Connect Tech Inc.

OrbittyBox Customer Assembly Instructions

Revision History

REVISION	DATE	AUTHOR(S)	CHANGE(S)
0.00	02/09/2018	D.P.	INITIAL RELEASE
0.01	05/02/2018	D.P.	DOCUMENT ALTERED TO SUIT MODIFIED PARTS
0.02	07/12/2018	D.P.	ADDED TORQUE AND THREADLOCKER RECOMMENDATIONS
0.03	06/06/2019	D.P.	UPDATED REVISED PARTS
0.04	09/01/2020	D.P.	CLERICAL UPDATE

ESD WARNING NOTICE

Electronic components and circuits are sensitive to ElectroStatic Discharge (ESD). When handling any circuit board assemblies, it is recommended that ESD safety precautions be observed. ESD safe best practices include, but are not limited to:

· Leaving circuit boards in their antistatic packaging until they are ready to be installed.
· Using a grounded wrist strap when handling circuit boards, at a minimum you should touch a grounded metal object to dissipate any static charge that may be present on you.
· Only handling circuit boards in ESD safe areas, which may include ESD floor and table mats, wrist strap stations and ESD safe lab coats.
· Avoiding handling circuit boards in carpeted areas.
· Try to handle the board by the edges, avoiding contact with components.

PARTS LIST:

