



Operator's Manual

Power Wave[®] Connectivity Hub Kit

For use with machines having Code Numbers:

K4884-1



Register your machine:

www.lincolnelectric.com/registration

Authorized Service and Distributor Locator:

www.lincolnelectric.com/locator

Save for future reference

Date Purchased

Code: (ex: 10859)

Serial: (ex: U1060512345)



THANK YOU FOR SELECTING A QUALITY PRODUCT BY LINCOLN ELECTRIC.

PLEASE EXAMINE CARTON AND EQUIPMENT FOR DAMAGE IMMEDIATELY

When this equipment is shipped, title passes to the purchaser upon receipt by the carrier. Consequently, claims for material damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

SAFETY DEPENDS ON YOU

Lincoln arc welding and cutting equipment is designed and built with safety in mind. However, your overall safety can be increased by proper installation ... and thoughtful operation on your part. **DO NOT INSTALL, OPERATE OR REPAIR THIS EQUIPMENT WITHOUT READING THIS MANUAL AND THE SAFETY PRECAUTIONS CONTAINED THROUGHOUT.** And, most importantly, think before you act and be careful.

WARNING

This statement appears where the information must be followed exactly to avoid serious personal injury or loss of life.

CAUTION

This statement appears where the information must be followed to avoid minor personal injury or damage to this equipment.



KEEP YOUR HEAD OUT OF THE FUMES.

DON'T get too close to the arc. Use corrective lenses if necessary to stay a reasonable distance away from the arc.

READ and obey the Safety Data Sheet (SDS) and the warning label that appears on all containers of welding materials.

USE ENOUGH VENTILATION or exhaust at the arc, or both, to keep the fumes and gases from your breathing zone and the general area.

IN A LARGE ROOM OR OUTDOORS, natural ventilation may be adequate if you keep your head out of the fumes (See below).

USE NATURAL DRAFTS or fans to keep the fumes away from your face.

If you develop unusual symptoms, see your supervisor. Perhaps the welding atmosphere and ventilation system should be checked.



WEAR CORRECT EYE, EAR & BODY PROTECTION

PROTECT your eyes and face with welding helmet properly fitted and with proper grade of filter plate (See ANSI Z49.1).

PROTECT your body from welding spatter and arc flash with protective clothing including woolen clothing, flame-proof apron and gloves, leather leggings, and high boots.

PROTECT others from splatter, flash, and glare with protective screens or barriers.

IN SOME AREAS, protection from noise may be appropriate.

BE SURE protective equipment is in good condition.

Also, wear safety glasses in work area **AT ALL TIMES.**



SPECIAL SITUATIONS

DO NOT WELD OR CUT containers or materials which previously had been in contact with hazardous substances unless they are properly cleaned. This is extremely dangerous.

DO NOT WELD OR CUT painted or plated parts unless special precautions with ventilation have been taken. They can release highly toxic fumes or gases.

Additional precautionary measures

PROTECT compressed gas cylinders from excessive heat, mechanical shocks, and arcs; fasten cylinders so they cannot fall.

BE SURE cylinders are never grounded or part of an electrical circuit.

REMOVE all potential fire hazards from welding area.

ALWAYS HAVE FIRE FIGHTING EQUIPMENT READY FOR IMMEDIATE USE AND KNOW HOW TO USE IT.



SECTION A: WARNINGS



CALIFORNIA PROPOSITION 65 WARNINGS



WARNING: Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an exposed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel

WARNING: This product, when used for welding or cutting, produces fumes or gases which contain chemicals known to the State of California to cause birth defects and, in some cases, cancer. (California Health & Safety Code § 25249.5 *et seq.*)



WARNING: Cancer and Reproductive Harm
www.P65warnings.ca.gov

ARC WELDING CAN BE HAZARDOUS. PROTECT YOURSELF AND OTHERS FROM POSSIBLE SERIOUS INJURY OR DEATH. KEEP CHILDREN AWAY. PACEMAKER WEARERS SHOULD CONSULT WITH THEIR DOCTOR BEFORE OPERATING.

Read and understand the following safety highlights. For additional safety information, it is strongly recommended that you purchase a copy of "Safety in Welding & Cutting - ANSI Standard Z49.1" from the American Welding Society, P.O. Box 351040, Miami, Florida 33135 or CSA Standard W117.2. A Free copy of "Arc Welding Safety" booklet E205 is available from the Lincoln Electric Company, 22801 St. Clair Avenue, Cleveland, Ohio 44117-1199.

BE SURE THAT ALL INSTALLATION, OPERATION, MAINTENANCE AND REPAIR PROCEDURES ARE PERFORMED ONLY BY QUALIFIED INDIVIDUALS.



FOR ENGINE POWERED EQUIPMENT.

- Turn the engine off before troubleshooting and maintenance work unless the maintenance work requires it to be running.
- Operate engines in open, well-ventilated areas or vent the engine exhaust fumes outdoors.
- Do not add the fuel near an open flame welding arc or when the engine is running. Stop the engine and allow it to cool before refueling to prevent spilled fuel from vaporizing on contact



with hot engine parts and igniting. Do not spill fuel when filling tank. If fuel is spilled, wipe it up and do not start engine until fumes have been eliminated.

- Keep all equipment safety guards, covers and devices in position and in good repair. Keep hands, hair, clothing and tools away from V-belts, gears, fans and all other moving parts when starting, operating or repairing equipment.
- In some cases it may be necessary to remove safety guards to perform required maintenance. Remove guards only when necessary and replace them when the maintenance requiring their removal is complete. Always use the greatest care when working near moving parts.
- Do not put your hands near the engine fan. Do not attempt to override the governor or idler by pushing on the throttle control rods while the engine is running.
- To prevent accidentally starting gasoline engines while turning the engine or welding generator during maintenance work, disconnect the spark plug wires, distributor cap or magneto wire as appropriate.
- To avoid scalding, do not remove the radiator pressure cap when the engine is hot.



ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS



- Electric current flowing through any conductor causes localized Electric and Magnetic Fields (EMF). Welding current creates EMF fields around welding cables and welding machines
- EMF fields may interfere with some pacemakers, and welders having a pacemaker should consult their physician before welding.
- Exposure to EMF fields in welding may have other health effects which are now not known.
- All welders should use the following procedures in order to minimize exposure to EMF fields from the welding circuit:
 - Route the electrode and work cables together - Secure them with tape when possible.
 - Never coil the electrode lead around your body.
 - Do not place your body between the electrode and work cables. If the electrode cable is on your right side, the work cable should also be on your right side.
 - Connect the work cable to the workpiece as close as possible to the area being welded.
 - Do not work next to welding power source.



ELECTRIC SHOCK CAN KILL.



- 3.a. The electrode and work (or ground) circuits are electrically “hot” when the welder is on. Do not touch these “hot” parts with your bare skin or wet clothing. Wear dry, hole-free gloves to insulate hands.
- 3.b. Insulate yourself from work and ground using dry insulation. Make certain the insulation is large enough to cover your full area of physical contact with work and ground.

In addition to the normal safety precautions, if welding must be performed under electrically hazardous conditions (in damp locations or while wearing wet clothing; on metal structures such as floors, gratings or scaffolds; when in cramped positions such as sitting, kneeling or lying, if there is a high risk of unavoidable or accidental contact with the workpiece or ground) use the following equipment:

- Semiautomatic DC Constant Voltage (Wire) Welder.
 - DC Manual (Stick) Welder.
 - AC Welder with Reduced Voltage Control.
- 3.c. In semiautomatic or automatic wire welding, the electrode, electrode reel, welding head, nozzle or semiautomatic welding gun are also electrically “hot”.
 - 3.d. Always be sure the work cable makes a good electrical connection with the metal being welded. The connection should be as close as possible to the area being welded.
 - 3.e. Ground the work or metal to be welded to a good electrical (earth) ground.
 - 3.f. Maintain the electrode holder, work clamp, welding cable and welding machine in good, safe operating condition. Replace damaged insulation.
 - 3.g. Never dip the electrode in water for cooling.
 - 3.h. Never simultaneously touch electrically “hot” parts of electrode holders connected to two welders because voltage between the two can be the total of the open circuit voltage of both welders.
 - 3.i. When working above floor level, use a safety belt to protect yourself from a fall should you get a shock.
 - 3.j. Also see Items 6.c. and 8.



ARC RAYS CAN BURN.



- 4.a. Use a shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding. Headshield and filter lens should conform to ANSI Z87.1 standards.
- 4.b. Use suitable clothing made from durable flame-resistant material to protect your skin and that of your helpers from the arc rays.
- 4.c. Protect other nearby personnel with suitable, non-flammable screening and/or warn them not to watch the arc nor expose themselves to the arc rays or to hot spatter or metal.



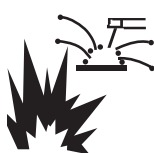
FUMES AND GASES CAN BE DANGEROUS.



- 5.a. Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. When welding, keep your head out of the fume. Use enough ventilation and/or exhaust at the arc to keep fumes and gases away from the breathing zone. **When welding hardfacing (see instructions on container or SDS) or on lead or cadmium plated steel and other metals or coatings which produce highly toxic fumes, keep exposure as low as possible and within applicable OSHA PEL and ACGIH TLV limits using local exhaust or mechanical ventilation unless exposure assessments indicate otherwise. In confined spaces or in some circumstances, outdoors, a respirator may also be required. Additional precautions are also required when welding on galvanized steel.**
- 5.b. The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.
- 5.c. Do not weld in locations near chlorinated hydrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat and rays of the arc can react with solvent vapors to form phosgene, a highly toxic gas, and other irritating products.
- 5.d. Shielding gases used for arc welding can displace air and cause injury or death. Always use enough ventilation, especially in confined areas, to insure breathing air is safe.
- 5.e. Read and understand the manufacturer’s instructions for this equipment and the consumables to be used, including the Safety Data Sheet (SDS) and follow your employer’s safety practices. SDS forms are available from your welding distributor or from the manufacturer.
- 5.f. Also see item 1.b.




WELDING AND CUTTING SPARKS CAN CAUSE FIRE OR EXPLOSION.



- 6.a. Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines. Have a fire extinguisher readily available.
- 6.b. Where compressed gases are to be used at the job site, special precautions should be used to prevent hazardous situations. Refer to "Safety in Welding and Cutting" (ANSI Standard Z49.1) and the operating information for the equipment being used.
- 6.c. When not welding, make certain no part of the electrode circuit is touching the work or ground. Accidental contact can cause overheating and create a fire hazard.
- 6.d. Do not heat, cut or weld tanks, drums or containers until the proper steps have been taken to insure that such procedures will not cause flammable or toxic vapors from substances inside. They can cause an explosion even though they have been "cleaned". For information, purchase "Recommended Safe Practices for the Preparation for Welding and Cutting of Containers and Piping That Have Held Hazardous Substances", AWS F4.1 from the American Welding Society (see address above).
- 6.e. Vent hollow castings or containers before heating, cutting or welding. They may explode.
- 6.f. Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes and a cap over your hair. Wear ear plugs when welding out of position or in confined places. Always wear safety glasses with side shields when in a welding area.
- 6.g. Connect the work cable to the work as close to the welding area as practical. Work cables connected to the building framework or other locations away from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.
- 6.h. Also see item 1.c.
- 6.i. Read and follow NFPA 51B "Standard for Fire Prevention During Welding, Cutting and Other Hot Work", available from NFPA, 1 Batterymarch Park, PO box 9101, Quincy, MA 022690-9101.
- 6.j. Do not use a welding power source for pipe thawing.



CYLINDER MAY EXPLODE IF DAMAGED.

- 7.a. Use only compressed gas cylinders containing the correct shielding gas for the process used and properly operating regulators designed for the gas and pressure used. All hoses, fittings, etc. should be suitable for the application and maintained in good condition. 
- 7.b. Always keep cylinders in an upright position securely chained to an undercarriage or fixed support.
- 7.c. Cylinders should be located:
 - Away from areas where they may be struck or subjected to physical damage.
 - A safe distance from arc welding or cutting operations and any other source of heat, sparks, or flame.
- 7.d. Never allow the electrode, electrode holder or any other electrically "hot" parts to touch a cylinder.
- 7.e. Keep your head and face away from the cylinder valve outlet when opening the cylinder valve.
- 7.f. Valve protection caps should always be in place and hand tight except when the cylinder is in use or connected for use.
- 7.g. Read and follow the instructions on compressed gas cylinders, associated equipment, and CGA publication P-1, "Precautions for Safe Handling of Compressed Gases in Cylinders," available from the Compressed Gas Association, 14501 George Carter Way Chantilly, VA 20151.



FOR ELECTRICALLY POWERED EQUIPMENT.



- 8.a. Turn off input power using the disconnect switch at the fuse box before working on the equipment.
- 8.b. Install equipment in accordance with the U.S. National Electrical Code, all local codes and the manufacturer's recommendations.
- 8.c. Ground the equipment in accordance with the U.S. National Electrical Code and the manufacturer's recommendations.

Refer to
<http://www.lincolnelectric.com/safety>
for additional safety information.

POWER WAVE R450 OR A POWER WAVE S500 (CODES 12772 AND ABOVE).....	1
POWER WAVE R500 (ALL CODES).....	11
POWER WAVE R350 (ALL CODES).....	21
POWER WAVE S500 (Codes below 12772).....	27
POWER WAVE S350 (CODES 11694, 11753, 11782, 12371, 12394, 12793 & 12794).....	37
POWER WAVE S350 (CODES 11589, 11625, 11783, & 12795).....	47
LIMITED WARRANTY.....	57



Content/details may be changed or updated without notice. For most current Instruction Manuals, go to parts.lincolnelectric.com.

INSTRUCTIONS FOR INSTALLING K4884-1 POWER WAVE CONNECTIVITY HUB KIT ON A POWER WAVE R450 OR POWER WAVE S500 (CODES 12772 AND ABOVE)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4884-1 Power Wave Connectivity Hub Kit for use on a Power Wave R450 or a Power Wave S500.

 WARNING	
	<ul style="list-style-type: none">• Disconnect input power before servicing.• Do not operate with covers removed.• Do not touch electrically live parts.• Only qualified persons should install, use or service this equipment.
ELECTRIC SHOCK CAN KILL	

Parts List Required for Installation on Power Wave R450 or a Power Wave S500:

Item	Part Number	Description	Qty
1	L18183	Power Wave Connectivity Hub	1

Parts List Required for Installation on other machines:

Item	Part Number	Description	Qty
2	S18250-1107	Plug & Lead Assembly (4-pin plug / 4-pin plug)	1
3	S18250-1112	Plug & Lead Assembly (4-pin plug / 6-pin receptacle)	1
4	S18250-1117	Plug & Lead Assembly (4-pin plug / 6-pin plug)	1

Power Wave Connectivity Hub Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools
- Phillips Screwdriver

CAUTION : PC BOARD CAN BE DAMAGED BY STATIC ELECTRICITY

Before making any connections to a PC board, remove your body's static charge by touching unpainted grounded frame of equipment.

INSTALLATION:

1. Turn off input power to the Power Wave at the disconnect switch or fuse box before working on the Power Wave.
2. Remove the weld cables from the output studs, and disconnect all control cables including the Ethernet connection from the Power Wave.
3. Remove the UI cover plate and outside trim by removing the four screws fastening the cover plate to the power source using a 5/16" nut driver or other suitable tool (**Figure 1**). Retain the mounting hardware removed for installing the Power Wave Connectivity Hub Kit.
4. Remove the two top left Corner Caps by removing the screws and washers mounting them, using a 5/16" nut driver or other suitable tool (**Figure 2**). Retain all mounting hardware for reinstalling the Corner Caps.
5. Remove the bottom left Corner Cap fasteners, two places, using a 5/16" nut driver or other suitable tool (**Figure 2**). Retain all mounting hardware for reinstalling the Corner Caps.
6. Remove the left case side by removing the four screws mounting them, using a 5/16" nut driver or other suitable tool (**Figure 3**). Retain all mounting hardware for case side.
7. Obtain Item 1 Power Wave Connectivity Hub provided with the kit. Route the 4-pin connector P30 of the Power Wave R450 harness thru the case front, and to 4-pin jumper of Item 1 Power Wave Connectivity Hub (**Figure 4**).
8. With locking clamp positioned behind the assembly, install the Power Wave Connectivity Hub to the Case Front using the hardware removed from cover plate in Step 3, using a 5/16" nut driver or other suitable tool (**Figure 5**).
9. Secure cover to assembly with provided #6-32 x .25 screws, then install the left case side using the hardware removed from mounting the left case side in Step 6 using a 5/16" nut driver or other suitable tool (**Figure 6**).
10. Install the bottom left Corner Caps using the hardware removed from mounting the corner caps in Step 5, using a 5/16" nut driver or other suitable tool (**Figure 7**).
11. Install the top left Corner Caps by using the hardware removed from mounting the Corner Caps in step 5, using a 5/16" nut driver or other suitable tool (**Figure 8**).
12. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
13. **After installing the K4884-1 Power Wave Connectivity Hub Kit , the Power Wave firmware may need to be updated. Visit www.powerwavesoftware.com for firmware updates and the Power Wave Utilities. Included with Power Wave Utilities are the Power Wave Manager PC tool for setting up the wireless or Bluetooth connection, and the Help Me Connect guide for setup instructions.**

REMOVE COVER PLATE
AND OUTSIDE TRIM
10-24 X .50 SCREWS, (QTY 4)

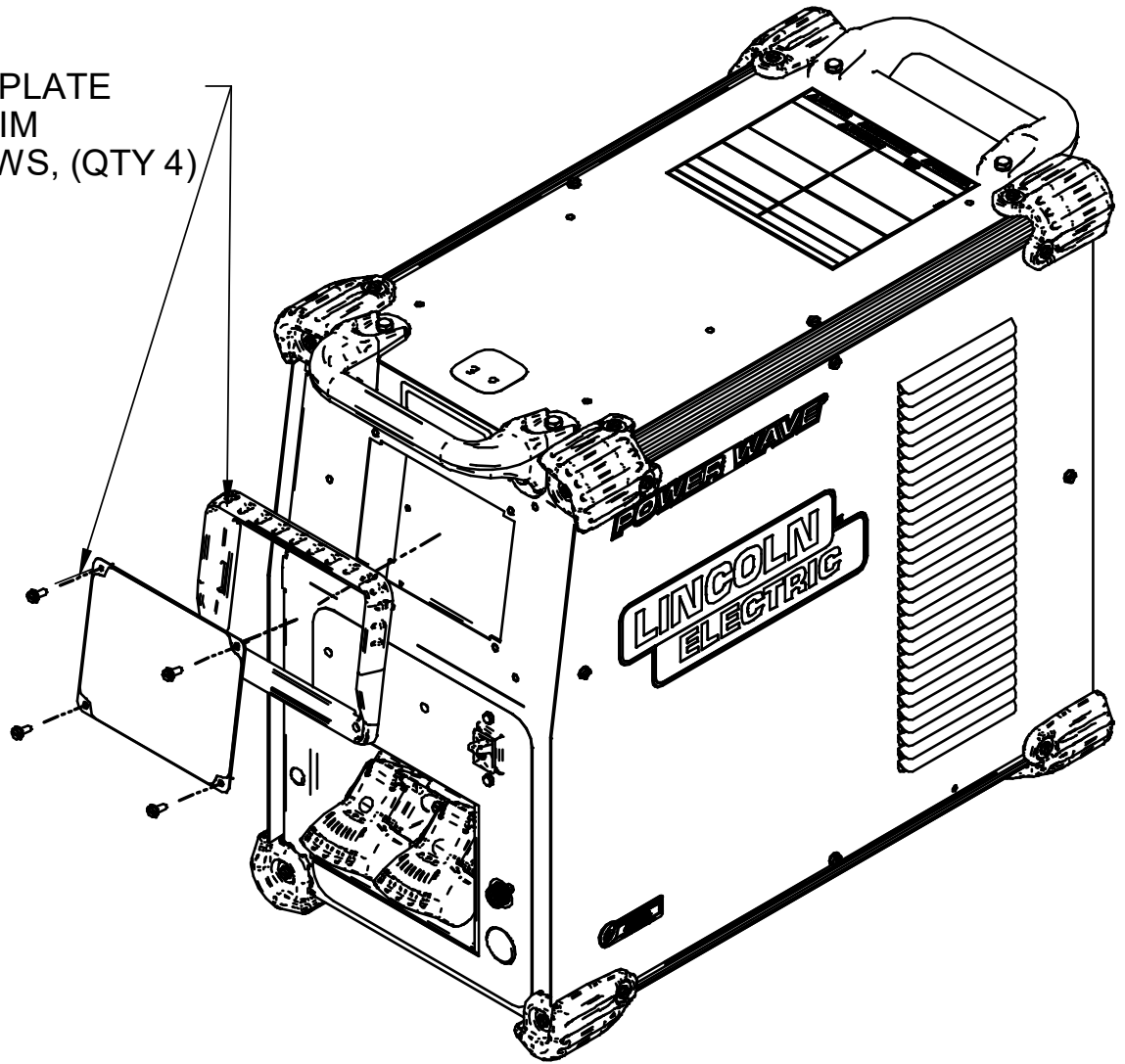
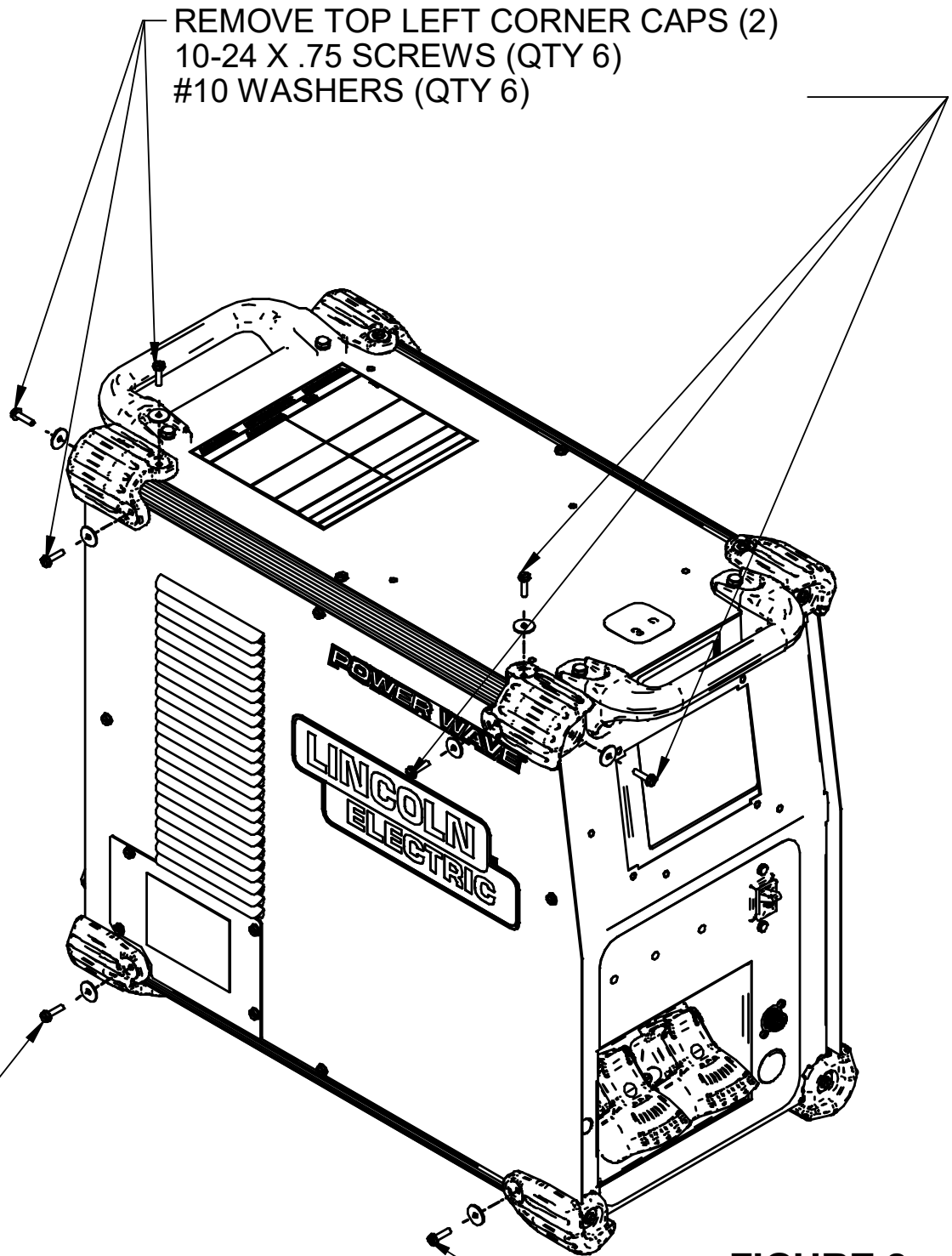


FIGURE 1



REMOVE TOP LEFT CORNER CAPS (2)
10-24 X .75 SCREWS (QTY 6)
#10 WASHERS (QTY 6)

FIGURE 2

REMOVE BOTTOM LEFT CORNER CAP FASTENERS
10-24 X .75 SCREWS (QTY 2)
#10 WASHERS (QTY 2)

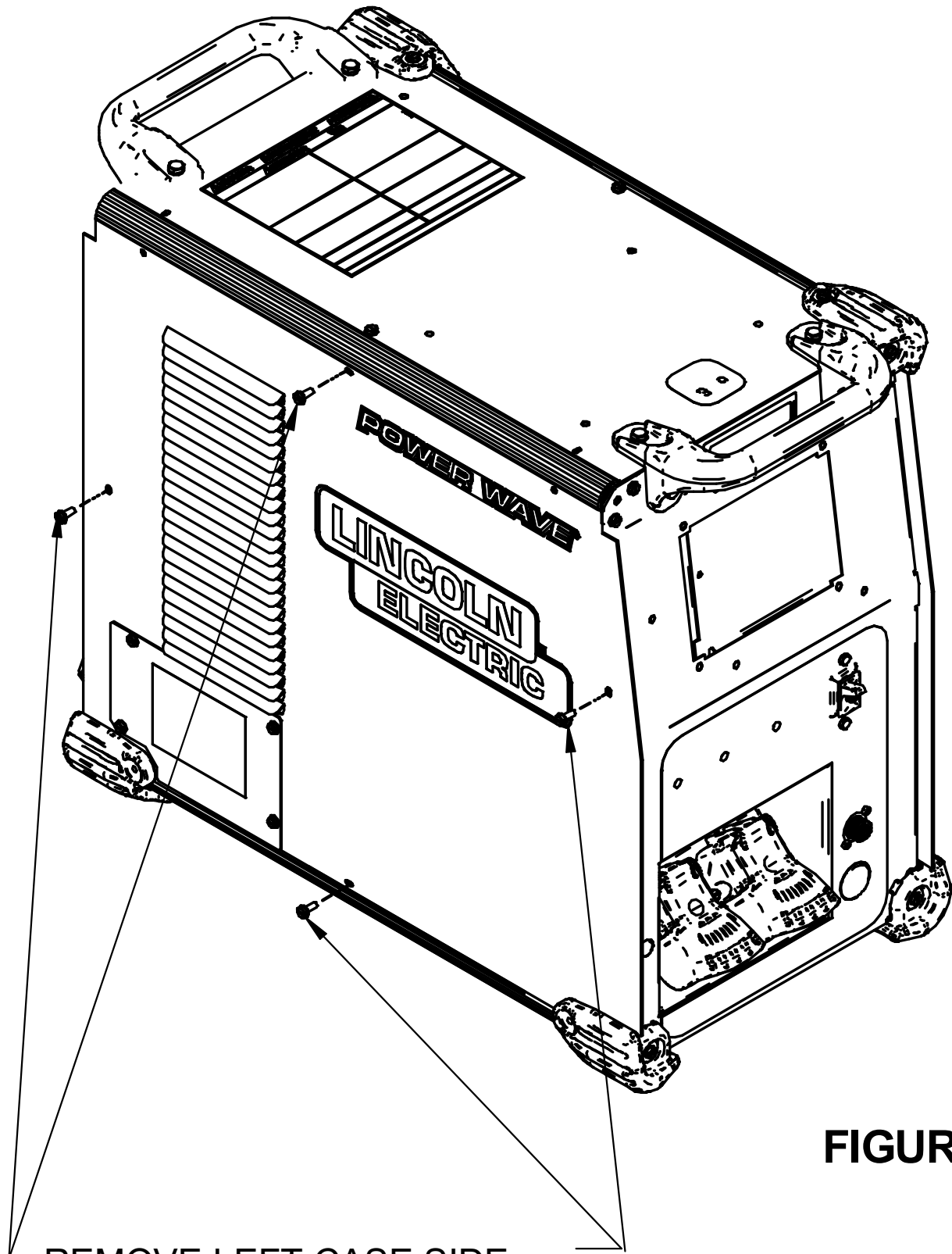


FIGURE 3

REMOVE LEFT CASE SIDE
10-24 X .50 SCREWS (QTY 4)

