



*6100 Series Docks*

**INSTALLATION  
INSTRUCTIONS**

.....

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*Revision E*  
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# **Section 1**

## **General Information**

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Section 1 covers general information for the:

- **Single dock provides autosensing voltage (110-120 or 220-240 volts ac), charging and network communications for a single hand-held computer.**
- **Multidock provides autosensing (110-120 or 220-240 volts ac), charging and network communications for eight hand-held computers.**
- **Vehicle dock provides a secure place to contain your hand-held computer. Along with a locking device for your computer, the vehicle dock also provides charging and network communications.**

Section 2 covers the installation instructions for the single and multidocks. This section includes guidelines and considerations for mounting shelves and mounting brackets.

Section 3 covers the installation instructions for the vehicle dock. This section includes guidelines and considerations for routing the cables and mounting the vehicle dock.

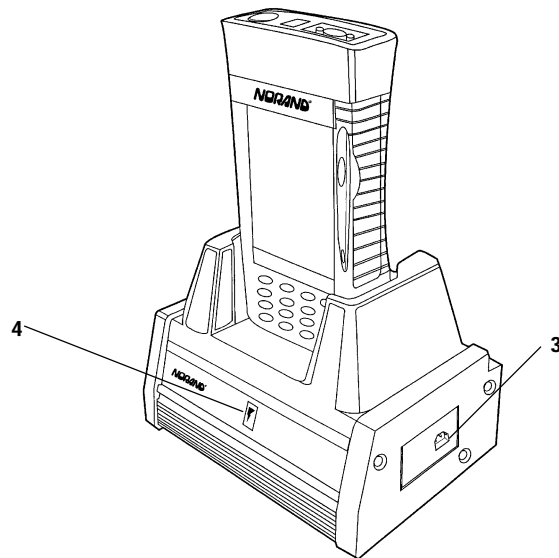
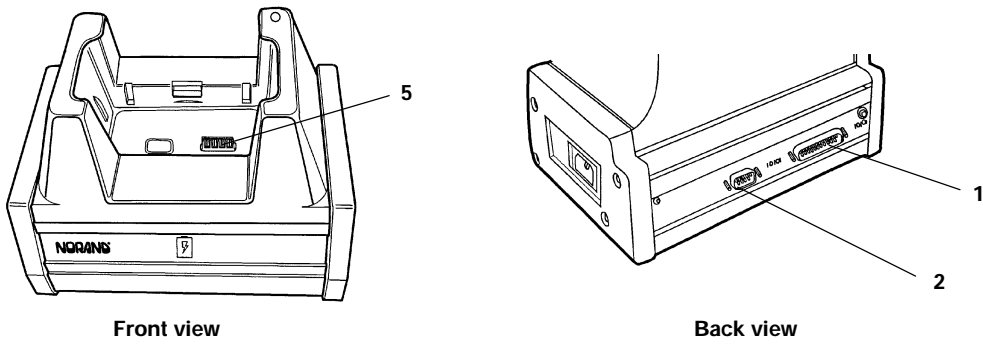
## **Dock Descriptions**

### **Single Dock**

The single dock is intended for a fixed location such as on a desk or shelf. A single dock contains:

- An autosensing and switching power supply.
- An ac connector for using the universal power cord.
- The ability for the hand-held computer to receive both charging and operating power.
- The capability to connect your hand-held computer to a network.
- A latch and key to seat your hand-held computer into place allowing for security and good connector contact for charging and data communication.
- The capability to connect a printer.





1. 25-Pin female serial (RS-232/RS-485) port connector
2. 9-Pin male RS-232 serial port connector
3. AC connector
4. Charging indicator (red = charging; blinking red = error condition; green = fully charged)
5. 8-Pin interface connector

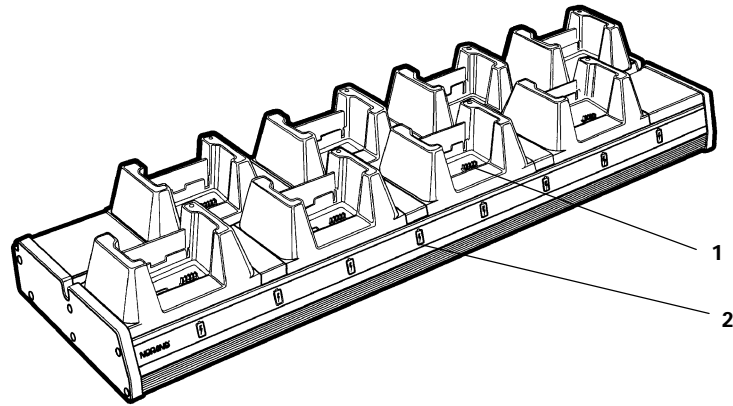
**Figure 1-1**  
**Single Dock**

## ***Multidock***

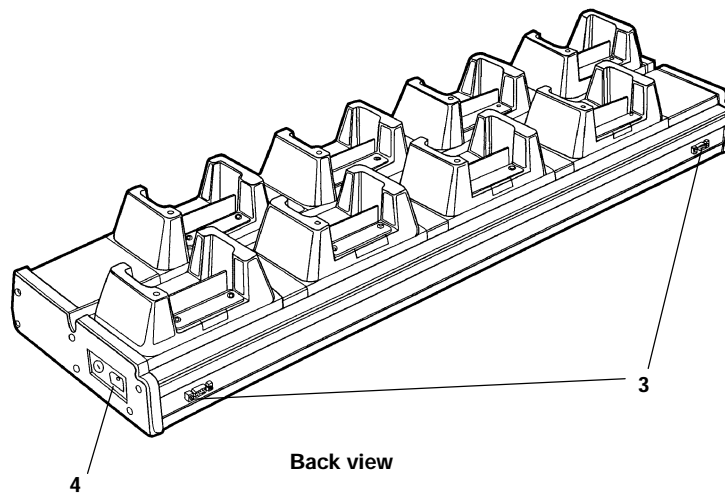
The multidock is normally mounted on a countertop or wall.

Features of the multidock include:

- It holds up to eight hand-held computers.
- An autosensing and switching power supply
- An ac connector for using the universal power cord.
- The ability for the hand-held computers to receive both charging and operating power.
- The capability to connect your hand-held computers to a network.



Front view



Back view

1. Individual hand-held computer cups
2. Charging indicators (red = charging; blinking red = error condition; green = fully charged)
3. RS-485 connectors
4. AC connector

**Figure 1-2**  
**Multidock**

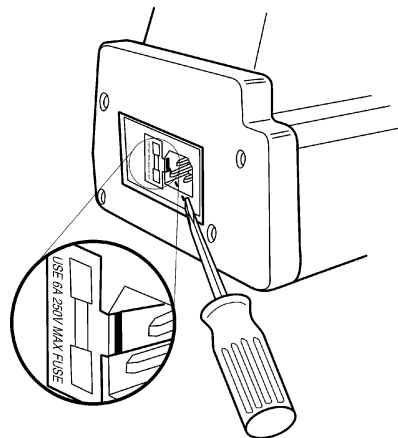
## ***Fuse Replacement***

The single and multidock models contain a user replaceable fuse. This 6 amp 250 volt fuse protects the dock from damage if there is a big power surge or a malfunction that causes the fuse to blow.

The fuse holder for both the single dock and the multidock are identical. Detail drawings are shown below.

If the indicator(s) on the front of either dock does not light or if terminals go to sleep and their batteries do not charge, you should make sure the power cord is secure. If it is, then you should remove and examine (or test) the internal fuse. If the fuse is bad (open circuit) replace and try the dock again.

1. Using a small flat-blade screwdriver, slip the blade into the small slot and pry out the fuse holder.
2. Replace with a 6 amp 250 volt fuse.

