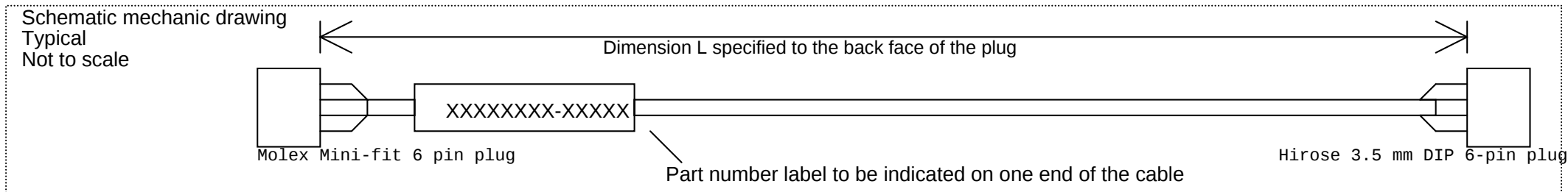
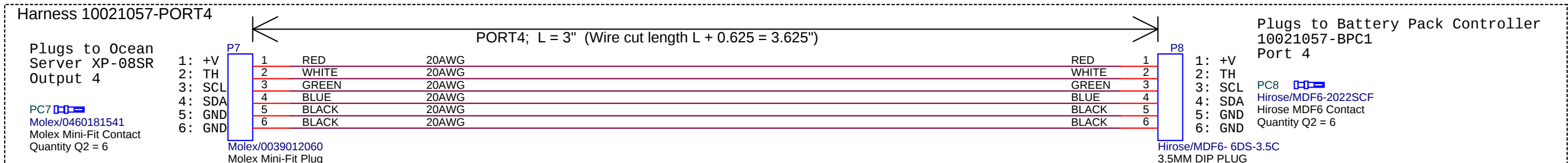
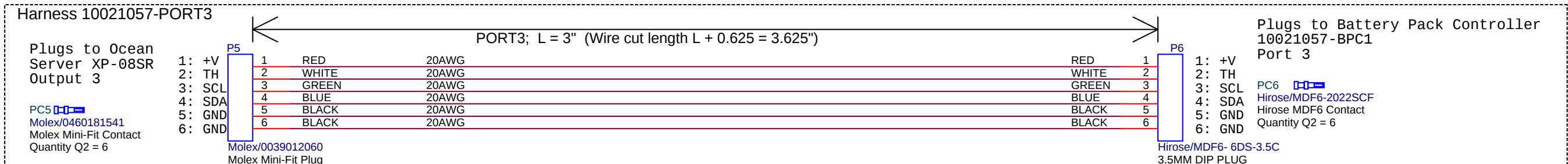
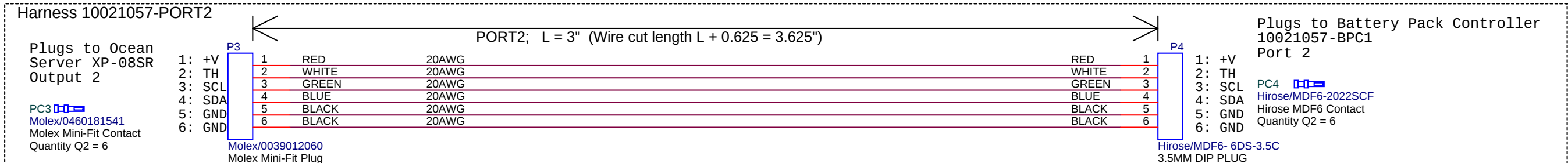
