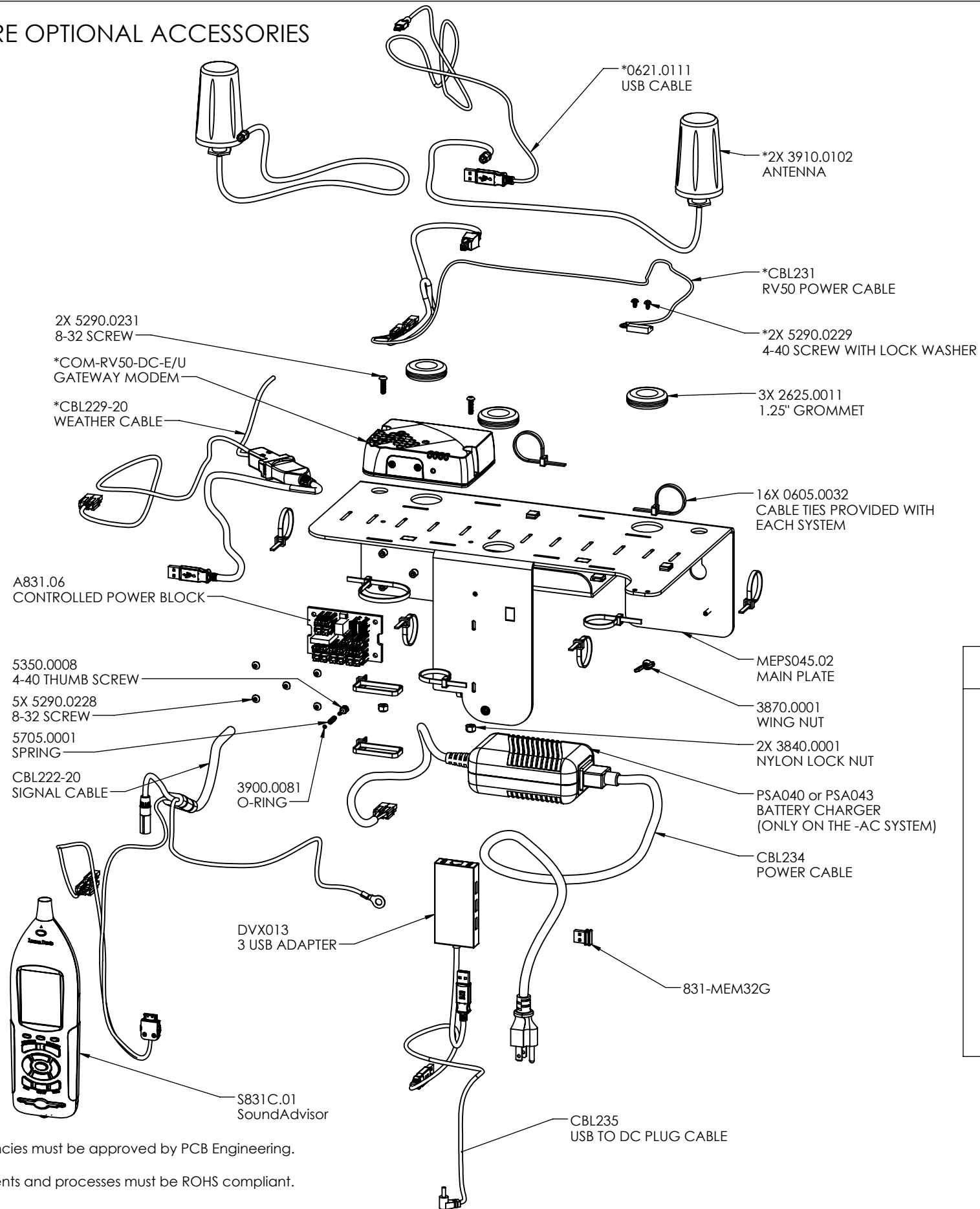


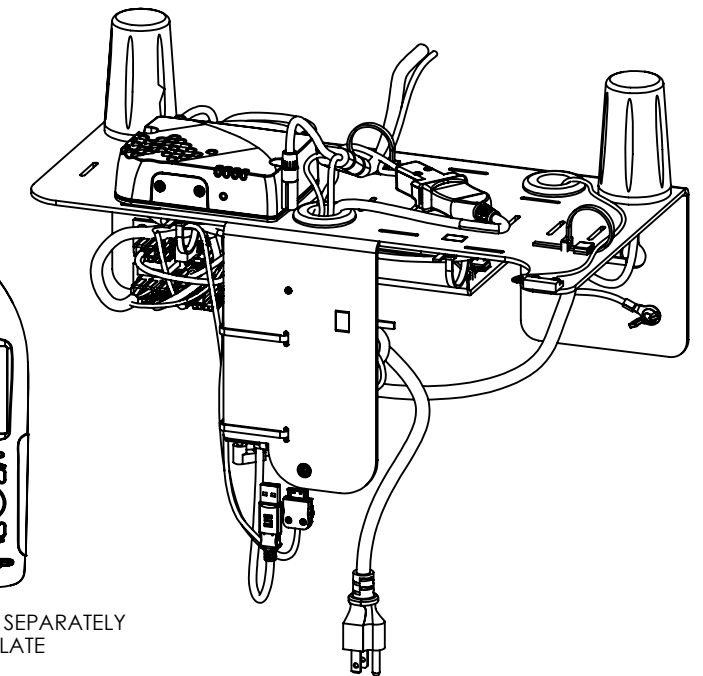
* ITEMS ARE OPTIONAL ACCESSORIES

| REV. | DESCRIPTION | DATE | BY | ECO |
|------|-----------------------------------|-----------|------------|------|
| A | INITIAL RELEASE | 1/19/2018 | D. WILDING | 4667 |
| B | ADDED 831-MEM32G INSTALLATION | 3/16/2018 | D. WILDING | 4686 |
| C | ADDED NOTES FOR PSA040 AND PSA043 | 8/12/2019 | D. WEBSTER | 4870 |



ITEMS NOT SHOWN:

- PRM2103-FF - MIC AND PREAMP
- SEPS21 16.44 - ENVIRONMENTAL HOUSING
- 831-MEM32G - USB 32 GIG MEMORY
- 2360.0094 - GLAND
- 3900.0059 - O-RING
- 7035.0004 - 4' CABLE WRAP
- CBL233-12 - SOLAR CABLE
- CBL226-03 - SOLAR CHARGER CABLING
- MEPS045.06 - SOLAR CABLE GLAND PLUG
- 3405.0001 - GREASE PACKET

