



## MANUFACTURING PROCESS INSTRUCTIONS

**Product Number:**  
5005022

**Revision:**  
02

**Product Description:**  
Quad Feeder Half Fold,  
Feeder #3, Interface - 3

**Date:** 02-18-99

**MP Release #:**  
P8

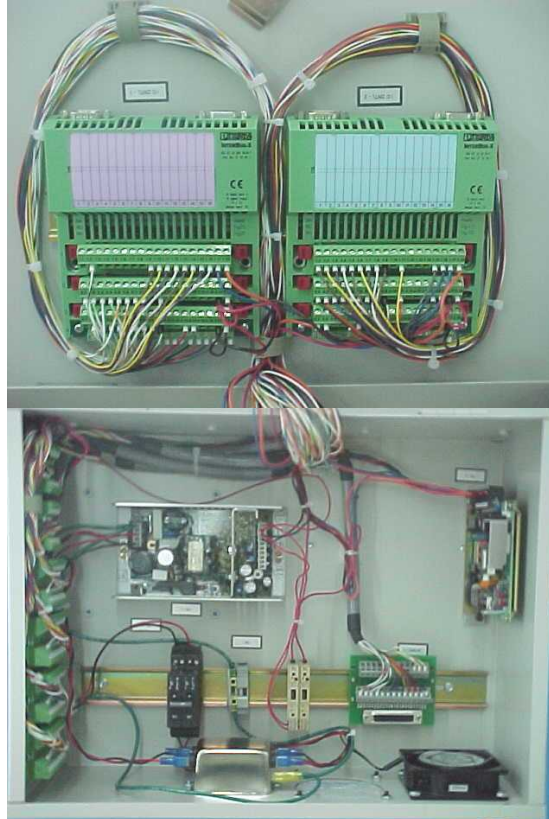
[Assembly](#)   [Inspection](#)   [Pack](#)   [Visual Aid](#)

### Revision / ECO History

Release	Reason for Change	EC No.	Author	Date
P	Preliminary	-	Russ Phillips	11-5-98
P1	Changes to format and wording only.	-	R. Phillips	02-18-99
P2	Major revisions	-	A. Hauser	04-30-99
P3	230, 300, 310, 370, 380, 390, BH5022-09, BH5022-10, Wiring Diagram, BH5022-11	-	A. Hauser	05-12-99
P4	210, 220, 240, 290, 320, 360, 380, Wiring Diagram	-	A. Hauser	05-24-99
P5	Final Inspection Criteria	-	T. Davis	08-05-99
P6	050, 260, 270	-	R. Creasey	08-20-99
P7	220, 240, 290, 300, 320, 330, 360, 370, 380, 400	00001	R. Creasey	01-19-00
P8	Torque Standardization, Add 135	-	T. Davis	02-24-00

### Bill of Materials

<Electronic Link to ERP>





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## Work Cell A

ESD: <b>Yes</b>	Eye Protection: <b>Yes</b>	Ear Protection: No
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Tool List	Part Number	Setting
1/4" 1/4" Drive Socket	N/A	N/A
1/4" Drive Hex Adaptor	N/A	N/A
1/16" 1/4" Drive Socket Allen Bit	N/A	N/A
3/32" 1/4" Drive Socket Allen Bit	N/A	N/A
5/16" 1/4" Drive Socket	N/A	N/A
9/64" 1/4" Drive Socket Allen Bit	N/A	N/A
Crimper	Phoenix 1203615	N/A
Crimper	AMP Pro-Crimper	18-16
Crimper	VarioCrimp 4	24-12
Heat Gun	N/A	Low
Manual Torque Driver	Sturdevant Richmond CAL 36/4	12 in. lbs.
Phillips Bit #1	N/A	N/A
Pliers	N/A	N/A
Snips	N/A	N/A
Soldering Iron	N/A	N/A
Wire Stripper	N/A	N/A

### Assembly

- 010 Visually inspect all parts prior to assembly. Any damaged parts should be placed in Reject Bin and turned in to QA.
- 020 Place **P53800 Grommet** in hole on 2812564 I/O Panel.
- 030 Mount **P14905 Handle** to the I/O Panel using (2) **P10527** Screws. Torque to 12 in-lbs.
- 040 Mount **BH5022-01 Fan Assembly** to the inside of I/O Panel so that air flow is drawn into the panel. Secure using the following hardware stack-up (typical 4 places):

- BH632112** Screw
  - P53824** Fan Screen
  - 2812564** I/O Panel
  - P53823** Fan
  - P10534** Flat Washer
  - P53273** Hex Nut
- Torque to 4 in-lbs.



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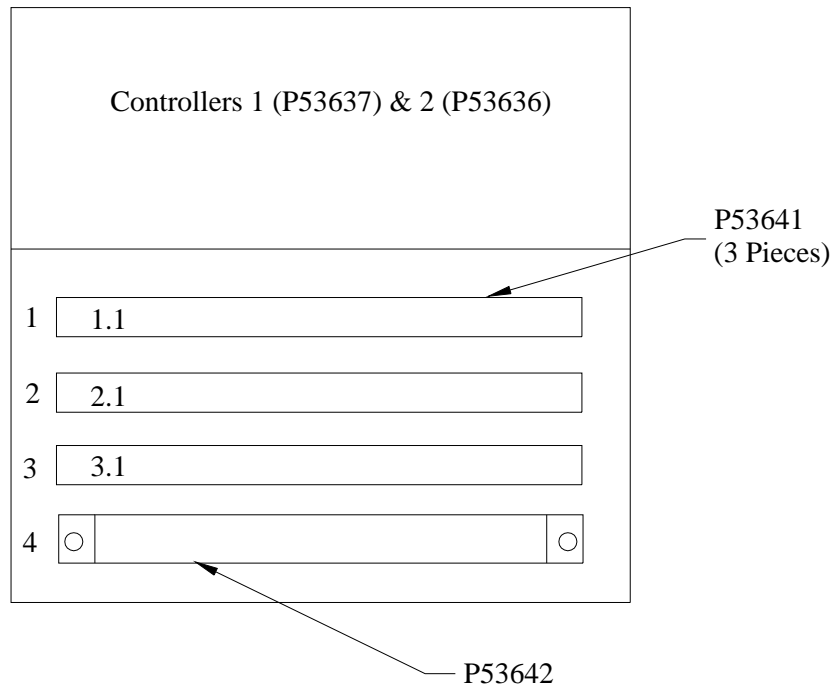
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<b>Date:</b> 02-18-99	<b>MP Release #:</b> P8

050 Secure other **P53824** Fan Screen using the following hardware stack-up (typical 4 places):

- |                  |              |                     |
|------------------|--------------|---------------------|
| <b>BH632112</b>  | Screw        | Torque to 4 in-lbs. |
| <b>P53824</b>    | Fan Screen   |                     |
| <b>2812564</b>   | I/O Panel    |                     |
| <b>BH5022-01</b> | Fan Assembly |                     |
| <b>P10534</b>    | Flat Washer  |                     |
| <b>P10516</b>    | Hex Nut      |                     |

060 Mount [2813068 DIN Rail](#) to interior of Panel door (use existing mounting studs). Secure using (2) **P10516** KEP Nuts. Torque to 12 in-lbs.

070 Mount (2) [Controller Assemblies](#) (see below) to **2813068** DIN Rail . Separate Controllers so that their outside edges are flush with the ends of DIN Rail .



Notes:

1. Mount Terminal Strips 1, 2, and 3 as shown.
2. Mount Terminal Strip 4 with screws provided using a #1 Phillips bit at 8 in-lbs.

080 Mount [2813805 DIN Rail](#) on mounting studs located inside the I/O Panel. Secure using (2) **P10516** KEP Nuts. Torque to 12 in-lbs.