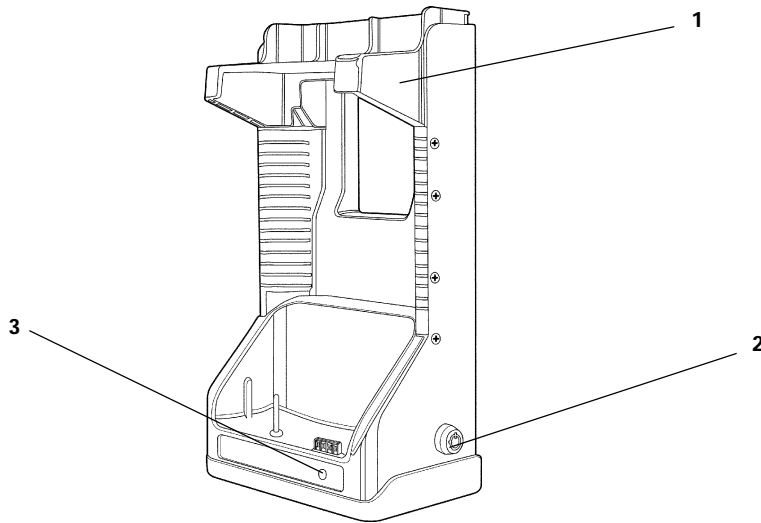


***Figure 1-3***  
***Replacing Single and Multidock Fuse***

## Vehicle Dock

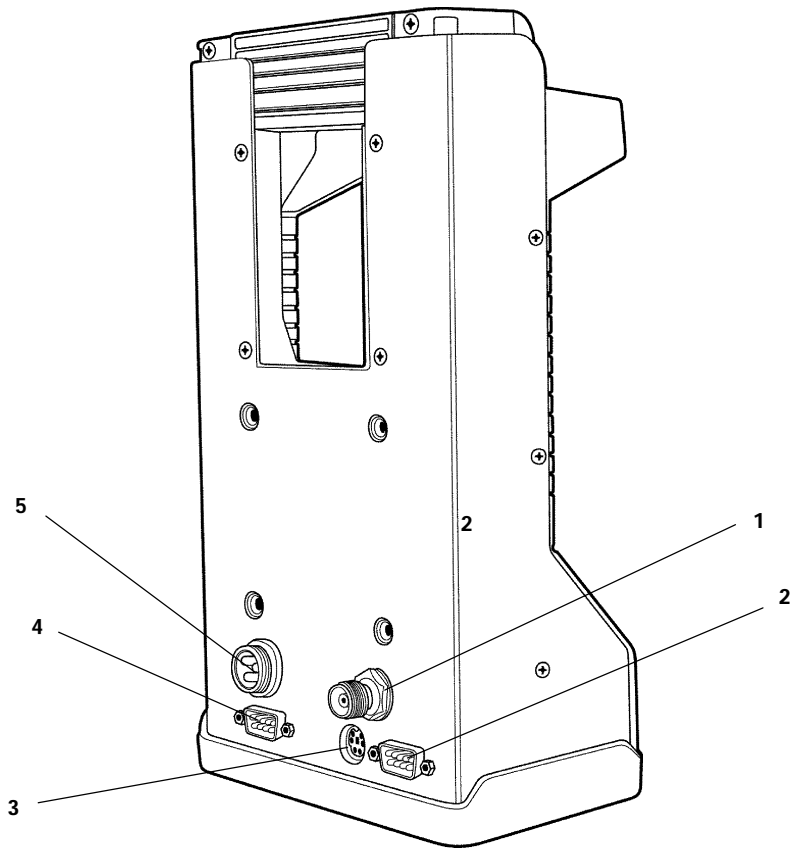
The vehicle dock can be mounted into various types of vehicles, these include: fork lifts, vans, or cars. There are a number of installation steps that must be completed when using this type of dock.

- Cables have to be routed from the dock to the vehicle battery.
- The dock must also be securely mounted to ensure that the hand-held computer is stored safely and receives power.



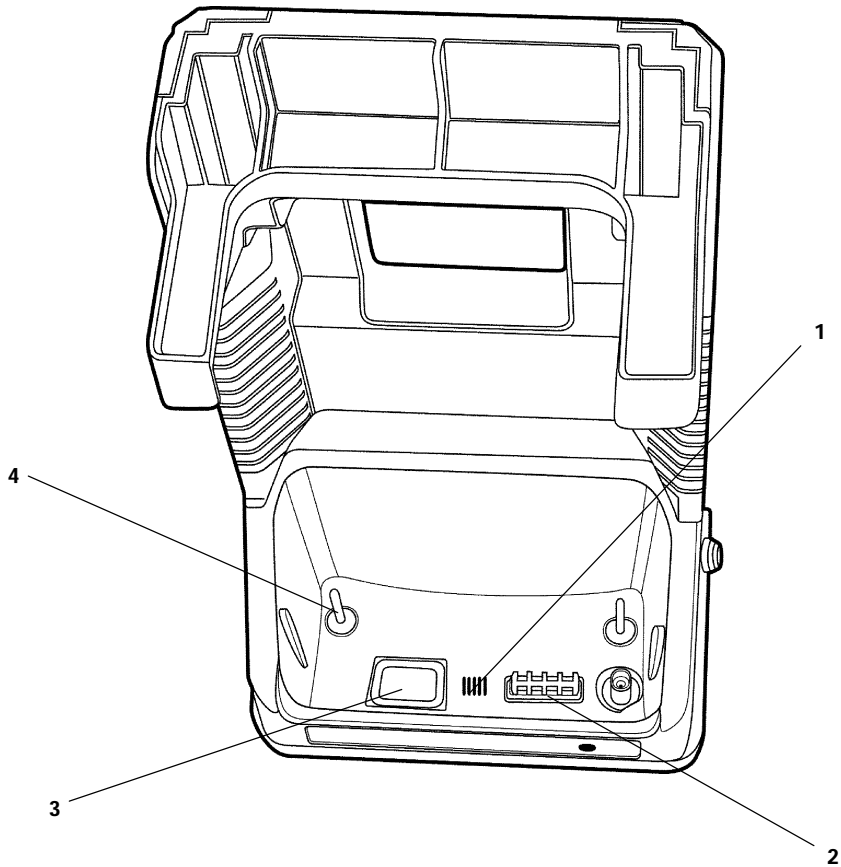
1. Spring loaded hand-held computer retention bracket
2. Lock
3. Connection and power indicator LED

*Figure 1-4*  
**Vehicle Dock Front View**



- 1. RF jack
- 2. Com 3 connector
- 3. External keyboard
- 4. Com 1 connector
- 5. DC power jack

*Figure 1-5*  
**Vehicle Dock Back View**



- 1. Speaker slot
- 2. Communication Serial port
- 3. Infrared lens
- 4. Hand-held computer retention pins (two, one on each side)

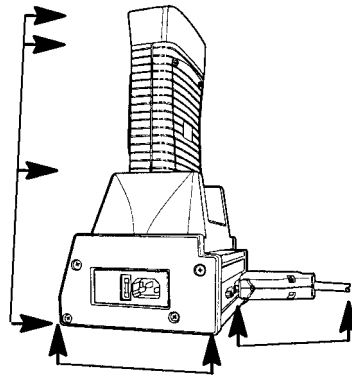
**Figure 1-6**  
**Vehicle Dock Computer Holder**

## Specifications

For building your shelving, it is important to keep in mind the dimensions of the docks.

### Single Dock

- Weight: 3 lbs. (1.37 kg)
- Dimensions:
  - Length (side to side): 8 inches (20.32 cm)
  - Width (front to back):
    - Without cables 5 3/4 inches (14.61 cm)
    - With cables 8 1/2 inches (21.59 cm)
  - Height (top to bottom):
    - Dock only 5 1/2 inches (13.97 cm)
    - Dock with computer and no endcap 10 1/8 inches (25.72 cm)
    - Dock with computer and endcap 11 1/4 inches (28.58 cm)
- Min. spacing between shelves: 17 inches (43.18 cm)

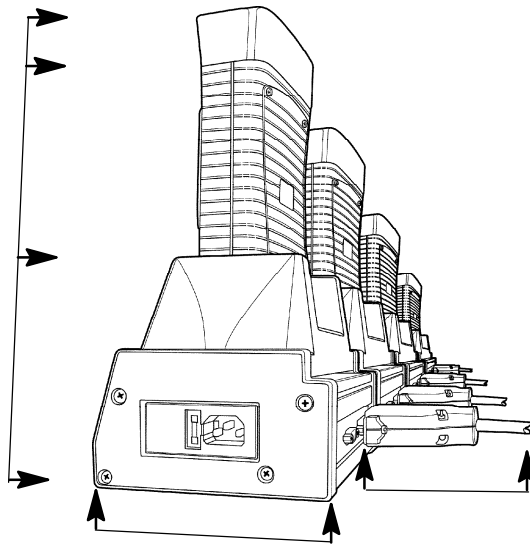


*Figure 1-7*  
**Single Dock With Computer and Cable Connector**



## Multidock

- Weight: 21 lbs. (95.25 kg)
- Dimensions:
  - Length (side to side): 37 inches (93.98 cm)
  - Width (front to back):
    - Without cables 6 inches (15.24 cm)
    - With cables 13 1/4 inches (33.66 cm)
  - Height (top to bottom):
    - Dock only 5 3/4 inches (14.61 cm)
    - Dock with computer and no endcap 10 1/8 inches (25.72 cm)
    - Dock with computer and endcap 11 1/4 inches (28.58 cm)
- Min. spacing between shelves: 17 inches (43.18 cm)



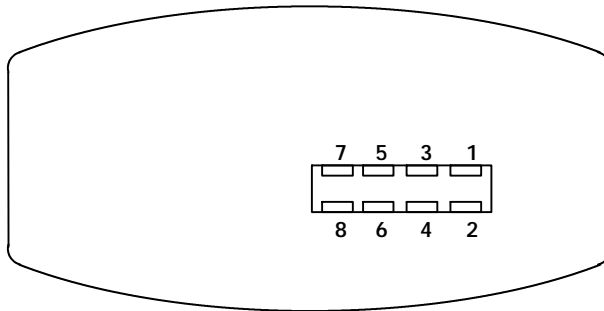
**Figure 1-8**  
**Multidock With Computer and Cable Connectors**

## Vehicle Dock

- Weight: 5 lbs. (22.68 kg)
- Dimensions:
  - Length (side to side): 8 1/2 inches (21.59 cm)  
With key in slot 9 inches (22.86 cm)
  - Width (front to back): 6.5 inches (15.24 cm)
  - Height (top to bottom):  
Dock only 7 1/2 inches (19.05 cm)  
Dock with computer 10 1/8 inches (25.72 cm)

## Connector Pin-Outs

### 8-Pin Interface Connector



*Figure 1-9*  
**Interface Connector**

*Table 1-1*  
**8-Pin Connector Pin-Outs**

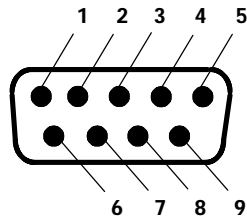
Pin	Signal Name	Function on Dock	I/O from Dock
1	BCLK	Battery Interface Clock	Input
2	DOCKPWR	12 Volt Charge Power	Output

**Table 1-1 (continued)**  
**8-Pin Connector Pin-Outs**

Pin	Signal Name	Function on Dock	I/O from Dock
3	GND	Ground	
4	BDAT	Battery Interface Data	Input
5	TXD	Transmit Data	Input
6	RXD	Receive Data	Output
7	RTS	Request To Send	Input
8	CTS	Clear To Send	Output

## Single Dock 9-Pin Male Serial Port

The single dock RS-232 port, available on a DB9 male connector, is generated from the IrDA interface on your computer. It has no hardware handshake available and has the following signals.



