



Operator's Manual

Power Wave[®] Communication Kit

For use with machines having Code Numbers:

K4352



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)



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

INSTRUCTIONS FOR INSTALLING K4352 POWER WAVE COMMUNICATION KIT ON A POWER WAVE R450 (ALL CODES)

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4352 Power Wave Communication Kit for use on a Power Wave R450.

 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:

Item	Part Number	Description	Qty
1	G9015	Power Wave Communication Module Asbly	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 Communication Kit Installation Instructions

Recommended Tools:

- 5/16” nut driver or other suitable tools

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 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 Communication 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 Communication Module provided with the kit. Route the 4-pin connector P30 of the Power Wave R450 harness thru the case front, and to J30 of Item 1 Power Wave Communication Module (**Figure 4**).
8. Install the Power Wave Communication Module 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. 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. **The WiFi and Bluetooth are disabled as shipped from the factory.**
14. **After installing the K4352 Power Wave Communication 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
10-24 X .50 SCREWS, (QTY 4)

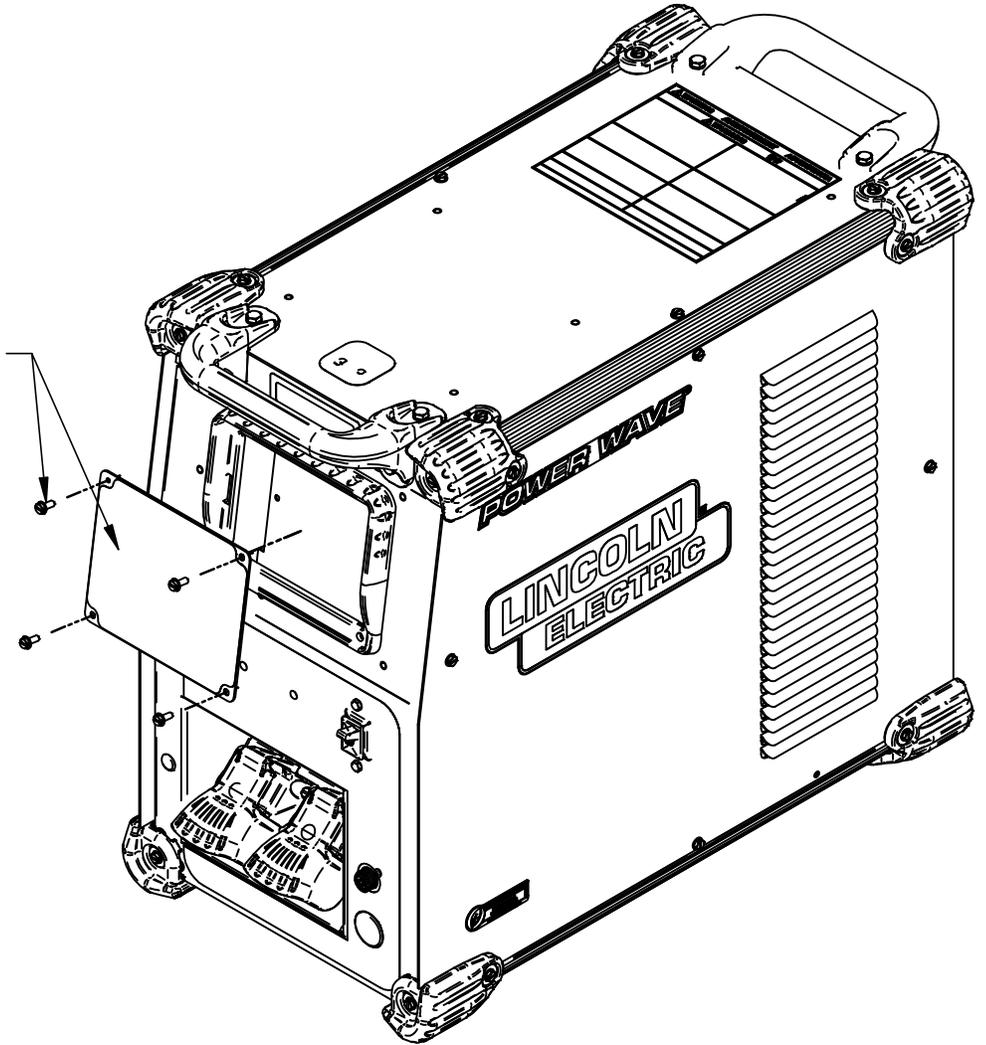


FIGURE 1

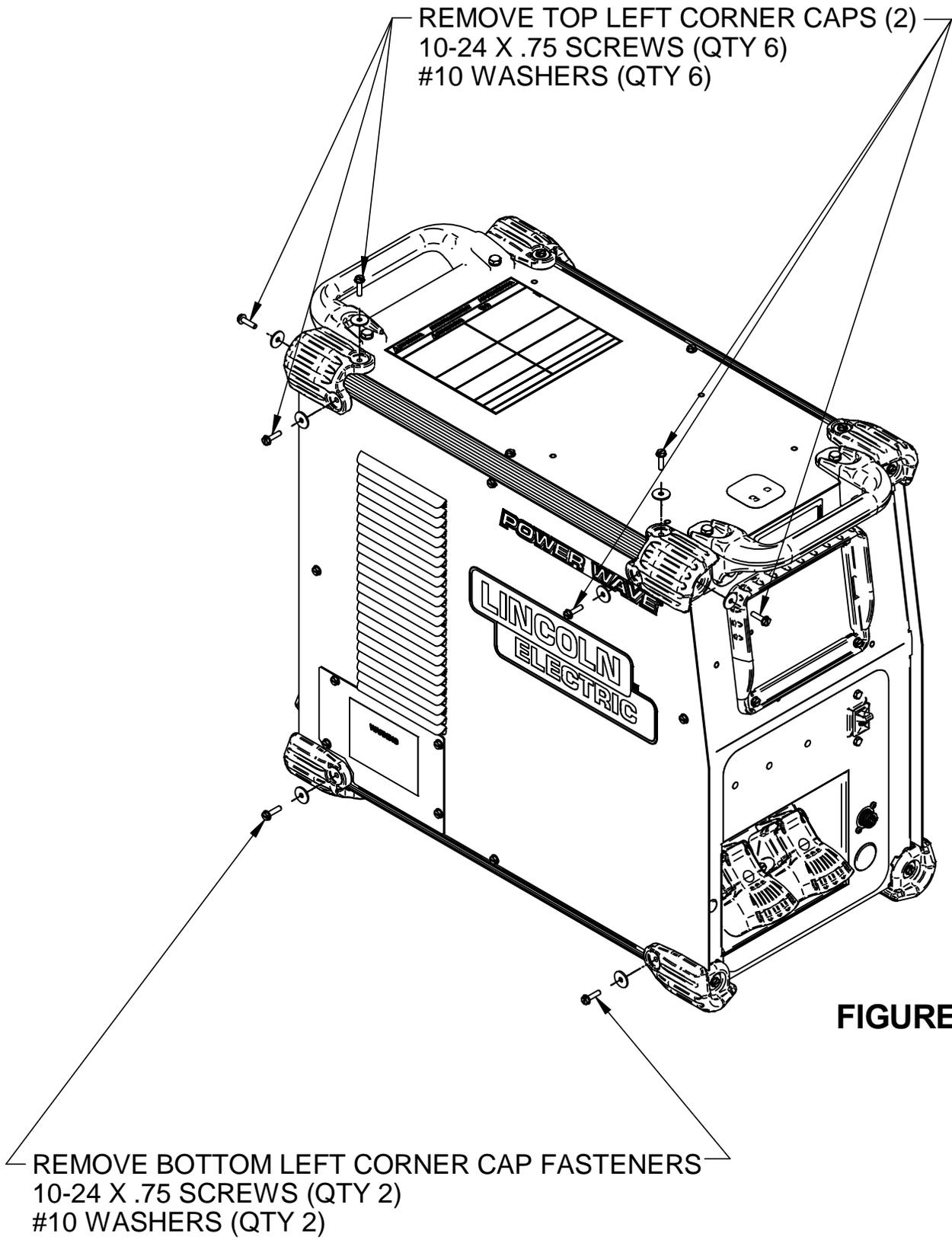
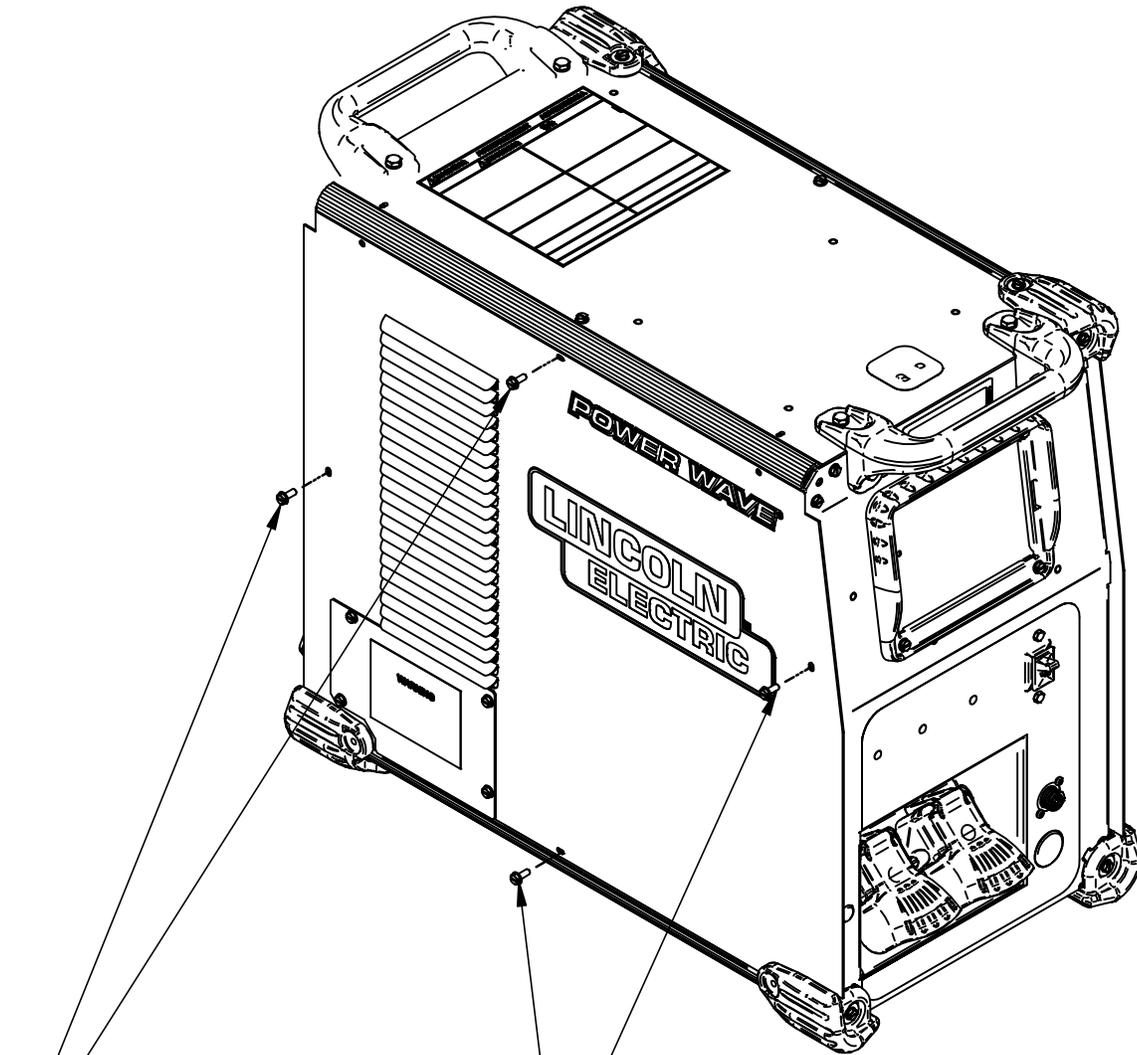


FIGURE 2



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

FIGURE 3

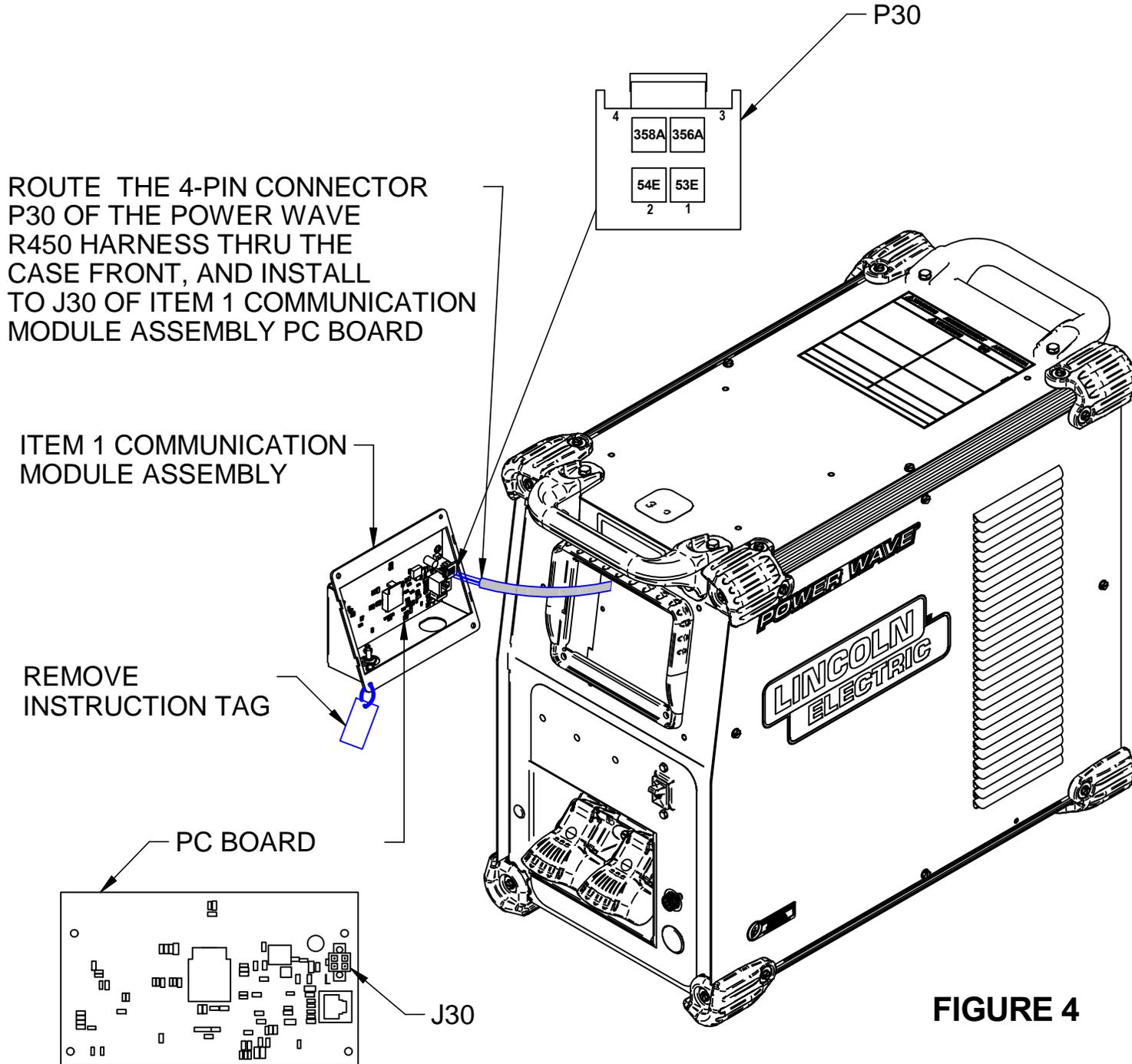
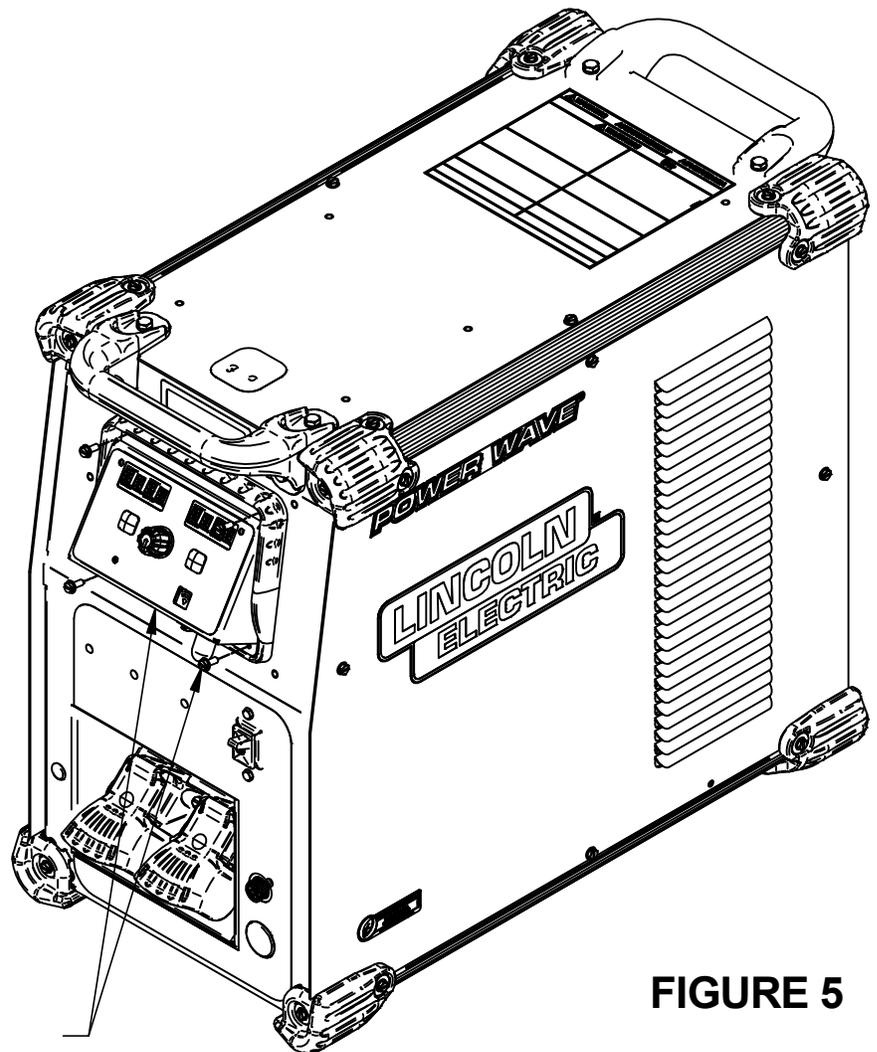
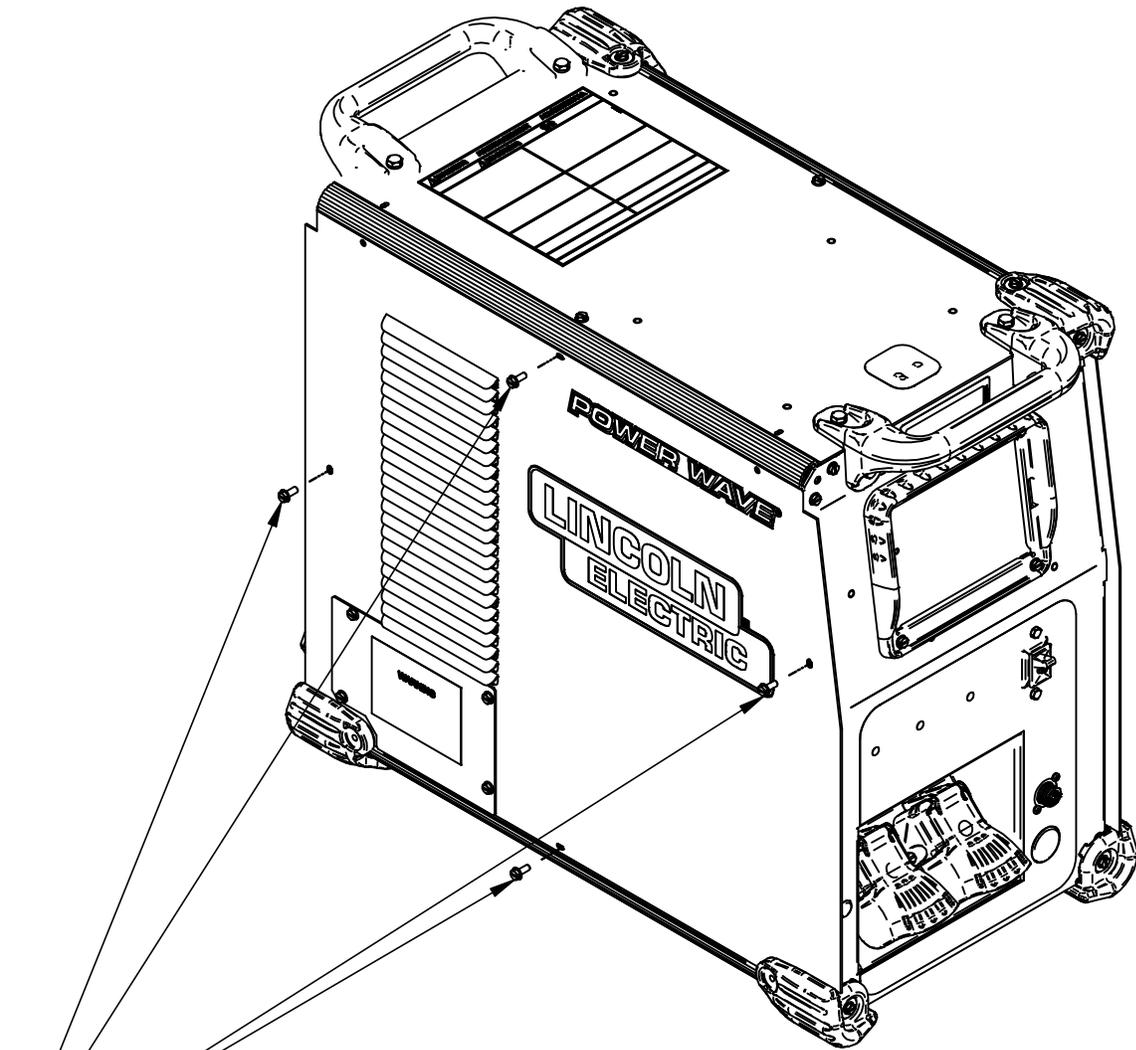