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<b>Date:</b> 02-18-99	<b>MP Release #:</b> P8

- 090 Mount [BH5022-03 Interface - 1 Cable Assembly](#) on existing studs located on I/O Panel interior [Interface 1](#). Secure using the following hardware stack-up (typical 2 places): **P10493** Lock Washer, **P10492** Hex Nut. Torque to 4 in-lbs. Connect free ends of cable to Controller – 1 per [Wiring Diagram](#).
- 100 Mount [BH5022-04 Interface – 2 Cable Assembly](#) on I/O Panel interior at [Interface 2](#) location. Secure using same procedure and hardware stack-up described in Step 090 above. Connect free ends of cable to Controller – 1 per [Wiring Diagram](#).
- 110 Mount [BH5022-05 Interface – 3 Cable Assembly](#) on I/O Panel interior at [Interface 3](#). Secure using same procedure and hardware stack-up described in Step 090 above. Connect free ends of cable to Controller – 1 and Controller – 2 per [Wiring Diagram](#).
- 120 Mount [BH5022-06 Interface – 4 Cable Assembly](#) on I/O Panel interior at [Interface 4](#). Secure using same procedure and hardware stack-up described in Step 090 above. Connect free ends of cable to Controller – 1 and Controller – 2 per [Wiring Diagram](#). Be sure to add black jumper between 2.8 and 2.9 I/O Control 2.
- 130 Assemble the Cable (**P53701**) for [INTERFACE 5 & INTERFACE 6](#). INTERFACE 5 is Male and INTERFACE 6 is Female.
- 135 Wire in following Cable Assemblies to the I/O CONTROL, INTERFACE 5 and INTERFACE 6

Cut 12 ft of the **P53553**, 6/c, 24 AWG Cable. Strip one end of the cable jacket 12" and apply 1" heat shrinking tube. Cut unused wires flush with the jacket. Label the end of the cable, which is outside of the box, POWER BOX.


Cut (1) piece of **P51169**, Red, 20 AWG wire, to 20" in length. Strip 3/16" of insulation from both ends. Crimp one end of the Red wires into a **P53279** white ferrule and the other end into Molex Connector.

Cut 50" of the **P53553**, 6/c, 24 AWG Cable. Strip the cable jacket 4" on end 1 and 3" on end 2. Cut unused wires flush with the jacket. Use the following table for proper wiring:

Color	Length	END 1	Termination	END 2	Termination
Black	12 ft.	Outside Box	Free End	PS - 1 (TB-2) 7	Molex Conn.
Red	12 ft.	Outside Box	Free End	INTERFACE 6 (11)	Green Ferrule
Orange	12 ft.	Outside Box	Free End	INTERFACE 5 (10)	Green Ferrule
Green	12 ft.	Outside Box	Free End	INTERFACE 5 (11)	Green Ferrule
Green	50"	I/O Control (1.1)	Green Ferrule	INTERFACE 5 (1)	Green Ferrule
Black	50"	I/O Control (3.1)	*	INTERFACE 5 (2)	Green Ferrule
Red	50"	I/O Control (4.1)	Green Ferrule	INTERFACE 5 (3)	Green Ferrule
Red	20"	PS-1, TB-2, Pin 9	Molex Conn.	INTERFACE 6 (10)	White Ferrule

\* NOTE: Shares a ferrule with White/Blue wire from Interface 1, Pin 17

- 140 Install INTERFACE - 5 and INTERFACE - 6 after the above wiring is complete. Using Washer (**P10493**) and Nut (**P10492**) Torque to 4 in. lb. Refer to [Figure 1](#) for placement of INTERFACE 5 and 6.

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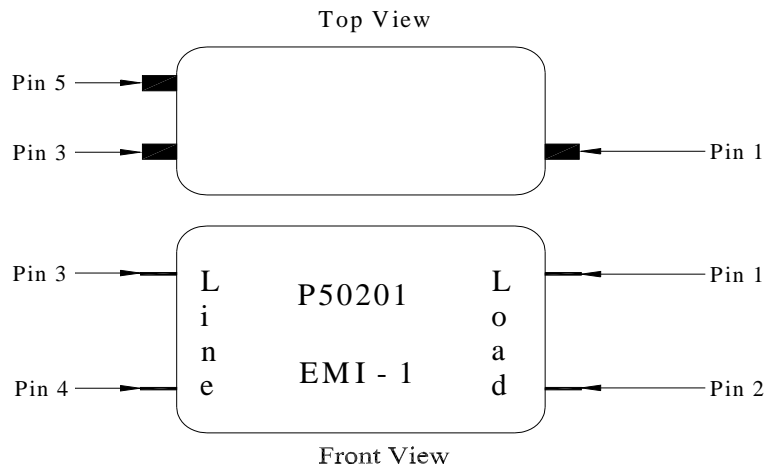
**MANUFACTURING PROCESS INSTRUCTIONS**

- 150 Mount [BH5022-09 Interface – 7 Cable Assembly](#) on I/O Panel DIN Rail as shown in [Fig1](#). Connect free ends of cable to Controller 1 and 2 per [Wiring Diagram](#). Add 1-1/2" red jumper from 3.9 to 3.8 MC-2.
- 160 Mount [P50201 EMI-1](#) to existing mounting studs located on interior of I/O Panel near Fan Assembly. Secure with (2) **P10516** KEP Nuts. Torque to 12 in. lbs.
- 160 Place [P53654 Power Supply \(PS – 1\)](#) into position and secure using #4-40 x 1/4" Allen head screw (typical four places). Do not torque at this time. Snap **P53710** Connector on TB-2 of PS-1. Snap **P53706** Connector on TB-1 of PS-1.
- 170 Mount [BH5022-10 PC-1 Cable Assembly](#) on I/O Panel interior at [PC-1](#). Cable ends should be terminated as follows:
- |                              |   |
|------------------------------|---|
| 7 Inch Red wire –            | Terminate to <a href="#">CB-1 across from red Fan Assembly lead</a> .   |
| 7 Inch Black wire –          | Terminate to <a href="#">CB-1 across from black Fan Assembly lead</a> . |
| Double Green w/ P52173 Lug - | Terminate to <a href="#">P50201 Pin 5</a> .                             |
| Single Green w/ P53708 Pin - | Terminate to <a href="#">PS-1, TB-1, Pin 1 (of Molex Connector)</a> .   |

Snap the Grounding Block to the DIN Rail to complete installation of BH5022-10.

- 180 Complete the installation of the BH5022-01 Fan Assembly by snapping CB-1 to DIN Rail approximately 2" away from the PC-1 Six Pin Connector. Terminate Black/Red wires from Fan Assembly to EMI-1 Pin 3. Terminate Black/Black wires from Fan Assembly to EMI-1 Pin 4.
- 190 Cut (1) Red and (1) Black 16 AWG wire to 15" in length and strip 3/16" of insulation from all ends. Crimp one end of both wires with a **P52055** Lug using a CrimpFox – INC 6 Crimper. Crimp the other ends with a **P53708** Molex Contact using a E-9825 Crimper. Twist wires together and terminate per the following:

Color	From	To
Red	EMI-1 Pin 1	PS-1 TB-1 Pin 5 (Molex connector)
Black	EMI-1 Pin 2	PS-1 TB-1 Pin 3 (Molex connector)





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<b>Date:</b> 02-18-99	<b>MP Release #:</b> P8

- 200 The following connections are to be made using the appropriate wire and terminals as indicated.
- 210 Cut (1) piece each of **P52457** Red, **P52221** Black, and **P53714** Green 16 AWG wires to 20" in length. Strip 3/16" insulation from each end and crimp a **P52049** Lug using a CrimpFox – INC 6 crimper. Twist wires together. Terminate wires to both the **P53816** PS-2 and **P53654** PS-1 per the following table:

