

# **Pandora International**



## **Pogle Evolution Installation Manual**

# About this manual

This manual contains important technical information for the Pogle Evolution Platinum Control Systems.

Please read this document before attempting to install or service the equipment described.

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## Contents

<b>Equipment</b>	<b>4</b>
<b>General Safety Instructions</b>	<b>4</b>
Input Voltage	4
Fuses	5
Rack Removal	5
Servicing	5
Ventilation	5
Cleaning Information	6
Installation caution	6
<b>Unit Functional Description</b>	<b>7</b>
Pogle Platinum	7
PBX6001 Pogle Workstation	7
PBX6002 Pogle Telecine Interface	8
Pogle Evolution Control Panel Interface	8
<b>Factors affecting Installation</b>	<b>9</b>
SCSI Cable	9
RS422 Cable	9
RGB Video to SGI Monitor	9
Keyboard and Mouse	9
Ethernet	9
USB Cables	9
<b>Equipment Dimensions</b>	<b>11</b>
Pogle Workstation and Telecine Interface	11
Control Panels	12
<b>Connectivity</b>	<b>13</b>
<b>Pogle Installation</b>	<b>14</b>
Shipping checks	14
Rack Mounting	14
Mains wiring	16
Pogle Inter-rack connections	17
Pogle workstation to SGI	17
SGI to Power-edge PC	18
Graphical User Interface	18
Control Panel Wiring	19
System Sync Pulses	19
RS 422 Cables	20
Power-edge PC	20
Setting up new Evolution panels	22
<b>Trouble shooting</b>	<b>23</b>

# Pogle Evolution

A third generation control system designed to reflect that changing nature of the Post Production, Archive and TV transmission markets. A resolution independent system designed to work with almost all modern pieces of equipment, it comprises of the following:-

## Equipment:

- 1 x Set Pogle Evolution panels
- 1 x Dell 350 Poweredge 350 1U PC
- 1 x USB Hub
- 1 x Netgear 4 way Hub
- 1 x KVM Switch
- 1 x Wireless Keyboard & Mouse, Wireless Receiver, Monitor
- 1 x Pogle Evolution Workstation
- 1 x Pogle Evolution Interface Rack (specific configuration will change according to desired machine to be interfaced to).

## General Safety Instructions

### CAUTION

These servicing instructions are for qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are fully qualified to do so. Refer all servicing to qualified personnel.

### Units covered

- Pogle Evolution control panels
- Pogle Evolution Workstation
- Pogle Evolution Interface Rack

## Input Voltage & Current

Pogle Evolution Control Panels – powered via a straight dc 24v and 5v from the USB Hub.



Pogle Evolution USB Hub, Netgear Hub & Poweredge 1U PC – Powered by 100-250VAC @ 50/60Hz, auto range sensing by the PSU.

Pogle Evolution Workstation & Interface = 100-250 VAC @ 50/60Hz, auto range sensing by PSU, 110VA @ 110V; 140VA @ 240V.



**CAUTION! Severe damage to the Internal Power Supply will result if connection to Input Voltages other than those specified occur.**

**WARNING** – This equipment **MUST** be earthed.

*Ensure that the mains plug or the application inlet remains readily accessible after installation.*

## **Fuses**



Fuse type for Pogle Evolution Workstation & Interface;  
240V operation: 250V T2A Slow Blow Ceramic (IEC Approved); For 110V  
operation: 120V 3.15A Slow Blow (UL Approved)



**CAUTION! To reduce the risk of fire replace fuse only with the same type and rating. Never use a mended fuse! Do not short circuit the fuse holder!**

## **Rack Removal**

When installing the racks, fit the carrier frame to the 19inch main rack first. Then fit the Workstation and Interface racks.



**CAUTION! These racks are heavy and long, it may be advisable to have help when sliding in to the carrier.**

**During service, one or other of the racks may need to be pulled forward to allow access to the rear removable lid. Caution should be taken as the weight may make the unit unstable.**

The Lids to both units must be fitted at all times, unless they are being serviced.

## **Servicing**

Refer to Installation manual before removing lids.

There are rotating blades (fans) enclosed within the units, care must be taken after opening the lids that loose clothing, hair, etc. does not get entangled.