**Figure 1-10**  
**Single Dock 9-Pin Male Connector**

**Table 1-2**  
**Single Dock 9-Pin Serial Port Connector Pin-Outs**

Pin	Signal Name	Function	Standard Function on PC	I/O on Dock
1	NC	No Connect	Data Carrier Detect (DCD)	
2	RXD	Receive Data	Receive Data	Input
3	TXD	Transmit Data	Transmit Data	Output

**Table 1-2 (continued)**  
**Single Dock 9-Pin Serial Port Connector Pin-Outs**

Pin	Signal Name	Function	Standard Function on PC	I/O on Dock
4	DTR	Forced High	Data Terminal Ready	Output
5	GND	Ground	Ground	
6	DSR	To Set Baud Rate	Data Send Ready	Input
7	RTS	Forced High	Request To Send	Output
8	CTS	To Set Baud Rate	Clear To Send	Input
9	NC	No Connect	Ring Indicator	

Use pin 6 and 8 of this RS-232 connector to set the baud rate of the IrDA controller located inside the single dock. The default is to have the baud rate set at 9600. Table 1-3 on page 1-14 shows the baud rate for each combination of control lines.

**Table 1-3**  
**Baud Rate Setting**

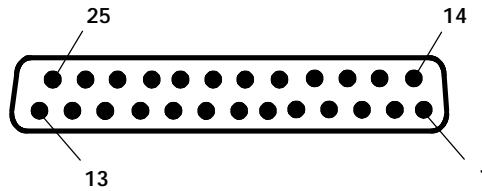
DSR Pin 6	CTS Pin 8	Baud Rate
1	1	9600
1	0	9600
0	1	19.2 K

## Single Dock 25-Pin Female Serial Port

Table 1-4 on page 1-16, shows the signals for the single dock RS-232/RS-485 port DB25 female connector. This connector will support the standard 25-pin RS-232 serial cables.

The single port supports RS-485 operations when you use the Norand cable, part number 226-257-001. This cable will ground the 485 enable line and provide two 9-pin connectors to connect to the standard RS-485 cables, Norand part number 226-103-xxx (xxx indicates length). Your sales team will help you determine the length you need for your installation.

Two connectors are provided so that the RS-485 host and a resistive RS-485 LAN terminator (NPN: 226-257-001) can be connected, or the network can be continued through to another dock.



*Figure 1-11*  
**Single Dock 25-Pin Female Connector**

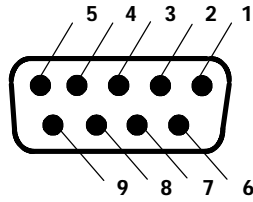
**Table 1-4**  
**Single Dock 25-Pin Serial Port Connector Pin-Outs**

Pin	Signal Name	Function	Comments
1	GND	Ground	
2	TXD	Transmit Data	
3	RXD	Receive Data	
4	RTS	Ready To Send	
5	CTS	Clear To Send	
6	DSR	Not Driven	Connected to pin 20 DTR
7	GND	Ground	
8	DCD	Data Carrier Detect	
9	NC	No Connect	
10	NC	No Connect	
11	485+	RS-485 Positive Side	
12	NC	No Connect	
13	NC	No Connect	
14	NC	No Connect	
15	NC	No Connect	
16	NC	No Connect	
17	NC	No Connect	
18	485-	RS-485 Negative Side	
19	485 Enable		If grounded 485 Enabled
20	DTR	Not Driven	Connected to pin 6 DSR
21	NC	No Connect	
22	NC	No Connect	
23	NC	No Connect	

*Table 1-4 (continued)*  
**Single Dock 25-Pin Serial Port Connector Pin-Outs**

Pin	Signal Name	Function	Comments
24	NC	No Connect	
25	NC	No Connect	

## **Multidock 9-Pin Female RS-485 Connector**

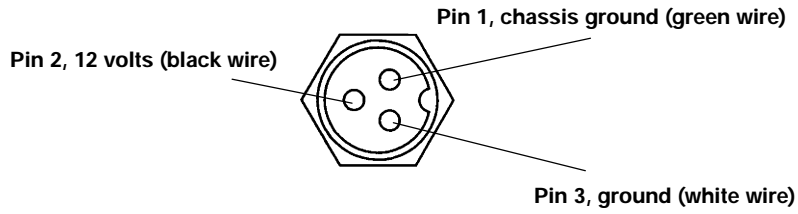


*Figure 1-12*  
**Multidock 9-Pin Female RS-485 Connector**

*Table 1-5*  
**Multidock 9-Pin Connector Pin-Outs**

Pin	Signal Name	Function	I/O to Dock
1	NC	No Connect	
2	485+	485 Positive Data Signal	I/O
3	485-	485 Negative Data Signal	I/O
4	NC	No Connect	
5	NC	No Connect	
6	NC	No Connect	
7	GND	Ground	
8	GND	Ground	
9	NC	No Connect	

## Vehicle Dock 3-Pin Male Power Connector



**Figure 1-13**  
**Vehicle Dock 3-Pin Male Power Connector**



## **RS-485 LAN Terminator**

A powered RS-485 terminator, part number 226-257-001, can be used with your multidock. The power for this terminator comes from an external ac wall adapter. A terminator is always attached to the LAN port of the last multidock in the series.

When using 6000 Series hand-held computers or a mixture of 4000 and 6000 Series computers, always use the appropriate RS-485 terminator when the total LAN cable length exceeds 100 feet. Work with your sales team to determine your exact requirements.



## Section 2

# Single and Multidock Installation

---

## Installation Guidelines

Single and multidock units are intended to be installed and used in environments that remain at about room temperature as opposed to high and low extremes.

There are a number of places to avoid when planning your installation, these include:

- Outdoor loading dock, or staging area
- Walk-in coolers or other refrigerated storage areas
- Over-heated areas such as incubation rooms
- High-humidity environments
- Confined, unventilated space such as a storage closet
- Wherever chemical dust, fumes, or corrosives materials are present

Wall mounting your dock involves a suitable structure to hold the weight of one or several docking units. Wall mounting kits are available that contain the brackets and hardware necessary for this purpose. This instruction booklet contains the instructions for mounting single and multidocks.

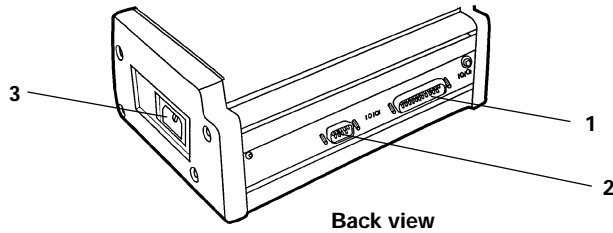
## ***Electrical Requirements***

The single and multidocks contain a power supply that uses the alternating current (ac) power from your outlets. The docks come with a six foot universal power cord and therefore must be located within that distance of an outlet. The outlets must be grounded (three-prong) and with sufficient capacity to carry the load for the number of docks and other electrical devices per circuit breaker.

If you are uploading and downloading data with the host computer you will need to have data jacks close by. You will also need to have communication cables for connecting the docks to the jacks. The connectors are identified in this booklet but cables are not provided in the installation kit. Your salesperson will help you with ordering the necessary cables.

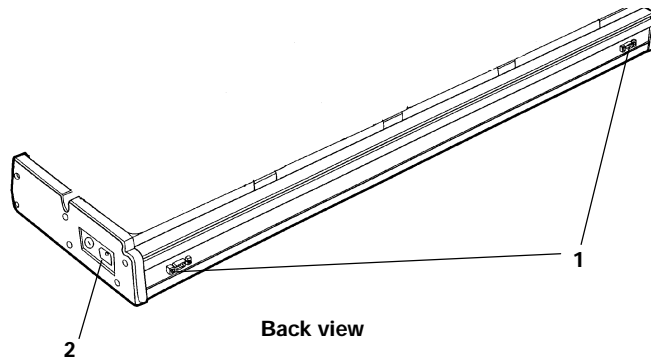
## Electrical and Communication Connections

Figure 2-1 and Figure 2-2 show the connectors for the single and multidocks.



1. RS-232 or RS-485 serial port
2. RS-232 serial port
3. AC connector

*Figure 2-1*  
**Single Dock Connectors**



1. RS-485 connectors
2. AC connector

*Figure 2-2*  
**Multidock Connectors**

---

## **Dock Installation**

The single dock is small and fairly lightweight, you can attach the dock to the brackets first, and then install the complete assembly to the wall. Or, you can install the mounting brackets on the wall before attaching the single dock. Installing the mounting brackets first is the preferred method and therefore the instructions for that follow.

### **Mounting Structure**

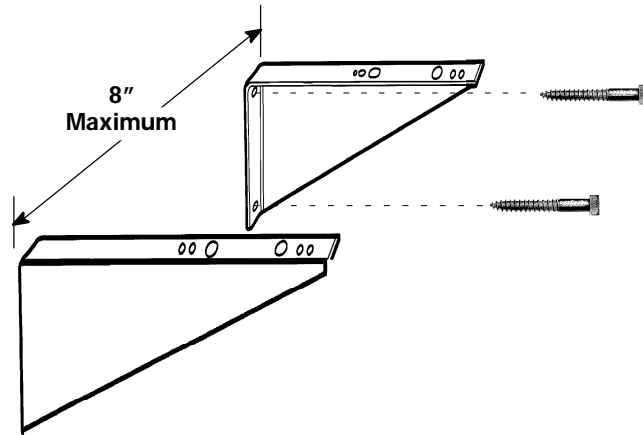
You can install the docks on most structures made of wood, concrete, or cinder block. Use anchors that will support the weight and are designed for the type of wall you will be using.

