

# PowderPro<sup>®</sup> Spray System

## Installation Instructions

Hamada H234

**ACCEL**  <sup>®</sup>  
Graphic Systems



# GENERAL INFORMATION

**ATTENTION  
POWDERPRO®  
OWNER!**

Accel Graphic Systems provides parts and service through its authorized distributors and dealers. Therefore, all requests for parts and service should be directed to your local dealer.

The philosophy of Accel Graphic Systems is to continually improve all of its products. Written notices of changes and improvements are sent to Accel Graphic Systems' Dealers.

If the operating characteristics or the appearance of your product differs from those described in this manual, please contact your local Accel Graphic Systems Dealer for updated information and assistance.

Always update your equipment when improvements are made available, especially those related to safety.

**YOUR AUTHORIZED POWDERPRO® DEALER IS:**

---

---

---

---

**THE SERIAL NUMBER OF YOUR  
POWDERPRO® IS:**

---

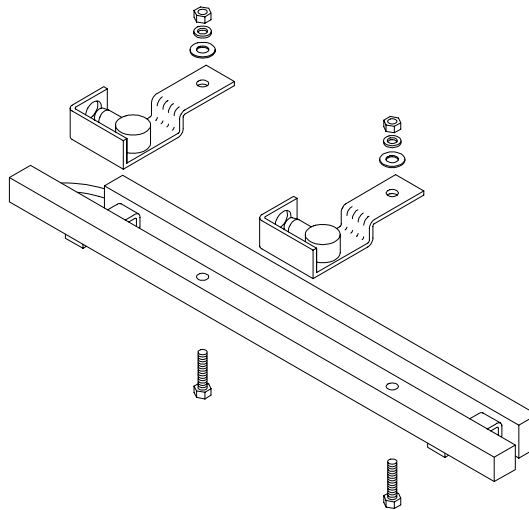
---

For technical assistance, please contact:

**ACCEL GRAPHIC SYSTEMS**  
11103 Indian Trail  
Dallas, TX 75229  
PHONE (972) 484-6808  
FAX (800) 365-6510  
E-MAIL [accel@dallas.net](mailto:accel@dallas.net)  
WEB SITE [www.accelgraphicsystems.com](http://www.accelgraphicsystems.com)

**PowderPro® is covered by U.S. Patents Pending**

Diagram A



# INSTALLATION

1

Disconnect the electrical power to the press.

2

Remove the NOPS delivery side cover, NOPS side cover below the parent head printing unit and the OPS feeder side cover.

3

**NOTE: If the press is already equipped with a Tempest® dryer, skip to step 5.**

Remove original spray system from the press including the spray heads (Diagram A), hoses and hopper. Disconnect the wires from the original solenoid but do not remove the solenoid from the press. Save the bolts used to secure the original spray heads to the tie bar.

5

Diagram B

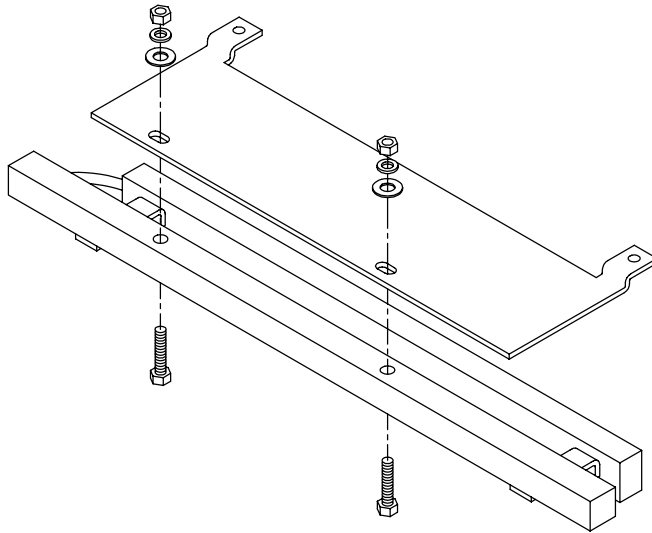
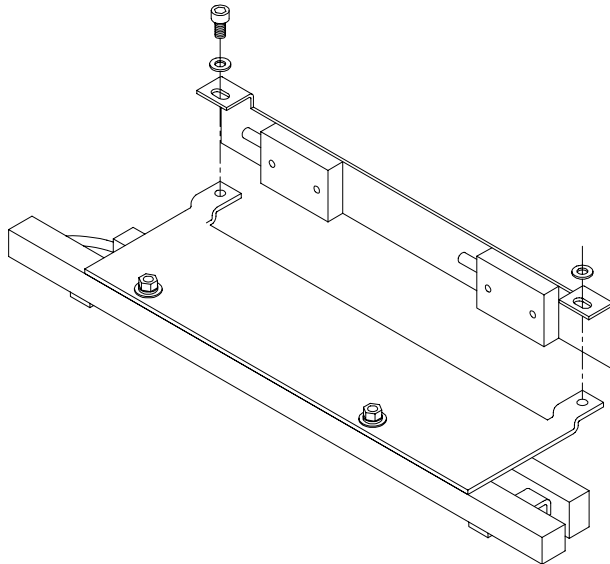
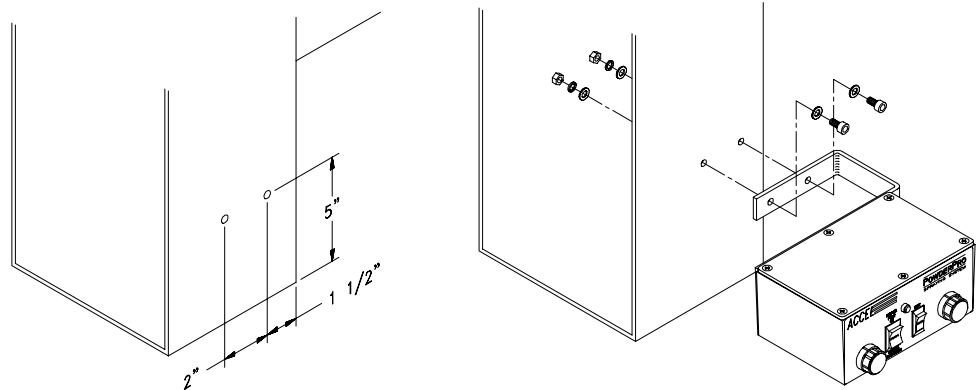


Diagram C



Diagrams D & E



## INSTALLATION

4

Install the new PowderPro® spray bar mounting bracket to the feeder side of the tie bar using the original hardware as shown in Diagram B. There are two sets of holes in the mounting bracket. Use the holes that center the mounting bracket on the tie bar.

5

Using the provided hardware attach the PowderPro® spray bar assembly to the mounting bracket that was installed in the previous step as shown in Diagram C. Route the hoses through the same hole in the NOPS press frame that the original hoses went through. Used the provided tie wraps to secure the hoses away from the static eliminator and any moving parts in the delivery.

**NOTE: If the press is also equipped with a Tempest® dryer, then the spray head attaches directly to the dryer unit.**

6

Drill two 9/32" dia. holes in the delivery end of the press electrical cabinet as shown in diagram D. Before drilling, check the inside of the cabinet for clearance. Using the provided hardware, secure the PowderPro® control box to the cabinet as shown in diagram E.

7



## INSTALLATION

7

Attach the hoses from the spray heads installed in step 3 to the tubes coming out of the side of the PowderPro® control box. If necessary, you can cut the tubes down to an appropriate length.

8

**NOTE: If the press is already equipped with a Tempest® dryer, then skip to step 11.**

Locate the CN-30 connector on the circuit board in the press electrical cabinet. Attach the provided T-tap connectors to the wires in positions 3 and 13 (wire no.'s Y03 and T2) and to the wires in positions 5 and 15 (wire no.'s Y05 and T2) on the CN-30 connector.

9

Place the provided impression relay board in an open area inside the electrical cabinet so that the cables from the "IMP #1" and "IMP #2" connectors on the board will reach the T-tap connectors installed in the previous step. Remove the backing from the two-sided tape on the bottom of the board and adhere it to the cabinet.

9



## INSTALLATION

**10**

Route the cables from the board installed in the previous step to the T-tap connectors installed in step 8. Attach the connectors from one of the cables to the T-taps on the wires in positions 5 and 15. Attach the connectors on the other cable to the wires in positions 3 and 13. Insert the loose cable into the wire duct for a clean installation.

**11**

Insert the wires in the end of the provided two-conductor grey cable into the J6 connector on the relay impression board. This connector is also labeled "PowderPro®."

**12**

Set the provided pump on the floor on the NOPS of the press. Plug the cable from the pump into the appropriate receptacle on the PowderPro® control box. Connect the hose from the pump to the barbed fitting in the hose coming out of the control box.



## INSTALLATION

**13**

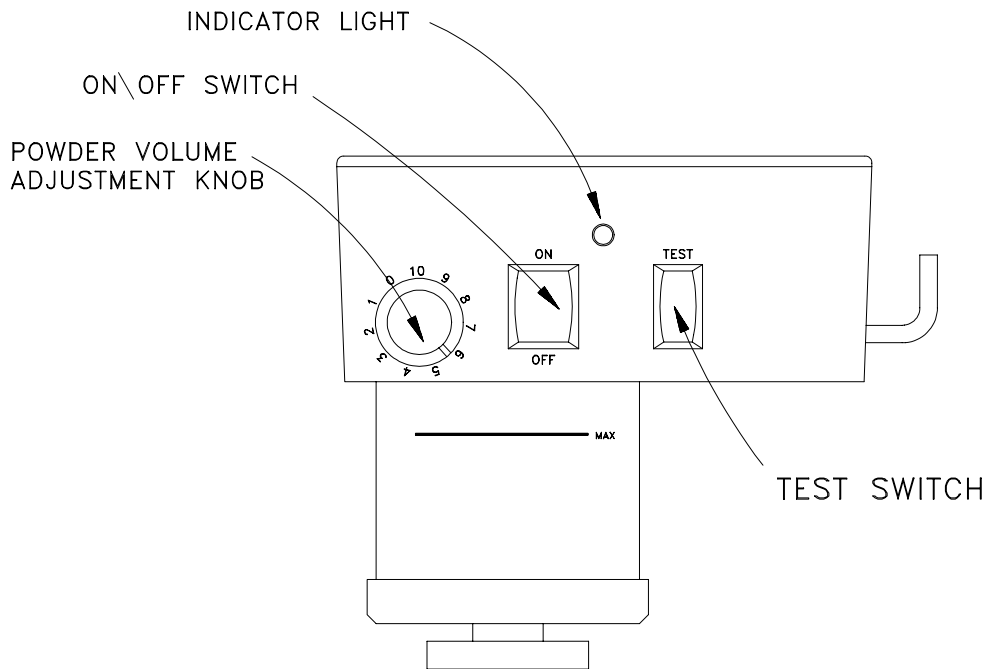
Plug the PowderPro® power cord into a standard 115 VAC outlet. The unit will draw a maximum of 3 amps.

---

**14**

Replace the covers on the press, then proceed to the "Operation and Maintenance" section for proper pump adjustment and operation.

## OPERATION AND MAINTENANCE



### POWDER PRO® CONTROLS

#### VOLUME ADJUSTMENT KNOB

Adjusts the amount of spray powder with "0" the minimum and "10" the maximum.

#### ON/OFF SWITCH

When switched to the "MANUAL PUMP ON" position the pump will come on to allow for spray volume setting. When switched to the "NORMAL OPERATION" position, the system is armed and will spray only when the press goes on impression. The center position is off.

#### INDICATOR LIGHT

This light is illuminated only when the unit is actually spraying. The light will go on and off as sheets pass under the spray nozzles.

#### TEST SWITCH

Use this switch for setting powder volume when not printing. With the on/off switch set to "MANUAL PUMP ON," push the test switch to visually see the amount of powder being sprayed. Adjust if necessary.

# OPERATION AND MAINTENANCE

## INITIAL SETTINGS

The initial setting for the powder volume adjustment on an average job is “5”. If more powder is required than is available at a setting of “10” you need to adjust the pump. If less powder is required than is available at a setting of “0” you also have to adjust the pump. So that you have a wide range of powder volume adjustment available for different jobs you want your “normal” setting for average jobs to be somewhere in the range from “4” to “6”, otherwise you need to adjust the pump.

## PUMP ADJUSTMENT

Powder volume range is adjusted by the outlet pressure of the pump. Locate the adjustment knob on the pump near the outlet hose. Loosen the locking knob and turn the adjustment knob clockwise to increase the pressure for more powder. Turn the knob counter clockwise to decrease pressure for less powder. Set the correct pump pressure as follows:

1. Set the ON/OFF switch on the PowderPro® control box to the "MANUAL PUMP ON" position.
2. Set the powder volume adjustment knob to "10".
3. Hold the "Test" switch "On" while looking at the spray nozzles in the delivery.
4. Have someone slowly adjust the pressure on the pump until the powder is barely visible. A powder setting of "10" with visible powder in the delivery is more than enough powder. Consequently, a setting of "5" results in no visible powder but sufficient powder for most jobs.

*If powder is visible at the "5" setting then too much powder is being sprayed. Return to step 3 and reset the pump.*

5. Tighten the locking knob on the pump adjustment.

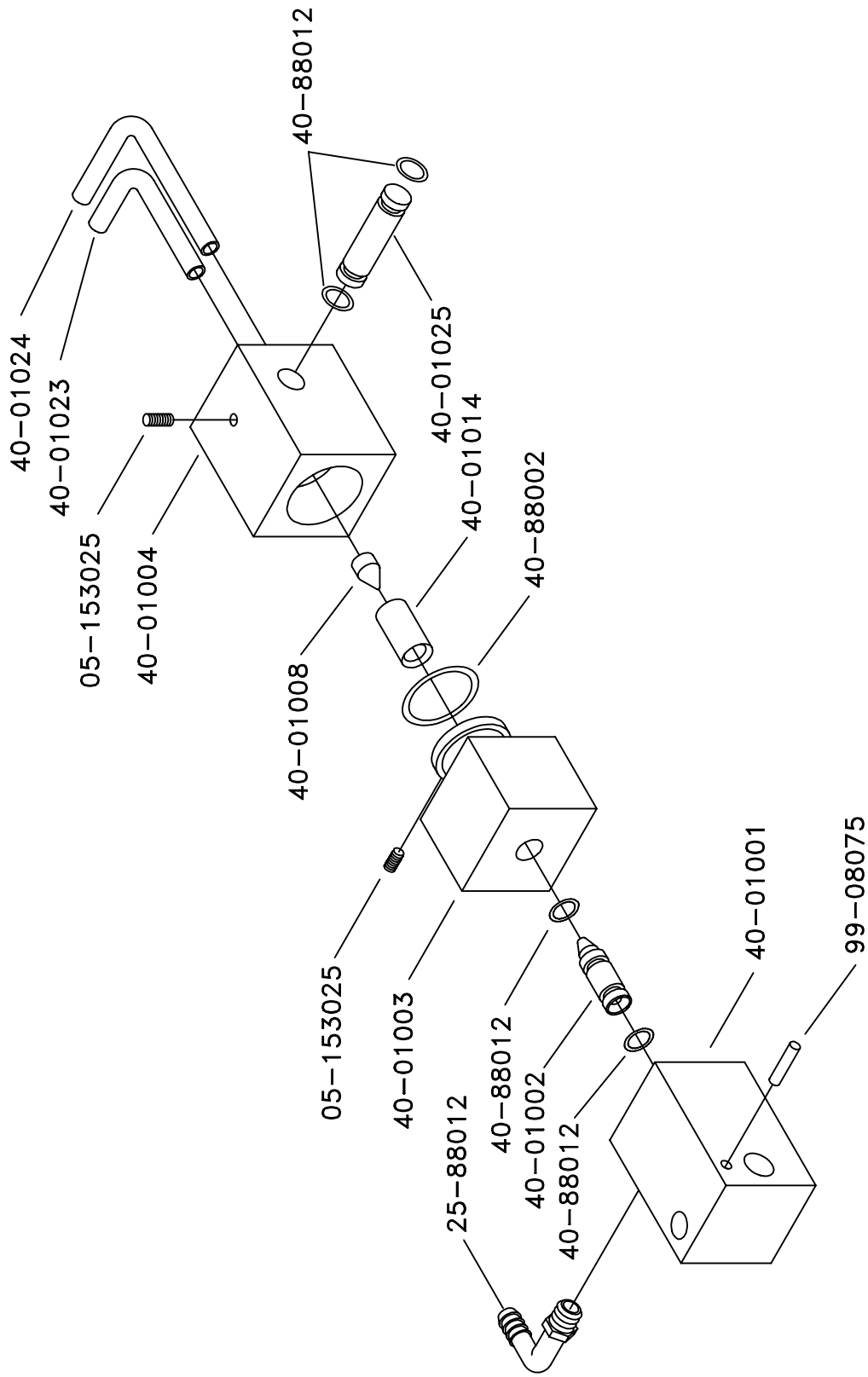
# OPERATION AND MAINTENANCE

## OPERATION

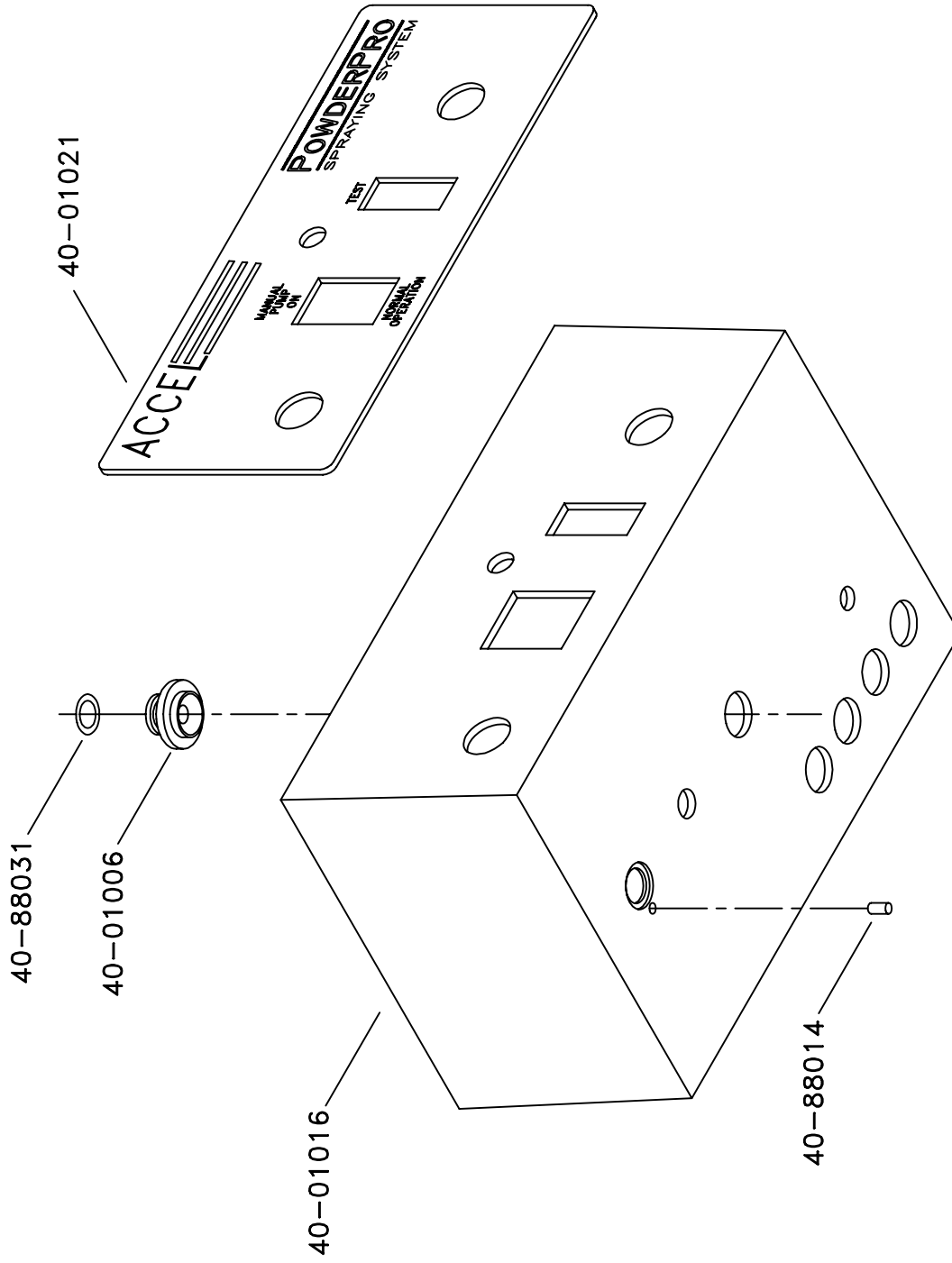
1. Fill the hopper with an intermediate grain (20 -25 micron) powder, available from Accel, up to the "MAX" line on the hopper.
2. Place the "ON/OFF" switch in the "NORMAL OPERATION" position. Sprayer comes on and off automatically when the press is on or off impression.
3. Adjust the powder volume adjustment knob as necessary.

