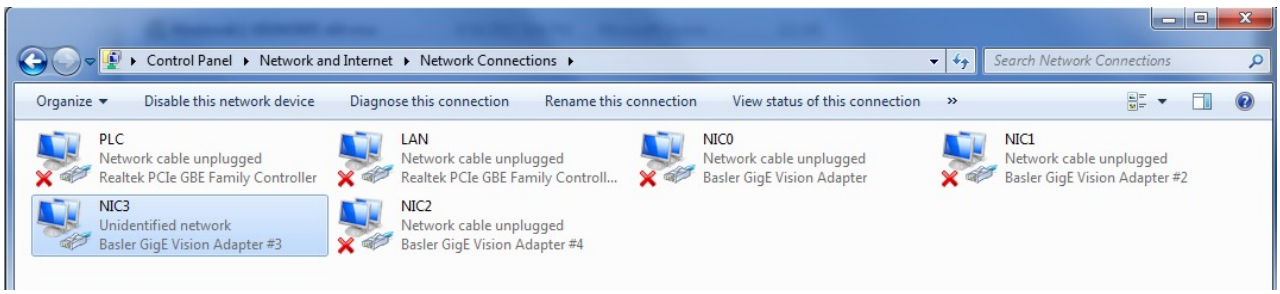
Plugging the Control Gluer System in the BC7 Cabinet

The control gluer system needs to be connected into the B7 Cabinet by plugging an Ethernet cable into a network port. The BoxChek7 Cabinet can support up to 2 x 4-port network camera cards. Depending on how many devices are connected to the Cabinet, the system may have one or two 4-port network camera cards.

If BC7 Cabinet has one network card, the Control Gluer System should be connected through the port “NIC3”. If BC7 Cabinet has a second network card, the Control Gluer System should be connected through the port “NIC7”. Login in BC7 System as Level 4 user, select the required option, and follow its instructions.

Gluer Connection Setup with 1 Network Card

11. Exit the BC7 Application and access the Windows Desktop environment.
12. Navigate to Control Panel → Network and Internet → Network and Sharing Center → Change Adapter Settings.

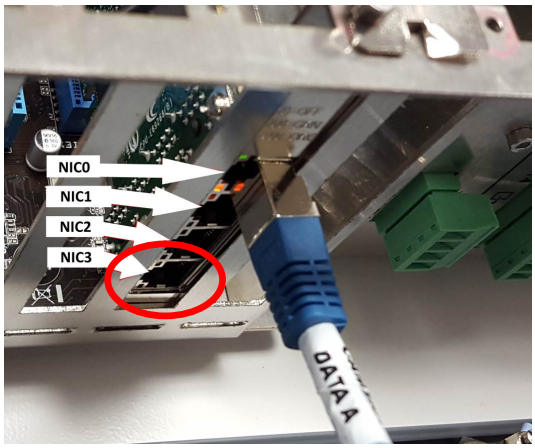


Gluer Connection Setup with 1 Network Card - Continued

13. Right click on the device labeled ‘NIC3’ and select properties.
14. Next, click on ‘Internet Protocol Version 4’.
15. Then click on the ‘Properties’ button.
16. Select the ‘Use the following IP address’ option. As above, set the following:

    IP address to 192.168.30.1
    Subnet mask to 255.255.255.0

17. Click the ‘OK’ button, and “close”.
18. Plug the Gluer Ethernet cable into the port “NIC3”.

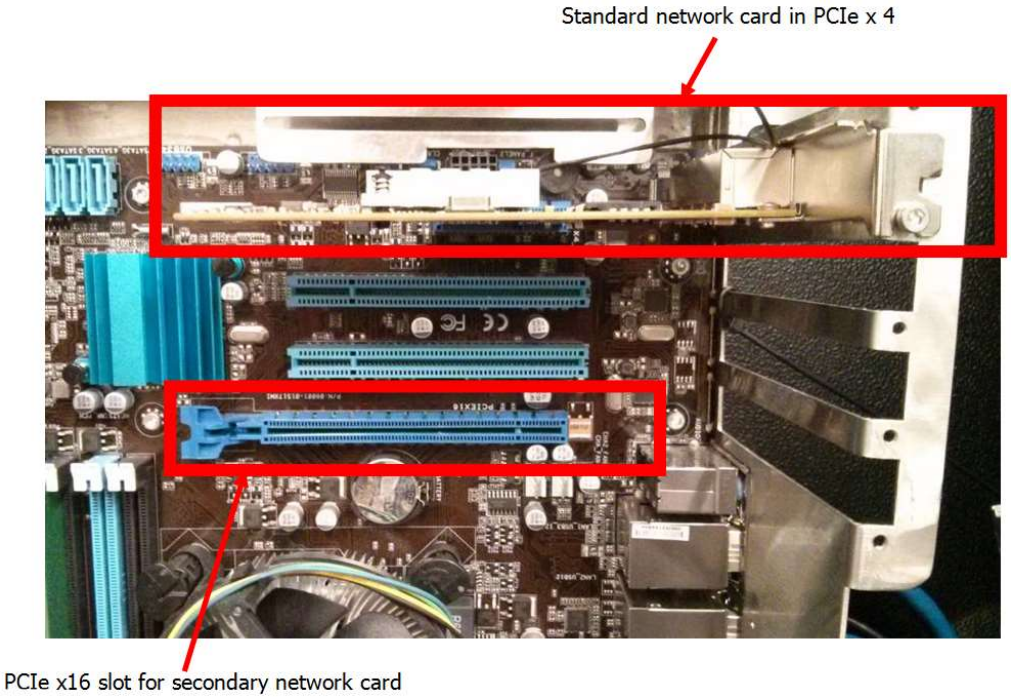


Gluer Connection Setup with 2 Network Cards

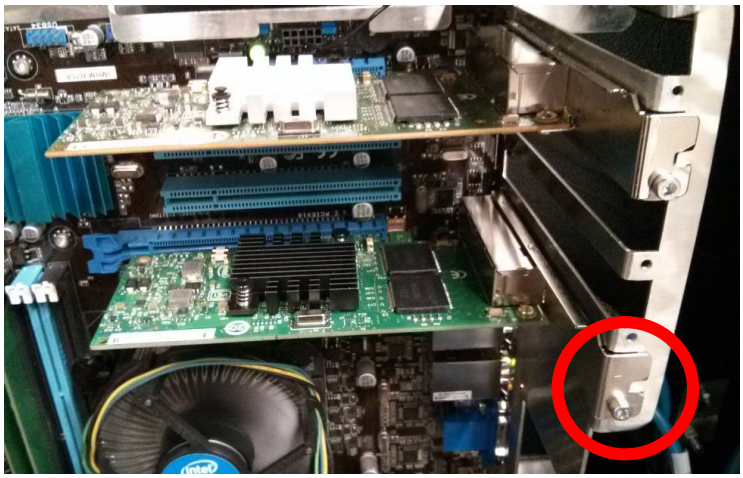
Hardware Installation

If a second network card needs installation, follow the next steps. If the network card is already placed in the Cabinet, skip them and go directly to Windows Configuration.