BASE ASSEMBLY; QTY. 1
COVER ASSEMBLY; QTY. 1
SCREW, M3.0, 5.0 mm, PFHMS; QTY. 4

— THESE THREE ITEMS COME PRE-ASSEMBLED

SCREW, M3.0, 10.0 mm, PFHMS; QTY. 4
STANDOFF, M/F, M3.0, 8.0 mm; QTY. 4

— THESE TWO ITEMS COME IN A POLYBAG INSIDE THE CHASSIS

TOOLS REQUIRED: *MAY NOT BE EXACTLY AS SHOWN*

#1 PHILLIPS SCREWDRIVER

2.0 mm WIDE SLOT SCREWDRIVER

4.5 mm NUT DRIVER
8.0 mm NUT DRIVER

NEEDLE NOSE PLIER

RECOMMEND TORQUE DRIVER AND LIGHT DUTY THREADLOCKER

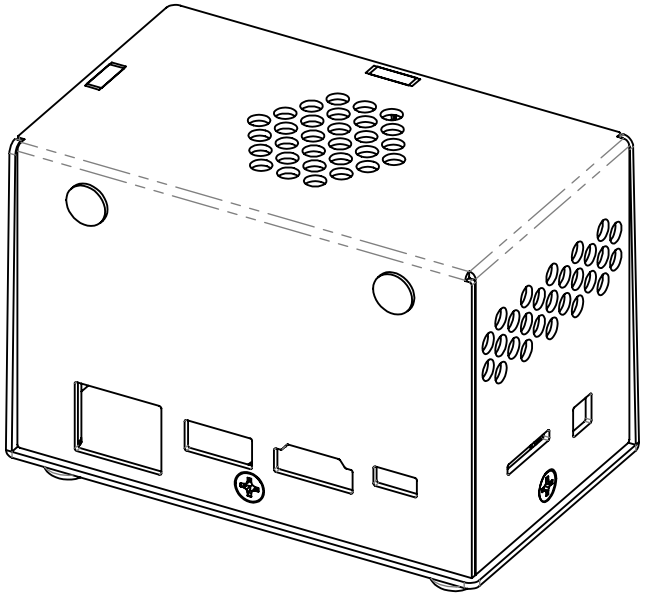


FIGURE 1

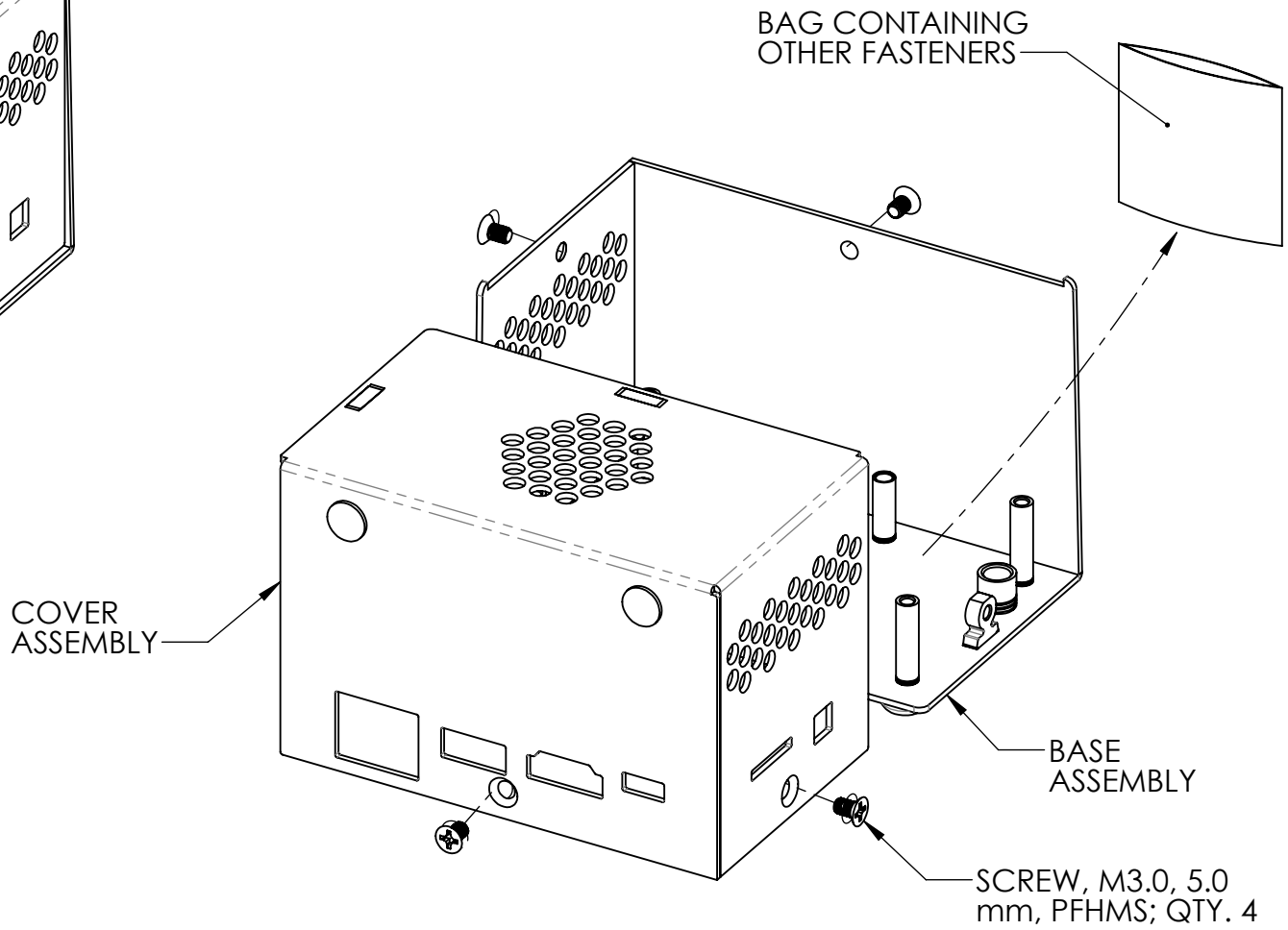
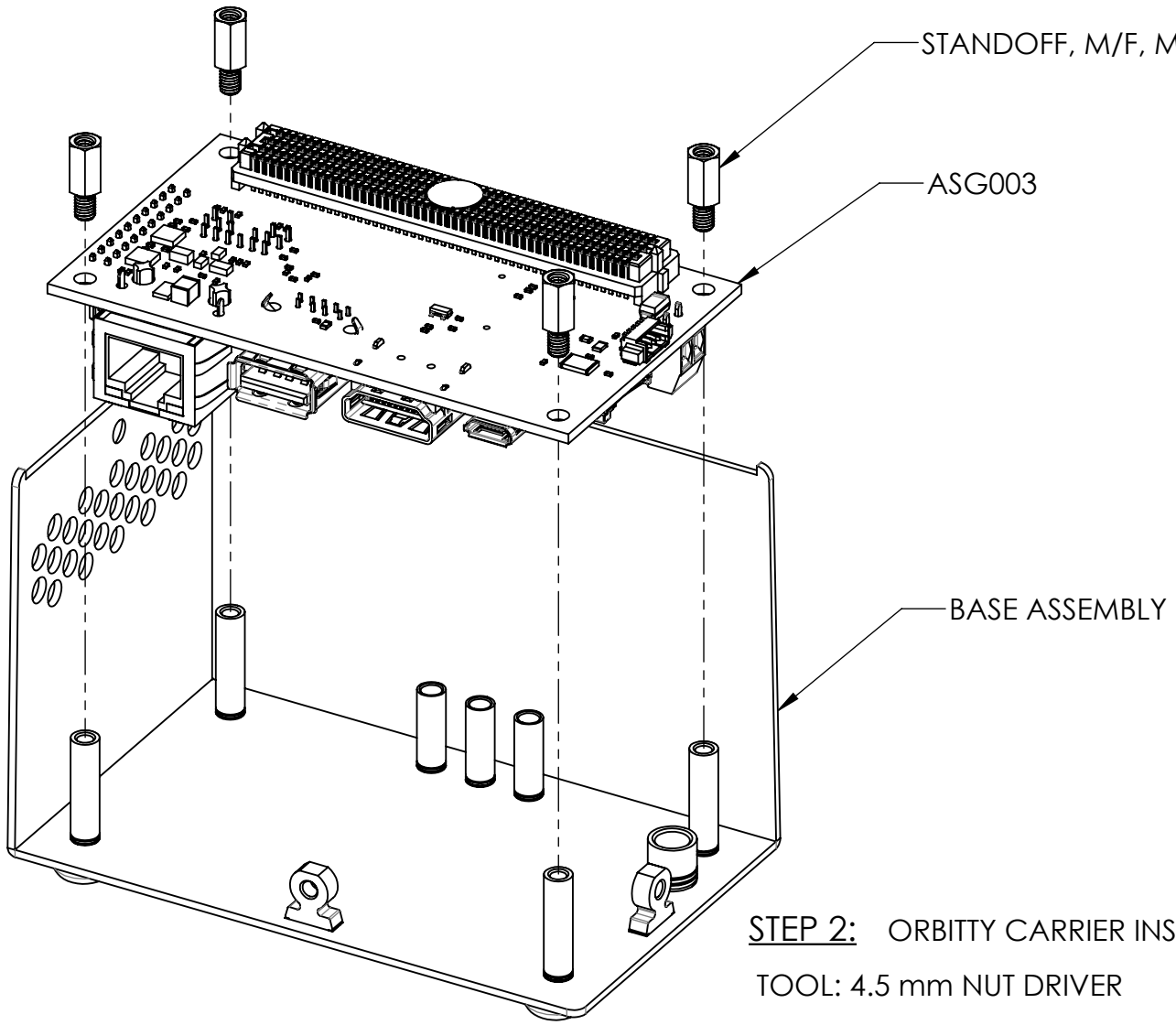