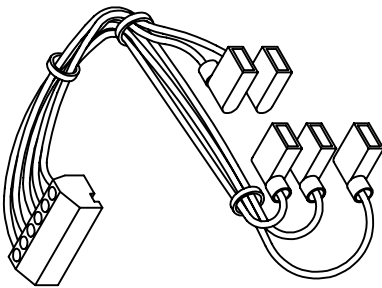
## MAINTENANCE

1. Clean the filter on the pump once a week, blowing it clean with compressed air.
2. Remove powder that may accumulate on the bottom of the spray nozzles daily.
3. Never use solvents containing oil when cleaning any part of the sprayer.
4. Use compressed air only if your compressor is equipped with a proper in-line dryer. Otherwise, use canned air. Moisture in the sprayer affects its performance.

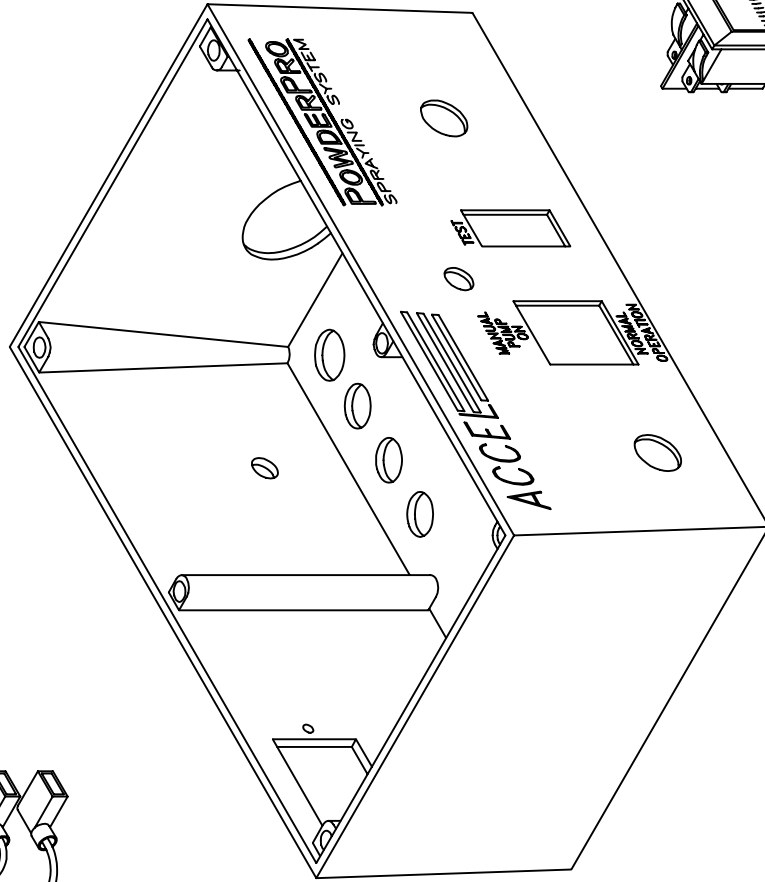


H234P42, 10-1-96



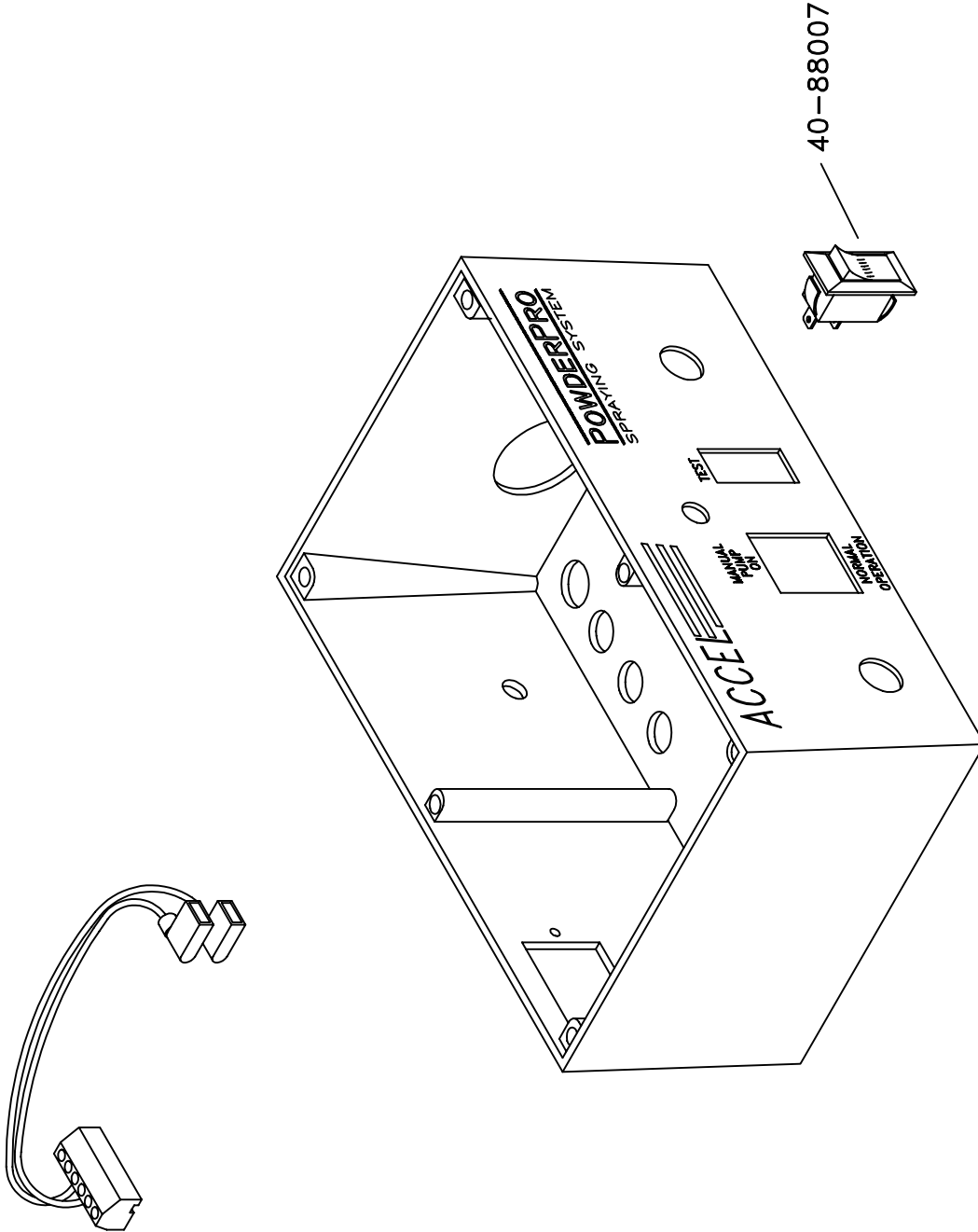


WIRE COLOR	SWITCH POSITION NO.
RED	12