Color	From	To
Black	PS-2 Location N	PS-1 TB-1 Pin 2
Red	PS-2 Location L	PS-1 TB-1 Pin 3
Green	PS-2 Location G	PS-1 TB-1 Pin 1

- 220 Cut (2) pieces of Orange 20 AWG wire (pulled from **P51233** Cable) to 27" in length and 21" in length. Strip 3/16" of insulation from all ends. Crimp one end from both Orange wires into the same Lug **P52049** using a CrimpFox – INC 6 crimper. Crimp a **P53279** Ferrule to the other ends of Orange wires. Terminate per Step 230.
- 230 Terminate the **P52049** Lug of Orange wire to PS-2 (+) . Terminate the 21" Orange wire to Controller-2 Location 1.18. Cut 8.5" off then terminate the 27" (length prior to cut) Orange wire to Controller-1 Location 1.18.
- 240 Cut (2) pieces of Blue 20 AWG wire (pulled from **P51233** Cable) to 27" in length and 21" in length. Strip 3/16" of insulation from all ends. Crimp one end from both Blue wires into the same **P52049** Lug using a CrimpFox – INC 6 crimper. Crimp a **P53279** Ferrule to the other ends of Blue wires. Terminate per Step 250.
- 250 Terminate the **P52049** Lug of Blue wire to PS-2 (-) . Terminate the 21" Blue wire to Controller-2 Location 1.17. Cut 8.5" off then terminate the 27" (length prior to cut) Blue wire to Controller-1 Location 1.17.
- 260 Mount **2815804** PS-2 Mounting Bracket to Panel using the following hardware stack-up and torque to 12 in-lbs. (typical two places):
  - P10522 #8-32 X 3/8" Allen head screw
  - 2815804 PS-2 Mounting Bracket
  - 2812564 I/O Mounting Panel
- 270 Mount PS-2 to PS-2 Mounting Bracket (with components away from I/O Panel) using the following hardware stack-up and torque to 4 in-lbs. (typical two places):
  - P12455** #4 – 40 x 1/4" Allen head screw
  - P10493** #4 Lock Washer
  - P53816** PS-2 Power Supply
  - 2815804** PS-2 Mounting Bracket
- 280 Insert a **P53589** Fuse into a **P53664** Fuse Block. Repeat this step with another Fuse and Fuse Block.



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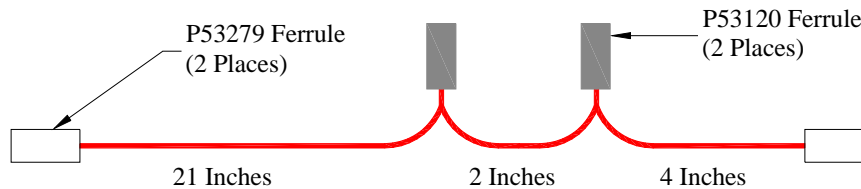
**Date:** 02-18-99

**MP Release #:**  
P8

- 290 Cut (2) pieces of Red 20 AWG wire (pulled from **P51233** Cable) to 15" in length and 12" in length. Strip 3/16" of insulation from all ends. Crimp one end from both Red wires into the same **P53708** Molex Contact using an E-9825 crimper. Crimp a **P53279** Ferrule to the other ends of Red wires.

Terminate short Red wire to one of the **P53664** Fuse Blocks at the end labeled with an arrow. Terminate the long Red wire to Pin 10 of Interface-6 and tighten hardware. Snap Molex Contact into Pin 9 of PS-1 TB-2.

- 300 Cut (3) more Red 20 AWG wires to 21" in length, 2" in length, and 2" in length. Strip ends 3/16". Assemble per the following figure:



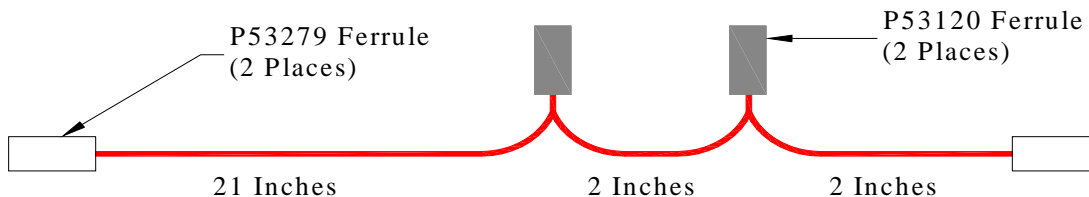
- 310 Terminate the cable just assembled per the following table:

Wire	From	To
21 Inch	P53664 Fuse Block in Step 290	Controller-2 Pin 2.16*
2 Inch	Controller-2 Pin 2.16	Controller-2 Pin 2.17
2 Inch	Controller-2 Pin 2.17	Controller-2 Pin 2.18

\*Pin 2.16 also connects with green wire from Interface 7

- 320 Cut (1) piece of Red 20 AWG wire to 10" in length. Strip 3/16" of insulation from both ends. Crimp a **P53279** Ferrule to one of the ends and a **P53708** Molex Contact to the other end. Terminate Ferruled end to the other **P53664** Fuse Block assembled in Step 280. Insert Ferrule at the end labeled with an arrow. Snap Molex Contact into Pin 10 of PS-1 TB-2.

- 330 Cut (3) more Red 20 AWG wires to 21" in length, 2" in length, and 4" in length. Strip ends 3/16". Assemble per the following figure:



- 340 Terminate the cable just assembled per the following table:

Wire	From	To
21 Inch	P53664 Fuse Block in Step 320	Controller-1 Pin 2.17
2 Inch	Controller-1 Pin 2.17	Controller-1 Pin 2.18
4 Inch	Controller-1 Pin 2.18	Controller-1 Pin 4.18



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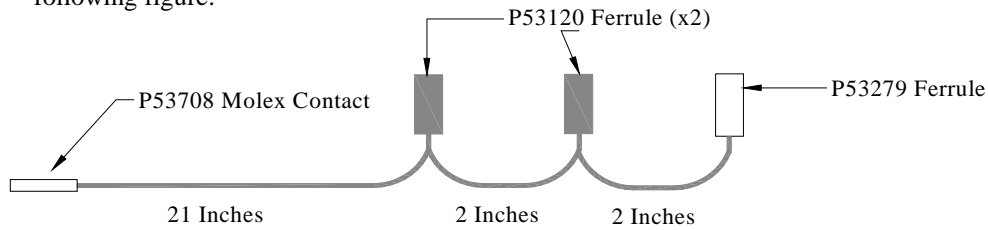
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P8

350 Snap Fuse Blocks onto DIN Rail.

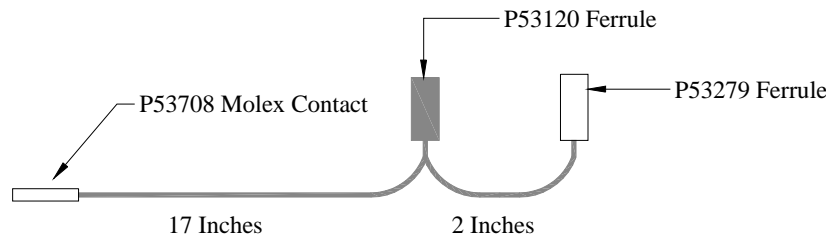
360 Cut (2) pieces of Black 20 AWG wire to 17" in length and 2" in length. Strip ends 3/16". Assemble per following figure:



370 Terminate the cable just assembled per the following table:

Wire	From	To
17 Inch	PS-1 TB-2 Pin 7	Controller-1 Pin 3.17
2 Inch	Controller-1 Pin 3.17	Controller-1 Pin 3.18
12 ft. black	12 ft. coiled cable	TB-2 Pin 7

380 Cut (2) pieces of Black 20 AWG wire to 21" in length and (2) 2" in length. Strip ends 1/4". Assemble per the following figure:



390 Terminate the cable just assembled per the following table:

Wire	From	To
21 Inch	PS-1 TB-2 Pin 8	Controller-2 Pin 3.16
2 Inch	Controller-2 Pin 3.16	Controller-2 Pin 3.17
2 Inch	Controller-2 Pin 3.17	Controller-2 Pin 3.18

395 Complete the installation of the BH5022-11 Wire assembly by using a **P53553** Cable, 6C, 24, and termination by referring to [BH5022-11](#). Label cable POWER BOX. Be sure to coil free end wire outside of box.