FIGURE 2

STEP 1: UNPACK & DISASSEMBLY

TOOL: PHILLIPS SCREWDRIVER

1. REMOVE CONTENTS FROM OUTER SHIPPING PACKAGING (FIGURE 1).
2. REMOVE 4 SCREWS HOLDING ENCLOSURE TOGETHER, AND SET ASIDE COVER AND 4 SCREWS (FIGURE 2).
3. INSIDE THERE IS A BAG CONTAINING OTHER FASTENERS - LOCATE AND SET ASIDE.

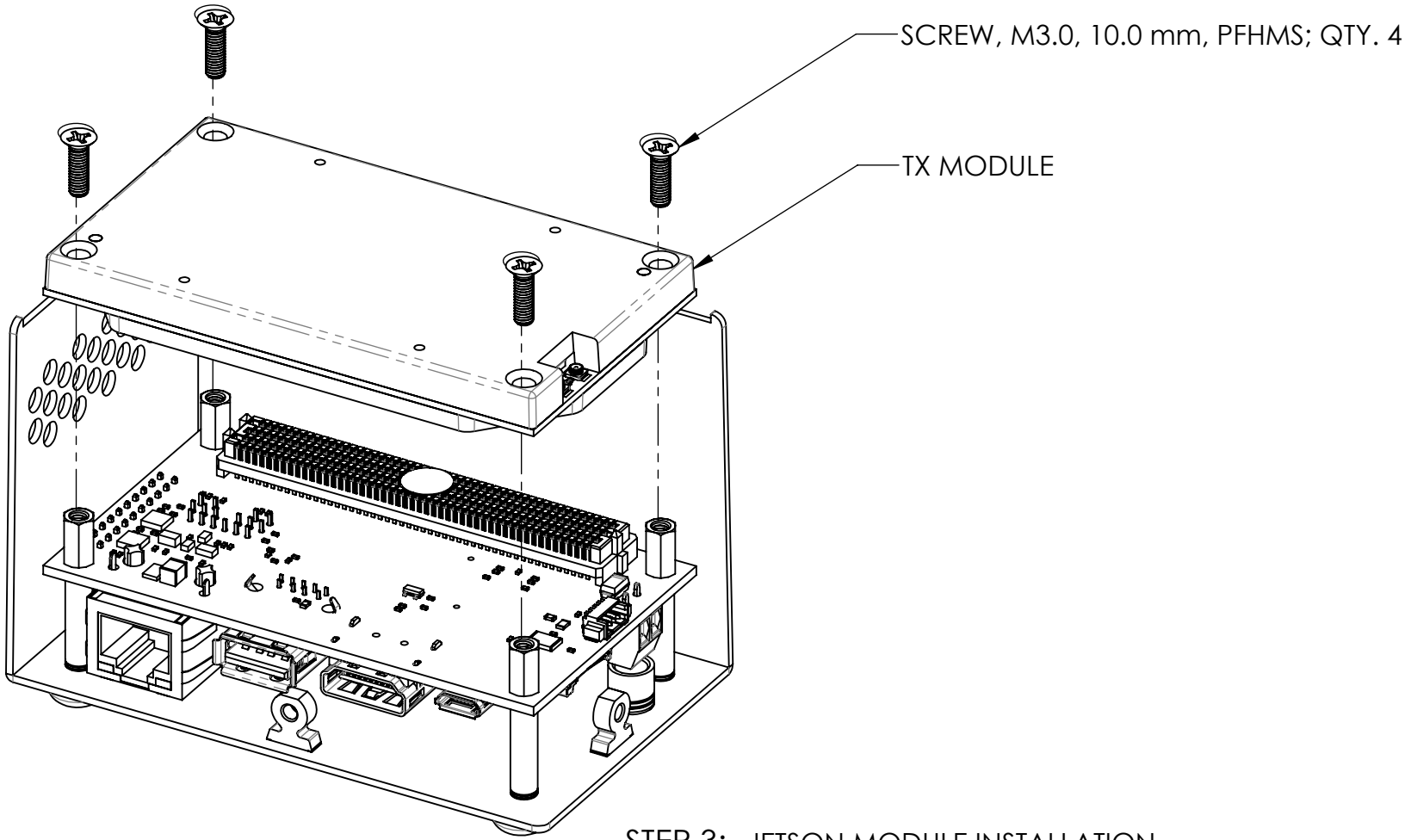


STEP 2: ORBITTY CARRIER INSTALLATION

TOOL: 4.5 mm NUT DRIVER

1. ASSEMBLE THE ASG003 BY INVERTING IT AS SHOWN AND RESTING ON THE BASE ASSEMBLY.
2. LOOSELY FASTEN THE BOARD USING THE STANDOFFS IN 4 PLACES.
3. TIGHTEN ALL FASTENERS IN AN "X" PATTERN.

RECOMMEND LIGHT DUTY THREADLOCKER ON THREADS ON STANDOFFS.
RECOMMEND TORQUE TIGHTEN THE STANDOFFS TO 3.1 in-lb.



STEP 3: JETSON MODULE INSTALLATION

TOOL: PHILLIPS SCREWDRIVER

1. CAREFULLY ALIGN AND PLUG THE TX MODULE INTO THE ASG003. LISTEN FOR THE CLICK TO ENSURE THAT A PROPER CONNECTION IS MADE.
2. LOOSELY FASTEN THE MODULE USING THE SCREWS IN 4 PLACES.
3. TIGHTEN ALL FASTENERS IN AN "X" PATTERN.

RECOMMEND LIGHT DUTY THREADLOCKER ON THREADS ON SCREWS.
RECOMMEND TORQUE TIGHTEN THE SCREWS TO 3.1 in-lb.