ORANGE	11
BLUE	13
WHITE	24
BLACK	26

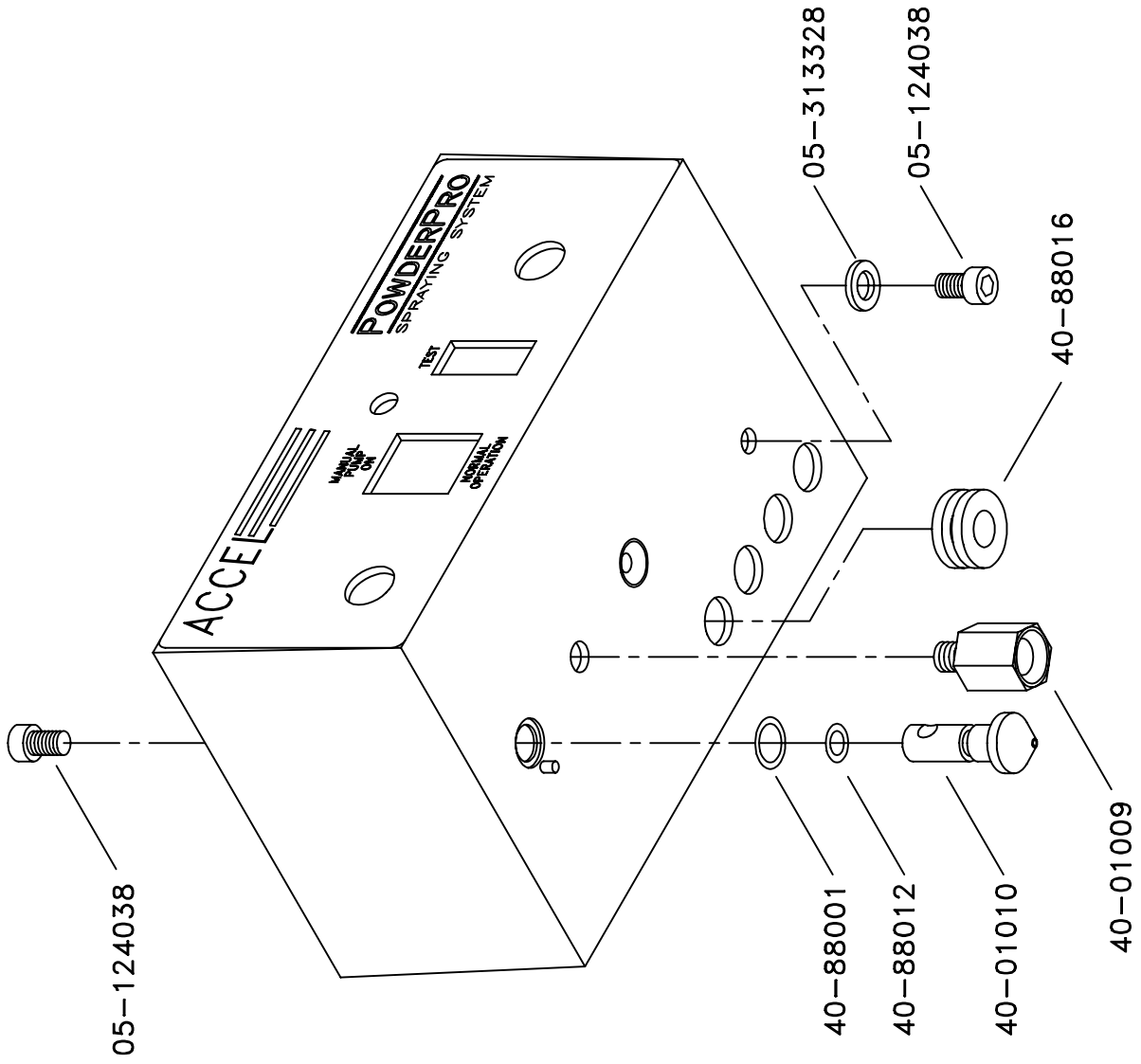


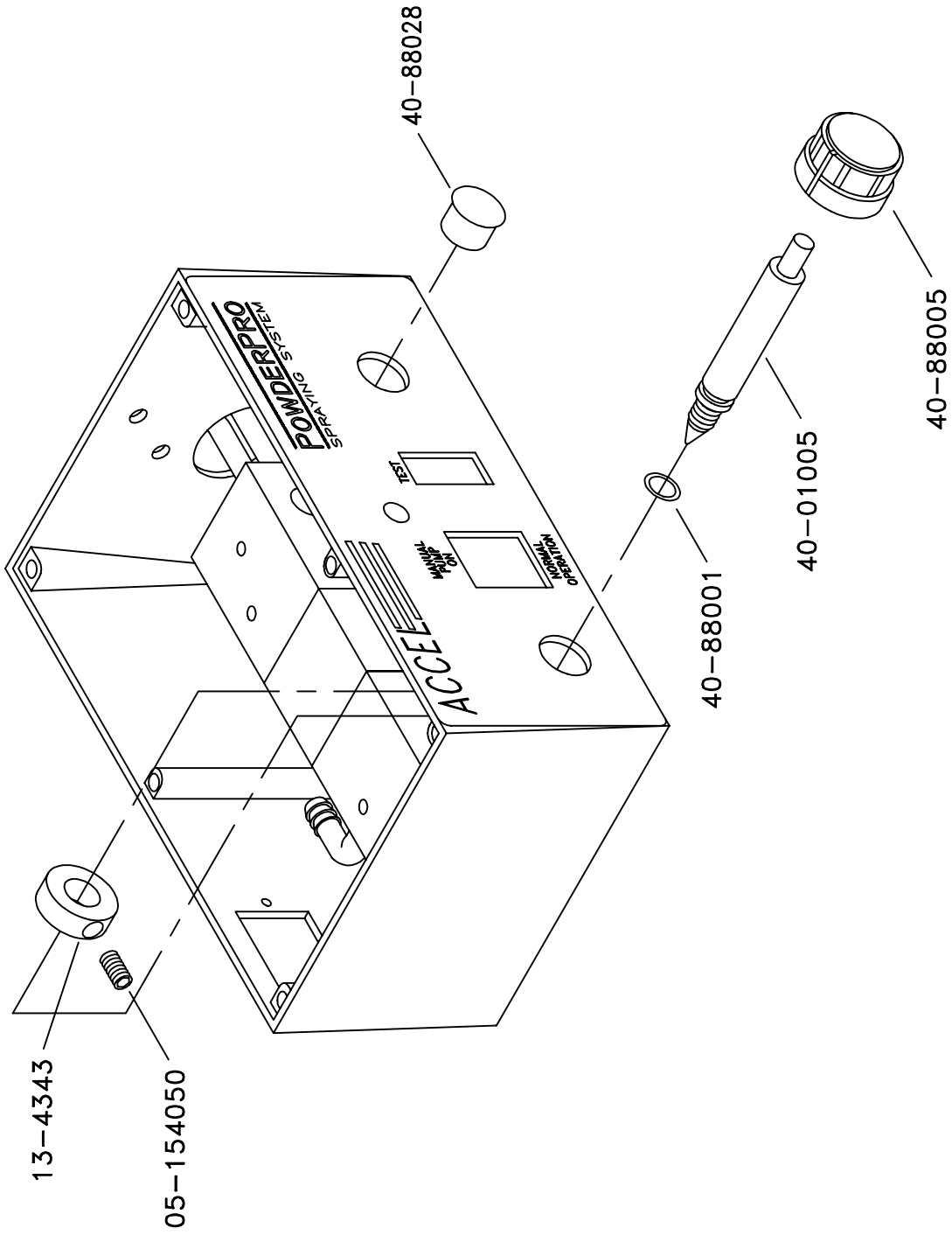
40-88042



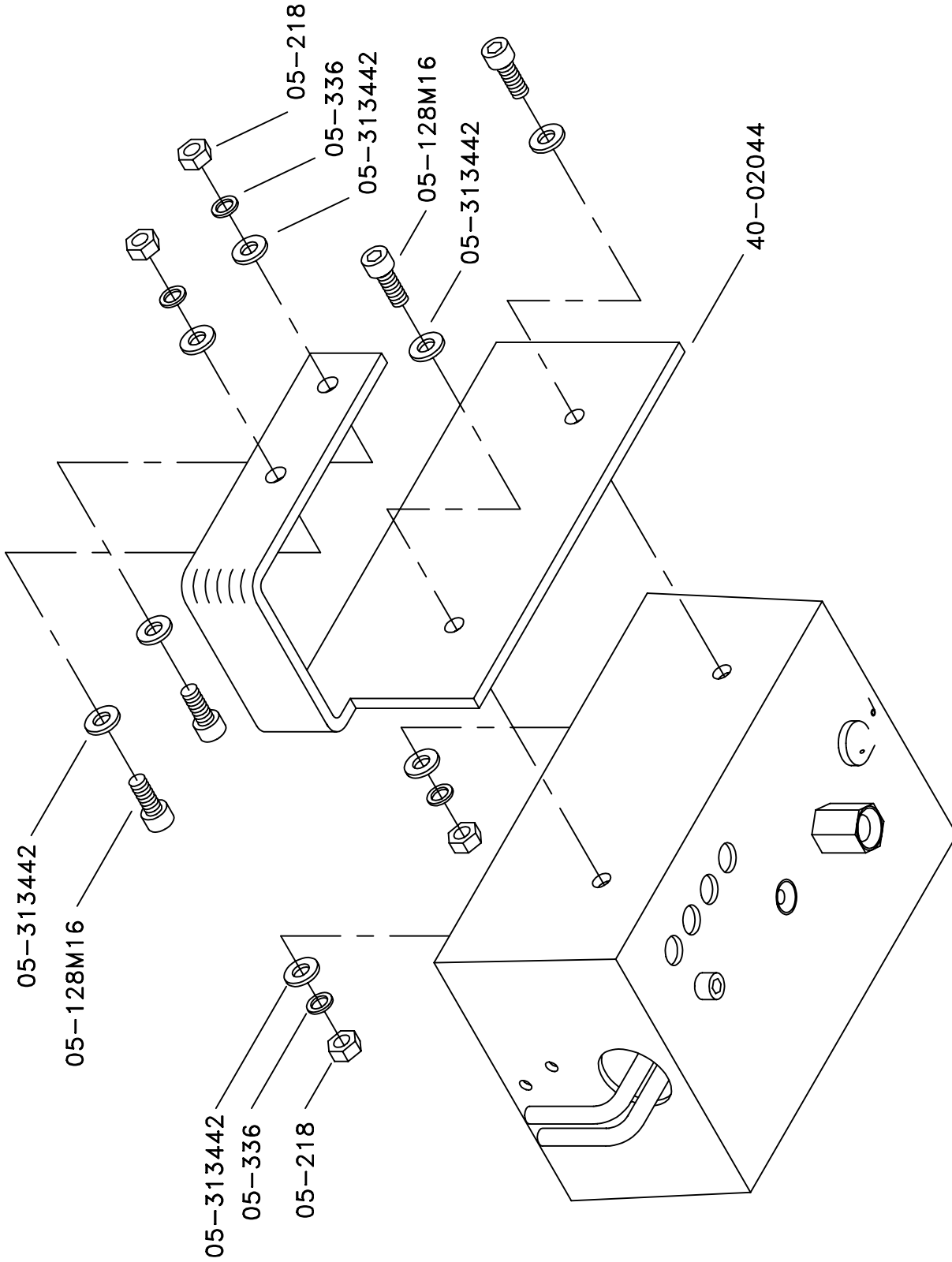


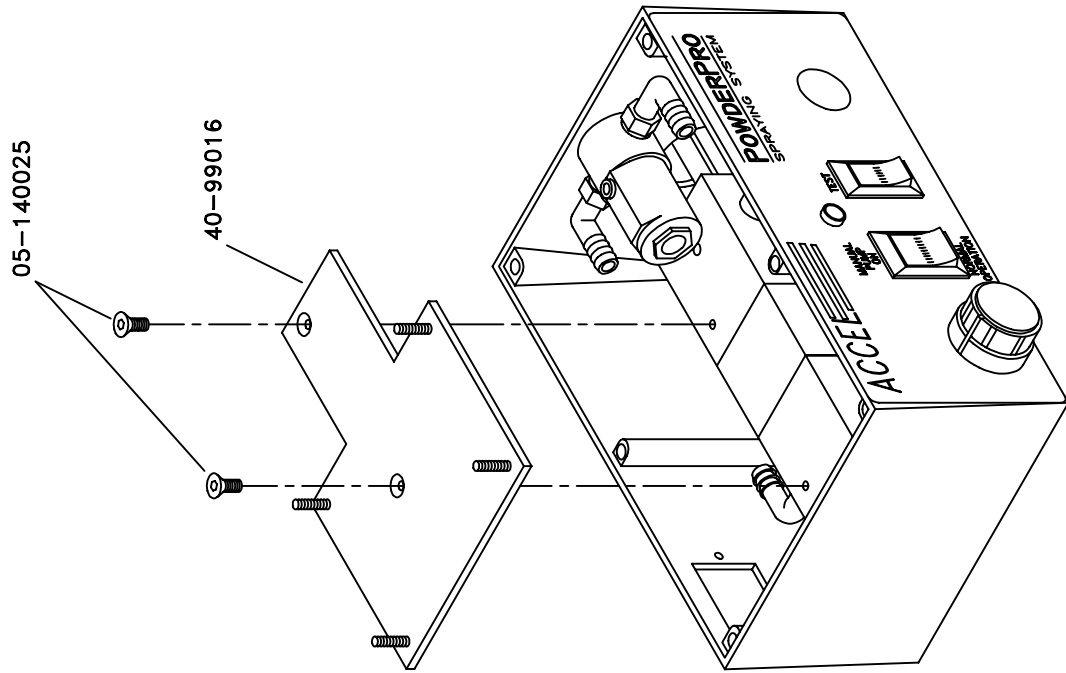
H234P11, 9-23-96

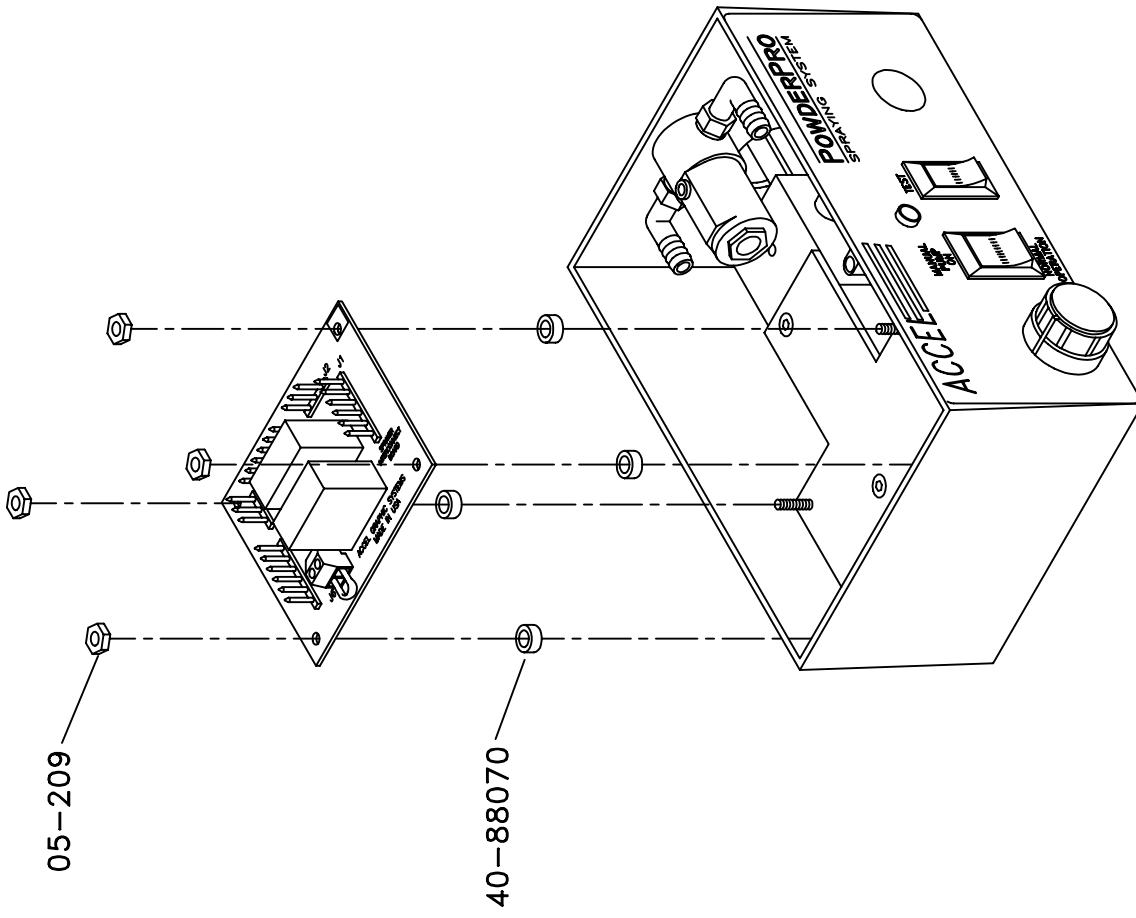


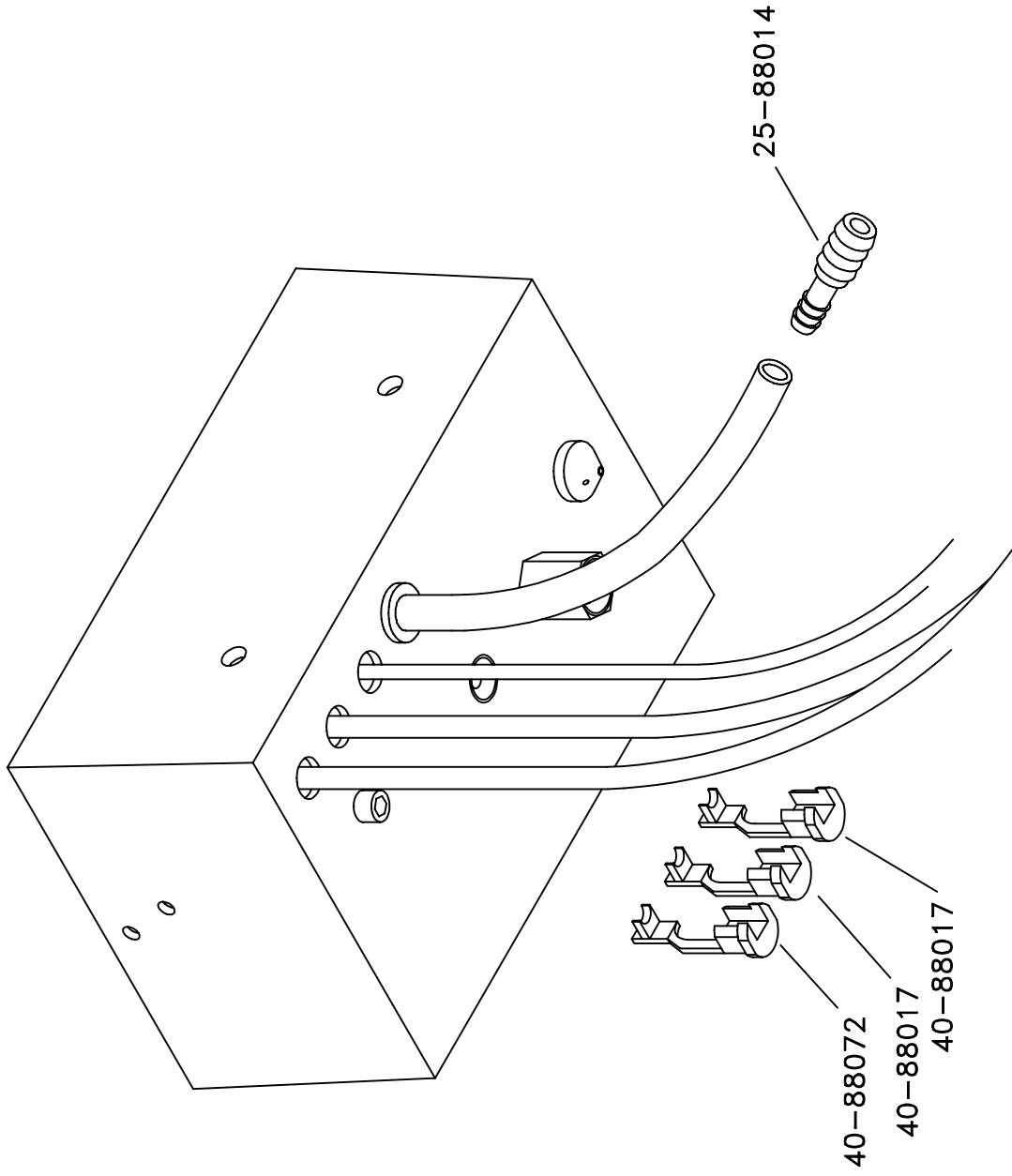


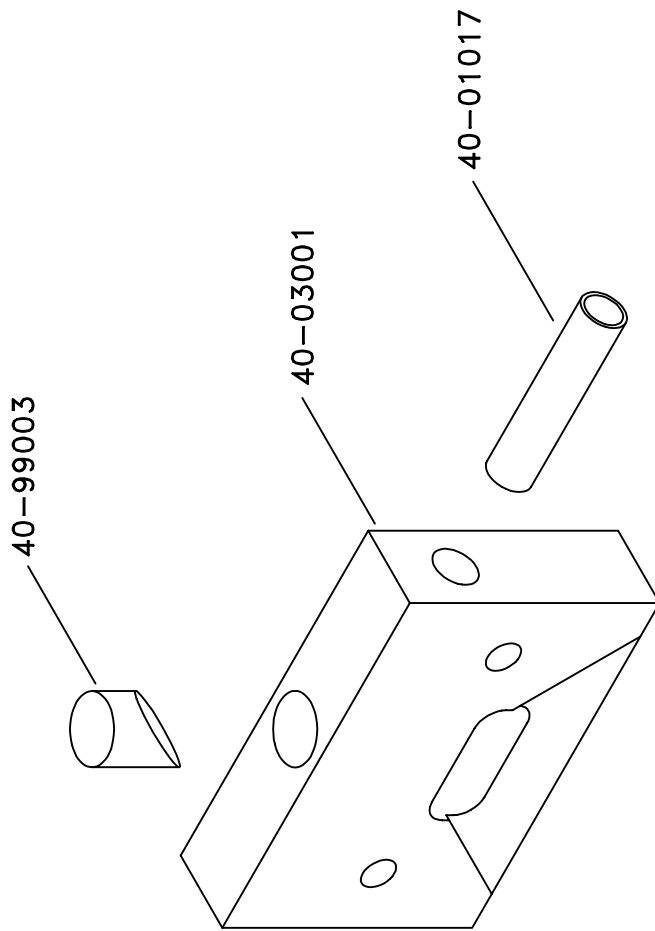




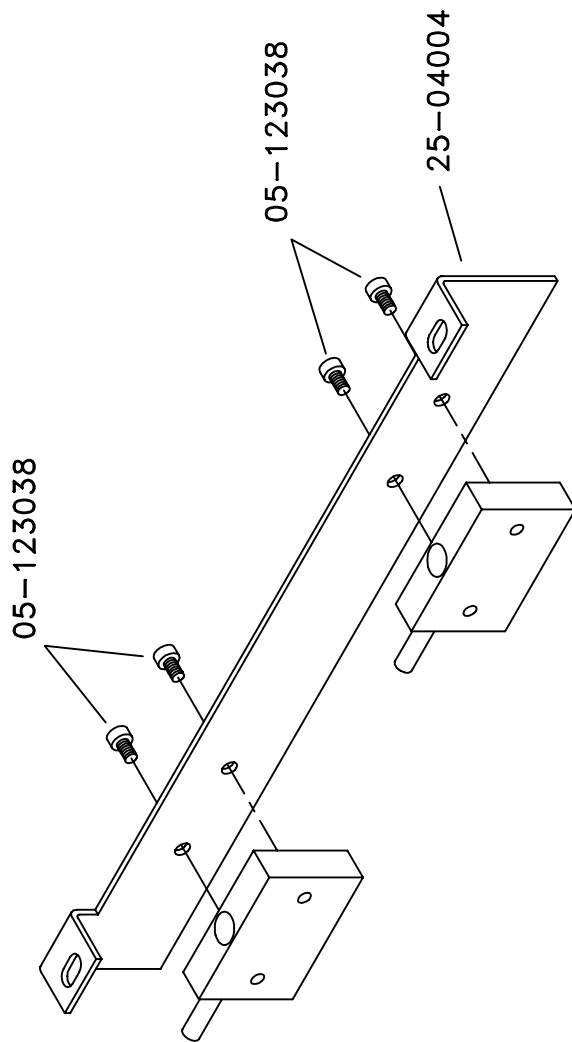




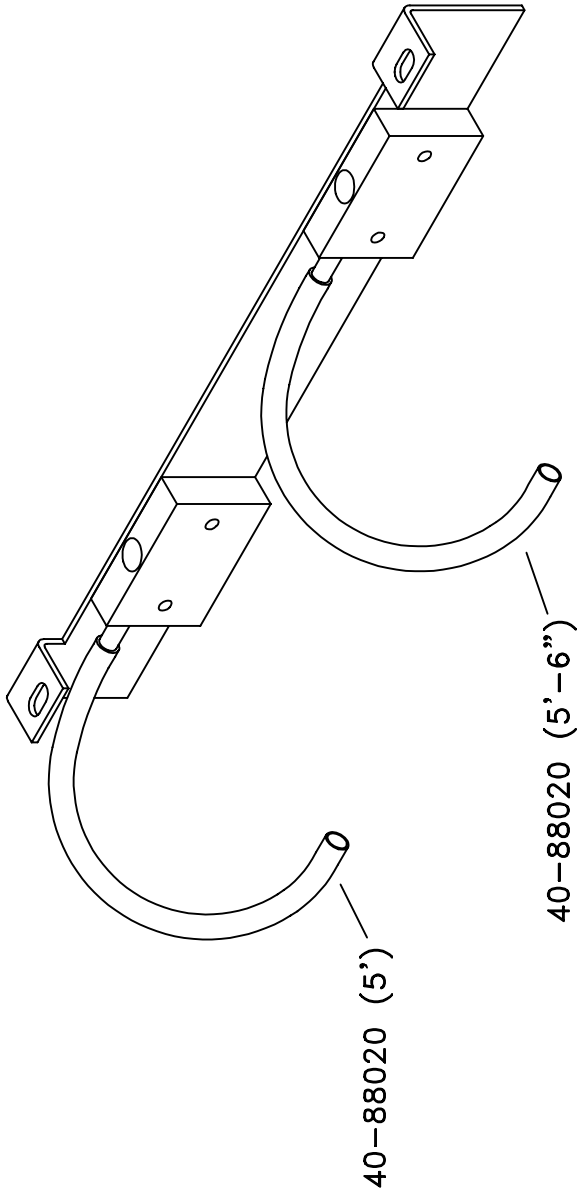


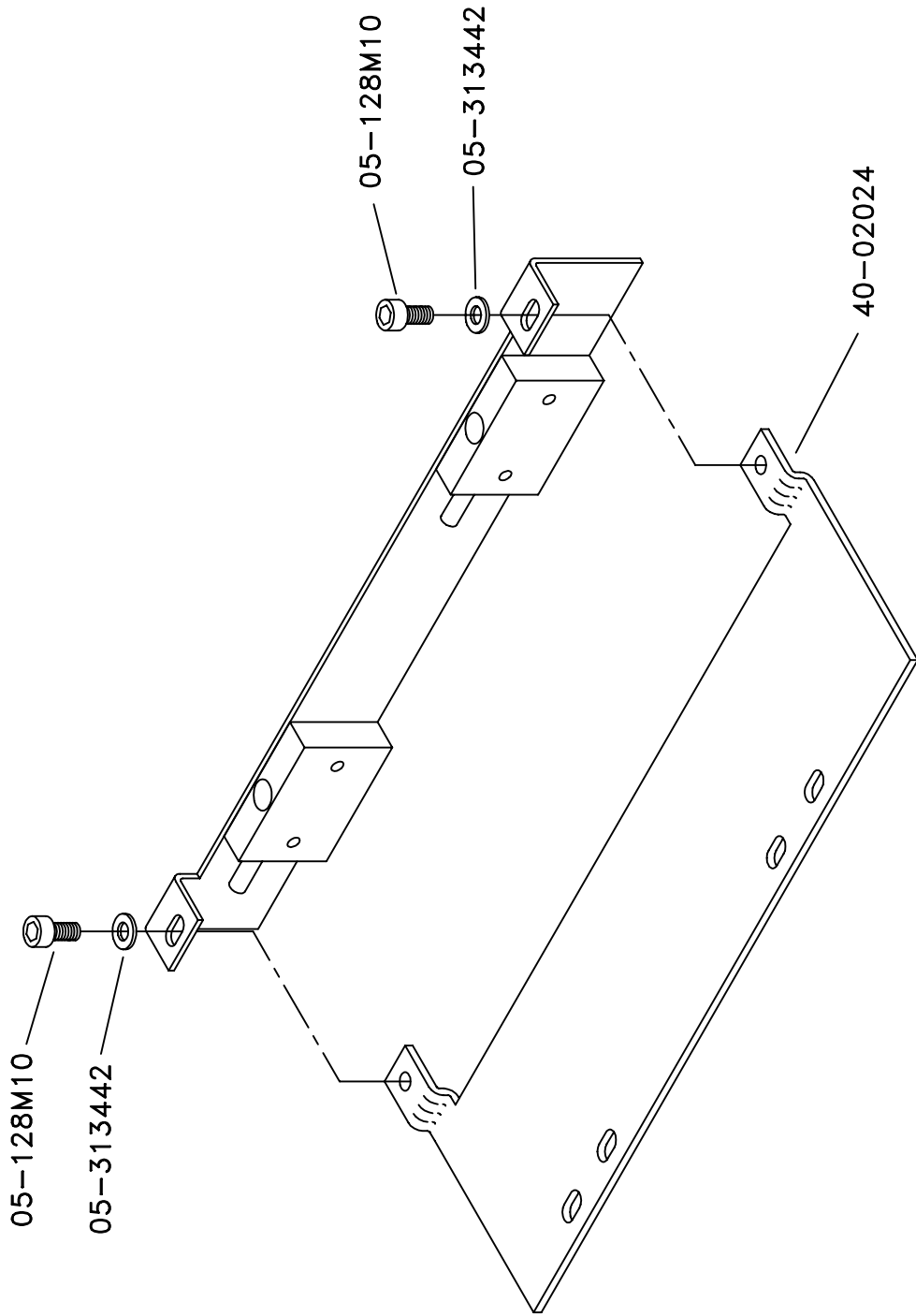


H234P31, 9-24-96

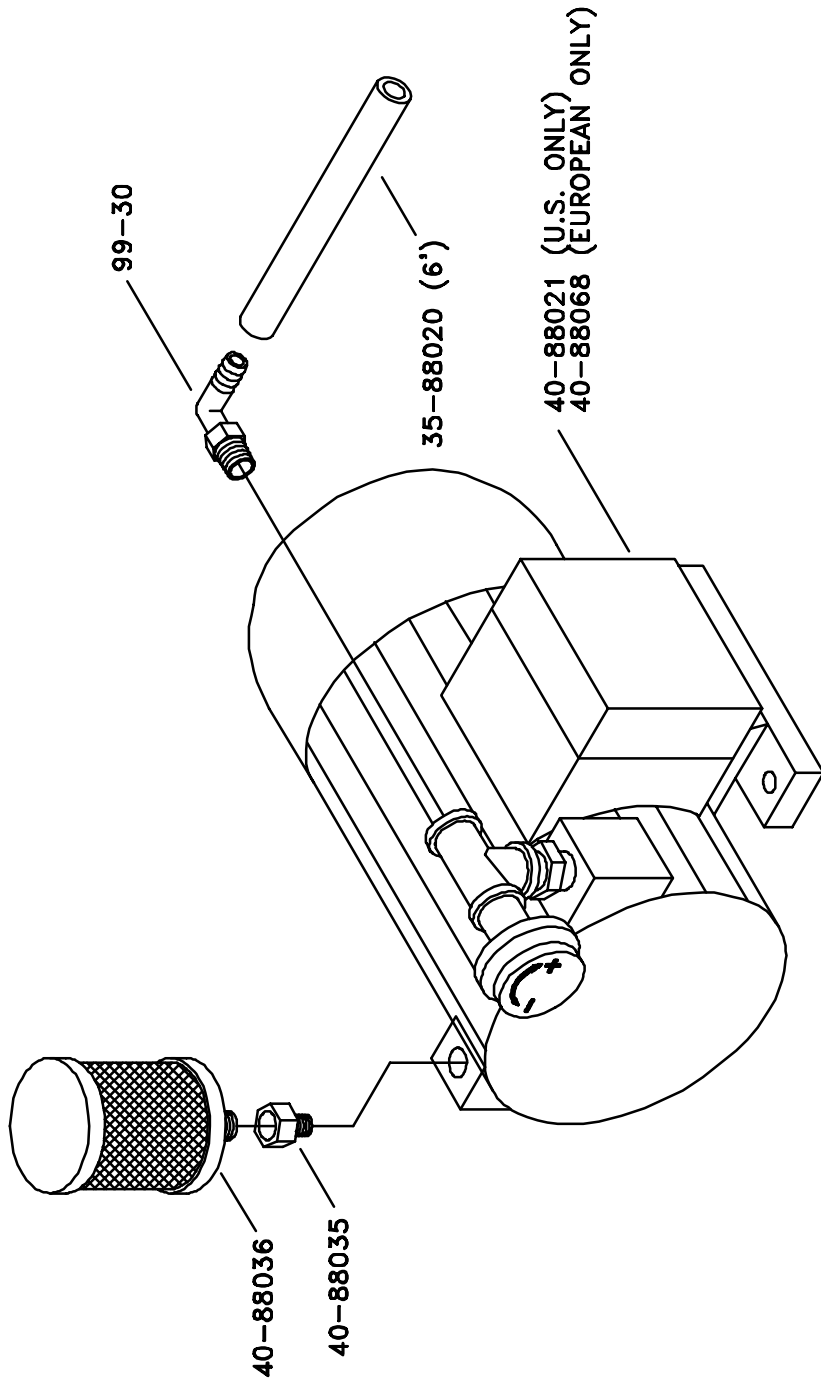


H234P32, 9-24-96

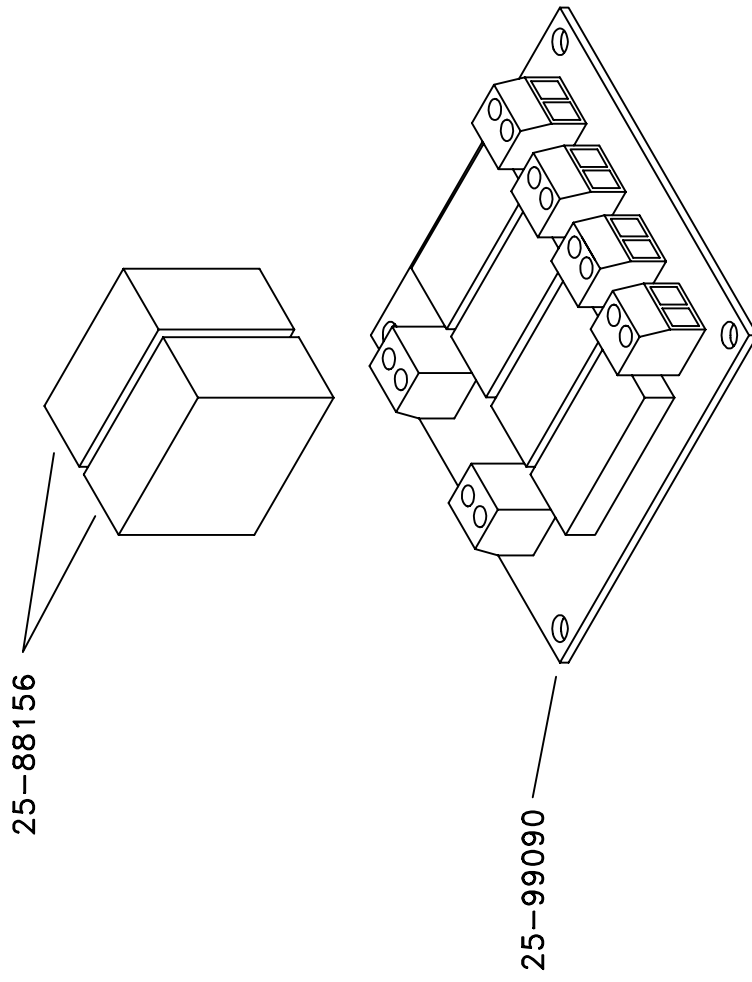