Some anchor selection guidelines are for:

- Concrete structures use metal expansion anchors. Plastic anchors or dowels will not hold.
- Cinder block walls use 1/4 inch or larger toggle bolts into the hollow portions of the blocks. Expansion anchors or dowels pull loose over time.

## Single Dock Mounting Bracket Installation

1. Position one mounting bracket at the desired height.
2. Use 1/4 inch or larger hardware to secure one mounting bracket to the wall.
3. Install the second mounting bracket level with the first and no more than eight inches from the first bracket.



*Figure 2-3*  
**Mounting Brackets For Single Dock**

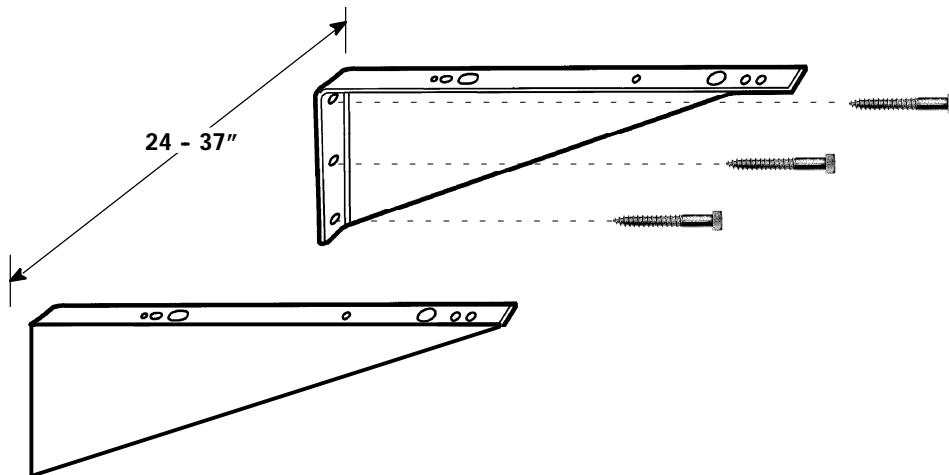
## Multidock Mounting Bracket Installation

On framed walls, it is preferable to drive lag screws directly into studs whenever possible. If this is not possible, it may be necessary to install scab studs or plywood (5/8 inch thickness or greater) reinforcement.

1. Position one mounting bracket at a suitable height and use 1/4 inch or larger hardware (lagscrew or concrete fastener) to secure one mounting bracket to the wall.
2. Use three fasteners in each bracket.
3. Install the second bracket level with the first, and 24 to 34 inches from it.

**NOTE:**

*When installing several multidocks across a wall, be sure to allow clearance between them for the power cables.*



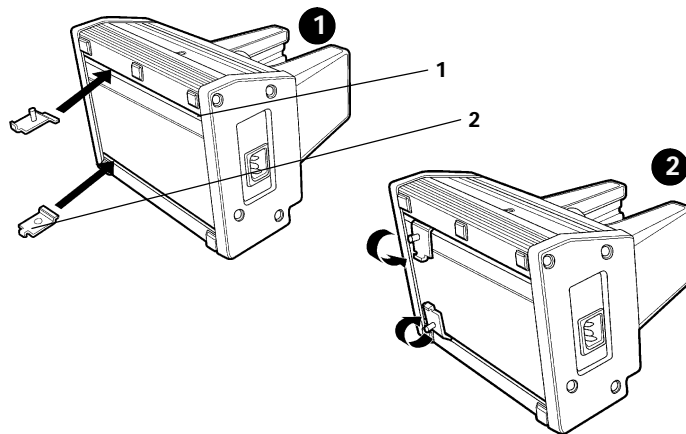
**Figure 2-4**  
**Mounting Brackets For Multidock**



## Dock Preparation

The instructions contained in this section show graphics using a single dock. The instructions for preparing the multidock are the same.

1. Position the dock so it is centered on the mounting brackets.
2. Use the inside edge of the mounting bracket as a guide and make a pencil line on the bottom of each end of the dock going from the front to the back.
3. Lay the dock on its side so the bottom of the dock is towards you.
4. Tilt the clips and slide into the channels on the dock.
5. Press the clips flush against the bottom of the dock.
6. Align the edge of each clip with the pencil mark you made earlier.
7. Use a short strip of masking tape to hold each clip in place.



1. Channel
2. Mounting clips

*Figure 2-5*  
**Positioning the Mounting Clips**

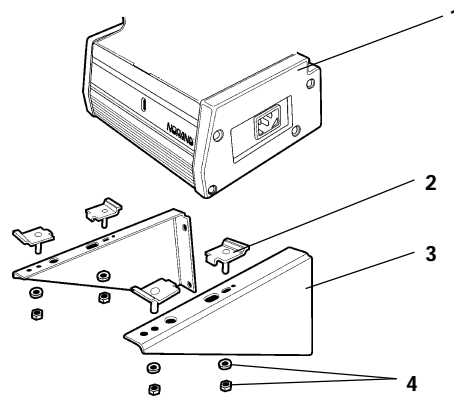
**8. Turn the dock right side up.**

**" NOTE:** *You might find it easier on the wall mounted docks, to assemble the dock to the brackets first (with the dock upside down) then mount the assembly to the wall (into predrilled holes).*

**9. With the dock facing forward, align the mounting clip's studs into the center hole at each mounting location and lower the dock onto the brackets.**

**" NOTE:** *To show the mounting clips and their placement location into the mounting bracket, Figure 2-6 shows them not attached to the underside of the dock. They would normally be attached before placing the dock on the mounting bracket.*

**10. Install the lock washers and nuts and tighten. Tighten these snugly so as not to strip the threads but enough to keep the dock from loosening.**



1. Dock
2. Mounting clips
3. Wall brackets
4. Washers and nuts

**Figure 2-6**  
**Attaching the Dock to the Mounting Brackets**

## Section 3

# Vehicle Dock Installation

---

## Introduction

This section provides detailed instructions for mounting the vehicle dock in many types of vehicles. Optional cables are available to mount the dock *and* a printer nearby in the same vehicle. During this installation the power cable is wired directly to the vehicle battery or bank of batteries.

When the installation is complete, you will have a secure place to store the computer. In addition, the vehicle electrical system provides power to recharge the batteries and to operate a printer (if one is installed).

**" NOTE:** *Intermec Corporation is not responsible for loss or damage to the hand-held computers, printers, or docks resulting from improper installation.*

**" NOTE:** *Mounting bracket and bracket installation hardware are not provided in this kit, but can be purchased separately through your sales team*

**B CAUTION:** **If the overall vehicle voltage exceeds 24 volts, you must tap into the bank of batteries at a point that is 24 volts or less. If you are using anything greater than 24 volts you must also use a dc-dc converter.**

---

## Installation Guidelines

Since each situation or equipment type may pose unique requirements, mounting hardware selection and mechanical installation of the vehicle dock shall be the responsibility of the installer.

- The vehicle dock and associated electrical wiring should be installed under the supervision of properly trained and qualified personnel. Follow these installation instructions closely to ensure safe, reliable performance for your equipment.
- We can provide installation service, please contact your sales team to work out the detail for the installation plan.
- We recommend using 3/8-inch terminal rings for connecting the electrical cable directly to the vehicle battery.
- The vehicle dock mounting location must not restrict the drivers view. Mount the dock and cables away from the brake pedal, accelerator, steering wheel, emergency brake, gear shift, and any other area that interferes with safe operation of the vehicle.
- A waterproof in-line fuse holder must be installed onto the end of the gray vehicle power cable. This gets installed onto the red wire of the power cable and the positive battery terminal.

The installation kit contains nuts, bolts, washers, a terminal ring, and a fuse link for connecting the battery cable directly to the vehicle battery. It also contains adjustable wire clamps to secure the cable in place.

Your tasks are to:

- Route and install the gray battery power cable (part number: 206-953-009) to the vehicle battery terminals
- Install the mounting hardware and vehicle dock

- Connect the black dock power cable (part number: 206-951-001) to the vehicle dock and the battery power cable. Depending on your installation, this may simply involve connecting the keyed connector, or it may involve cutting the connector off and wiring directly to the fuse block.

### ***Installation Tools Required***

- Wire crimping and stripping tool
- An electric drill, #26 drill bit
- Common hand tools (3/8" wrench, flat blade screwdriver, phillips screwdriver, allen wrenches, and small punch)

*Table 3-1  
Vehicle Dock  
Part Number 225-558-001*

Description	Part Number	Qty
Vehicle Dock	225-558-001	1
Screws for mounting dock	800-364-001	4
Key for locking dock	336-064-101	1

## Vehicle Preparation

### Vehicle Electrical Considerations

The vehicle's electrical system must be in excellent condition. This means the charging circuit must work properly and that vehicle-generated electrical "noise" must be minimized and within specifications (SAE J113).

**CAUTION:** The vehicle charging circuit must neither undercharge nor overcharge the vehicle battery. Either fault condition in the vehicle electrical system can cause a no-charge condition in the terminal battery (and in the printer battery if one is installed in the vehicle).

