



**EXPERION PKS**  
**RELEASE 515**

**OEP/IKB Device Adapters Instalaltion Instructions**

EP-DPCXX3-en-515A

November 2019

## OEP/IKB ADAPTER

## 3.1 Introduction

## 3.1.1 Description

Operator Entry Panels (OEP) and Integrated Keyboards (IKB) traditionally connect to the computing platform through the ISA slot to an IKBI2 and/or an HBC card. As the ISA slot becomes obsolete on newer computers, it is necessary to provide an alternative method of connecting these peripheral devices to the station platform. The Honeywell OEP/IKB Adapter allows you to connect an OEP or IKB to an available serial port as provided by the dual serial PCI card.

Upon arrival at the system site:

- Check the packing or parts lists to verify you received all adapter kit components.
- Notify your Honeywell sales representative if you have any questions.

## 3.1.2 OEP/IKB Adapter Parts

The following figure shows the OEP/IKB adapter components.



Figure 2-1 Honeywell OEP/IKB Adapter Kit Components

Parts list for Honeywell OEP/IKB adapter TP-OPADP1

The following table lists the parts and part numbers for this adapter kit.

No.	Part Description	Part Number	Qty.
1	OEP/IKB Module Assembly	51305776-100	1
2	DB9 M/F Comm Port Cable (8 feet)	51196990-500	1
3	AC Power Cord	51305567-100 (120 V) 51305450-600 (120/240 V) 51305489-600 51305557-100 (220 V)	1
4	AC Power Source	51197184-100	1
5	IKBI2 PS/2 Cable (8 feet) Note: This cable is only used if you are connecting an IKB	51305381-500	1
6	Honeywell Device Adapters (OEP/IKB & Carroll Touchscreen) Installation Instructions (this document)	TP-OPADP1 51195195-347	1
7	Velcro Fastener	51199478-100	1
Other items not included with this OEP/IKB adapter kit			
Common Components CD (use to install IKB Services and appropriate drivers)			1

#### OEP/IKB adapter hardware compatibility

The OEP/IKB Adapter kit is compatible with OEPs being used on GUS, PlantScape or Experion PKS systems. The following table lists the specific parts that are compatible with this kit. These parts should already be available at your site.

Part Description	Part Number
Enhanced Operator Keyboard	51402497-200
OEP Keyboard Cable	51305418-100
Integrated Keyboard	51196694
IKB Cable	51308124
Annunciator Relay Y Cable	51305388

OEP/IKB adapter software release compatibility

The Honeywell OEP/IKB Adapter is to be used on systems with the following software releases:

- PlantScape R500
- Experion PKS R100 or later

## 3.2 Mounting OEP/IKB Adapters and AC Power Adapters

### 3.2.1 Purpose

Exact mounting locations for Honeywell adapters and AC power adapters are not provided because of the wide range of equipment configurations that exist at different sites. Use the supplied re-closable fasteners to mount the USB extender box to the computer chassis, cabinet, or another appropriate location, making sure you follow the mounting requirements listed in this section.

### 3.2.2 Using the re-closable fasteners

The following figures show the OEP/IKB and AC power adapters with the re-closable fasteners. Use the re-closable fasteners to mount the components in a location that meets the requirements listed in this section.



Figure 2-2AC Power Adapter

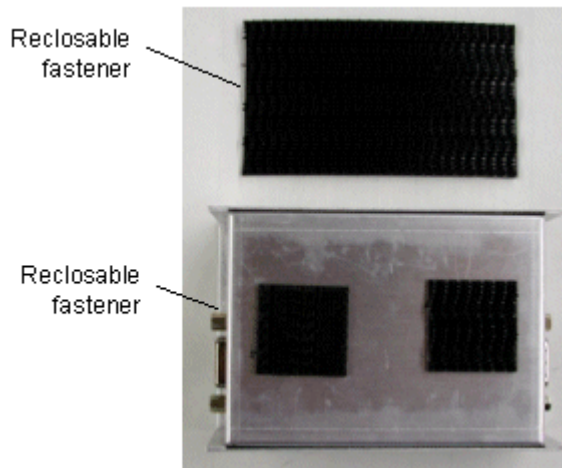


Figure 2-3 OEP/IKB Module Assembly

### 3.2.3 Mounting requirements for USB extender boxes and AC adapter

Mount the OEP/IKB and AC power adapters in a location that:

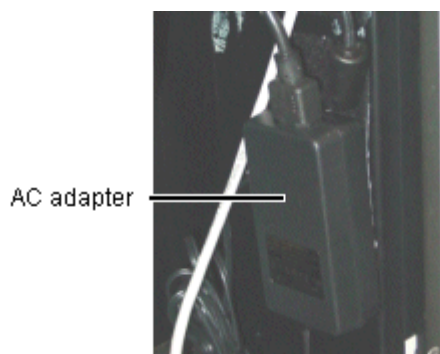
- Allows proper airflow by not blocking any ventilation holes.
- Is not subject to heat.
- Permits access for connecting the cables.
- Allows the cables to be connected without pinching them.
- Allows for proper strain relief of all cables.
- Permits you to secure the extender box to the mounting platform using the re-closable fasteners.

### 3.2.4 Mounting location examples for AC adapter

The following figures show examples of locations in which to mount the AC power adapter. These are examples only. You may mount the AC power adapter in any convenient and appropriate location as long as you fulfill the requirements listed in this section.

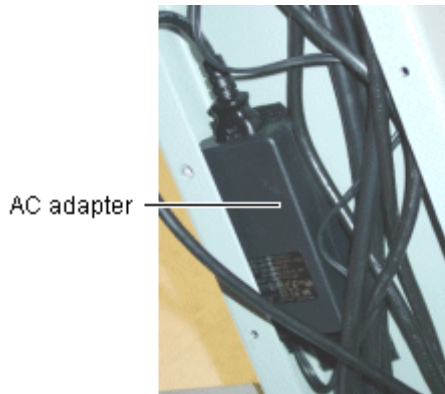
### 3.2.5 Description Picture

#### Classic Console



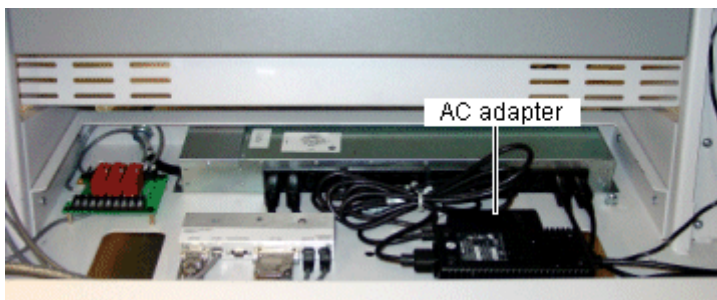
Mount the AC adapter along the wall or on the floor of the inside of the Classic console base.

### 3.2.6 Z Console



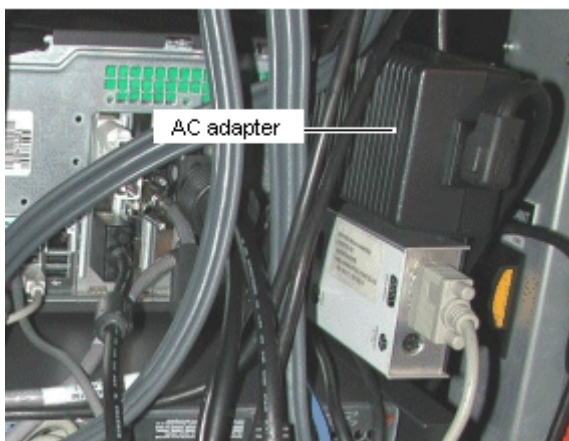
Mount the AC adapter on the inside of the console's peripheral power supply chamber using the re-closable fasteners.