ROUTE THE 4-PIN CONNECTOR
P30 OF THE POWER WAVE
R450 HARNESS THRU THE
CASE FRONT, AND INSTALL
TO 4-PIN JUMPER OF ITEM 1
CONNECTIVITY HUB ASSEMBLY
PC BOARD

ITEM 1 CONNECTIVITY
HUB ASSEMBLY

PC BOARD

4-PIN JUMPER

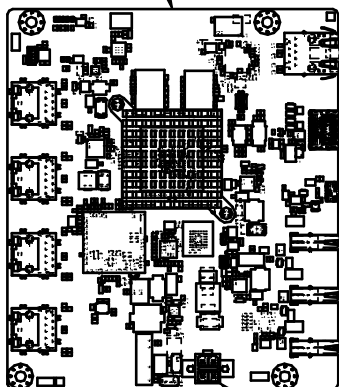
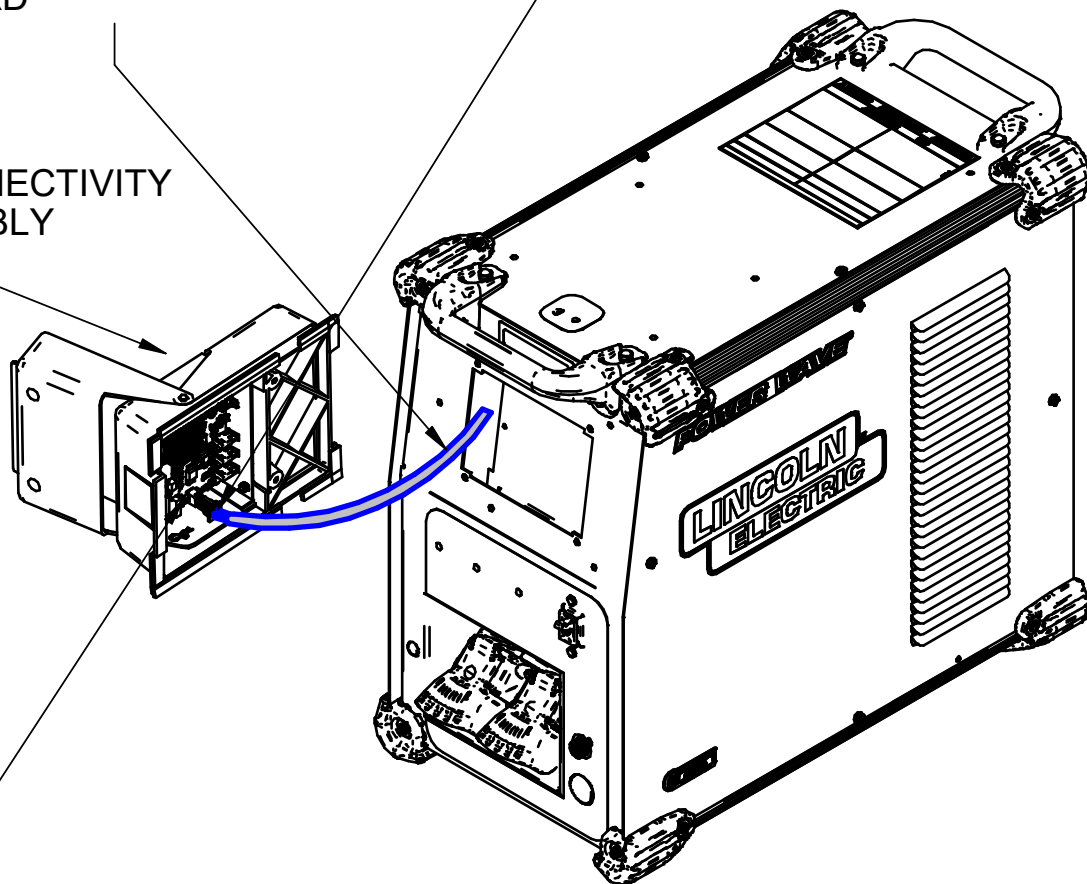
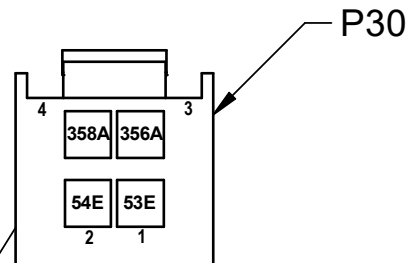
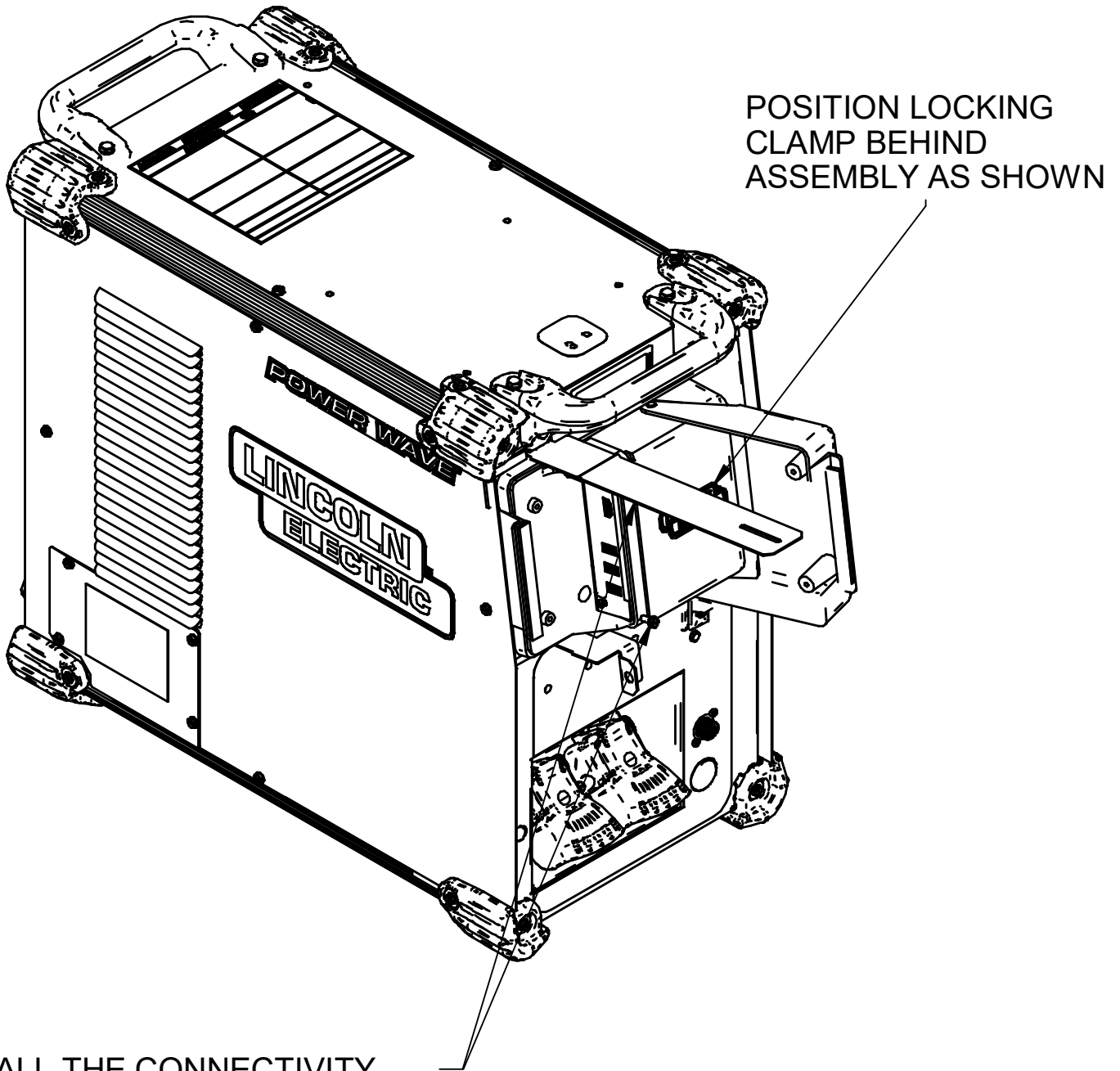
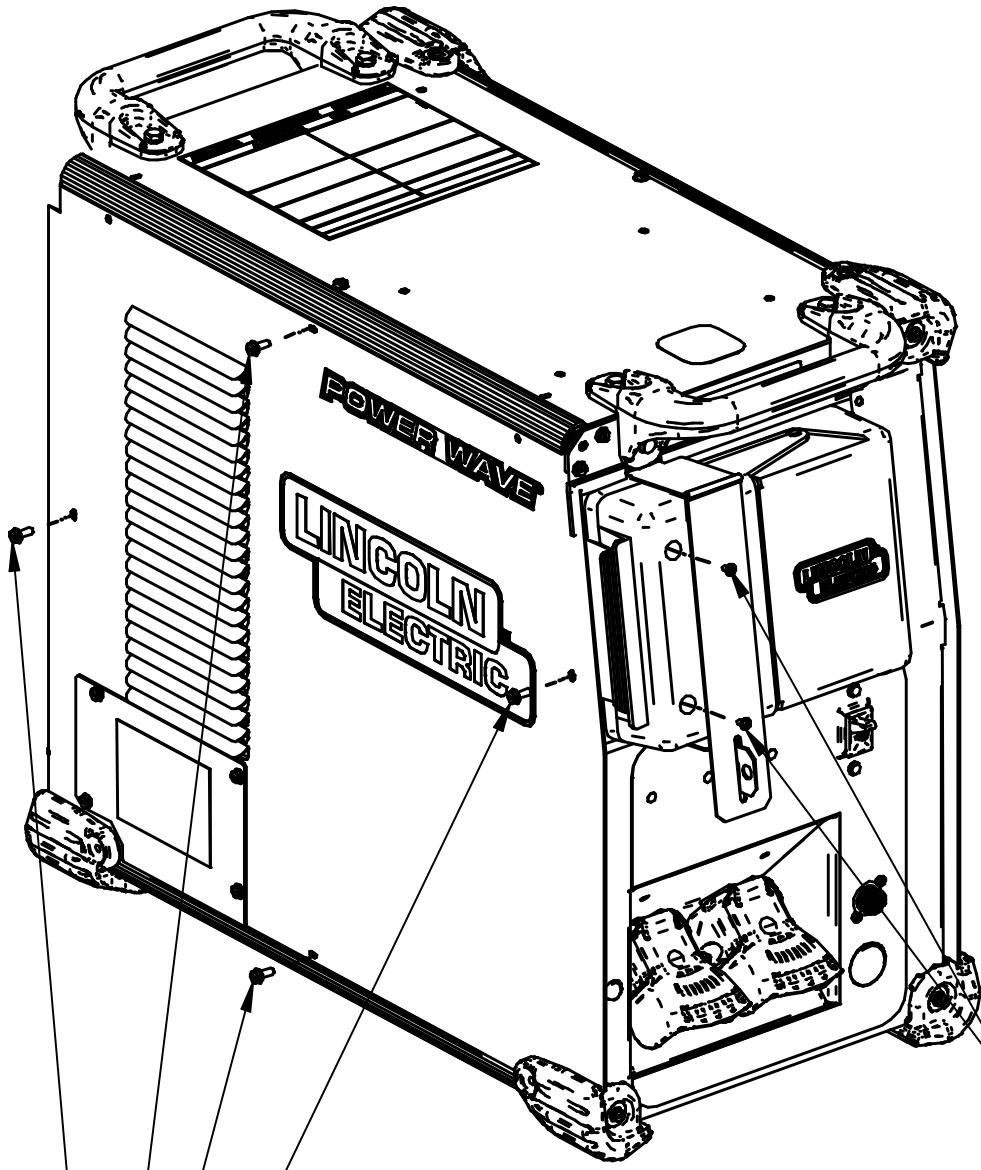


FIGURE 4



INSTALL THE CONNECTIVITY
HUB ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM COVER PLATE
10-24 X .50 SCREWS (QTY 2)

FIGURE 5



SECURE COVER TO
ASSEMBLY USING
#6-32X.25 SCREWS
(PROVIDED)

FIGURE 6

INSTALL LEFT CASE SIDE
10-24 X .50 SCREWS (QTY 4)

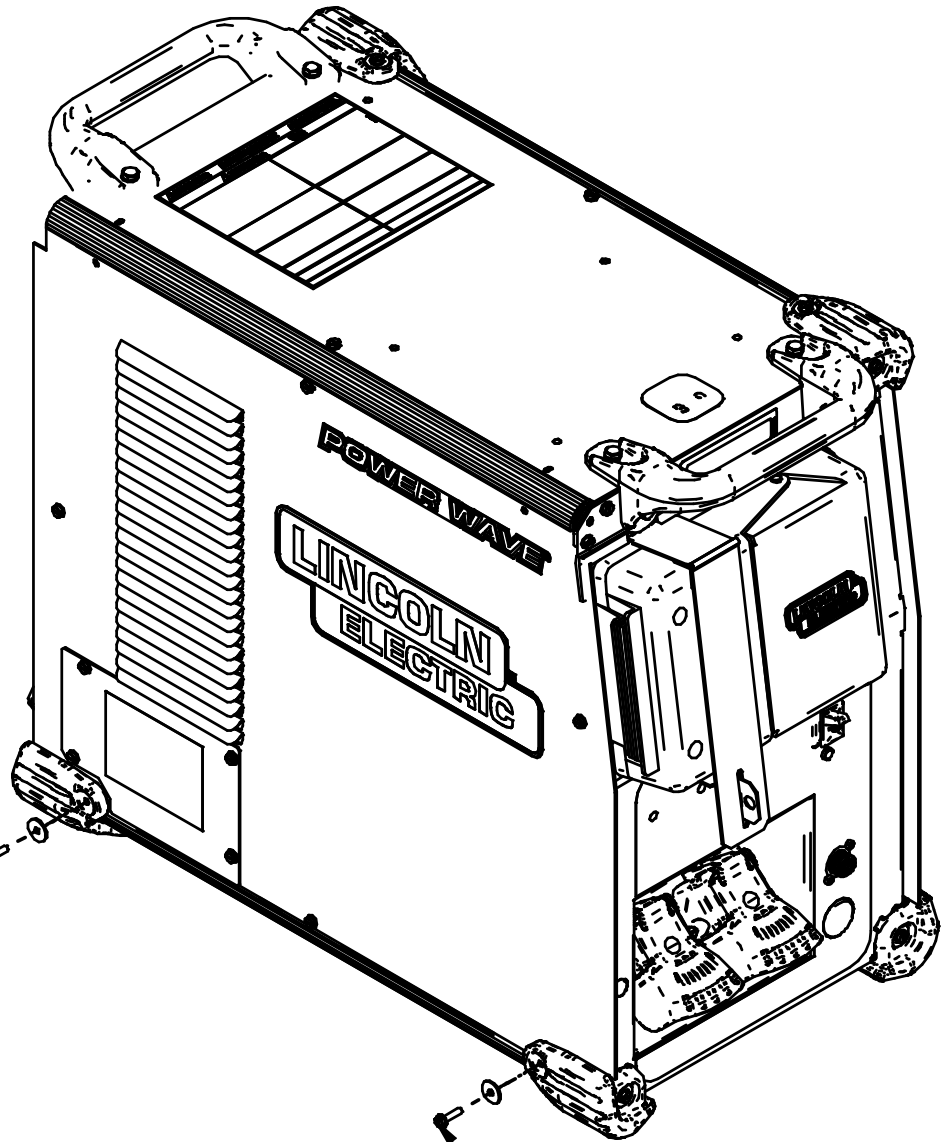


FIGURE 7

INSTALL BOTTOM LEFT CORNER CAP FASTENERS
10-24 X .75 SCREWS (QTY 2)
#10 WASHERS (QTY 2)

INSTALL TOP LEFT CORNER CAPS (2)
10-24 X .75 SCREWS (QTY 6)
#10 WASHERS (QTY 6)

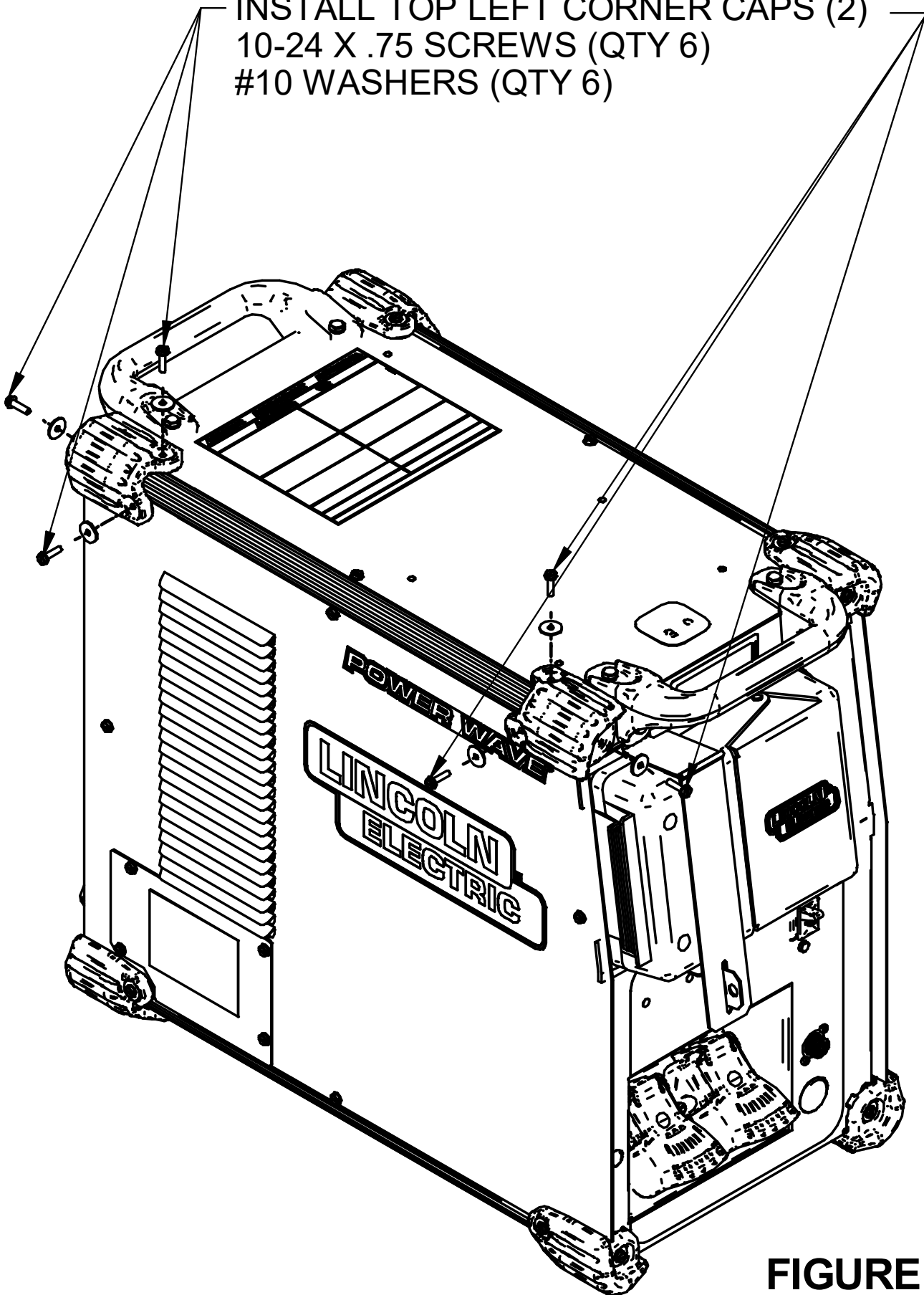




FIGURE 8

INSTRUCTIONS FOR INSTALLING K4884-1 POWER WAVE CONNECTIVITY HUB KIT ON A POWER WAVE R500 (ALL CODES)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4884-1 Power Wave Connectivity Hub Kit for use on a Power Wave R500.

 WARNING	
	<ul style="list-style-type: none"> • Disconnect input power before servicing. • Do not operate with covers removed. • Do not touch electrically live parts. • Only qualified persons should install, use or service this equipment.
ELECTRIC SHOCK CAN KILL	

Parts List Required for Installation on Power Wave R500:

Item	Part Number	Description	Qty
1	L18183	Power Wave Connectivity Hub	1
2	S18250-1107	Plug & Lead Assembly (4-pin plug / 4-pin plug)	1

Parts List Required for Installation on other machines:

Item	Part Number	Description	Qty
3	S18250-1112	Plug & Lead Assembly (4-pin plug / 6-pin receptacle)	1
4	S18250-1117	Plug & Lead Assembly (4-pin plug / 6-pin plug)	1

Power Wave Connectivity Hub Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools
- 7/16" nut driver or other suitable tools
- Phillips Screwdriver

CAUTION : PC BOARD CAN BE DAMAGED BY STATIC ELECTRICITY

Before making any connections to a PC board, remove your body's static charge by touching unpainted grounded frame of equipment.

INSTALLATION:

1. Turn off input power to the Power Wave at the disconnect switch or fuse box before working on the Power Wave.
2. Remove the weld cables from the output studs, and disconnect all control cables including the Ethernet connection from the Power Wave.
3. Remove the UI cover plate and outside trim by removing the four screws fastening the cover plate to the power source using a 5/16" nut driver or other suitable tool (**Figure 1**). Retain the mounting hardware removed for installing the Power Wave Connectivity Hub Kit.
4. Remove the four top Corner Caps by removing the screws and washers mounting them, using a 5/16" nut driver or other suitable tool (**Figure 2**). Retain all mounting hardware for reinstalling the Corner Caps.
5. Remove the two handles by removing the screws and lock washers mounting them, using a 7/16" nut driver or other suitable tool (**Figure 3**). Retain all mounting hardware for reinstalling the handles.
6. Remove the roof by removing the two screws, using a 5/16" nut driver or other suitable tool (**Figure 4**). Retain all hardware for reinstalling the roof.
7. Position roof as shown in (**Figure 5**). Obtain Item 2 plug & lead assembly (S18250-1107, 4 pin plug / 4 pin plug) provided with the kit. Install the 4 pin connector of the plug & lead assembly to J81 of the Feedhead PC Board located on the roof. Route the other end of the plug & lead assembly thru the case front as shown.
8. Obtain Item 1 Power Wave Connectivity Hub provided with the kit. Connect Item 2 plug & lead assembly to 4-pin jumper of Item 1 Power Wave Connectivity Hub (**Figure 6**).
9. With locking clamp positioned behind the assembly, install the Power Wave Connectivity Hub to the Case Front using the hardware removed from cover plate in Step 3, using a 5/16" nut driver or other suitable tool (**Figure 7**).
10. Secure cover to assembly with provided #6-32 x .25 screws, then install the roof using the hardware removed from roof in Step 6, using a 5/16" nut driver or other suitable tool (**Figure 8**).
11. Install the top four Corner Caps using the hardware removed from mounting the corner caps in Step 4, using a 5/16" nut driver or other suitable tool (**Figure 9**).
12. Install the two handles using the hardware removed from mounting the handles in step 5, using a 7/16" nut driver or other suitable tool (**Figure 10**).
13. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
14. **After installing the K4884-1 Power Wave Connectivity Hub Kit , the Power Wave firmware may need to be updated. Visit www.powerwavesoftware.com for firmware updates and the Power Wave Utilities. Included with Power Wave Utilities are the Power Wave Manager PC tool for setting up the wireless or Bluetooth connection, and the Help Me Connect guide for setup instructions.**

REMOVE COVER PLATE
AND OUTSIDE TRIM
10-24 X .50 SCREWS, (QTY 4)

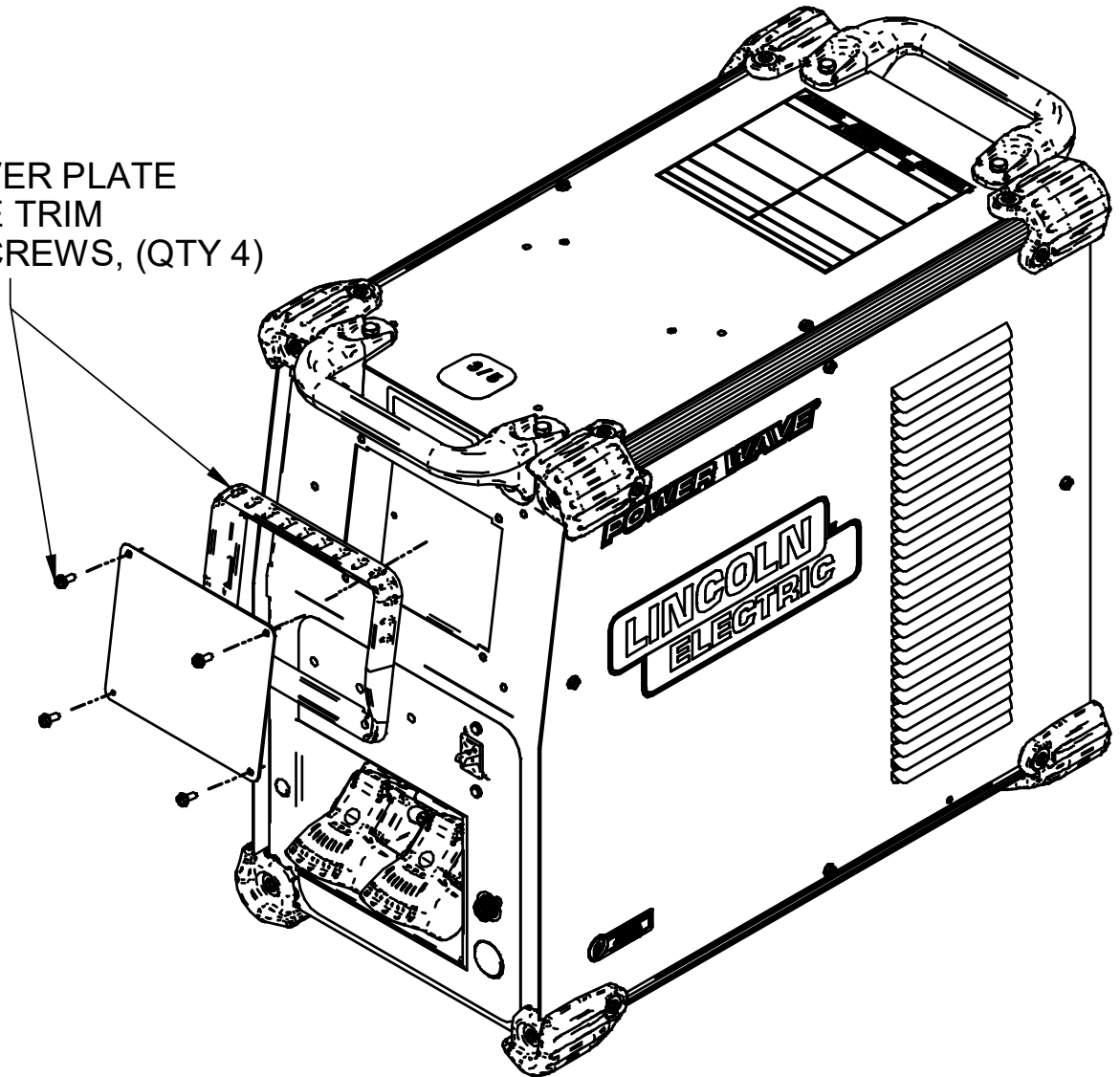


FIGURE 1

REMOVE CORNER CAPS
10-24 X .75 SCREWS (QTY 12)
#10 WASHERS (QTY 12)

