Configuration Requirements for iPC Operation

PC Configuration Requirements:

The hardware and operating system of the PC must comply with a list of minimum requirements for proper operation with the iPC software. Compliance with these requirements should be confirmed before attempting to install the iPC software.

- The PC must have one of the following operating systems installed:
  - Microsoft Windows 98
  - Microsoft Windows ME (iPC version v1.40b and newer)
  - Microsoft Windows XP (iPC version v1.40b and newer)
  - Microsoft Windows 2000
  - Microsoft Windows NT

The installed operating system can be identified by right-clicking the mouse on the My Computer icon on the operating system desktop. This will produce a drop down menu with “Properties” on the bottom. Select “Properties” from this list which will produce the “System Properties” pop up box that displays the installed operating system for your computer.
The PC must have version 5.0 (or newer) of Internet Explorer installed:

The installed Internet Explorer version number can be identified within the Internet Explorer program. After starting the Internet Explorer program, select the “Help” drop down menu on the right side of the tool bar, which is along the top of the screen. From the drop down list, select “About Internet Explorer”. This will activate a pop up screen that displays the version number of the installed Internet Explorer program.

The PC must have Virtual Machine for Java 5.0 Release 5.0.0.3167 or higher installed and activated:

The version number of the installed Java Virtual Machine feature can be identified within the Internet Explorer program. After starting the Internet Explorer program, select the “View” drop down menu of the tool bar, which is along the top of the screen. From the drop down list you should see “Java Console”. When you select “Java Console” from the list, a pop up screen will appear that has the version number on the top line of text.
If “Java Console” is not present on the “View” drop down list, the feature has not been activated in the Internet Explorer program. The Java Console can be activated using the following procedure.

**Java Console activation procedure:**

To activate the Java Console feature of the Internet Explorer program you must first activate the Internet Explore program. From the “Tools” drop down menu select “Internet Options”. When the Internet Options pop up box is displayed select the advanced tab. This will display a list of Internet Explorer features. Activate the Java console feature by checking the “Java Console Enabled” box which will be about half way down the list. Select the “OK” button on the bottom of the pop up box. Exit out of all activated programs and restart the computer. You should now be able to confirm the version number of the Java Console using the procedure above.

If your version of the Virtual Machine for Java is older than the minimum requirement listed above, an update can be downloaded from the Dukane web site listed below.

**Java Virtual Machine download procedure:**

2. Download the msjavx86.exe file to your computer.
3. After the download is complete, double-click msjavx86.exe to run the installation program.
4. Once the installation is complete, restart your computer for the changes to take effect.
The minimum processor capable of running the iPC program is an Intel Pentium processor with a minimum processor speed of 200 MHz. For improved performance a processor speed of 400 MHz or faster is recommended. Refer to your PC manuals and documentation to confirm processor type and speed.

The minimum iPC compatible display resolution setting for the PC is a resolution of 800 x 600 pixels. The PCs display resolution can be checked by right button clicking the mouse on the desktop area of the display. This will produce a drop down list. Select “Properties” which should be at the bottom of the list. This will produce the Display Properties pop up box. From this box, select the “Settings” tab. The “Screen Area” setting represents the current display resolution.
The serial port settings of the PC must be configured correctly to establish communications with the DPCs serial port. To check the PC serial port settings select “Start” from the lower left corner of the desktop screen. From the pop up menu select “Settings” and then “Control Panel”.

Selecting “Control Panel” will produce the Control Panel pop up screen. On this screen double click on the “System” icon which looks like a small computer. This will produce the “System Properties” pop up box. From this box select the “Device Manager” tab. On the Device manager tab you will find a list of the hardware devices of your computer. Select the “+” symbol next to “Port” on the list. You should now see a list of COM ports available on your computer. Highlight the COM port that is connected to the DPC on the back side of the PC. Now select the “Properties” button on the bottom of the screen. This will produce a “Communications Port Properties” pop up box for the COM port that you are using. Select the “Port Settings” tab and confirm that your port settings match the diagram below. Press the “OK” button for both the “Communications Port Properties” pop up menu and the “System Properties” pop up menu.

The iPC software can now be installed on the PC. After installing the software, proceed to the DPC Hardware Configuration Requirements before running the iPC software.
**DPC Hardware Configuration:**

The iPC software is designed to access data and setup information from either a single DPC or a network of DPCs that consists of a maximum of seven DPC IV units. For a network of DPCs, each DPC will require a 200-1141 network cable. This network cable should connect the J504 and J503 connectors of the DPC as indicated in the diagram below. A DPC network can consist of seven DPC IV units which would require six 200-1141 cables. The DPC that is located at each end of the DPC network must also be equipped with a 597-477 network termination plug. The computer that is to be used will be require a 200-1126 serial interface cable between J506 of one of the DPC units on the network and one of the COM ports of the computer. When the iPC software is used with a single DPC that is not part of a DPC network, the 200-1126 is the only cable that will be required. The 433-32 software key must be installed on the parallel port of the PC for all iPC/DPC configurations.

![Diagram of DPC Hardware Configuration](image)

In addition to the external cable connection requirements, the software version number of the DPC must be verified to confirm that it is compatible with the iPC software that will be installed on the PC. The software version number for the DPC can be identified by monitoring the DPC front panel display during the DPCs power up sequence.

<table>
<thead>
<tr>
<th>iPC Software Version</th>
<th>Compatible DPC Software Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>v1.0 – v1.2</td>
<td>v3.3 (DPC IV)</td>
</tr>
<tr>
<td>v1.3</td>
<td>v3.4 – v3.5 (DPC IV)</td>
</tr>
<tr>
<td>v1.4b - 1.6</td>
<td>v3.60-3.70 (DPC IV) (DPC IV+)</td>
</tr>
</tbody>
</table>

Note: If your Dukane DPC welding system requires software upgrades, please contact your local sales representative.
DPC Software Configuration Requirements:

There are three DPC software features that must be configured correctly for proper iPC operation. This configuration of DPC features must be processed through the front panel key pad of the DPC.

- The first option to be configured is the serial port destination. The DPC that is connected to the PC using the 200-1126 Serial Cable must always be configured to “Local”. If a network of more than one DPC is being used, all other DPCs on the network must be configured to “Remote”.

- The second option to be configured is the serial port output device. This must be set to “Computer” with an “iPC” format (Note: DPCs equipped with firmware version v3.4 or v3.3 must use the “Winter” format). All DPCs must have the output device setting configured as described.

The third option to be configured is the serial port baud rate. This must be set to 19,200 on all DPCs.

This completes the DPC and PC setup requirements for iPC operation.