### 3.2.7 Icon Console



Mount the AC adapter in the Icon Console base using the re-closable fasteners.

### 3.2.8 Cabinet



Mount the AC adapter to the right component mounting bracket (as seen from the rear of the cabinet) using the re-closable fasteners.

### 3.3 Before you Begin

Connecting the OEP/IKB adapter kit to an OEP

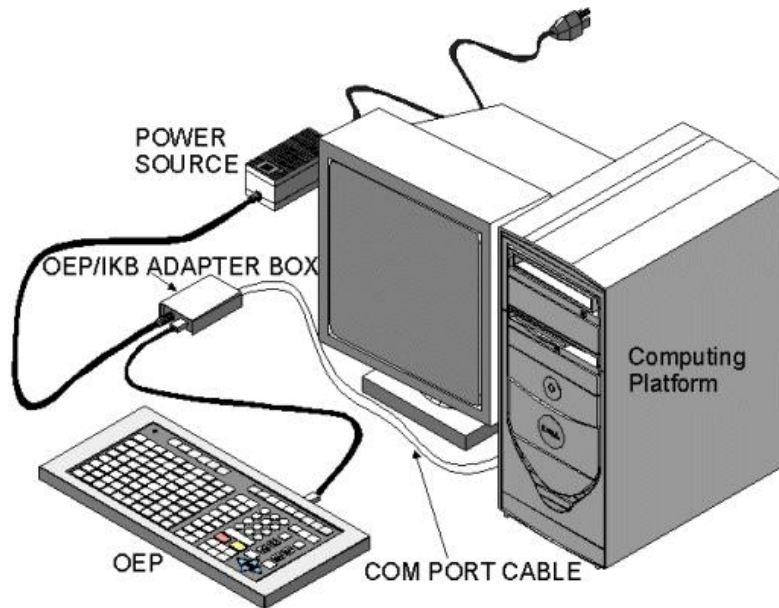


Figure 2-4 Connected OEP Connecting the OEP/IKB adapter kit to an IKB.

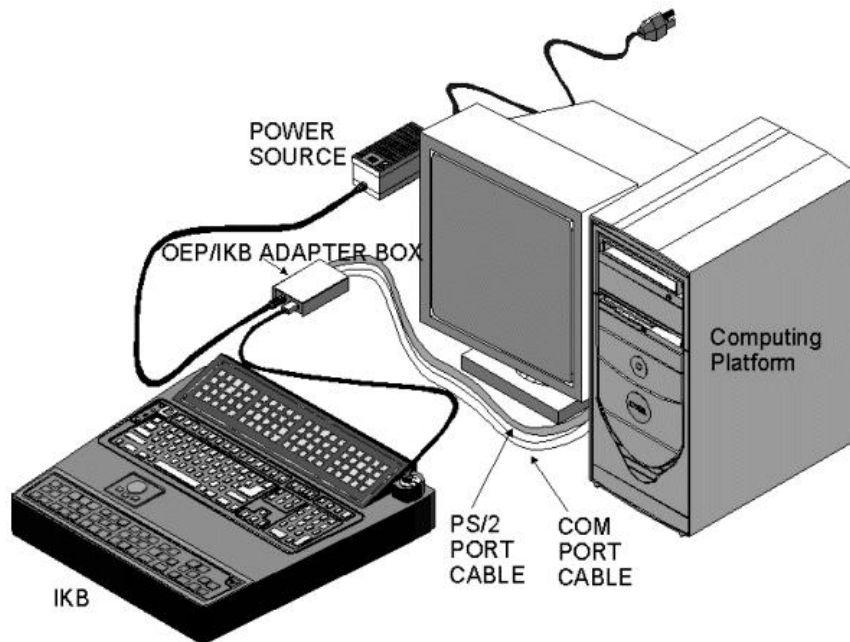


Figure 2-5 Connected IKB

#### 3.3.1 OEP/IKB Module Assembly

[Figure 2-6](#) is the top view of the module assembly, which identifies the four cable connections. [Figure 2-7](#) is the bottom view of the module assembly, which shows the re-closable fastener. Use the re-closable fastener to mount the module assembly in a convenient location.