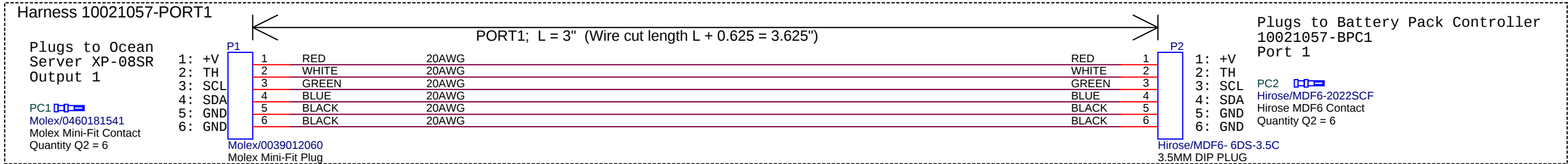
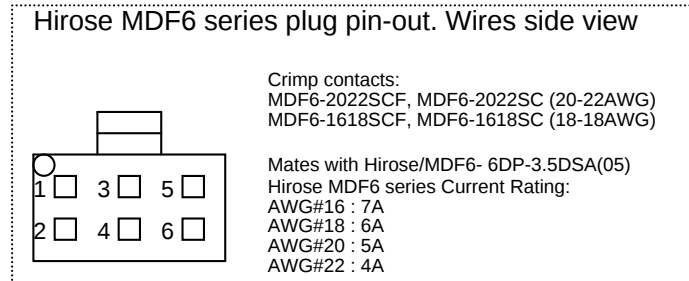
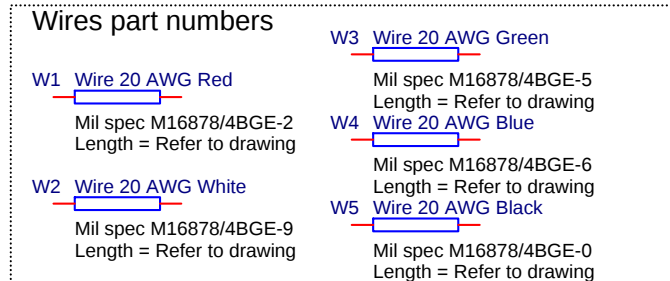
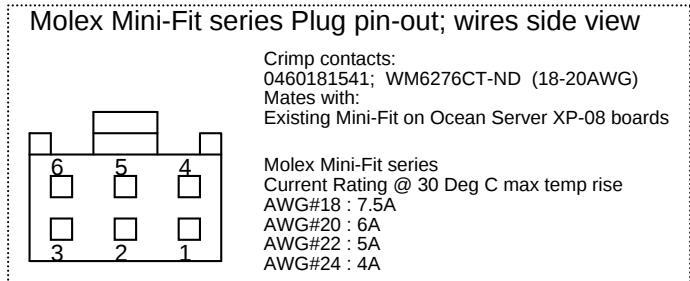