FIGURE 4

**FIGURE 5**

INSTALL THE COMMUNICATION
MODULE ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM COVER PLATE
10-24 X .50 SCREWS (QTY 4)



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

FIGURE 6

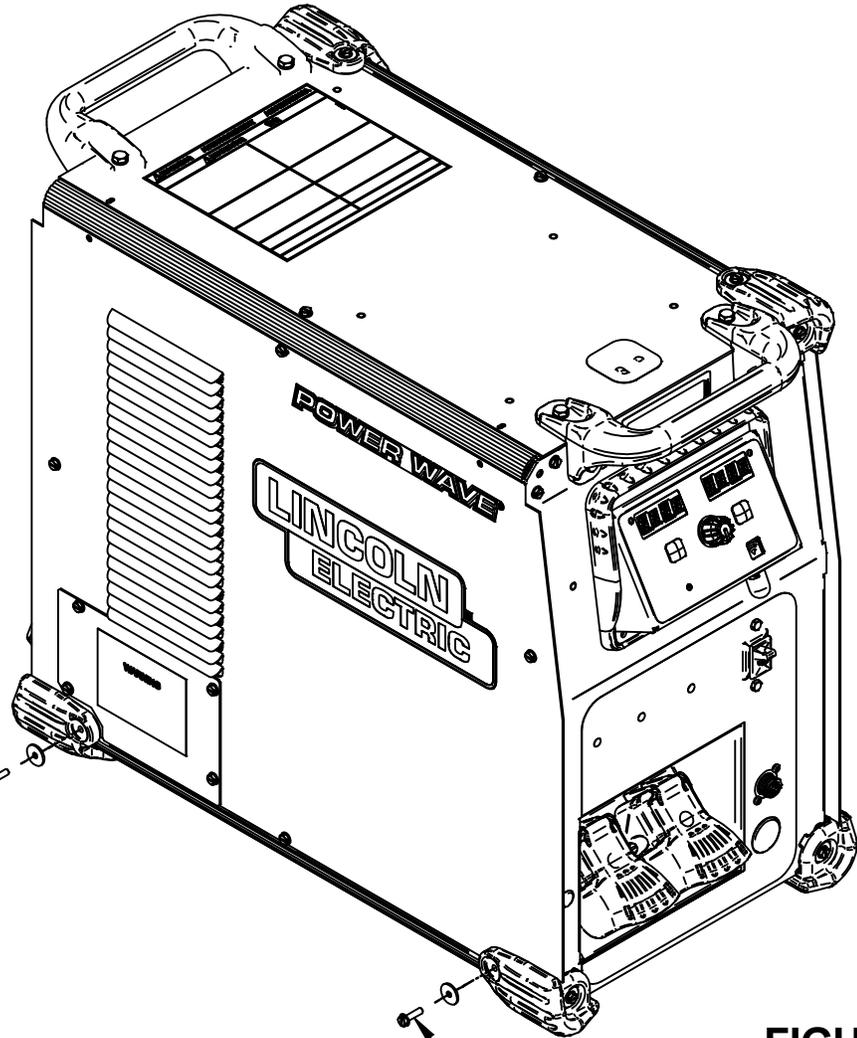


FIGURE 7

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

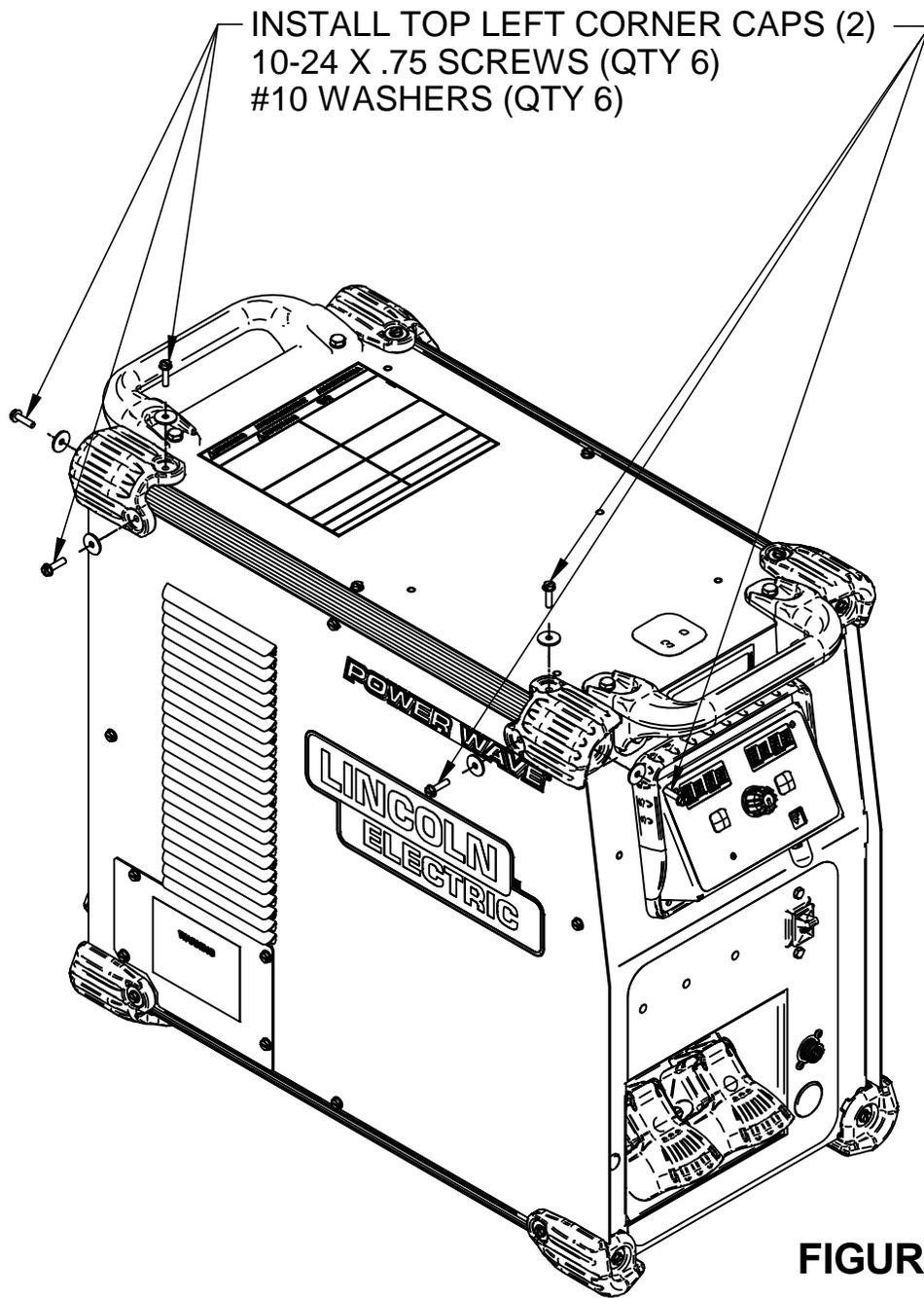


FIGURE 8

INSTRUCTIONS FOR INSTALLING K4352 POWER WAVE COMMUNICATION KIT ON A POWER WAVE R500

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4352 Power Wave Communication 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	G9015	Power Wave Communication Module Asbly	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 Communication Kit Installation Instructions

Recommended Tools:

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

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 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 Communication 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 Communication Module provided with the kit. Connect Item 2 plug & lead assembly to J30 of Item 1 Power Wave Communication Module (**Figure 6**).
9. Install the Power Wave Communication Module 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. 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. **The WiFi and Bluetooth are disabled as shipped from the factory.**
15. **After installing the K4352 Power Wave Communication 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
10-24 X .50 SCREWS, (QTY 4)

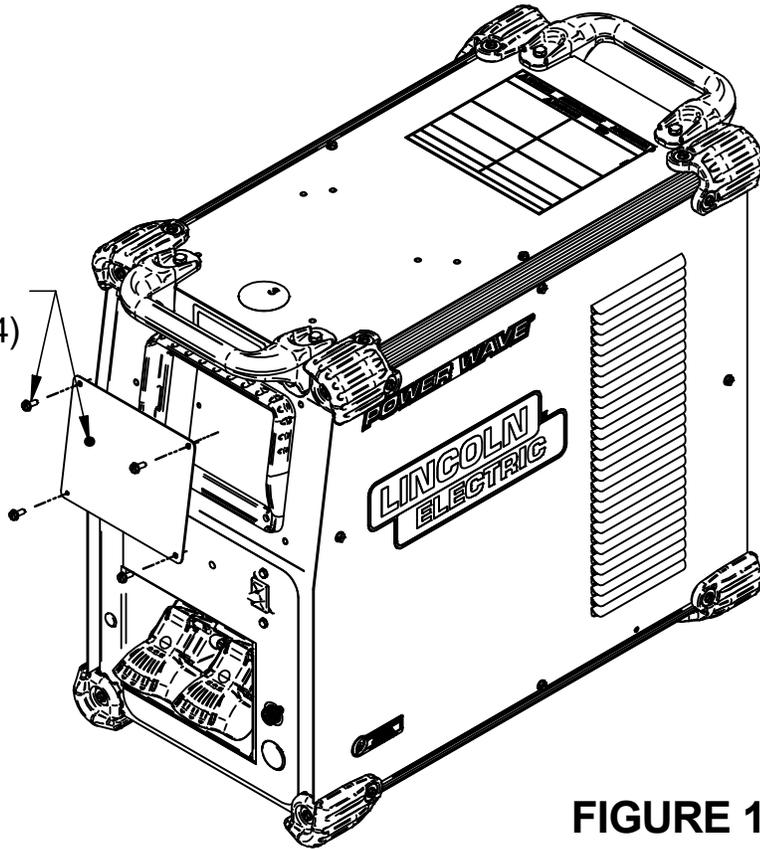


FIGURE 1

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

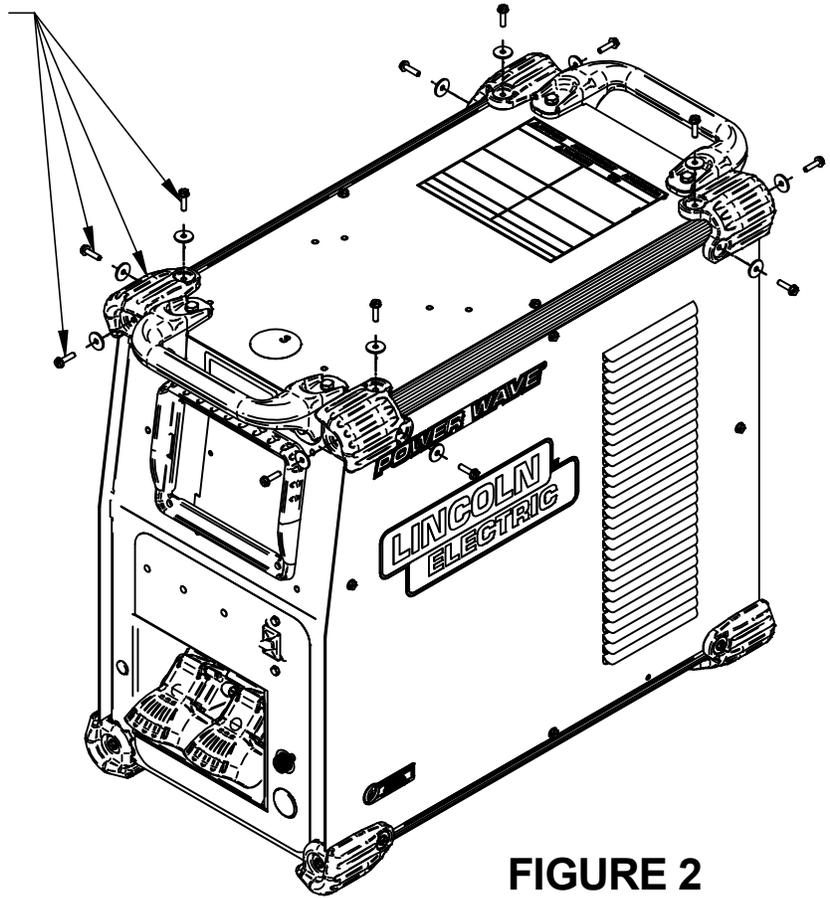


FIGURE 2

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

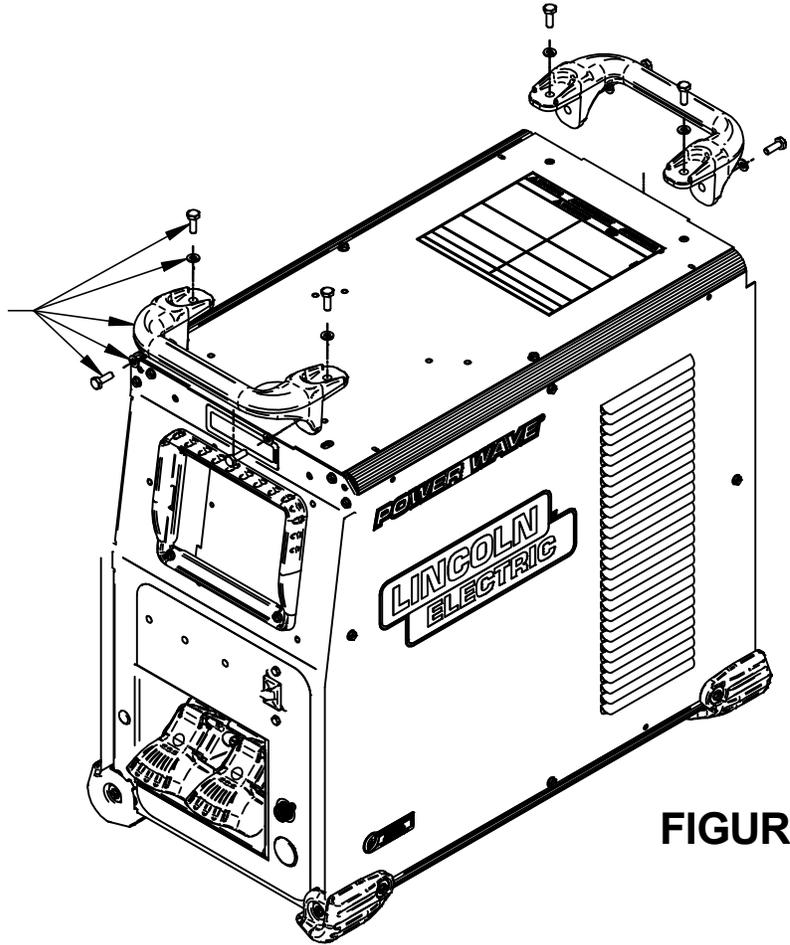


FIGURE 3

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

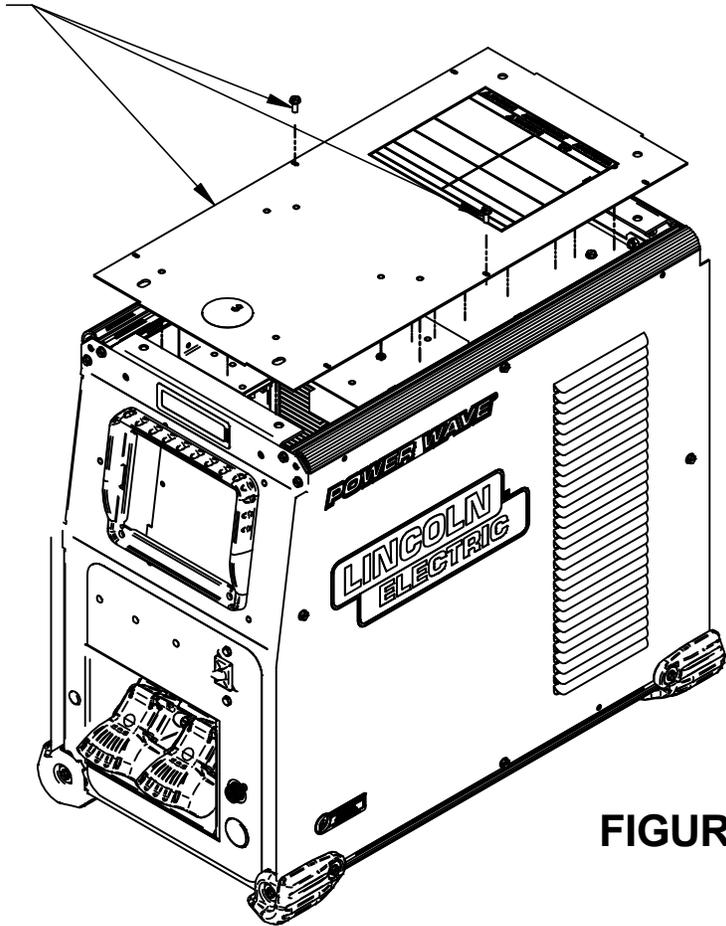
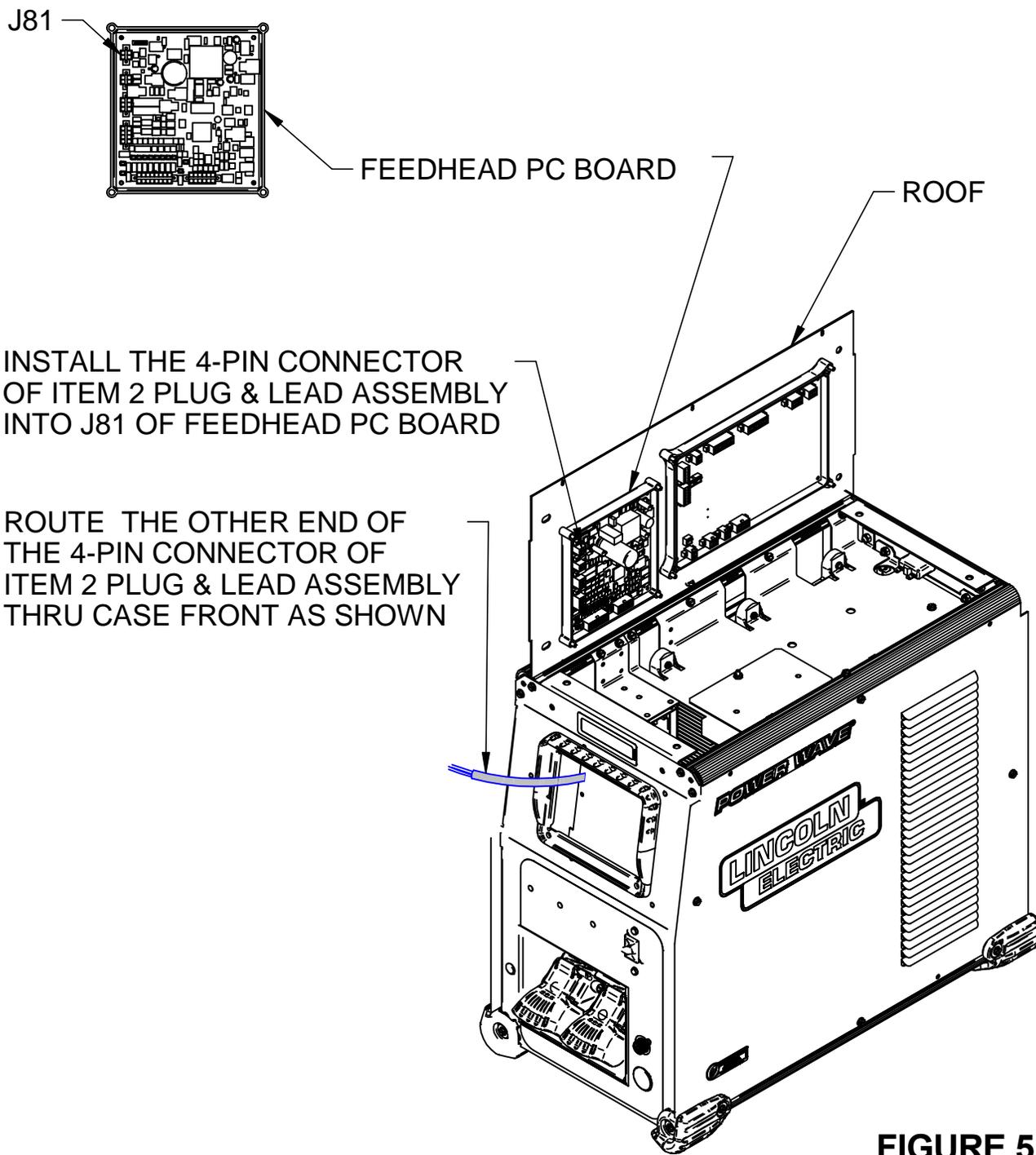