Figure 2-6 OEP/IKB Module Assembly (51305776-100) Top View.

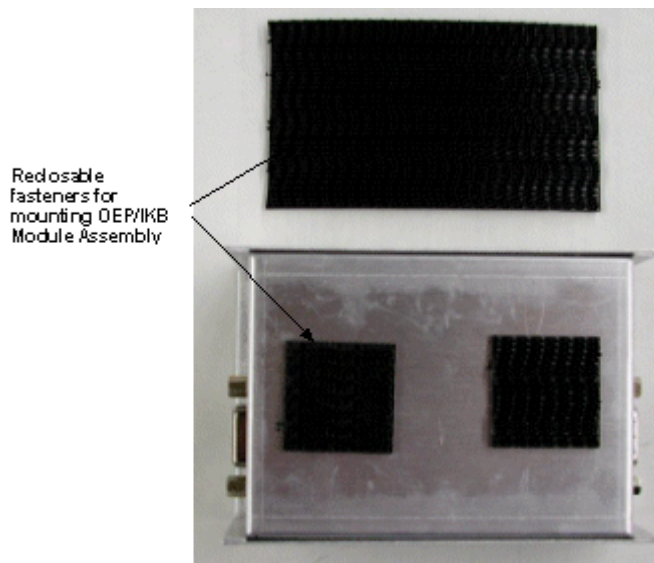
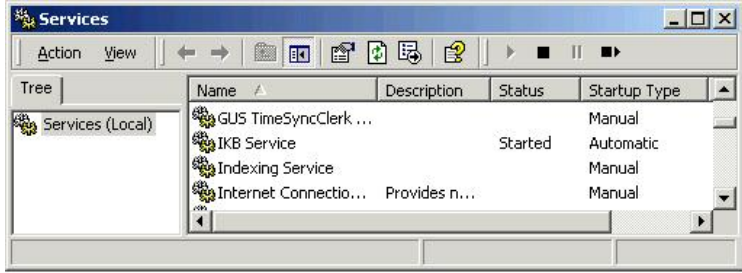


Figure 2-7 OEP/IKB Module Assembly (51305776-100) Bottom View.

### 3.3.2 Verify IKB Services is installed

Use this procedure to verify your computer has the correct IKB Services software installed.

Step	Action
1	Click Start, point to Settings, and then click Control Panel.
2	Double-click Administrative Tools, and then double-click Component Services
3	In the console Tree, select Services.
4	Click the Name column to sort the services.
5	Locate the IKB Service under the Name column.  
6	If IKB Service does not appear in the list of Services, install it using the following <a href="#">"Install the IKB Services Software"</a>

### 3.3.3 Install the IKB Services Software

Use the following procedure to install the IKB Services. If you select the complete installation of the IKB services, USB drivers will also be installed. You may want to note the location of these drivers for later use.

Step	Action
1	Insert the Common Component disk in the CD device.
To perform a complete installation:	
2	Select PlantScape IKB/OEP Keyboard Drivers from the Common Component CD installation screen.
3	Follow the screen prompts to install the IKB/OEP drivers.
To install only the IKB Service:	
4	Close the installation wizard.
5	Open the <code>ikb_service</code> folder under the Packages folder.
6	Double-click the <code>Honeywell_ikb_service</code> to launch the installation wizard.
7	Click Next from the Welcome screen.
8	Enter Customer Information and click Next.
9	Select Custom from the Setup Type screen and click Next.
10	Expand Program Files to view the options.
11	Select IKB_Server and click Next.
12	Click Install to begin the installation.
13	Click Finish when complete.

## 3.4 Installing the OEP/IKB Adapter Kit on a Local Computer

### 3.4.1 Installation tasks

The following table lists the installation tasks for the OEP/IKB adapter kit. The specific tasks you need to perform will vary depending upon your available serial ports.