Charge Port Cable for LRAUV Battery Pack Controller; Port 1- Port 4 (page 1 of 2). Eight cables total is 1 set for 1 half-pack (2 sets required for full-pack)



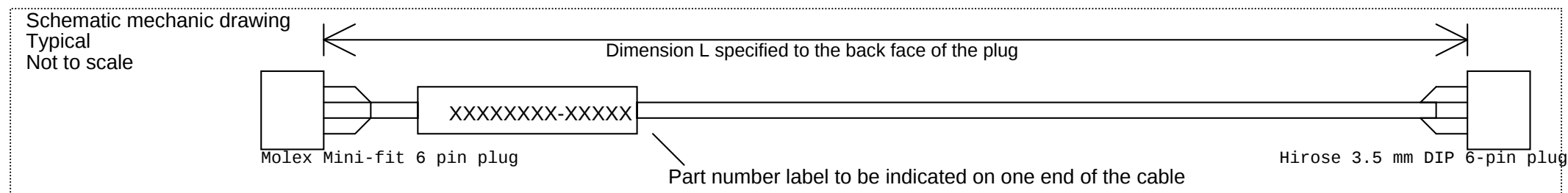
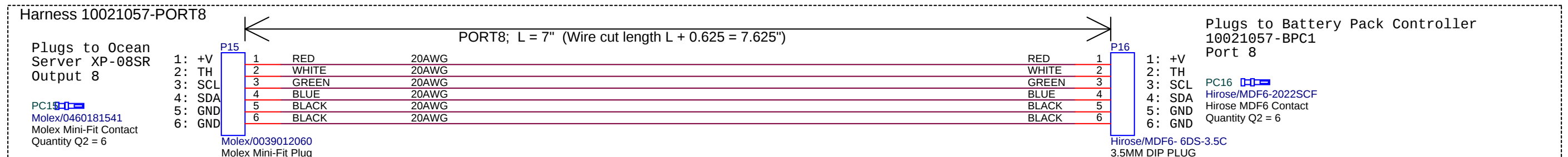
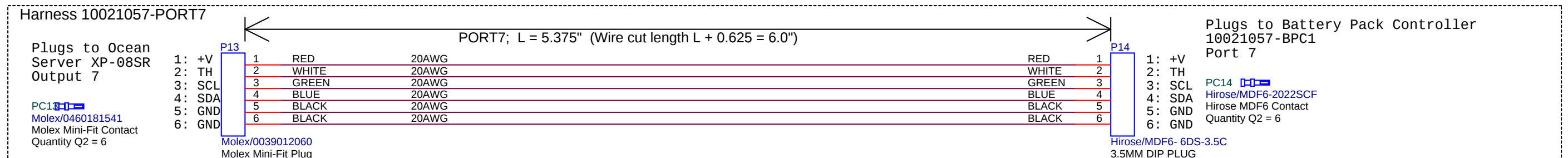
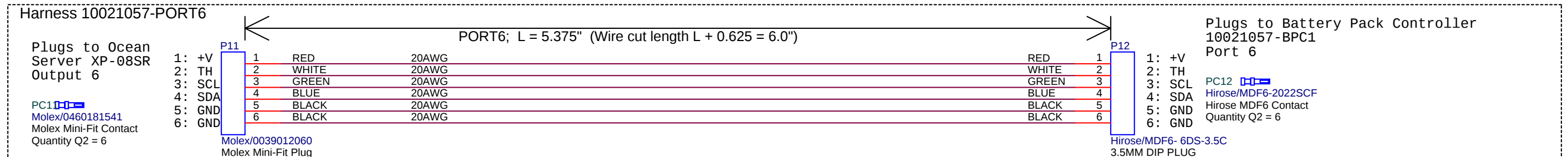
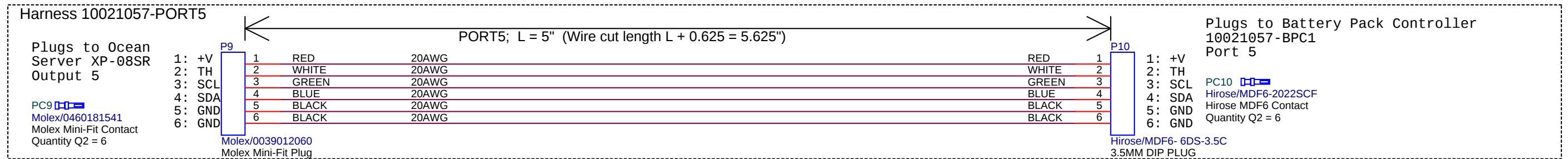
- Notes, sheet 1:
1. Ref designators P: Plug; PC: Plug contact; W: wire
 2. Dimensions per schematic drawing
 3. Length as indicated for part number
 4. Install label as indicated
 5. Use wires per "Wire Part Numbers" chart listed



RevA(2015-07-01): initial release
RevB(2017-05-05): Part to include labels and part numbers updated to one per harness
RevC(2017-06-01): 10021057-RS232 documented (sheet4)