FIGURE 4



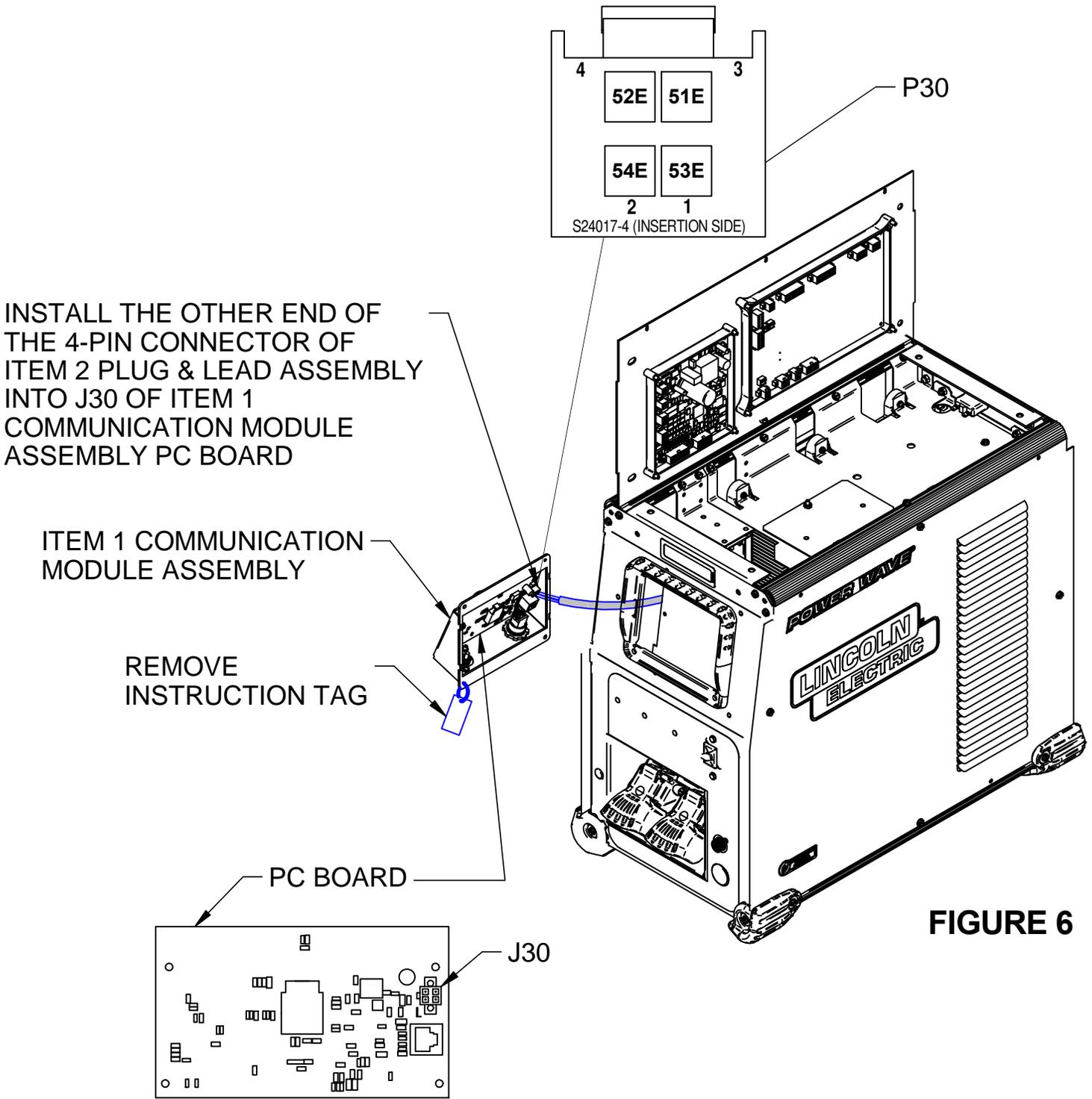


FIGURE 6

INSTALL THE COMMUNICATION
MODULE ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM COVER PLATE
10-24 X .50 SCREWS (QTY 4)

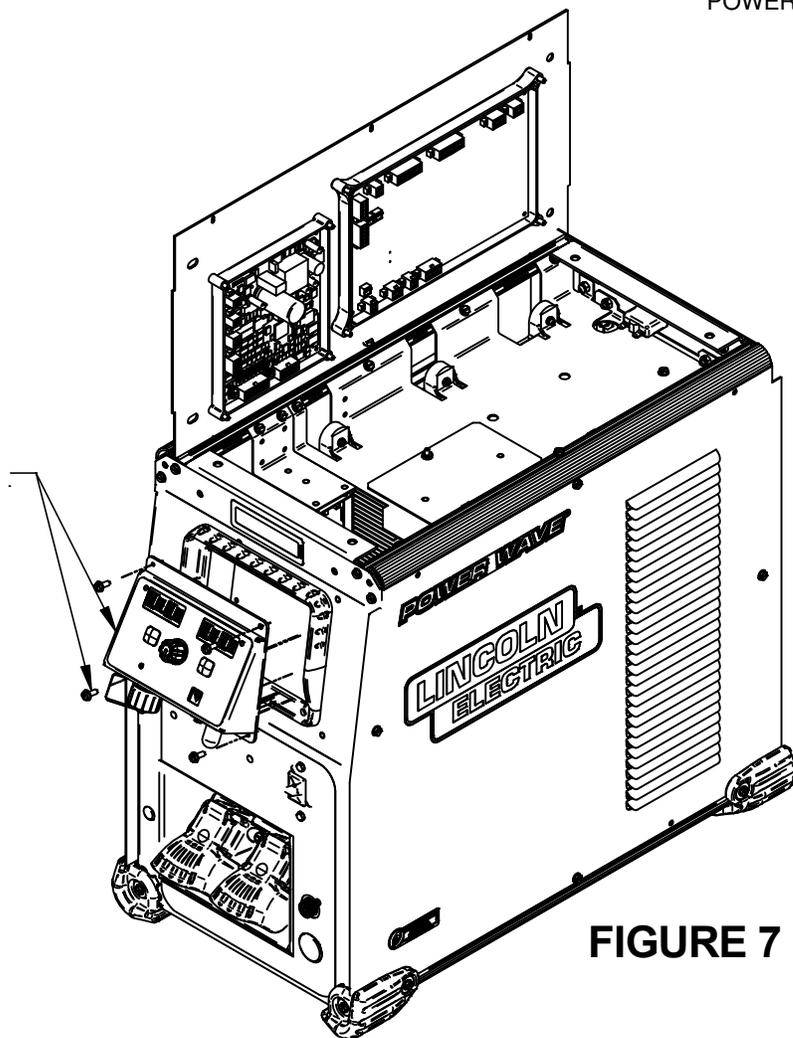


FIGURE 7

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

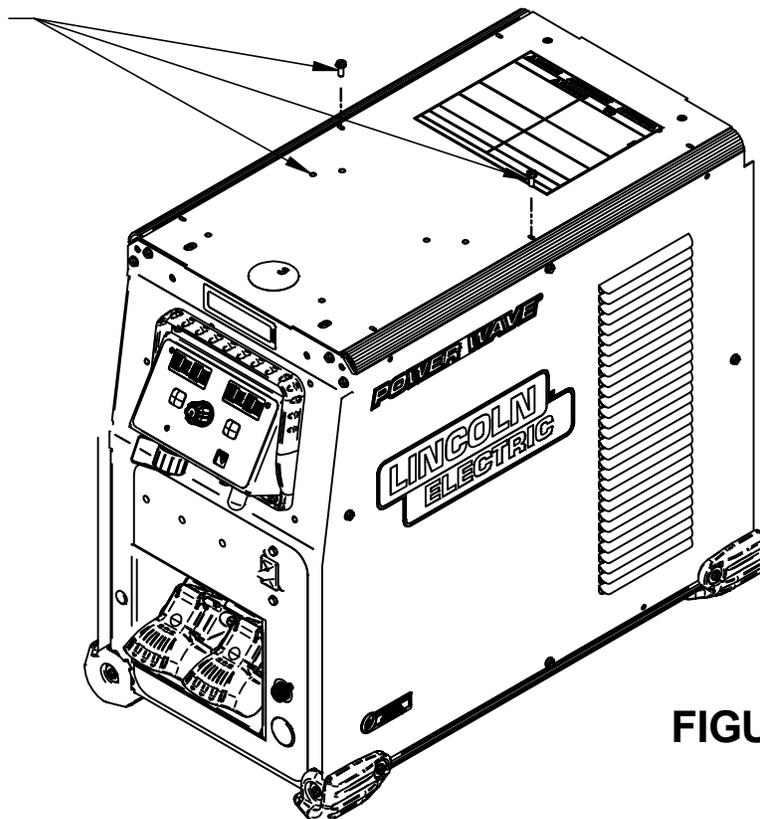


FIGURE 8

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

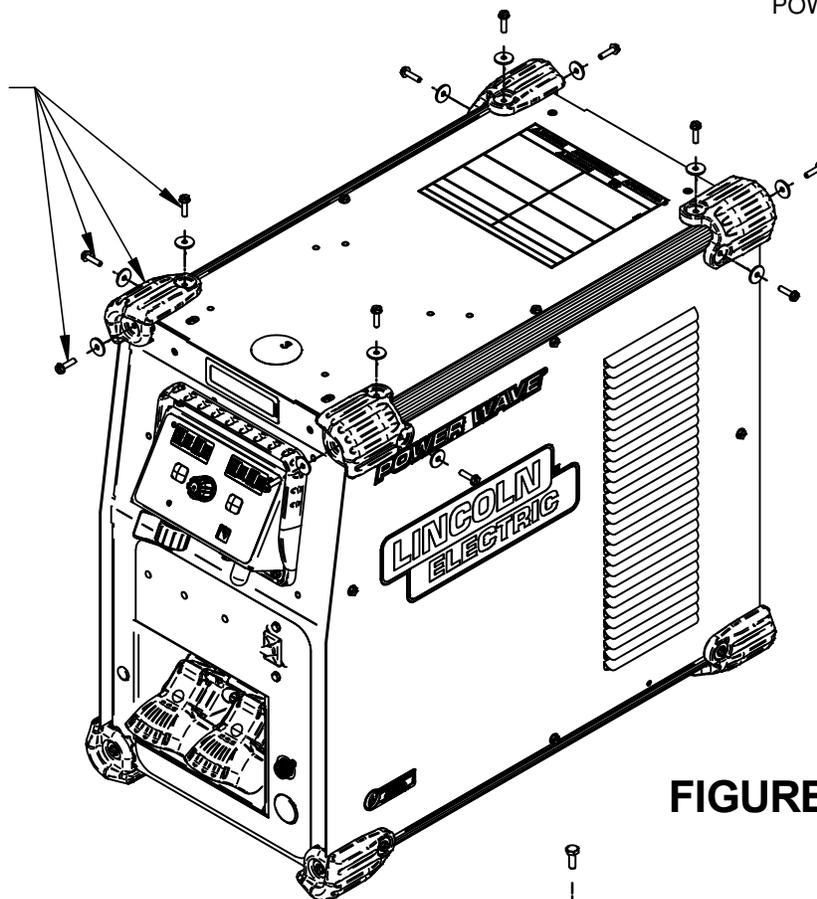


FIGURE 9

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

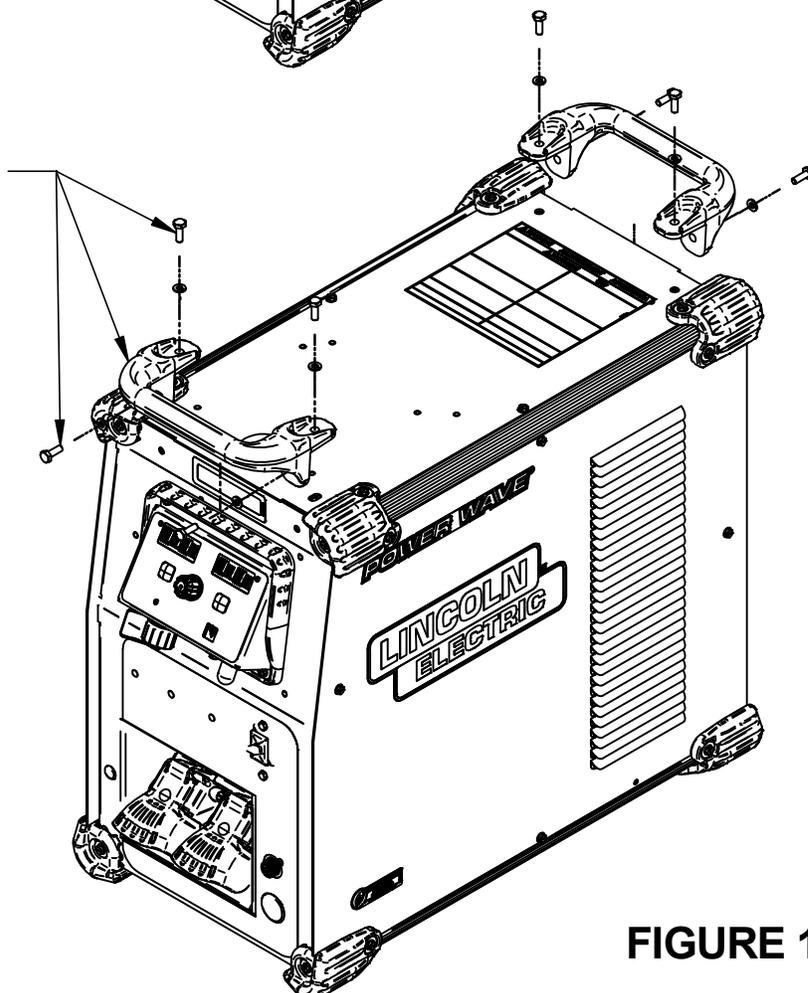


FIGURE 10

INSTRUCTIONS FOR INSTALLING K4352 POWER WAVE COMMUNICATION KIT ON A POWER WAVE R350

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4352 Power Wave Communication 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	G9015	Power Wave Communication Module Asbly	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 Communication Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools

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 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 Communication 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 Communication Module provided with the kit. Route the 4-pin connector P30 of Item 2 Plug & Lead Assembly thru the case front, and to J30 of Item 1 Power Wave Communication Module (**Figure 3**).
6. Install the Power Wave Communication Module 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. Replace the weld cables from the output studs, and reconnect all control cables including the Ethernet connection from the Power Wave.
8. **The WiFi and Bluetooth are disabled as shipped from the factory.**
9. **After installing the K4352 Power Wave Communication 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.**

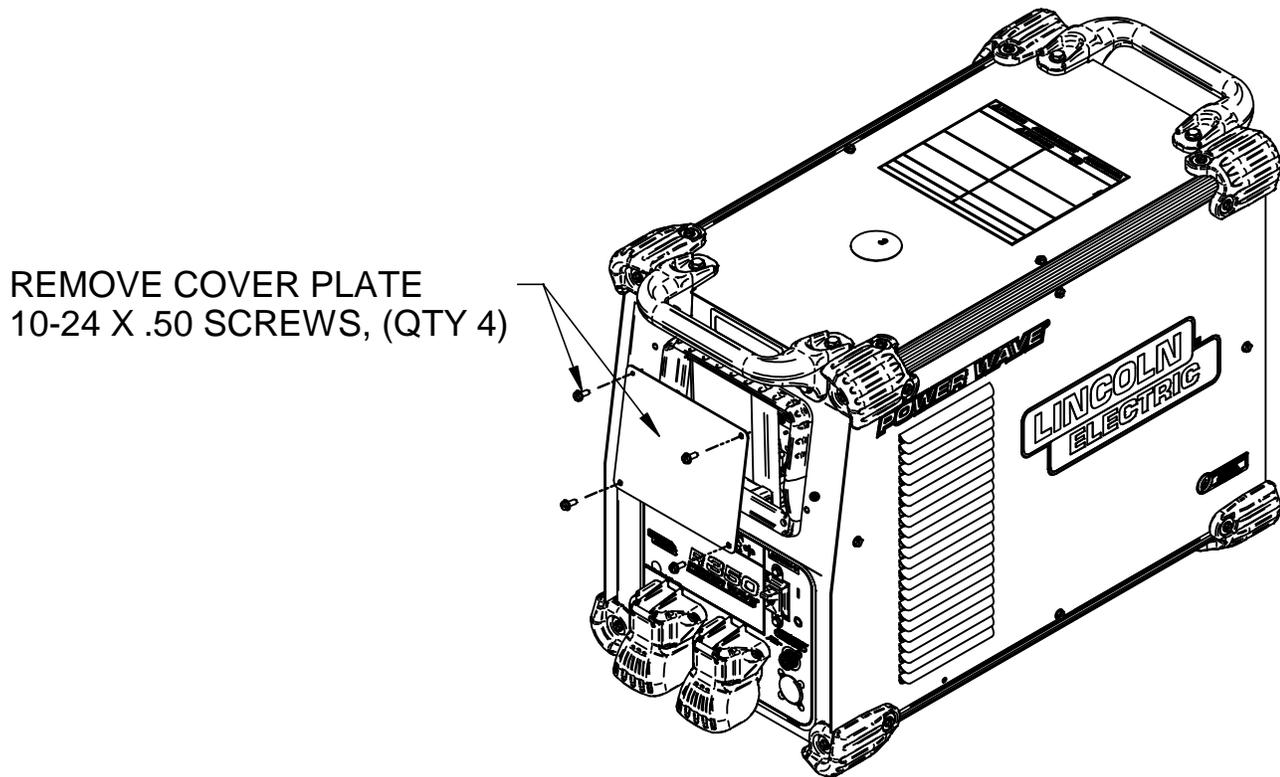


FIGURE 1

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

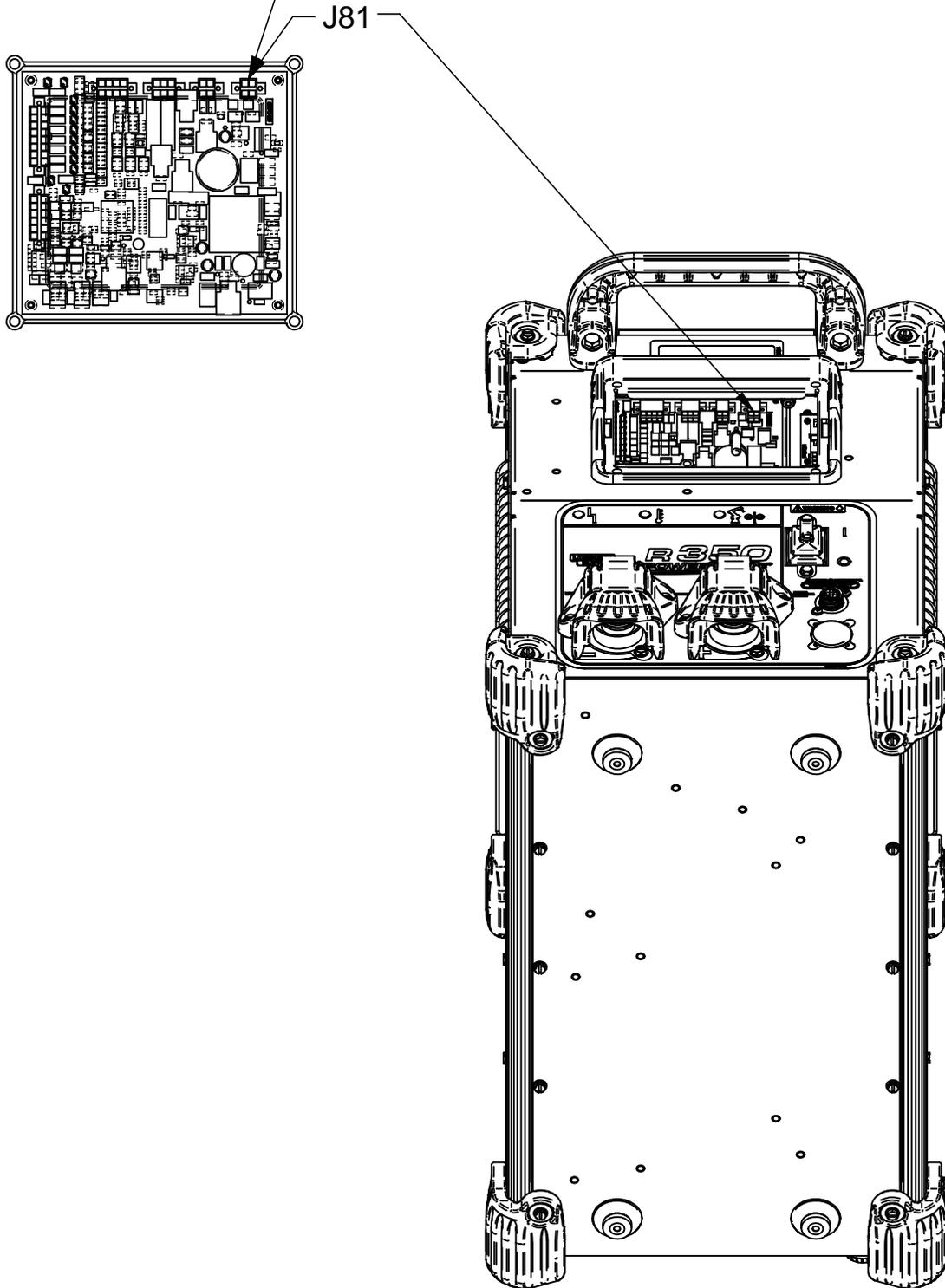
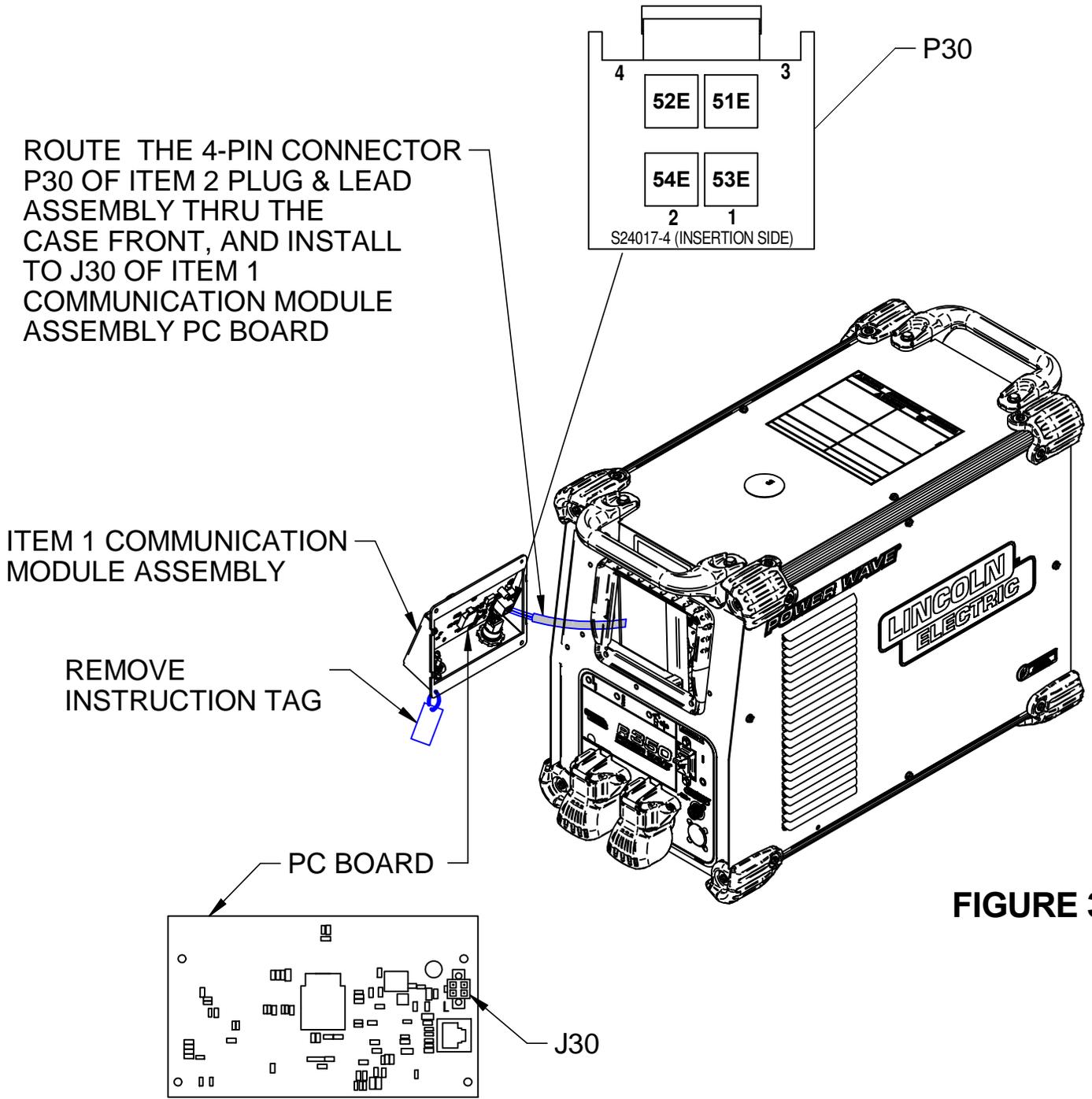