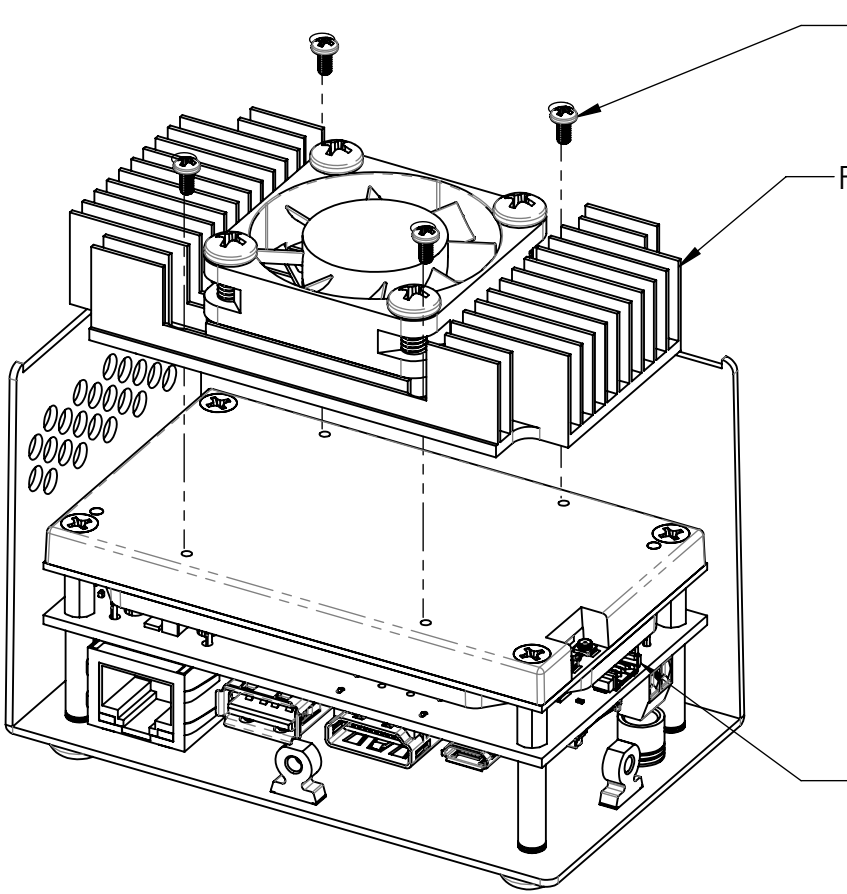


FIGURE 3

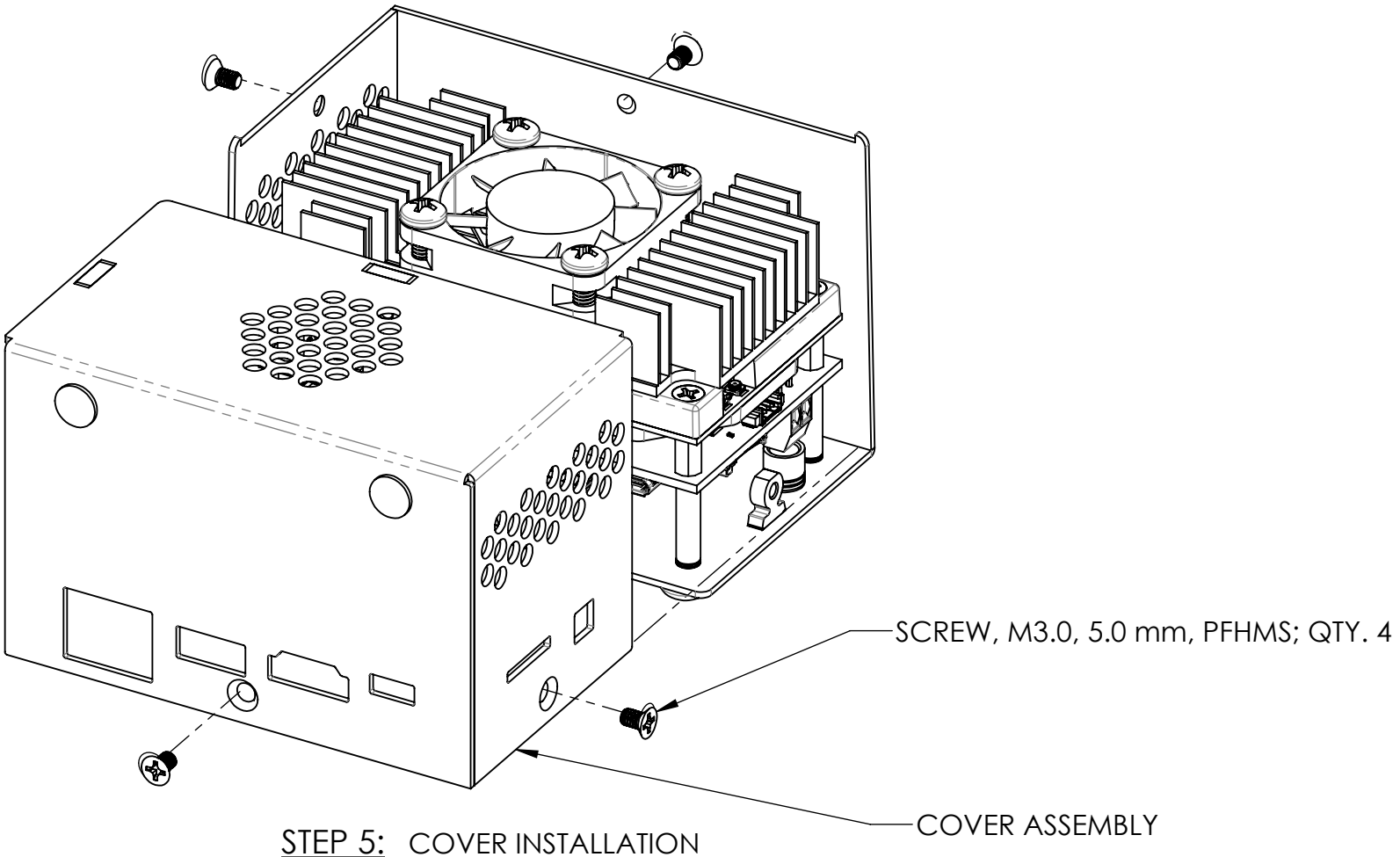
STEP 4: FAN/HEATSINK INSTALLATION

TOOL: PHILLIPS SCREWDRIVER

IF THE MODULE DOES NOT ALREADY HAVE THE FAN/HEAT SINK ASSEMBLED FOLLOW THESE STEPS;

1. DRESS THE FAN WIRES AS SHOWN IN FIGURE 3.
2. REMOVE THE PROTECTIVE FILM FROM THE THERMAL PAD ON THE UNDER SIDE OF THE FAN/HEAT SINK. THESE PAD HAS A 'STICKY' FEEL. KEEP IT CLEAN FROM ANY DEBRIS.
3. CAREFULLY PLACE ON TOP OF THE TX MODULE - ALIGNING THE MOUNTING HOLES. DO NOT APPLY PRESSURE AS NOT TO STICK THE HEAT SINK TO THE MODULE SHOULD A RE-ALIGNMENT BE REQUIRED.
4. LOOSELY FASTEN THE HEAT SINK USING THE SCREWS IN 4 PLACES.
5. TIGHTEN ALL FASTENERS IN AN "X" PATTERN.

RECOMMEND LIGHT DUTY THREADLOCKER ON THREADS ON SCREWS.
RECOMMEND TORQUE TIGHTEN THE SCREWS TO 1.5 in-lb.



STEP 5: COVER INSTALLATION

TOOL: PHILLIPS SCREWDRIVER

1. CAREFULLY SLIDE THE COVER ASSEMBLY ONTO THE BASE ASSEMBLY.
   ** NOTE THE RJ45 CONNECTOR SHOULD COME THROUGH THE COVER CUT OUT.*
2. MAKE CERTAIN TO PROPERLY DRESS THE FAN WIRES AS SO NOT TO INTERFERE WITH THE FAN OR CAUSE BINDING WITH THE MATING PARTS.
3. LOOSELY FASTEN THE SCREWS IN 4 PLACES.
4. GO BACK AND TIGHTEN ALL FASTENERS.