<input checked="" type="checkbox"/> Task
<a href="#">Install the IKB Services Software</a> See Section <a href="#">2.3</a> , “ <a href="#">Before you Begin</a> ”
Connect the OEP/IKB adapter to the keyboard
<a href="#">Connect the OEP/IKB adapter module to the computer</a>
<a href="#">Configure the COM1 Port as COM3</a> , if necessary

### 3.4.2 Installation diagrams

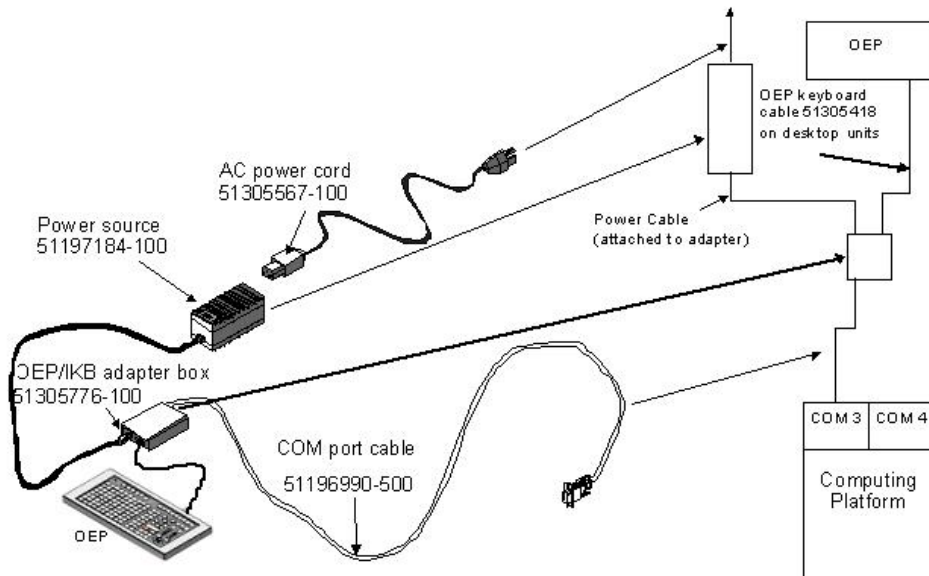


Figure 2-8 OEP/IKB Adapter Connected to OEP.

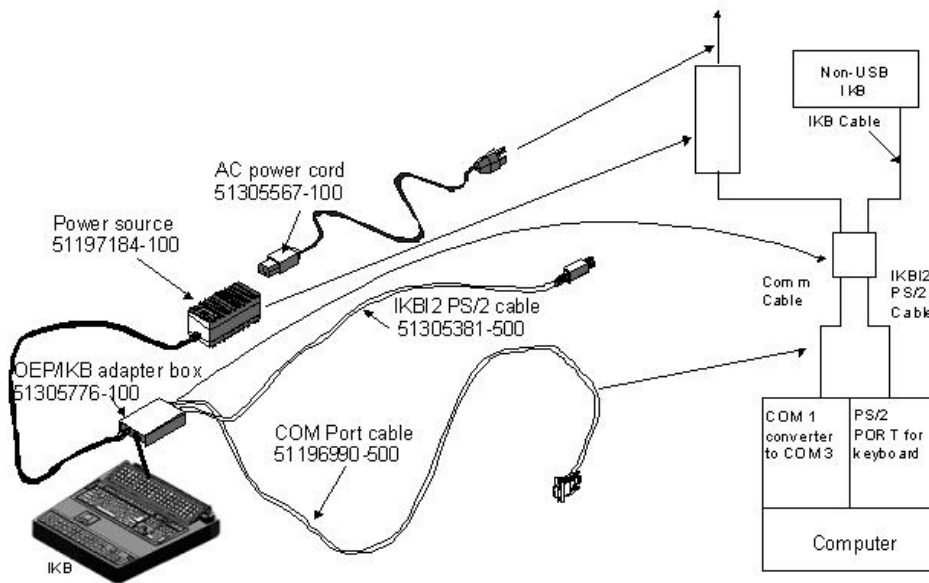


Figure 2-9 OEP/IKB Adapter Connected to IKB.