**CAUTION!  
Switch off power before removing or inserting printed circuit boards and connectors!**

## **Ventilation**

The Pogle Evolution Workstation and Pogle Interface cabinets are cooled by a ventilation system. Air is drawn in through the front of the rack and is expelled at the rear left hand side.

In the Pogle Evolution Control Panel air is drawn in under the control panels and expelled at the back. For this reason, make sure that the air inlets are not covered when setting up and that sufficient space is maintained to the other units.

For cooling reasons always keep the covers closed during operation.

The admissible ambient temperature range of the Pogle Evolution Colour Digital Correction system is from +5C (41 F) to +30C (86 F). It is however strongly recommended to not exceed an ambient temperature of 25C (77F).

Make sure that the machine is protected against high humidity!

Make sure that enough space is provided so that the cabinets are easily accessible for operation and service works.

**Note:** Great care must be taken to ensure that the Workstation & Interface racks have sufficient ventilation, overheating will cause unreliable operation & eventually permanent damage.

Pandora International Limited warranty does not cover damage caused by overheating.

## Cleaning Information

Qualified personnel only shall clean the unit.

Where fitted, Fan Filters and Air Vents shall be checked and cleaned on a regular basis.

We recommend at least once per month of continuous operation.

## Installation

### Caution

The unit shall only be installed by qualified personnel; a two man lift is required.

Unit weight:

Pogle Workstation approx. ??kg

Telecine Interface approx. 16kg.

Unit must be installed into a standard 19" rack system to IEC 297, on the bracket provided.

The air-flow through the unit is from right to left. Ensure that there is an adequate ventilation gap on each side of the unit.

### Caution

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

Failure to comply with these instructions may cause permanent damage to equipment or injury to personnel.

Pandora Warranty does not cover situations where equipment has been installed, serviced or modified by non-qualified personnel.

## Application

The Pogle Telecine Control System is designed only for applications in Post Production & TV studios.

For safety reasons, any application for purposes other than the original intended is not allowed.

# Unit Functional Description

The **Pogle Evolution** consists of three main parts (one of which is an SGI Computer) and depending upon what it is being connected to, a fourth optional part.

## 1] Pogle Platinum

Pogle Platinum features an enhanced Graphical User Interface [GUI] which is built around a Silicon Graphics Computer [SGI] usually an O2.

Note that the SGI computer is not usually supplied by Pandora. Instead it should be ordered from the local Silicon Graphics representative to ensure full service and maintenance support.

Information for ordering the SGI computer can be found on our web site .....

<http://pogle.pandora-int.com>

The SGI computer is connected using ethernet to the Ethernet Netgear Hub, this provides a reliable high bandwidth connection for communication between the microprocessor in the SGI and the microprocessor within the Pogle. All software for the Pogle Evolution is downloaded from the hard disk inside the SGI computer. Software for the Pogle Platinum can be downloaded from our web site or if requested from a CD ROM supplied by Pandora. Note however that the Pogle Workstation carries a unique serial number and software will only run on licensed systems.

The Graphical User Interface is driven entirely from the SGI running under the standard Irix operating system. All real time tasks however are controlled from the Pogle Workstation rack with its proven real time software. **Note that as an ethernet connection is used to connect to the Poweredge 1U PC and the SGI, as well as the PiXi if used, we very strongly recommend the use of an Ethernet switched hub to ensure that this is separated from the House Network.**

Although it is not required for normal operation of Pogle software many users choose to extend the SGI keyboard cable in to the control room to allow easy access to SGI related functions such as file back up or to download new software via the network. We have found cable runs up to 20 or 30 meters usually present no problems. It is not so necessary to extend the SGI mouse as the mouse function can be driven directly from the Pogle Evolution Control desk or the Wacom Graphic tablet.

NOTE: O2 are trademarks of Silicon Graphics Inc.

## 2] PBX6001 Pogle Workstation

This is a 2U high 19" Rack unit which contains a powerful computer workstation based around twin Motorola 32bit Microprocessors.