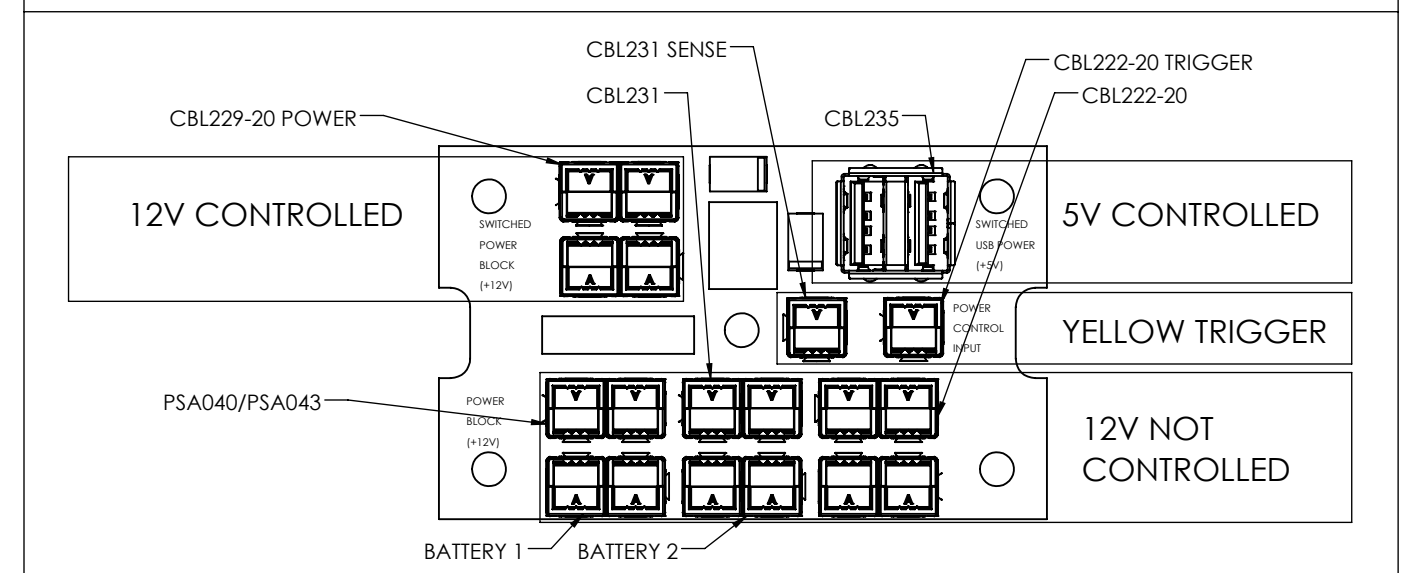


NOTE: SHIPS SEPARATELY FROM THE PLATE

NOTE: SHIPS WITH CABLING ATTACHED

COMPLETE ALL CABLING AND ENSURE THE LINES ARE AS TIDY AS POSSIBLE. DO NOT USE THE ADDITIONAL CABLE TIES WHICH ARE INCLUDED FOR CUSTOMER INSTALLATION.

CABLE CONNECTION FOR CONTROLLED POWER BLOCK



Notes:

- All equivalencies must be approved by PCB Engineering.
- All components and processes must be ROHS compliant.
- First article to be approved by PCB Engineering.
- After assembly, inspect per D0001.8435 - NMS045 FUNCTIONALITY INSPECTION PROCEDURE

PCB PIEZOTRONICS
Provo, Utah, USA (801) 375-0177

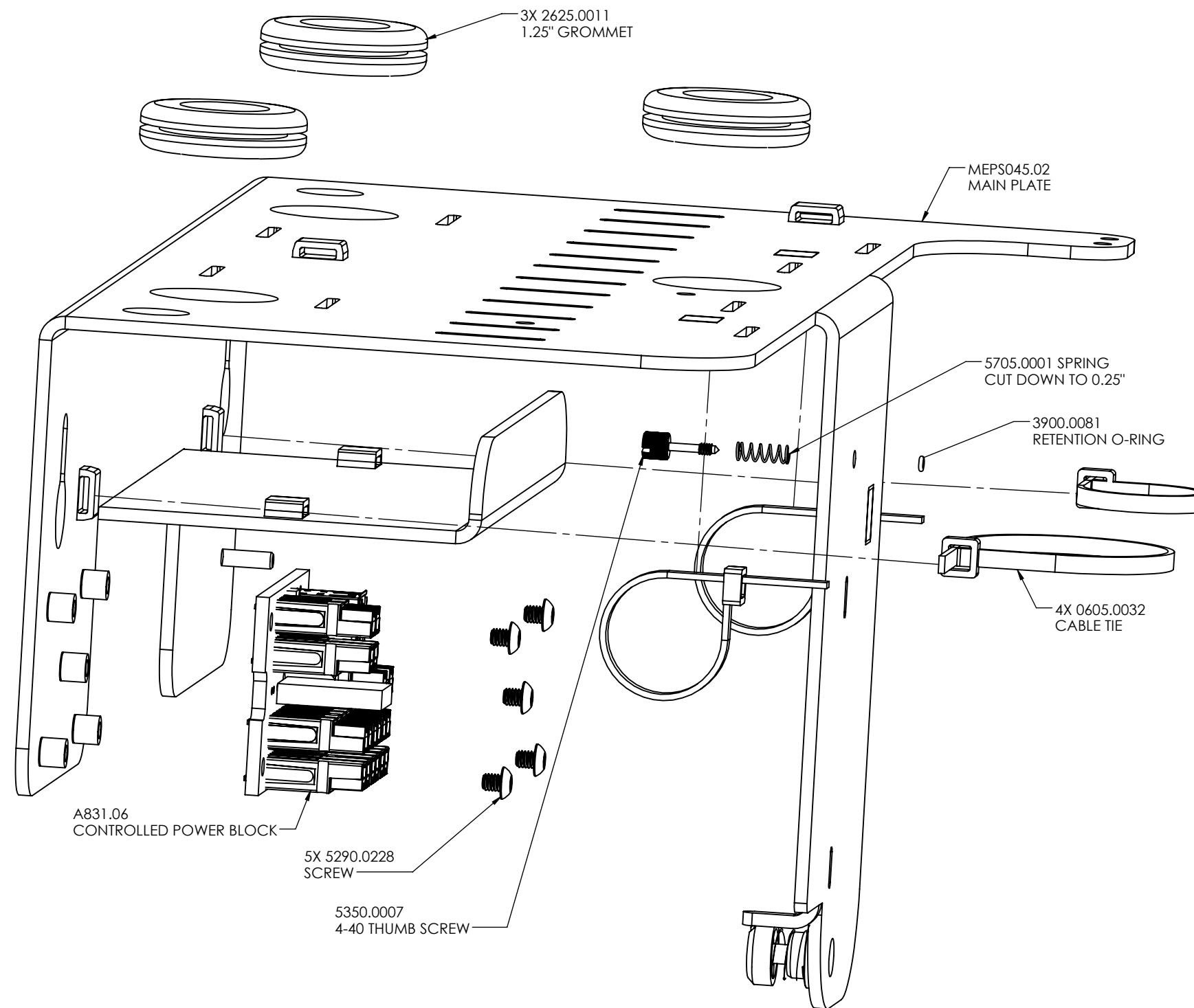
TITLE
NMS045 SLM system with cabling

PROPRIETARY AND CONFIDENTIAL THIS DOCUMENT, SUBMITTED IN CONFIDENCE, CONTAINS PROPRIETARY INFORMATION WHICH SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF PCB PIEZOTRONICS, INC.
COPYRIGHT © PCB PIEZOTRONICS, INC. FILE NAME: 831C-045 NMS045 SLM system with cabling