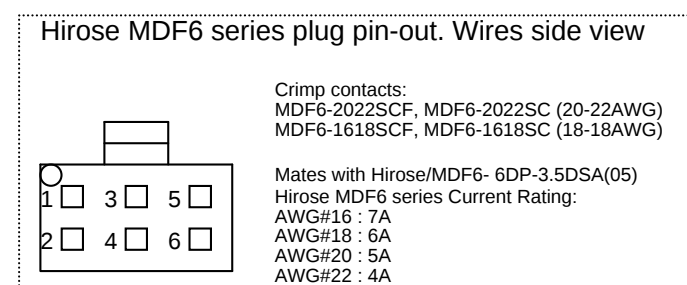
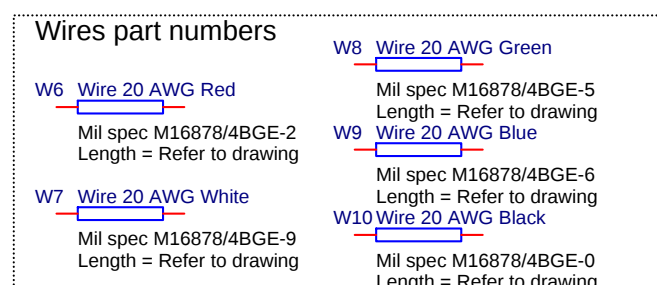
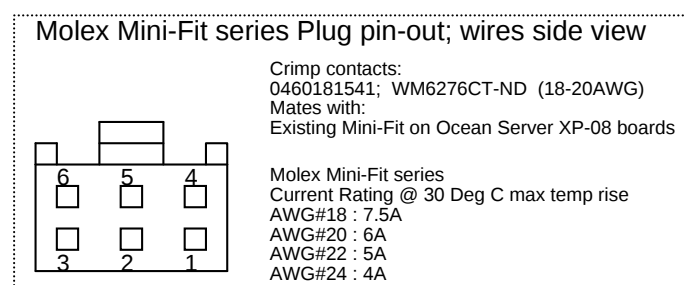
		Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd, Moss landing CA 95076	
Engineer Klimov		Page Title Charge Cables PORT1-PORT4	Project: 901400
831-775-1914			
Size B	Doc. or Part Number <Doc>	File Name (auto) 10021057-HALF-PACK-HARNESSES	Rev C
Page Modify Date (auto): Thursday, June 01, 2017		Sheet:	
Design Modify Date (auto): Thursday, June 01, 2017		1	of 4
Full path (auto): GSP\PROJECT.EE.DWGS\BATTERYPACK2013\10021057-APACK\10021057-HALF-PACK-HARNESSES.DSN			

Charge Port Cable for LRAUV Battery Pack Controller; Port 5- Port 8 (page 2 of 2). Eight cables total is 1 set for 1 half-pack (2 sets required for full-pack)



Notes, sheet 2:

1. Ref designators P: Plug; PC: Plug contact; W: wire
2. Dimensions per schematic drawing
3. Length as indicated for part number
4. Install label as indicated
5. Use wires per "Wire Part Numbers" chart listed



Rev notes: ref sheet 1

		Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd, Moss landing CA 95076	
Engineer Klimov		Page Title Charge Cables PORT5-PORT8	
831-775-1914		Project: 901400	
Size B	Doc. or Part Number <Doc>	File Name (auto) 10021057-HALF-PACK-HARNESSES	Rev ref sheet 1
Page Modify Date (auto):		Thursday, June 01, 2017	
Design Modify Date (auto):		Thursday, June 01, 2017	
Full path (auto):		Sheet: 2 of 4	
DRAWINGS\PROJECT.EE.DWGS\BATTERYPACK2013\10021057-APACK\10021057-HALF-PACK-HARNESSES.DSN			

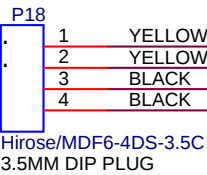
Charge Distribution Cables for LRAUV Half-Pack; 1 set (2 cables) required for Half-Pack; 2 sets (4 cables) required for Full-Pack