Excess electrical noise can be severe enough to defeat the electrical filtering that is built into your equipment. Defective ignition wiring, damaged insulation, or a faulty vehicle electrical component can cause electrical noise. When this happens, computers and other equipment can behave unpredictably.

*Table 3-2  
Parts and Accessories for  
Vehicle Battery Kit 203-344-001/002*

<b>Description</b>	<b>Part Number</b>	<b>Qty</b>
Fuse link	216-657-001	1
Bolts 3/8" x 1 1/2"	800-099-001	2
Washers 3/8"	803-099-001	4
Nuts 3/8"	802-099-001	4
Adjustable clamp	808-011-001	8
Self-tap screw #6 x 5/8"	800-008-001	8
#8 Flat washer	803-084-000	1
Snap-in bushing	807-065-003	1

## Power Cables for Connecting to Vehicle Battery

Table 3-3  
Cables for Connecting a Vehicle Dock to  
Vehicle Battery Kit 203-344-001

Description	Part Number	Qty
Dock power cable (black)	206-951-001	1
Battery cable (gray)	206-953-009	1

### Installing the Cables

Use cable clamps or wire-ties at least every 18 inches when installing cables on a vehicle. This eliminates loose or sagging cables, guarding against breakage and ensuring that they do not pose a hazard to the vehicle operator or to other workers.

These instructions detail how to route the cable, install the in-line fuse and make the battery connection onto a side terminal post or top terminal post type battery.

Decide the mounting location for the vehicle dock and the cables. When you are certain your arrangement works and that cables will reach from the batteries to the power converter to the dock, proceed with the instructions below.

1. Completely install the vehicle battery (gray) cable that connects to the vehicle battery before connecting onto the vehicle dock power (black) cable.
2. Route the cable from the vehicle battery toward the general area where the vehicle dock will be mounted.
3. Cut the battery power cable near the battery to eliminate the need for coiling excess cable.

**NOTE:**

*Do not cut the cable too short to reach the battery terminals.*

4. Strip the battery power cable jacket back 12-14 inches.

---

## **Vehicle Battery Power Cable Assembly**

The vehicle battery (gray) power cable must have an in-line fuse installed before making final connections to the vehicle battery. You must also crimp a 3/8 inch terminal ring to the end of the brown wire.

### **Assembling the In-line Fuse Holder**

Refer to Figure 3-1 for help with completing this procedure. The in-line fuse holder (part number: 216-657-001) consists of a rubber boot, two crimp-type fuse clips, and a fuse.

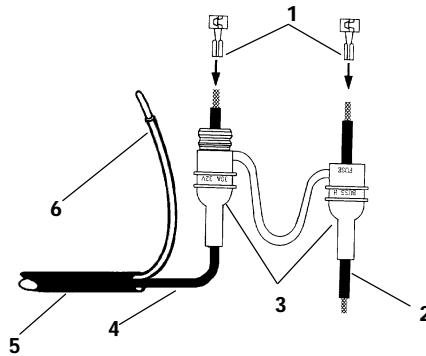
This fuse holder may be preassembled, in which case you should skip the following fuse holder assembly procedures and go to the next set of instructions, Connecting the Fuse Holder on page 3-9.

If the fuse holder is not preassembled, carefully follow these instructions to assemble the in-line fuse holder.

1. Locate the in-line fuse holder components.
2. Cut the red wire in the battery power cable midway between its end and the cable jacket. Save the 6-7 inch length of red wire.
3. Strip 1/4-inch of insulation from the red wire that extends from the vehicle power cable; also strip 1/4-inch of insulation from both ends of the 6 inch length of red wire saved in step 2.
4. Slide the longer portion of the in-line fuse holder boot (yellow rubber) over the red wire that extends from the power cable.
5. Slip a fuse clip onto this wire and crimp the clip onto the wire.



6. Slip the remaining fuse clip onto one end of the 6 inch wire saved from step 2 and crimp securely.
7. Slide this wire into the other half of the fuse holder boot. Insert the fuse into the fuse clips and snap the halves of the fuse holder boot together.
8. Go to Terminating the Wire Ends.



1. Fuse clips
2. Red wire (6-7 inches)
3. Fuse holder "boot"
4. Red wire
5. Power cable
6. Brown wire

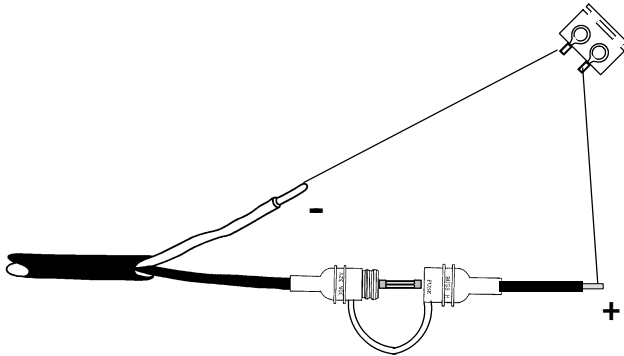
*Figure 3-1*  
*Assembling the In-line Fuse Holder*

## ***Terminating Wire Ends***

Crimp 3/8-inch terminal rings to the stripped end of the brown wire and to the red wire from the fuse holder. See the battery drawing and instructions for recommended assembly to connect the cable to the vehicle battery.

1. Strip approximately 1/4" of insulation from the brown wire on the power cable.

2. Crimp the 3/8" terminal ring onto this wire.
3. Crimp a 3/8" terminal ring onto the red wire from the end of the in-line fuse holder

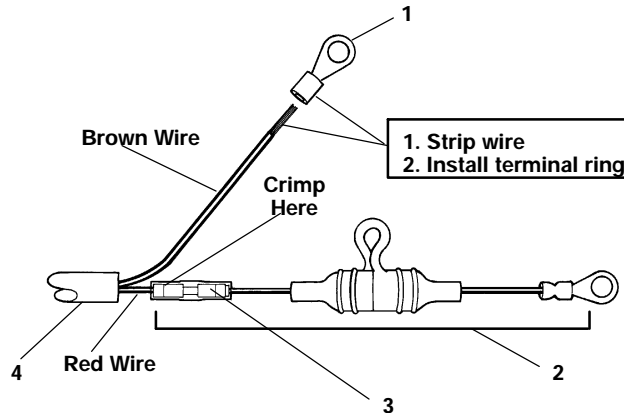


**Figure 3-2**  
**Terminating Wire Ends**

## Connecting the Fuse Holder

If the installation kit contains a preassembled in-line fuse holder, you must crimp it on the red wire from the vehicle battery (gray) power cable. Follow the instructions below to terminate the ends of the power cable when your kit includes a preassembled fuse holder.

1. Strip the brown wire.
2. Crimp the 3/8" terminal ring (1) onto the brown wire.
3. Locate the fuse link (2): it attaches to the red wire.
4. Shorten the red wire if desired.
5. Then, strip 1/4" of insulation from the red wire.
6. Securely crimp the fuse link splice (3) onto the red wire.



1. 3/8" terminal ring
2. Fuse link assembly
3. Fuse link splice
4. Access cable

*Figure 3-3*  
**Prepare Cable Ends**

## Side Battery Terminal Post Connection

Refer to Figure 3-4 on page 3-11 for completing this procedure.

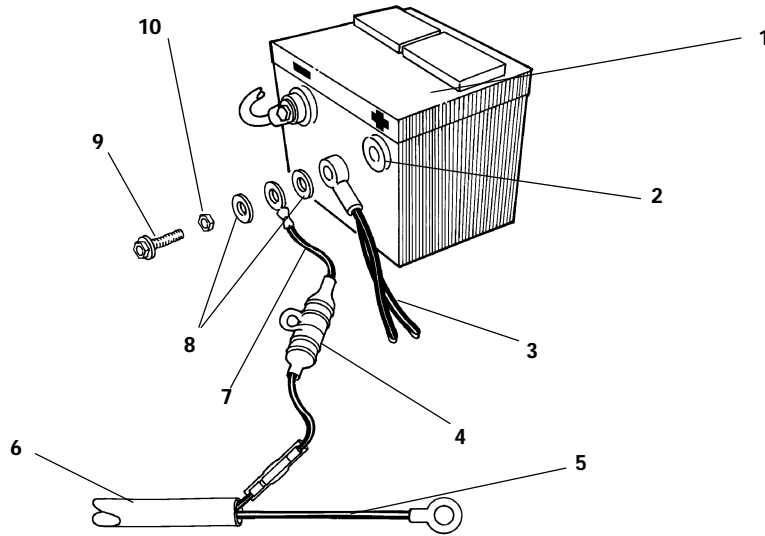


**WARNING:**

*It is very important to make sure that you make the correct cable to battery connections, because electrical energy from vehicle batteries can harm equipment and people.*

1. Remove both battery terminal posts from the vehicle battery.
2. Screw a 3/8 inch nut (10) as far as it will go onto a 3/8" x 1 1/2" post (9) furnished in kit.
3. Slip a 3/8 inch washer (8) onto the battery terminal post.
4. Slide the positive (red wire) fuse link (7) terminal ring from the battery cable onto the positive (+) battery terminal post.
5. Slip a second 3/8 inch washer (8) onto the battery terminal post.
6. Slide the vehicle positive battery cable (3) onto the battery terminal post.
7. Thread the post assembly (steps 2-6, above) into the positive battery terminal. Tighten the battery terminal post securely.
8. Tighten the nut (9) installed in step 2 to secure washers (8) and cables firmly in place.

Repeat steps 2 through 8 for the negative (brown) wire from the battery cable, hooking up the negative cables to the negative (-) battery terminal.