AUTHOR
D. ANDERSON
DATE
10/31/2017

SIZE NUMBER
B 831C-045
SCALE 1:5
REV. C
SHEET 1 OF 9

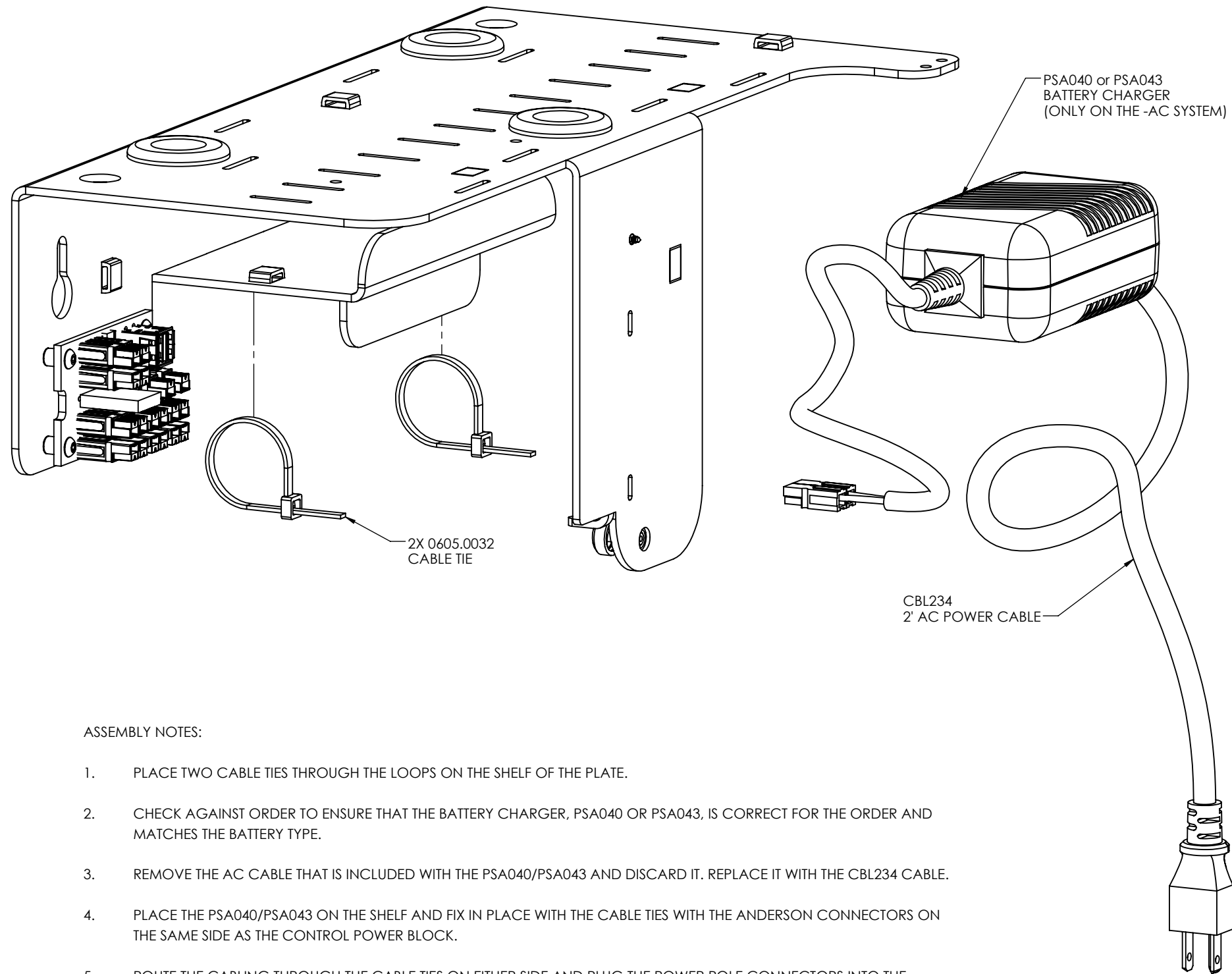
Plate Component Assembly



ASSEMBLY NOTES:

1. PLACE 2625.0011 GROMMETS INTO THE PLATE HOLES.
2. CUT THE 5705.0001 SPRING TO 0.25". PLACE THE SPRING AND 4-40 SCREW INTO THE PLATE. PLACE THE 3900.0081 RETENTION O-RING OVER THE SCREW.
3. ALIGN THE A831.06 BOARD TO THE MOUNT POSTS MAKING SURE THE USB PORTS ARE ON THE TOP SIDE OF THE BOARD. **USE RED LOCTITE ON THE 5290.0228 HEX SCREWS TO HOLD THE POWER BLOCK IN PLACE.**
4. PLACE TWO CABLE TIES THROUGH THE LOOPS ON THE BACK INSIDE OF THE PLATE. PLACE TWO CABLE TIES THROUGH THE LOOPS ON THE TOP INSIDE OF THE PLATE.

PSA040/PSA043 Assembly - For AC Powered System



ASSEMBLY NOTES:

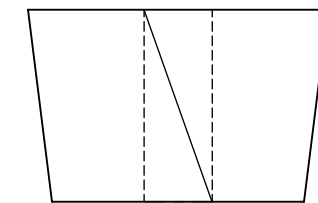
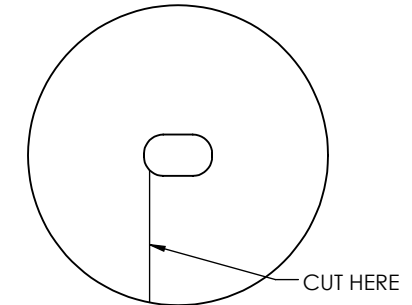
1. PLACE TWO CABLE TIES THROUGH THE LOOPS ON THE SHELF OF THE PLATE.
2. CHECK AGAINST ORDER TO ENSURE THAT THE BATTERY CHARGER, PSA040 OR PSA043, IS CORRECT FOR THE ORDER AND MATCHES THE BATTERY TYPE.
3. REMOVE THE AC CABLE THAT IS INCLUDED WITH THE PSA040/PSA043 AND DISCARD IT. REPLACE IT WITH THE CBL234 CABLE.
4. PLACE THE PSA040/PSA043 ON THE SHELF AND FIX IN PLACE WITH THE CABLE TIES WITH THE ANDERSON CONNECTORS ON THE SAME SIDE AS THE CONTROL POWER BLOCK.
5. ROUTE THE CABLING THROUGH THE CABLE TIES ON EITHER SIDE AND PLUG THE POWER POLE CONNECTORS INTO THE POWER BLOCK AS DETAILED ON SHEET 1.

Cable Gland Plug and Charge Cable - For Solar Powered System

MEPS045.06 - SOLAR ONLY

ASSEMBLY NOTES:

1. CUT SLIT WITH RAZOR THROUGH PLUG AS SHOWN BELOW



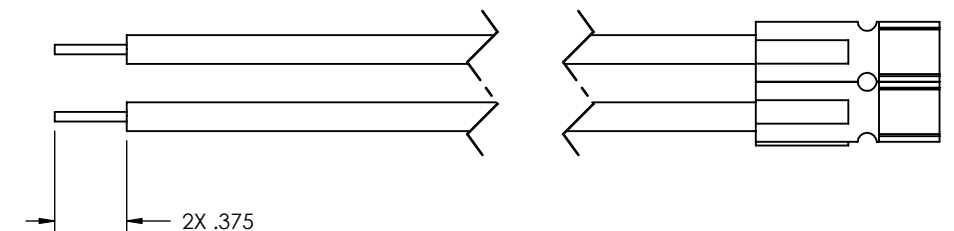
BAG THE FOLLOWING TOGETHER FOR SHIPMENT:

- 2360.0094 - GLAND
- 3900.0059 - O-RING
- MEPS045.06 - SOLAR CABLE GLAND PLUG
- 3405.0001 - GREASE PACKET

CBL226-03 - SOLAR ONLY

ASSEMBLY NOTES:

1. STRIP AND TIN ENDS WITH LEAD FREE SOLDER



DVX013 Assembly - PSA040/PSA043 NOT SHOWN FOR CLARITY

ASSEMBLY NOTES:

1. ROUTE THE CBL235 THROUGH THE CABLE TIE ABOVE THE CONTROLLED POWER BLOCK. PLUG THE CABLE INTO THE CONTROLLED POWER BLOCK AS DETAILED ON SHEET 1.
2. ROUTE THE 1.35 MM BARREL THROUGH THE CABLE TIE ON THE TOP.
3. PLACE THE DVX013 ON THE FRONT INSIDE PLATE USING THE TWO 0605.0027 CABLE TIES. MAKE SURE THE 1.35MM BARREL IS ROUTED UNDERNEATH THE CABLE TIES AS SHOWN IN THE DETAIL VIEW.
4. INSTALL THE 831-MEM32G USB DRIVE INTO THE BOTTOM SLOT OF THE DVX013 AS SHOWN IN THE DETAIL VIEW.