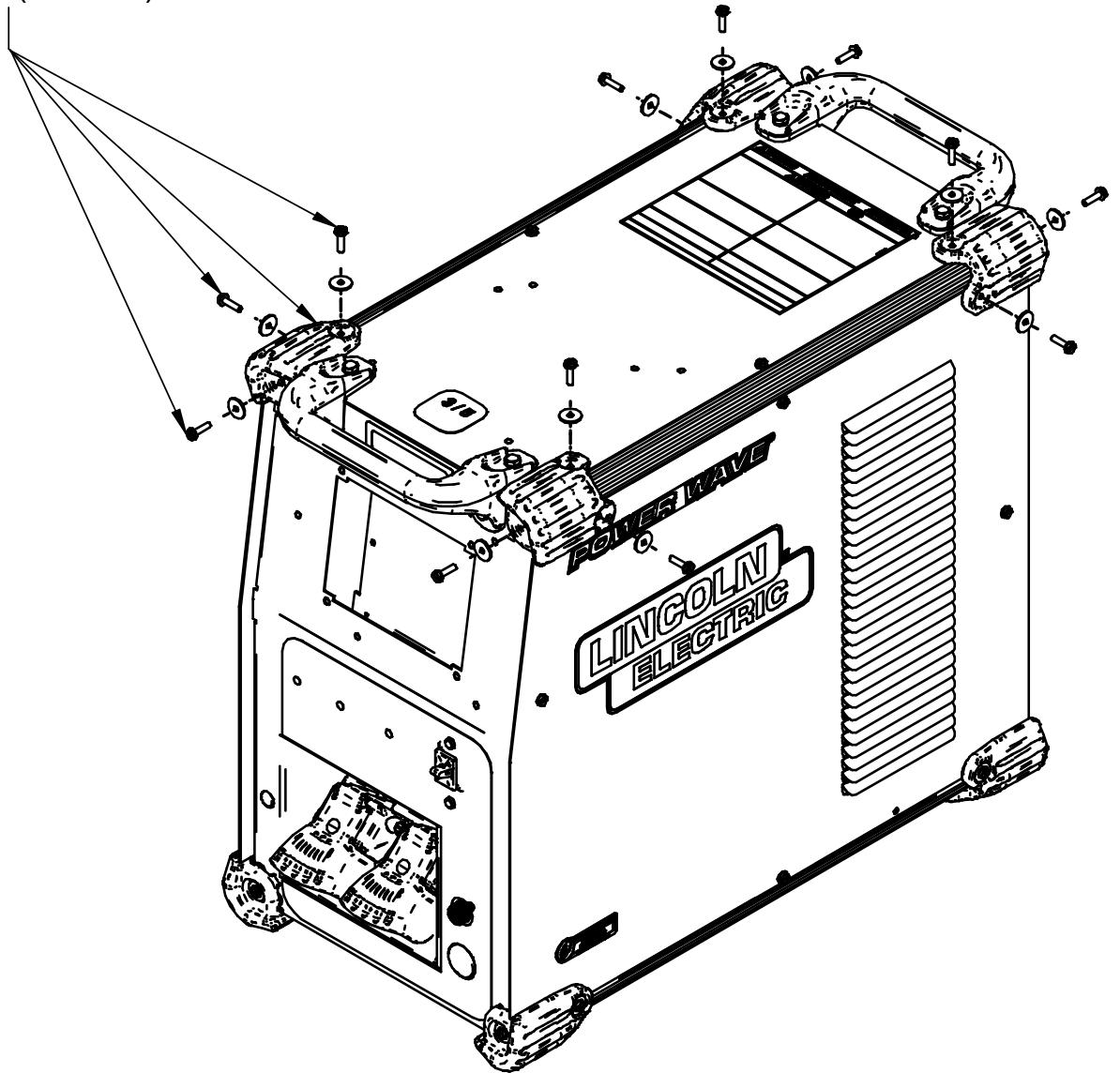


FIGURE 2

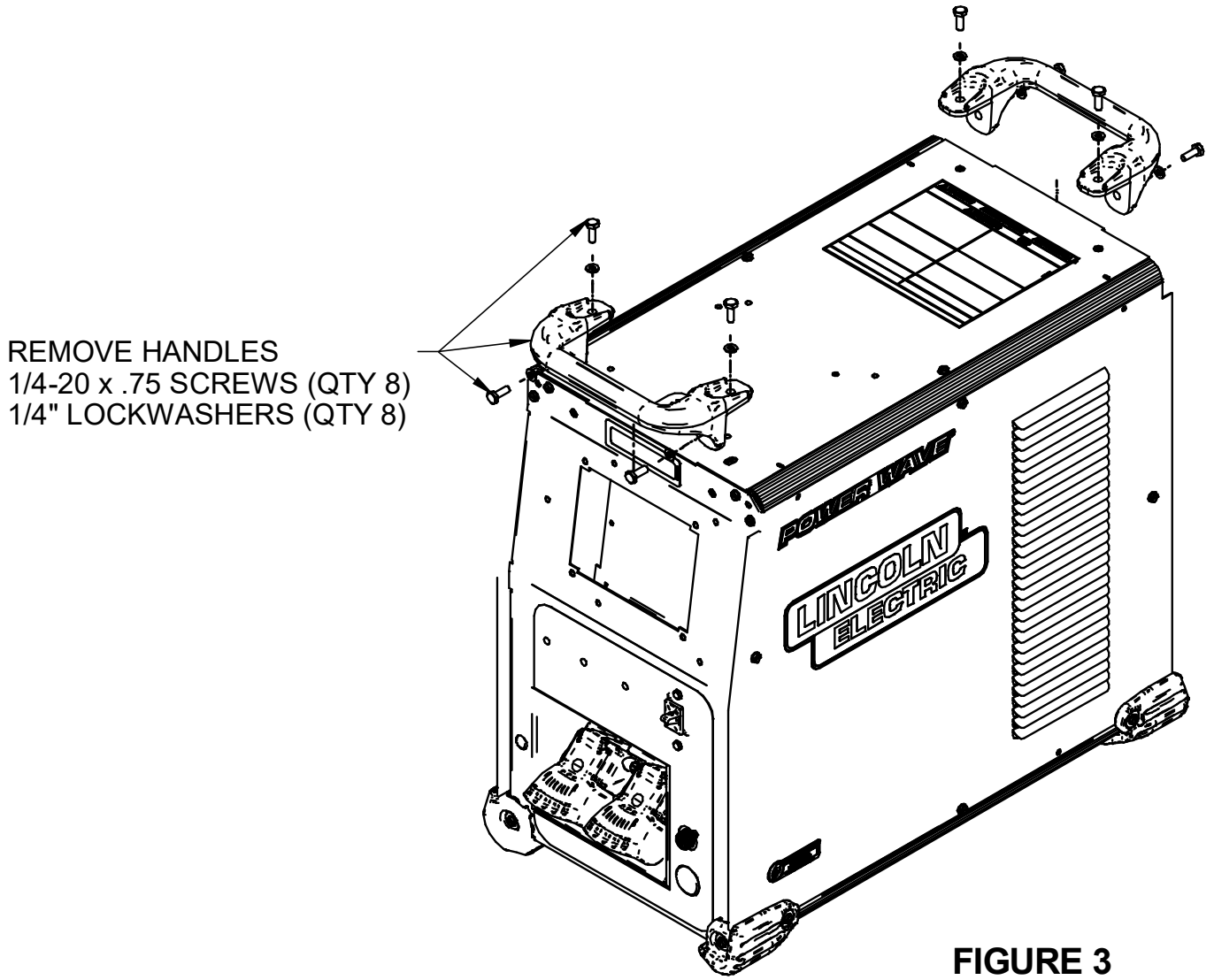
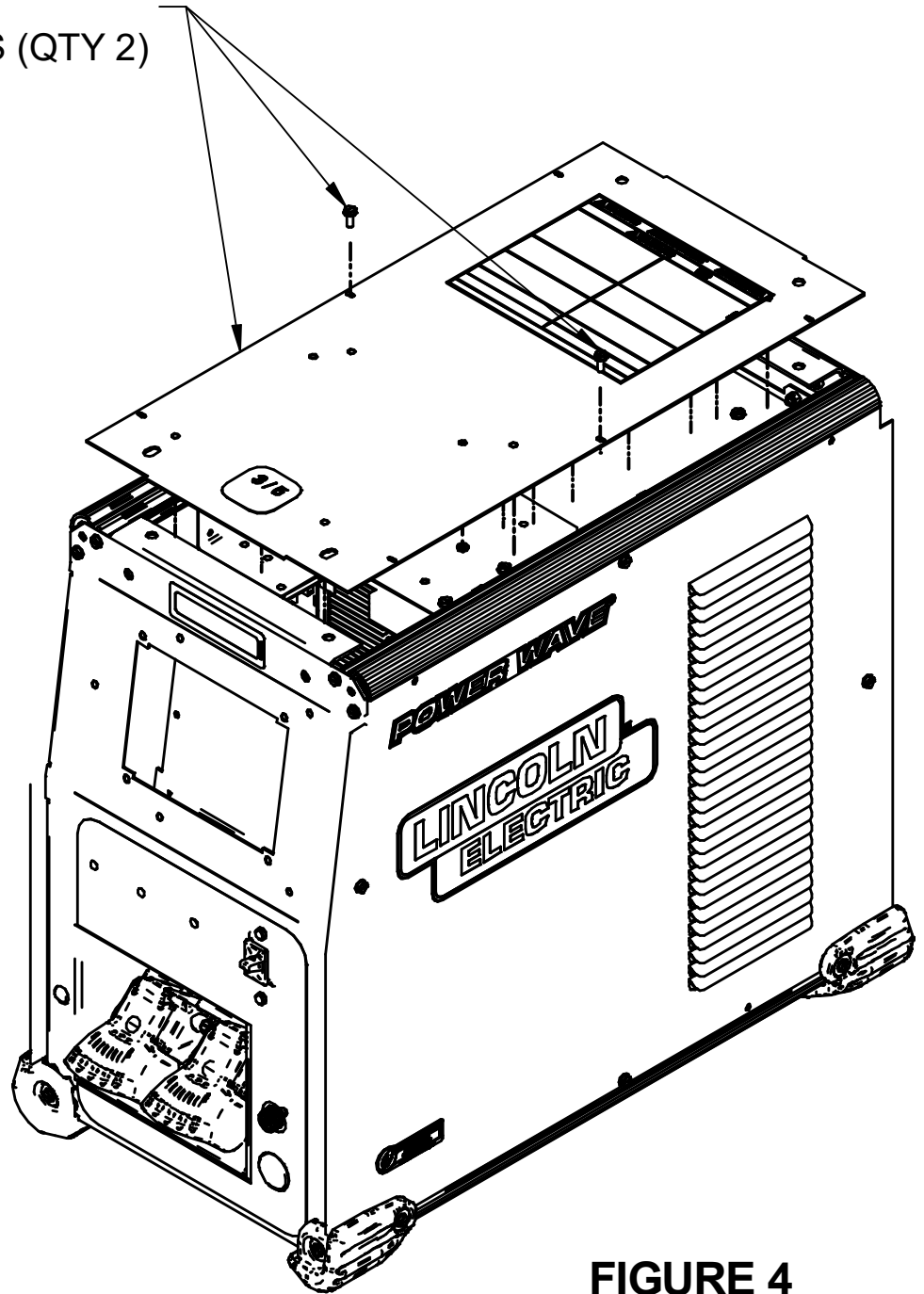


FIGURE 3

REMOVE ROOF
10-24 X .50 SCREWS (QTY 2)



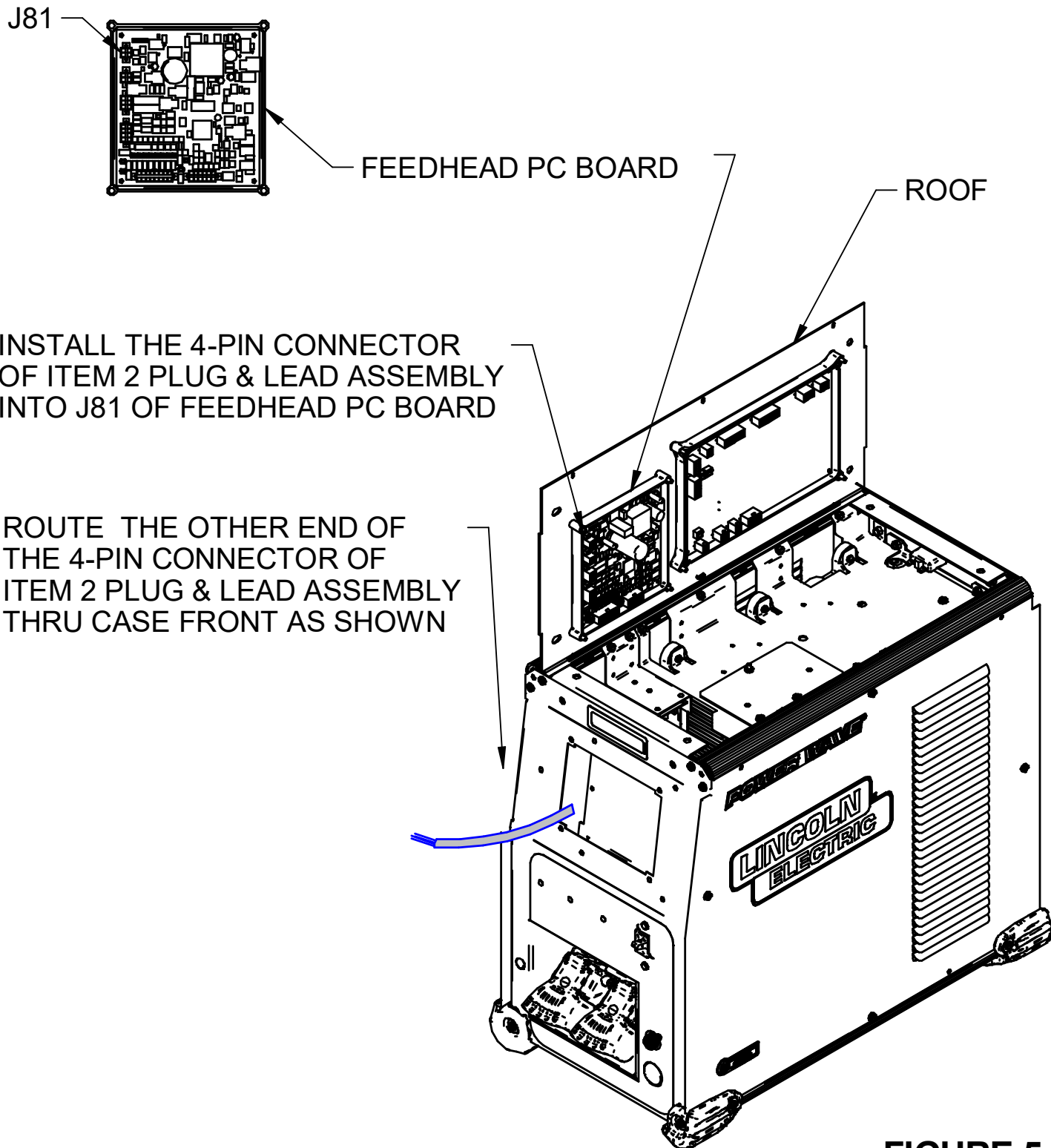
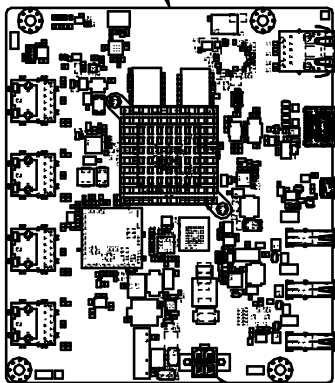


FIGURE 5

INSTALL THE OTHER END OF THE 4-PIN CONNECTOR (P30) OF ITEM 2 PLUG & LEAD ASSEMBLY INTO THE 4-PIN JUMPER OF ITEM 1 CONNECTIVITY HUB ASSEMBLY PC BOARD

ITEM 1 CONNECTIVITY HUB ASSEMBLY

PC BOARD



4-PIN JUMPER

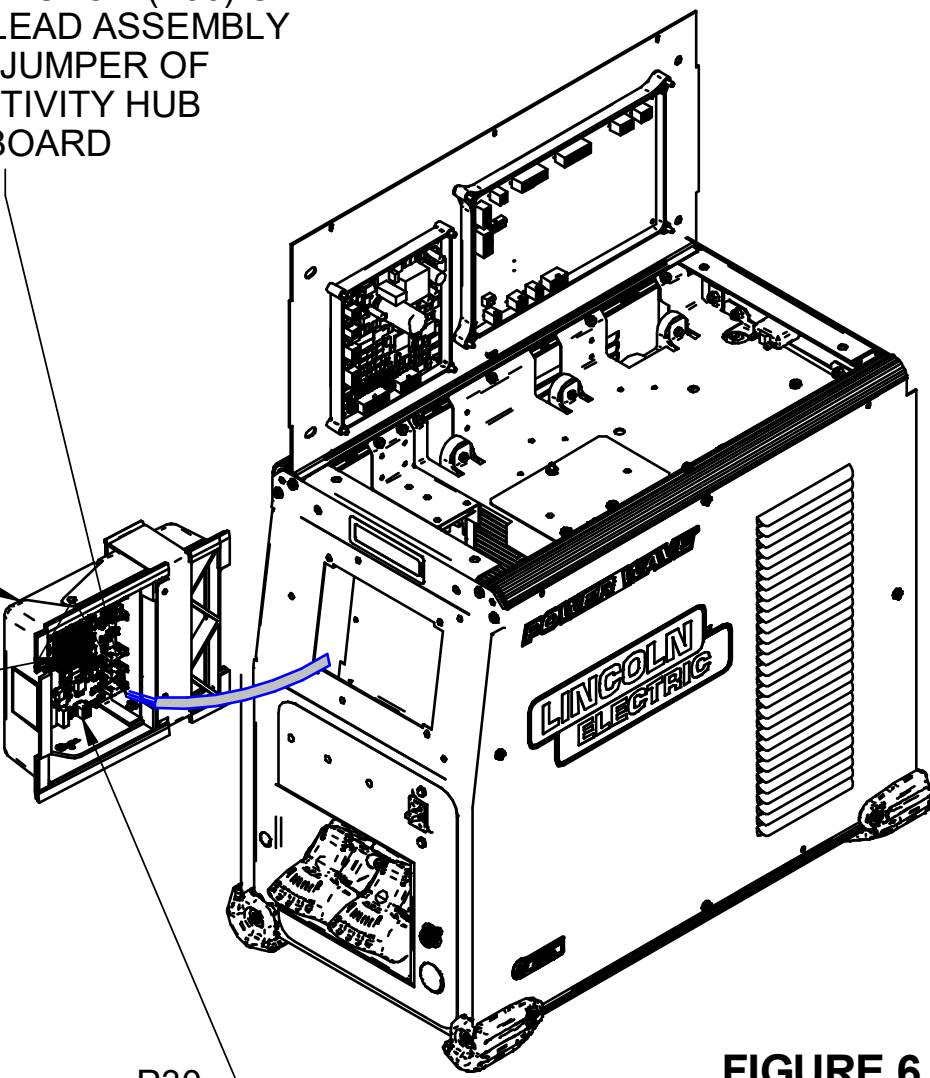
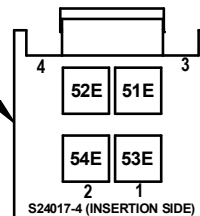
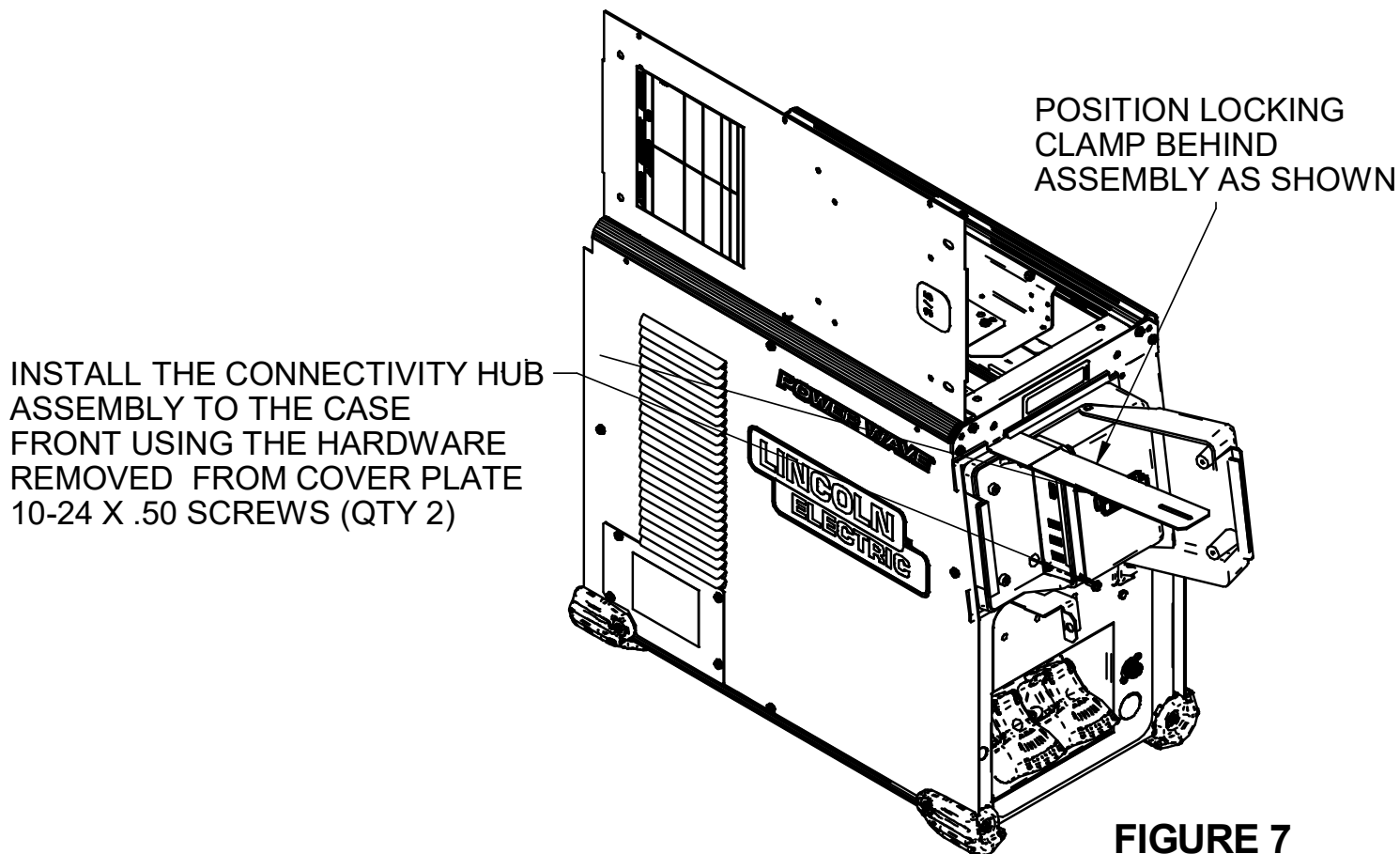
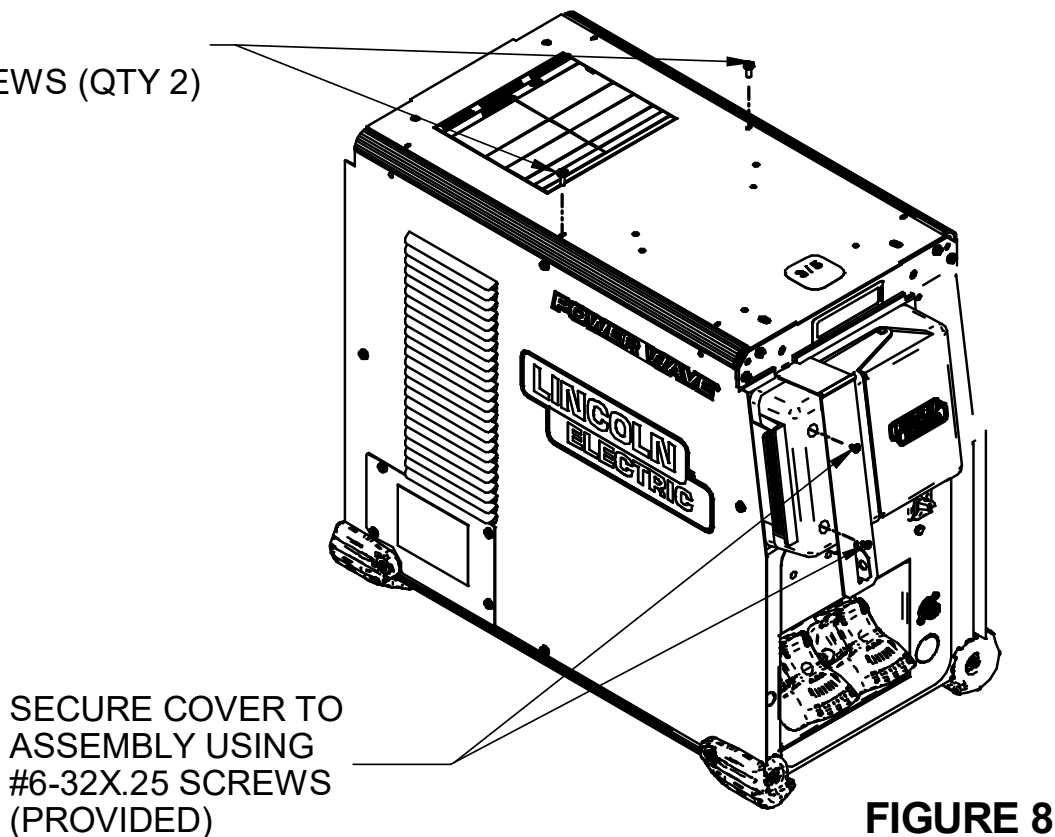


FIGURE 6



INSTALL ROOF
10-24 X .50 SCREWS (QTY 2)



INSTALL CORNER CAPS
10-24 X .75 SCREWS (QTY 12)
#10 WASHERS (QTY 12)

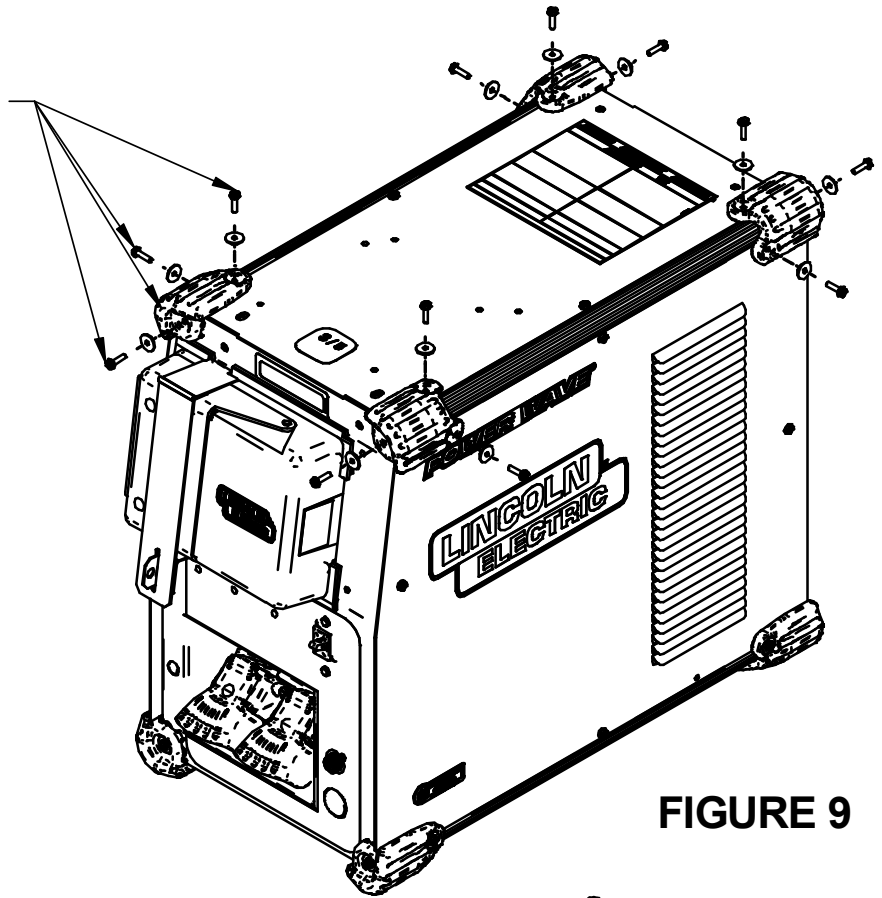


FIGURE 9

INSTALL HANDLES
1/4-20 x .75 SCREWS (QTY 8)
1/4" LOCKWASHERS (QTY 8)

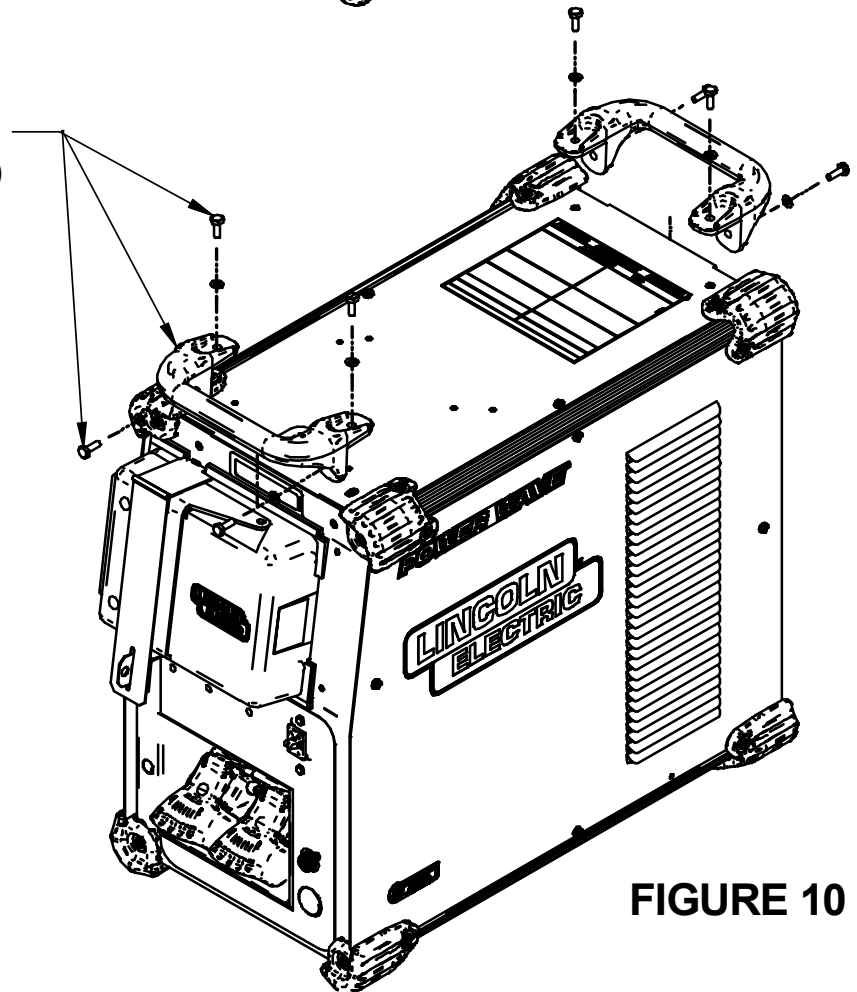




FIGURE 10

INSTRUCTIONS FOR INSTALLING K4884-1 POWER WAVE CONNECTIVITY HUB KIT ON A POWER WAVE R350 (ALL CODES)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4884-1 Power Wave Connectivity Hub Kit for use on a Power Wave R350.