400 Snap **P529989** End Stop Terminal Block onto DIN Rail next to Grounding Terminal Block.

410 Dress all wires and cables neatly using cable tie-downs as required. Reference Visual Aids in this document for proper routing and dressing.



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	<b>Date:</b> 02-18-99	<b>MP Release #:</b> P8

420 Apply labels as shown in [Figure 1](#). Use the zoom feature if necessary.

450 Perform visual inspection of completed unit and ring-out unit.

Initial traveler and send to Final Inspection.

[Visual Aid](#)

[Final Inspection](#)



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INTEGRATION, INC.



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## Work Cell A

### Final Inspection BOM


ESD: Yes	Eye Protection: No	Ear Protection: No
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Part List	Part Number	Quantity

Tool List	Part Number	Setting
1/4" 1/4" Drive Socket	N/A	N/A
1/4" Drive Hex Adaptor	N/A	N/A
1/16" 1/4" Drive Socket Allen Bit	N/A	N/A
3/32" 1/4" Drive Socket Allen Bit	N/A	N/A
5/16" 1/4" Drive Socket	N/A	N/A
9/64" 1/4" Drive Socket Allen Bit	N/A	N/A
Manual Torque Driver	Sturdevant Richmond CAL 36/4	9 in-lbs

### Final Inspection

- 005 Reference General Workmanship Standards where applicable.
- 010 Visually inspect entire assembly for cosmetic defects such as scratches, burrs, damaged and/or missing hardware/components, etc.
- 020 Verify all hardware torques.
- 030 Crimp Connections.
- 040 [Component Label Orientation](#).
- 050 Electronic Component Orientation.
- 060 Wire Routing.
- 070 Crimp Connector Installation.
- 080 PC Plug Orientation.
- 090 Consistency in construction.
- 100 Fan Orientation.
- 110 Fan Screen Orientation.
- 120 Serial Number Label Orientation.
- 130 Traveler is signed and has proper Serial Number recorded.
- 140 Initial and date traveler.
- 150 Stamp Product Serial Number Label with Final Inspection Stamp.
- 160 Send to [Pack](#).

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## Shipping

### Pack BOM

ESD: No	Eye Protection: No	Ear Protection: No
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Part List	Part Number	Quantity
Box		
Bubble Wrap		
Packing Material		

Tool List	Part Number	Setting
Tape Dispenser w/ Packing Tape		

### Pack

- 010    Make up shipping container, taping bottom of box.
- 020    Neatly wrap E-Box Assembly in Bubble Wrap, securing with tape where necessary.
- 030    Pack 1 unit into shipping container.
- 040    Use paper or peanuts as added packing material.
- 050    Attach date-coded shipping label on front panel of box.
- 060    Sign and turn traveler into QA.

[Home](#)



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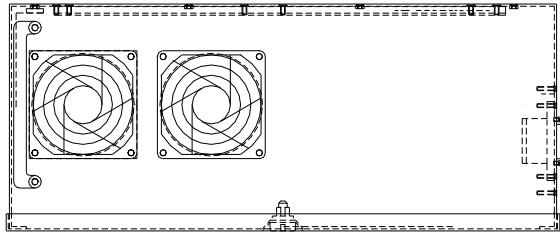
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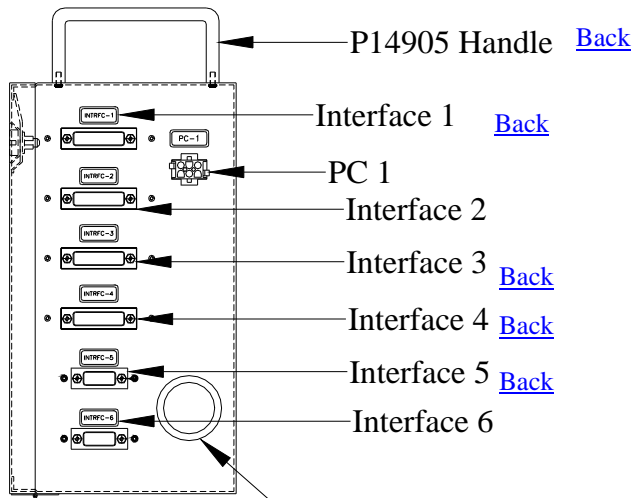
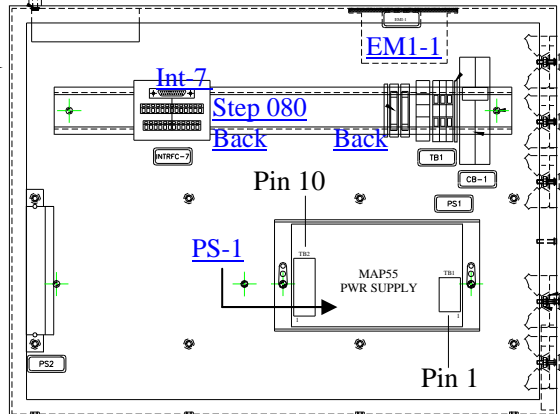
MP Release #:  
P8

Figure 1 [Labeling](#)

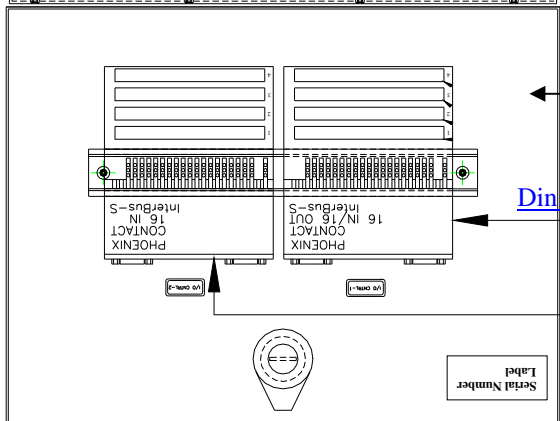


TOP VIEW

Product Number Label



RIGHT VIEW



FRONT VIEW - COVER OPENED

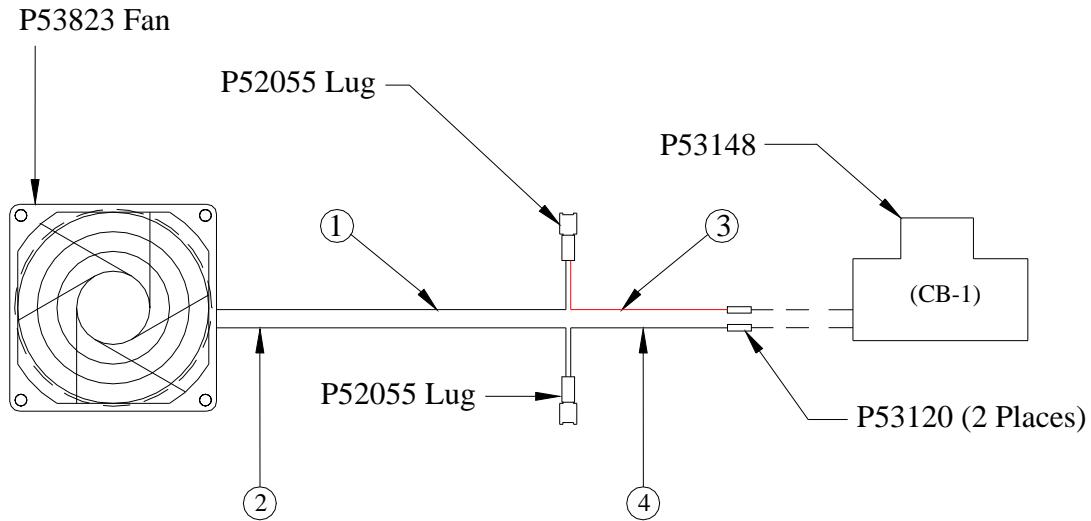
Controller - 1 (P53637)