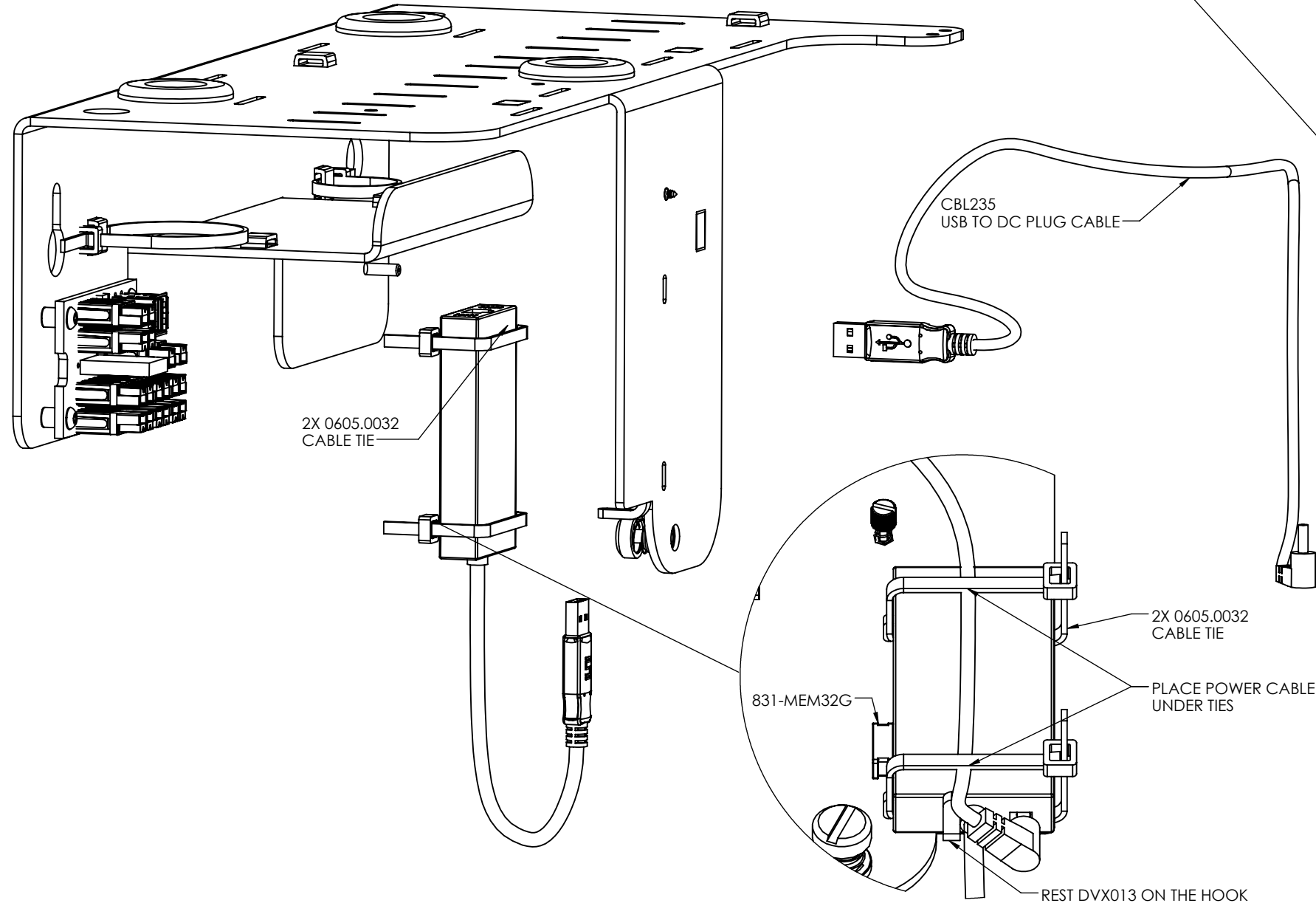
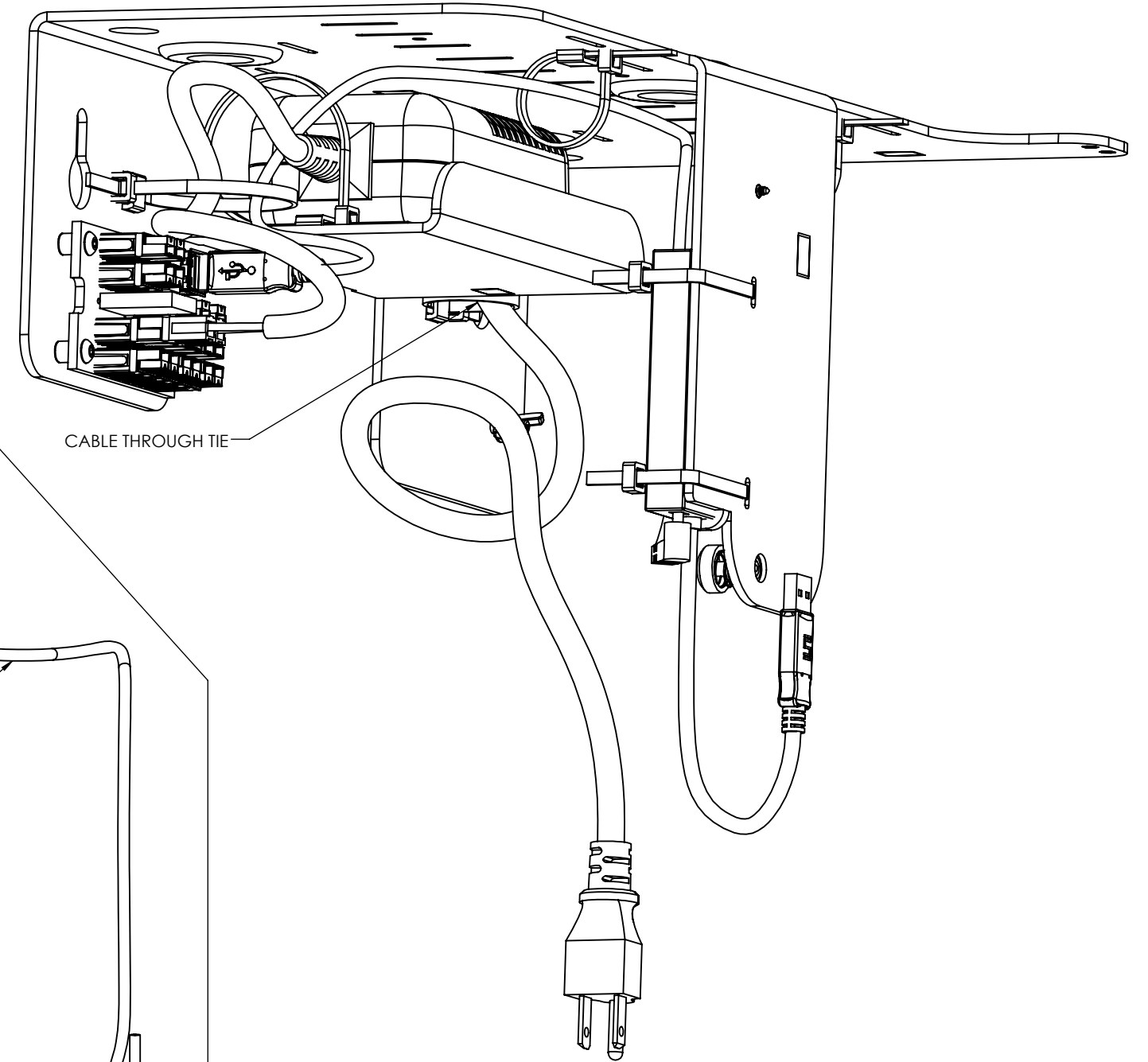