Harness 10021057-CDC1

Plugs to Battery Pack
Controller 10021057-BPC1

PC18 
Hirose/MDF6-2022SCF
Hirose MDF6 Contact
Quantity Q2 = 4

1: CHARGE POS.
2: CHARGE POS.
3: COMMON
4: COMMON



20AWG
20AWG

10021057-CDC1 Length 3.5"

YELLOW
BLACK

P17

2
1
Molex/0039012020
Mini-Fit 0.165" Plug

2: CHARGE POS.
1: COMMON

Plugs to Ocean
Server XP-08SR
charge ports left side

PC17 
Molex/0460181541
Molex Mini-Fit Contact
Quantity Q2 = 2

YELLOW
BLACK

P19

2
1
Molex/0039012020
Mini-Fit 0.165" Plug

2: CHARGE POS.
1: COMMON

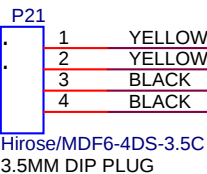
PC19 
Molex/0460181541
Molex Mini-Fit Contact
Quantity Q2 = 2

Harness 10021057-CDC2

Plugs to Battery Pack
Controller 10021057-BPC1

PC21 
Hirose/MDF6-2022SCF
Hirose MDF6 Contact
Quantity Q2 = 4

1: CHARGE POS.
2: CHARGE POS.
3: COMMON
4: COMMON



20AWG
20AWG

10021057-CDC2 Length 13.0"

YELLOW
BLACK

P20

2
1
Molex/0039012020
Mini-Fit 0.165" Plug

2: CHARGE POS.
1: COMMON

Plugs to Ocean
Server XP-08SR
charge ports right side

PC20 
Molex/0460181541
Molex Mini-Fit Contact
Quantity Q2 = 2

YELLOW
BLACK

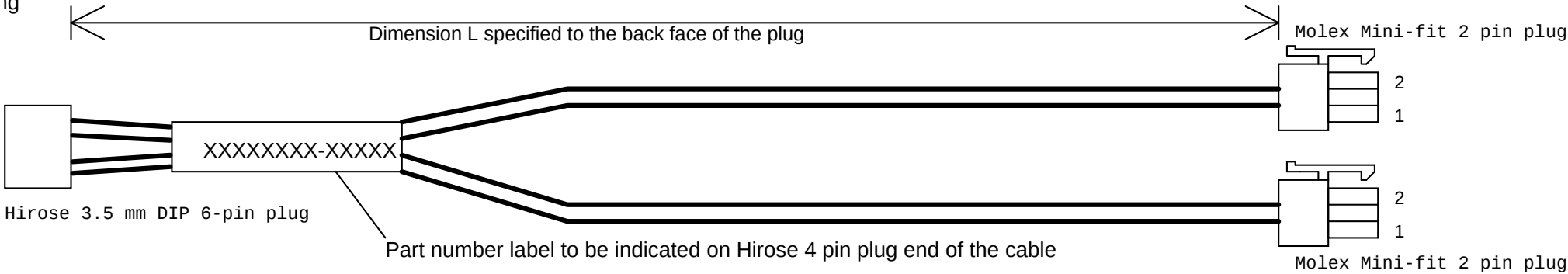
P22

2
1
Molex/0039012020
Mini-Fit 0.165" Plug

2: CHARGE POS.
1: COMMON

PC22 
Molex/0460181541
Molex Mini-Fit Contact
Quantity Q2 = 2

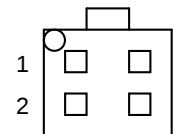
Schematic mechanic drawing
Typical
Not to scale



Notes, sheet 3:

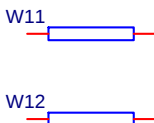
1. Ref designators P: Plug; PC: Plug contact; W: wire
2. Dimensions per schematic drawing
3. Length as indicated for part number
4. Install label as indicated
5. Use wires per "Wire Part Numbers" chart listed