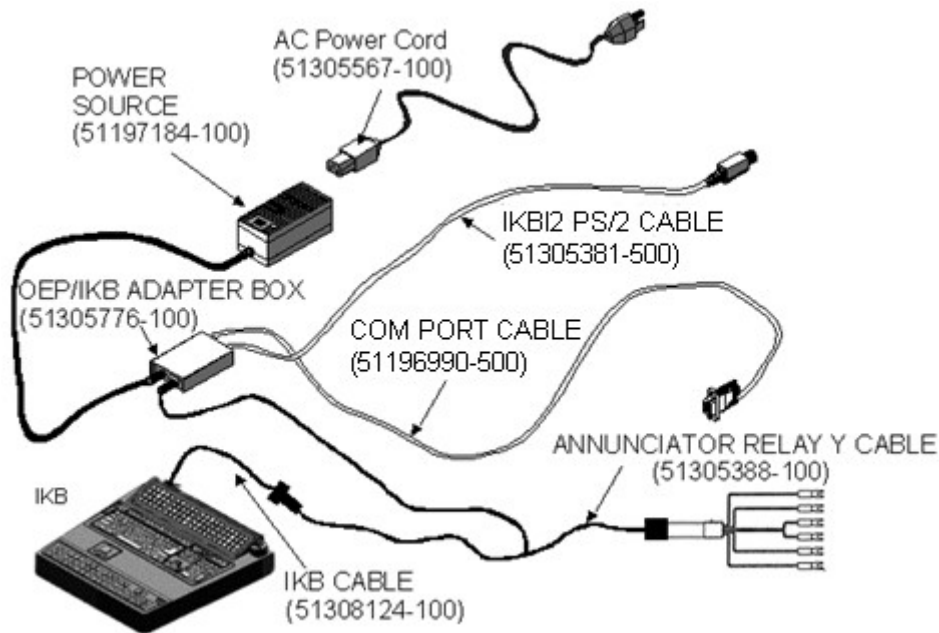
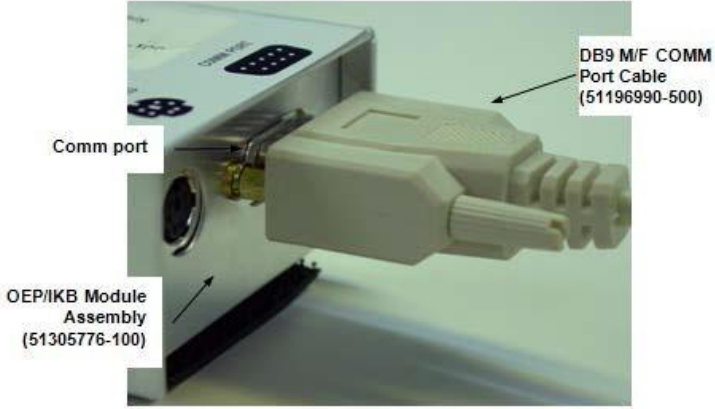
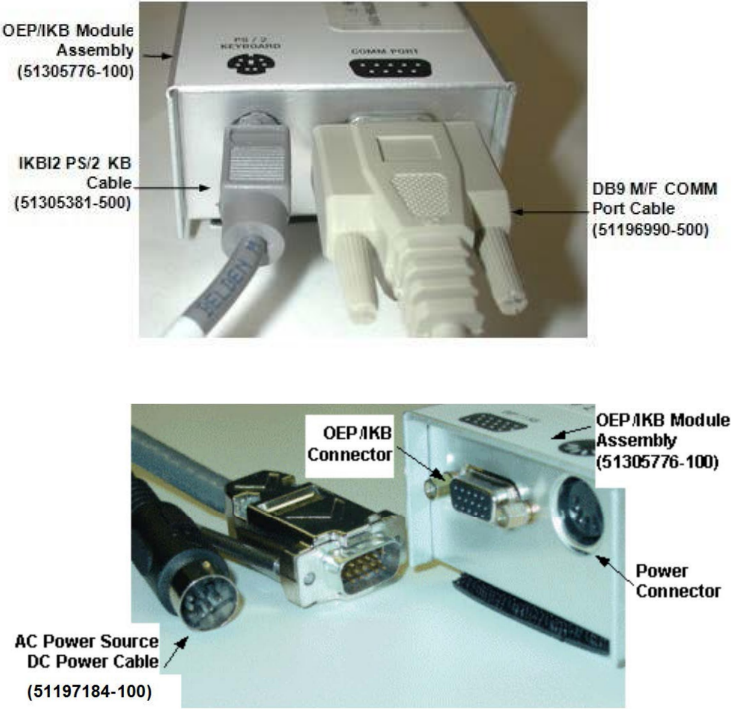