The Workstation is the control centre for the Pogle system, commands are collected from the Control Panel interface interpreted by the appropriate software handler and then passed on to either the Telecine Interface rack or via serial interconnections to any VTR's or other devices connected to the system.

One of the microprocessors within the workstation is dedicated to handling commands from the user.

A dual ported ram buffer is used to link to another microprocessor which is responsible for handling all of the input/output resources with which the Pogle Workstation is equipped.

The Pogle Workstation runs a real time multi-tasking operating system which allows several system tasks to run at the same time. Extensive use is made of the interrupt handling facilities of the 68020 microprocessor to ensure that software handlers respond rapidly to real time events especially with relation to television sync pulses.

The first SCSI port was used on Andix systems to drive the Hard Disk drive this is now done via the SGI O2. The second SCSI port is used to communicate to other units within the Pogle system such as the Telecine Interface Rack.

### **3] PBX6002 Pogle Telecine Interface**

This is also a 2U high 19" rack unit which must be mounted adjacent to the Pogle Workstation rack in the special carrier frame provided.

This rack converts the SCSI commands issued by the Pogle Workstation into the required format to control whatever telecine system is attached. Another Motorola 68k microprocessor is used to control this process.

The combination of hardware contained within this rack varies depending on the type of telecine interface required. Please see the relevant section of this manual for details concerning your telecine system.

Sometimes the Pogle system is supplied as a Disk to Disk or Tape to Tape controller. In this case the PBX6002 Telecine Interface rack is not required as there is no telecine to interface to.

### **4] Pogle Evolution Control Panel Interface**

The Pogle Evolution Control Panel Interface is achieved through using the Poweredge 350 1U PC, it is a windows XP operating system which communicates with the Control Panel via USB, scanning the many control switches and encoders of the Pogle system and converts these into a digital code which is then transmitted to the main Pogle Workstation and also the SGI Workstation via an ethernet data link.

The Evolution Control Panel may be supplied in two versions either as a complete moulded kit of three panels which can be recessed or sit on top of the desk, or as separate panels.

The connection to each panel from the Poweredge PC is via a USB Hub, this converts the USB connection from the PC to each panel as well as supplying each panel with 24 & 5V dc.

## Factors affecting Installation

There are many factors affecting the way that the Pogle Control system is installed. The system is fairly flexible and can be adapted to many environments but there are a few constraints which determine where the various pieces can go.....

### **Cables that can NOT be extended .....**

#### **SCSI Bus**

Between the PBX6001 Pogle Workstation Rack and the PBX6002 Pogle Telecine Interface Rack. The SCSI bus communication is very critical to the operation of the system. Normally we expect the two Pogle racks to be mounted in adjacent rack positions [we supply a mounting frame to facilitate this].

### **Cables that can be extended easily .....**

#### **RS422**

Video Tape Recorders and other remotely controlled devices.

Normally we supply 10 meter cables but it is possible to supply longer lengths to order.

Some telecines also use RS422 connections but be aware that some of these connections run at VERY high speeds and so there are some restrictions on the cable length. In general if you need to extend RS422 cables over about 10 Meters then care must be taken with the choice of cable used and its construction, low capacitance, individually shielded pairs are absolutely necessary to avoid cross-talk and other interference problems. Please contact Pandora for advice.

#### **RGB Video to SGI Monitor**

Normally the SGI Video Monitor uses an RGB connection with Sync on Green Channel. O2's are equipped with a 15pin Mini DEE connector whilst Indy's use the more robust 13W3 connections [looks like a 25way Dee Type but with 3 coax pins built in].

In either case Pandora supply adaptors so that the bulk of the cable length consists of three standard 75ohm BNC cables for RGB.

#### **SGI Keyboard & Mouse Cables**

With the use now of a KVM switcher and wireless keyboard and mouse extension cables should not really be required.

#### **Ethernet**

Most newer telecine machines use ethernet connections for control, as well as the PiXi and also connection between the SGI to the Poweredge PC. These should **NOT** be connected to the house network as heavy traffic could interrupt the control to the telecine, instead an ethernet switcher should be used, and failure to follow this will mean that the system at best will run slow at times.