 WARNING	
	<ul style="list-style-type: none"> • Disconnect input power before servicing. • Do not operate with covers removed. • Do not touch electrically live parts. • Only qualified persons should install, use or service this equipment.
ELECTRIC SHOCK CAN KILL	

Parts List Required for Installation on Power Wave R350:

Item	Part Number	Description	Qty
1	L18183	Power Wave Connectivity Hub	1
2	S18250-1107	Plug & Lead Assembly (4-pin plug / 4-pin plug)	1

Parts List Required for Installation on other machines:

Item	Part Number	Description	Qty
3	S18250-1112	Plug & Lead Assembly (4-pin plug / 6-pin receptacle)	1
4	S18250-1117	Plug & Lead Assembly (4-pin plug / 6-pin plug)	1

Power Wave Connectivity Hub Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools
- Phillips Screwdriver

CAUTION : PC BOARD CAN BE DAMAGED BY STATIC ELECTRICITY

Before making any connections to a PC board, remove your body's static charge by touching unpainted grounded frame of equipment.

INSTALLATION:

1. Turn off input power to the Power Wave at the disconnect switch or fuse box before working on the Power Wave.
2. Remove the weld cables from the output studs, and disconnect all control cables including the Ethernet connection from the Power Wave.
3. Remove the UI cover plate and outside trim by removing the four screws fastening the cover plate to the power source using a 5/16" nut driver or other suitable tool (**Figure 1**). Retain the mounting hardware removed for installing the Power Wave Connectivity Hub Kit.
4. Obtain Item 2 Plug & Lead Assembly (S18250-1107, 4 pin plug / 4 pin plug). Connect the Plug & Lead Assembly to J81 (4 pin plug) located in front of Power Wave R350 (**Figure 2**).
5. Obtain Item 1 Power Wave Connectivity Hub provided with the kit. Route the 4-pin connector P30 of Item 2 Plug & Lead Assembly thru the case front, and to 4-pin jumper of Item 1 Power Wave Connectivity Hub (**Figure 3**).
6. With locking clamp positioned behind the assembly, install the Power Wave Connectivity Hub Kit to the Case Front using the hardware removed from cover plate in Step 3, using a 5/16" nut driver or other suitable tool (**Figure 4**).
7. Secure cover to assembly with provided #6-32 x .25 screws (**Figure 5**).
8. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
9. **After installing the K4884-1 Power Wave Connectivity Hub , the Power Wave firmware may need to be updated. Visit www.powerwavesoftware.com for firmware updates and the Power Wave Utilities. Included with Power Wave Utilities are the Power Wave Manager PC tool for setting up the wireless or Bluetooth connection, and the Help Me Connect guide for setup instructions.**

REMOVE COVER PLATE
AND OUTSIDE TRIM
10-24 X .50 SCREWS, (QTY 4)

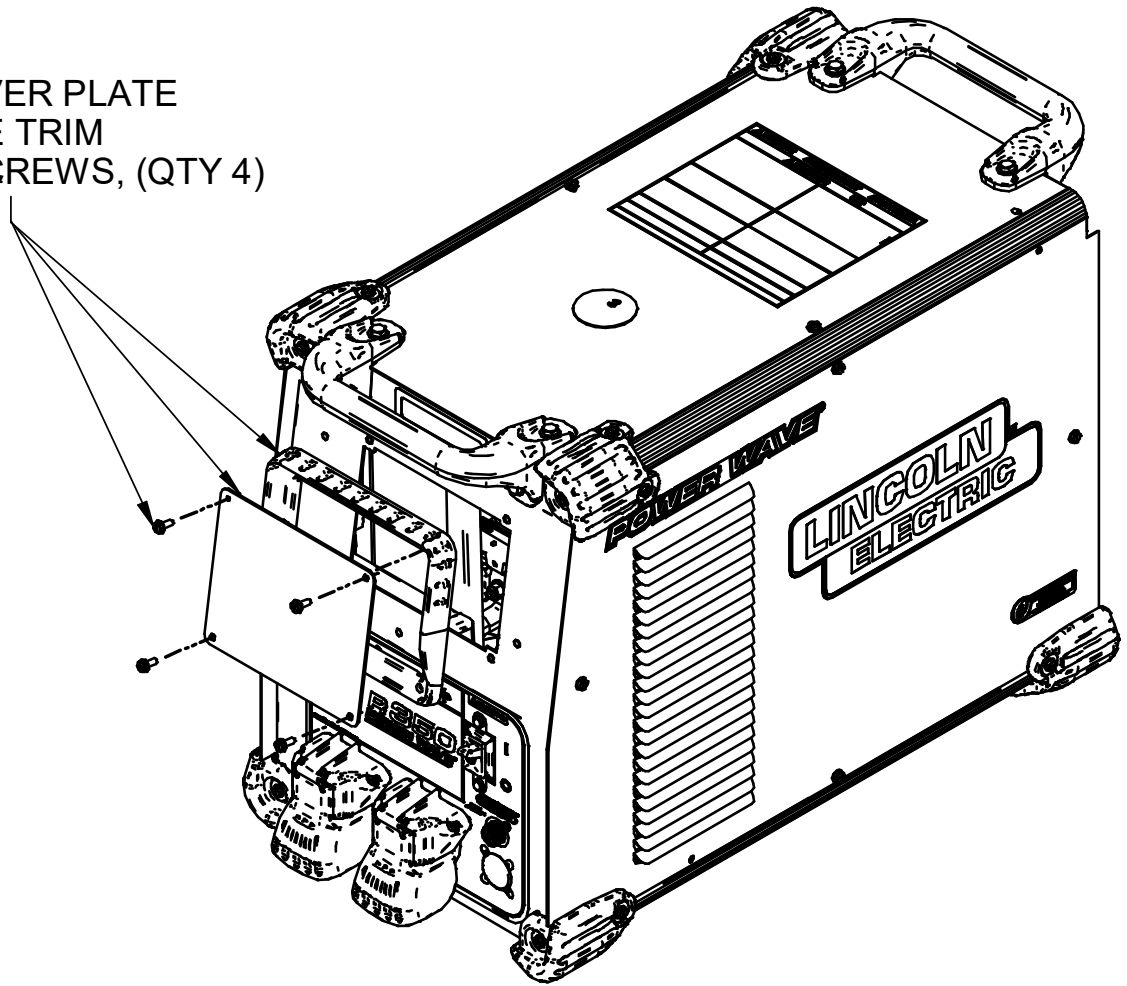


FIGURE 1

INSTALL THE 4-PIN CONNECTOR
OF ITEM 2 PLUG & LEAD ASSEMBLY
IN J81 OF FEEDHEAD PC BOARD

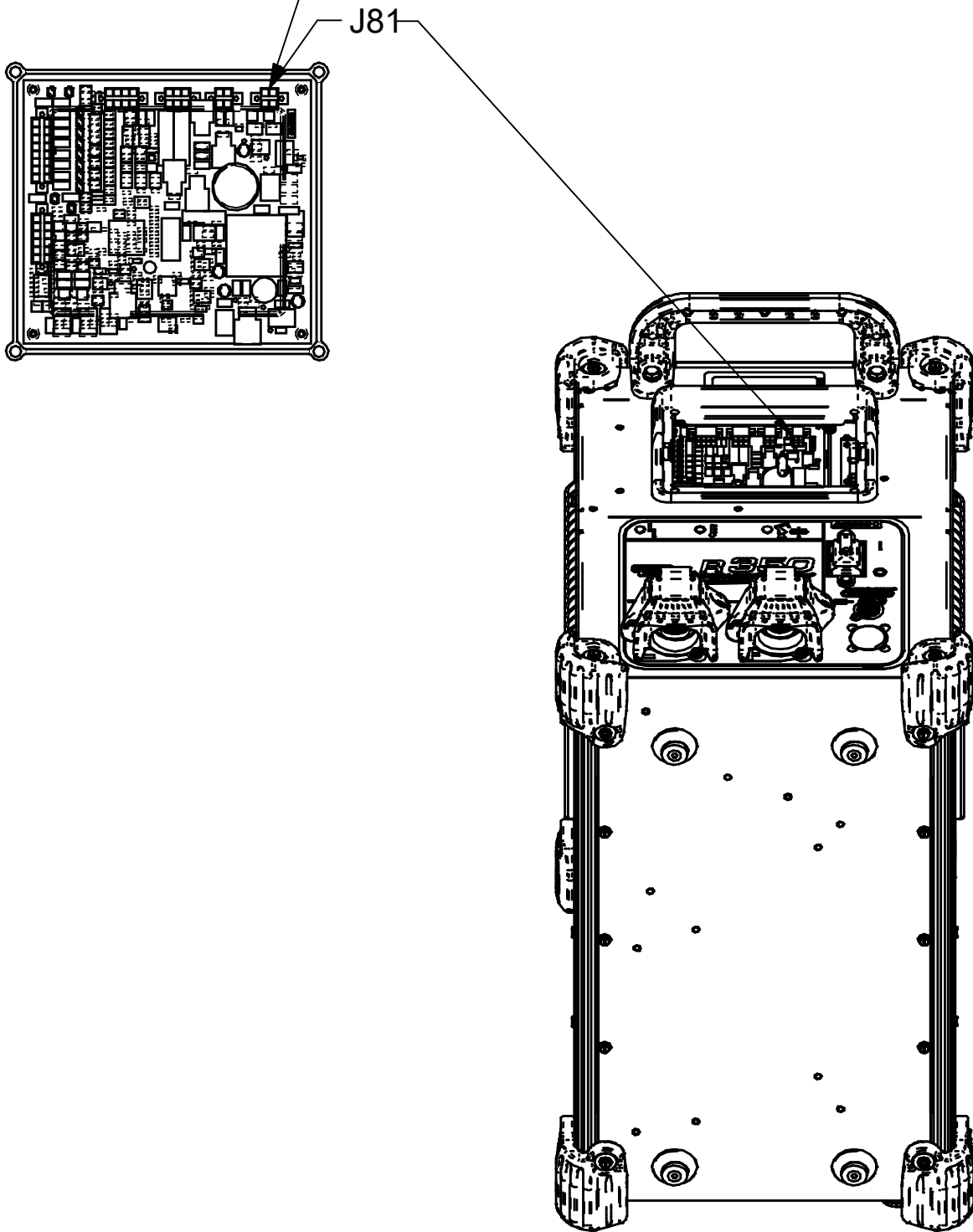
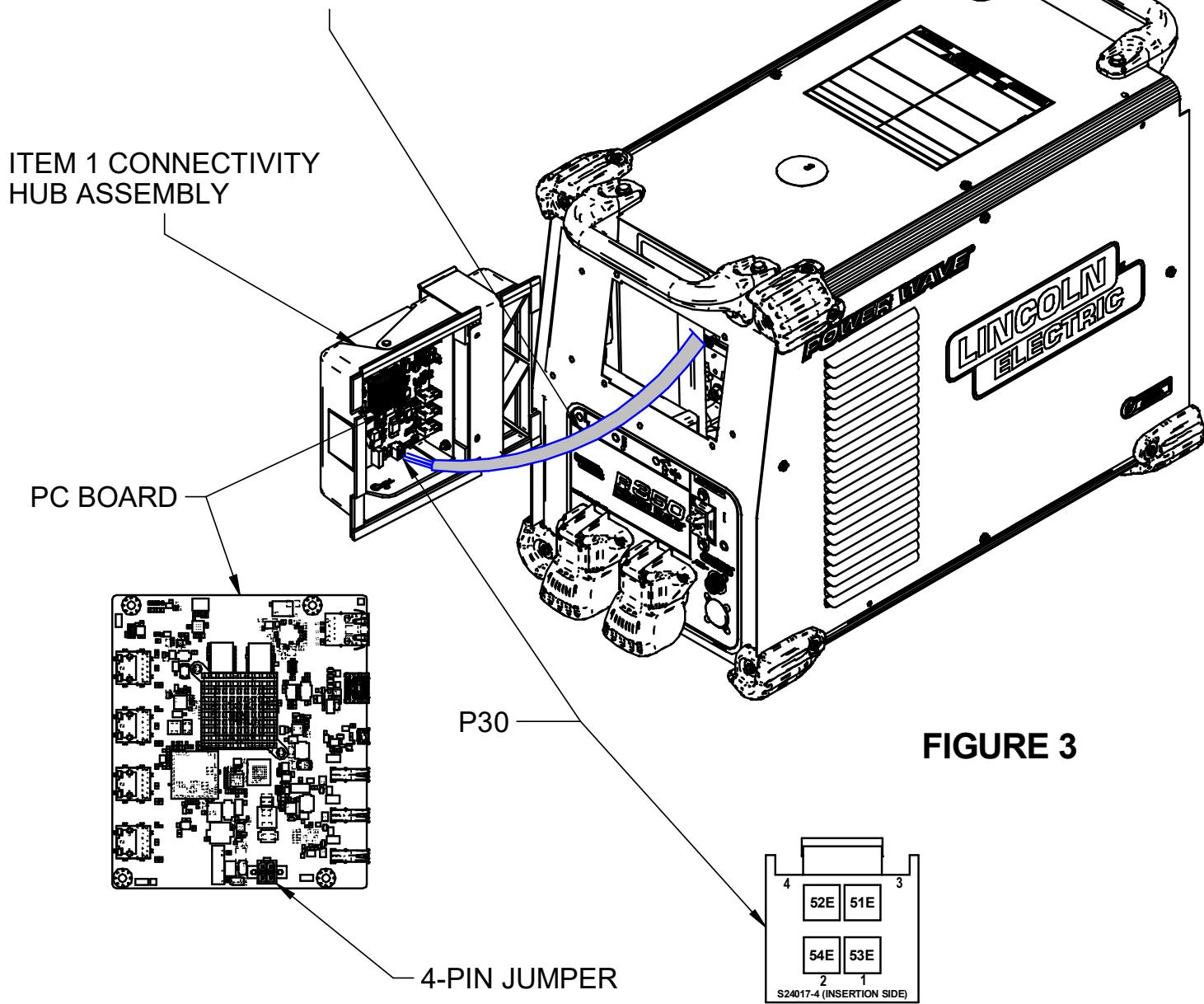
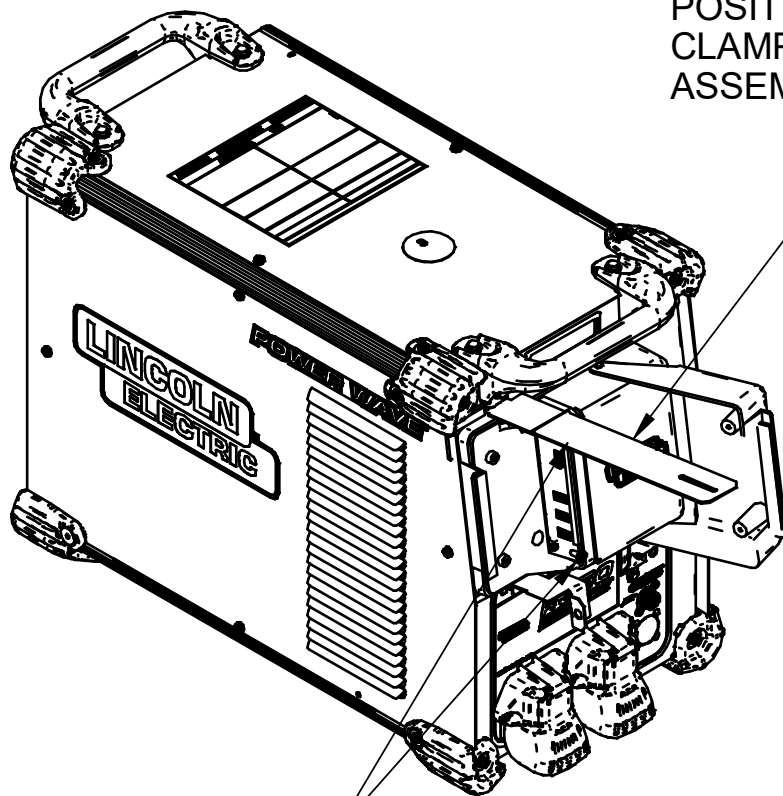


FIGURE 2

INSTALL THE OTHER END OF THE 4-PIN CONNECTOR (P30) OF ITEM 2 PLUG & LEAD ASSEMBLY INTO THE 4-PIN JUMPER OF ITEM 1 CONNECTIVITY HUB ASSEMBLY PC BOARD

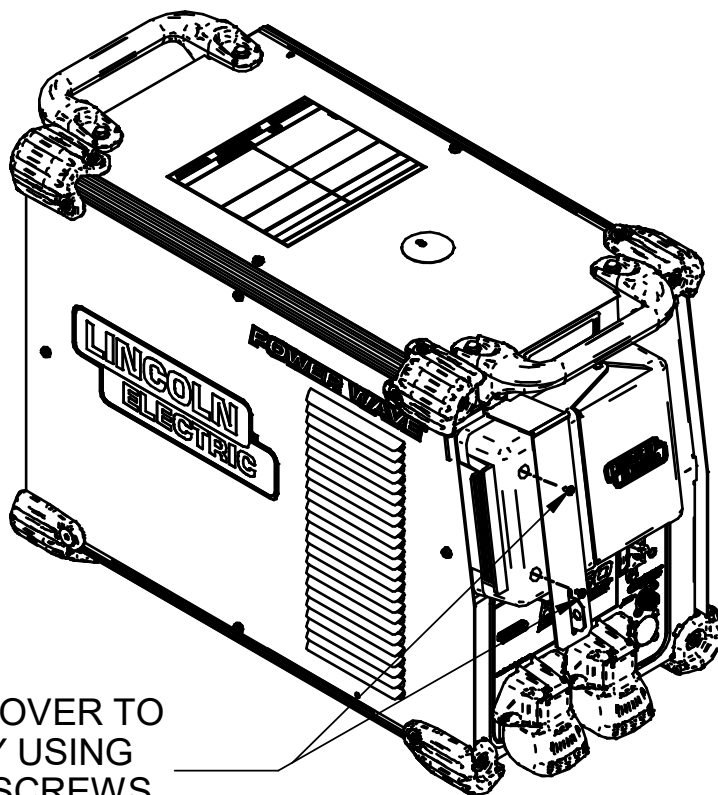




POSITION LOCKING CLAMP BEHIND ASSEMBLY AS SHOWN

INSTALL THE CONNECTIVITY HUB ASSEMBLY TO THE CASE FRONT USING THE HARDWARE REMOVED FROM COVER PLATE 10-24 X .50 SCREWS (QTY 2)

FIGURE 4



SECURE COVER TO ASSEMBLY USING #6-32X.25 SCREWS (PROVIDED)



FIGURE 5

INSTRUCTIONS FOR INSTALLING K4884-1 POWER WAVE CONNECTIVITY HUB KIT ON A POWER WAVE S500 (CODES BELOW 12772)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4884-1 Power Wave Connectivity Hub Kit or use on a Power Wave S500.

 WARNING	
	<ul style="list-style-type: none"> • Disconnect input power before servicing. • Do not operate with covers removed. • Do not touch electrically live parts. • Only qualified persons should install, use or service this equipment.
ELECTRIC SHOCK CAN KILL	

Parts List Required for Installation on Power Wave S500:

Item	Part Number	Description	Qty
1	L18183	Power Wave Connectivity Hub	1
2	S18250-1112	Plug & Lead Assembly (4-pin plug / 6-pin receptacle)	1

Parts List Required for Installation on other machines:

Item	Part Number	Description	Qty
3	S18250-1107	Plug & Lead Assembly (4-pin plug / 4-pin plug)	1
4	S18250-1117	Plug & Lead Assembly (4-pin plug / 6-pin plug)	1

Power Wave Connectivity Hub Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools
- 7/16" nut driver or other suitable tools
- Phillips Screwdriver

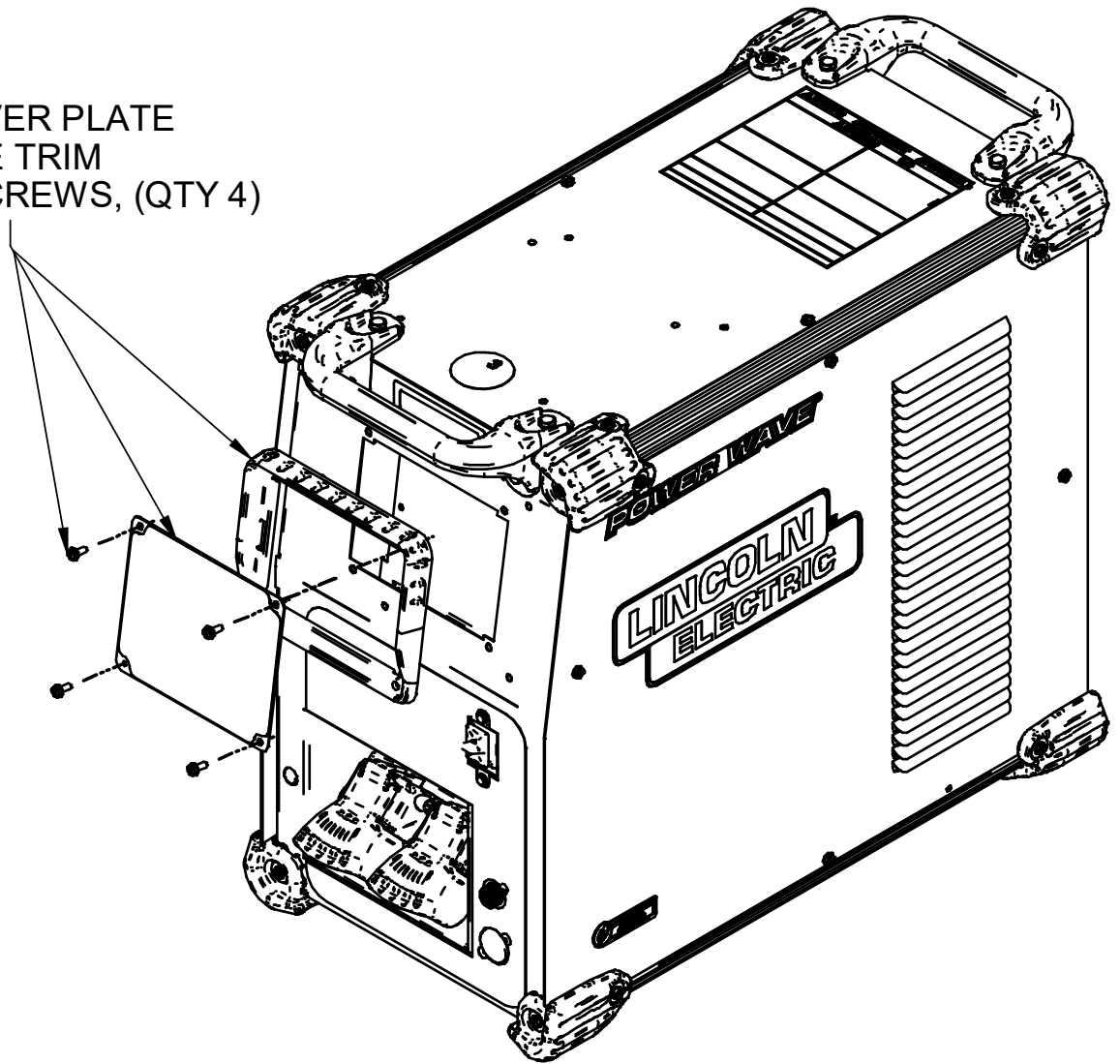
CAUTION : PC BOARD CAN BE DAMAGED BY STATIC ELECTRICITY

Before making any connections to a PC board, remove your body's static charge by touching unpainted grounded frame of equipment.

INSTALLATION:

1. Turn off input power to the Power Wave at the disconnect switch or fuse box before working on the Power Wave.
2. Remove the weld cables from the output studs, and disconnect all control cables including the Ethernet connection from the Power Wave.
3. Remove the UI cover plate and outside trim by removing the four screws fastening the cover plate to the power source using a 5/16" nut driver or other suitable tool (**Figure 1**). Retain the mounting hardware removed for installing the Power Wave Connectivity Hub Kit.
4. Remove the four top Corner Caps by removing the screws and washers mounting them, using a 5/16" nut driver or other suitable tool (**Figure 2**). Retain all mounting hardware for reinstalling the Corner Caps.
5. Remove the two handles by removing the screws and lock washers mounting them, using a 7/16" nut driver or other suitable tool (**Figure 3**). Retain all mounting hardware for reinstalling the handles.
6. Remove the roof by removing the two screws, using a 5/16" nut driver or other suitable tool (**Figure 4**). Retain all hardware for reinstalling the roof.
7. Locate P114 on Power Wave S500 (**Figure 5**). Remove 6 pin housing from P114 (empty housing secured to P114 on Harness, if present), and discard. Obtain Item 2 Plug & Lead assembly. Install 6 pin connector of Item 2 plug & lead assembly to P114.
8. Route the 4 pin connector, P30, of Item 2 plug & lead assembly thru the case front. Obtain Item 1 Power Wave Connectivity Hub provided with the kit. Connect Item 2 plug & lead assembly to 4-pin jumper of Item 1 Power Wave Connectivity Hub (**Figure 6**).
9. With locking clamp positioned behind the assembly, install Item 1 Power Wave Connectivity Hub to the Case Front using the hardware removed from cover plate in Step 3, using a 5/16" nut driver or other suitable tool (**Figure 7**).
10. Secure cover to assembly with provided #6-32 x .25 screws, then install the roof using the hardware removed from roof in Step 6, using a 5/16" nut driver or other suitable tool (**Figure 8**).
11. Install the two handles using the hardware removed from mounting the handles in step 5, using a 7/16" nut driver or other suitable tool (**Figure 9**).
12. Install the top four Corner Caps using the hardware removed from mounting the corner caps in Step 4, using a 5/16" nut driver or other suitable tool (**Figure 10**).
13. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
14. **After installing the K4884-1 Power Wave Connectivity Hub Kit , the Power Wave firmware may need to be updated. Visit www.powerwavesoftware.com for firmware updates and the Power Wave Utilities. Included with Power Wave Utilities are the Power Wave Manager PC tool for setting up the wireless or Bluetooth connection, and the Help Me Connect guide for setup instructions**

REMOVE COVER PLATE
AND OUTSIDE TRIM
10-24 X .50 SCREWS, (QTY 4)



REMOVE CORNER CAPS
10-24 X .75 SCREWS (QTY 12)
#10 WASHERS (QTY 12)