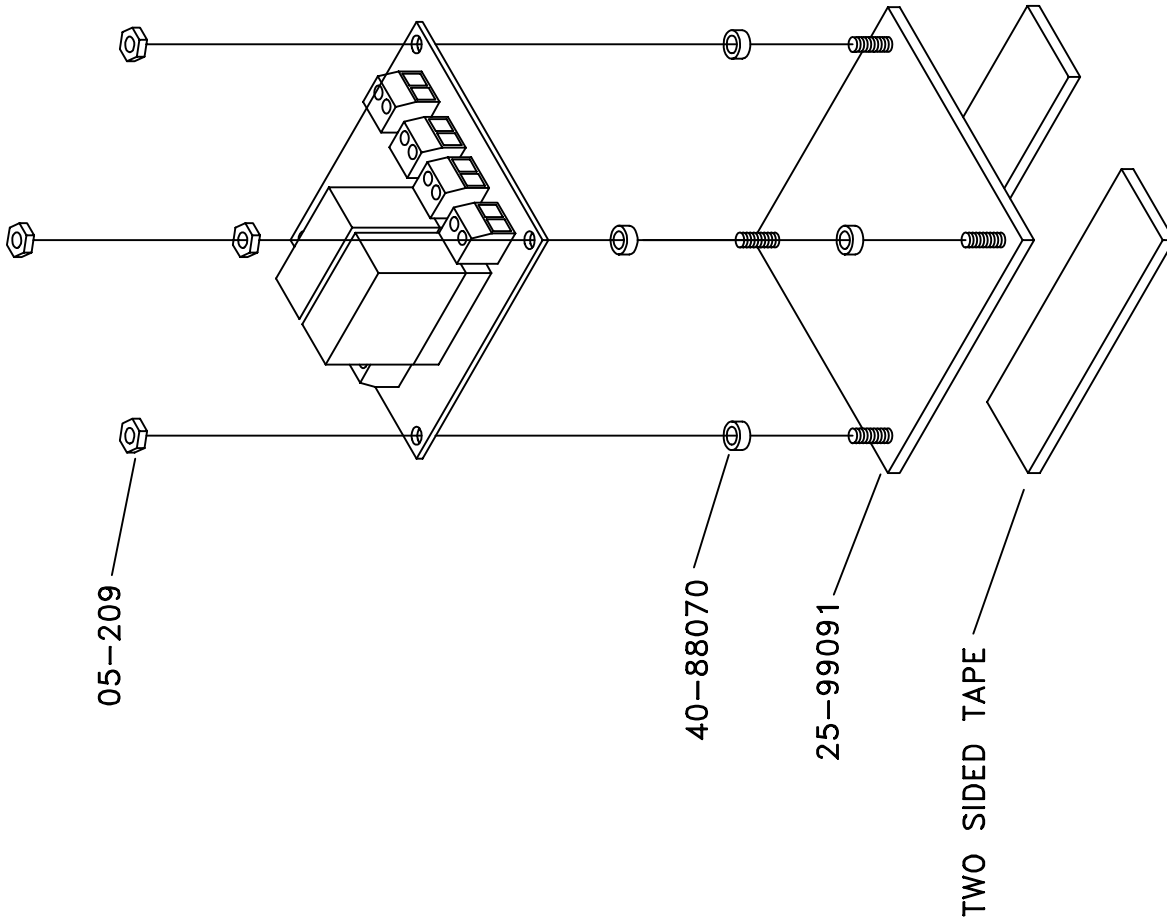
H234P34, 9-24-96

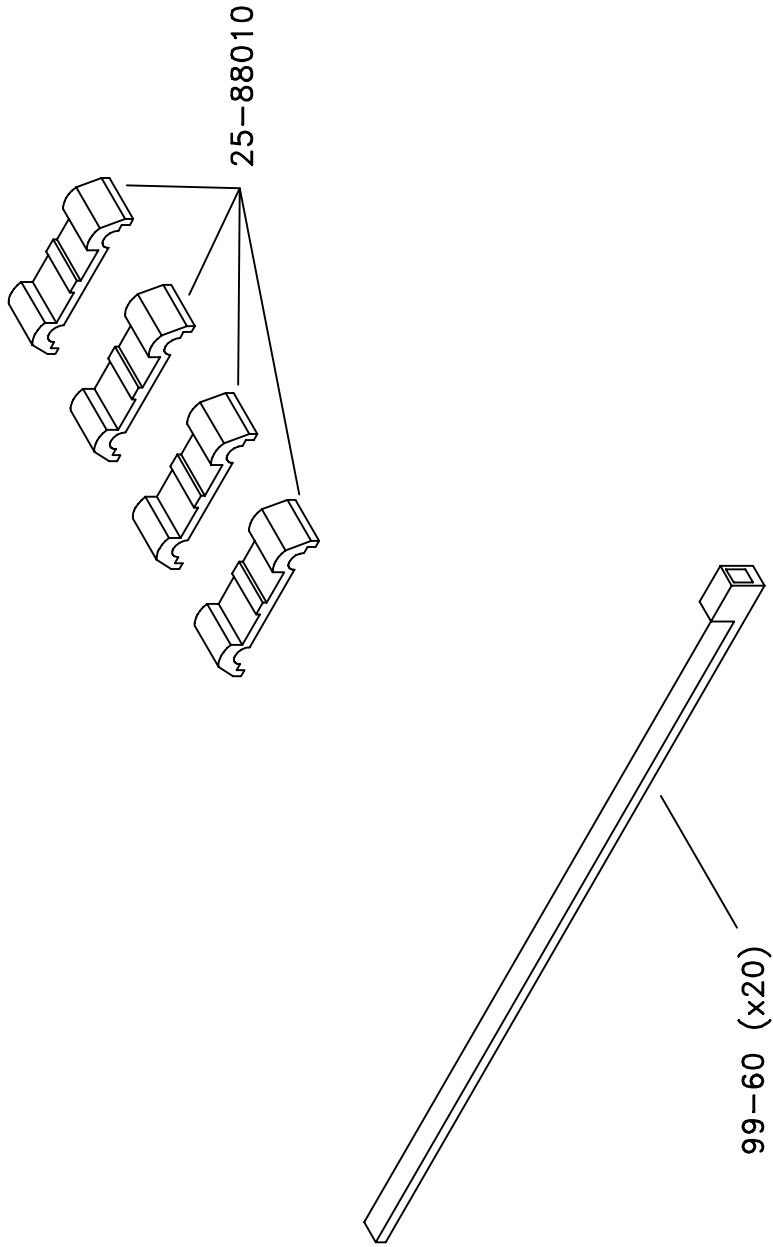


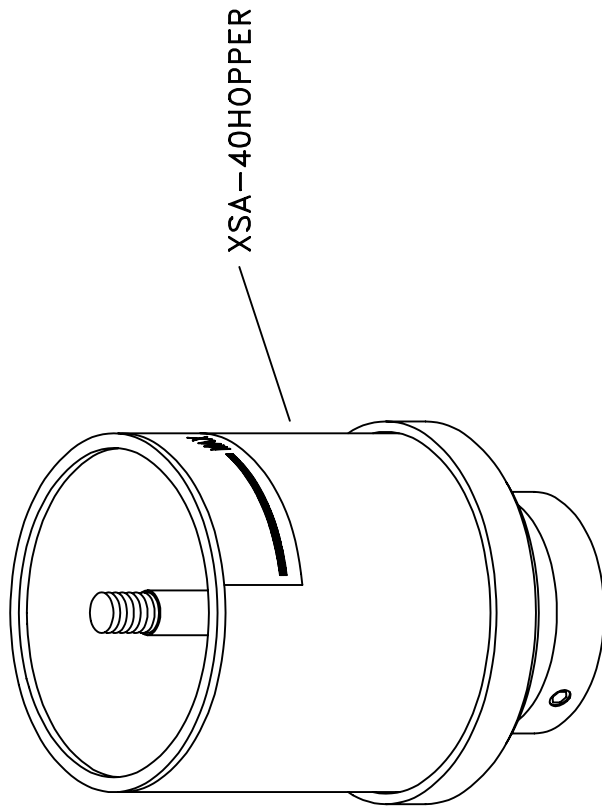
H234P35, 11-5-97



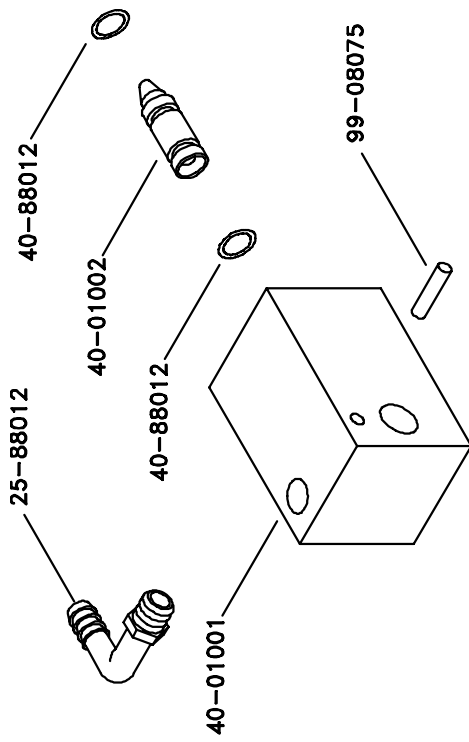
H234P44, 10-9-96



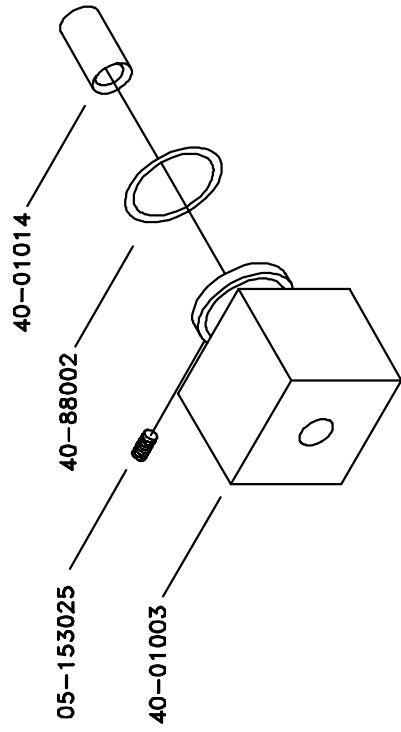






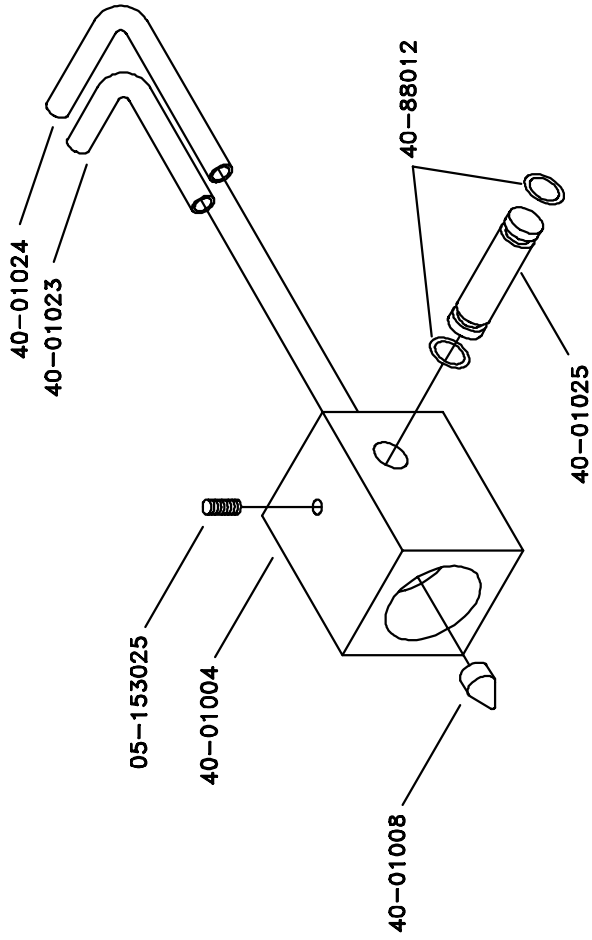


H234P01, 9-23-96

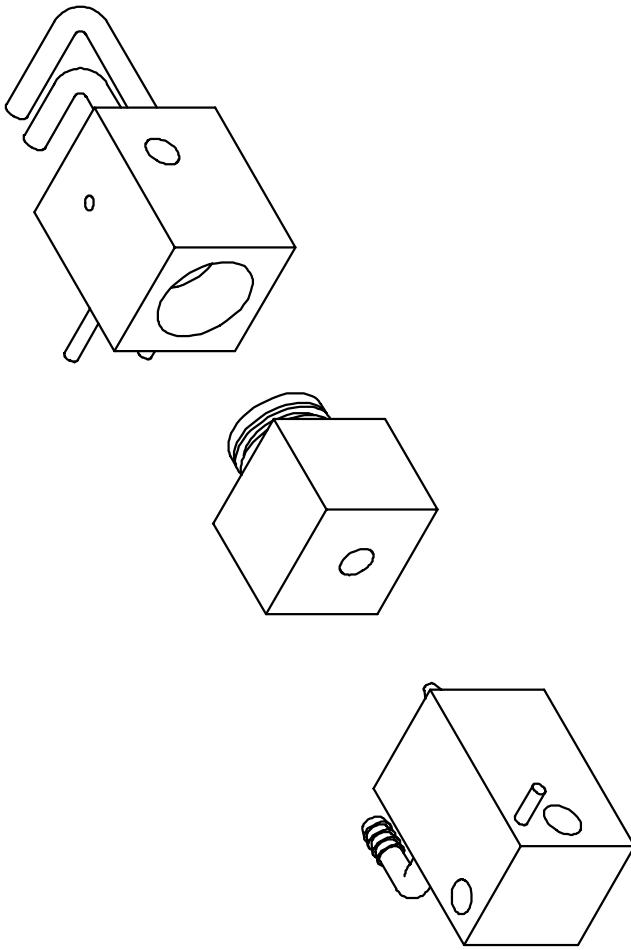


H234P02, 9-23-96

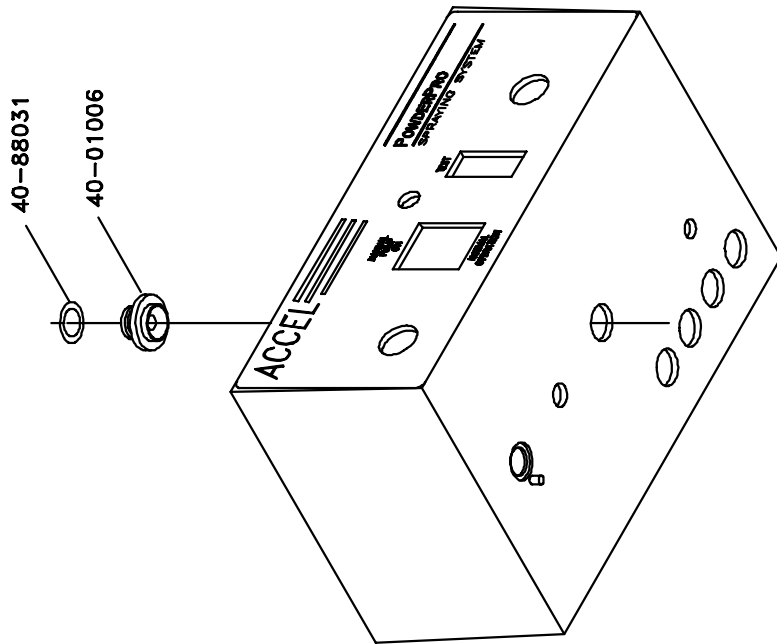
H234P03, 9-23-86



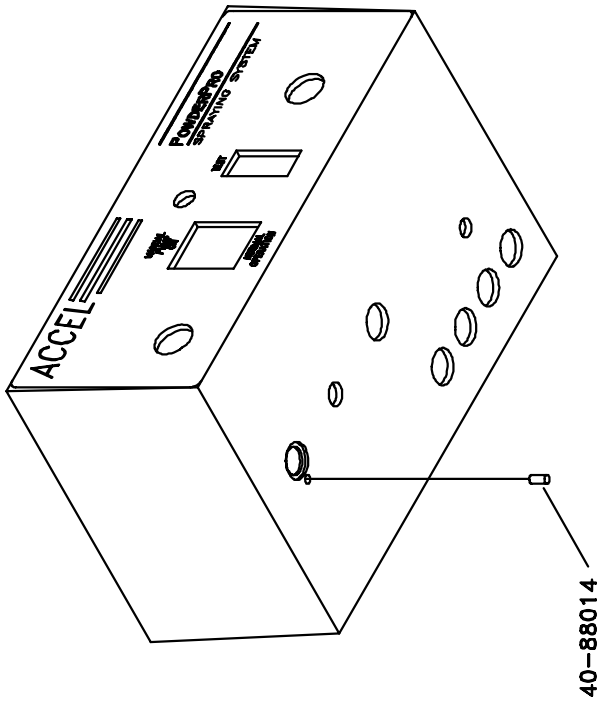
H234P04, 9-23-96



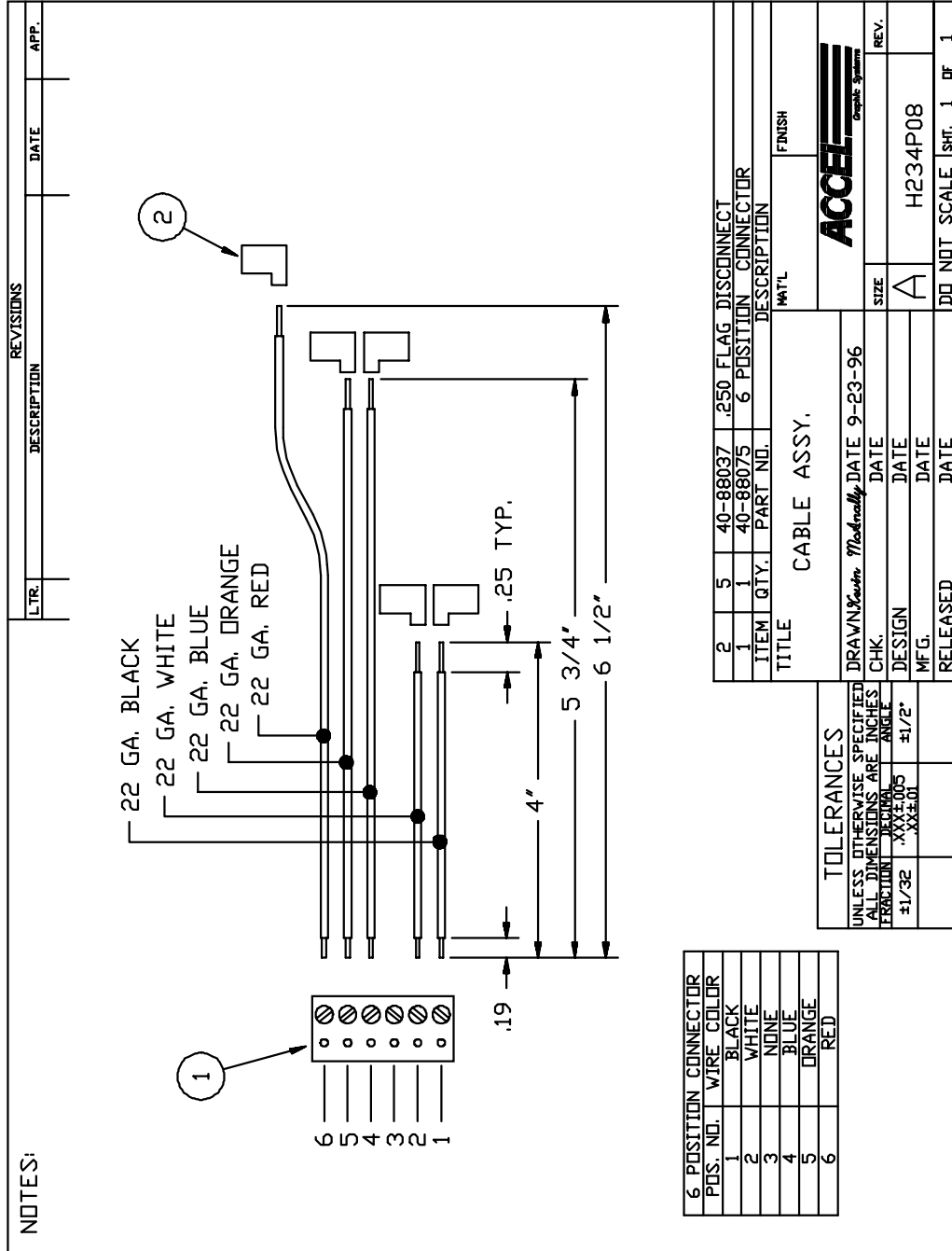




H234P06, 9-23-96