1. Battery
2. Positive battery post
3. Battery cable (positive)
4. Fuse link
5. Brown wire (negative)
6. Power cable
7. Red wire (positive)
8. Washers
9. Battery terminal post (positive)
10. Nut

*Figure 3-4*  
**Side Battery Terminal Posts**

---

## Top Battery Terminal Post Connection

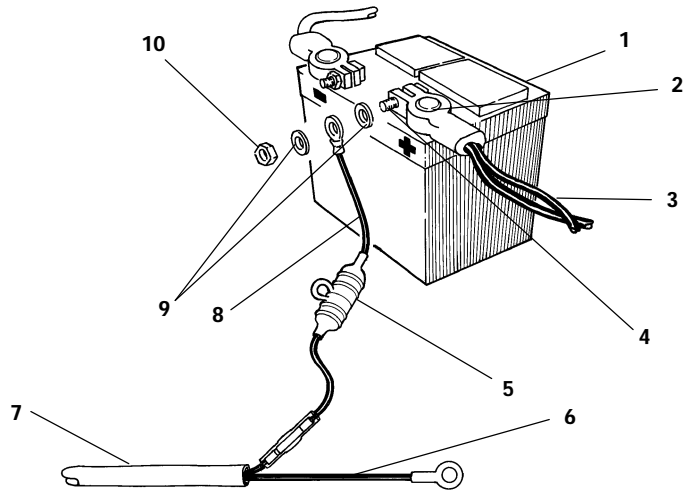
Refer to Figure 3-5 on page 3-13 for completing this procedure.

**WARNING:**

*Because electrical energy from vehicle batteries can harm equipment and people, it is very important to make sure that you make the correct cable to battery connections.*

1. Remove the posts from the vehicle battery terminals.
2. Replace the posts removed in step 1 with 5/16" x 1-1/2" posts (4) and nut (10) furnished in the installation kit. Tighten nut securely.
3. Slip a 3/8 inch washer (9) onto the extended end of each battery terminal post.
4. Slide the positive (red wire) fuse link (8) terminal ring from the battery cable onto the positive (+) battery terminal post (4).
5. Slip a second 3/8 inch washer (9) onto the battery terminal post (4).
6. Thread a second 3/8 inch nut (10) onto the battery terminal post (4).
7. Tighten the nut.

Repeat steps 3 through 6 for the negative (brown) wire from the battery cable, connecting the wire to the negative (-) battery terminal.



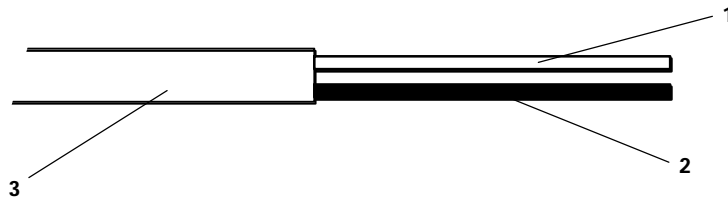
1. Battery
2. Positive battery terminal
3. Battery cable (positive)
4. 5/16" x 1-1/2" post
5. Fuse link
6. Brown wire (negative)
7. Gray power cable
8. Red wire (positive)
9. Washers
10. Nut (2)

*Figure 3-5*  
**Top Battery Terminal Posts**

## Installing Your Vehicle Dock With Other Equipment

There are many options that your installation might call for. This is another good reason to rely on your installation team as they are prepared to handle a wide variety of installations. For instance, you may be installing the vehicle dock with an additional in cab radio or satellite tracking device in which case you will need to modify the black dock cable part number 206-951-001 to connect into a vehicle fuse block that the installation team would install.

If this is the case you could install the cable designed to connect to the fuse block (part number: 226-109-001). Or you could cut off the white connector from the end of the black dock cable and wire the dock power cable to the fuse block. See Figure 3-6 to identify the positive and negative wires.



1. White wire (negative)
2. Black wire (positive)
3. Black dock power cable

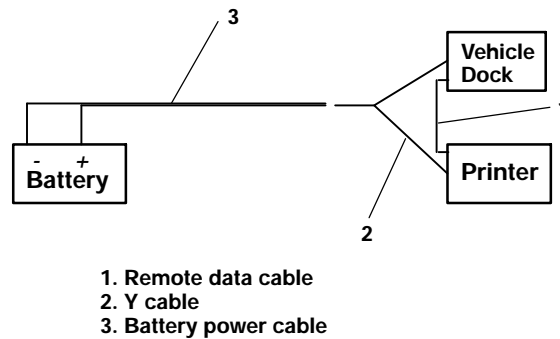
*Figure 3-6*  
**Stripping the Power Cable Jacket**



## Installing an Optional Printer

If you are installing a printer into your system you need the power cables to connect the printer and vehicle dock to the vehicle battery. You also need a remote terminal cable (part number: 216-588-001) that you need to order separately. These cables allow you to locate the printer and the vehicle dock up to six feet (1.83 m) apart. This kit includes a power cable with a noise filter and a ground strap.

The installation for a system that includes a printer refer to pages 3-15 and 3-17 for the wiring diagram for the “Y” cable and installing the power cable with noise filter.



*Figure 3-7*  
**Wiring Diagram for Installing a Printer**

*Table 3-4*  
**Cables for Connecting a Vehicle Dock and Printer to Vehicle Battery Kit 203-344-002**

Description	Part Number	Qty
“Y” power cable	216-817-001	1
Battery cable with line filter	216-964-009	1

## ***Vehicle Dock and Printer***

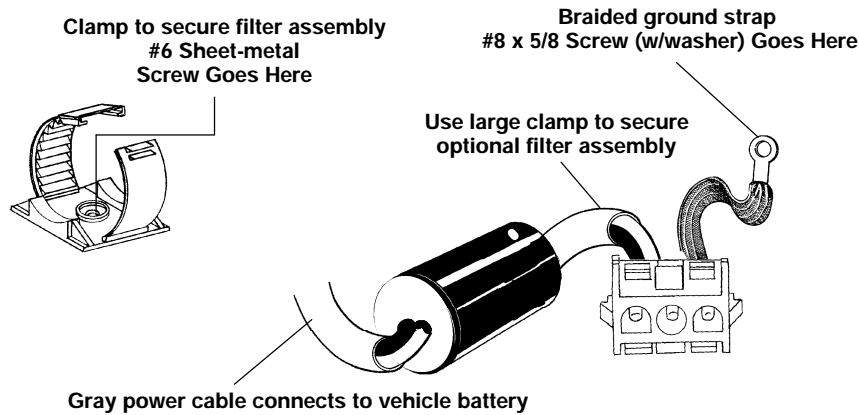
1. Install a “Y” cable (part number: 216-817-001) to supply power to both the vehicle dock and to the printer. Refer to Figure 3-7 for the wiring diagram and Figure 3-18 for vehicle dock connectors.
2. Connect one end of this cable into the printer, the other into the vehicle dock.
3. Connect the keyed rectangular connector on the gray battery cable (part number: 216-964-009) into the “Y” power cable (part number: 216-817-001).

You must also connect a data cable (part number: 216-588-001) between the vehicle dock and the printer. This cable allows the terminal to communicate with the printer. Plug the appropriate end of this cable into the vehicle dock and the other end into the printer.

## ***Fastening the Ground Cable***

The power cable connector has a braided wire grounding strap that must be fastened to vehicle sheet metal to ensure proper cable shielding. Follow the steps below to fasten this ground strap:

1. Drill a small hole into the metal where you intend to fasten the ground strap.
2. Use a punch to dimple and enlarge the hole.  
*(Do not make hole too big for the screw.)*
3. Scrape a small circle of paint from around the hole. Make sure to expose bare metal in order to make a good electrical connection.
4. Use a #8 x 5/8” screw and flat washer to secure the strap.



*Figure 3-8*  
**Installing the Power Cable In-Line Noise Filter**

## **Installing an Optional Keyboard Tray**

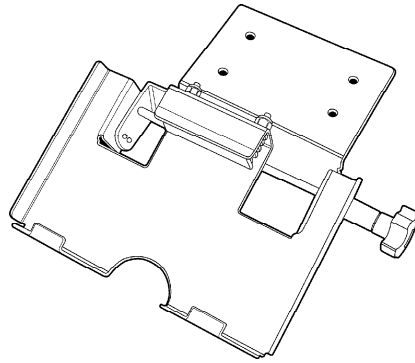
An optional keyboard tray can be installed to work with your vehicle mount bracket. The keyboard tray kit part number 203-542-001 includes:

- Bracket plate (p/n 653-402-001)
- Bracket mount (p/n 653-403-001)
- Mounting hardware

The keyboard tray does not include the keyboard. The keyboard to use with this tray is part number

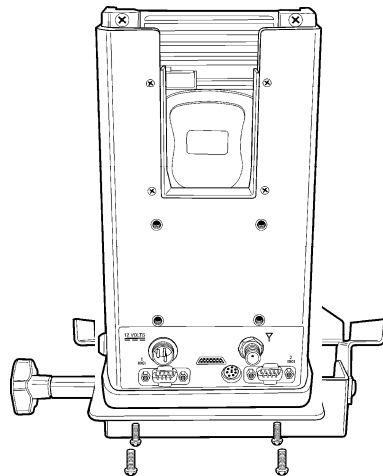
To assemble your keyboard tray refer to as you complete the following steps:

1. Assemble the keyboard tray to the vehicle mount plate (Figure 3-9).



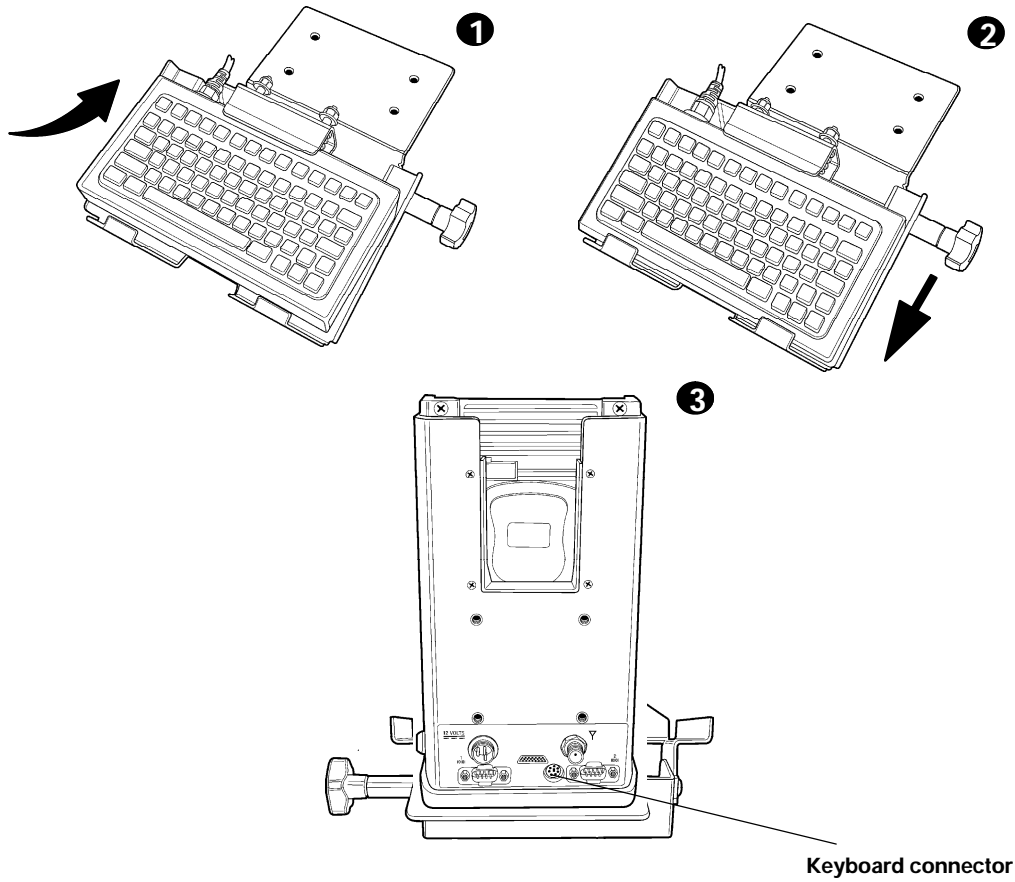
**Figure 3-9**  
**Assembling Keyboard Tray**

2. Attach the vehicle dock to the tray using the four 3/4 inch machine screws (Figure 3-10).



**Figure 3-10**  
**Attaching Dock to Tray**

3. Slide the optional keyboard (p/n 340-045-001) into the tray and attach the keyboard cable to the hand-held computer.



**Figure 3-11**  
**Inserting Keyboard into Tray and Attaching Cable to Computer**

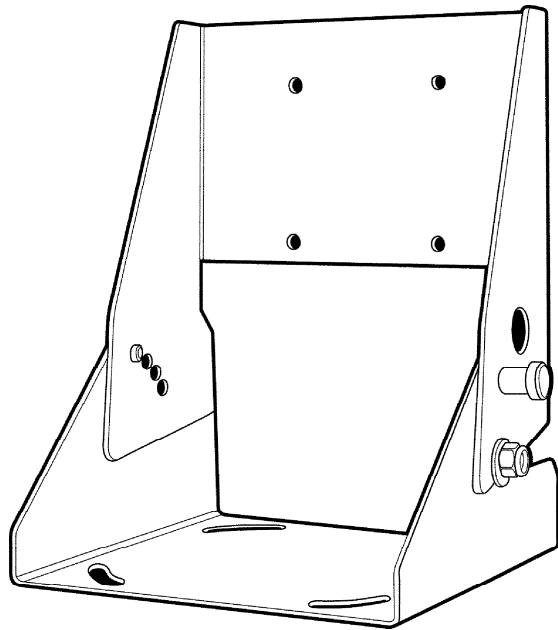
## Vehicle Dock Mounting Kits

Currently there are a couple different options for your Vehicle Dock.

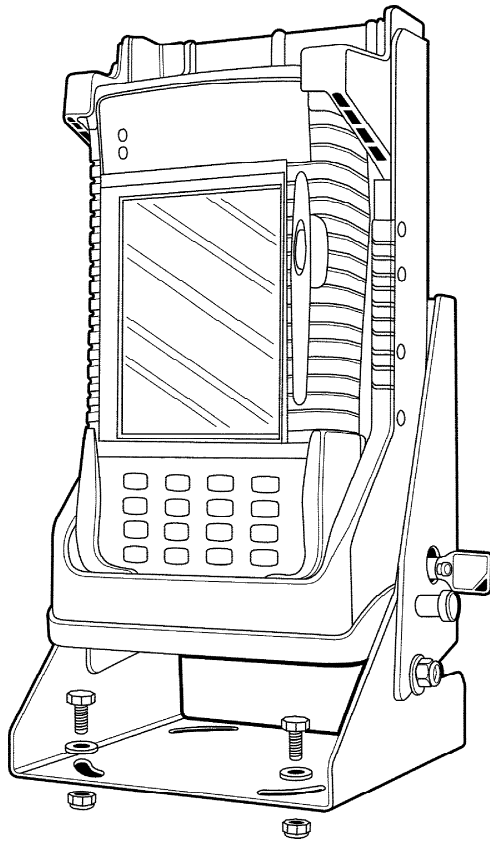
- Kit 203-522-001 Fixed Mount
- Kit 203-530-001 Adjustable Mount

*Table 3-5*  
**Vehicle Dock Adjustable Mount Kit**  
**Kit 203-530-001**

<b>Description</b>	<b>Part Number</b>	<b>Qty</b>
Vehicle Swivel Mount	653-391-001	1
Vehicle Mount Bracket	653-392-001	1
1/4-20 Regular Lock Nuts	802-117-000	4
1/4" Flat Washers	803-102-000	8
10-32 x 3/8" Pan Head Screws	800-402-001	4
14-10 x 1 3/4" Hex Washer Screws	800-359-002	4