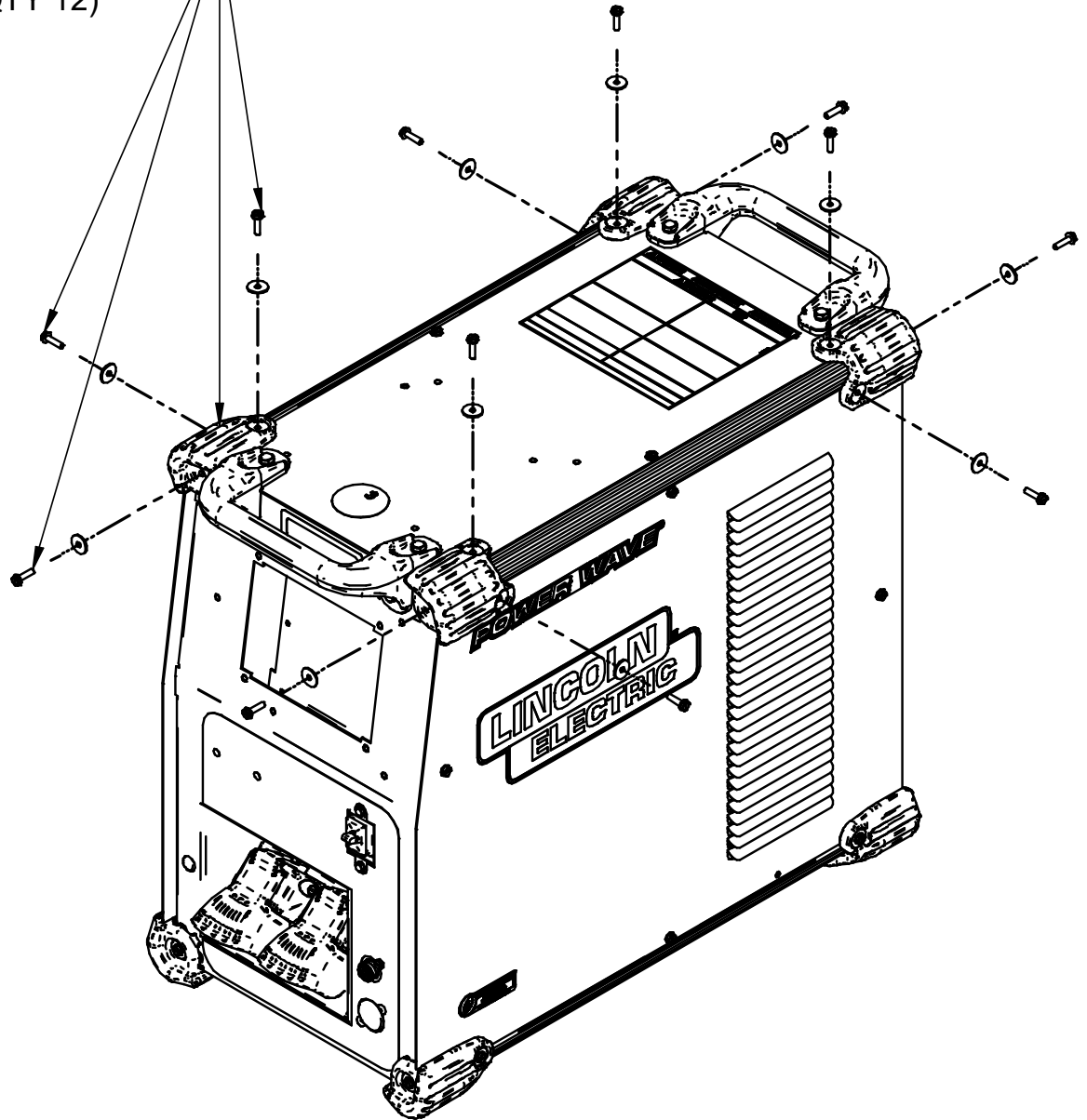


FIGURE 2

REMOVE HANDLES
1/4-20 x .75 SCREWS (QTY 8)
1/4" LOCKWASHERS (QTY 8)

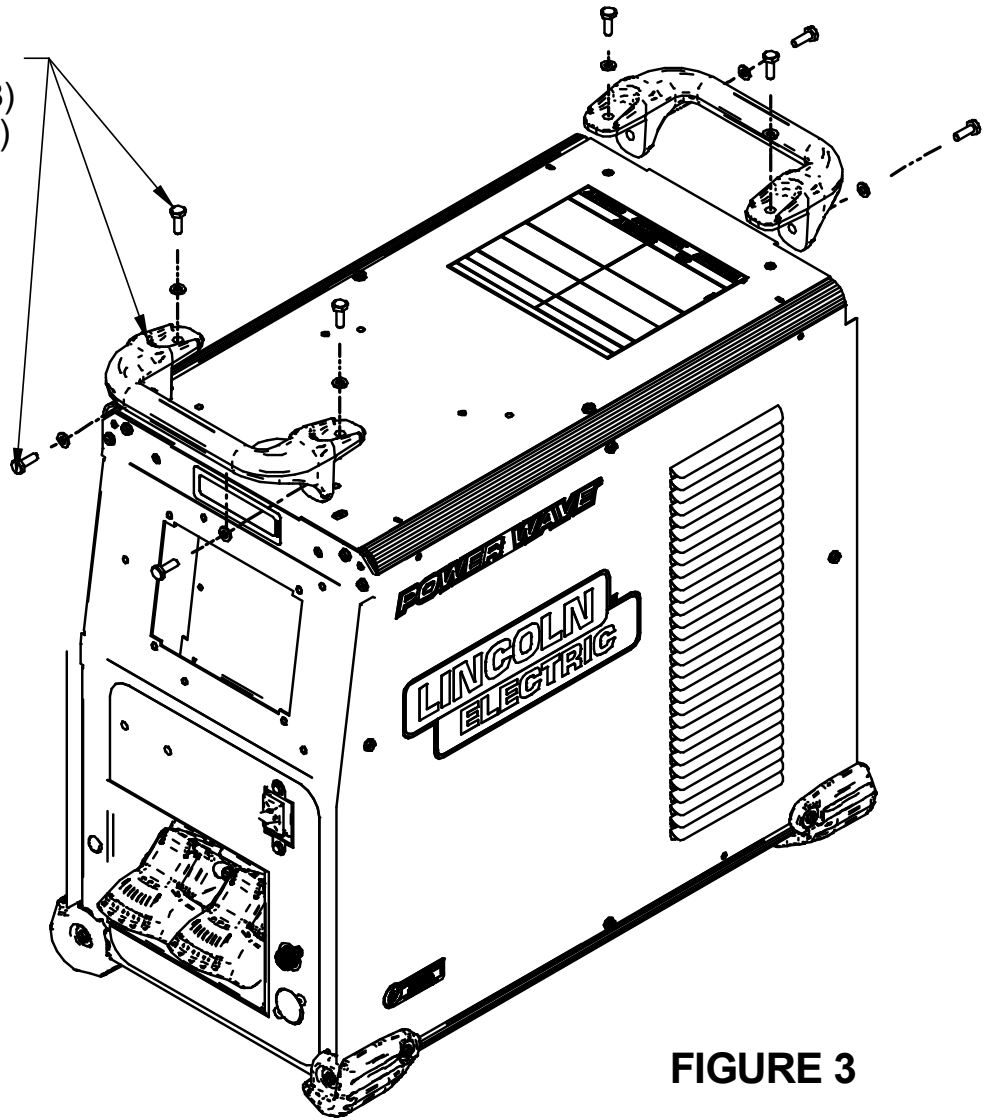


FIGURE 3

REMOVE ROOF
10-24 X .50 SCREWS (QTY 2)

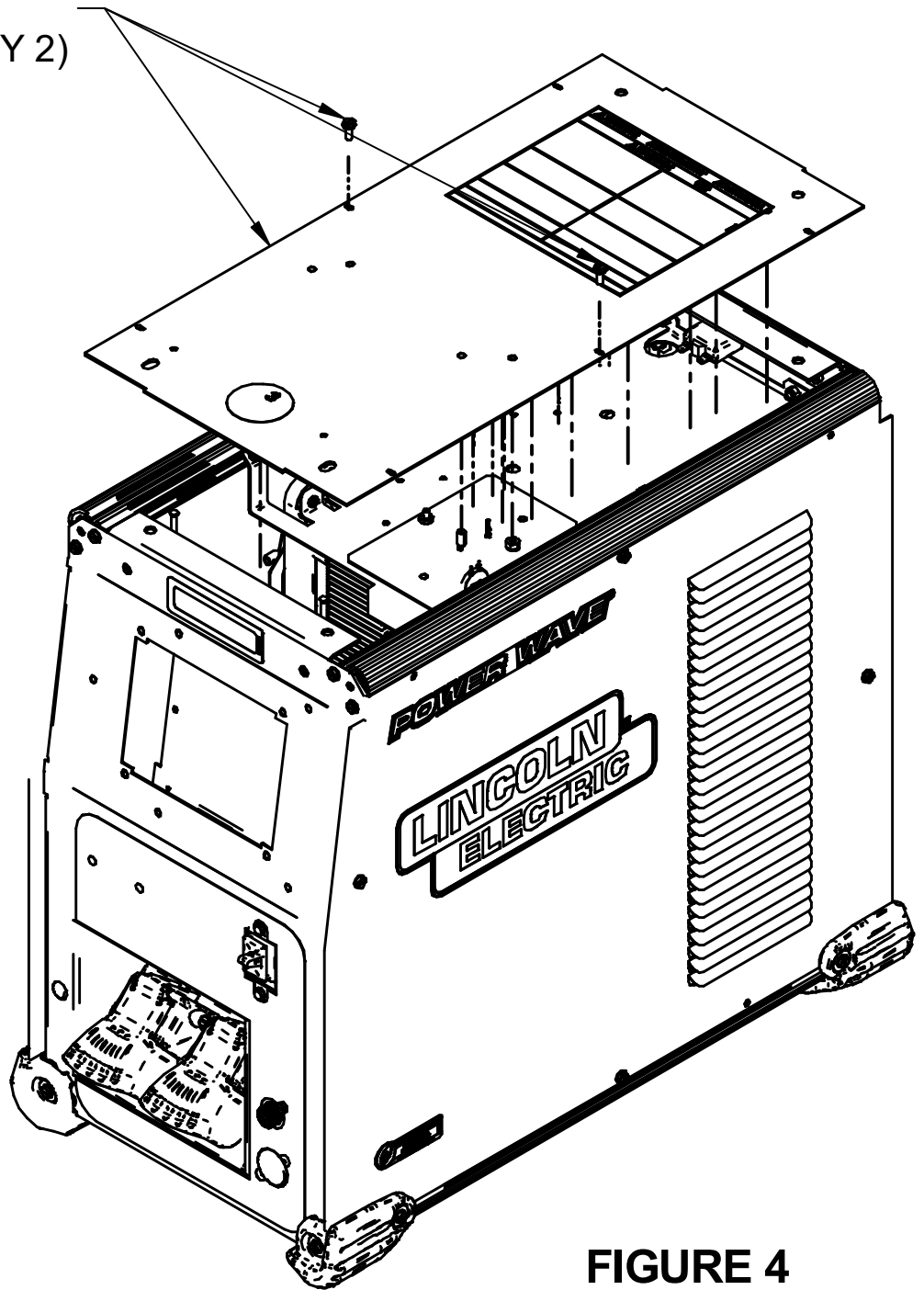
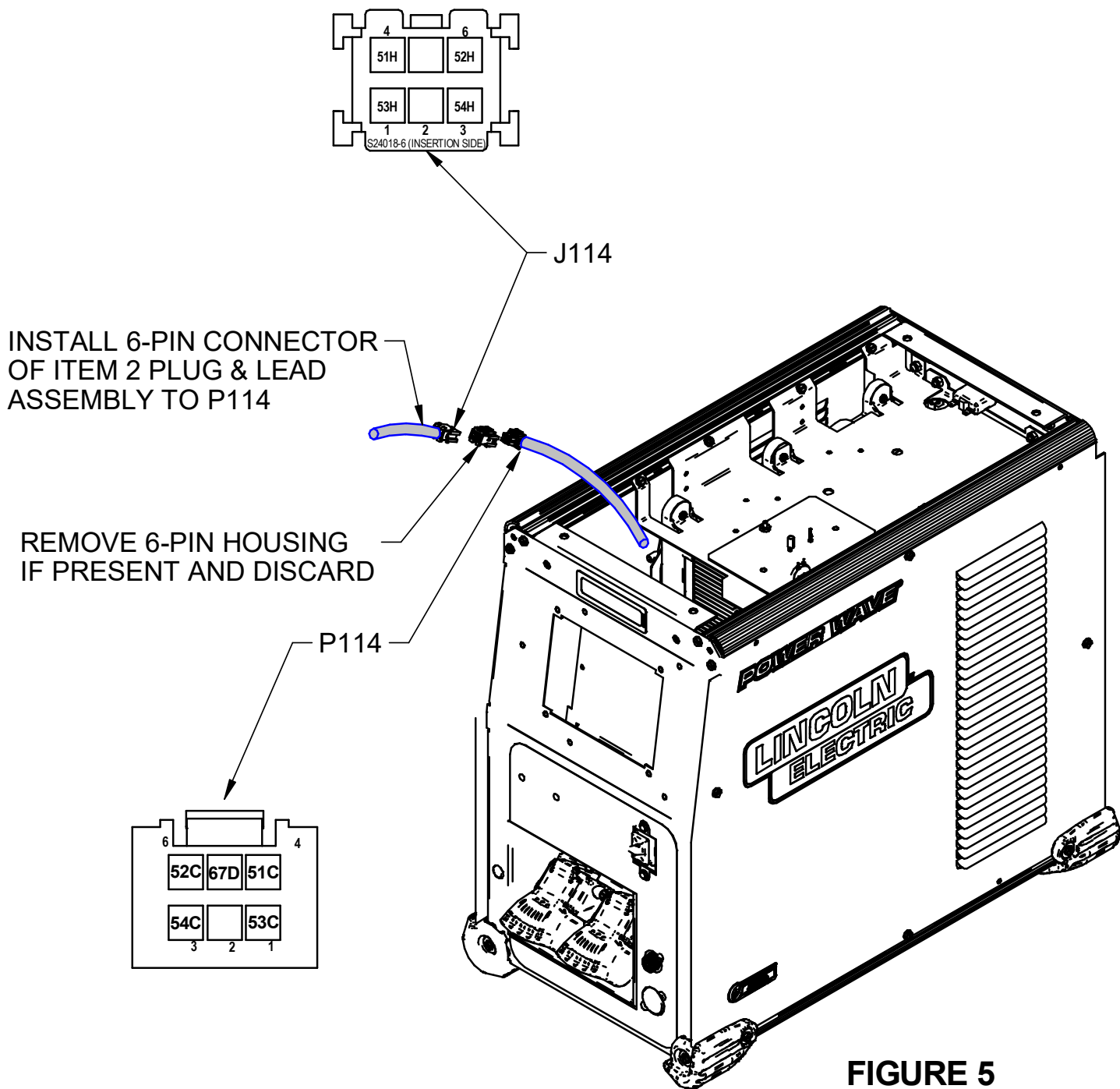
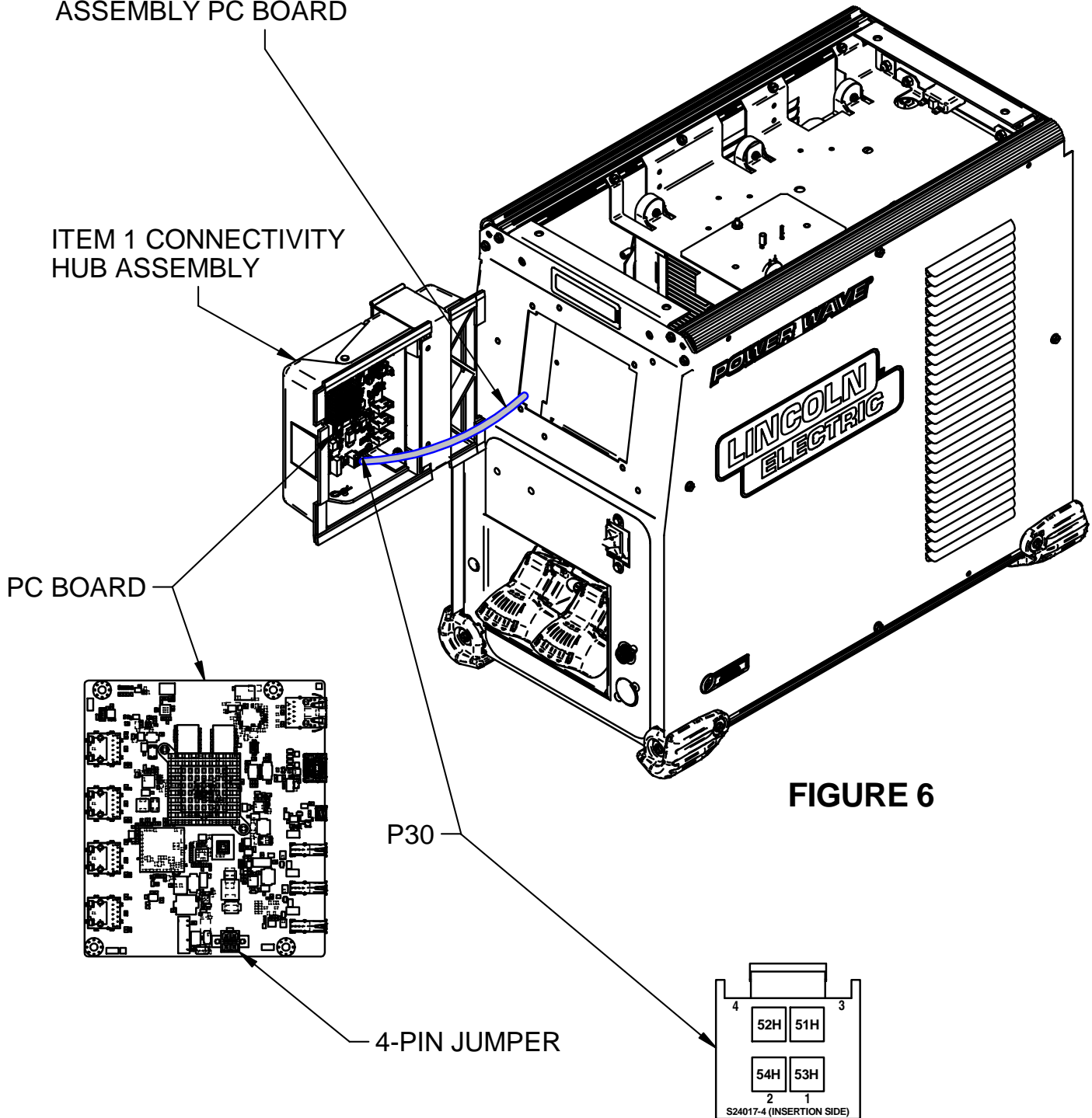


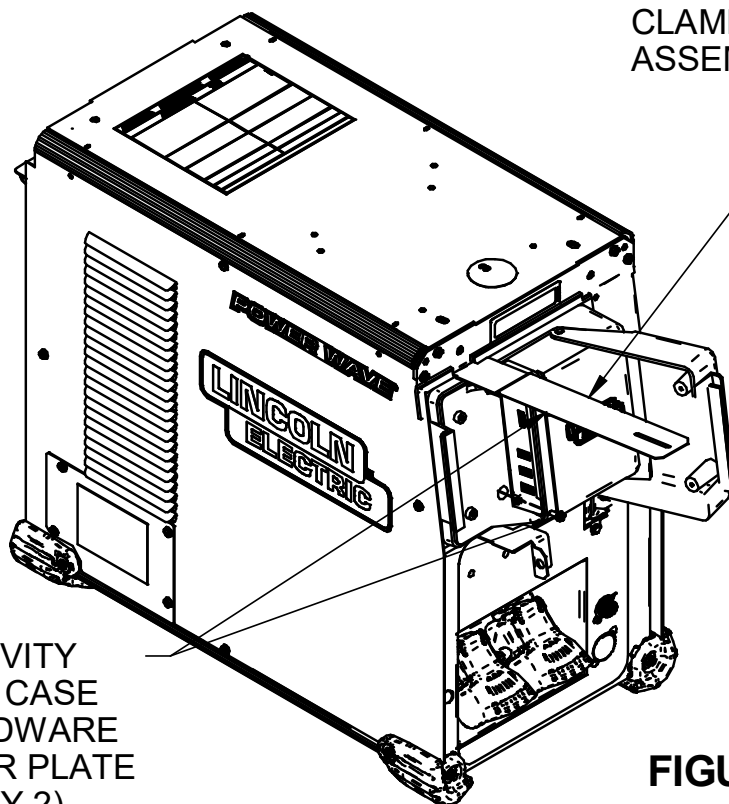
FIGURE 4



ROUTE THE 4-PIN CONNECTOR P30 OF ITEM 2 PLUG & LEAD ASSEMBLY THRU THE CASE FRONT, AND INSTALL TO 4-PIN JUMPER OF ITEM 1 CONNECTIVITY HUB ASSEMBLY PC BOARD



POSITION LOCKING
CLAMP BEHIND
ASSEMBLY AS SHOWN



INSTALL THE CONNECTIVITY
HUB ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM COVER PLATE
10-24 X .50 SCREWS (QTY 2)

FIGURE 7

INSTALL ROOF
10-24 X .50 SCREWS (QTY 2)

SECURE COVER TO
ASSEMBLY USING
#6-32X.25 SCREWS
(PROVIDED)

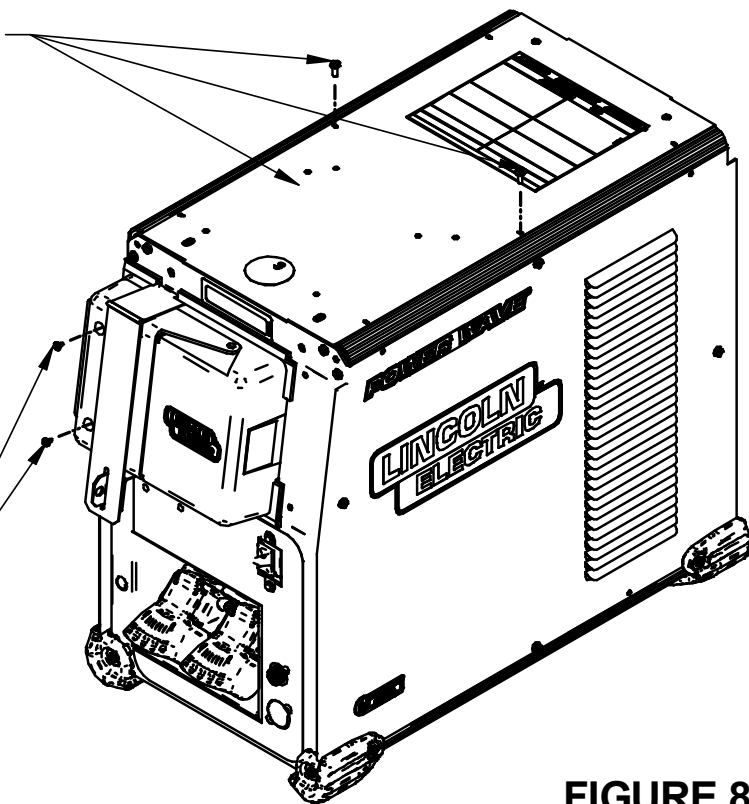


FIGURE 8

INSTALL HANDLES
1/4-20 x .75 SCREWS (QTY 8)
1/4" LOCKWASHERS (QTY 8)

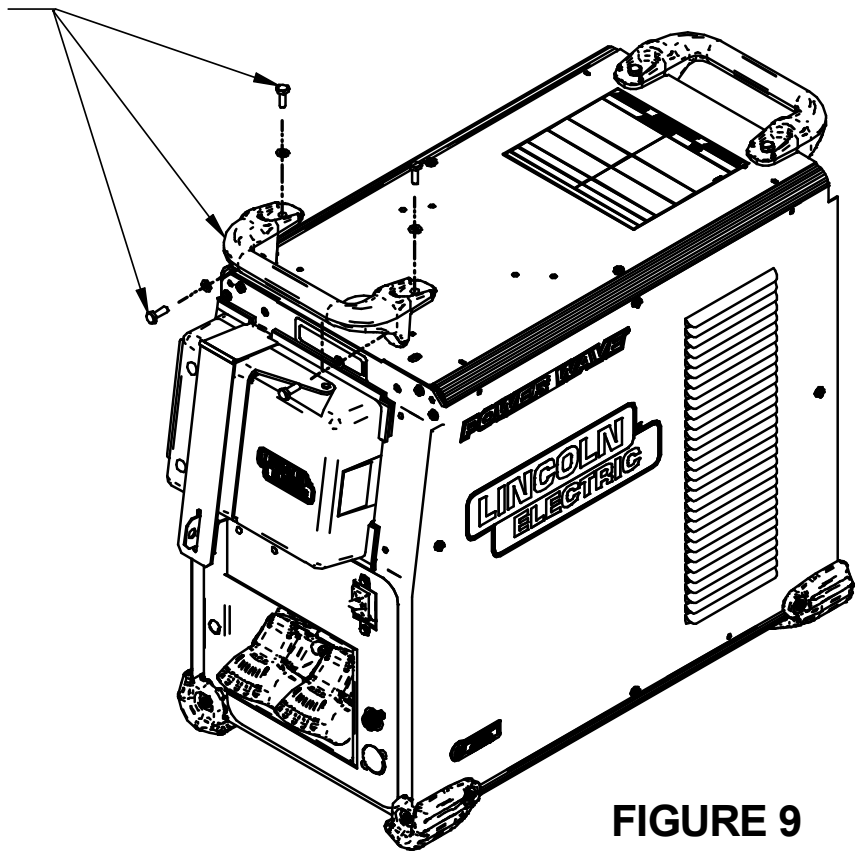


FIGURE 9

INSTALL CORNER CAPS
10-24 X .75 SCREWS (QTY 12)
#10 WASHERS (QTY 12)

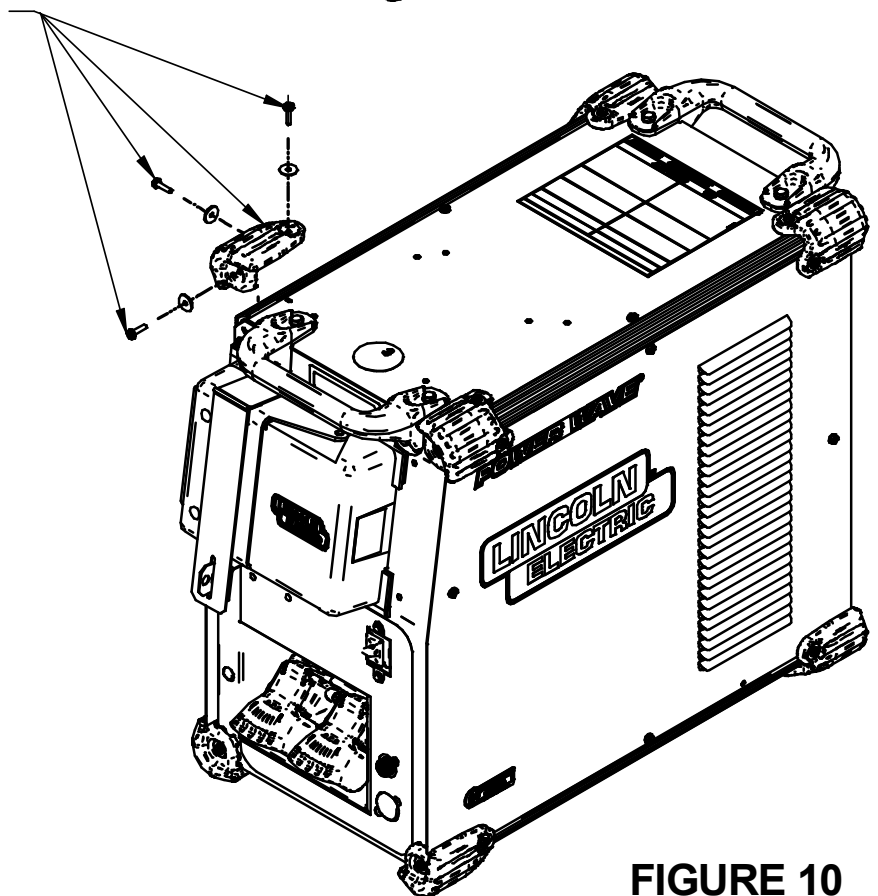




FIGURE 10

INSTRUCTIONS FOR INSTALLING K4884-1 POWER WAVE CONNECTIVITY HUB KIT ON A POWER WAVE S350 (CODES 11694, 11753, 11782, 12371, 12394, 12793 & 12794)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4884-1 Power Wave Connectivity Hub Kit for use on a Power Wave S350.

 WARNING	
	<ul style="list-style-type: none"> • Disconnect input power before servicing. • Do not operate with covers removed. • Do not touch electrically live parts. • Only qualified persons should install, use or service this equipment.
ELECTRIC SHOCK CAN KILL	

Parts List Required for Installation on Power Wave S350:

Item	Part Number	Description	Qty
1	L18183	Power Wave Connectivity Hub	1
2	S18250-1112	Plug & Lead Assembly (4-pin plug / 6-pin receptacle)	1

Parts List Required for Installation on other machines:

Item	Part Number	Description	Qty
3	S18250-1107	Plug & Lead Assembly (4-pin plug / 4-pin plug)	1
4	S18250-1117	Plug & Lead Assembly (4-pin plug / 6-pin plug)	1

Power Wave Connectivity Hub Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools
- Phillips Scredriver

CAUTION : PC BOARD CAN BE DAMAGED BY STATIC ELECTRICITY

Before making any connections to a PC board, remove your body's static charge by touching unpainted grounded frame of equipment.