FIGURE 2



INSTALL THE COMMUNICATION
MODULE ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM COVER PLATE
10-24 X .50 SCREWS (QTY 4)

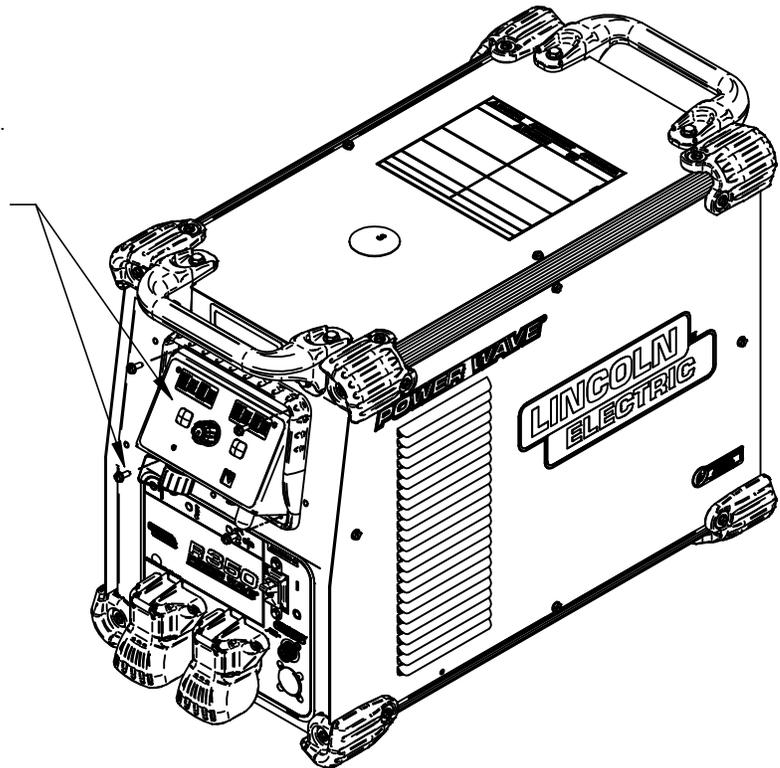


FIGURE 4

INSTRUCTIONS FOR INSTALLING K4352 POWER WAVE COMMUNICATION KIT ON A POWER WAVE S500

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4352 Power Wave Communication Kit for 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	G9015	Power Wave Communication Module Asbly	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 Communication Kit Installation Instructions

Recommended Tools:

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

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 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 Communication 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 P16 on Power Wave 500 (Figure 5). Remove 6 pin housing from P16 (empty housing secured to P16 on Harness, if present), and discard. Obtain Item 2 Plug & Lead assembly. Install 6 pin connector of Item 2 Plug & Lead assembly to P16.
8. Route the 4 pin connector, P30, of Item 2 plug & lead assembly thru the case front. Obtain Item 1 Power Wave Communication Module provided with the kit. Connect Item 2 plug & lead assembly to J30 of Item 1 Power Wave Communication Module (**Figure 6**).
9. Install Item 1 Power Wave Communication Module 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. 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. **The WiFi and Bluetooth are disabled as shipped from the factory.**
15. **After installing the K4352 Power Wave Communication 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
10-24 X .50 SCREWS, (QTY 4)

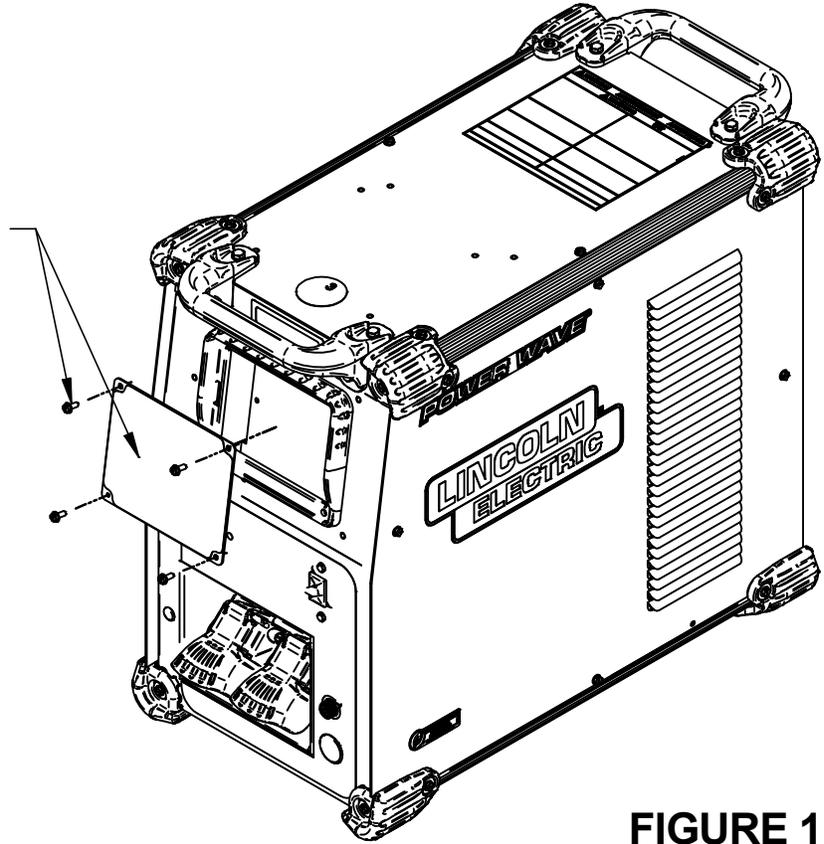


FIGURE 1

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

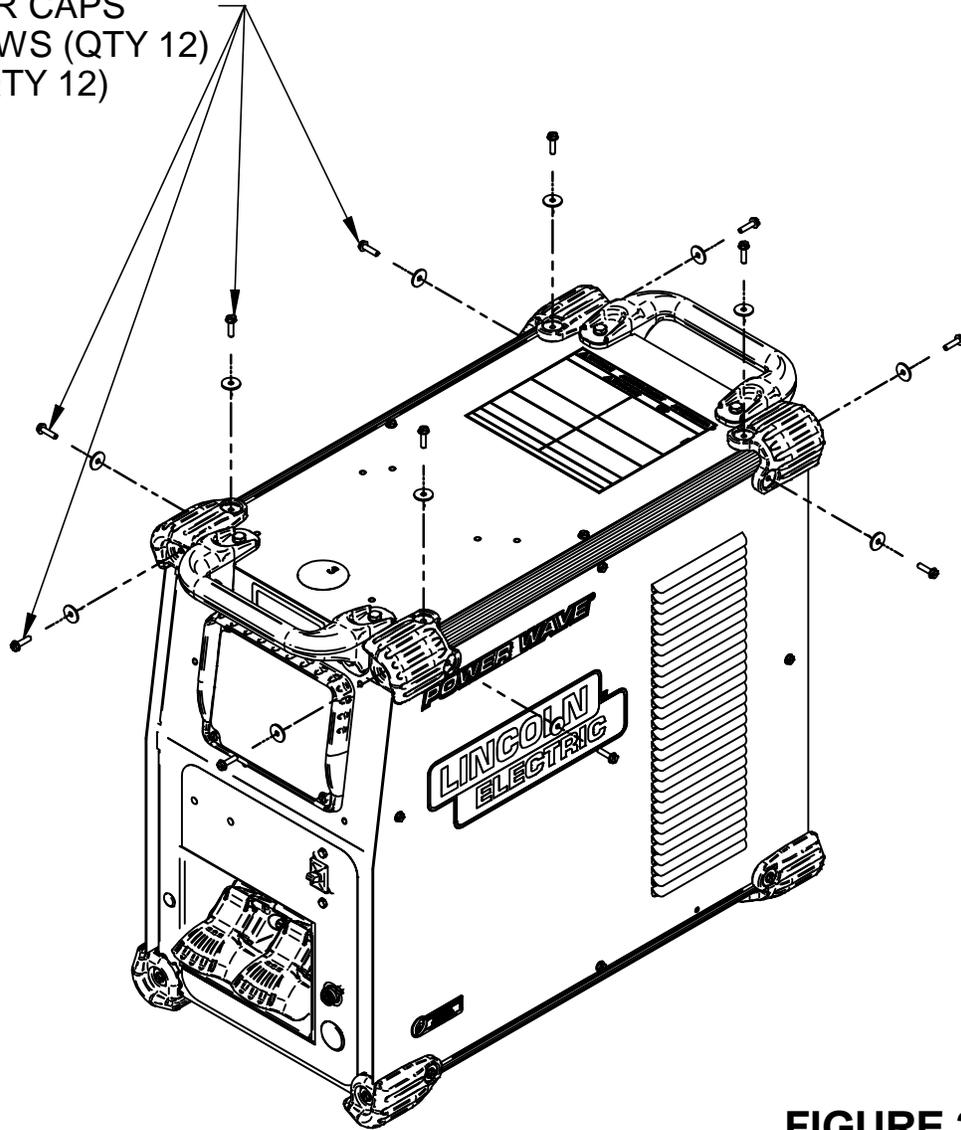


FIGURE 2

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

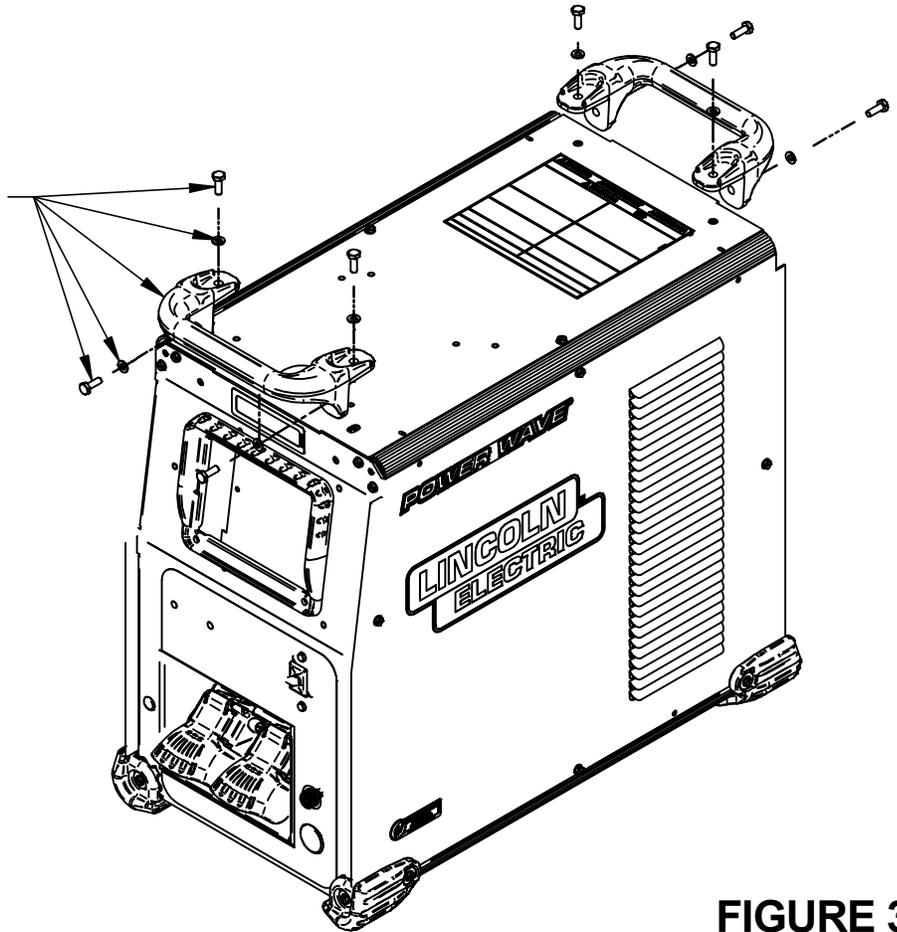


FIGURE 3

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

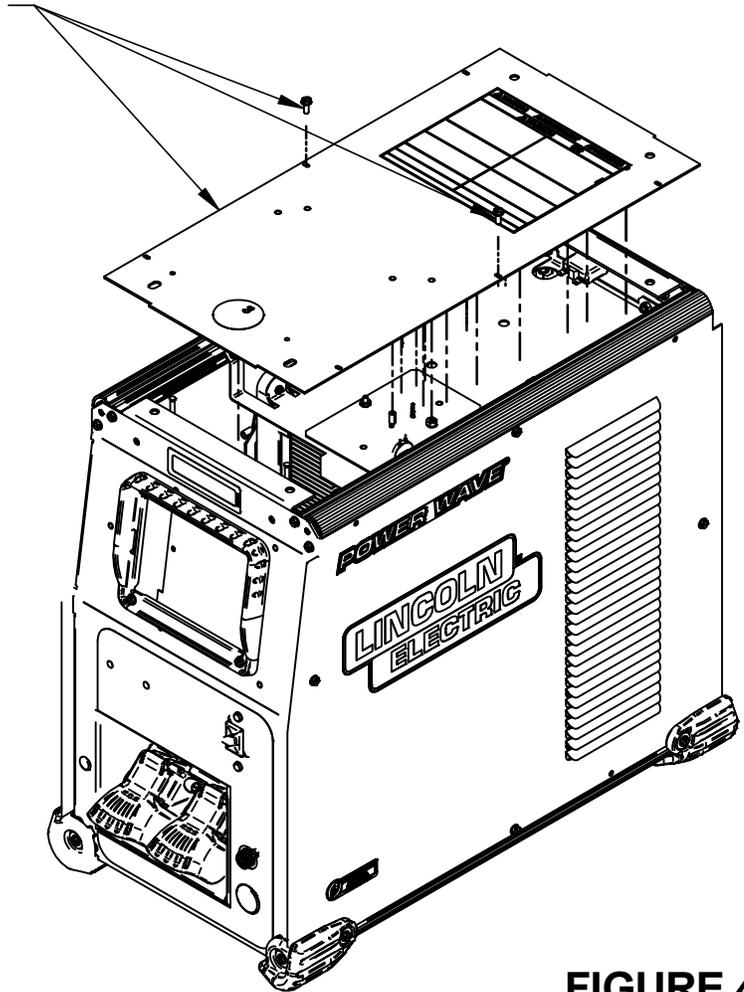


FIGURE 4

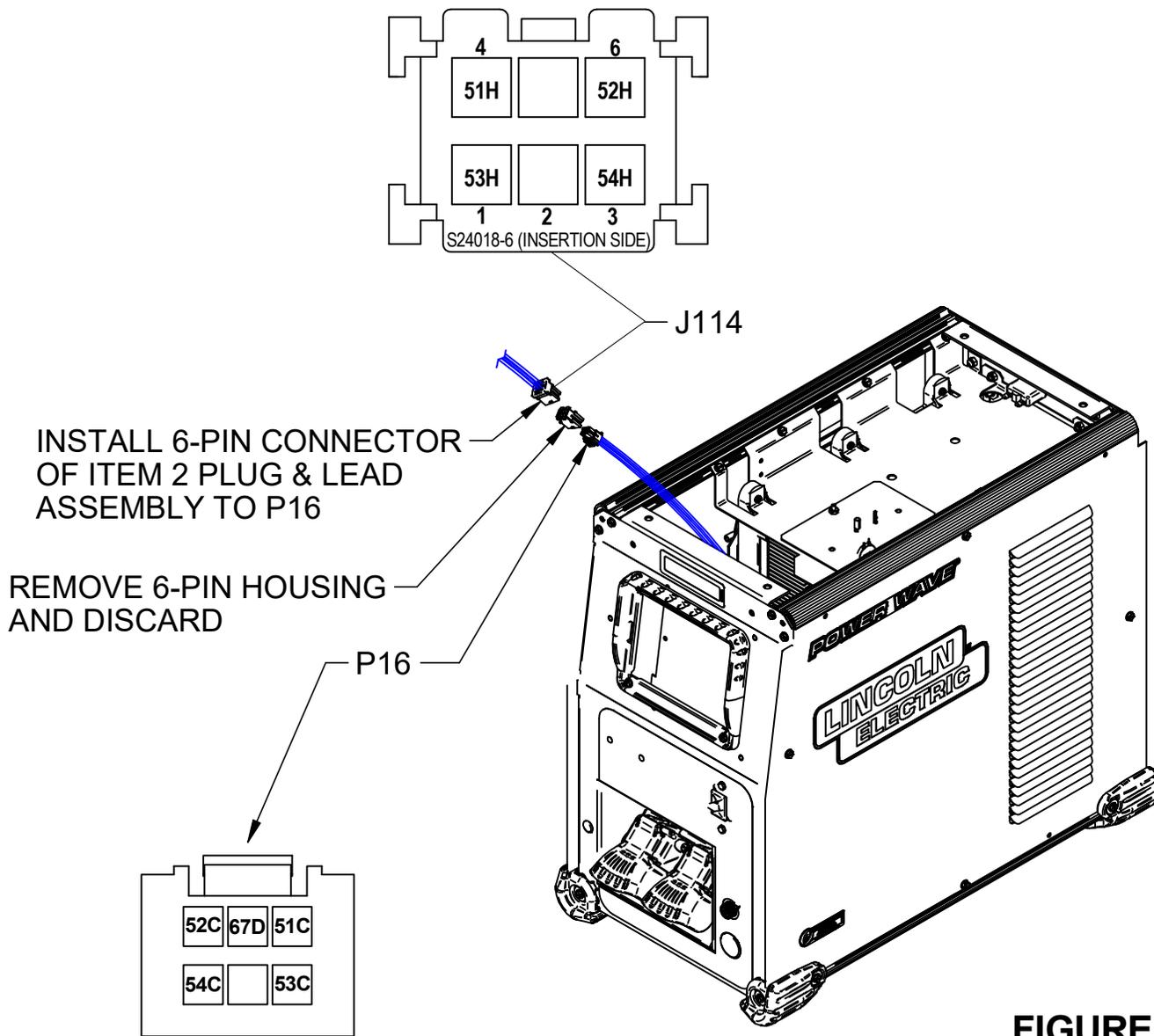


FIGURE 5

ROUTE THE 4-PIN CONNECTOR P30 OF ITEM 2 PLUG & LEAD ASSEMBLY THRU THE CASE FRONT, AND INSTALL TO J30 OF ITEM 1 COMMUNICATION MODULE ASSEMBLY PC BOARD