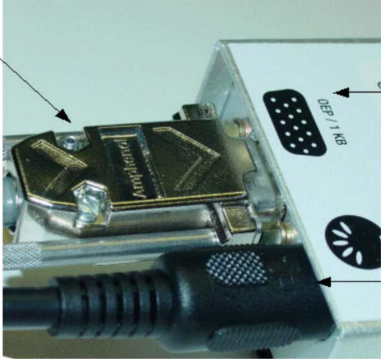
Figure 2-10 OEP/IKB Adapter Connected to IKB and Annunciator.

### 3.4.3 Connect the OEP/IKB adapter module to the keyboard

Use the following procedure to connect an OEP or IKB to the OEP/IKB adapter. Refer to [Figure 2-8](#), [Figure 2-9](#), and [Figure 2-10](#).

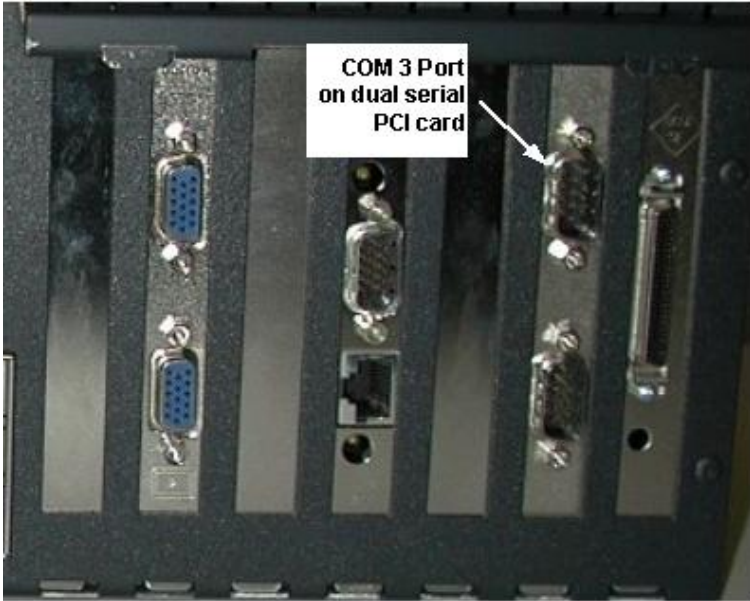

Step	Action
1	<p>Power down the computer and other peripheral devices and disconnect the power cable from the PC.</p> <p>DO NOT connect power to the OEP/IKB Module Assembly until told to do so.</p>
2	<p>Connect the male end of the DB9 M/F Comm Port cable (51196990-500) to the COMM PORT on the OEP/IKB Module Assembly (51305776-100) and tighten the thumbscrews.</p>