Plate Prior to Component Cabling - AC OPTION SHOWN

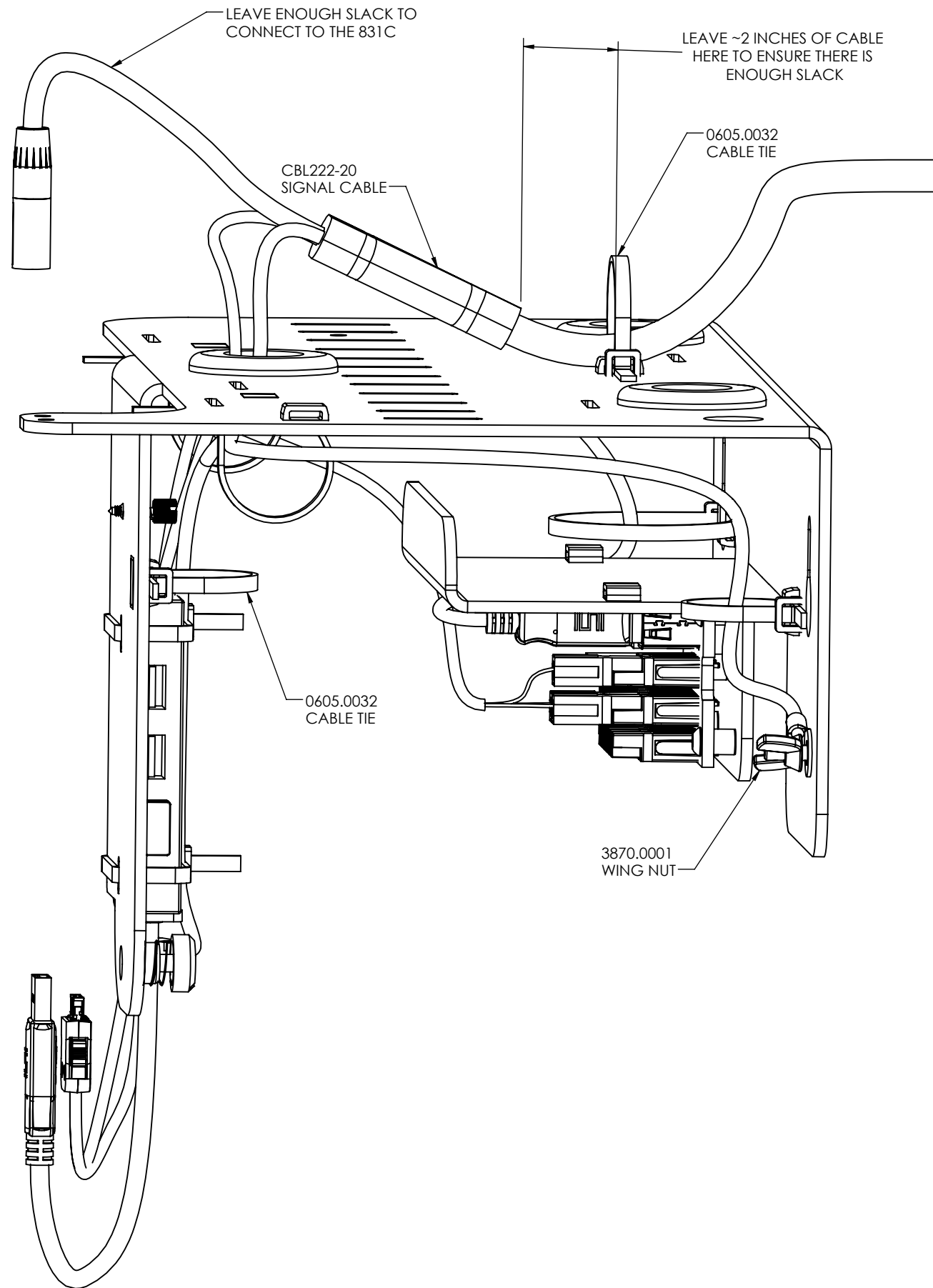


NOTES:

THE 831C IS PACKAGED SEPARATELY AND INSTALLED BY THE USER.

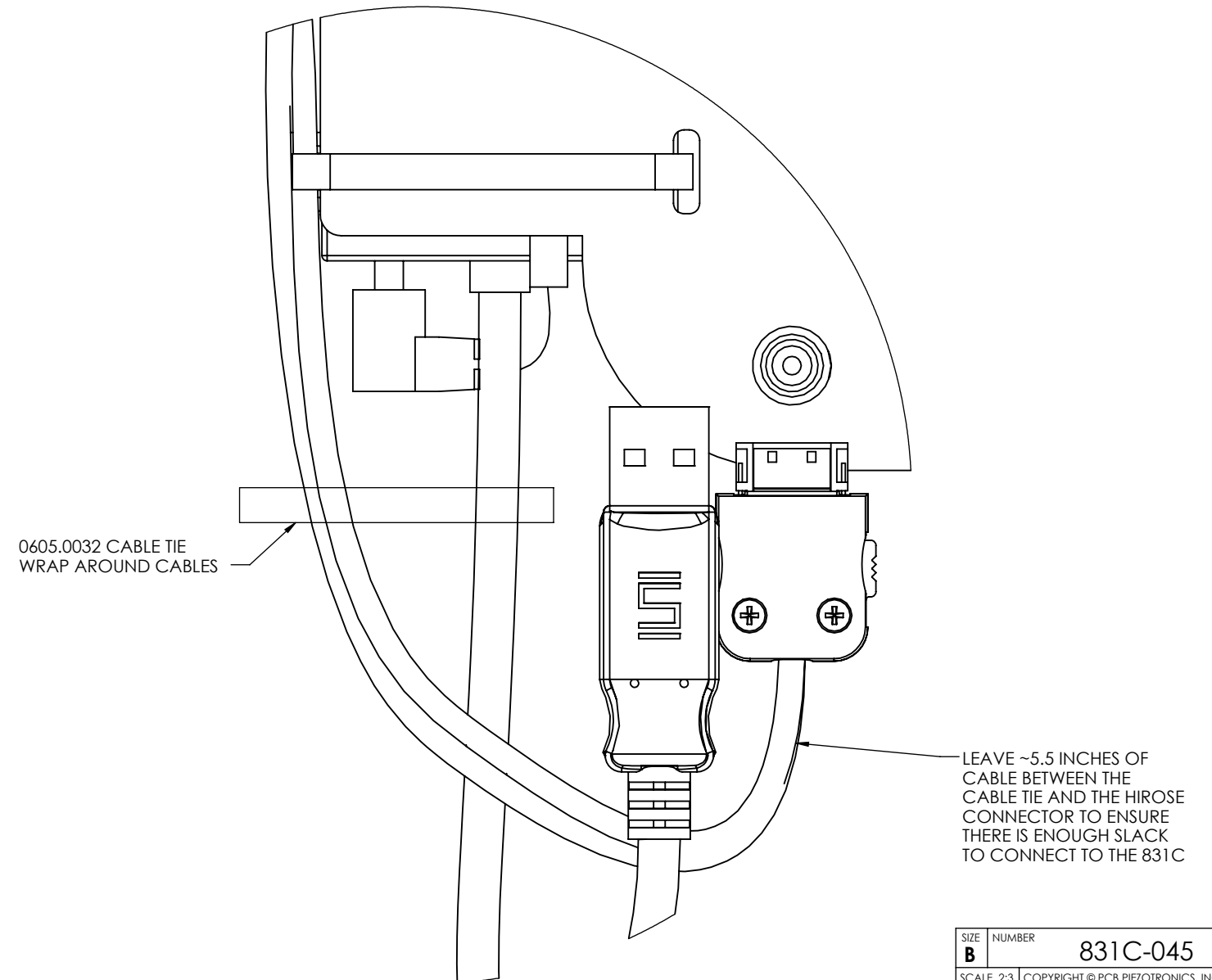
THE NEXT SET OF STEPS DEPEND ON THE PURCHASED CONFIGURATION. CHECK AGAINST THE ORDER TO CONFIRM WHAT ADDITIONAL ITEMS SHOULD BE INCLUDED ON THE PLATE BEFORE SHIPMENT.