Hirose MDF6 series plug pin-out. Wires side view



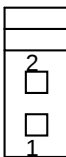
Crimp contacts:
MDF6-2022SCF, MDF6-2022SC (20-22AWG)
MDF6-1618SCF, MDF6-1618SC (18-18AWG)
Mates with Hirose/MDF6- 4DP-3.5DSA(05)

Wires part numbers



Wire 20 AWG Yellow
Mil spec M16878/4BGE-4
Length = Refer to drawing
Wire 20 AWG Black
Mil spec M16878/4BGE-0
Length = Refer to drawing

Molex Mini-Fit series Plug pin-out; wires side view



Crimp contacts:
0460181541; WM6276CT-ND (18-20AWG)
Mates with:
Existing Mini-Fit on Ocean Server XP-08 boards

Molex Mini-Fit series Current Rating
30 Deg C max temp rise
AWG#18 : 7.5A
AWG#20 : 6A
AWG#22 : 5A
AWG#24 : 4A

Rev notes: ref sheet 1

		Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd, Moss landing CA 95076	
Engineer Klimov	831-775-1914	Page Title Charge Distribution Cables	Project: 901400
Size B	Doc. or Part Number <Doc>	File Name (auto) 10021057-HALF-PACK-HARNESSES	Rev Ref sheet 1
Page Modify Date (auto): Design Modify Date (auto): Full path (auto):	Thursday, June 01, 2017 Thursday, June 01, 2017 X:\1900739.LRAUV\PROJECT.DRAWING\GSP\PROJECT.EE.DWGS\BATTERYPACK2013\10021057-APACK\10021057-HALF-PACK-HARNESSES.DSN	Sheet: 3 of 4	

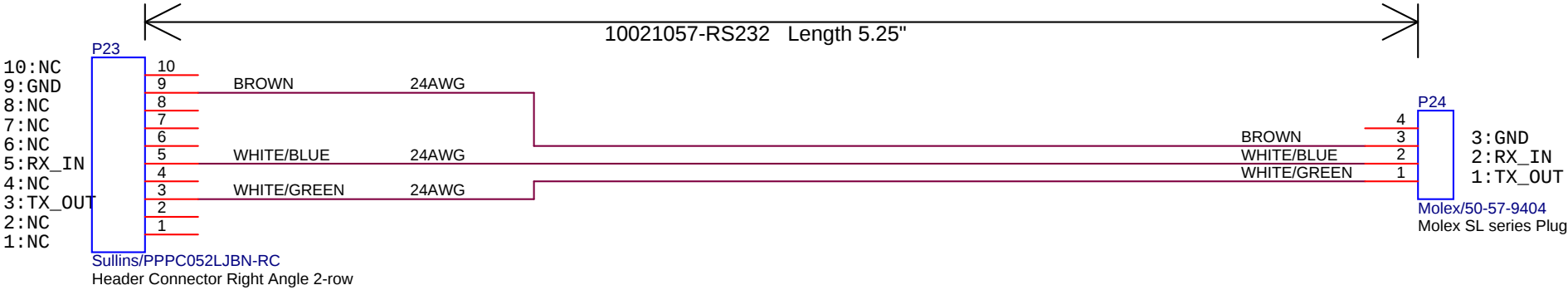
LRAUV Half-Pack internal serial cable. 1 required for Half-Pack; 2 required for Full-Pack

RevC

Harness 10021057-RS232

Plugs to Ocean Server
XP-08SR board stack
Lower level board
(master) connector J8