**In the Pogle system a dedicated Ethernet is provided between the PBX6002 Telecine Interface rack and the machine. The SGI Ethernet is available for regular networking e.g. between rooms although we recommend that this be connected to the house network through an Ethernet switch.**

#### **USB Cables**

Most USB cables have a maximum length of 5M, to avoid any potential problems we would recommend that this length is not exceeded.

**General Recommendations**

All of this means that for a standard installation we recommend the all of the Pogle equipment with the exception of the Control Panel should be mounted in a 19" rack bay as close as possible to the telecine machine. The Control Panel and SGI Monitor can be mounted some distance away in the control room.

If there are any special requirements or constraints on a particular installation please contact Pandora at the earliest opportunity to discuss the possible complications.

# Equipment Dimensions

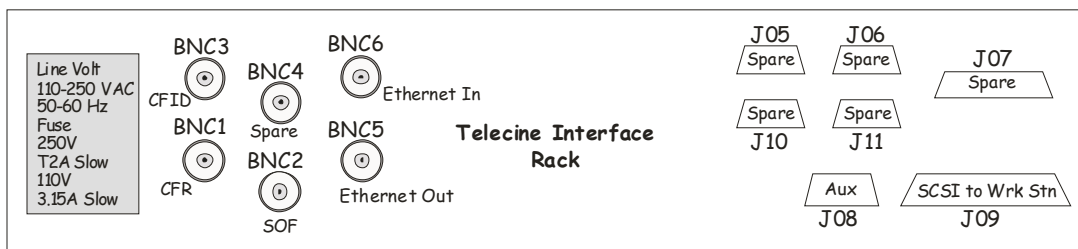
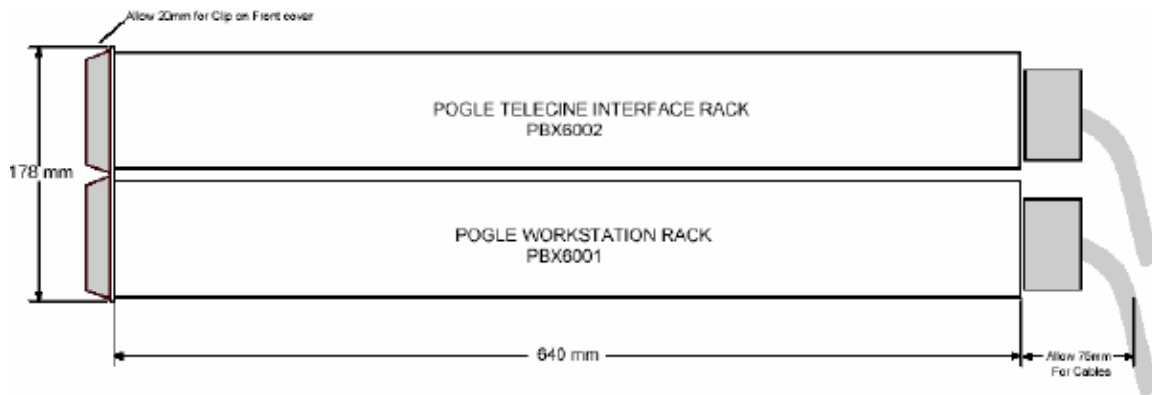
## Pogle Workstation and Telecine Interface Racks [Side & Rear Views]

Each rack occupies 2U of space in a standard 19 inch rack bay.

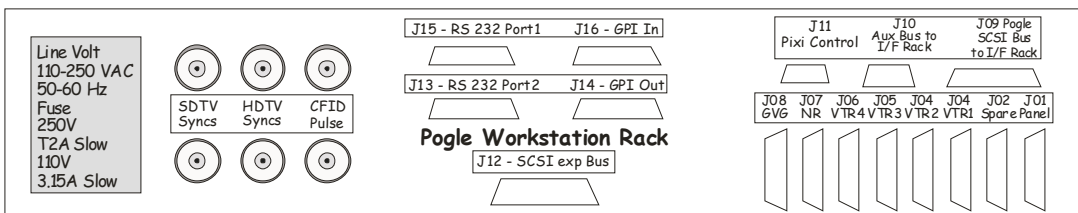
A special carrying frame [4U] is provided which supports the racks from the front and allows them to be slid forward for service. Care must be taken when running cables to the rear of each rack to provide sufficient slack to allow the necessary forward movement of each rack.