CBL222-20 831C Assembly

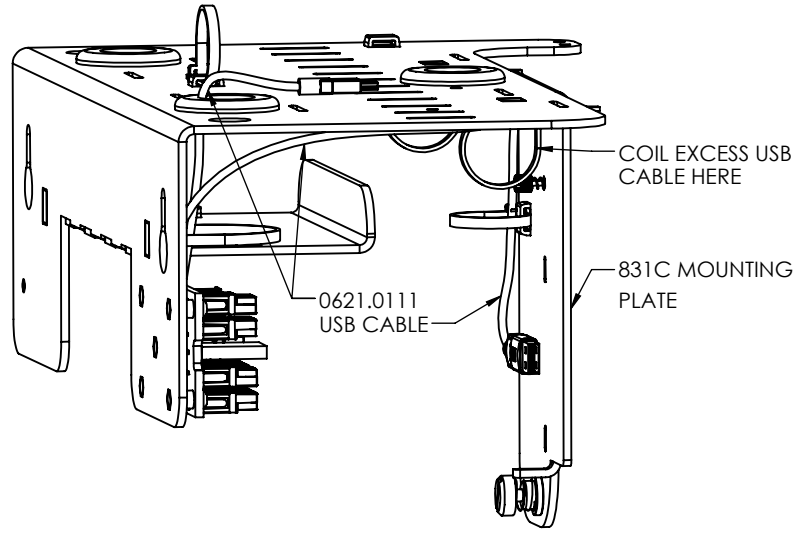
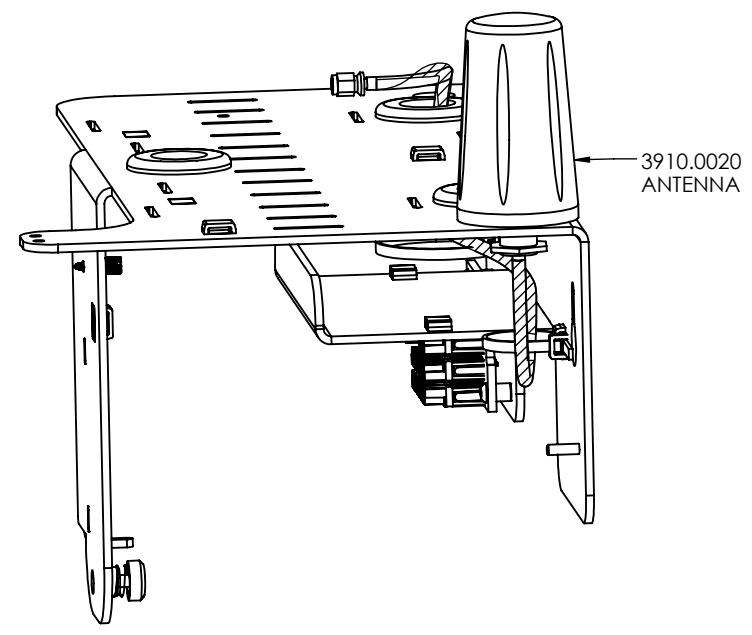
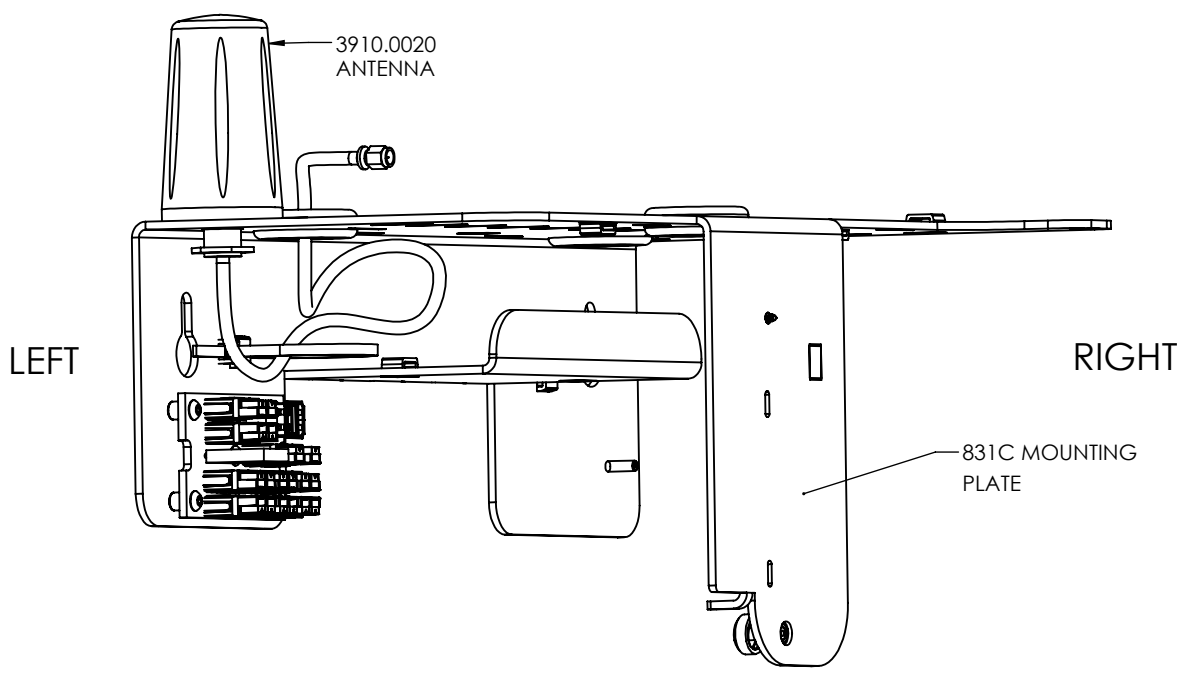
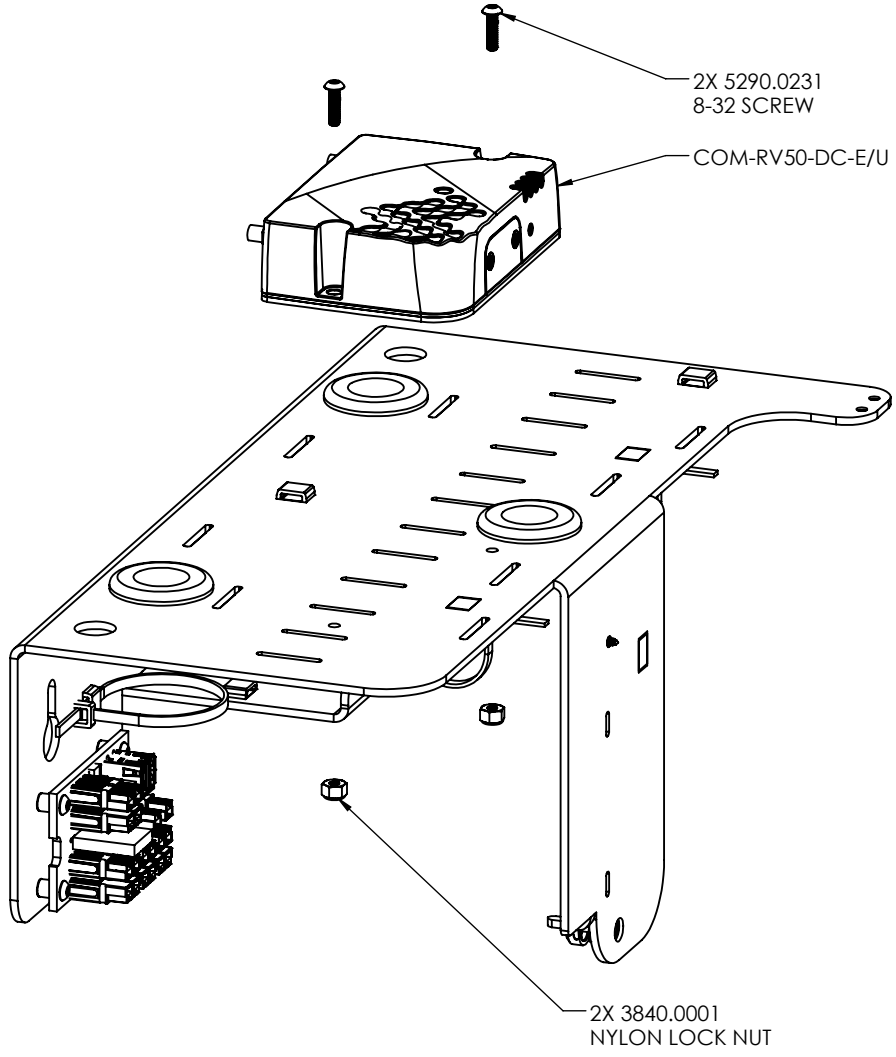


ASSEMBLY NOTES:

1. WITH THE CBL222-20 ON THE TOP OF PLATE ROUTE HIROSE CONNECTOR THROUGH THE TOP CENTER GROMMET, THEN ALONG THE SIDE WHERE THE USB HUB IS LOCATED. ZIP TIE THE CABLE TO THE USB HUB CABLE THAT COMES OUT FROM THE BOTTOM. LEAVE ENOUGH CABLING TO ATTACH TO THE 831C WHEN INSTALLED ON THE PLATE.
2. ROUTE THE GROUND LINE THROUGH THE TOP CENTER GROMMET AND THROUGH THE TOP FRONT CABLE TIE. CONTINUE TO ROUTE THE GROUND LINE THROUGH THE CABLE TIE ON THE BACK INSIDE OF THE PLATE, AND ATTACH THE LUG TO THE PLATE USING THE WING NUT.
3. ROUTE THE POWER LINE THROUGH THE TOP CENTER GROMMET, THEN THROUGH THE TOP FRONT CABLE TIE.
4. CONNECT THE POWER POLE CONNECTORS TO THE CONTROLLED POWER BLOCK AS DETAILED ON SHEET 1.
5. HOLD DOWN THE CBL222-20 CABLE TO THE PLATE USING THE CABLE TIE ON THE TOP CENTER OF THE PLATE. DO NOT TIGHTEN IF A WEATHER SYSTEM IS ALSO PART OF THE ORDER.