Controller - 2 (P53636)



BH5022-01

[Return to Process](#)



[Step 170](#)

Item No.	Part No.	Color	Gage	Length	Comments
1	Fan Wire	Black		6"	Strip 3/16"
2	Fan Wire	Black		6"	Strip 3/16"
3	P52457	Red	16	12"	Strip 3/16" Both Ends
4	P52221	Black	16	12"	Strip 3/16" Both Ends

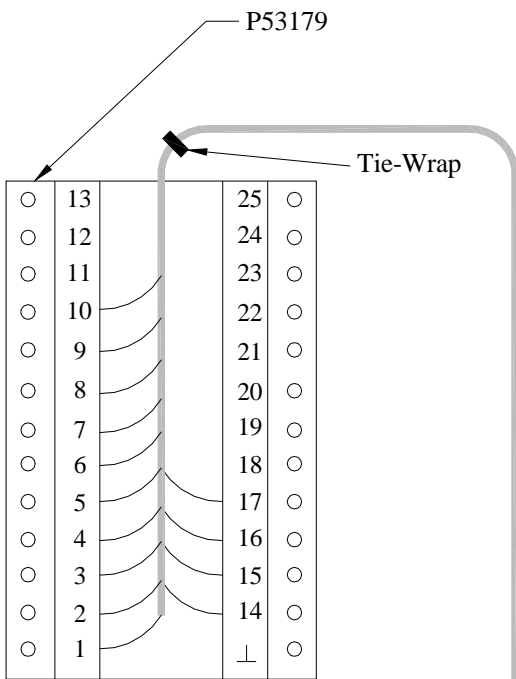
- |  |                    |                      |
|--|--------------------|----------------------|
|  | <u>Part Number</u> | <u>Crimping Tool</u> |
|  | P52055             | Crimpfox-INC 6       |
|  | P53120             | VarioClamp 4         |
- Twist Red and Black Wires Together Before Terminating in CB-1.
- Tolerances :  $\begin{matrix} + 0.25 \text{ in} \\ - 0.00 \text{ in} \end{matrix}$

BH5022-03

[Return to Process](#)

Table 1

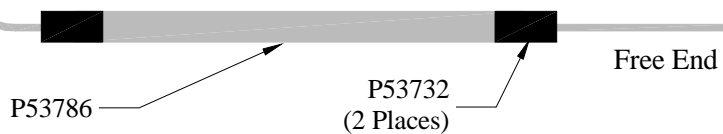
Termination	Color	Length	Free End Length	Comments
Pin 1	BLK	19.00	33.75	
Pin 2	BR	18.75	31.50	
Pin 3	RED	18.50	33.00	No Ferrule on Free End
Pin 4	ORG	18.50	34.00	
Pin 5	YEL	18.25	31.75	
Pin 6	GRN	18.00	33.25	No Ferrule on Free End
Pin 7	BLU	17.75	34.00	
Pin 8	VIO	17.75	33.50	
Pin 9	GRY	17.50	34.25	
Pin 10	WHT	17.25	33.50	
Pin 14	W/ORG	18.75	31.50	
Pin 15	W/YEL	18.50	32.25	
Pin 16	W/GRN	18.50	30.75	
Pin 17	W/BLU	18.25	31.50	





Interface 1

Notes:

1. Cut a piece of P53786 Cable 59.5".
2. Strip sheathing back 19" on one end and 34.5" on the other end (free end).
3. Pull all wires not mentioned in Table 1.
4. Use Table 1 for cutting proper length of remaining wires. Strip ends (3/16") of remaining wires and crimp P53279 Ferrules on all ends except where noted.
5. Apply Heat Shrink P53732 as shown.
6. Terminate Ferruled ends to P53179 Connector per table.



 <b>CONTRACT SYSTEMS INTEGRATION, INC.</b>		<b>Product Number:</b> 5005022	<b>Revision:</b> 02
		<b>Product Description:</b> Quad Feeder Half Fold, Feeder #3, Interface - 3	
		<b>Date:</b> 02-18-99	<b>MP Release #:</b> P8

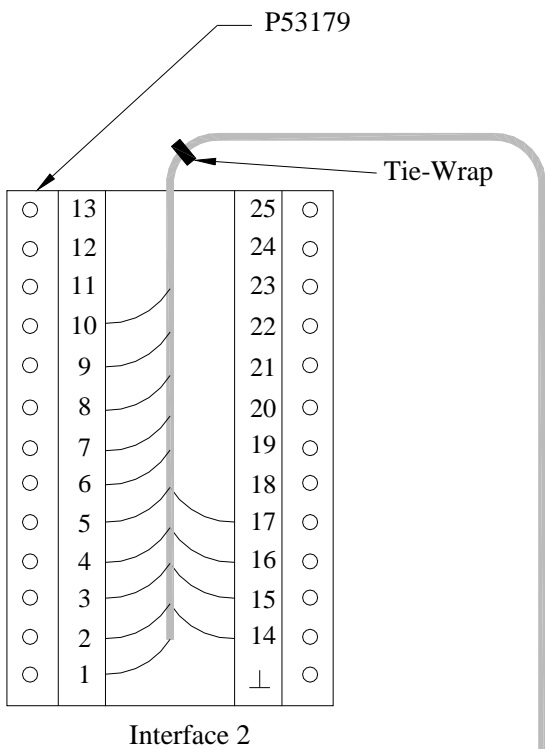
**MANUFACTURING PROCESS INSTRUCTIONS**

BH5022-04

[Return to Process](#)

Table 1

Termination	Color	Length	Free End Length
Pin 1	BLK	17.25	34.50
Pin 2	BR	17.00	32.25
Pin 3	RED	16.75	33.75
Pin 4	ORG	16.75	34.75
Pin 5	YEL	16.50	32.50
Pin 6	GRN	16.25	34.00
Pin 7	BLU	16.00	35.00
Pin 8	VIO	16.00	32.50
Pin 9	GRY	15.75	35.00
Pin 10	WHT	15.50	32.75
Pin 14	W/ORG	17.00	31.75
Pin 15	W/YEL	17.00	33.25
Pin 16	W/GRN	16.75	31.00
Pin 17	W/BLU	16.50	31.75



Interface 2

Notes:

1. Cut a piece of P53786 Cable 58.25".
2. Strip sheathing back 17.25" on one end and 35.0" on the other end (free end).
3. Pull all wires not mentioned in Table 1.
4. Use Table 1 for cutting proper length of remaining wires. Strip ends (3/16") of remaining wires and crimp P53279 Ferrules on all ends.
5. Apply Heat Shrink P53732 as shown.
6. Terminate Ferruled ends to P53179 Connector per table.