Mates with
existing 0.1" x
10 pins x 2 row
header on XP-08SR
board



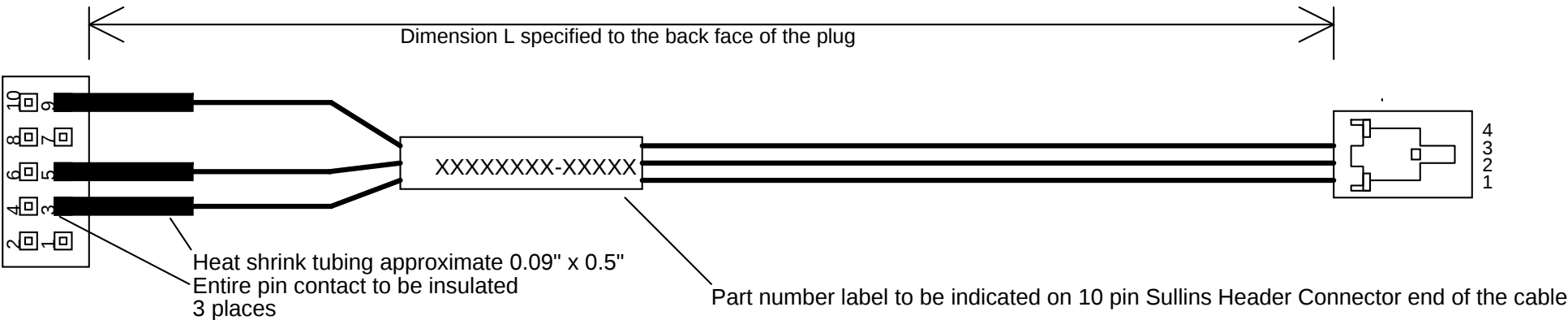
Plugs to Battery Pack Controller
10021057-BPC1, connector J45

PC23
Molex/0016020087
Molex SL series Contact
Quantity Q2 = 3

Mates with:
Molex 0705430003 on the
10021057-BPC1 board

RevC

Schematic mechanic drawing
Not to scale



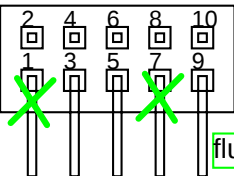
- Notes, sheet 4:
1. Ref designators P: Plug; PC: Plug contact; W: wire
 2. Dimensions per schematic drawing
 3. Length as indicated for part number
 4. Install label as indicated
 5. Use wires per "Wire Part Numbers" chart listed

Sullins 2-row Right Angle Header Connector modification and pin-out

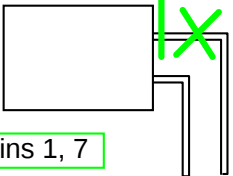
Back (solder pins) View

Side View

flush cut-off pins 2, 4, 6, 8, 10



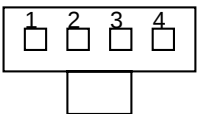
flush cut-off pins 1, 7



Wires part numbers

- W13 Wire 24 AWG BROWN
Generic 24 AWG Brown
Length = Refer to drawing
- W14 Wire 24 AWG WHITE/BLUE
Generic 24 AWG White/Blue
Length = Refer to drawing
- W15 Wire 24 AWG WHITE/GREEN
Generic 24 AWG White/Green
Length = Refer to drawing

Molex SL series Plug pin-out; wires side view



Crimp contacts:
0016020087; WM2512CT-ND (22-24 AWG, 15 AU)
or:
0016021111; DigiKey WM2570CT-ND (22-24AWG, 30AU)

Rev notes: ref sheet 1

				Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd, Moss landing CA 95076	
Engineer Klimov		831-775-1914		Page Title Internal Serial Cable	Project: 901400
Size B	Doc. or Part Number <Doc>	File Name (auto) 10021057-HALF-PACK-HARNESSES		Rev Ref sheet 1	
Page Modify Date (auto): Design Modify Date (auto): Full path (auto):		Thursday, June 01, 2017 Thursday, June 01, 2017 X:\900739\LRAUV\PROJECT.DRAWING\GSP\PROJECT.EE.DWGS\BATTERYPACK2013\10021057-APACK\10021057-HALF-PACK-HARNESSES.DSN		Sheet: 4 of 4	