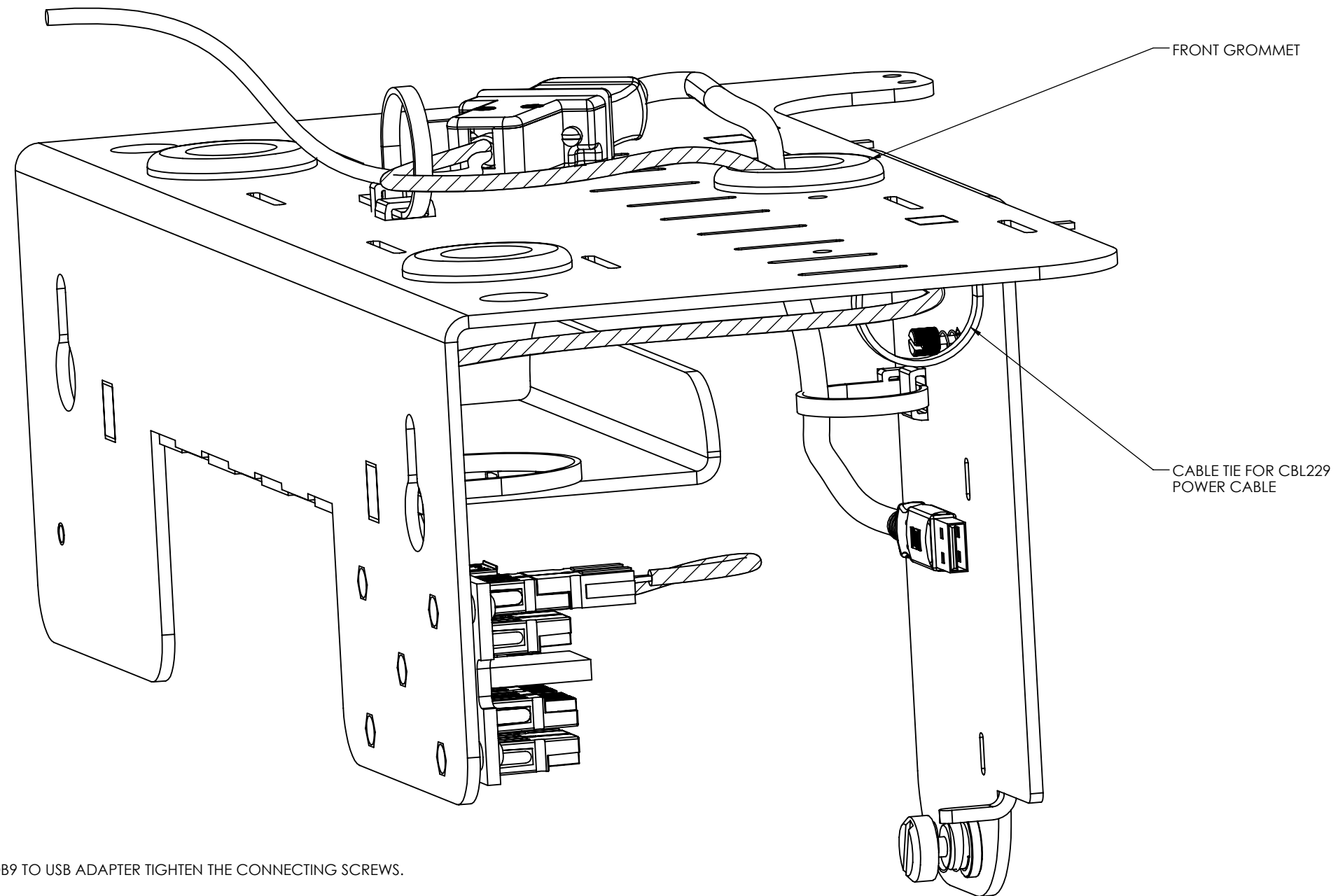
COM-RV50-045U/E Assembly Part 1 - Only applicable if COM-RV50-045U/E kit is ordered



ASSEMBLY NOTES:

1. IF MODEM IS NOT ALREADY CONFIGURED, FOLLOW D0001.8422 WORK INSTRUCTION.
2. MOUNT THE RV50 TO THE PLATE USING THE 3840.0001 LOCK NUTS AND 5290.0231 8-32 SCREWS.
3. REMOVE THE WASHER AND NUT FROM ONE ANTENNA AND ROUTE THE CABLE THROUGH THE HOLE IN THE PLATE. REMOVE THE PAPER ON THE BOTTOM OF THE ANTENNA COVERING THE ADHESIVE. TIGHTEN THE ANTENNA TO THE PLATE USING THE WASHER AND NUT TO A SNUG FIT. DO THIS FOR BOTH ANTENNA LOCATIONS AS SHOWN ABOVE.
4. ROUTE THE SMA CONNECTOR OF THE ANTENNAS UP THROUGH THE GROMMET ON THE LEFT SIDE OF THE PLATE AS SHOWN AND CONNECT TO THE RV50.
5. ROUTE THE 0621.0111 USB CABLE THROUGH THE GROMMET BEHIND THE RV50, LEAVING THE MINI B CONNECTOR ON THE TOP OF THE PLATE. THEN CONNECT THE MINI B CONNECTOR TO THE RV50.
6. COIL THE EXCESS OF THE 0621.0111 USB CABLE IN THE CABLE TIE ON THE FRONT INSIDE OF THE PLATE, AS INDICATED IN THE IMAGE TO THE RIGHT.
7. FINISH ROUTING THE USB CABLE THROUGH THE CABLE TIE BEHIND THE 831C MOUNTING PLATE. PLUG INTO THE DVX013 IN THE TOP SLOT.

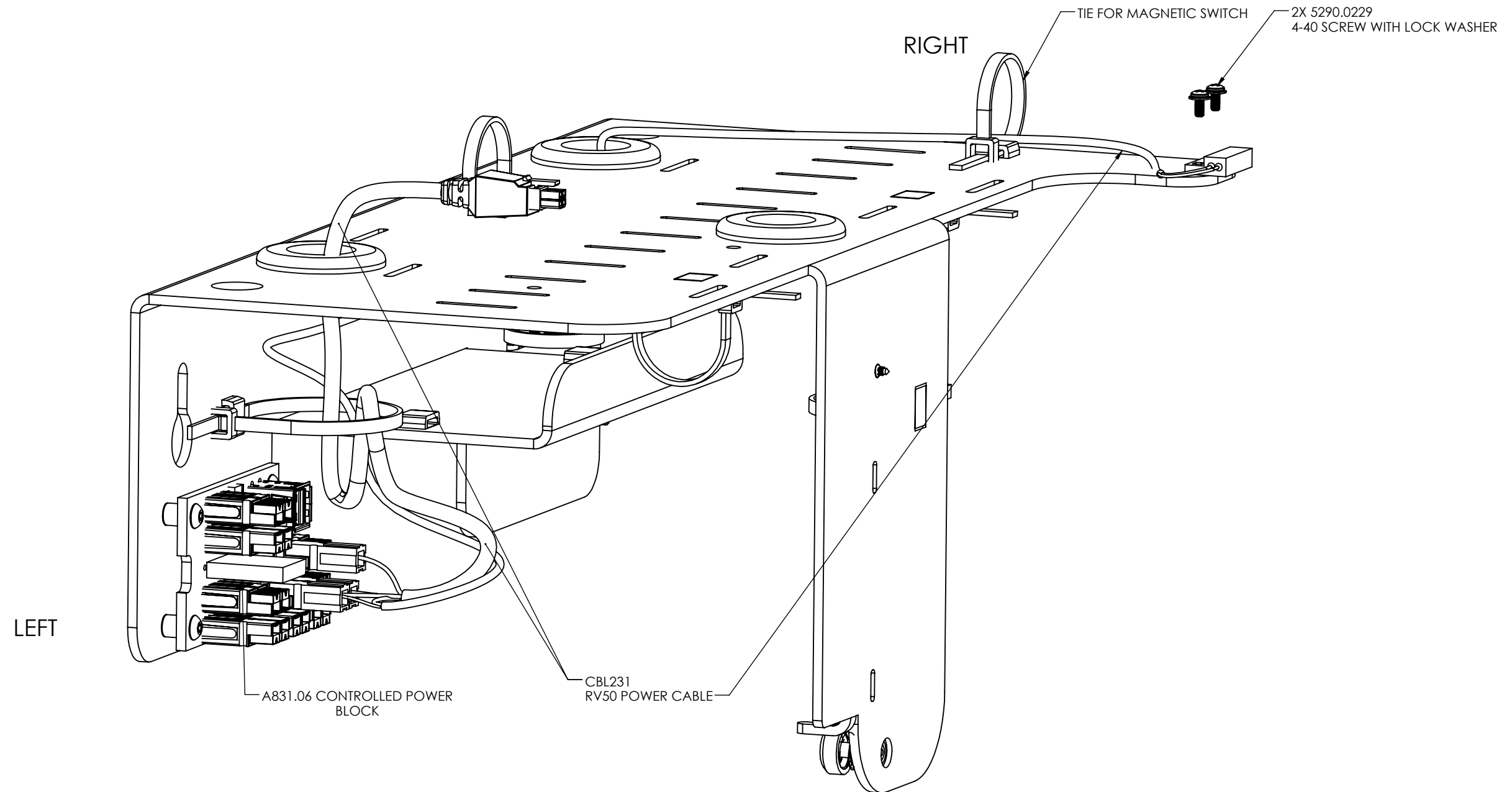
SEN031-045/ SEN032-045 Weather Assembly - Only applicable if SEN031-045/SEN032-045 kit is ordered