H234P07, 9-23-96



REVISIONS		DATE	APP.
LTR.	DESCRIPTION		

POS. NO.	WIRE COLOR
1	BLACK
2	WHITE
3	NONE
4	BLUE
5	ORANGE
6	RED

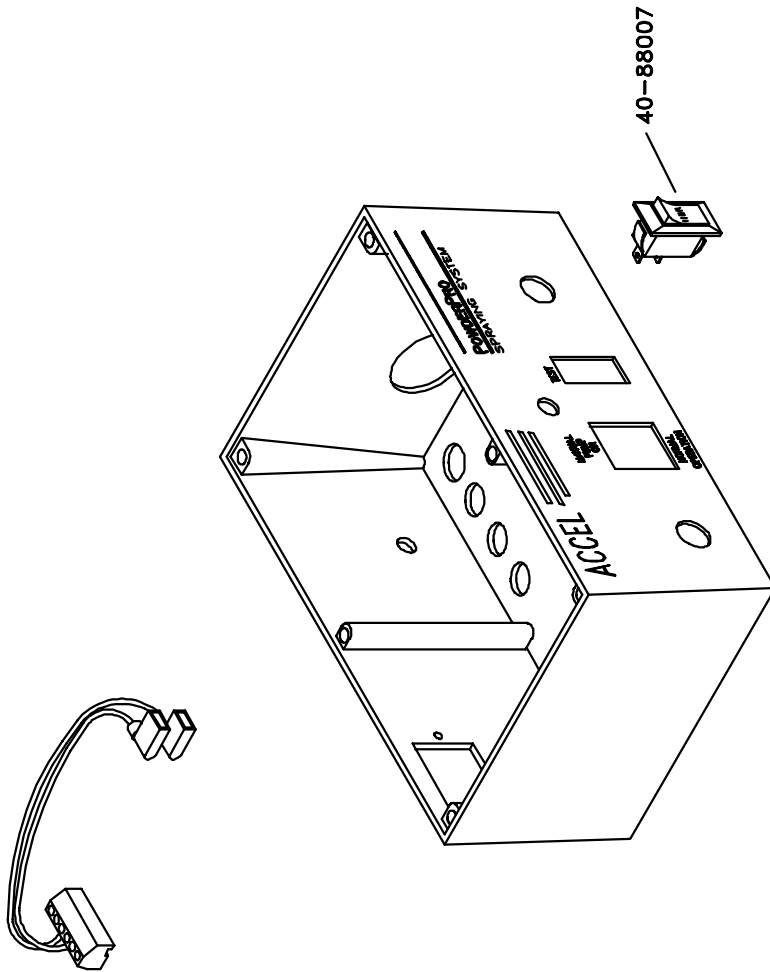
2	5	40-88037	.250 FLAG DISCONNECT
1	1	40-88075	6 POSITION CONNECTOR
ITEM	QTY.	PART NO.	DESCRIPTION
TITLE			FINISH
CABLE ASSY.			

TOLERANCES	
UNLESS OTHERWISE SPECIFIED	
ALL DIMENSIONS ARE IN INCHES	
FRACTION	DECIMAL
1/32	.03125
	.0625
	.125
	.25
	.5
	1

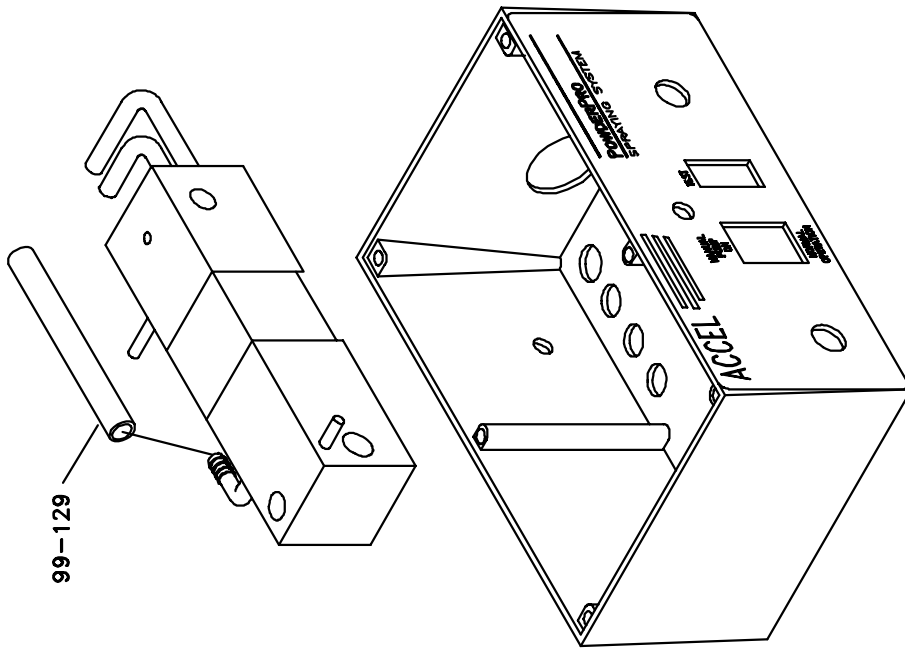
DRAWN <i>Kevin Madonally</i> DATE 9-23-96	
CHK.	DATE
DESIGN	DATE
MFG.	DATE
RELEASED	DATE
SIZE	A
REV.	H234P08
DO NOT SCALE	SHT. 1 OF 1