INSTALLATION:

1. Turn off input power to the Power Wave at the disconnect switch or fuse box before working on the Power Wave.
2. Remove the weld cables from the output studs, and disconnect all control cables including the Ethernet connection from the Power Wave.
3. Remove the UI cover plate and outside trim by removing the four screws fastening the cover plate to the power source using a 5/16" nut driver or other suitable tool (**Figure 1**). Retain the mounting hardware removed for installing the Power Wave Connectivity Hub Kit.
4. Remove the two top right Corner Caps by removing the screws and washers mounting them, using a 5/16" nut driver or other suitable tool (**Figure 2**). Retain all mounting hardware for reinstalling the Corner Caps.
5. Remove the bottom right Corner Cap fasteners, two places, using a 5/16" nut driver or other suitable tool (**Figure 3**). Retain all mounting hardware for reinstalling the Corner Caps.
6. Remove the right case side by removing the four screws mounting them, using a 5/16" nut driver or other suitable tool (**Figure 4**). Retain all mounting hardware for case side.
7. Obtain Item 2 Plug & Lead Assembly (S18250-1112, 4 pin plug / 6 pin receptacle). Connect the Plug & Lead Assembly to J114 (6 pin plug) located in front of Power Wave S350 (**Figure 5A**).
8. Obtain Item 1 Power Wave Connectivity Hub provided with the kit. Route the 4-pin connector P30 of Item 2 Plug & Lead Assembly thru the case front, and to 4-pin jumper of Item 1 Power Wave Connectivity Hub (**Figure 6**).
9. With locking clamp positioned behind the assembly, install the Power Wave Connectivity Hub to the Case Front using the hardware removed from cover plate in Step 3, using a 5/16" nut driver or other suitable tool (**Figure 7**).
10. Secure cover to assembly with provided #6-32 x .25 screws, then install the right case side using the hardware removed from mounting the right case side in Step 6, using a 5/16" nut driver or other suitable tool (**Figure 8**).
11. Install the bottom right Corner Caps using the hardware removed from mounting the corner caps in Step 5, using a 5/16" nut driver or other suitable tool (**Figure 9**).
12. Install the top right Corner Caps by using the hardware removed from mounting the Corner Caps in step 4, using a 5/16" nut driver or other suitable tool (**Figure 10**).
13. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
14. **After installing the K4884-1 Power Wave Connectivity Hub Kit , the Power Wave firmware may need to be updated. Visit www.powerwavesoftware.com for firmware updates and the Power Wave Utilities. Included with Power Wave Utilities are the Power Wave Manager PC tool for setting up the wireless or Bluetooth connection, and the Help Me Connect guide for setup instructions.**

REMOVE COVER PLATE
AND OUTSIDE TRIM
10-24 X .50 SCREWS, (QTY 4)

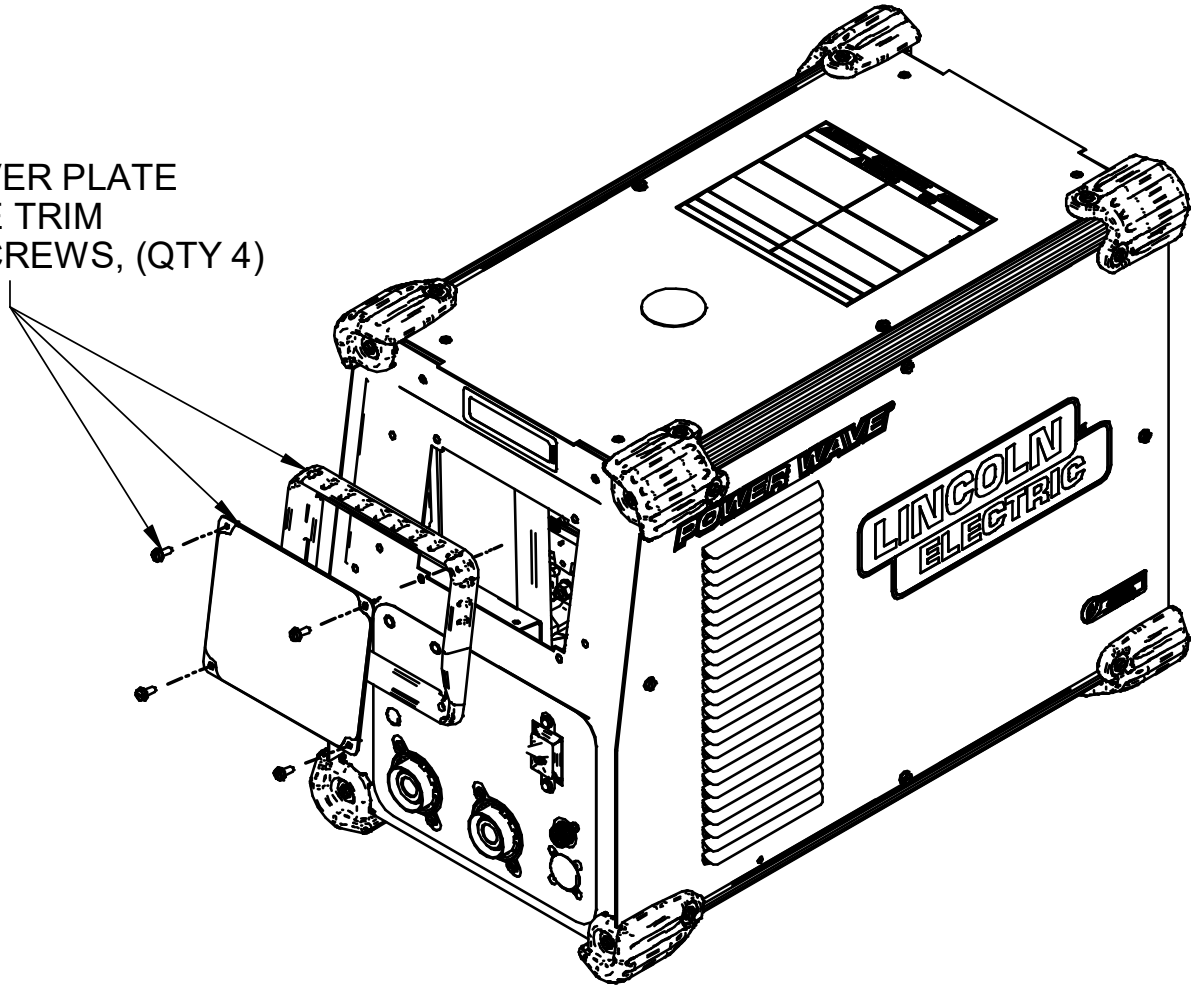


FIGURE 1

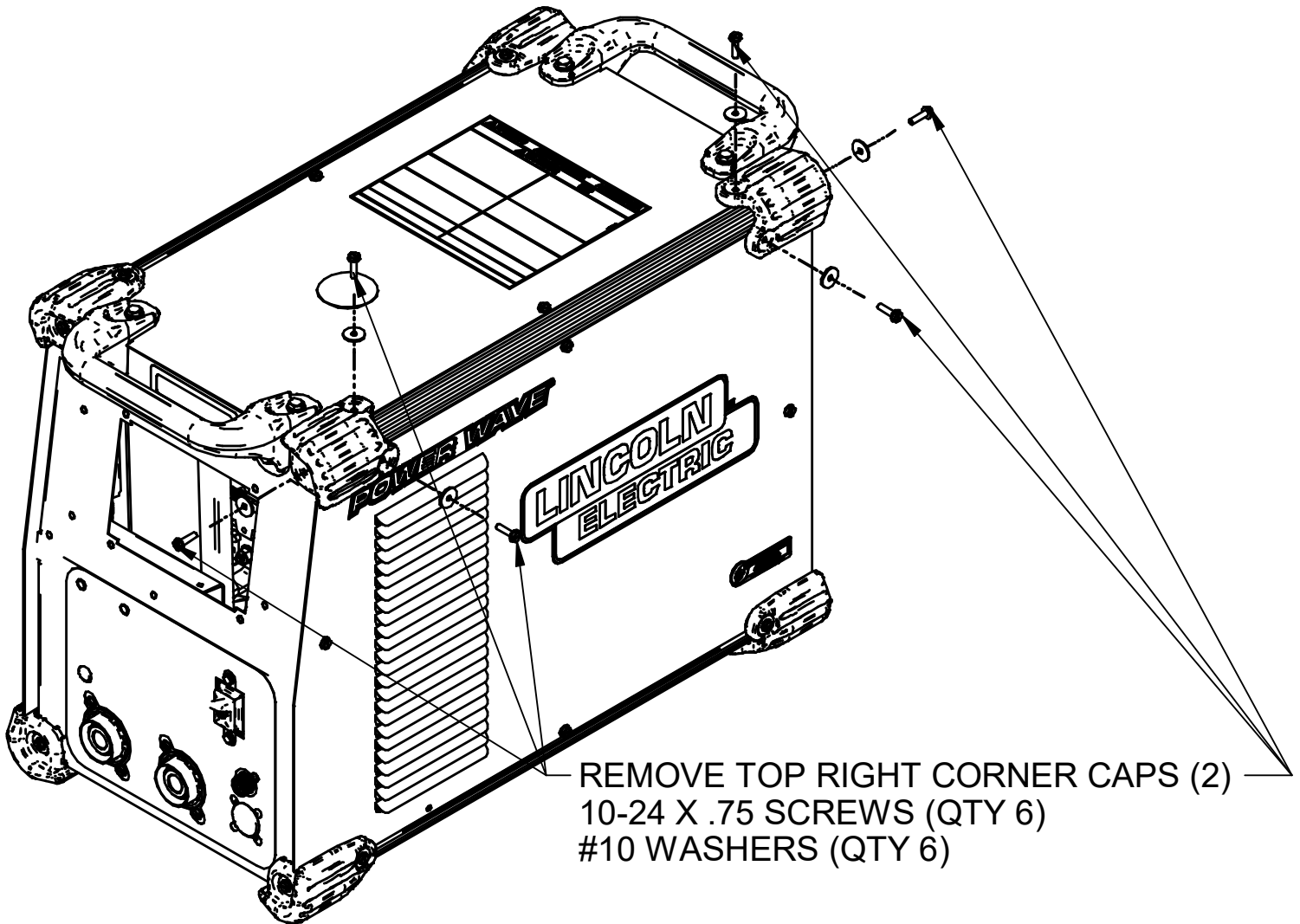


FIGURE 2

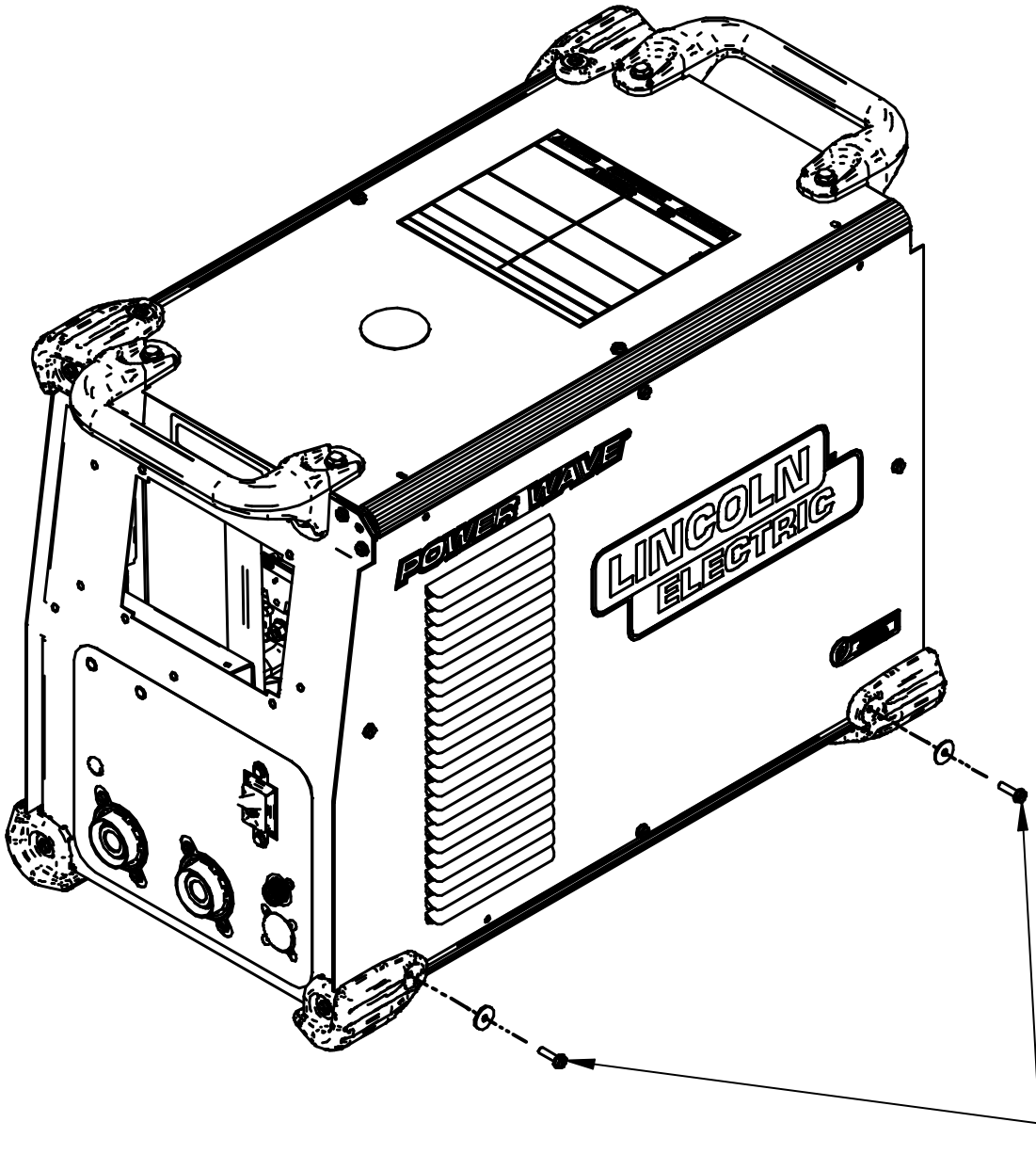
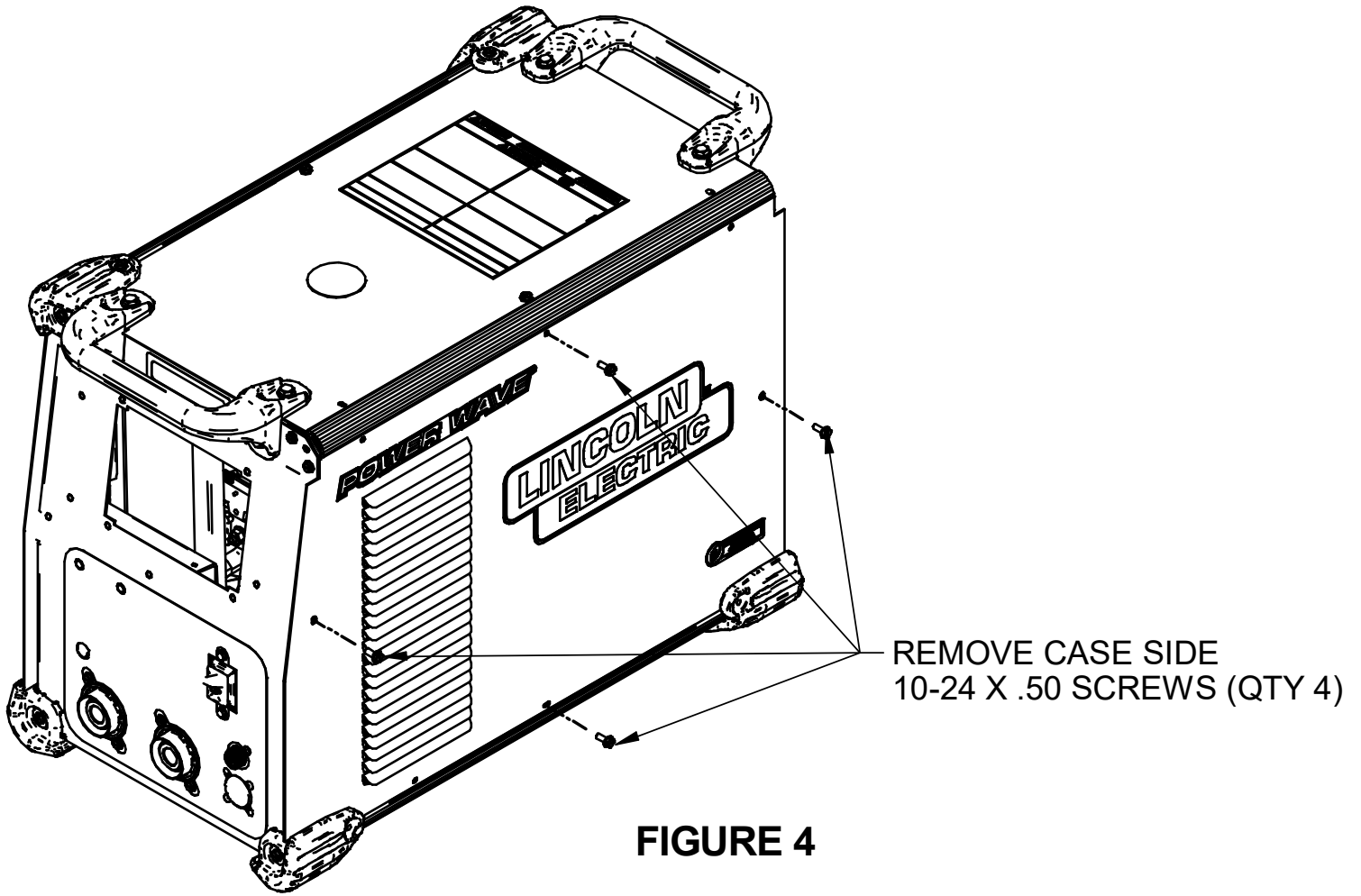


FIGURE 3

REMOVE CORNER CAP FASTENERS
10-24 X .75 SCREWS (QTY 2)
#10 WASHERS (QTY 2)



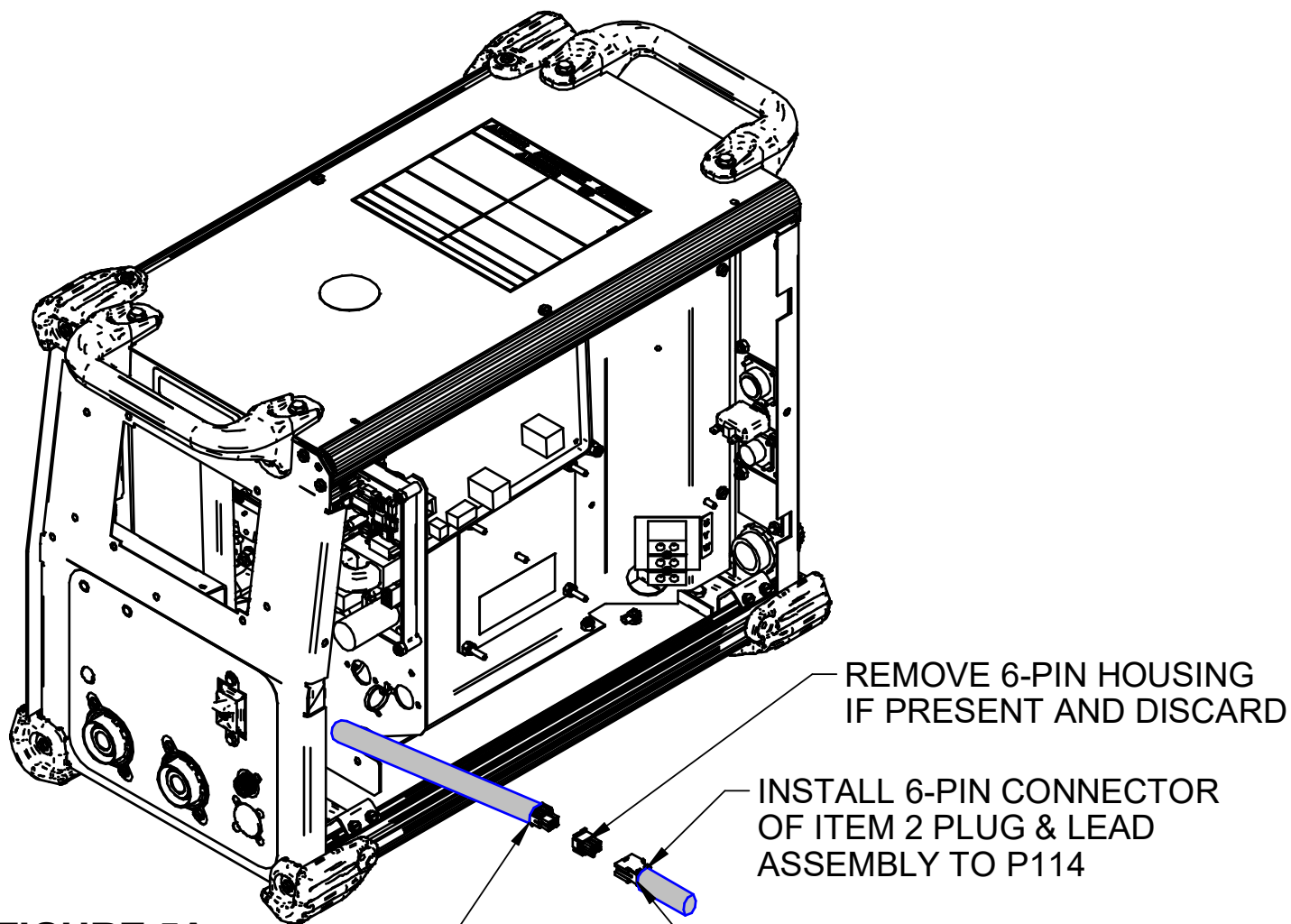
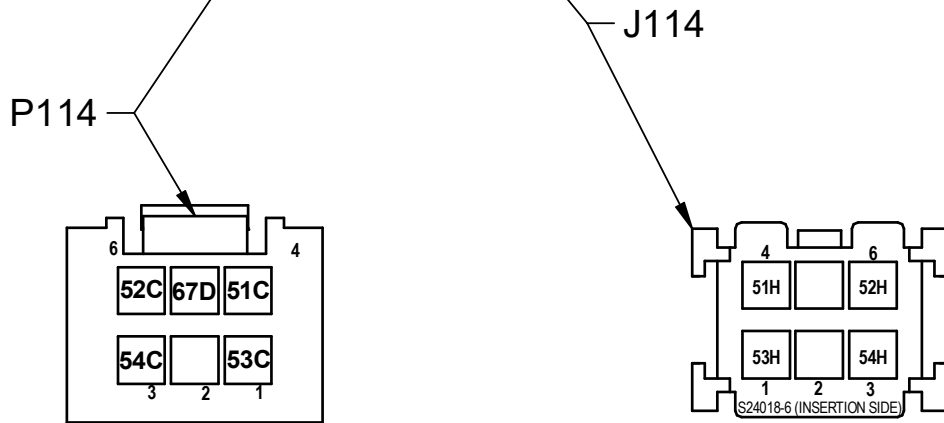


FIGURE 5A



ROUTE THE 4-PIN CONNECTOR P30 OF ITEM 2 PLUG & LEAD ASSEMBLY THRU THE CASE FRONT, AND INSTALL TO 4-PIN JUMPER OF ITEM 1 CONNECTIVITY HUB ASSEMBLY PC BOARD

ITEM 1 CONNECTIVITY HUB ASSEMBLY

PC BOARD

P30

4-PIN JUMPER

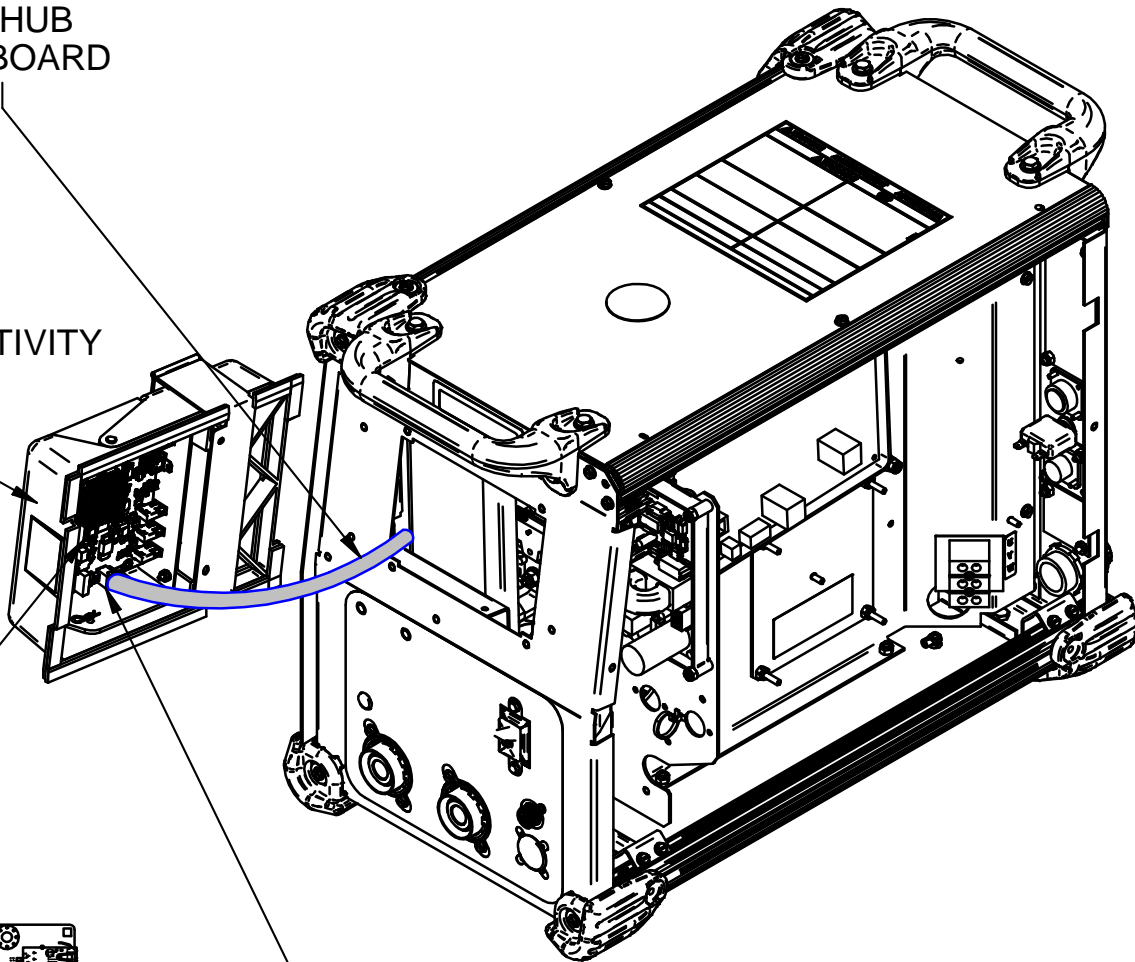
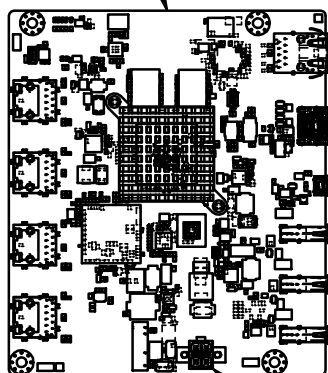
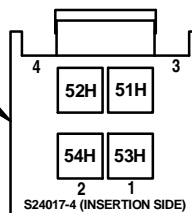
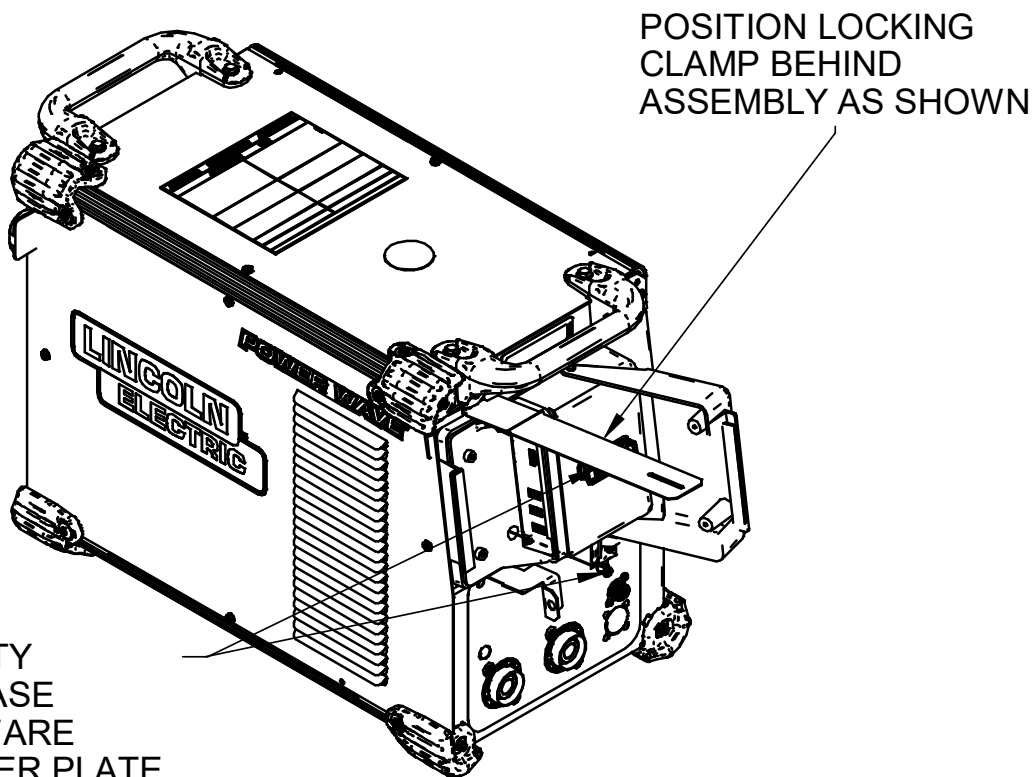