IF ANTENNA IS USED GO TO STEP 6 AND 7, BEFORE STEP 8.
IF NO ANTENNA IS USED GO TO SKIP TO STEP 8.

RECOMMEND LIGHT DUTY THREADLOCKER ON THREADS ON SCREWS.
RECOMMEND TORQUE TIGHTEN THE SCREWS TO 3.1 in-lb.

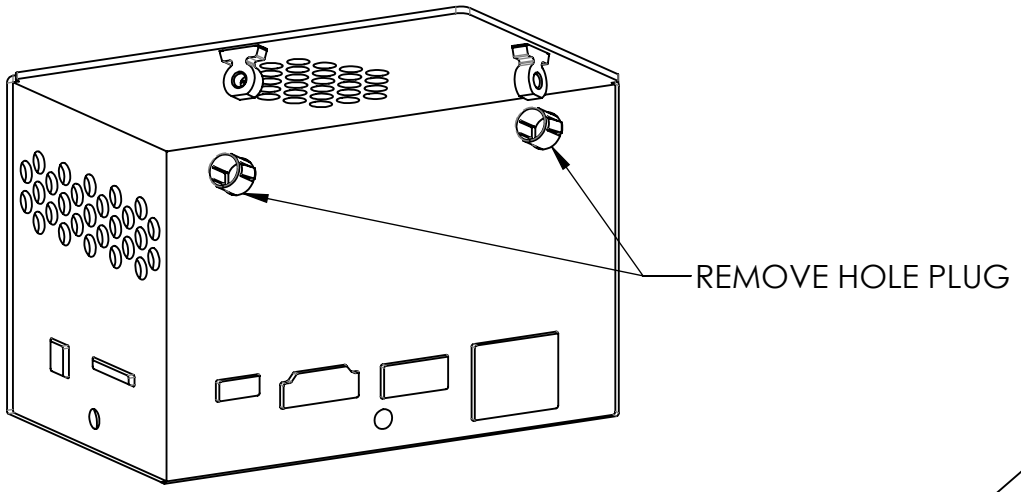


FIGURE 4

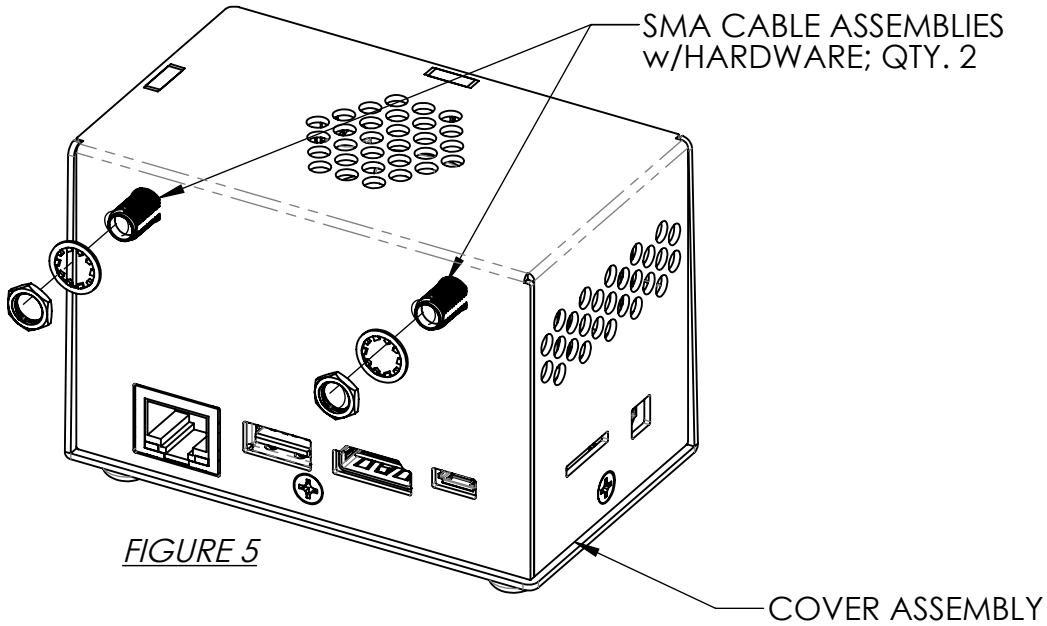


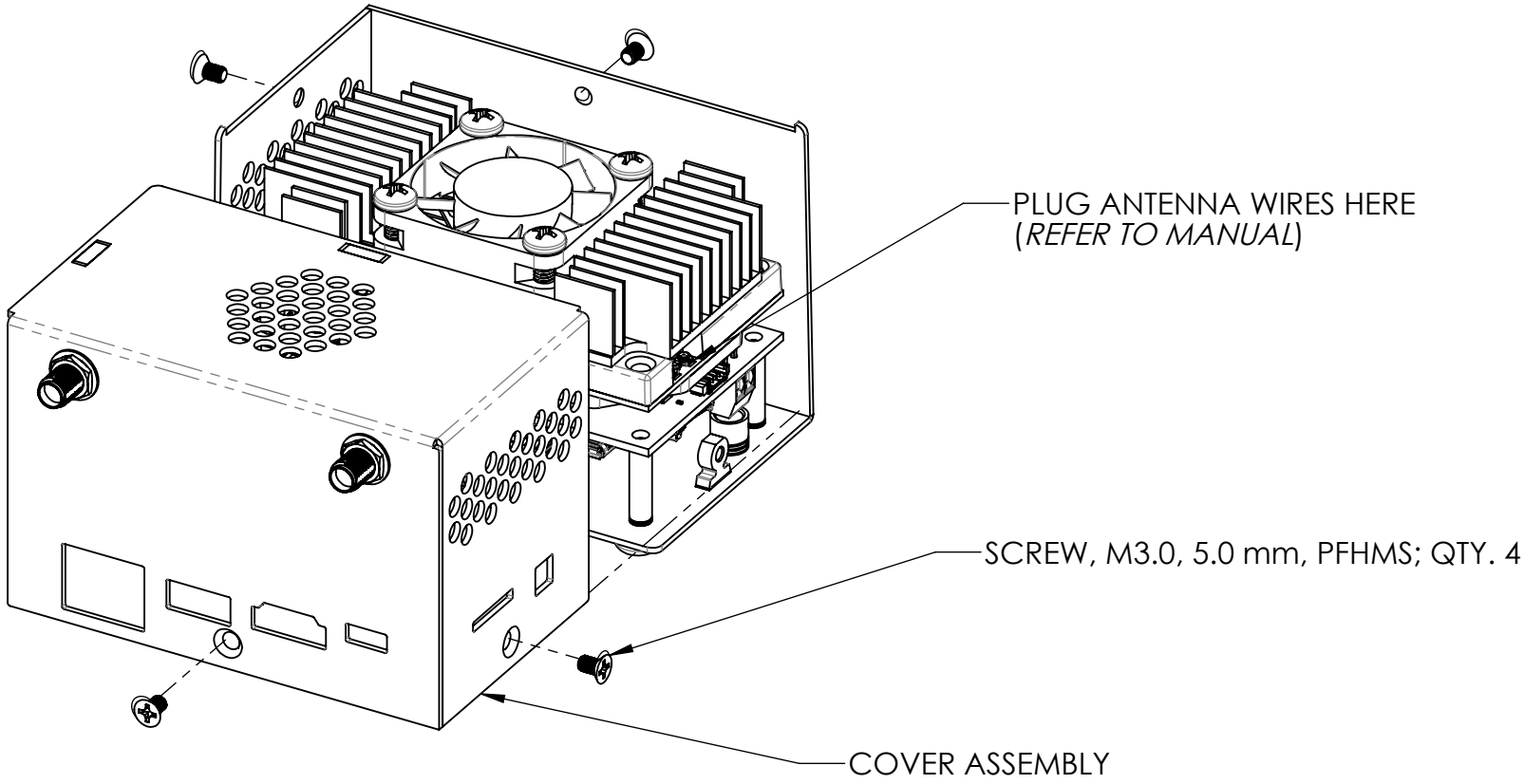
FIGURE 5

STEP 6: ANTENNA CONNECTOR INSTALLATION - *OPTIONAL*

TOOLS: 8.0 mm NUT DRIVER
NEEDLE NOSE PLIER

1. FIGURE 4 SHOWS THE BACK SIDE OF THE COVER. USING A NEEDLE NOSE PLIER TO COLLAPSE THE HOLE PLUG, CAREFULLY REMOVE THE HOLE PLUG CAPS.
2. FEED THE SMA CONNECTOR THROUGH THE HOLE AS IN FIGURE 5. THERE IS A FLAT SIDE ON THE CONNECTOR WHICH MATCHES THE FLAT OF THE 'D' HOLE.
3. SECURE THE CONNECTORS IN PLACE WITH THE HARDWARE.

RECOMMEND TORQUE TIGHTEN THE SMA NUTS TO 3-5 in-lb.



STEP 7: COVER ASSEMBLY w/ANTENNA INSTALLATION - *OPTIONAL*

TOOL: PHILLIPS SCREWDRIVER

1. PROPERLY DRESS THE ANTENNA WIRES AS SO NOT TO INTERFERE WITH THE FAN OR CAUSE BINDING WITH THE MATING PARTS.
2. PLUG ANTENNA WIRES INTO THE MODEL. SEE MANUAL SECTION FOR REFERENCE.
3. CAREFULLY SLIDE THE COVER ASSEMBLY ONTO THE BASE ASSEMBLY.
   ** NOTE THE RJ45 CONNECTOR SHOULD COME THROUGH THE COVER CUT OUT.*
4. MAKE CERTAIN TO PROPERLY DRESS THE FAN WIRES AS SO NOT TO INTERFERE WITH THE FAN OR CAUSE BINDING WITH THE MATING PARTS.
5. LOOSELY FASTEN THE SCREWS IN 4 PLACES.
6. GO BACK AND TIGHTEN ALL FASTENERS.