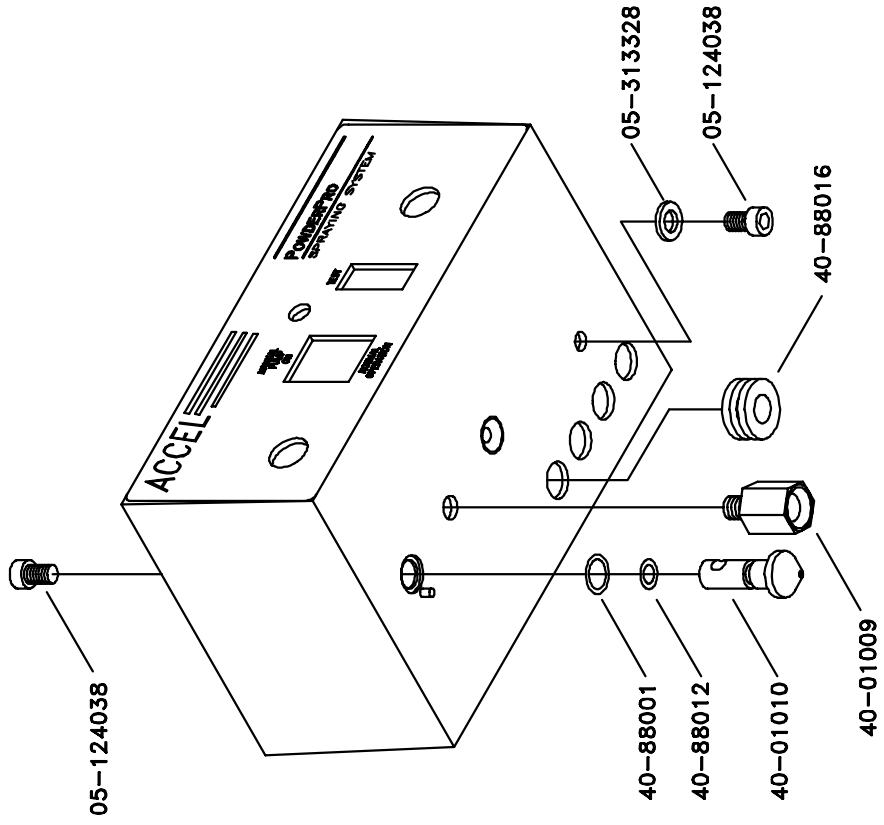




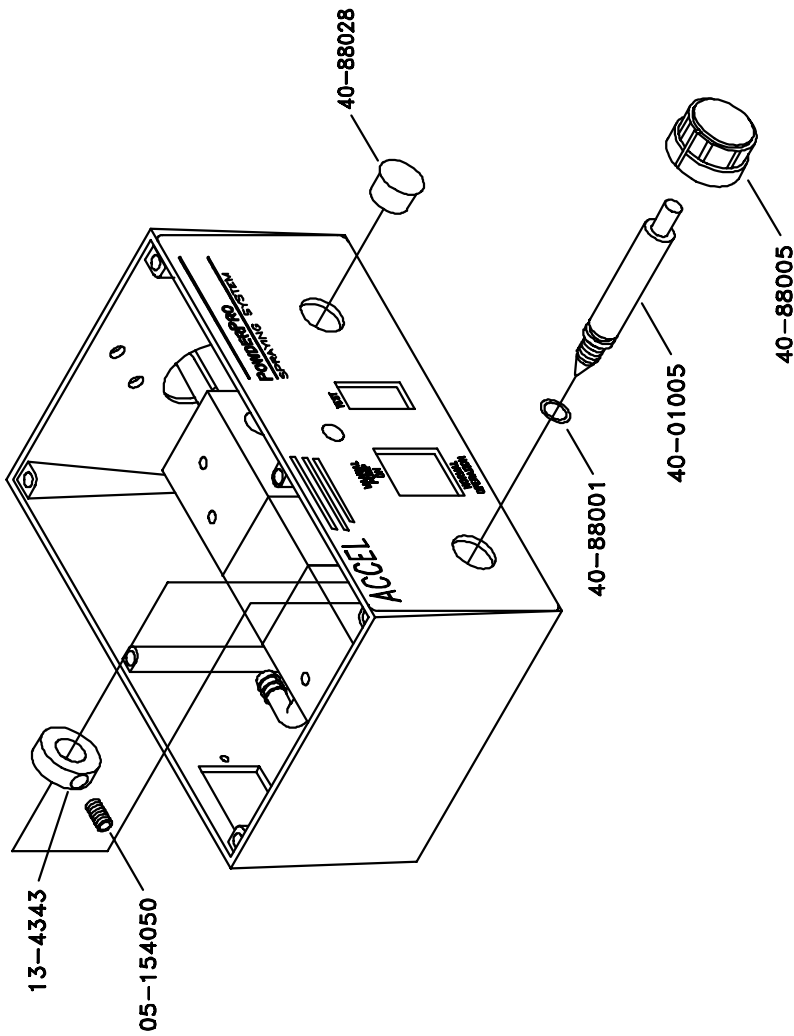
H234P11, 9-23-96



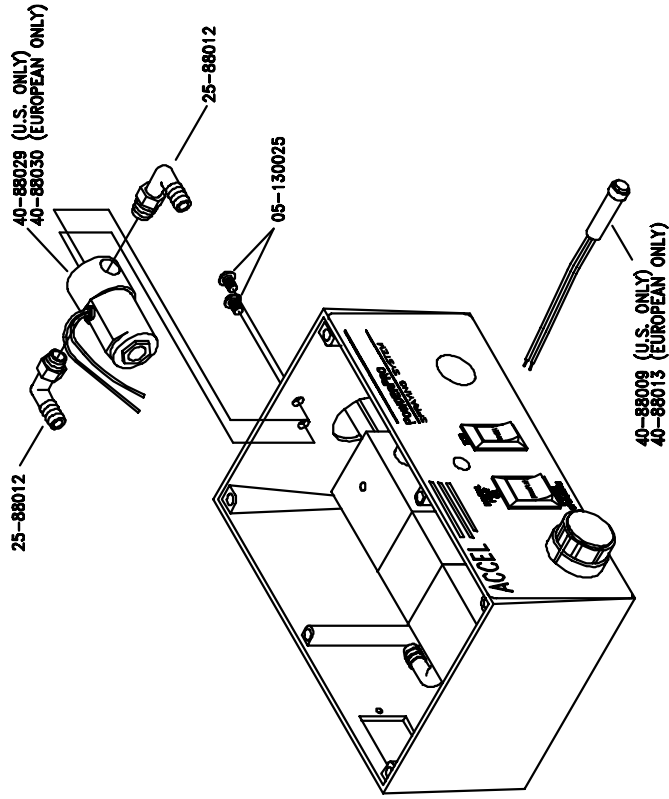
H234P12, 9-23-96



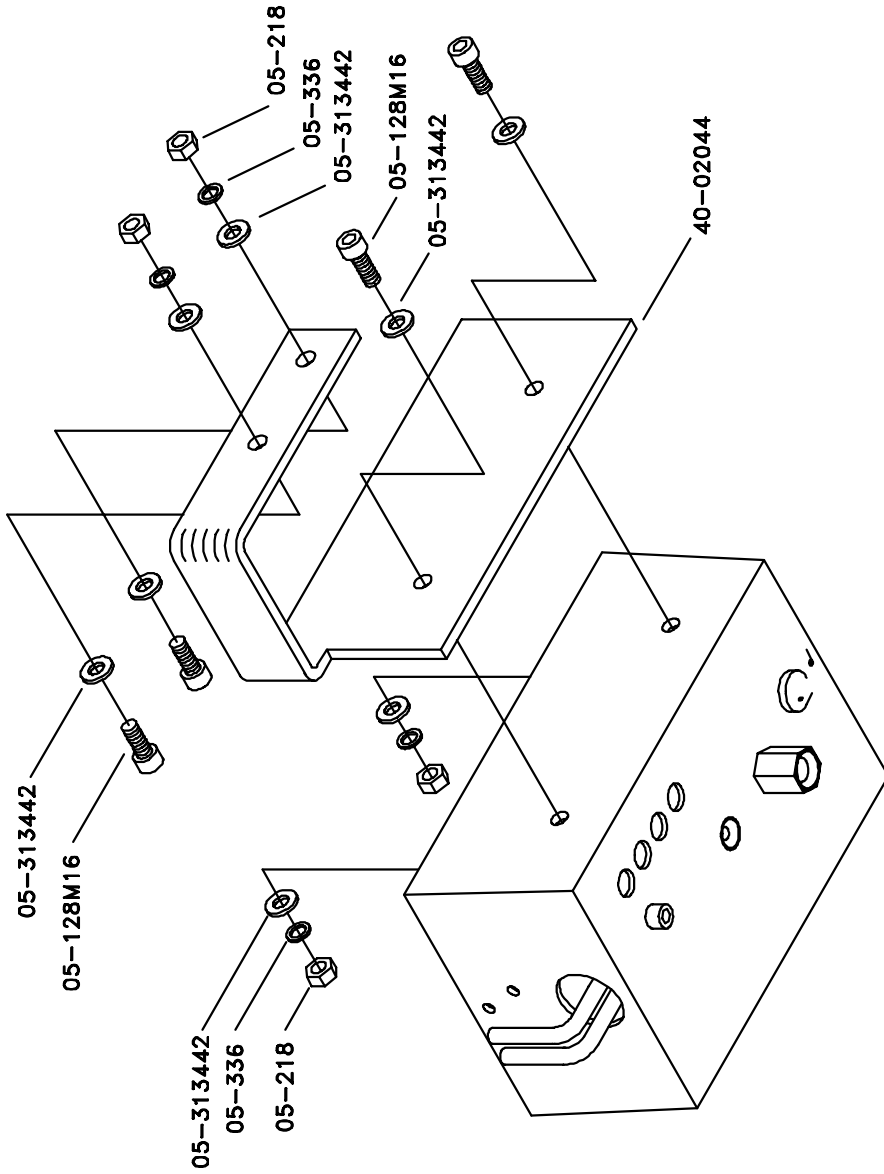
H234P13, 9-23-96



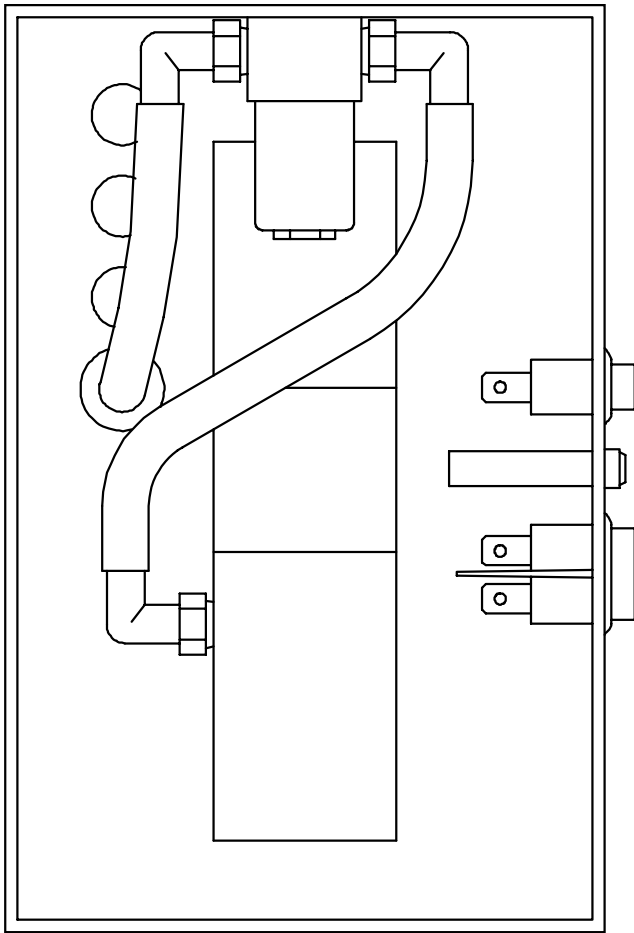
H234P14, 9-23-96



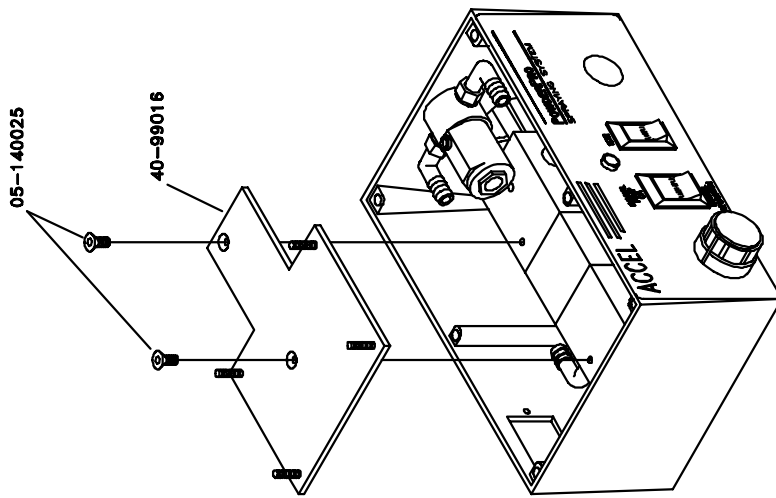
RS34P47, 11-5-97



H234P16, 9-23-96

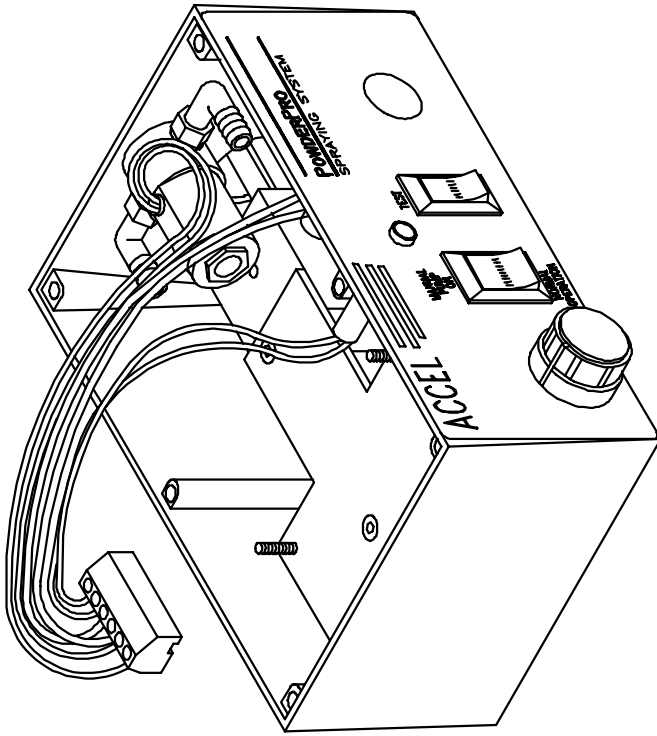


H234P17, 9-23-96



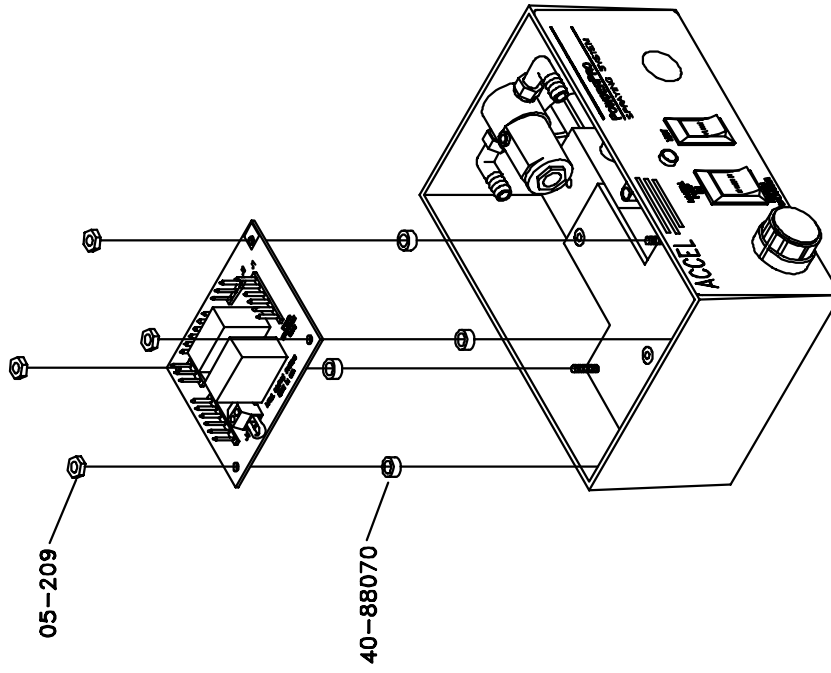
H234P18, 9-23-06

H234P19, 9-23-96





H234P21, 9-23-86



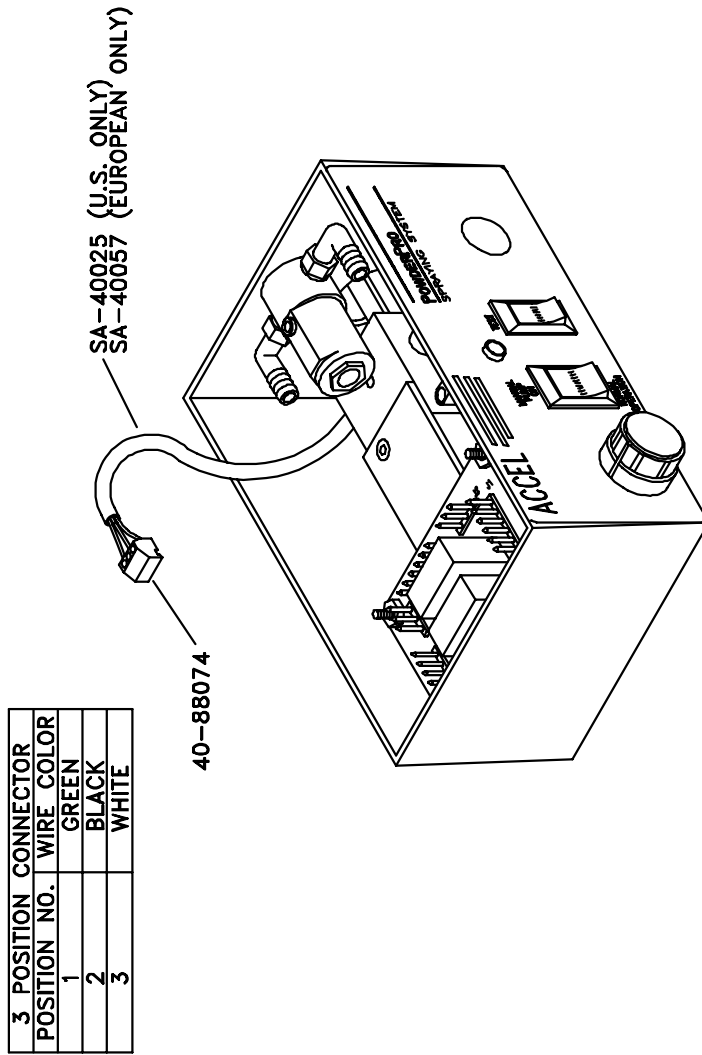
NOTES:		REVISIONS	
L.T.R.	DESCRIPTION	DATE	APP.