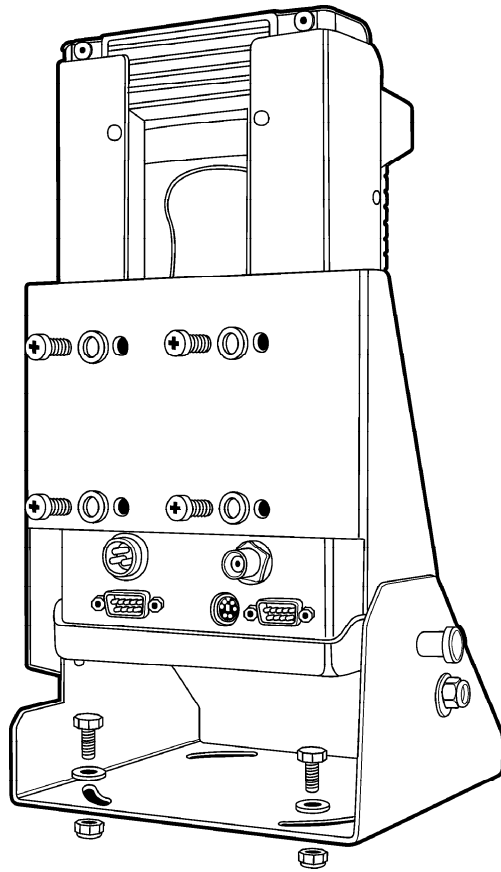


**Figure 3-12**  
**Vehicle Dock Adjustable Mount Bracket**



**Figure 3-13**  
**Vehicle Dock Adjustable Mount with Computer Inserted**

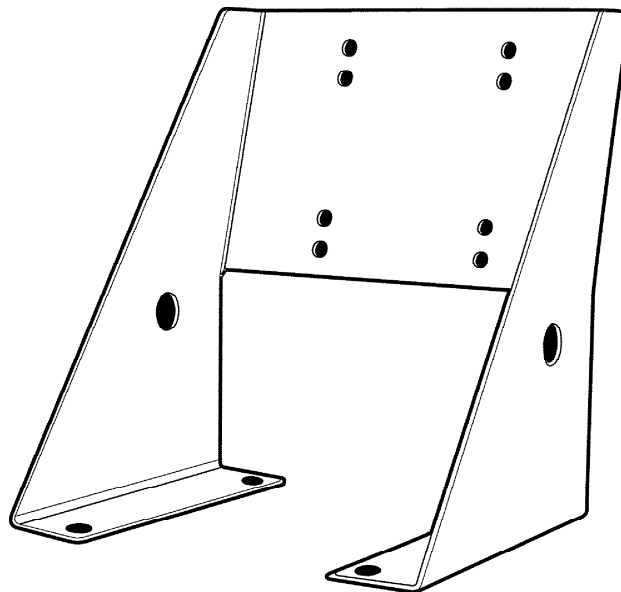




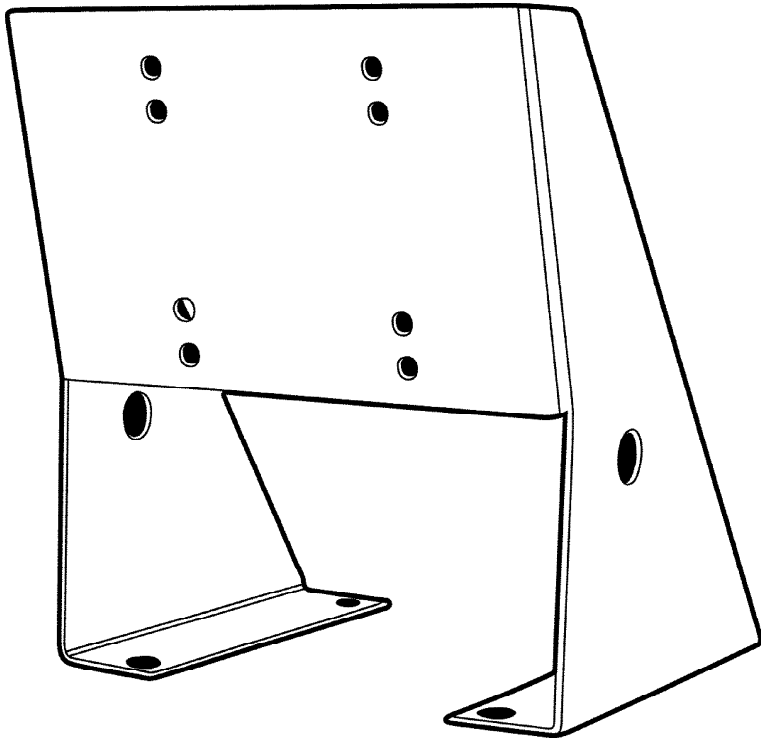
**Figure 3-14**  
**Vehicle Dock Adjustable Mount Back Side**

**Table 3-6**  
**Vehicle Dock Fixed Mount Kit**  
**Kit 203-522-001**

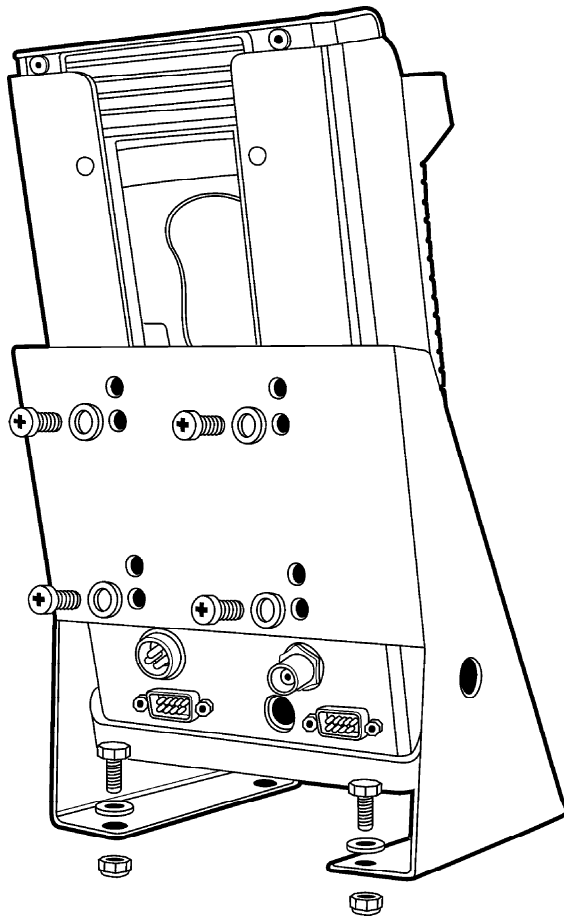
<b>Description</b>	<b>Part Number</b>	<b>Qty</b>
Vehicle Dock Mount	653-372-001	1
1/4-20 Regular Lock Nuts	802-117-000	4
1/4" Flat Washers	803-102-000	8
1/4-20 x 1" Hex Head Screws	801-195-002	4
10-32 x 3/8" Pan Head Screws	800-402-001	4
14-10 x 1 3/4" Hex Washer Screws	800-359-002	4



**Figure 3-15**  
**Vehicle Dock Fixed Mount Bracket**



*Figure 3-16*  
**Vehicle Dock Fixed Mount Bracket Back Side**

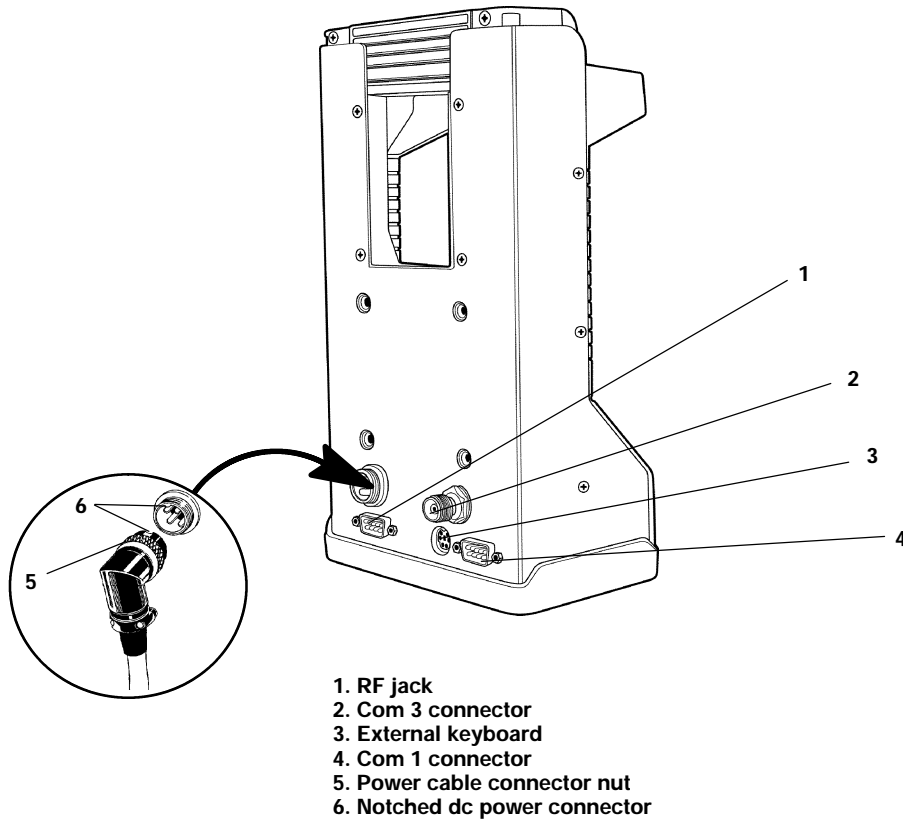


*Figure 3-17*  
**Vehicle Dock Fixed Mount with Computer Inserted**

## Final Connections

### Vehicle Dock Alone

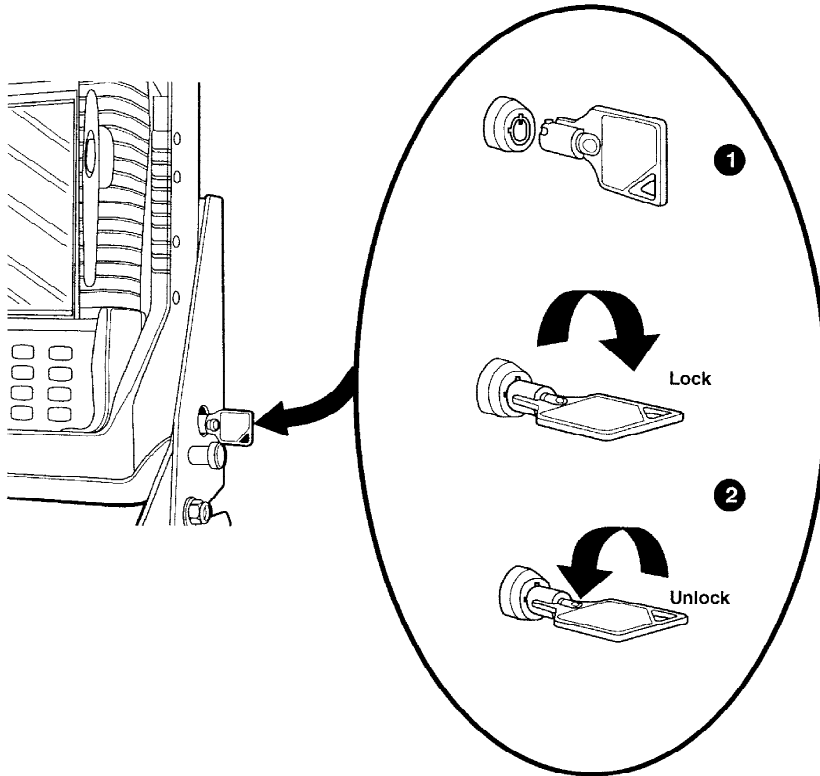
To use the vehicle dock by itself, connect one end of the dc power cable (part number 206-951-001) to the vehicle dock; the other end plugs into the previously installed battery cable.



**Figure 3-18**  
**Vehicle Dock Connectors**

## Vehicle Dock Keylock

Your Vehicle Dock has a keylock option that allows you to insert your hand-held computer, lock it into the dock, and remove the key. Figure 3-19 illustrates the use of the keylock.



*Figure 3-19*  
**Vehicle Dock Keylock**

## ***Jump Starting Your Vehicle***

- B CAUTION:** If you need to jump start your vehicle from another vehicle battery, disconnect the power cable running to the printer or dock. Failure to do so can result in loss or damage to your hand-held computer. To disconnect:
- Unscrew at the printer or dock or,
  - Disconnect at the Y-connection where the short cable plugs into the long cable.





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