19. With the cabinet powered OFF, insert the new network card into the MBM bottom expansion slot (PCIe x16) shown here:



20. Fasten the card to the chassis with an M3 screw (eg. 784XX433 – M3 x 4 SS).

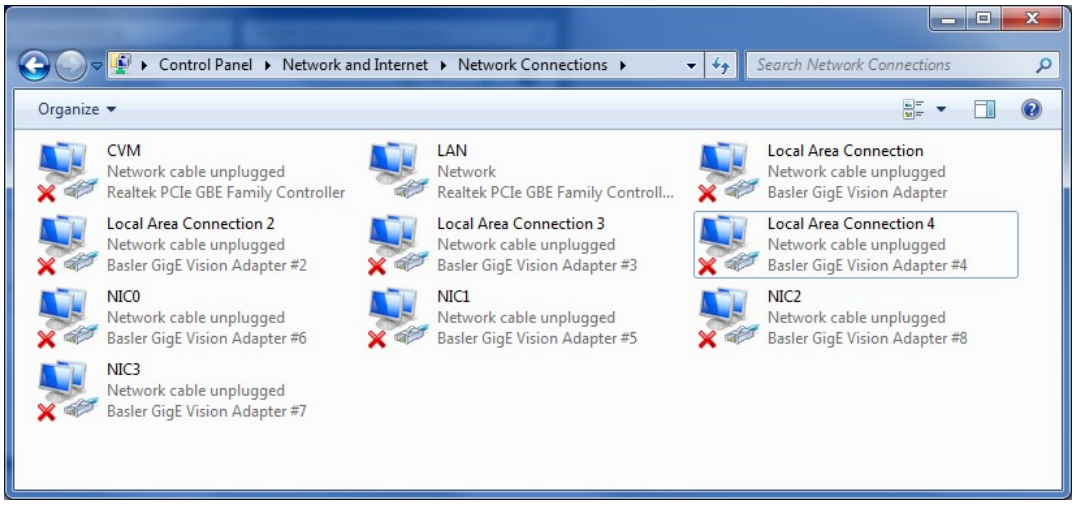


21. Power on the BoxChek7 cabinet.

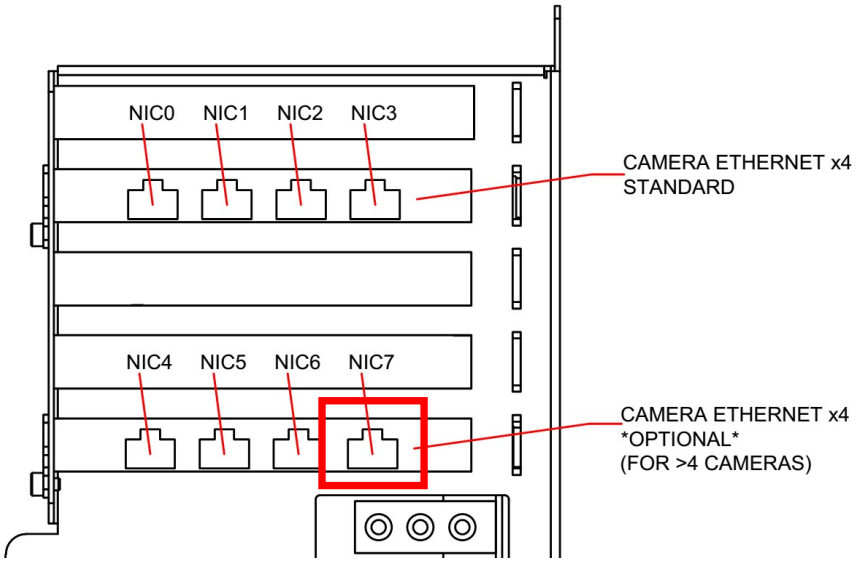
Windows Configuration

22. Enter the Windows desktop environment
23. Navigate to Control Panel → Network and Internet → Network and Sharing Center → Change Adapter Settings.
24. In case you are installing the second network card, verify that you see four new connections named “Local Area Connection <#>“. If you do not see new network interfaces the card may not be seated properly.

In case the network card was installed previously, the connection appears as “NCI7” and with network cable unplugged.



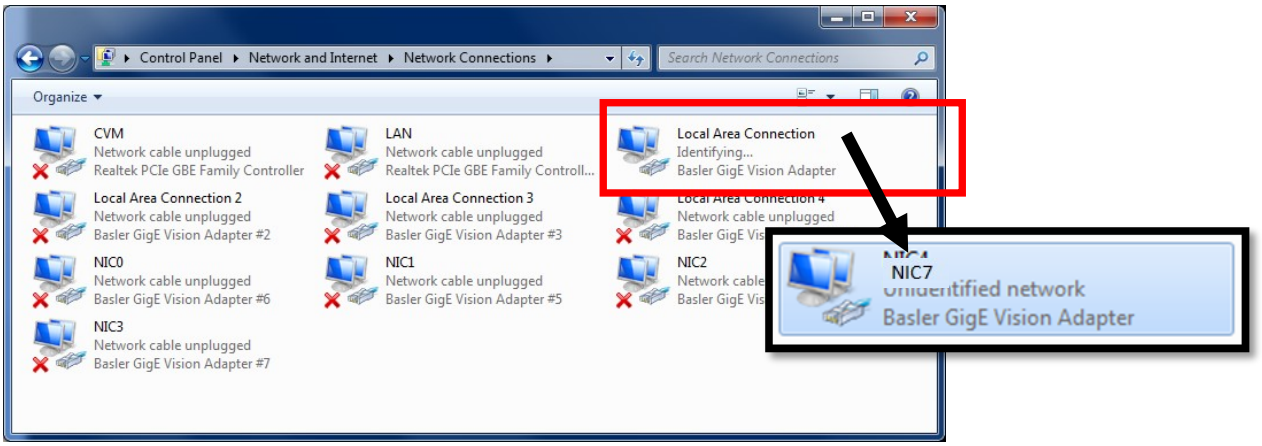
25. Connect the Gluer Ethernet cable to the NIC7.



26. In case you are installing the second network card, look for the network connection in Windows that changes state when the cable is plugged in. This could say “Identifying...“or “Connected“or anything except “Network cable unplugged“. This tells you what connection is associated with the port where you just plugged in the cable. Rename the connection in Windows to NIC7.

Windows Configuration - Continued

In case the network card was installed previously, the connection is already named “NIC7”, notice that the status changed to “Identifying...“ or “Connected“ or anything except “Network cable unplugged“.



27. Right click on the device and select properties.
28. Next, click on ‘Internet Protocol Version 4’.
29. Then click on the ‘Properties’ button.
30. Select the ‘Use the following IP address’ option. As above, set the following:

    IP address to 192.168.30.1
    Subnet mask to 255.255.255.0

31. Click the ‘OK’ button, and “close”.

Adding the Gluer Tab in BC7 system

To complete the connection between the Glue Controller and the BC7 System, the BC7 System needs to read the Glue Controller. Follow the next steps in order to add the Gluer Tab (a level 4 user login is required):

32. Navigate to the Settings → General
33. Locate the next available System (System 2, 3, 4) and select Gluer.

34. Use the upper left power button to restart the system.
35. Once the system restarts, the new Gluer tab is now available.