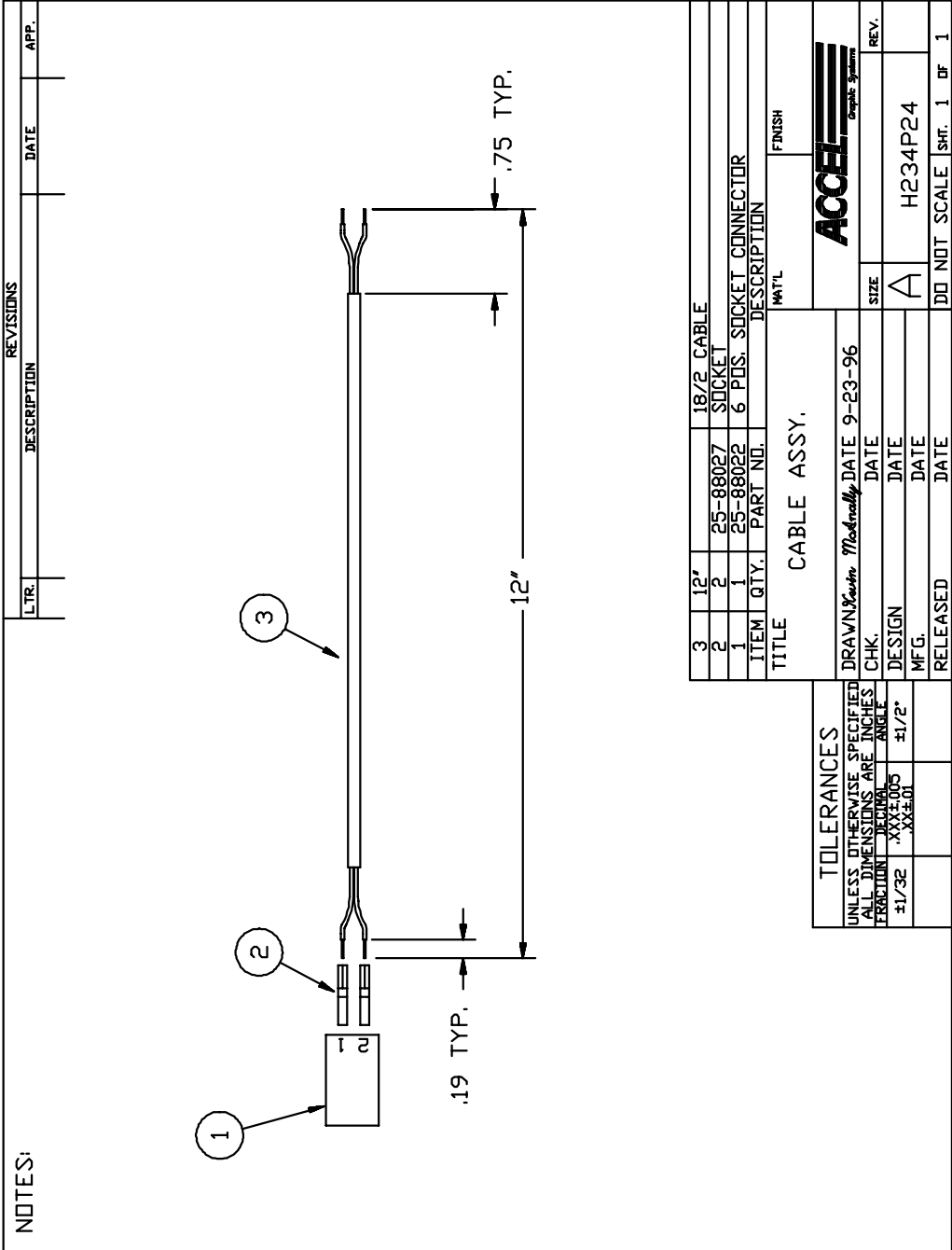
1	1	40-88071	POWER CORD	FINISH	
ITEM	QTY.	PART NO.	DESCRIPTION	MAT'L	
TITLE CABLE, TRIM DETAIL					
DRAWN		DATE		SIZE	REV.
CHK.		DATE		A	H234P22
DESIGN		DATE			
MFG.		DATE			
RELEASED		DATE		DO NOT SCALE	SHT. 1 OF 1

<b>TOLERANCES</b>	
UNLESS OTHERWISE SPECIFIED	
ALL DIMENSIONS ARE IN INCHES	
PRECISION	ANGLE
.XXX±.005	±1/2°
.XX±.01	



H234P25, 2-4-98

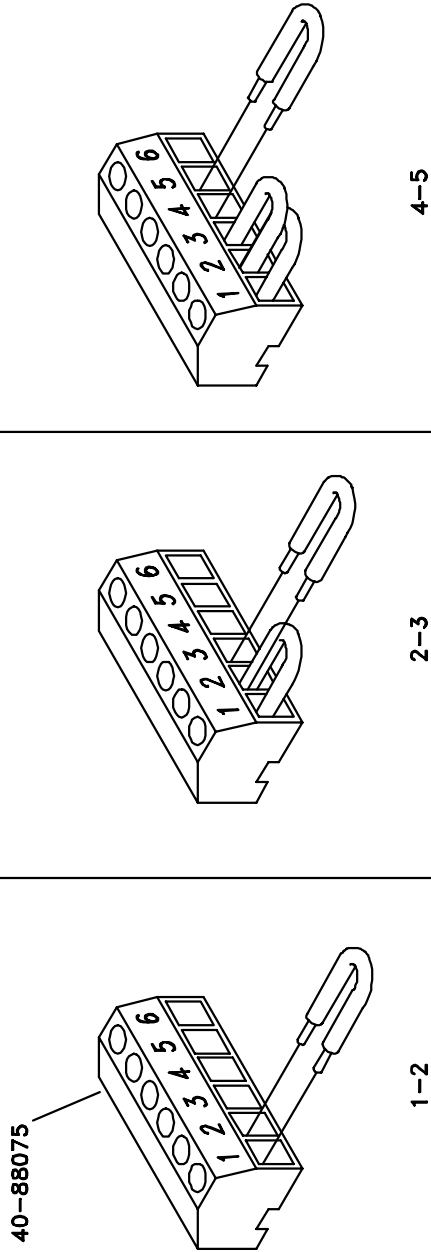


REVISIONS		DATE	APP.
L.T.R.	DESCRIPTION		

3	12'	18/2 CABLE	
2	25-88027	SOCKET	
1	25-88022	6 POS. SOCKET CONNECTOR	
ITEM	QTY.	PART NO.	DESCRIPTION
TITLE		MAT'L	FINISH
CABLE ASSY.			<b>ACCEL</b> <small>Depth System</small>
DRAWN	DATE	9-23-96	
CHK.	DATE		REV.
DESIGN	DATE		A
MFG.	DATE		H234P24
RELEASED	DATE		DO NOT SCALE
			SHT. 1 OF 1

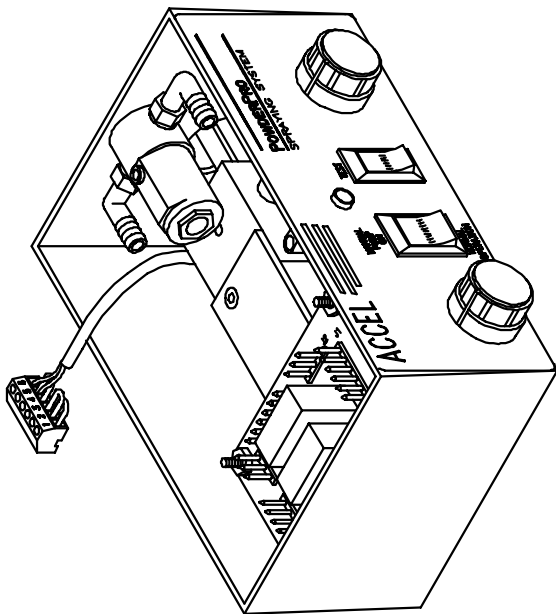
**TOLERANCES**  
UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS ARE IN INCHES