FIGURE 6





INSTALL THE CONNECTIVITY HUB ASSEMBLY TO THE CASE FRONT USING THE HARDWARE REMOVED FROM THE COVER PLATE 10-24 X .50 SCREWS (QTY 2)

FIGURE 7

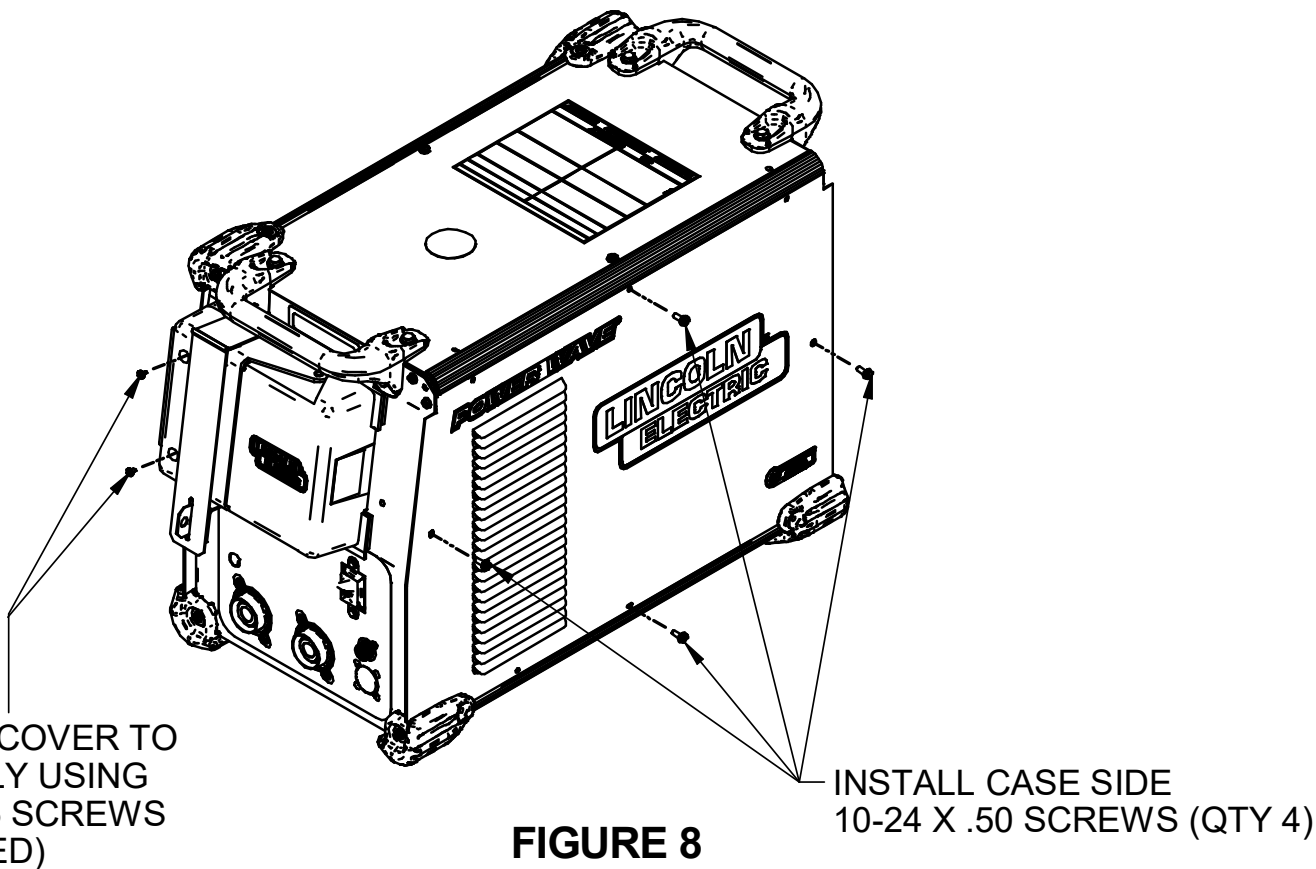


FIGURE 8

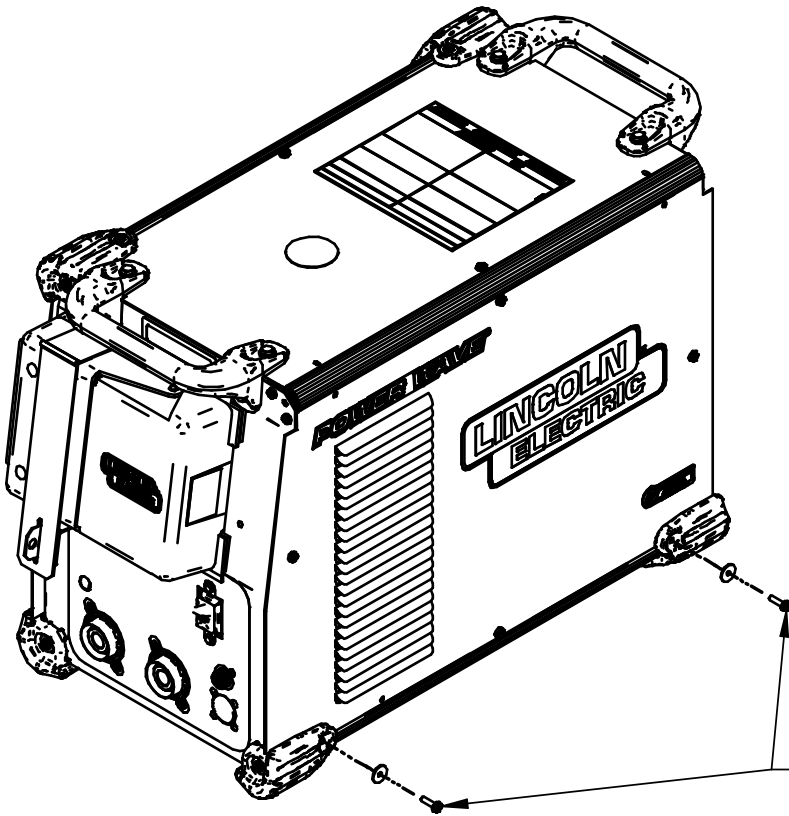


FIGURE 9

INSTALL CORNER CAP FASTENERS
10-24 X .75 SCREWS (QTY 2)
#10 WASHERS (QTY 2)

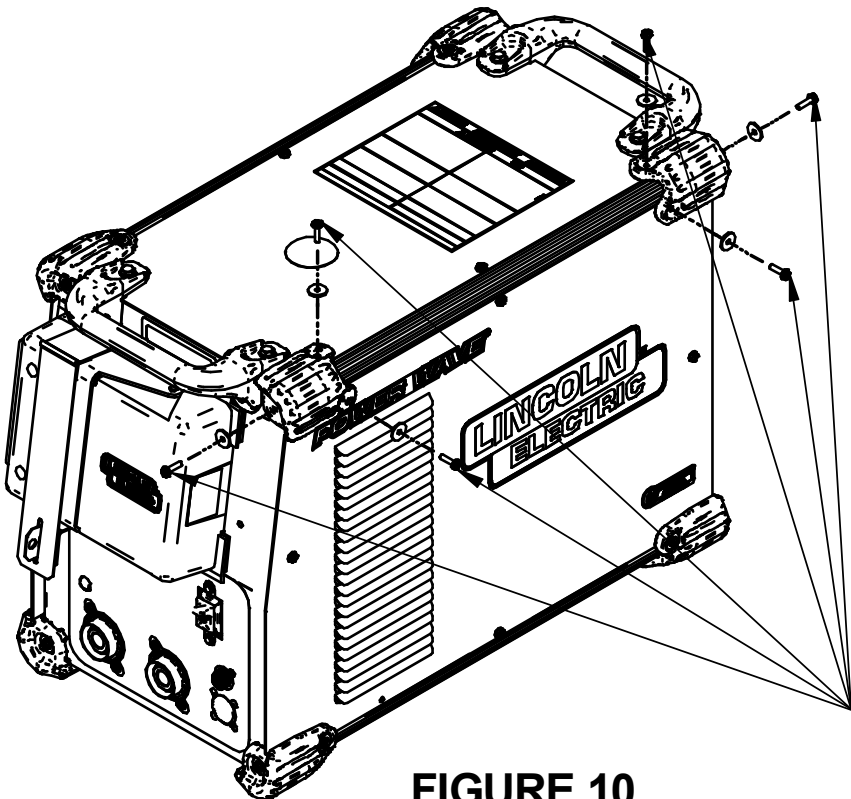


FIGURE 10


INSTALL TOP RIGHT
CORNER CAPS (2)
10-24 X .75 SCREWS (QTY 6)
#10 WASHERS (QTY 6)

INSTRUCTIONS FOR INSTALLING K4884-1 POWER WAVE CONNECTIVITY HUB KIT ON A POWER WAVE S350 (CODES 11589, 11625, 11783, & 12795)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4884-1 Power Wave Connectivity Hub Kit for use on a Power Wave S350.

⚠ WARNING	
	<ul style="list-style-type: none"> • Disconnect input power before servicing. • Do not operate with covers removed. • Do not touch electrically live parts. • Only qualified persons should install, use or service this equipment.
ELECTRIC SHOCK CAN KILL	

Parts List Required for Installation on Power Wave S350:

Item	Part Number	Description	Qty
1	L18183	Power Wave Connectivity Hub	1
2	S18250-1117	Plug & Lead Assembly (4-pin plug / 6-pin plug)	1

Parts List Required for Installation on other machines:

Item	Part Number	Description	Qty
3	S18250-1107	Plug & Lead Assembly (4-pin plug / 4-pin plug)	1
4	S18250-1112	Plug & Lead Assembly (4-pin plug / 6-pin receptacle)	1

Power Wave Connectivity Hub Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools
- Phillips Screwdriver

CAUTION : PC BOARD CAN BE DAMAGED BY STATIC ELECTRICITY

Before making any connections to a PC board, remove your body's static charge by touching unpainted grounded frame of equipment.

INSTALLATION:

1. Turn off input power to the Power Wave at the disconnect switch or fuse box before working on the Power Wave.
2. Remove the weld cables from the output studs, and disconnect all control cables including the Ethernet connection from the Power Wave.
3. Remove the UI cover plate and outside trim by removing the four screws fastening the cover plate to the power source using a 5/16" nut driver or other suitable tool (**Figure 1**). Retain the mounting hardware removed for installing the Power Wave Connectivity Hub Kit.
4. Remove the two top right Corner Caps by removing the screws and washers mounting them, using a 5/16" nut driver or other suitable tool (**Figure 2**). Retain all mounting hardware for reinstalling the Corner Caps.
5. Remove the bottom right Corner Cap fasteners, two places, using a 5/16" nut driver or other suitable tool (**Figure 3**). Retain all mounting hardware for reinstalling the Corner Caps.
6. Remove the right case side by removing the four screws mounting them, using a 5/16" nut driver or other suitable tool (**Figure 4**). Retain all mounting hardware for case side.
7. Obtain Item 2 Plug & Lead Assembly (S18250-1117, 4 pin plug / 6 pin plug). Connect the Plug & Lead Assembly to J16 (6 pin receptacle) located in front of Power Wave S350 (**Figure 5B**).
8. Obtain Item 1 Power Wave Connectivity Hub provided with the kit. Route the 4-pin connector P30 of Item 2 Plug & Lead Assembly thru the case front, and to 4-pin jumper of Item 1 Power Wave Connectivity Hub (**Figure 6**).
9. With locking clamp positioned behind the assembly, install the Power Wave Connectivity Hub to the Case Front using the hardware removed from cover plate in Step 3, using a 5/16" nut driver or other suitable tool (**Figure 7**).
10. Secure cover to assembly with provided #6-32 x .25 screws, then install the right case side using the hardware removed from mounting the right case side in Step 6, using a 5/16" nut driver or other suitable tool (**Figure 8**).
11. Install the bottom right Corner Caps using the hardware removed from mounting the corner caps in Step 5, using a 5/16" nut driver or other suitable tool (**Figure 9**).
12. Install the top right Corner Caps by using the hardware removed from mounting the Corner Caps in step 4, using a 5/16" nut driver or other suitable tool (**Figure 10**).
13. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
14. **After installing the K4884-1 Power Wave Connectivity Hub Kit the Power Wave firmware may need to be updated. Visit www.powerwavesoftware.com for firmware updates and the Power Wave Utilities. Included with Power Wave Utilities are the Power Wave Manager PC tool for setting up the wireless or Bluetooth connection, and the Help Me Connect guide for setup instructions.**

REMOVE COVER PLATE
AND OUTSIDE TRIM
10-24 X .50 SCREWS, (QTY 4)

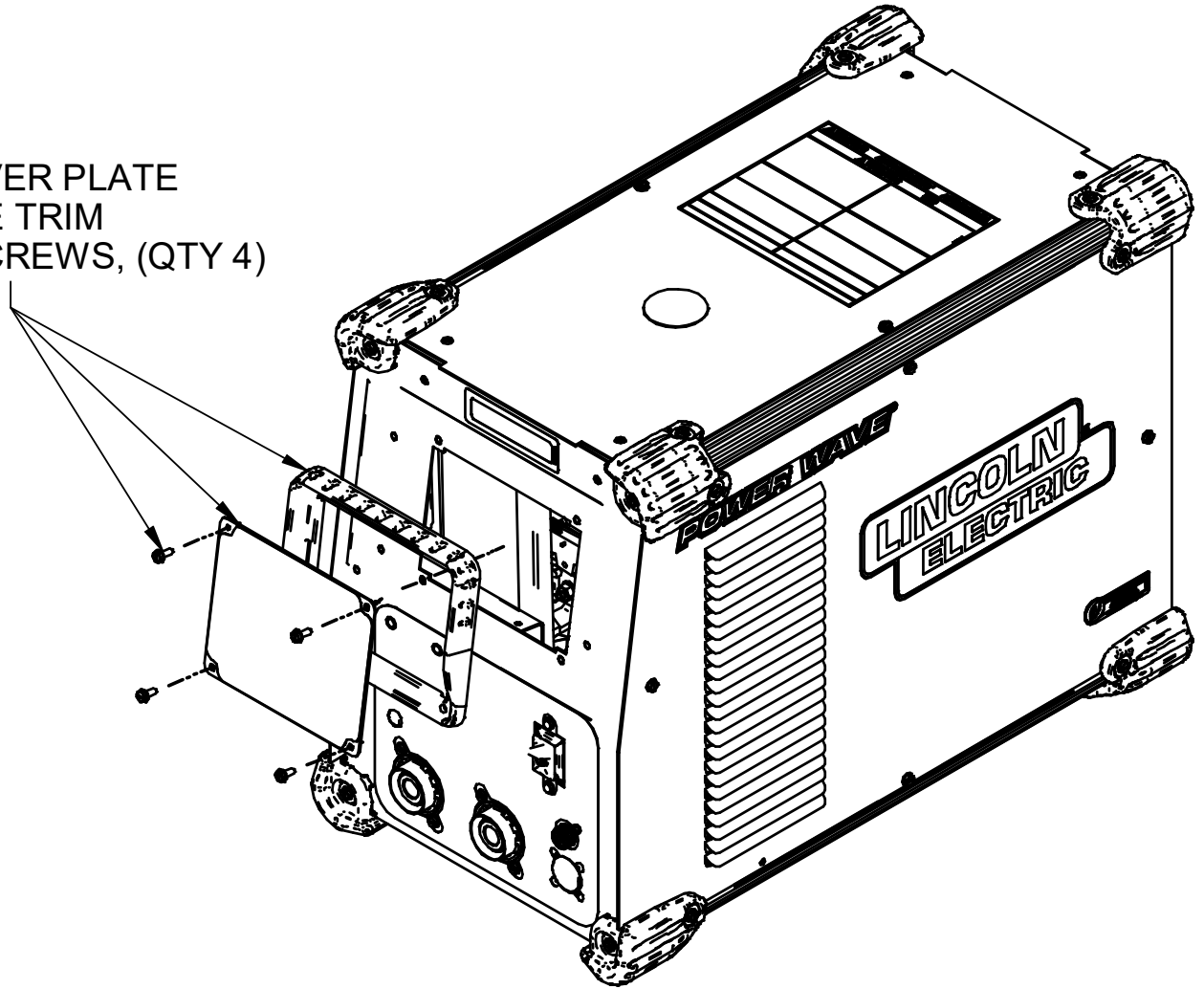


FIGURE 1

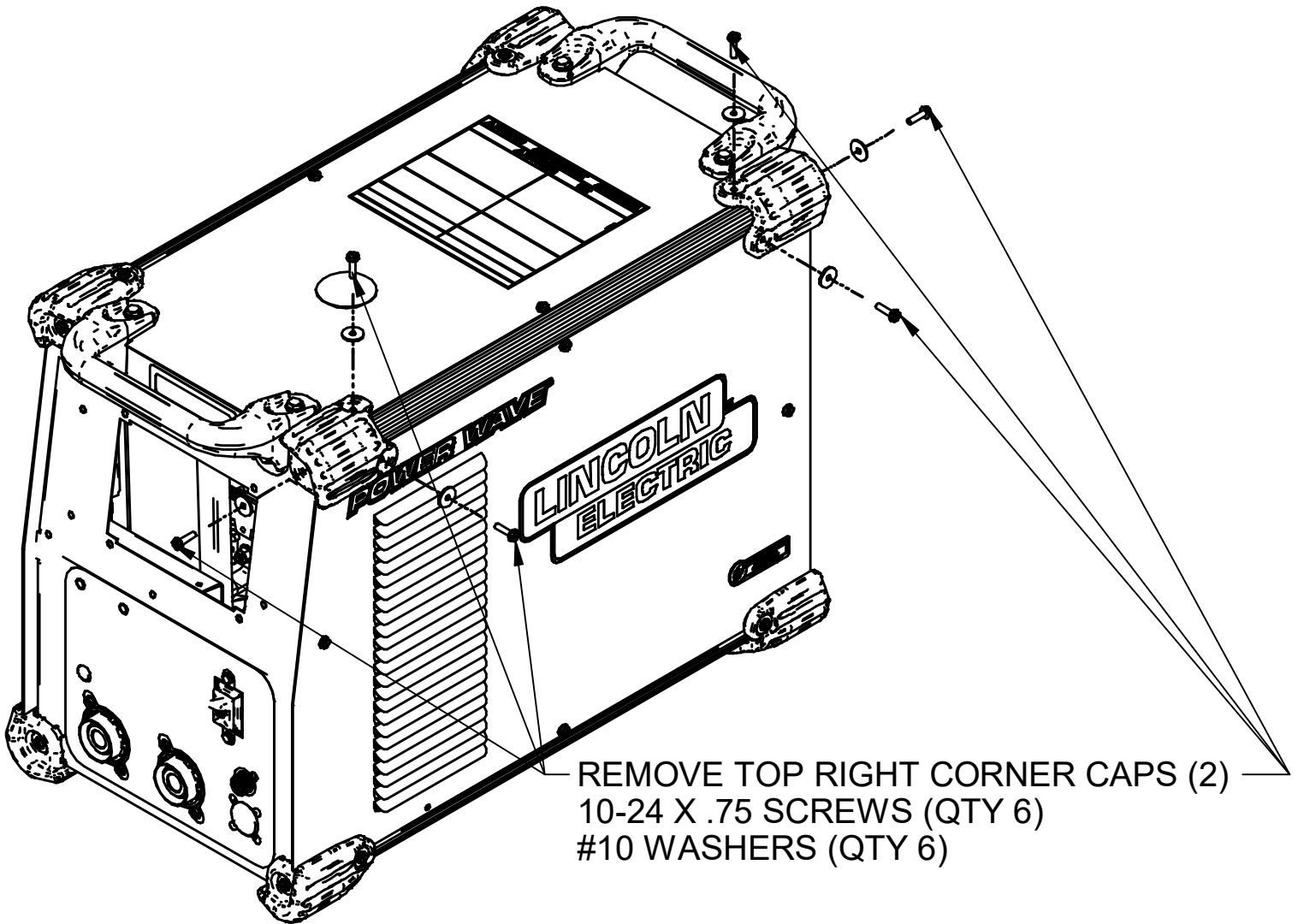


FIGURE 2

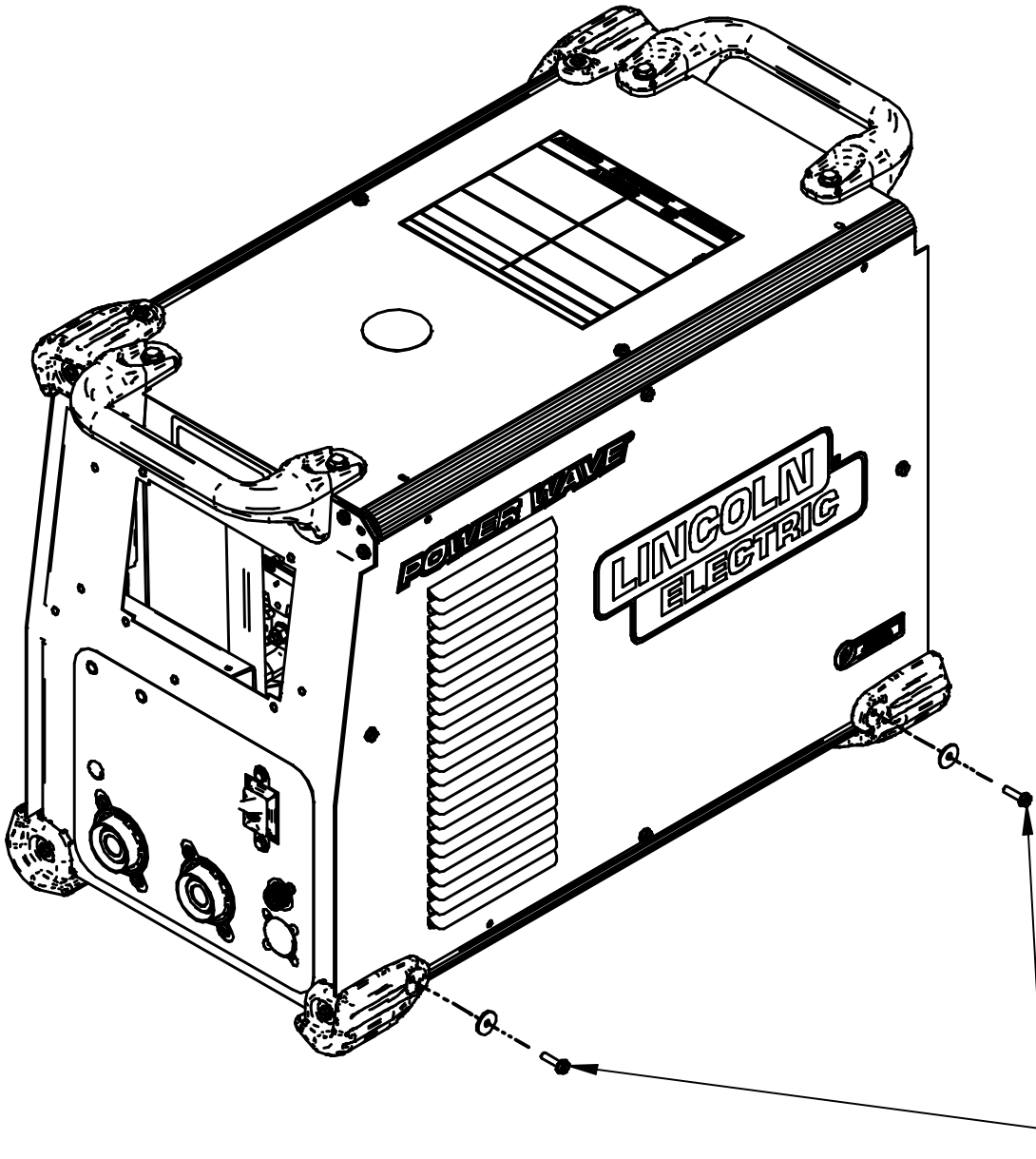
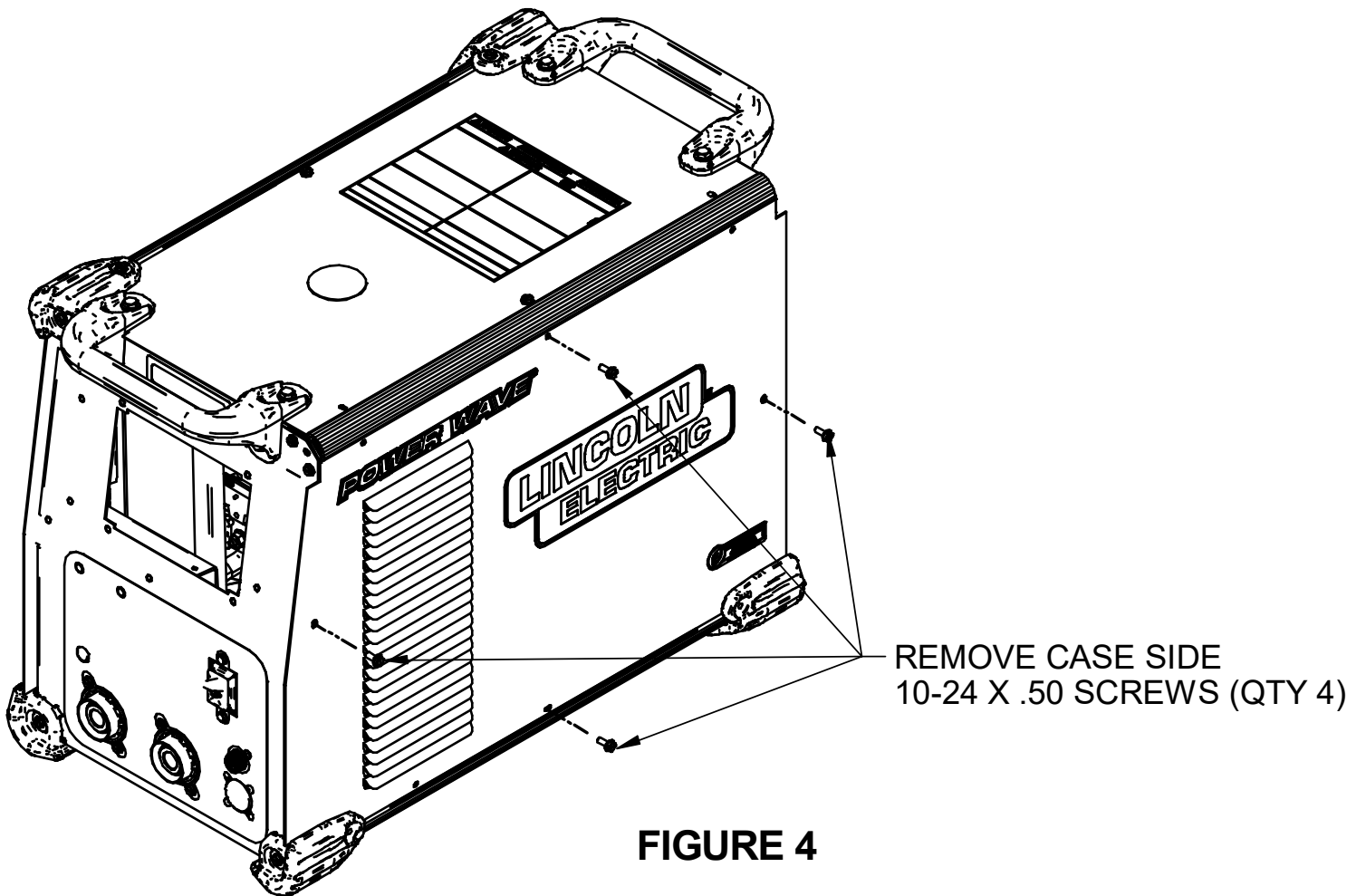
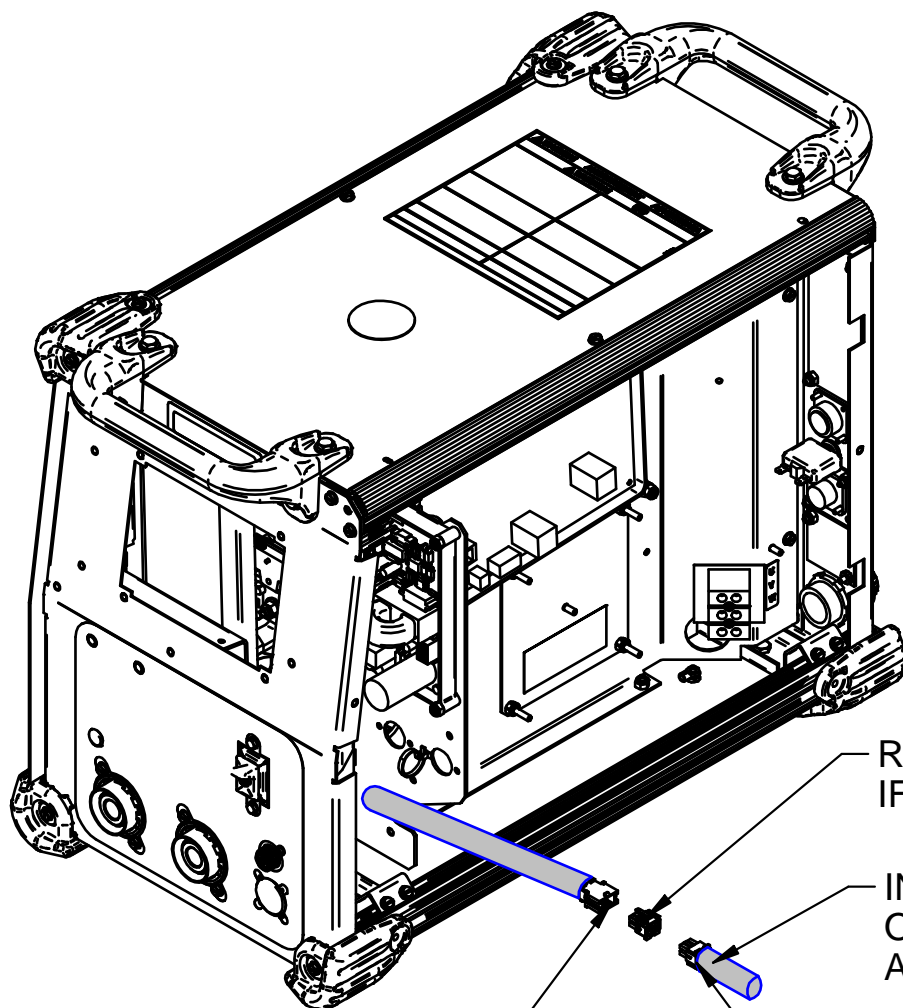