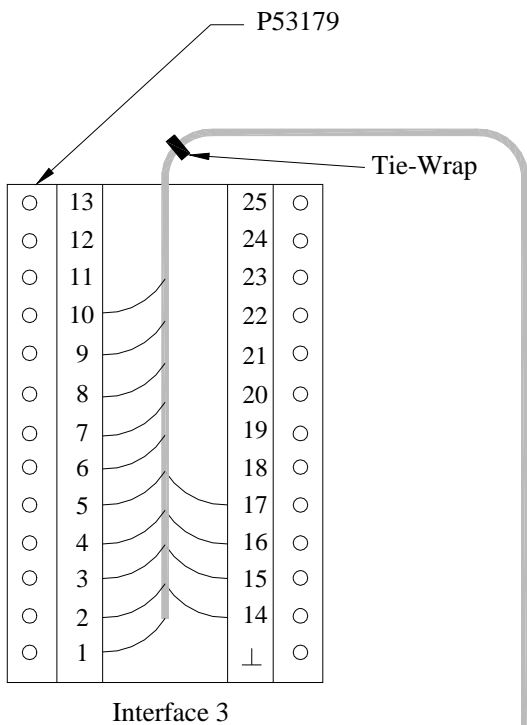


BH5022-05

[Return to Process](#)

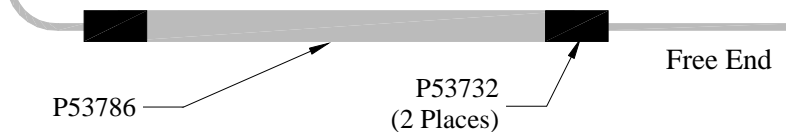
**Table 1**

Termination	Color	Length	Free End Length
Pin 1	BLK	15.50	34.00
Pin 2	BR	15.25	33.00
Pin 3	RED	15.00	34.75
Pin 4	ORG	15.00	33.75
Pin 5	YEL	14.75	33.00
Pin 6	GRN	14.50	34.50
Pin 7	BLU	14.50	33.50
Pin 8	VIO	14.25	32.75
Pin 9	GRY	14.00	33.50
Pin 10	WHT	13.75	32.75
Pin 14	W/ORG	15.25	32.00
Pin 15	W/YEL	15.25	32.75
Pin 16	W/GRN	15.00	31.25
Pin 17	W/BLU	14.75	32.00



**Notes:**

1. Cut a piece of P53786 Cable 56.25".
2. Strip sheathing back 15.5" on one end and 34.75" on the other end (free end).
3. Pull all wires not mentioned in Table 1.
4. Use Table 1 for cutting proper length of remaining wires. Strip ends (3/16") of remaining wires and crimp P53279 Ferrules on all ends.
5. Apply Heat Shrink P53732 as shown.
6. Terminate Ferruled ends to P53179 Connector per table.



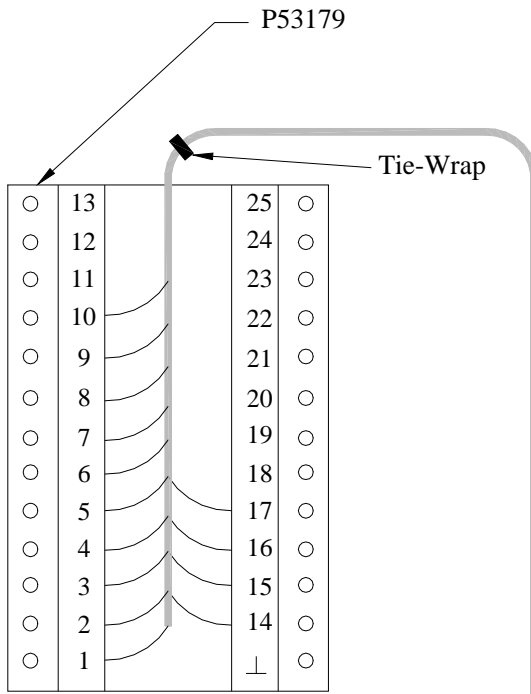




BH5022-06

[Return to Process](#)

Table 1

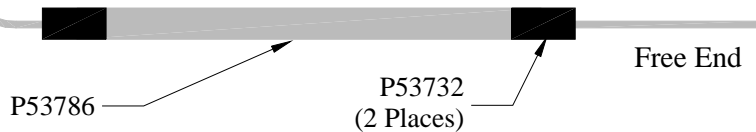


Interface 4

**Notes:**

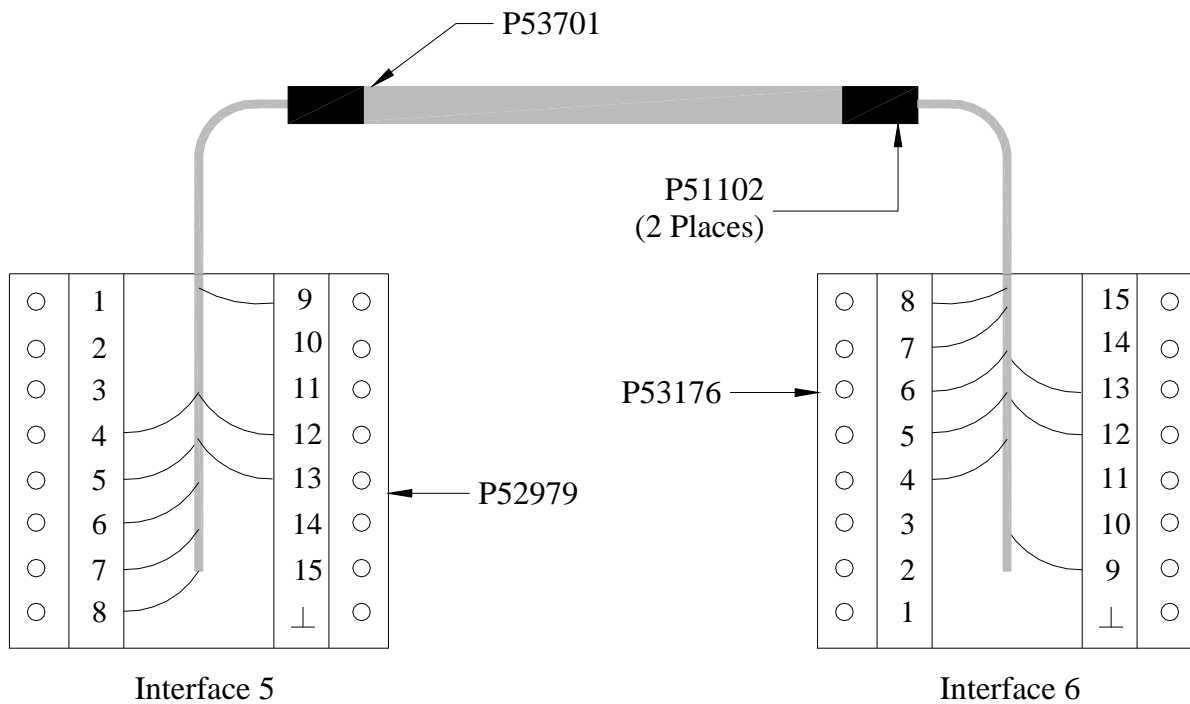
1. Cut a piece of P53786 Cable 53.75".
2. Strip sheathing back 13.75" on one end and 34.0" on the other end (free end).
3. Pull all wires not mentioned in Table 1.
4. Use Table 1 for cutting proper length of remaining wires. Strip ends (3/16") of remaining wires and crimp P53279 Ferrules on all ends.
5. Apply Heat Shrink P53732 as shown.
6. Terminate Ferruled ends of P53179 Connector per table.