ITEM 1 COMMUNICATION MODULE ASSEMBLY

REMOVE INSTRUCTION TAG

PC BOARD

J30

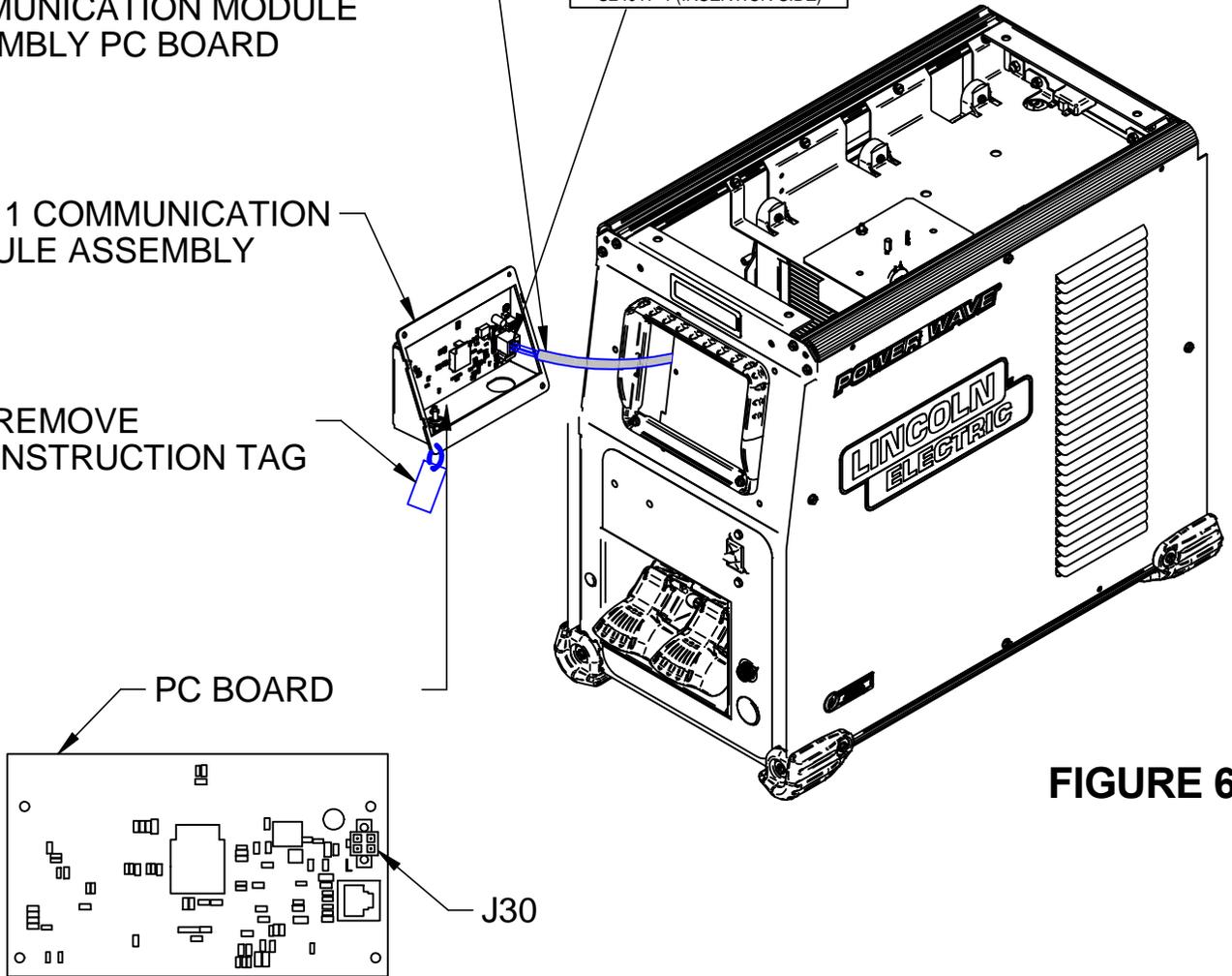
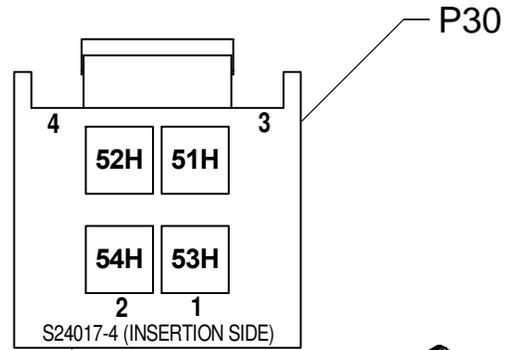


FIGURE 6

INSTALL THE COMMUNICATION
MODULE ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM COVER PLATE
10-24 X .50 SCREWS (QTY 4)

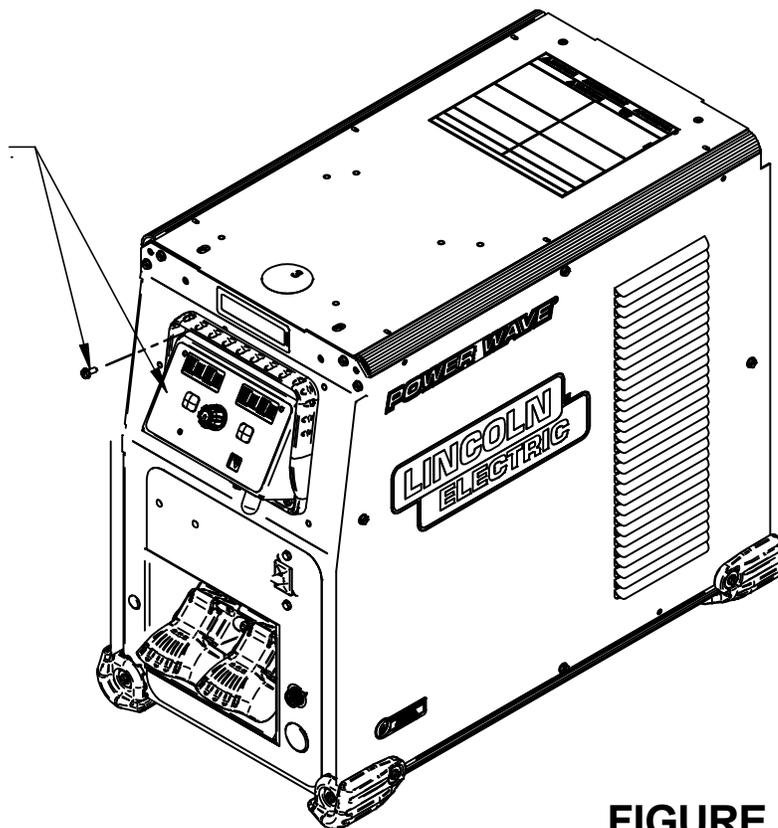


FIGURE 7

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

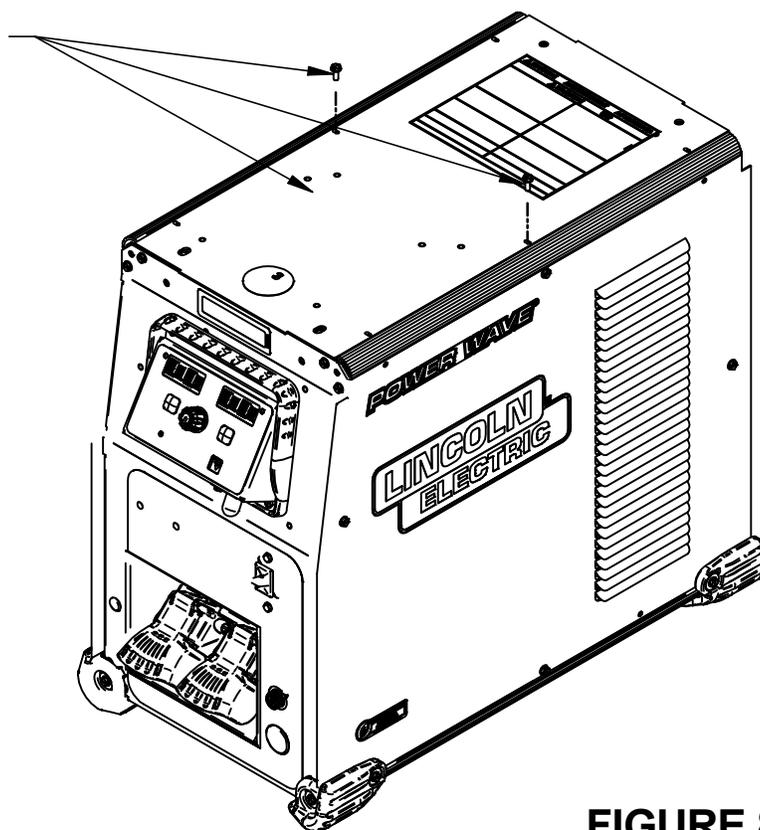


FIGURE 8

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

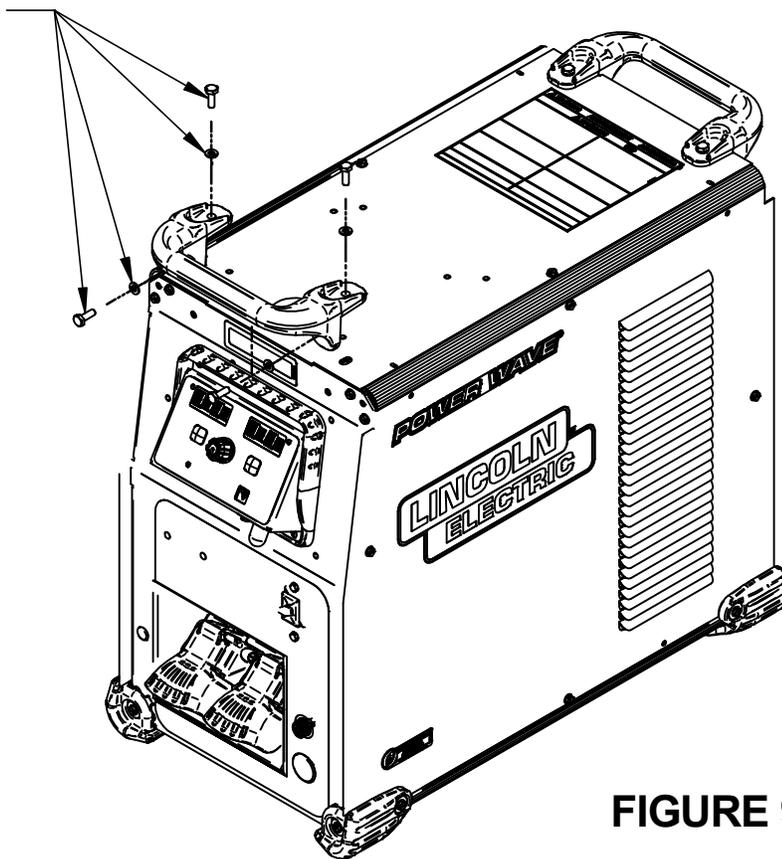


FIGURE 9

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

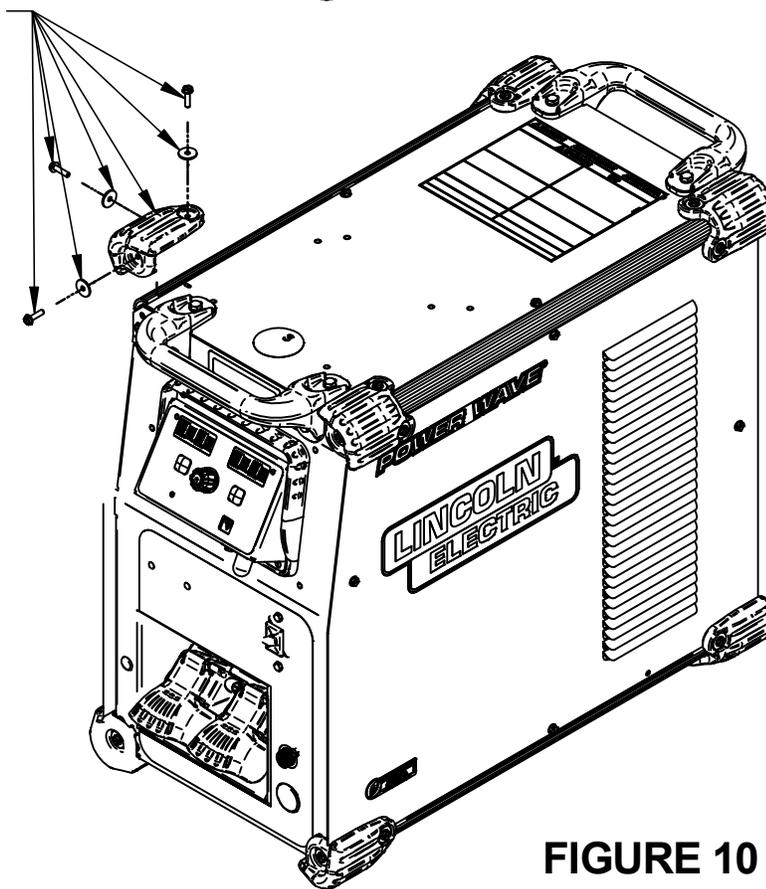


FIGURE 10

INSTRUCTIONS FOR INSTALLING K4352 POWER WAVE COMMUNICATION KIT ON A POWER WAVE S350

CODES 11694, 11753, 11782, 12371, 12394 & 12793

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4352 Power Wave Communication 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	G9015	Power Wave Communication Module Asbly	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 Communication Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools

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 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 Communication 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 5**).
8. Obtain Item 1 Power Wave Communication Module provided with the kit. Route the 4-pin connector P30 of Item 2 Plug & Lead Assembly thru the case front, and to J30 of Item 1 Power Wave Communication Module (**Figure 6**).
9. Install the Power Wave Communication Module 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. 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. **The WiFi and Bluetooth are disabled as shipped from the factory.**
15. **After installing the K4352 Power Wave Communication 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
10-24 X .50 SCREWS, (QTY 4)