Step	Action
	 <p>DB9 M/F COMM Port Cable (51196990-500)</p> <p>Comm port</p> <p>OEP/IKB Module Assembly (51305776-100)</p>
3	<p>If you are connecting an IKB, insert the round DIN plug of the IKB12 PS/2 cable (51305381-500) into the PS/2 Connector on the OEP/IKB Module Assembly (51305776-100).</p>  <p>OEP/IKB Module Assembly (51305776-100)</p> <p>IKB12 PS/2 KB Cable (51305381-500)</p> <p>DB9 M/F COMM Port Cable (51196990-500)</p> <p>OEP/IKB Connector</p> <p>OEP/IKB Module Assembly (51305776-100)</p> <p>Power Connector</p> <p>AC Power Source DC Power Cable (51197184-100)</p>

Step	Action
	
4	Insert the round DIN plug from the AC Power Source DC Power cable (51187184) into the Power Connector on the OEP/IKB Module Assembly (51305776-100).
5	If you have an annunciator, connect the cable from the OEP/IKB Keyboard to the annunciator Y cable,
6	Connect OEP/IKB keyboard cable or the annunciator Y cable to the connector on the OEP/IKB Module Assembly (51305776-100) and tighten the thumbscrews to secure the cable to the module assembly.

### 3.4.4 Connect the OEP/IKB adapter module to the computer

Step	Action
1	Connect and secure the female end of the DB9 Comm Port cable to one of the following serial ports. <ul style="list-style-type: none"> <li>■ COM1 if you do not have the dual serial PCI card</li> <li>■ COM3 on the dual serial PCI card</li> </ul>

Step	Action
	
	<p><b>ATTENTION</b></p> <p>If you are using the dual serial PCI card, the OEP/IKB adapter <b>MUST</b> be plugged into the COM 3 Port on the dual serial PCI card as shown in the previous picture.</p>
2	<p>If you are connecting an IKB, connect the other end of the IKB I2 PS/2 cable (51305381-500) to the Keyboard PS/2 Port on the computer.</p>
3	<p>Connect the AC power cord (51305567) to the AC power source (51197184-100).</p>
4	<p>Plug the AC power cord in.</p>
5	<p>Connect the PC power cord in and power up the system.</p>
6	<p>Perform the following “<a href="#">Configure the COM1 Port as COM3</a>” procedure if:</p> <ul style="list-style-type: none"> <li>■ Your computer does not have a dual serial PCI card, or</li> <li>■ You upgraded the computer with the dual serial PCI card</li> </ul>

### 3.4.5 Configure the COM1 Port as COM3

Use this procedure to configure COM1 as COM3. This procedure is necessary if your computer does not have a dual serial PCI card, or you do not have the IKB Services Software installed. See [Section 2.3, “Before you Begin”](#).

Step	Action

Step	Action
1	Click Start, point to Settings, and then click Control Panel.
2	Double-click System to display the System Properties dialog box.
3	Select the Hardware tab.
4	Click Device Manager to display the Device Manager console.
5	Expand Ports (COM & LPT).
6	Right-click Communications Port (COM1) and select Properties to display the Communications Port (COM1) Properties dialog box.
7	Select the Port Settings tab and click Advanced to display the Advanced Settings for COM1 dialog box.
8	Select COM3 from the COM Port Number drop-down list and click OK.
9	Click OK to close the Communications Port dialog box.

## 3.5 Installing the OEP/IKB Adapter Kit on a Remote Computer

### 3.5.1 Introduction

This section contains procedures for connecting the OEP/IKB adapters remotely. For further information on Honeywell's remoting options see RE01-100, Remote Peripheral Systems: Installation and Upgrade.

### 3.5.2 Installation tasks

The following table lists the installation tasks for the OEP/IKB adapter kit. The specific tasks you need to perform will vary depending upon your available serial ports.

<input checked="" type="checkbox"/> Task
<a href="#">Install the IKB Services Software</a> See Section <a href="#">2.3</a> , " <a href="#">Before you Begin</a> "
Connect the OEP or IKB to the remote electronics box.