RECOMMEND LIGHT DUTY THREADLOCKER ON THREADS ON SCREWS.
RECOMMEND TORQUE TIGHTEN THE SCREWS TO 3.1 in-lb.

FIGURE 6

STEP 8: POWER CORD INSTALLATION

TOOL: SLOT SCREWDRIVER

1. INSERT THE POWER WIRES FROM THE SIDE INTO POWER INPUT AS SHOWN IN FIGURE 6.
2. FASTEN THE WIRE LEADS IN THE TERMINAL BLOCK FROM ACCESS.

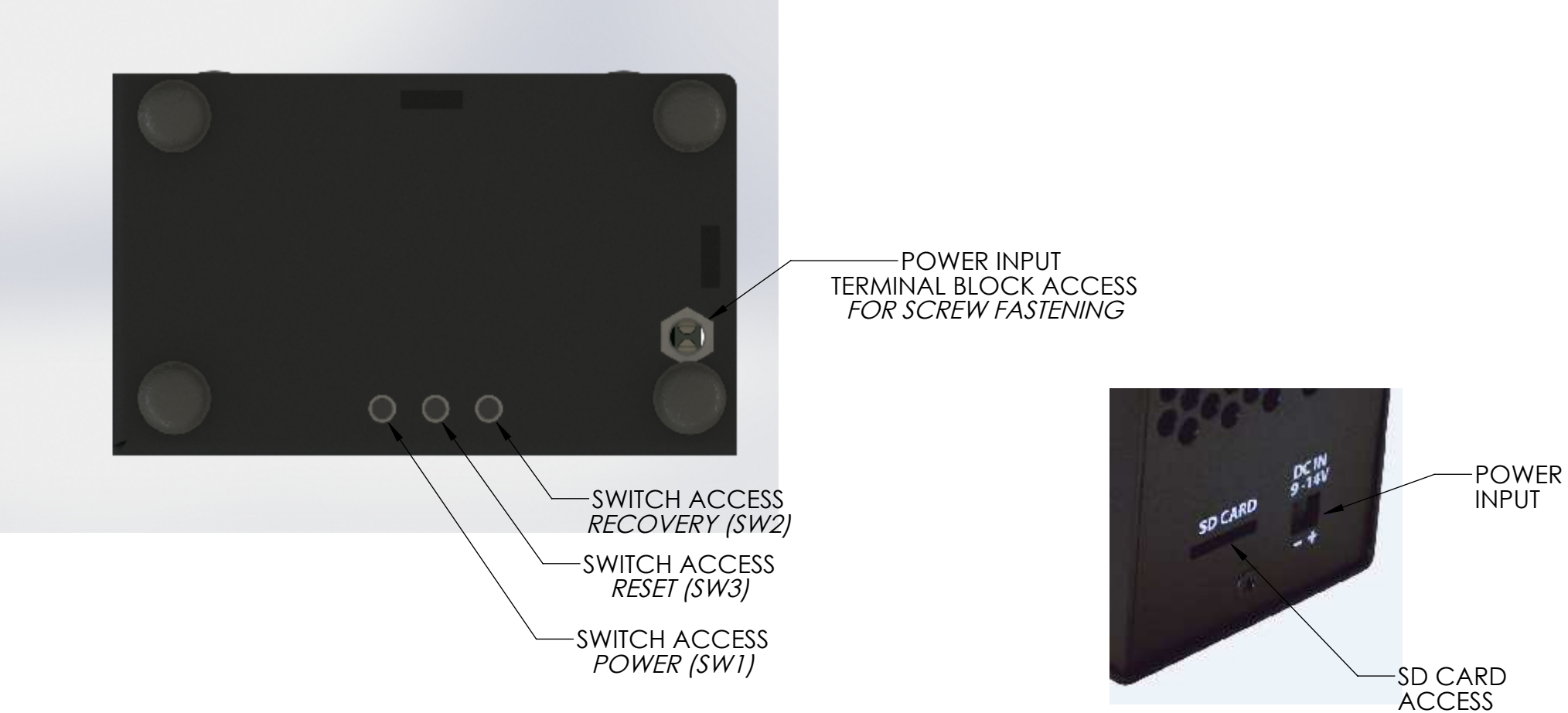


FIGURE 7

SYSTEM ACCESS OPENINGS

TOOL: SLOT SCREWDRIVER

THE ENCLOSURE IS EQUIPPED WITH ACCESS OPENINGS FOR POWER AND ON BOARD SWITCHES.
THE SWITCHES ARE ACTIVATED BY INSERTING THE SLOT SCREWDRIVER INTO THE ACCESS HOLE.
THE SD CARD CAN BE INSERTED AND REMOVED BY PUSHING IT WITH THE SLOT SCREW DRIVER.