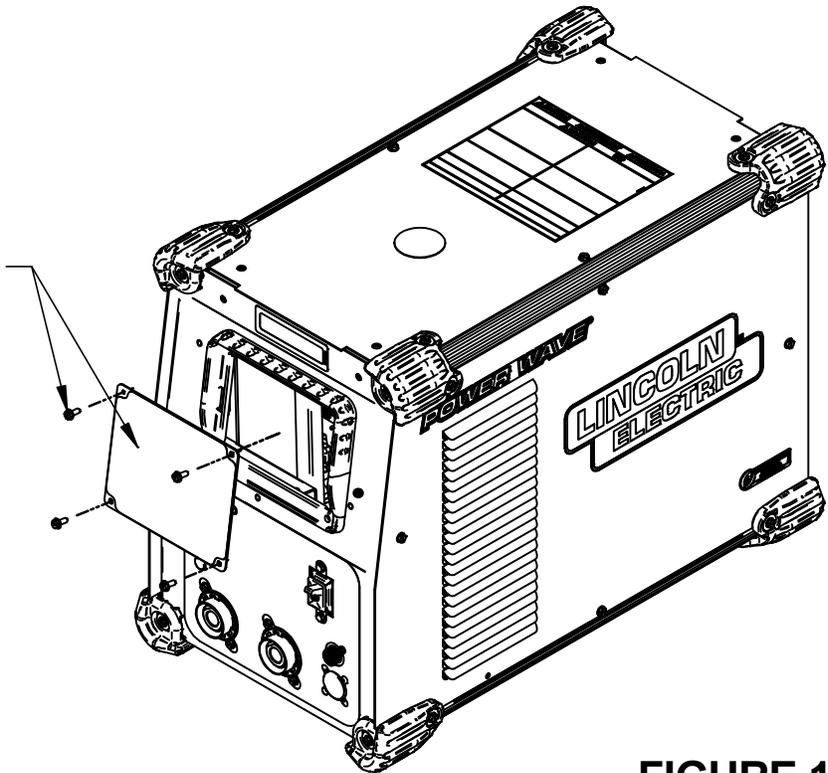


FIGURE 1

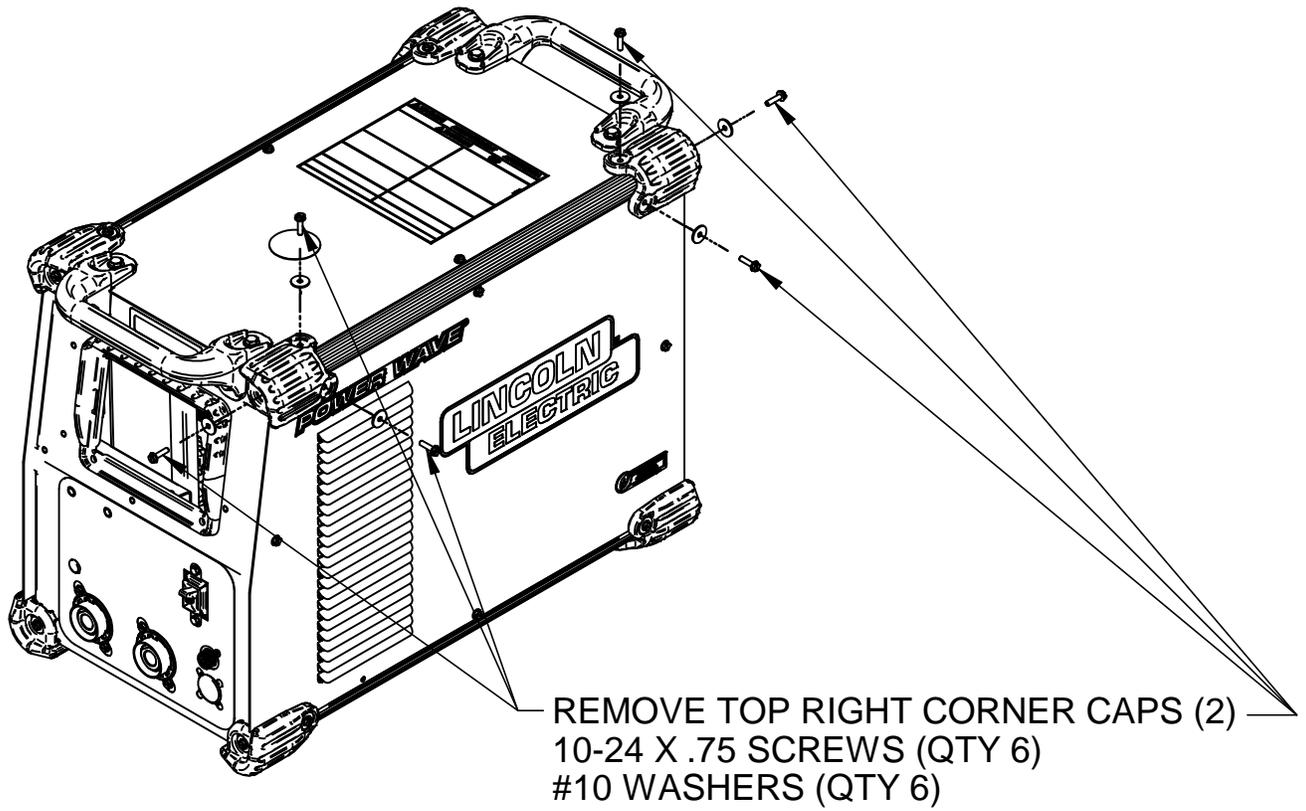


FIGURE 2

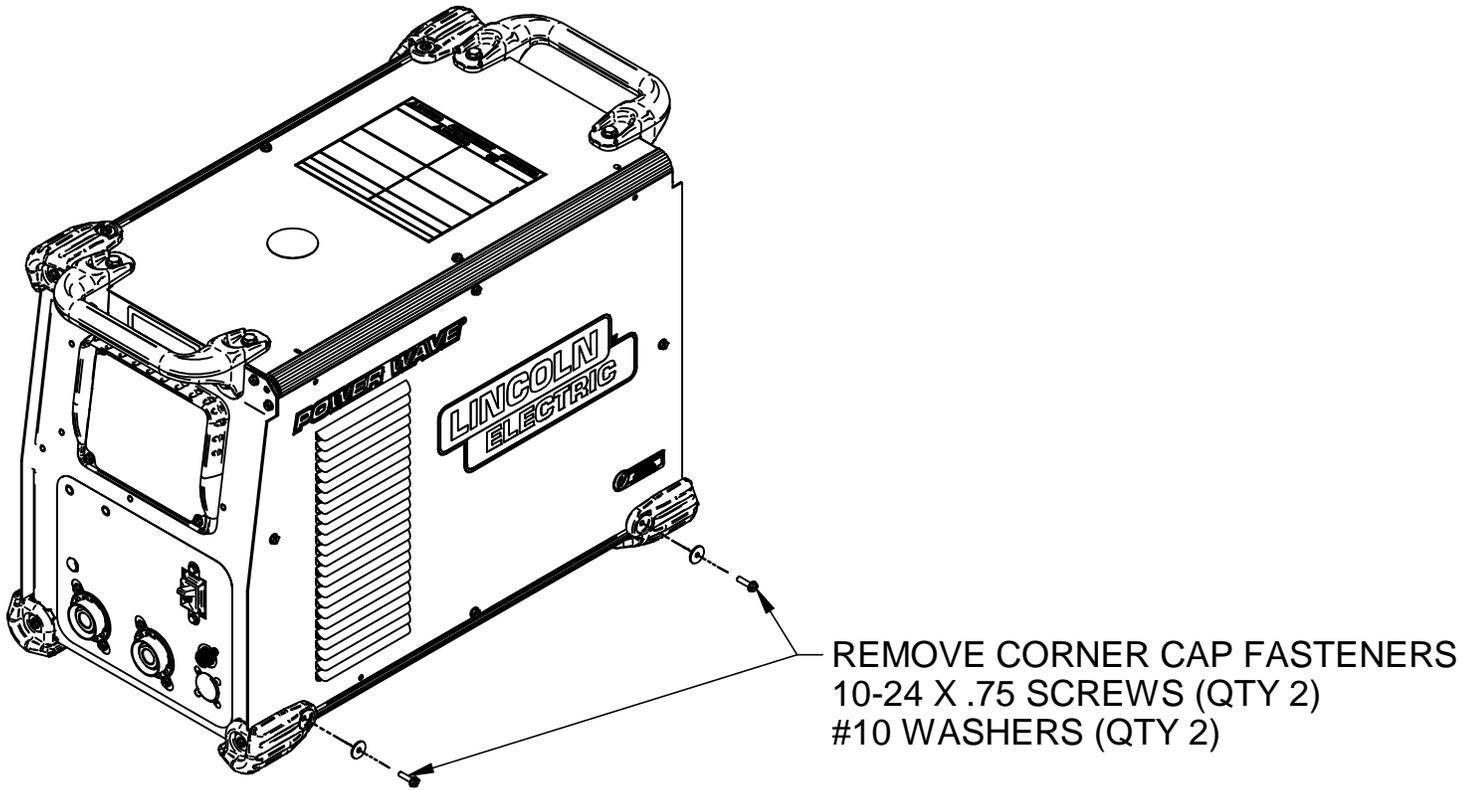


FIGURE 3

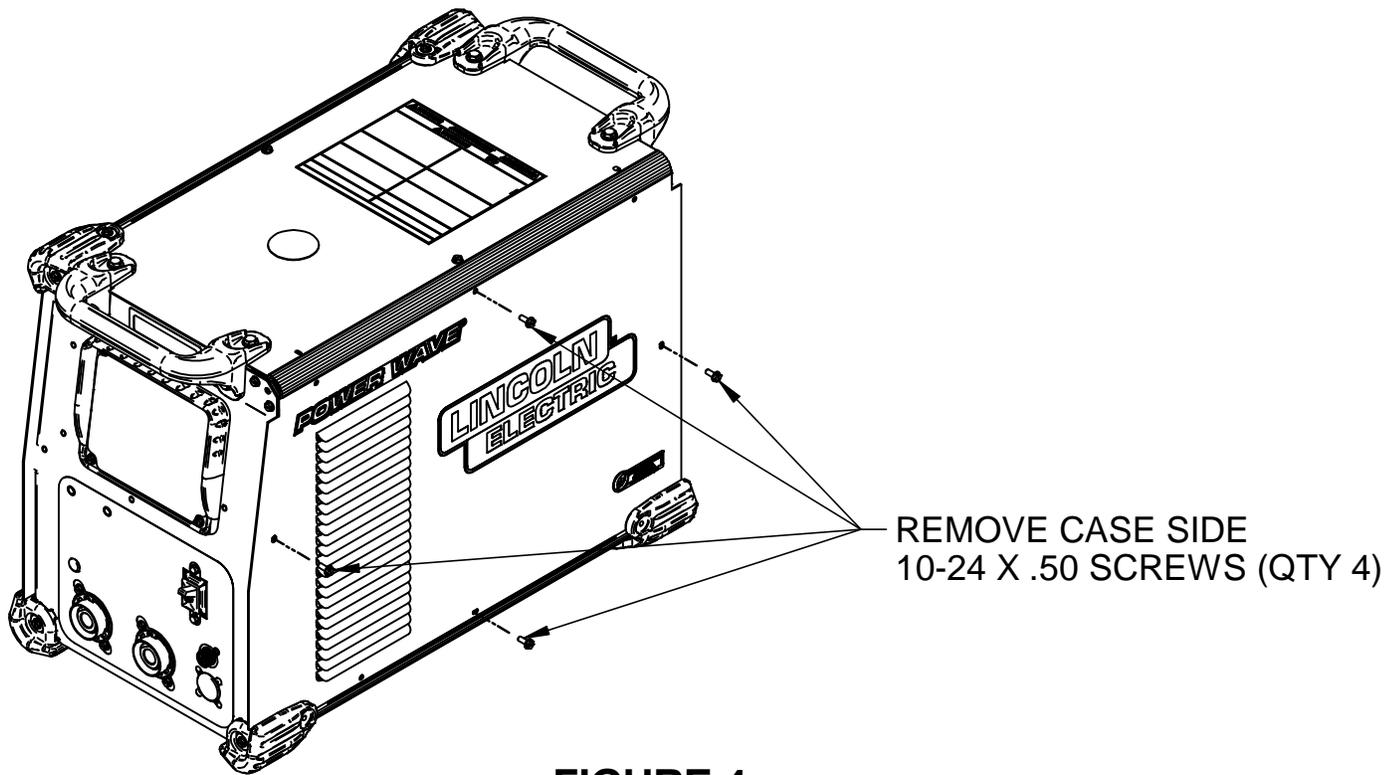


FIGURE 4

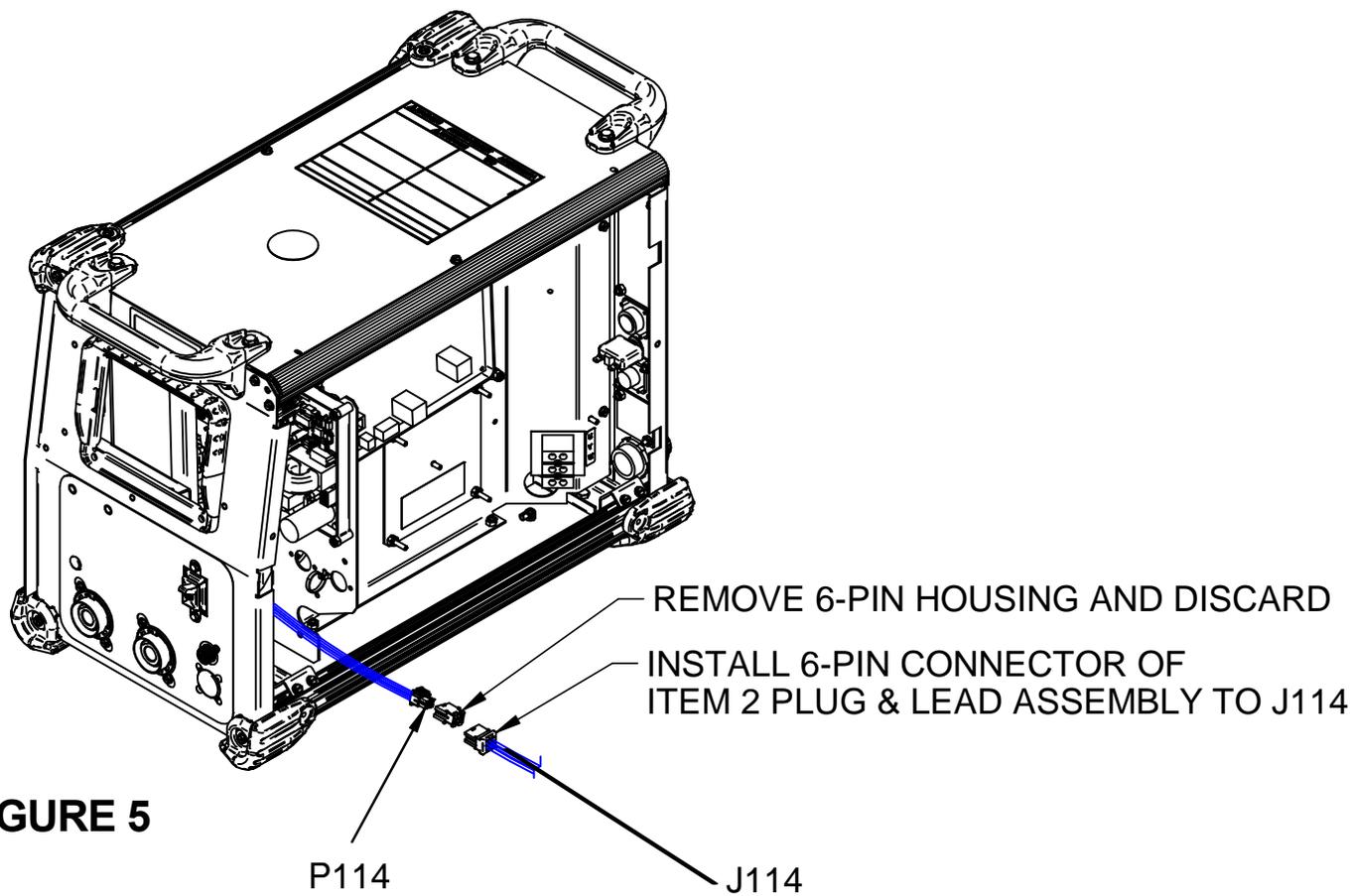
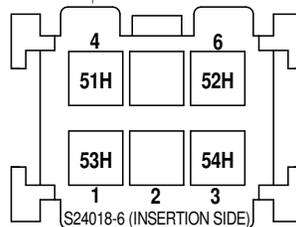
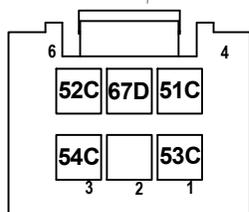
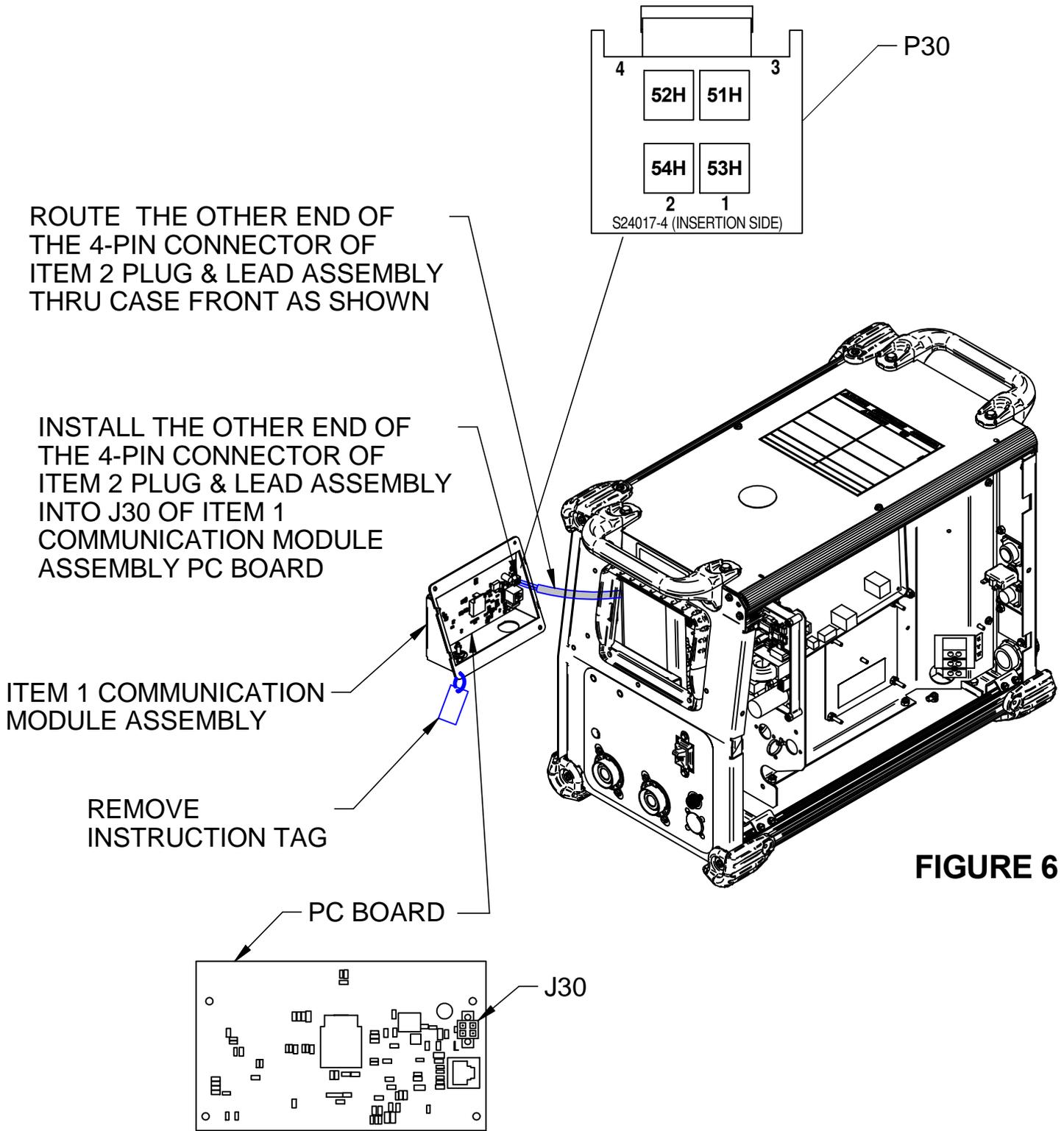


FIGURE 5





INSTALL THE COMMUNICATION
MODULE ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM THE COVER PLATE
10-24 X .50 SCREWS (QTY 4)

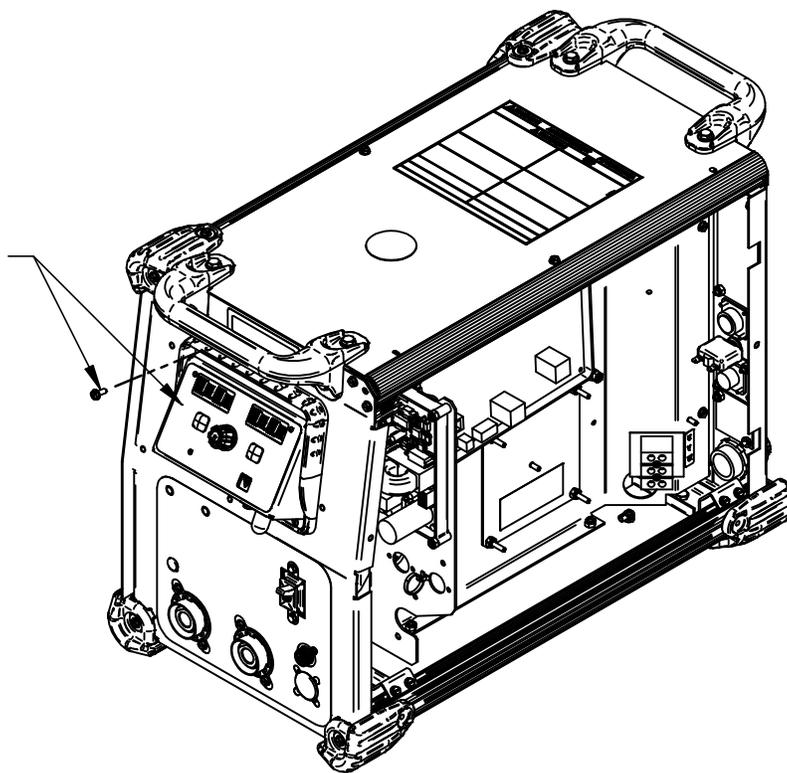
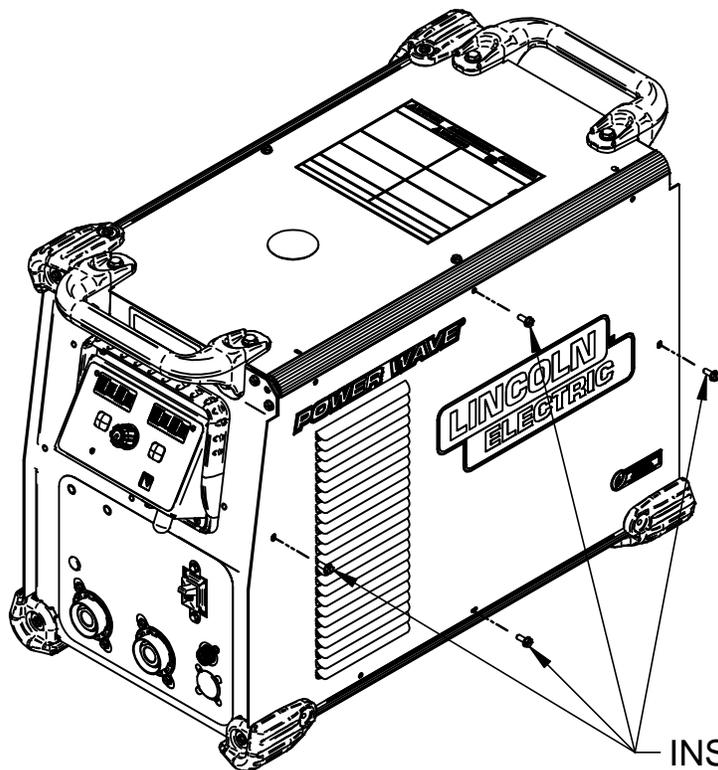


FIGURE 7



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

FIGURE 8

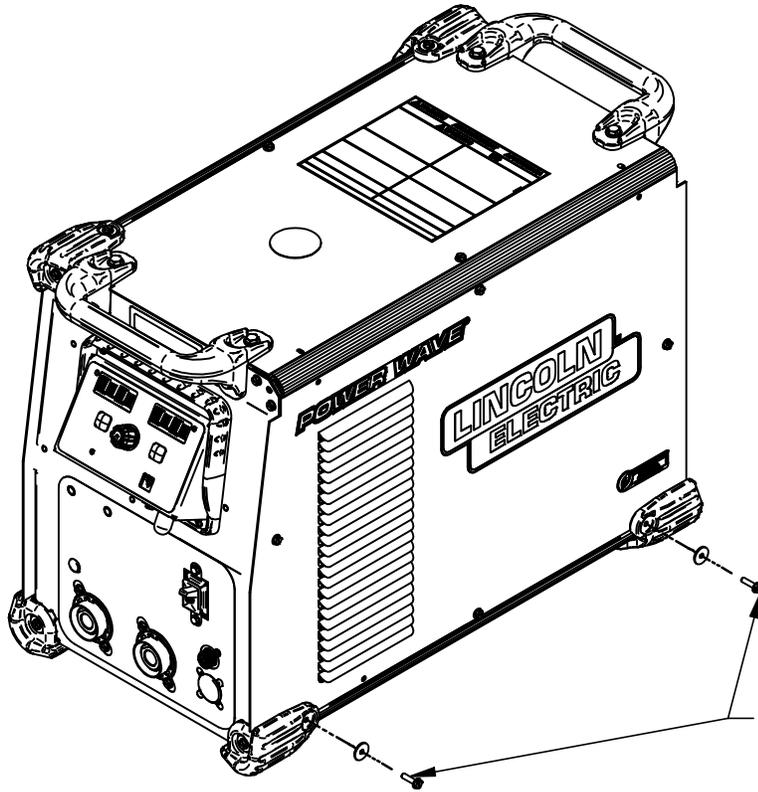


FIGURE 9

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

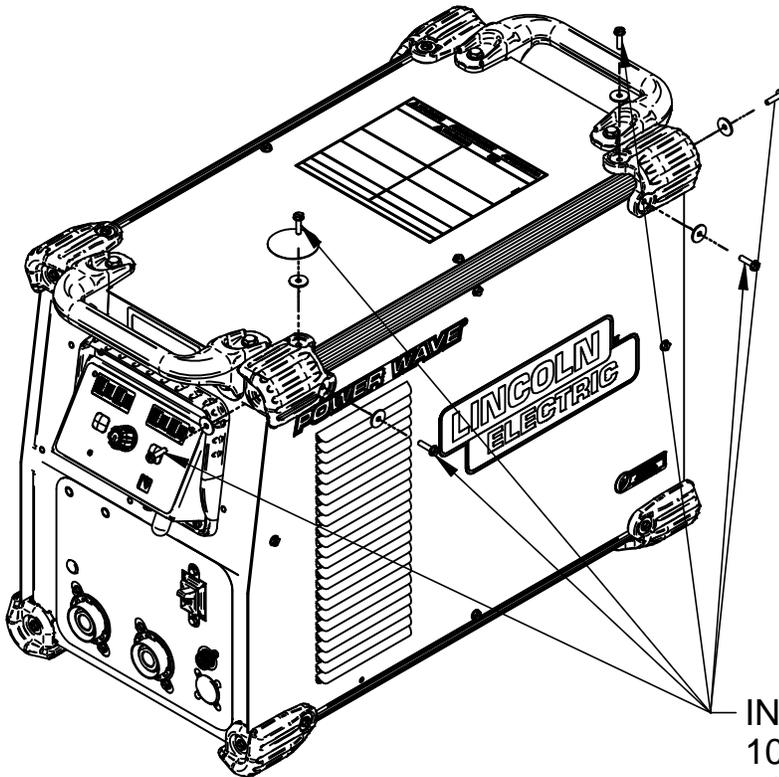


FIGURE 10

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

INSTRUCTIONS FOR INSTALLING K4352 POWER WAVE COMMUNICATION KIT ON A POWER WAVE S350 CODES 11589, 11625 & 11783

INSTALLATION INSTRUCTIONS:

OVERVIEW:

This kit provides all necessary hardware to install a K4352 Power Wave Communication 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	G9015	Power Wave Communication Module Asbly	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 Communication Kit Installation Instructions

Recommended Tools:

- 5/16" nut driver or other suitable tools

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 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 Communication 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 5**).
8. Obtain Item 1 Power Wave Communication Module provided with the kit. Route the 4-pin connector P30 of Item 2 Plug & Lead Assembly thru the case front, and to J30 of Item 1 Power Wave Communication Module (**Figure 6**).
9. Install the Power Wave Communication Module 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. 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. **The WiFi and Bluetooth are disabled as shipped from the factory.**
15. **After installing the K4352 Power Wave Communication 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
10-24 X .50 SCREWS, (QTY 4)