We recommend that at least a 1U gap be left above the top most rack to allow unrestricted airflow and free movement of the rack.

Normally a rack shelf would be installed at this position to mount the SGI O2 computer.



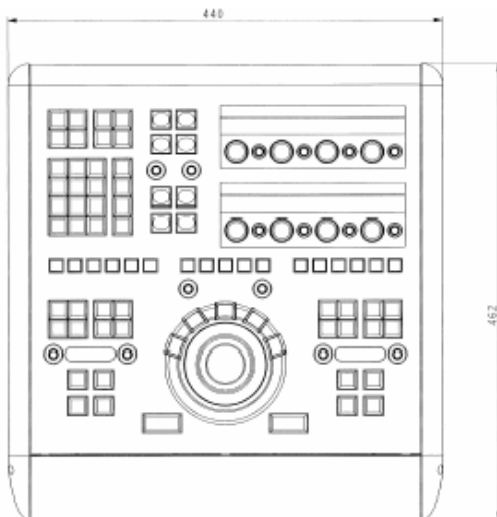
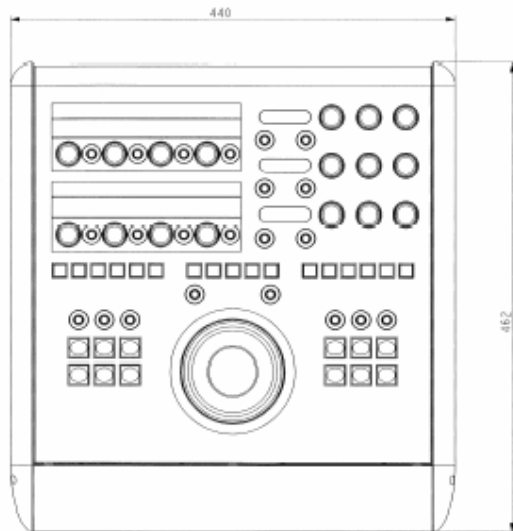
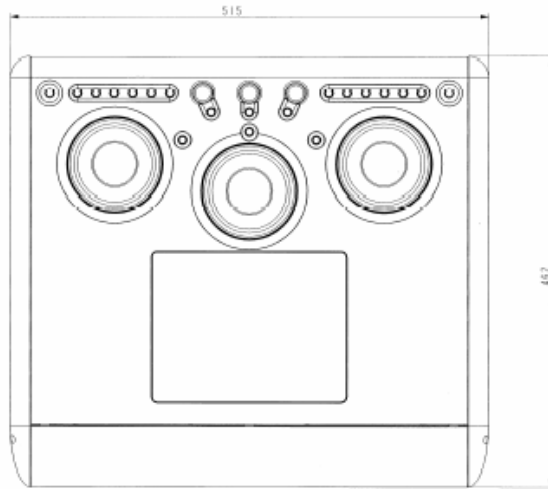
**Telecine Interface rack PBX 6002**