ASSEMBLY NOTES:

1. CONNECT THE CBL229-20 CABLE TO THE DVX008A DB9 TO USB ADAPTER TIGHTEN THE CONNECTING SCREWS.
2. ROUTE THE DVX008A USB THROUGH THE TOP OF THE CENTER CABLE GLAND AND THE CABLE TIE ON THE INSIDE FRONT OF THE PLATE.
3. CONNECT THE DVX008A USB INTO THE DVX013.
4. ROUTE THE SIGNAL AND POWER LINE OF THE CBL229-20 THROUGH THE CABLE TIE ON THE TOP BACK OF THE PLATE.
5. ROUTE THE POWER LINE (HATCHED CABLE) OF THE CBL229-20 THROUGH THE FRONT GROMMET, AND THROUGH CABLE TIE AS INDICATED ABOVE.
6. CONTINUE TO ROUTE THE CBL229-20 POWER LINE THROUGH THE CABLE TIE ABOVE THE CONTROLLED POWER BLOCK.
7. CONNECT THE POWER POLE CONNECTOR TO THE CONTROLLED POWER BLOCK AS DETAILED ON SHEET 1.

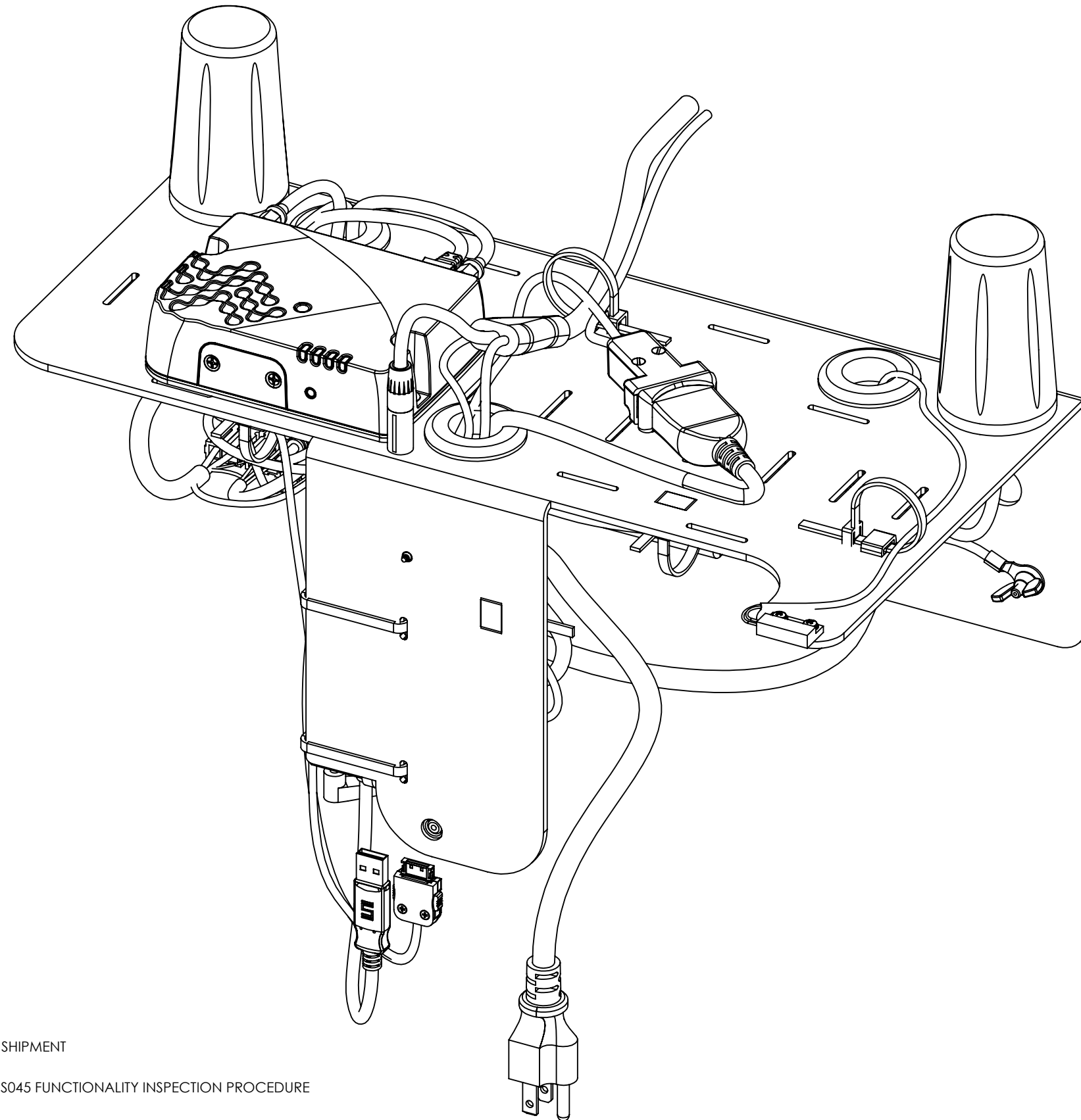
COM-RV50-045 Assembly Part 2 - Only applicable if COM-RV50-045U/E kit is ordered



ASSEMBLY NOTES:

1. ROUTE THE MAGNETIC SWITCH FROM THE CBL233 ALONG THE SHELF AND UP THROUGH THE GLAND ON THE RIGHT SIDE OF THE PLATE.
2. CONTINUE ROUTING THROUGH THE CABLE TIE AND USE THE 5290.0229 4-40 SCREWS TO HOLD IT TO THE PLATE.
3. TIGHTEN THE CABLE TIE THAT IS ON TOP OF THE PLATE RIGHT BEHIND THE MAGNETIC SWITCH, LEAVE 0.5" BEND RADIUS AT THE MAGNETIC SWITCH.
4. PLUG IN THE POWER POLE CONNECTOR INTO THE CONTROLLED POWER BLOCK AS DETAILED ON SHEET 1.
5. ROUTE THE RV50 POWER CONNECTOR THROUGH THE GLAND ABOVE THE POWER BLOCK AND CONNECT IT TO THE RV50. COIL REMAINING CABLING IN THE ZIP TIE AREA ABOVE THE A831.06 CONTROLLED POWER BLOCK.

Final Assembly View - All Kits included



ASSEMBLY NOTES:

1. BAG SMALL MISCELLANEOUS ITEMS TOGETHER FOR SHIPMENT
2. AFTER ASSEMBLY, TEST SYSTEM PER D0001.8435 - NMS045 FUNCTIONALITY INSPECTION PROCEDURE