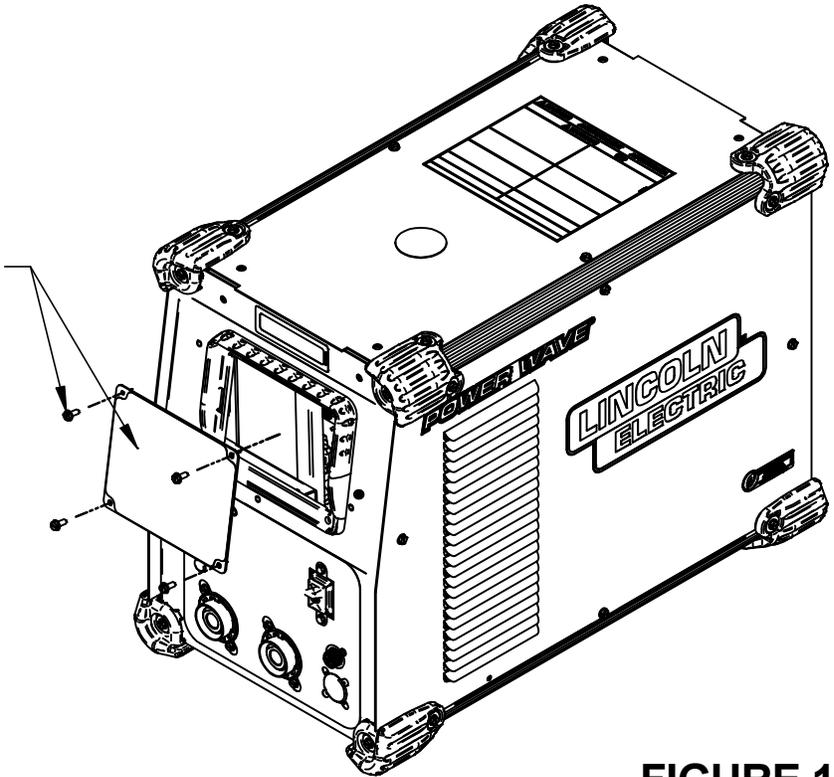


FIGURE 1

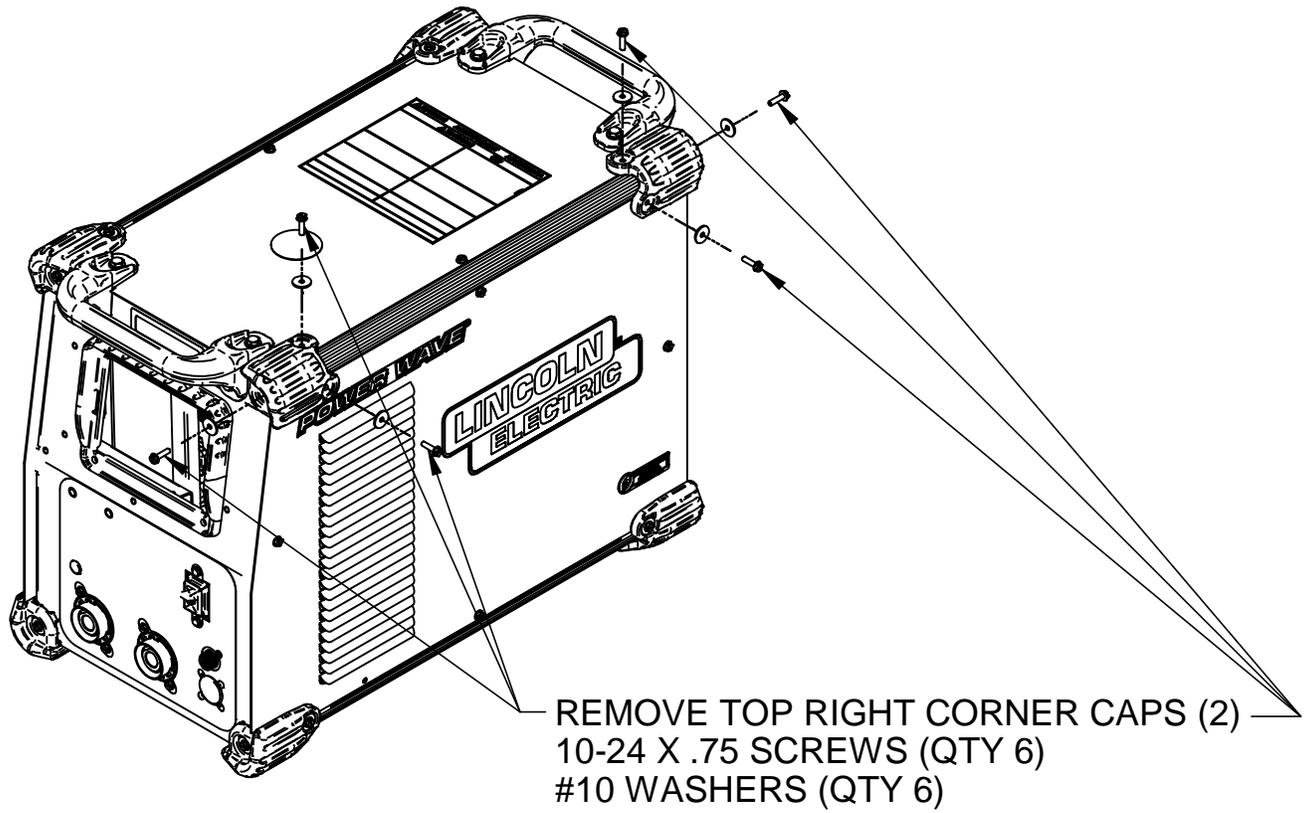


FIGURE 2

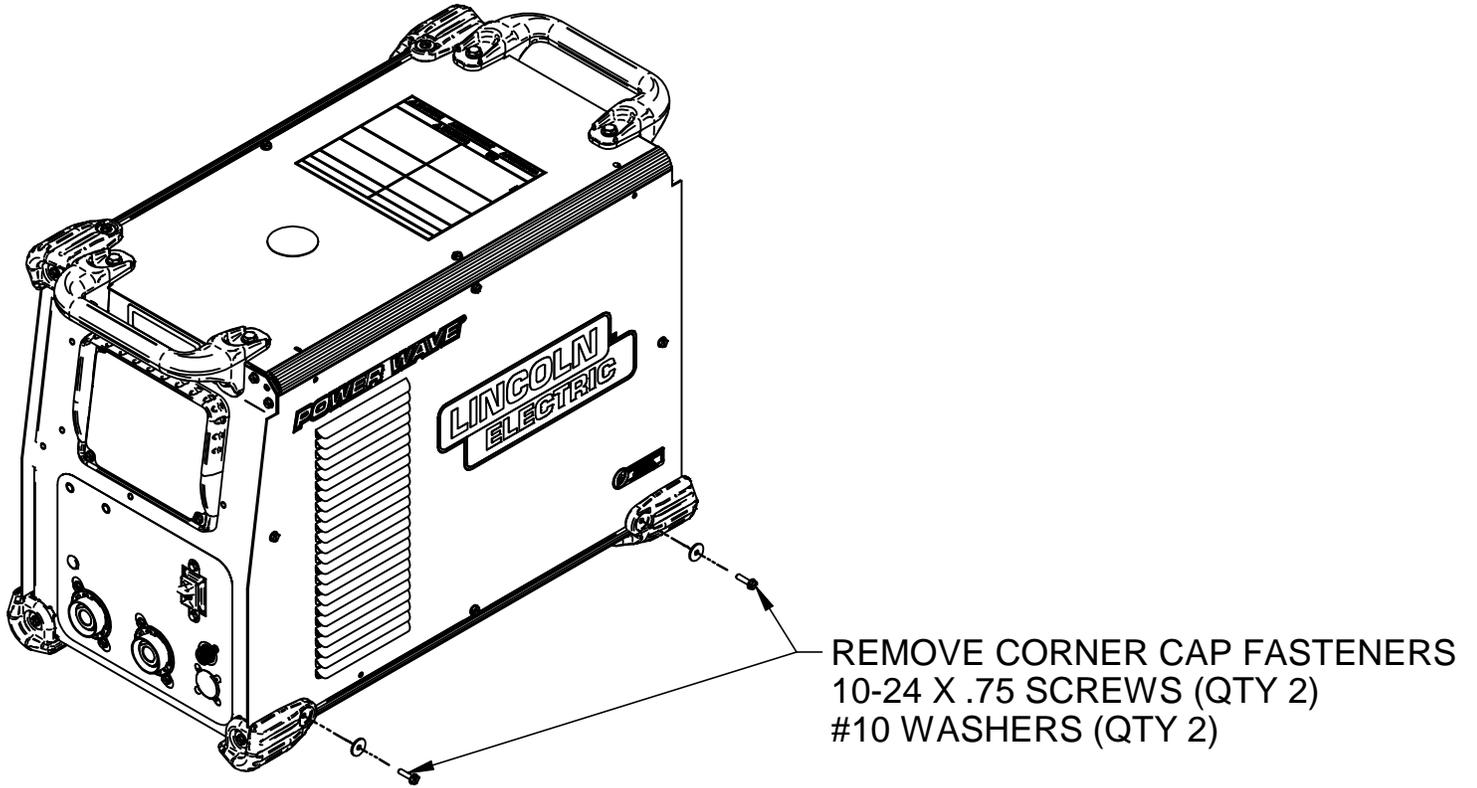


FIGURE 3

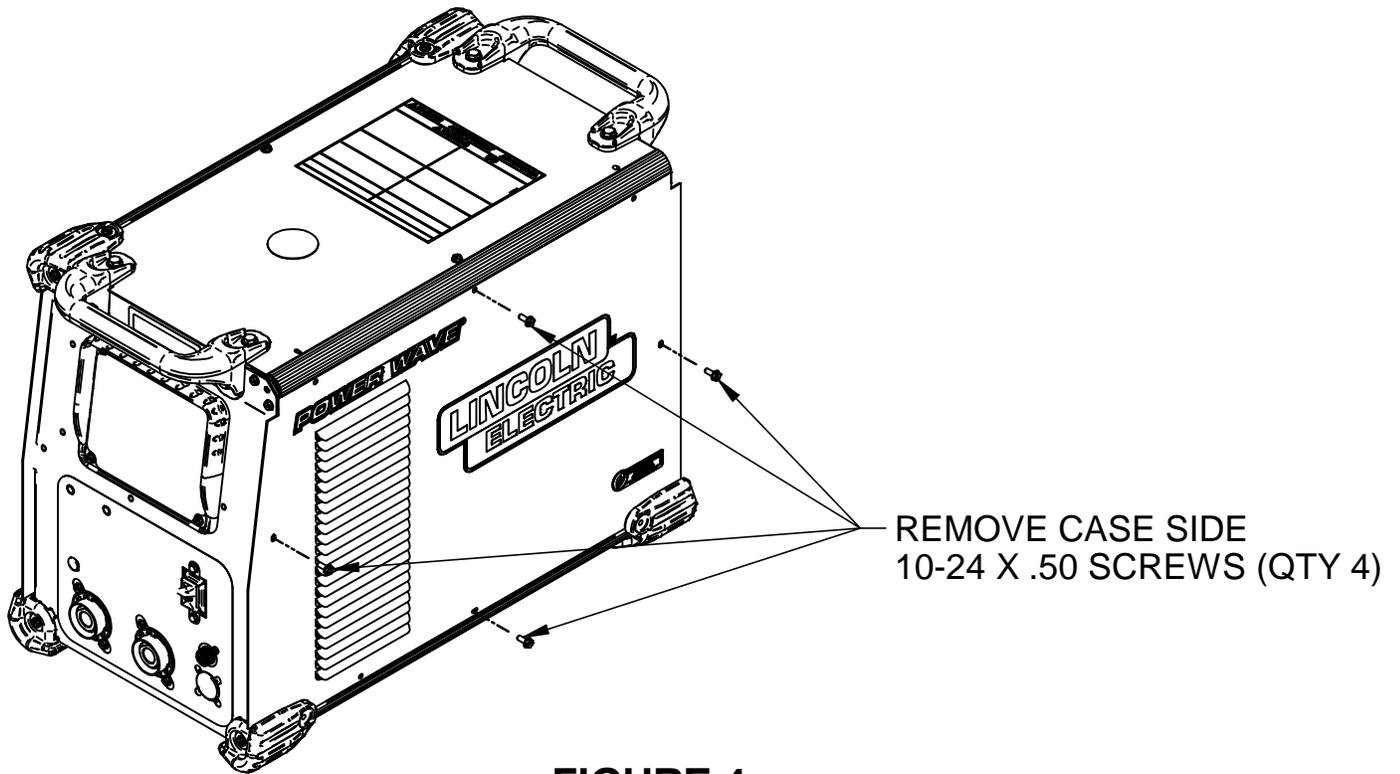
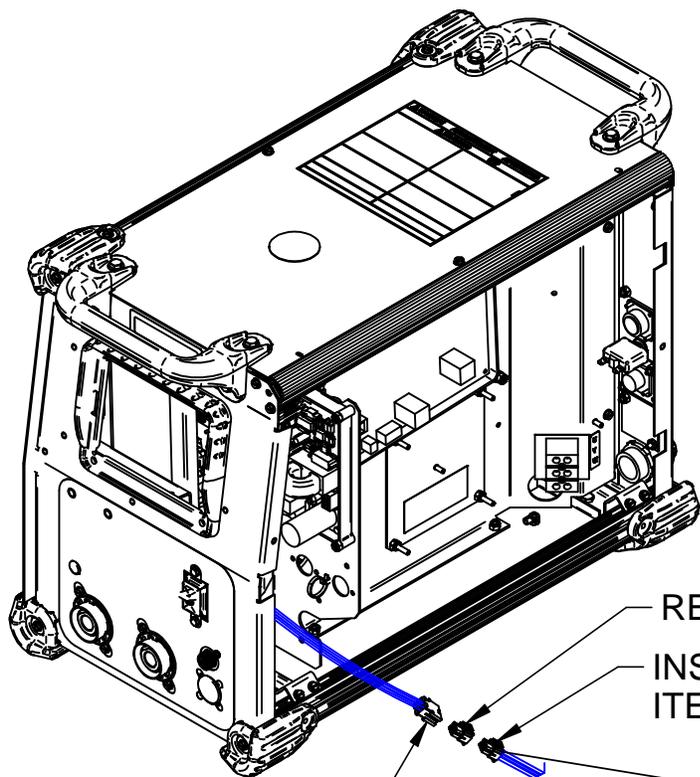


FIGURE 4

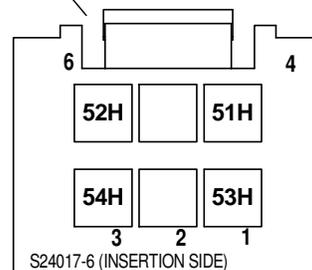
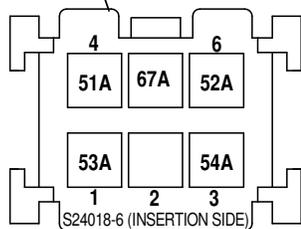


REMOVE 6-PIN HOUSING AND DISCARD
INSTALL 6-PIN CONNECTOR OF
ITEM 2 PLUG & LEAD ASSEMBLY TO J16

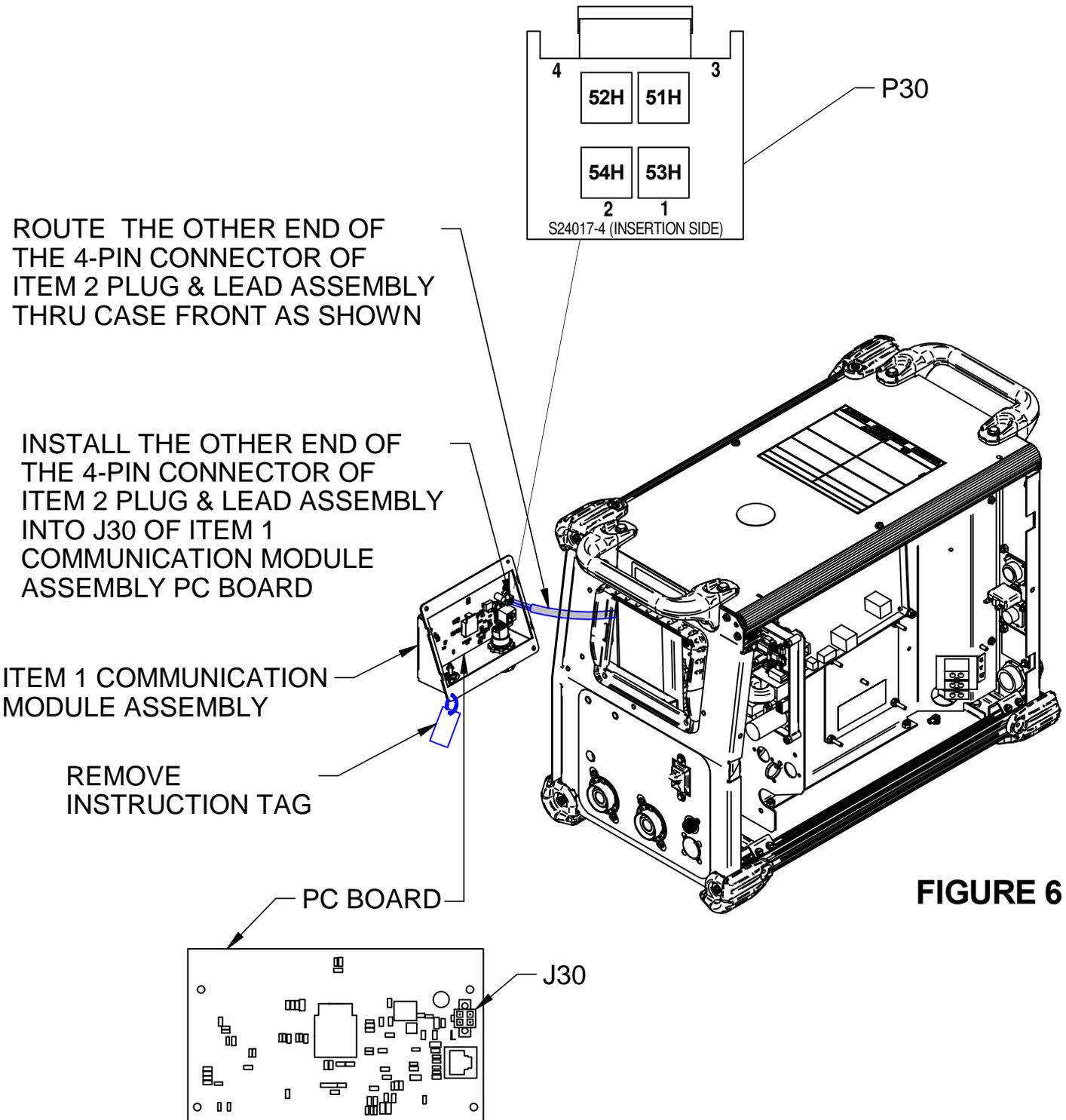
FIGURE 5

J16

P16



J16



INSTALL THE COMMUNICATION
MODULE ASSEMBLY TO THE CASE
FRONT USING THE HARDWARE
REMOVED FROM THE COVER PLATE
10-24 X .50 SCREWS (QTY 4)

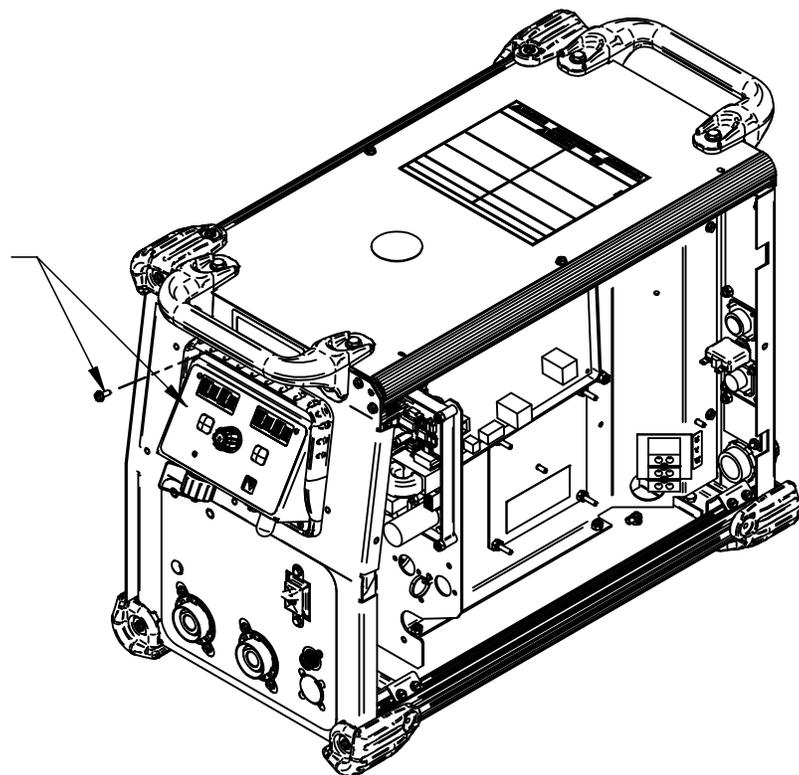
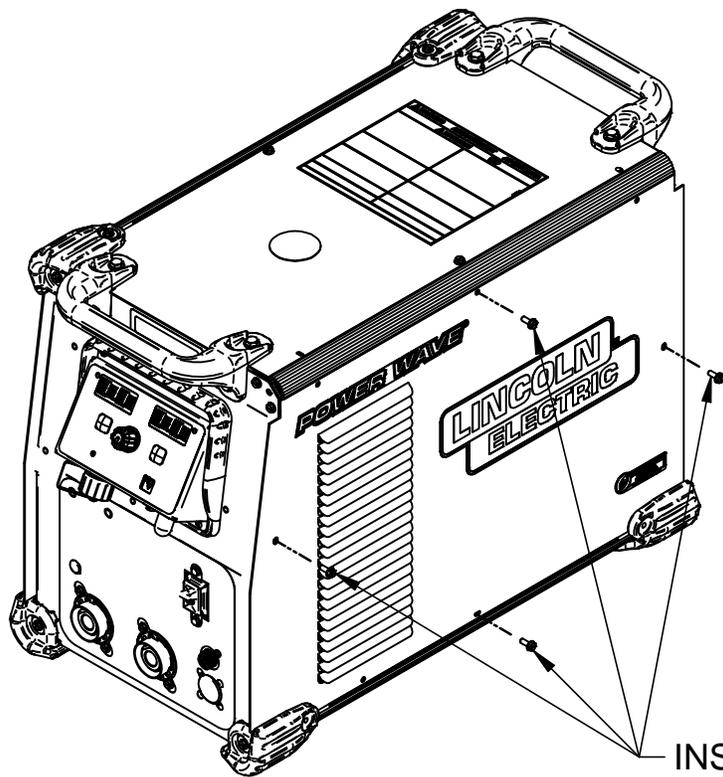