FRACTION	DECIMAL	ANGLE
1/32	.XX±.015	±1/2°
	.XX±.01	

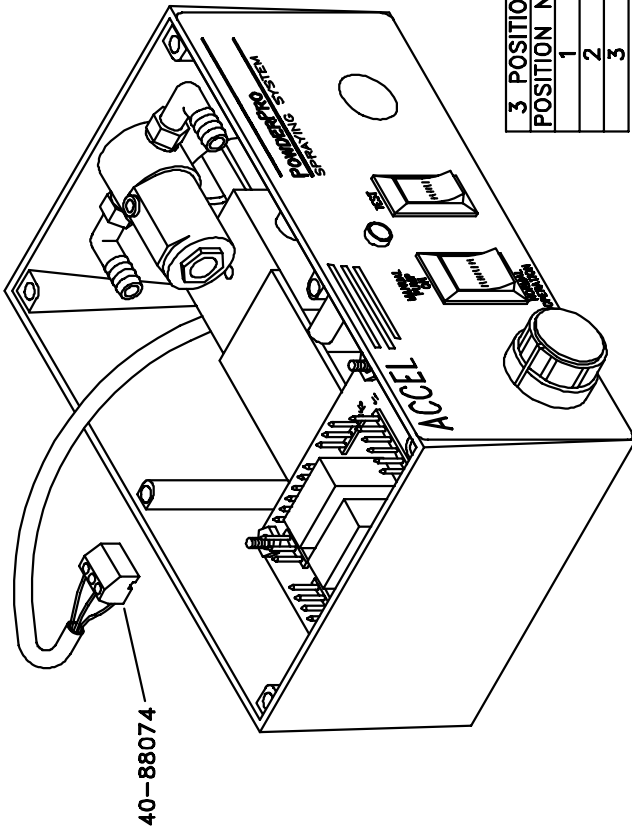


H234P25, 9-23-96

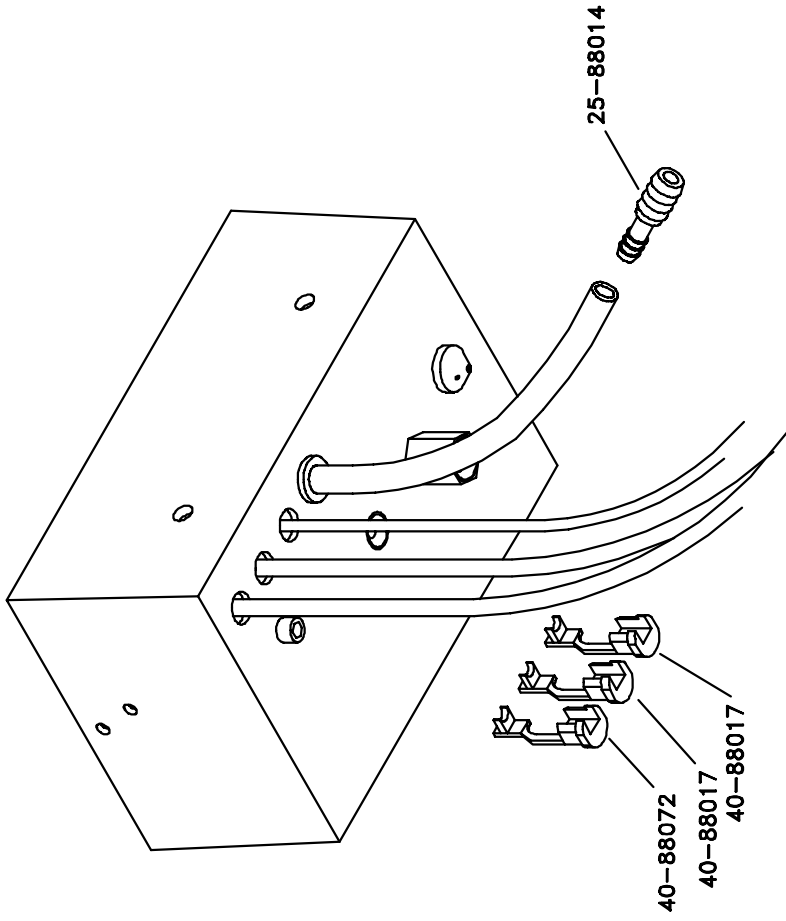
H234P26, 9-23-96



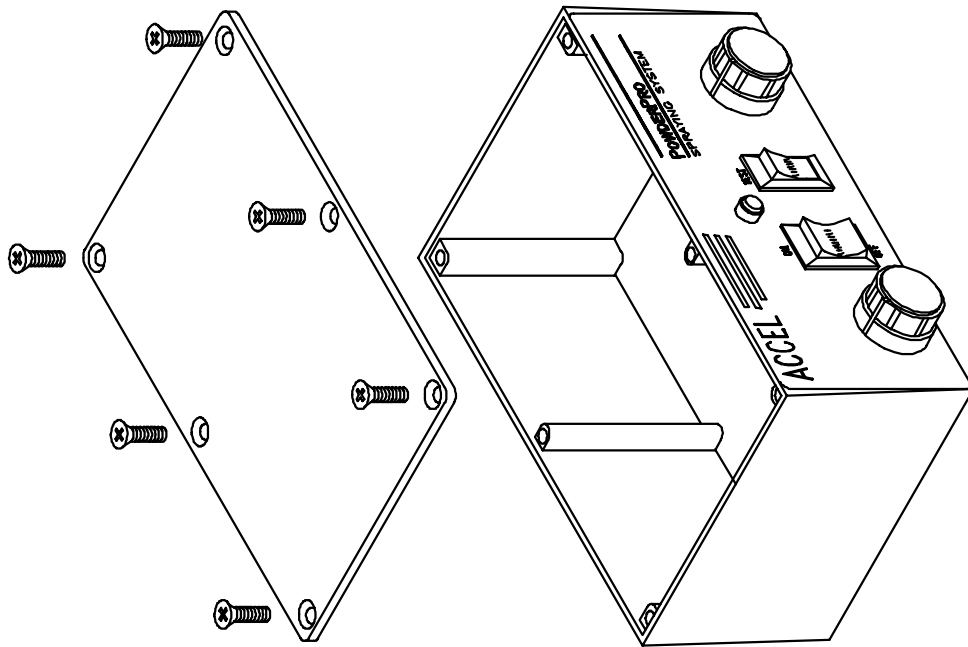




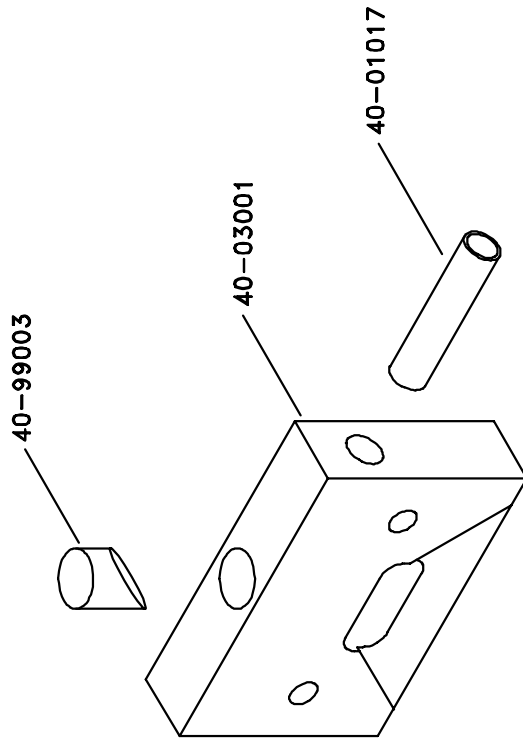
H234P28, 9-23-96



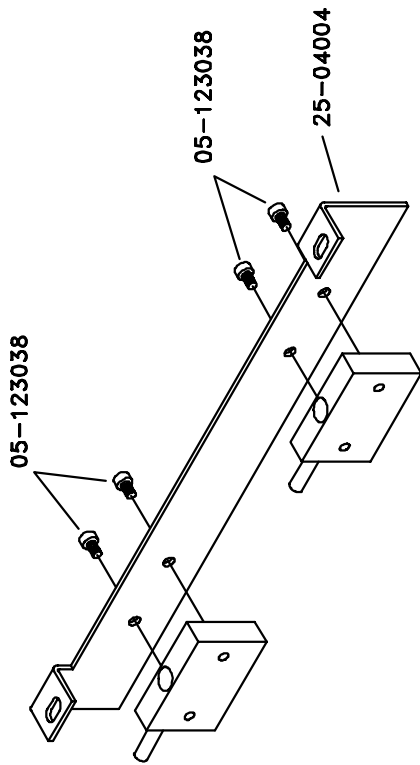
H234P29, 9-23-96



H234P30, 9-23-96

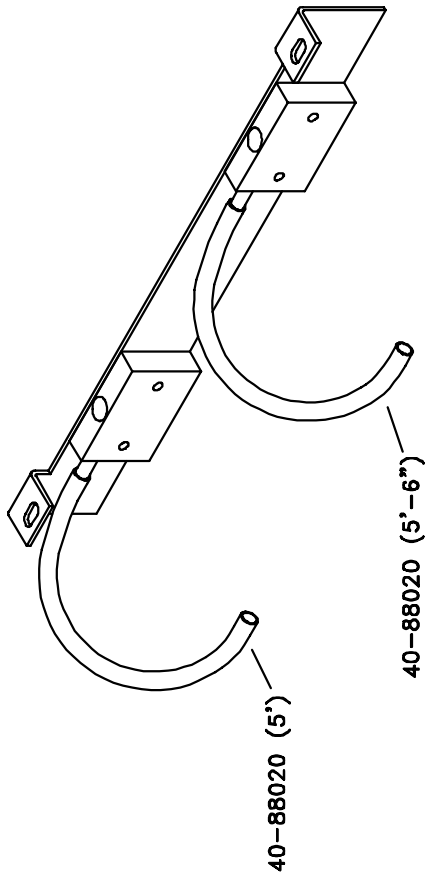


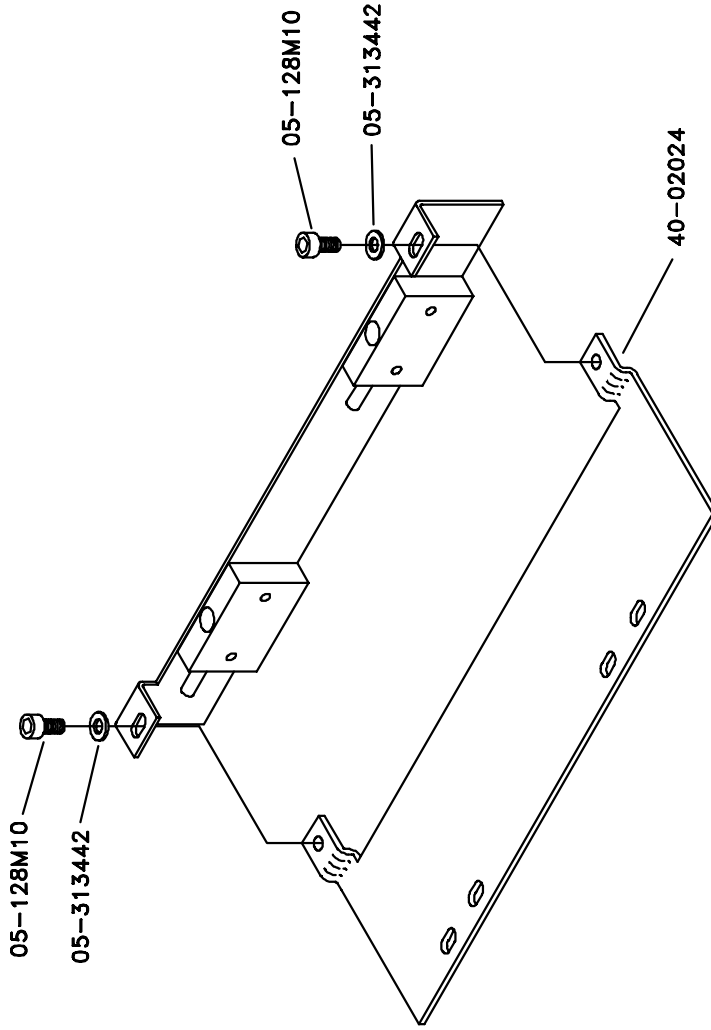
H234P31, 9-24-96



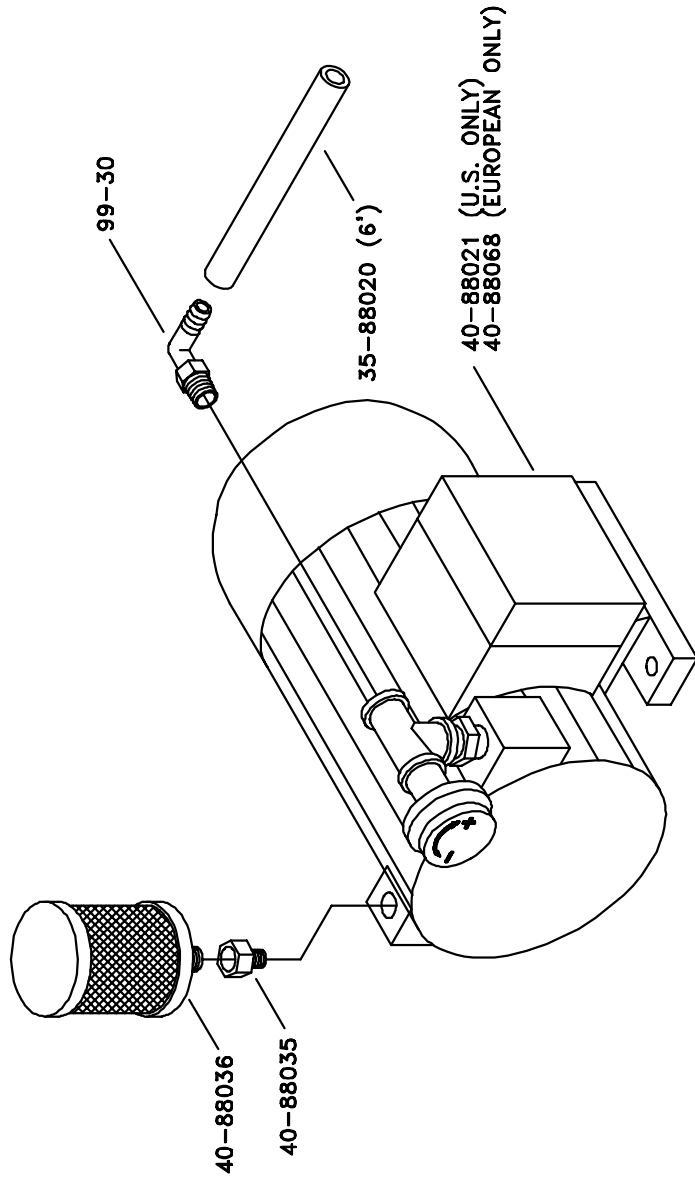
H234P32, 9-24-96

HE34P33, 9-24-96





H234P16, 9-24-96



H234P35, 11-5-97

NOTES:

REVISIONS		DATE	APP.
L.T.R.	DESCRIPTION		

3 POSITION CONNECTOR	
PIN NO.	WIRE COLOR
1	BLACK
2	WHITE
3	GREEN

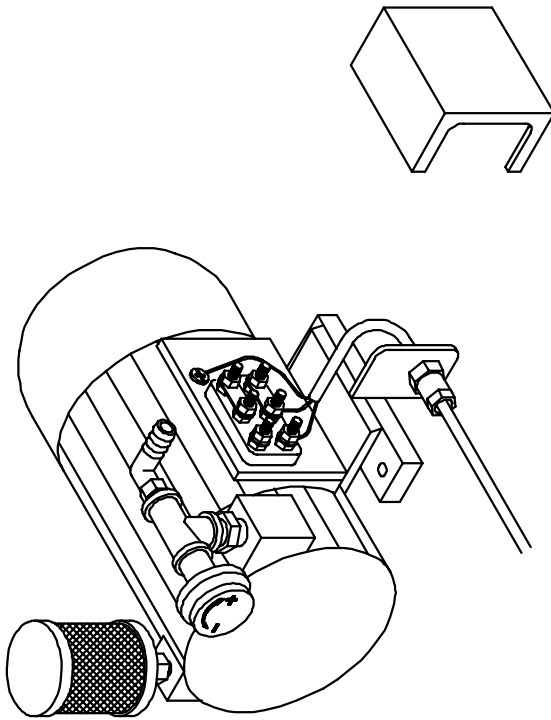
3	5'	18/3 CABLE			
2	3	25-88028 SOCKET			
1	1	40-88049 3 POS. SOCKET CONNECTOR			
ITEM	QTY.	PART NO.	DESCRIPTION	MAT'L	FINISH
TITLE CABLE ASSY.					
DRAWN <i>Kevin Madhally</i> DATE 7-30-96					
CHK.	DATE	DATE	DATE	DATE	REV.
DESIGN	DATE	DATE	DATE	DATE	A
MFG.	DATE	DATE	DATE	DATE	RS34P61
RELEASED	DATE	DATE	DATE	DATE	DO NOT SCALE SHT. 1 OF 1

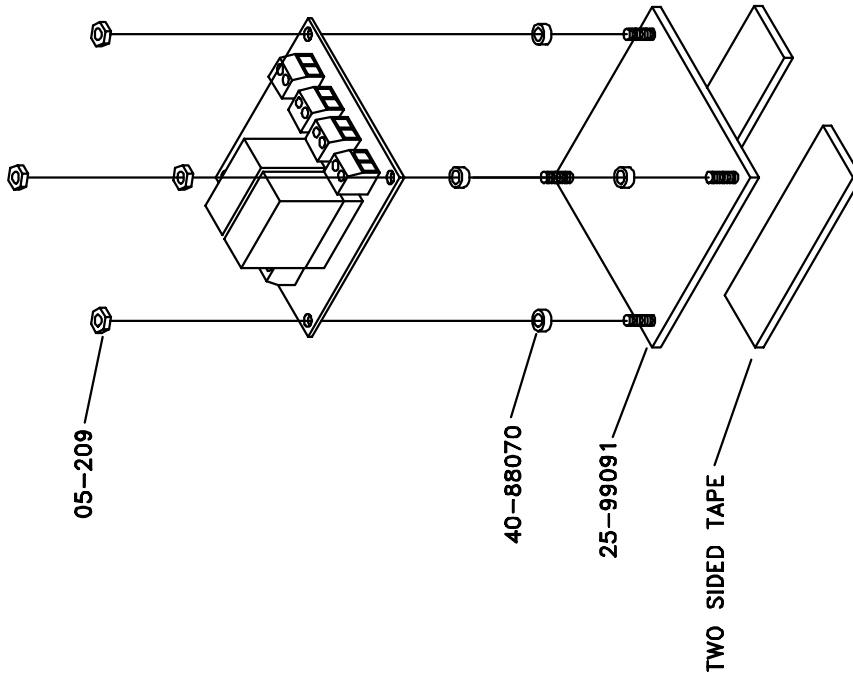
**TOLERANCES**

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS ARE IN INCHES

FRACTION	DECIMAL	ANGLE
1/32	.XXX±.005	±1/2°
	.XX±.01	

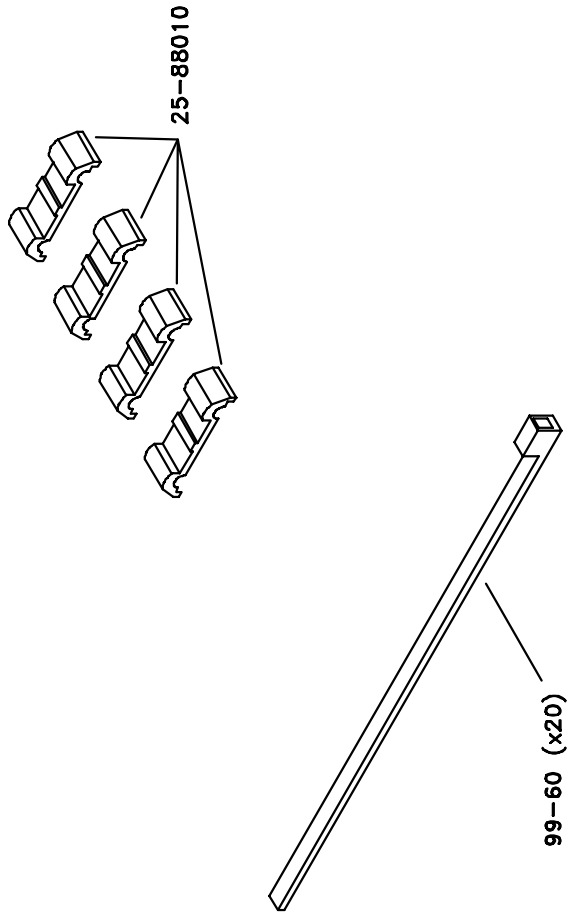
H234P37, 9-24-96

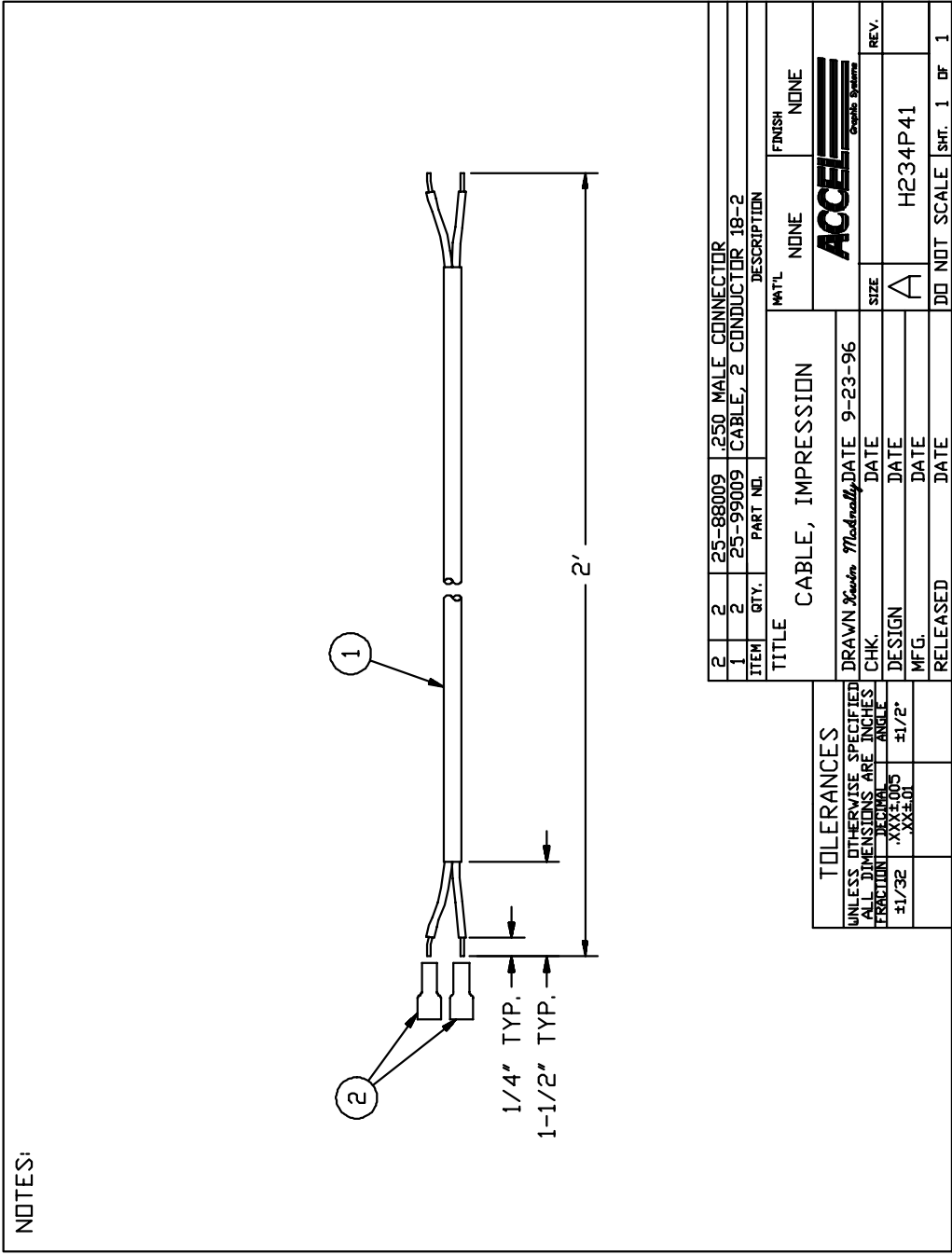




H234P39, 9-23-96

H234P40, 9-24-96



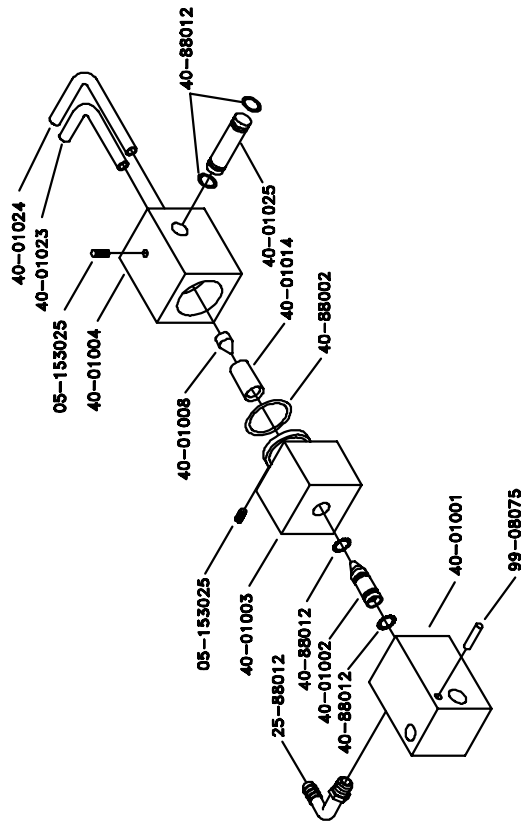


NOTES:

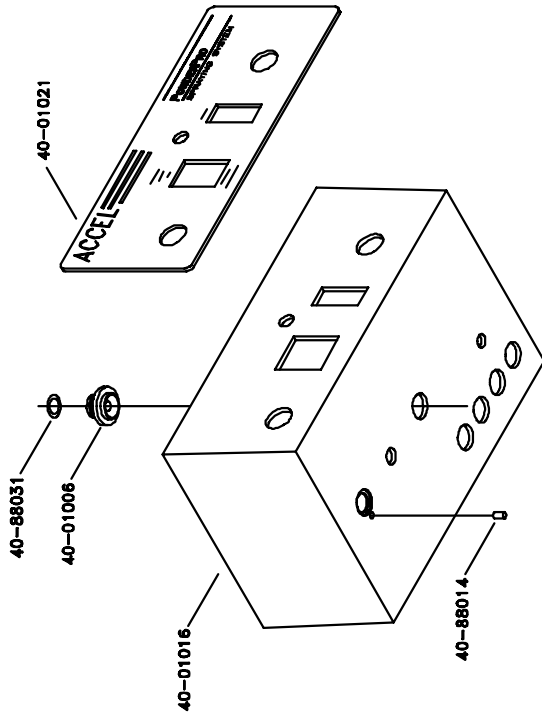
2	2	25-88009	.250 MALE CONNECTOR
1	2	25-99009	CABLE, 2 CONDUCTOR 18-2
ITEM	QTY.	PART NO.	DESCRIPTION
TITLE		MAT'L	FINISH
CABLE, IMPRESSION		NONE	NONE
DRAWN <i>Kevin Madhally</i>		DATE	9-23-96
CHK.	DATE	SIZE	REV.
DESIGN	DATE	A	H234P41
MFG.	DATE	DO NOT SCALE	SHT. 1 OF 1
RELEASED	DATE		

TOLERANCES	
UNLESS OTHERWISE SPECIFIED	
ALL DIMENSIONS ARE INCHES	
FRACTION	DECIMAL
1/32	.003125
	.00625
	.0125

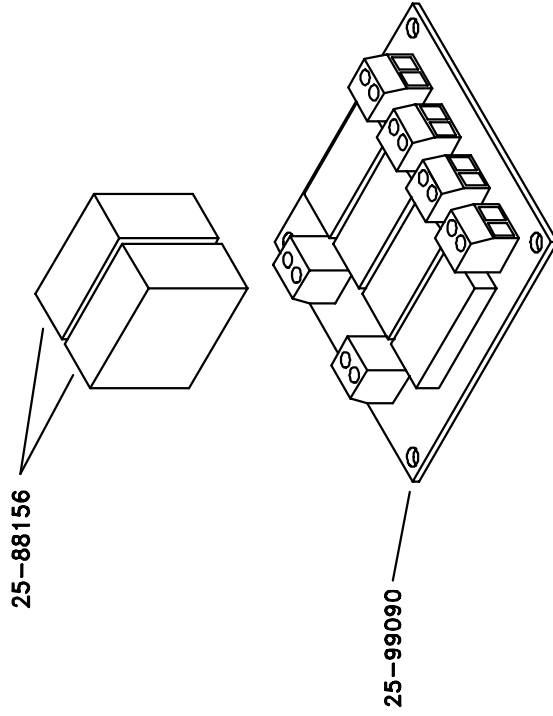
ACCEL	Graphs Systems
-------	----------------



1036745, 10-1-98



REVISED 10-1-98



H234P4, 10-9-96



**ACCEL**  <sup>®</sup>  
*Graphic Systems*

11103 Indian Trail, Dallas, TX 75229 Phone 972-484-6808, Fax 800-365-6510  
E-Mail [accel@dallas.net](mailto:accel@dallas.net), Web Site [www.accelgraphicsystems.com](http://www.accelgraphicsystems.com)