FIGURE 3

REMOVE CORNER CAP FASTENERS
10-24 X .75 SCREWS (QTY 2)
#10 WASHERS (QTY 2)



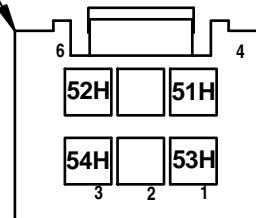
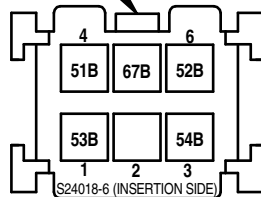


REMOVE 6-PIN HOUSING IF PRESENT AND DISCARD

INSTALL 6-PIN CONNECTOR OF ITEM 2 PLUG & LEAD ASSEMBLY TO J16

FIGURE 5B

J16 P16



ROUTE THE 4-PIN CONNECTOR P30 OF ITEM 2 PLUG & LEAD ASSEMBLY THRU THE CASE FRONT, AND INSTALL TO 4-PIN JUMPER OF ITEM 1 CONNECTIVITY HUB ASSEMBLY PC BOARD

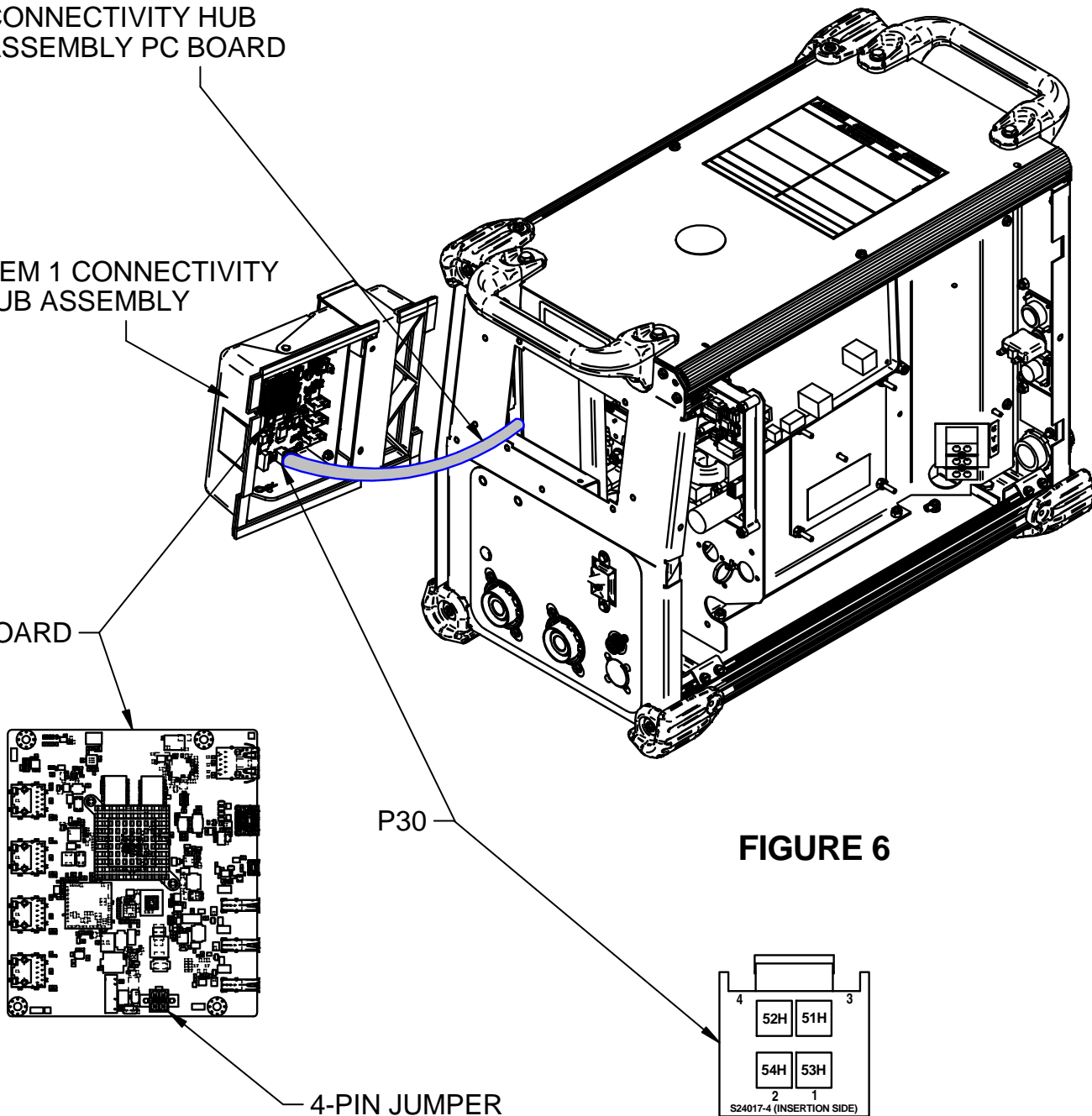
ITEM 1 CONNECTIVITY HUB ASSEMBLY

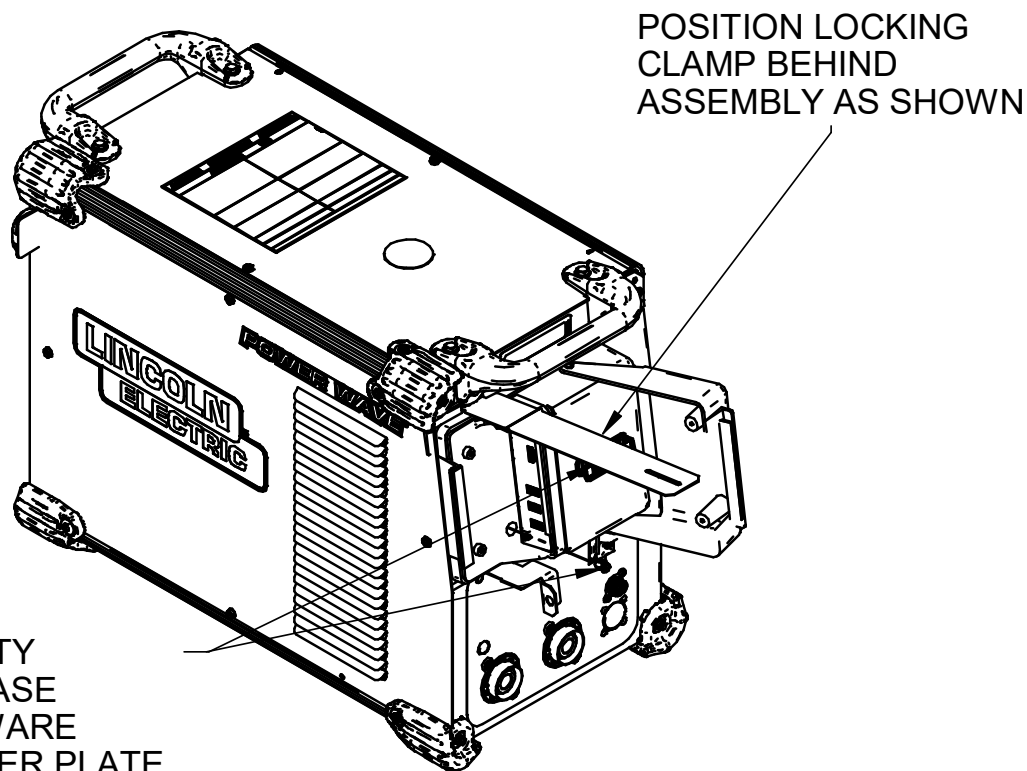
PC BOARD

P30

4-PIN JUMPER

FIGURE 6





INSTALL THE CONNECTIVITY HUB ASSEMBLY TO THE CASE FRONT USING THE HARDWARE REMOVED FROM THE COVER PLATE 10-24 X .50 SCREWS (QTY 2)

FIGURE 7

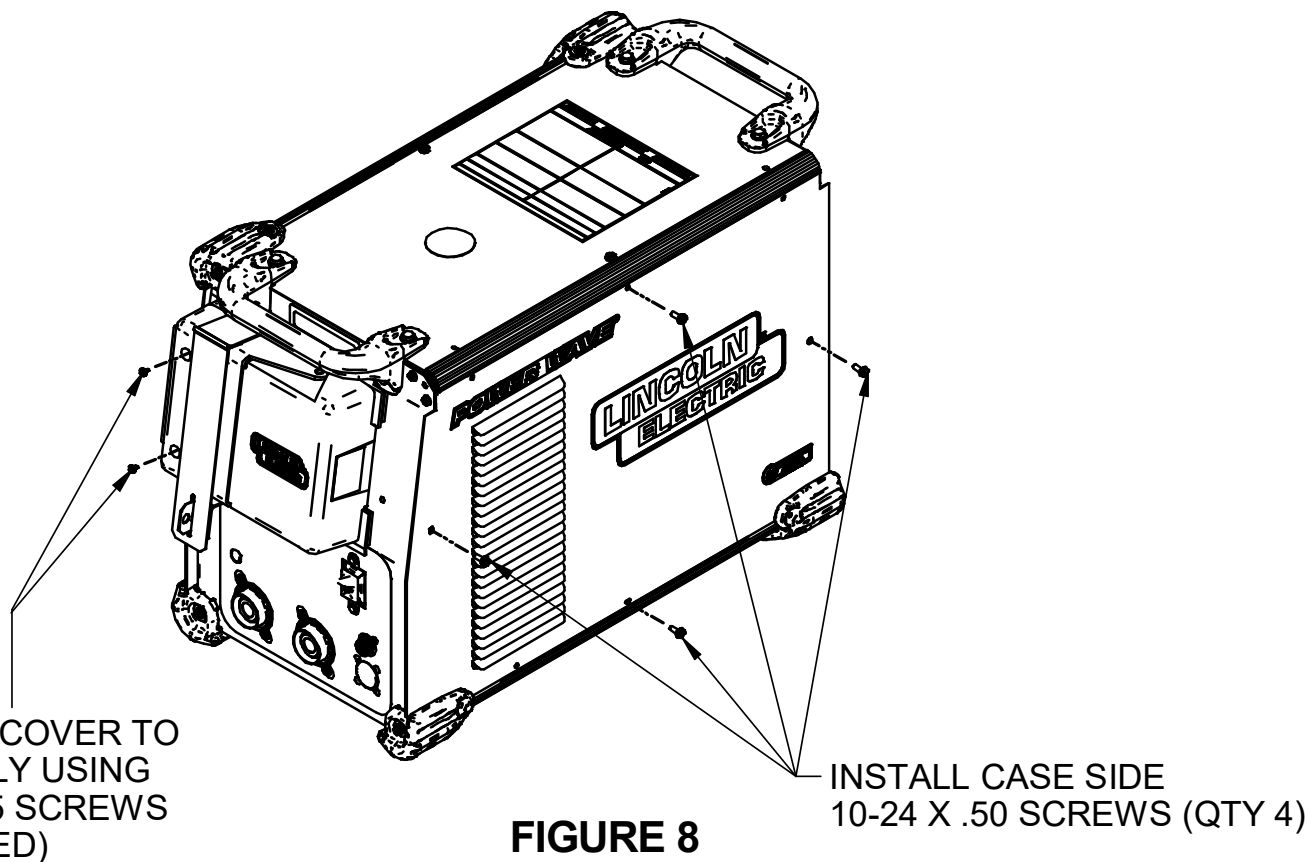


FIGURE 8

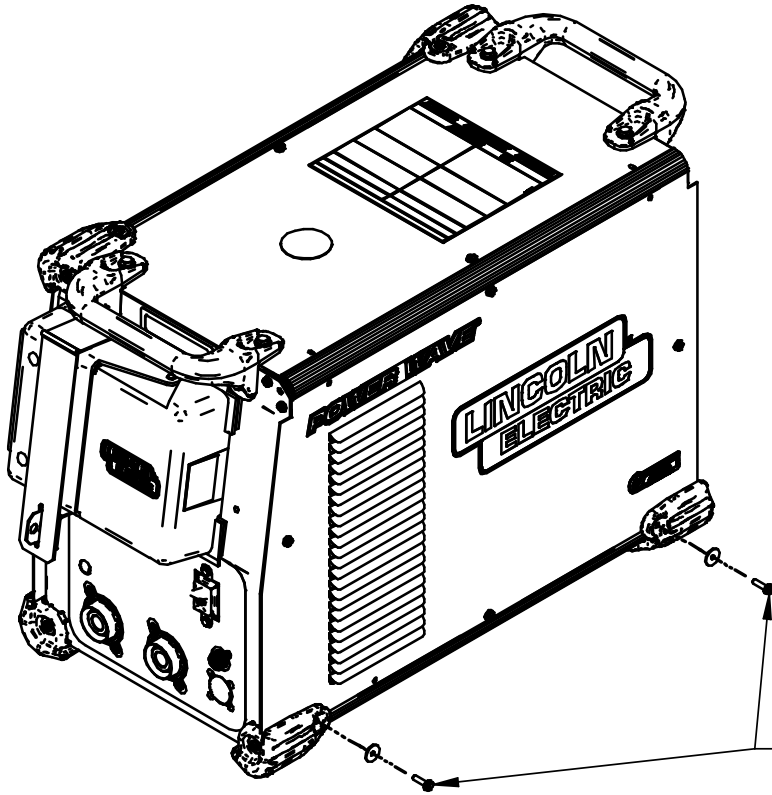


FIGURE 9

INSTALL CORNER CAP FASTENERS
10-24 X .75 SCREWS (QTY 2)
#10 WASHERS (QTY 2)

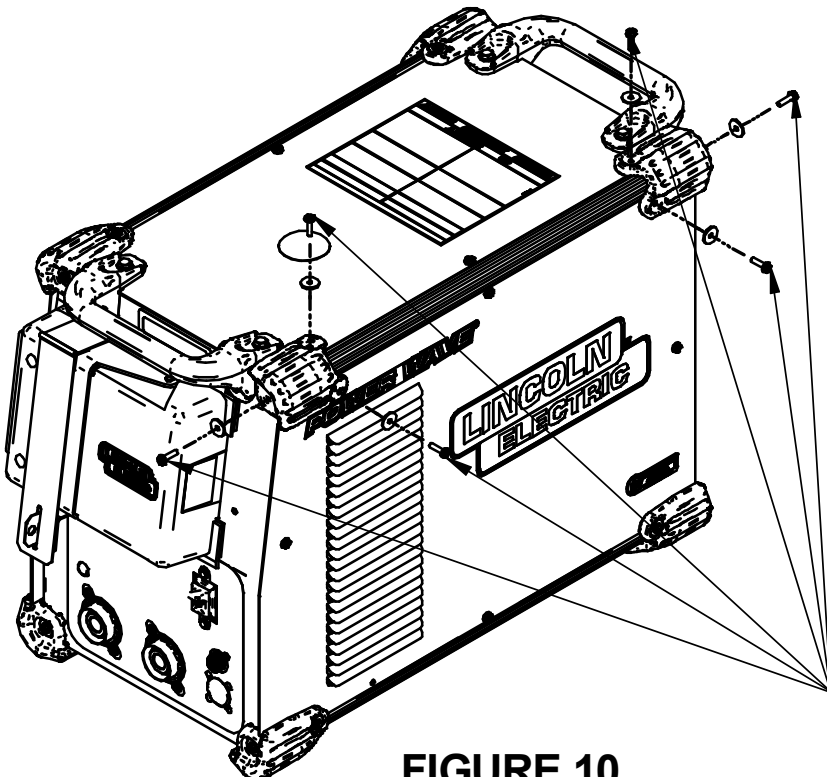


FIGURE 10

INSTALL TOP RIGHT
CORNER CAPS (2)
10-24 X .75 SCREWS (QTY 6)
#10 WASHERS (QTY 6)

When this equipment is shipped, title passes to the purchaser upon receipt by the carrier. Consequently, claims for material damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

LIMITED WARRANTY

STATEMENT OF WARRANTY : The Lincoln Electric Company (Lincoln) warrants to the original purchaser (end-user) of new equipment that will be free of defects in workmanship and material.

This warranty is void if Lincoln finds that the equipment has been subjected to improper care or abnormal operation.

WARRANTY PERIOD : This kit is classified by Lincoln as a field installed optional equipment and is warranted for one year, dating from the date of shipment to the original purchaser.

TO OBTAIN WARRANTY COVERAGE : You are required to notify Lincoln Electric, your Lincoln Distributor, Lincoln Service Center or Field Service Shop of any defect within the warranty period. Written notification is recommended.

WARRANTY REPAIR : If Lincoln's inspection of the equipment confirms the existence of a defect covered by this warranty, the defect will be corrected by repair or replacement at Lincoln's option.

WARRANTY COSTS : You must bear the cost of shipping the equipment to a Lincoln Service Center or Field Service shop as well as return shipment to you from that location.

IMPORTANT WARRANTY LIMITATIONS

- LINCOLN WILL NOT ACCEPT RESPONSIBILITY FOR REPAIRS MADE WITHOUT ITS AUTHORIZATION.
- LINCOLN SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES (SUCH AS LOSS OF BUSINESS, ETC.) CAUSED BY THE DEFECT OR REASONABLE DELAY IN CORRECTING THE DEFECT.
- LINCOLN'S LIABILITY UNDER THIS WARRANTY SHALL NOT EXCEED THE COST OF CORRECTING THE DEFECT.
- THIS WARRANTY IS THE ONLY EXPRESS WARRANTY PROVIDED BY LINCOLN WITH RESPECT TO ITS PRODUCTS. WARRANTIES IMPLIED BY LAW SUCH AS THE WARRANTY OF MERCHANTABILITY ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY FOR THE EQUIPMENT INVOLVED.



THE LINCOLN ELECTRIC COMPANY

World's Leader in Welding and Cutting Products
Sales and Service through Subsidiaries and Distributors Worldwide
Cleveland, Ohio 44117-1199 U.S.A.

WARNING	<ul style="list-style-type: none"> ● Do not touch electrically live parts or electrode with skin or wet clothing. ● Insulate yourself from work and ground. 	<ul style="list-style-type: none"> ● Keep flammable materials away. 	<ul style="list-style-type: none"> ● Wear eye, ear and body protection.
Spanish AVISO DE PRECAUCION	<ul style="list-style-type: none"> ● No toque las partes o los electrodos bajo carga con la piel o ropa mojada. ● Aíslese del trabajo y de la tierra. 	<ul style="list-style-type: none"> ● Mantenga el material combustible fuera del área de trabajo. 	<ul style="list-style-type: none"> ● Protéjase los ojos, los oídos y el cuerpo.
French ATTENTION	<ul style="list-style-type: none"> ● Ne laissez ni la peau ni des vêtements mouillés entrer en contact avec des pièces sous tension. ● Isolez-vous du travail et de la terre. 	<ul style="list-style-type: none"> ● Gardez à l'écart de tout matériel inflammable. 	<ul style="list-style-type: none"> ● Protégez vos yeux, vos oreilles et votre corps.
German WARNUNG	<ul style="list-style-type: none"> ● Berühren Sie keine stromführenden Teile oder Elektroden mit Ihrem Körper oder feuchter Kleidung! ● Isolieren Sie sich von den Elektroden und dem Erdboden! 	<ul style="list-style-type: none"> ● Entfernen Sie brennbares Material! 	<ul style="list-style-type: none"> ● Tragen Sie Augen-, Ohren- und Körperschutz!
Portuguese ATENÇÃO	<ul style="list-style-type: none"> ● Não toque partes elétricas e electrodos com a pele ou roupa molhada. ● Isole-se da peça e terra. 	<ul style="list-style-type: none"> ● Mantenha inflamáveis bem guardados. 	<ul style="list-style-type: none"> ● Use proteção para a vista, ouvido e corpo.
Japanese 注意事項	<ul style="list-style-type: none"> ● 通電中の電気部品、又は溶材にヒフやぬれた布で触れないこと。 ● 施工物やアースから身体が絶縁されている様にして下さい。 	<ul style="list-style-type: none"> ● 燃えやすいものの側での溶接作業は絶対にしてはなりません。 	<ul style="list-style-type: none"> ● 目、耳及び身体に保護具をして下さい。
Chinese 警告	<ul style="list-style-type: none"> ● 皮肤或湿衣物切勿接触带电部件及焊条。 ● 使你自已与地面和工件绝缘。 	<ul style="list-style-type: none"> ● 把一切易燃物品移离工作场所。 	<ul style="list-style-type: none"> ● 佩戴眼、耳及身体劳动保护用具。
Korean 위험	<ul style="list-style-type: none"> ● 전도체나 용접봉을 젖은 헝겍 또는 피부로 절대 접촉치 마십시오. ● 모재와 접지를 접촉치 마십시오. 	<ul style="list-style-type: none"> ● 인화성 물질을 접근시키지 마시오. 	<ul style="list-style-type: none"> ● 눈, 귀와 몸에 보호장구를 착용하십시오.
Arabic تحذير	<ul style="list-style-type: none"> ● لا تلمس الاجزاء التي يسري فيها التيار الكهربائي أو الألكترود بجسدك أو بالملابس المبللة بالماء. ● ضع عازلا على جسمك خلال العمل. 	<ul style="list-style-type: none"> ● ضع المواد القابلة للاشتعال في مكان بعيد. 	<ul style="list-style-type: none"> ● ضع أدوات وملابس واقية على عينيك وأذنيك وجسمك.

READ AND UNDERSTAND THE MANUFACTURER'S INSTRUCTION FOR THIS EQUIPMENT AND THE CONSUMABLES TO BE USED AND FOLLOW YOUR EMPLOYER'S SAFETY PRACTICES.

SE RECOMIENDA LEER Y ENTENDER LAS INSTRUCCIONES DEL FABRICANTE PARA EL USO DE ESTE EQUIPO Y LOS CONSUMIBLES QUE VA A UTILIZAR, SIGA LAS MEDIDAS DE SEGURIDAD DE SU SUPERVISOR.

LISEZ ET COMPRENEZ LES INSTRUCTIONS DU FABRICANT EN CE QUI REGARDE CET EQUIPMENT ET LES PRODUITS A ETRE EMPLOYES ET SUIVEZ LES PROCEDURES DE SECURITE DE VOTRE EMPLOYEUR.

LESEN SIE UND BEFOLGEN SIE DIE BETRIEBSANLEITUNG DER ANLAGE UND DEN ELEKTRODENEINSATZ DES HERSTELLERS. DIE UNFALLVERHÜTUNGSVORSCHRIFTEN DES ARBEITGEBERS SIND EBENFALLS ZU BEACHTEN.

			
<ul style="list-style-type: none"> ● Keep your head out of fumes. ● Use ventilation or exhaust to remove fumes from breathing zone. 	<ul style="list-style-type: none"> ● Turn power off before servicing. 	<ul style="list-style-type: none"> ● Do not operate with panel open or guards off. 	WARNING
<ul style="list-style-type: none"> ● Los humos fuera de la zona de respiración. ● Mantenga la cabeza fuera de los humos. Utilice ventilación o aspiración para gases. 	<ul style="list-style-type: none"> ● Desconectar el cable de alimentación de poder de la máquina antes de iniciar cualquier servicio. 	<ul style="list-style-type: none"> ● No operar con panel abierto o guardas quitadas. 	Spanish AVISO DE PRECAUCION
<ul style="list-style-type: none"> ● Gardez la tête à l'écart des fumées. ● Utilisez un ventilateur ou un aspirateur pour ôter les fumées des zones de travail. 	<ul style="list-style-type: none"> ● Débranchez le courant avant l'entretien. 	<ul style="list-style-type: none"> ● N'opérez pas avec les panneaux ouverts ou avec les dispositifs de protection enlevés. 	French ATTENTION
<ul style="list-style-type: none"> ● Vermeiden Sie das Einatmen von Schweißrauch! ● Sorgen Sie für gute Be- und Entlüftung des Arbeitsplatzes! 	<ul style="list-style-type: none"> ● Strom vor Wartungsarbeiten abschalten! (Netzstrom völlig öffnen; Maschine anhalten!) 	<ul style="list-style-type: none"> ● Anlage nie ohne Schutzgehäuse oder Innenschutzverkleidung in Betrieb setzen! 	German WARNUNG
<ul style="list-style-type: none"> ● Mantenha seu rosto da fumaça. ● Use ventilação e exaustão para remover fumo da zona respiratória. 	<ul style="list-style-type: none"> ● Não opere com as tampas removidas. ● Desligue a corrente antes de fazer serviço. ● Não toque as partes elétricas nuas. 	<ul style="list-style-type: none"> ● Mantenha-se afastado das partes moventes. ● Não opere com os painéis abertos ou guardas removidas. 	Portuguese ATENÇÃO
<ul style="list-style-type: none"> ● ヒュームから頭を離すようにして下さい。 ● 換気や排煙に十分留意して下さい。 	<ul style="list-style-type: none"> ● メンテナンス・サービスに取りかかる際には、まず電源スイッチを必ず切ってください。 	<ul style="list-style-type: none"> ● パネルやカバーを取り外したままで機械操作をしないで下さい。 	Japanese 注意事項
<ul style="list-style-type: none"> ● 頭部遠離煙霧。 ● 在呼吸區使用通風或排風器除煙。 	<ul style="list-style-type: none"> ● 維修前切斷電源。 	<ul style="list-style-type: none"> ● 儀表板打開或沒有安全罩時不準作業。 	Chinese 警告
<ul style="list-style-type: none"> ● 얼굴로부터 용접가스를 멀리하십시오. ● 호흡지역으로부터 용접가스를 제거하기 위해 가스제거기나 통풍기를 사용하십시오. 	<ul style="list-style-type: none"> ● 보수전에 전원을 차단하십시오. 	<ul style="list-style-type: none"> ● 관널이 열린 상태로 작동치 마십시오. 	Korean 위험
<ul style="list-style-type: none"> ● ابعد رأسك بعيداً عن الدخان. ● استعمل التهوية أو جهاز ضغط الدخان للخارج لكي تبعد الدخان عن المنطقة التي تتنفس فيها. 	<ul style="list-style-type: none"> ● أقطع التيار الكهربائي قبل القيام بأية صيانة. 	<ul style="list-style-type: none"> ● لا تشغيل هذا الجهاز اذا كانت الاغطية الحديدية الواقية ليست عليه. 	Arabic تحذير

LEIA E COMPREENDA AS INSTRUÇÕES DO FABRICANTE PARA ESTE EQUIPAMENTO E AS PARTES DE USO, E SIGA AS PRÁTICAS DE SEGURANÇA DO EMPREGADOR.

使う機械や溶材のメーカーの指示書をよく読み、まず理解して下さい。そして貴社の安全規定に従って下さい。

請詳細閱讀並理解製造廠提供的說明以及應該使用的銀焊材料，並請遵守貴方的有關勞動保護規定。

이 제품에 동봉된 작업지침서를 숙지하시고 귀사의 작업자 안전수칙을 준수하시기 바랍니다.

اقرأ بتمعن وافهم تعليمات المصنع المنتج لهذه المعدات والمواد قبل استعمالها واتبع تعليمات الوقاية لصاحب العمل.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.



THE LINCOLN ELECTRIC COMPANY

22801 St. Clair Avenue • Cleveland, OH • 44117-1199 • U.S.A.
Phone: +1.216.481.8100 • www.lincolnelectric.com