Termination	Color	Length	Free End Length
Pin 1	BLK	13.75	33.25
Pin 2	BR	13.50	32.50
Pin 3	RED	13.50	34.00
Pin 4	ORG	13.25	33.00
Pin 5	YEL	13.00	32.25
Pin 6	GRN	12.75	33.75
Pin 7	BLU	12.75	32.75
Pin 8	VIO	12.50	32.00
Pin 9	GRY	12.25	32.75
Pin 10	WHT	12.00	32.00
Pin 14	W/ORG	13.50	32.00
Pin 15	W/YEL	13.50	32.75
Pin 16	W/GRN	13.25	31.25
Pin 17	W/BLU	13.00	32.00



BH5022-07

[Return to Process](#)



Notes:

1. Cut a piece of P53701 Cable 8.0".
2. Strip sheathing back 3.0" on each end leaving 2.0" of insulated cable.
3. Pull violet wire out of cable.
4. Strip 3/16" of insulation off each wire and crimp on a P53258 Ferrule using a VarioCrimp 4 crimping tool.
5. Apply Heat Shrink P53732 as shown.
6. Use Table 1 for terminating wire ends.

Table 1

Interface 5	Color	Interface 6
Pin 8	BLK	8
Pin 7	BR	7
Pin 6	RED	6
Pin 5	ORG	5
Pin 4	YEL	4
Pin 9	GRN	9
Pin 12	BLU	12
Pin 13	WHT	13

BH5022-09

[Return to Process](#)

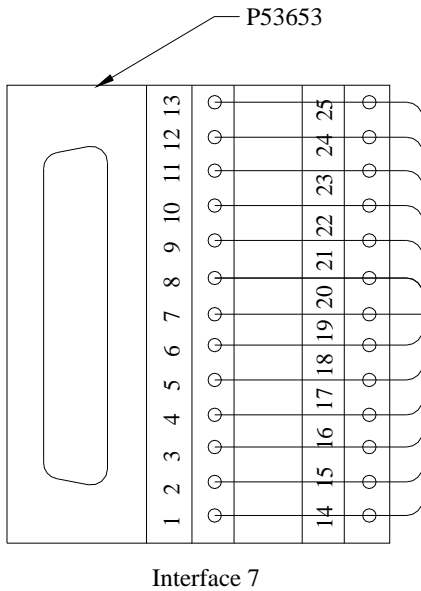
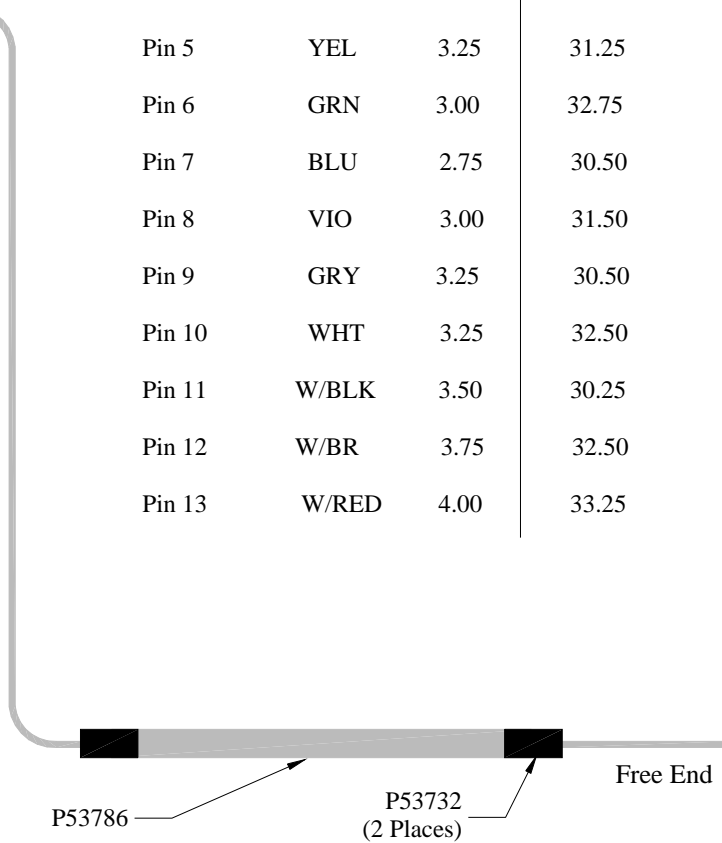


Table 1

Termination	Color	Length	Free End Length	Free End Comments
Pin 1	BLK	4.00	32.50	
Pin 2	BR	3.75	31.75	
Pin 3	RED	3.50	33.25	
Pin 4	ORG	3.25	32.00	
Pin 5	YEL	3.25	31.25	
Pin 6	GRN	3.00	32.75	
Pin 7	BLU	2.75	30.50	
Pin 8	VIO	3.00	31.50	
Pin 9	GRY	3.25	30.50	
Pin 10	WHT	3.25	32.50	
Pin 11	W/BLK	3.50	30.25	
Pin 12	W/BR	3.75	32.50	
Pin 13	W/RED	4.00	33.25	No Ferrule

Notes:

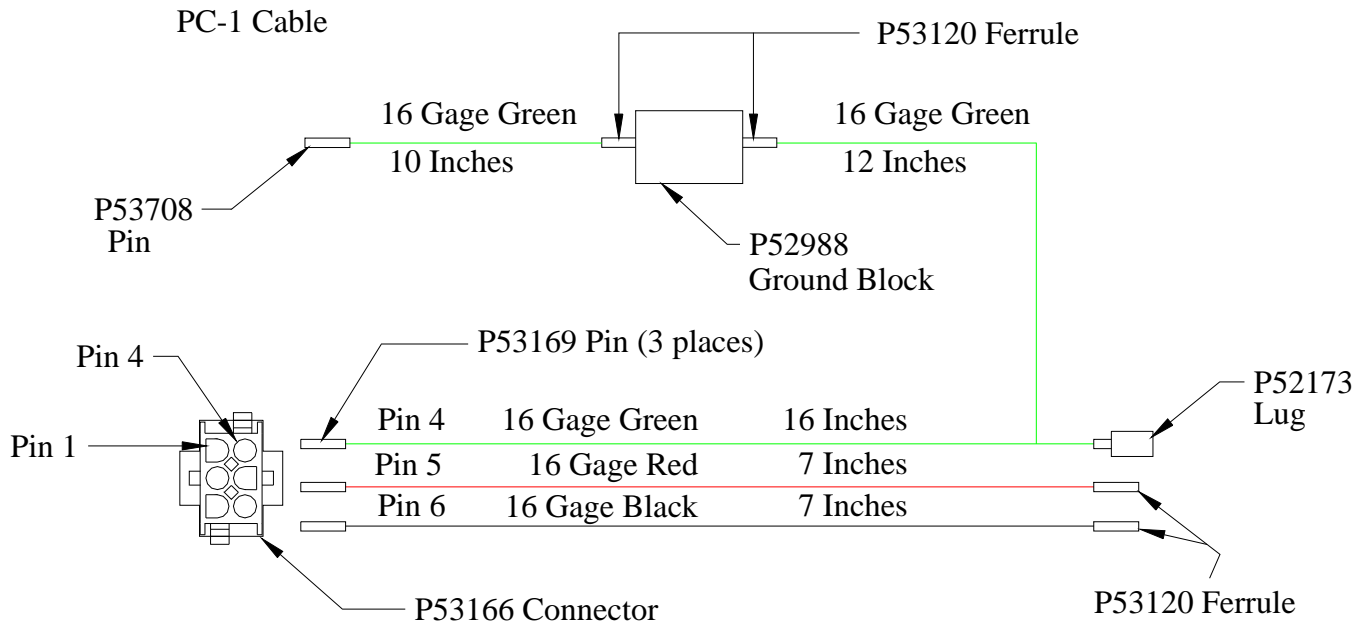
1. Cut a piece of P53786 Cable 43.25".
2. Strip sheathing back 4.0" on one end and 33.25" on the other end (free end).
3. Pull all wires not mentioned in Table 1.
4. Use Table 1 for cutting proper length of remaining wires. Strip ends (3/16") of remaining wires and crimp P53279 Ferrules on all ends except where noted.
5. Apply Heat Shrink P53732 as shown.
6. Terminate Ferruled ends to P53653 Connector per table.