FIGURE 7



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

FIGURE 8

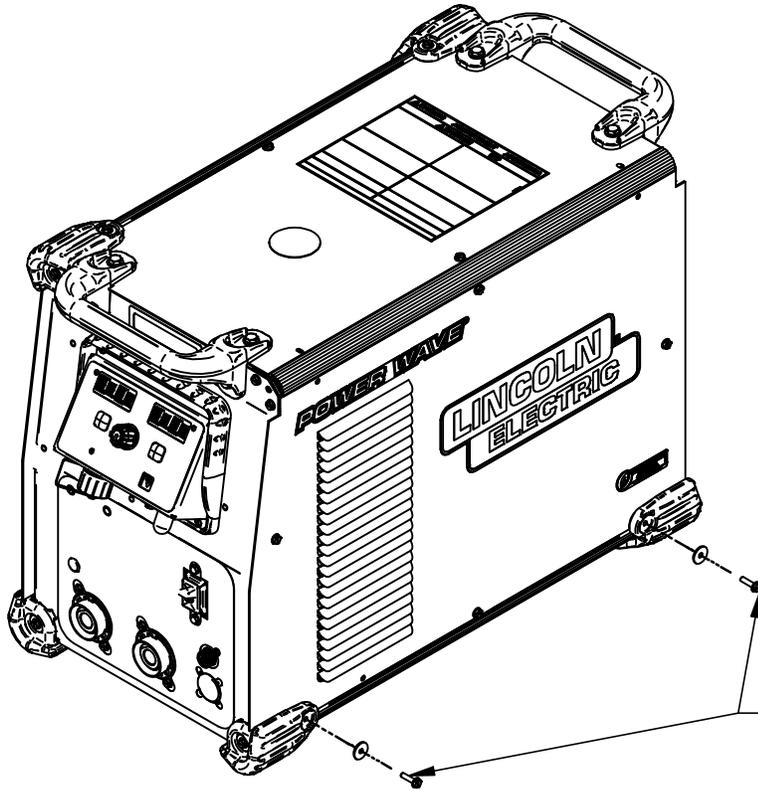


FIGURE 9

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

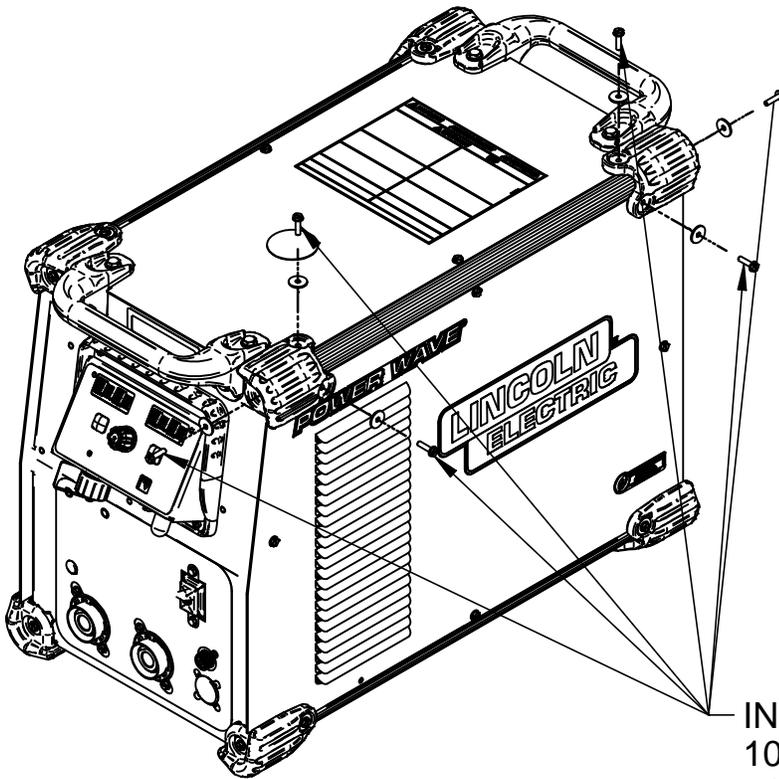


FIGURE 10

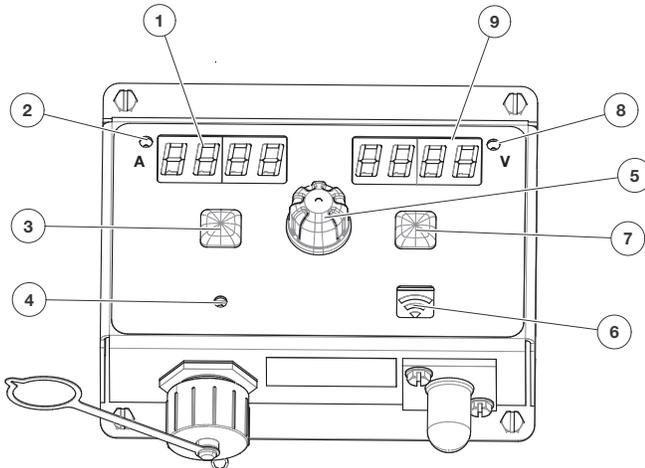
INSTALL TOP RIGHT CORNER CAPS (2)
10-24 X .75 SCREWS (QTY 6)
#10 WASHERS (QTY 6)

DIGITAL DISPLAY

With the K4352 connectivity module, a digital display is available to show welding feedback values and change communication parameters. See Figure 1.

When the machine is idle and there are no errors, the display will read ---- ----. During welding, the display will read the welding amperage on the left display, and the welding voltage on the right display. After welding, the last amperage and voltage reading will persist for a short time on the display before returning to ---- ----.

FIGURE 1



1. **Left DISPLAY window** - Shows amperage or value of alternative display.
2. **Left INDICATOR light** - Illuminates when amperage is displayed.
3. **Left BUTTON** - Moves back within menus and cancels selections.
4. **Bluetooth STATUS INDICATOR light** - Illuminates only when actively communicating with the Power Wave® using Bluetooth.
5. **Selection KNOB** - Scrolls through menu options and adjusts displayed values.
6. **Wi-Fi STATUS INDICATOR light** - Displays the status of the Wi-Fi connection if Wi-Fi is enabled.
7. **Right BUTTON** - Enters menus and confirms selections.
8. **Right INDICATOR light** - Illuminates when voltage is displayed.
9. **Right DISPLAY window** - Displays voltage or units of alternative display.

NAVIGATING THE USER CONFIGURATION MENU

Simultaneously press the Left BUTTON and the Right BUTTON to enter the User Configuration menu. Use the Selection KNOB to scroll through options, the Right BUTTON to make a selection, and the Left Button to return to the previous display. The available options are summarized in the table below. To exit the User Configuration menu, scroll to EXIT and press the Right BUTTON, or press the Left and Right BUTTON simultaneously. The display will return to ---- ---- after a period of inactivity.



Configure an additional feedback display to show while welding. See Configuring an Additional Display for details.



Displays the IP address of the Ethernet port on the front of the machine. See Front Ethernet Port Settings for details.



Displays the IP address of the Ethernet port on the rear of the machine. See Rear Ethernet Port Settings for details.



Enables or disables Wi-Fi, or places it into configuration mode. Allows viewing the IP address of the Wi-Fi adapter. See Wi-Fi Settings for details.

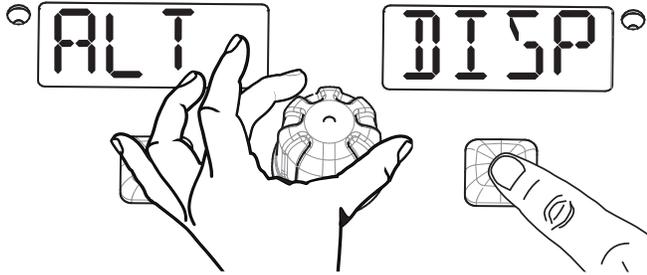


Enables or disables Bluetooth. Allows viewing the Bluetooth name of the machine. See Bluetooth Settings for details.

CONFIGURING AN ADDITIONAL DISPLAY

By default, the display will show welding amperage and voltage during welding. It is possible to choose an additional value to be displayed. When an additional value is enabled, the display will show amperage and voltage for five seconds, then the chosen value for five seconds.

To choose an additional value, use the Selection KNOB to select ALT DISP from the User Configuration menu and press the Right BUTTON. Then use the Selection KNOB to select the desired alternative value to display.

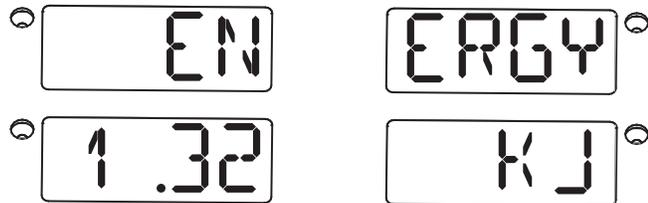


Press the Right BUTTON to enter the ALT DISP menu, then use the Selection KNOB to find the value to display. Press the Right BUTTON again to select the value, or the left BUTTON to cancel the selection.

The following values can be chosen:

- ENERGY** - True Energy™
- MOTR CURR** - Wire drive motor current
- WELD SCOR** - WeldScore™
- WFS IPM** - Wire feed speed in inches per minute
- WFS MPM** - Wire feed speed in meters per minute
- NONE** - disable additional display

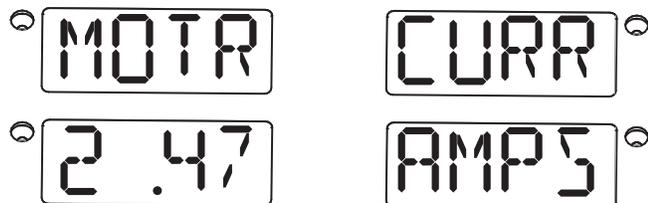
Displaying True Energy™



To display True Energy™, select EN ERGY from the ALT DISP menu.

Every five seconds while welding, the display will show True Energy™ on the Left DISPLAY with the units on the Right DISPLAY. The units will change from joules (J), kilojoules (kJ), and megajoules (MJ), as appropriate.

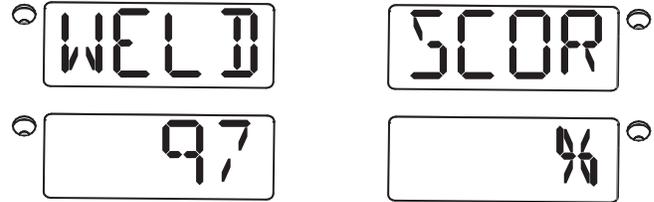
Displaying Motor Current



To display wire feeder motor current, select MOTR CURR from the ALT DISP menu.

Every five seconds while welding, the display will show motor current in amperes on the Left DISPLAY with AMPS on the Right DISPLAY.

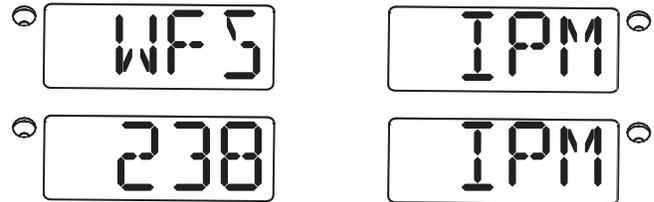
Displaying WeldScore™



To display WeldScore™, select WELD SCOR from the ALT DISP menu.

Every five seconds while welding, the display will show the instantaneous WeldScore™ percentage on the Left DISPLAY and a percent sign on the Right DISPLAY.

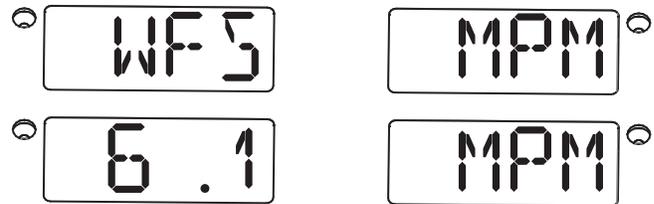
Displaying Wire Feed Speed in Inches per Minute



To display wire feed speed feedback in inches per minute, select WFS IPM from the ALT DISP menu.

Every five seconds while welding, the display will show the wire feed speed on the Left DISPLAY and IPM on the Right DISPLAY.

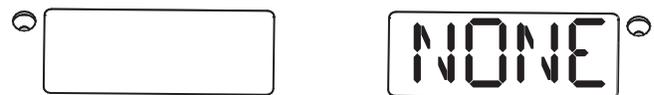
Displaying Wire Feed Speed in Meters per Minute



To display wire feed speed feedback in meters per minute, select WFS MPM from the ALT DISP menu.

Every five seconds while welding, the display will show the wire feed speed on the Left DISPLAY and MPM on the Right DISPLAY.

Disabling the Alternative Display

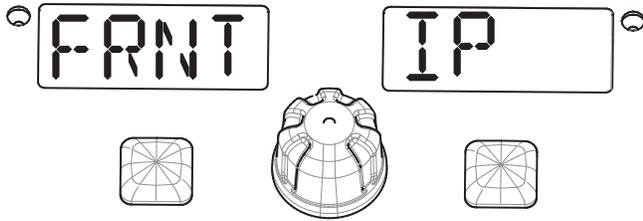


For no alternative display, select NONE from the ALT DISP menu.

While welding, the Left DISPLAY will show welding current in amperes and the Right DISPLAY will show welding voltage in volts.

FRONT ETHERNET PORT SETTINGS

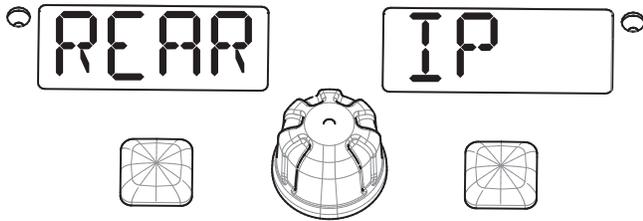
To view the IP address of the Ethernet port on the front of the Power Wave®, use the Selection KNOB to select FRNT IP from the User Configuration menu and press the Right BUTTON.



Press the Right BUTTON to select the FRNT IP item to display the front part's IP address. Press the left BUTTON to return to the menu.

REAR ETHERNET PORT SETTINGS

To view the IP address of the Ethernet port on the rear of the Power Wave®, use the Selection KNOB to select REAR IP from the User Configuration menu and press the Right BUTTON.



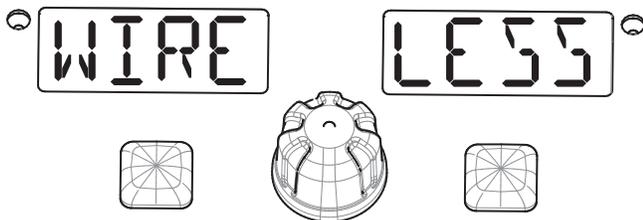
Press the Right BUTTON to select REAR IP item to display the rear part's IP Address. Press the left BUTTON to return to the menu.

WI-FI SETTINGS

To view or change the settings for the Power Wave® Wi-Fi connection, use the Selection KNOB to select WIRE LESS from the User Configuration menu and press the Right BUTTON.

Note: Machines shipped from the factory have the Wi-Fi radio disabled. You must enable the Wi-Fi radio using the options described in this section before attempting to connect to the Power Wave® using Wi-Fi.

Note: For more information on how to connect to your Power Wave®, or to learn how to configure advanced settings, refer to the Help Me Connect Guide and the Power Wave® Manager user manual, available from www.powerwavesoftware.com.



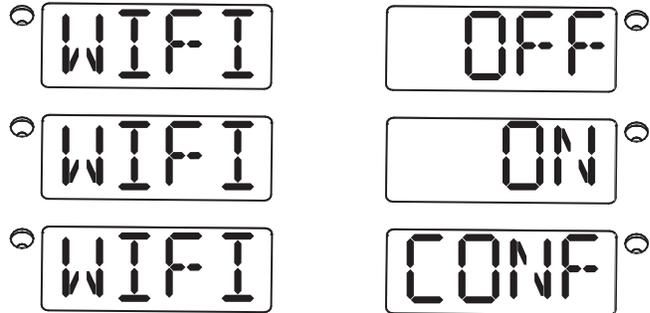
Press the Right BUTTON to enter the WIRELESS menu, then use the Selection KNOB to choose the desired option. Press the Right BUTTON again to make a selection, or the Left BUTTON to cancel the selection.

The following can be chosen:

WIFI ON/OFF/CONF - Enable or disable Wi-Fi, or place the Wi-Fi in configuration mode.

IP ADDR - Display the Power Wave's Wi-Fi IP address,

Enabling or Disabling Wi-Fi

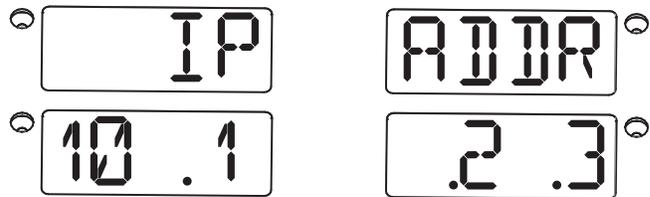


If Wi-Fi is disabled, WIFI OFF will be displayed. If Wi-Fi is enabled, WIFI ON will be displayed. If the Wi-Fi adapter is in configuration mode, WIFI CONF will be displayed. Configuration mode is used to configure the Wi-Fi network settings. Refer to the Help Me Connect Guide on www.powerwavesoftware.com for details.

To change the setting, press the Right BUTTON while WIFI OFF, WIFI ON, or WIFI CONF is displayed. The word ON, OFF, or CONF will blink. Use the Selection KNOB to change the setting. Press the Right BUTTON to confirm the selection, or press the Left BUTTON to cancel the selection.

Note: Machines shipped from the factory have the Wi-Fi radio disabled. You must enable the Wi-Fi radio using this setting before attempting to connect to the Power Wave® using Wi-Fi.

Displaying the Wi-Fi IP Address



To display the IP address of the Wi-Fi adapter, select IP ADDR from the WIRE LESS menu.

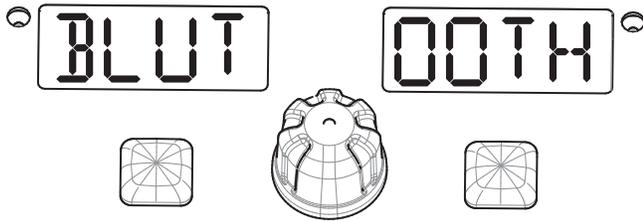
The display will show the current IP address for the Wi-Fi adapter.

BLUETOOTH SETTINGS

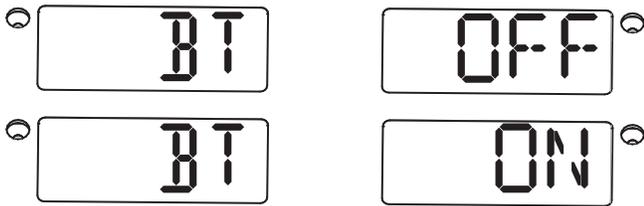
To view or change the settings for the Power Wave® Bluetooth connection, use the Selection KNOB to select BLUETOOTH from the User Configuration menu and press the Right BUTTON.

Note: Machines shipped from the factory have the Bluetooth radio disabled. You must enable the Bluetooth radio using the options described in this section before attempting to connect to the Power Wave® using Bluetooth.

Note: For more information on how to connect to your Power Wave®, or to learn how to configure advanced settings, refer to the Help Me Connect Guide and the Power Wave® Manager user manual, available from www.powerwavesoftware.com.



Enabling or Disabling Bluetooth

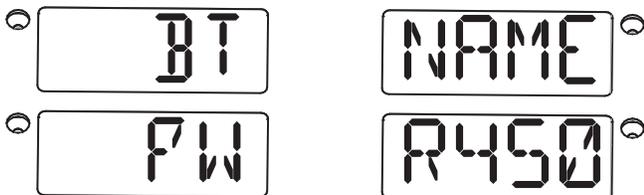


If Bluetooth is disabled, BT ON will be displayed. If Bluetooth is enabled, BT OFF will be displayed.

To change the setting, press the Right BUTTON while BT OFF, or BT ON is displayed. The word ON or OFF will blink. Use the Selection KNOB to change the setting. Press the Right BUTTON to confirm the selection, or press the Left BUTTON to cancel the selection.

Note: Machines shipped from the factory have the Bluetooth radio disabled. You must enable the Bluetooth radio using this setting before attempting to connect to the Power Wave® using Bluetooth.

Displaying the Bluetooth Name



To display the name of the Power Wave® used to identify it as a Bluetooth device, select BT NAME.

The display will show the current Bluetooth name for the Power Wave®. This name can be used when pairing the Power Wave® to a computer or other device with Bluetooth.

WI-FI STATUS INDICATOR LIGHT

The green Wi-Fi STATUS INDICATOR light indicates the connection type and uses the three “bars” to indicate the strength of the Wi-Fi signal. The meanings of the indications are summarized in the table below.

All “Bars” Off	Wi-Fi is disabled; or, Wi-Fi is enabled and the connection is very poor or nonexistent.
Bottom-Most “Bar” On Solid Green, Others Off	Wi-Fi is enabled and connected; the signal strength is poor.
Two Bottom-Most “Bars” On Solid Green, Others Off	Wi-Fi is enabled and connected; the signal strength is good.
All Three “Bars” On Solid Green	Wi-Fi is enabled and connected; the signal strength is excellent.
“Bars” Illuminate in Tandem, from Lowest to Highest	Wi-Fi is in configuration mode. Configuration mode is used to configure the Wi-Fi network settings. Refer to the Help Me Connect Guide on www.powerwavesoftware.com for details.

BLUETOOTH STATUS INDICATOR LIGHT

The blue Bluetooth STATUS INDICATOR light indicates the status of the Bluetooth connection.

Indicator is Off	Bluetooth is disabled; or, Bluetooth is enabled but there is no device actively communicating with the Power Wave® using the Bluetooth connection.
Indicator is On	Bluetooth is enabled and a device is actively communicating with the Power Wave® using the Bluetooth connection.

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.

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and 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.

WELD FUME CONTROL EQUIPMENT

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.



THE LINCOLN ELECTRIC COMPANY

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