BH5022-10

[Return to Process](#)



Notes:

- | 1. | Part Number | Crimping Tool      |
|----|-------------|--------------------|
|    | P53170      | AMP PRO-CRIMPER II |
|    | P53169      | AMP PRO-CRIMPER II |
|    | P52173      | CRIMPFOX - INC 6   |
|    | P53120      | VARIOCRIMP 4       |
|    | P53708      | E-9825 Crimper     |
2. Strip ends 3/16" before crimping terminals onto wires.
  3. Key pin is Pin 1, insert a P53170 female pin into hole 1 of PC-1.
  4. Cable dimensions include 6-Pin Connector and Terminals.
  5. Tolerances :  $\begin{matrix} + 0.25 \text{ in} \\ - 0.00 \text{ in} \end{matrix}$



**MANUFACTURING PROCESS INSTRUCTIONS**

**Product Number:**  
5005022

**Revision:**  
02

**Product Description:**  
Quad Feeder Half Fold,  
Feeder #3, Interface - 3

**Date:** 02-18-99

**MP Release #:**  
P8

**Wiring Diagram**

[Final Inspection](#)

Wire Color (Pin No.)	<a href="#">Interface-1</a>		<a href="#">Interface-2</a>		<a href="#">Interface-3</a>		<a href="#">Interface-4</a>	
	Cntl	Pin	Cntl	Pin	Cntl	Pin	Cntl	Pin
Black (1)	1	4.9	1	4.13	2	2.1	2	2.5
Brown (2)	1	1.9	1	1.13	2	1.1	2	1.5
Red (3)	1	3.9	1	3.13	2	3.1	2	3.5
Orange (4)	1	4.10	1	4.14	2	2.2	2	2.6
Yellow (5)	1	1.10	1	1.14	2	1.2	2	1.6
Green (6)	1	3.10 **	1	3.14	2	3.2	2	3.6
Blue (7)	1	4.11	1	4.15	2	2.3	2	2.7
Violet (8)	1	1.11	1	1.15	2	1.3	2	1.7
Grey (9)	1	4.12	1	4.16	2	2.4	2	2.8*
White (10)	1	1.12	1	1.16	2	1.4	2	1.8
White/Orange (14)	1	2.5	1	2.6	1	2.7	1	2.8
White/Yellow (15)	1	3.5	1	3.6	1	3.7	1	3.8
White/Green (16)	1	2.1	1	2.2	1	2.3	1	2.4
White/Blue (17)	1***	3.1	1	3.2	1	3.3	1	3.4

\* Shares a ferrule with jumper from Interface 7 (I/O Control 2)

\*\* Shares a ferrule with Interface 7 connection

\*\*\* Shares a ferrule with jumper from Interface 5 (Pin 2)



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**MANUFACTURING PROCESS INSTRUCTIONS**

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Feeder #3, Interface - 3

**Date:** 02-18-99

**MP Release #:**  
P8

**Wiring Diagram**

[Final Inspection](#)

Wire Color (Pin No.)	Interface-7	
	Controller	Pin
Black (1)	2	2.9*
Brown (2)	2	1.9
Red (3)	2	3.9
Orange (4)	2	2.11
Yellow (5)	2	1.11
Green (6)	2	2.16***
Blue (7)	2	1.16
Violet (8)	2	2.15
Grey (9)	2	1.15
White (10)	1	4.2
White/Black (11)	1	1.2
White/Brown (12)	1	2.10
White/Red (13)	1	3.10**

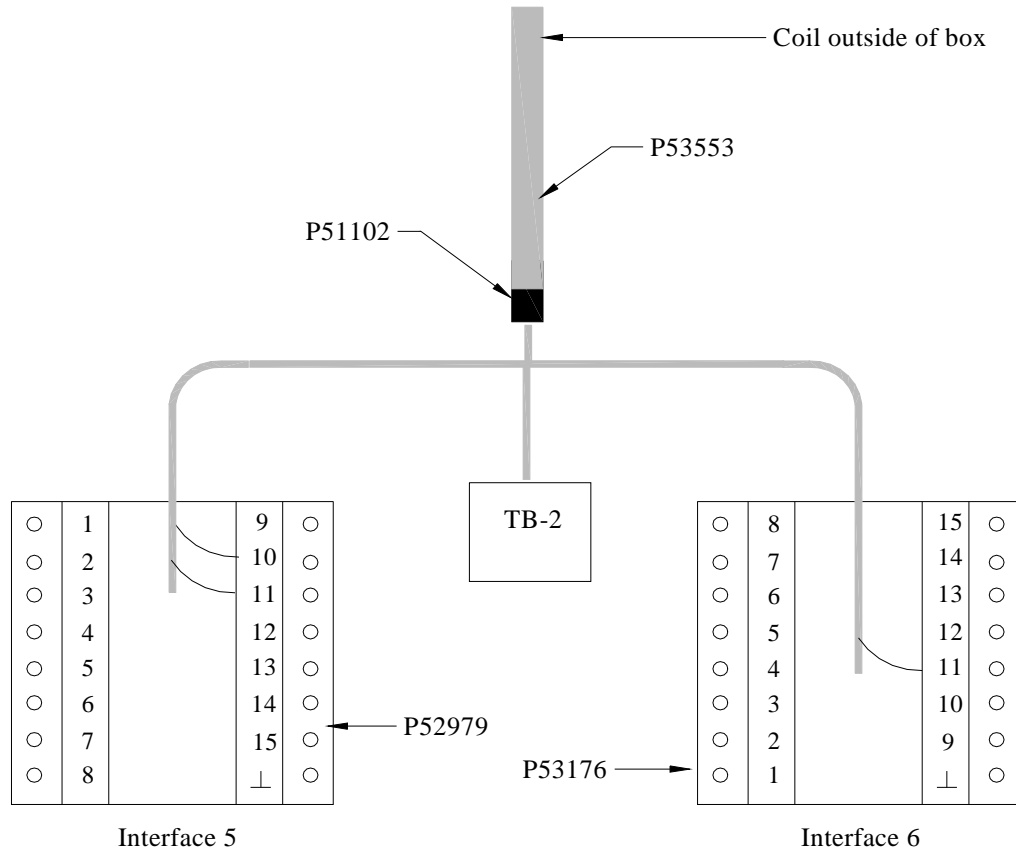
\* Shares a jumper to 2.8 of Interface 4

\*\* Shares ferrule with Interface 1 connection

\*\*\* Shares a ferrule with wire from Interface 7



**BH5022-11** [Step395](#)



**Notes:**

1. Cut a piece of P53553 Cable 12 ft.
2. Strip sheathing back 1 ft. on one end leaving insulated cable.
3. Leave black, red, orange and green wires of cable. Cut out unused wires.
4. Strip 3/16" of insulation off each wire and crimp on a P53258 Ferrule using a VarioCrimp 4 crimping tool.
5. Apply Heat Shrink P51102 as shown.
6. Use Table 1 for terminating wire ends.
7. Connect black wire to wire assembly in Step 360.

**Table 1**

Interface 5	Color	Other End
Pin 10	ORG	Free end
Pin 11	GRN	Free end
Interface 6	Color	Other End
Pin 11	RED	Free end
PS-1	Color	Other End
TB-2, Pin 7	BLK	Free End



**CONTRACT SYSTEMS  
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## MANUFACTURING PROCESS INSTRUCTIONS

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**Date:** 02-18-99

**MP Release #:**  
P8

**Visual Aid**

[Return to Beginning of Document](#)

[Return to End of Process](#)