**Pogle Workstation rack PBX 6001**

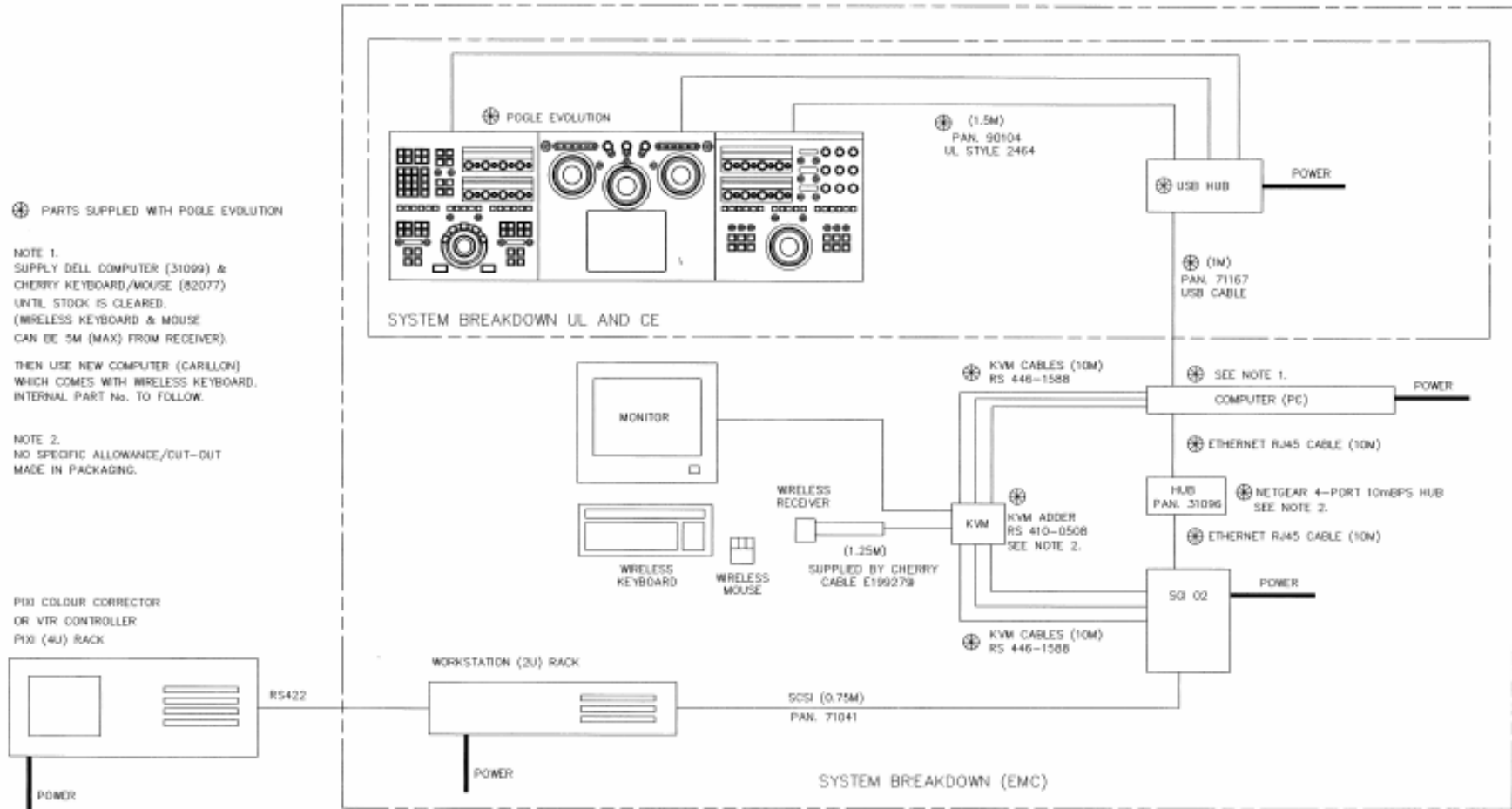


# Separate Panels



## Connectivity

Shown below is the system interconnectivity, everything within the dotted line is part of the Pandora Evolution:-



# Pogle Installation – General

## Shipping

We recommend that you carefully inspect the Equipment when it first arrives. This should be done **BEFORE** power is connected.

Preferably remove the top covers from the units and double check that none of the internal circuit boards or cables has been shaken loose during transit.

**Any damage should be reported immediately.**

## 1] Rack Mounting

The Racks should be mounted using the brackets supplied, please read the earlier note about cooling and ventilation. It is first necessary to mount the two electronics racks. The **Pogle Evolution Workstation** and **Pogle Evolution Telecine Interface** are mounted in a special carrier frame in a convenient position close to the telecine (unless being supplied as a Disk to Disk or Tape to tape system). With modern Telecines it will connect via standard 10 Base T ethernet through a Hub.

The carrier frame provides not only support for the extended depth of these racks but also a means by which either rack may be slid forward for service and routine maintenance. This is important as Pogle does not use a card frame system and each rack contains a single large PCB which may only be accessed from the top of the enclosure.

Note:

The Pogle Evolution Workstation Rack PBX6001 must be mounted into the bottom position of the Carrier Frame. If this is not observed then it will be impossible to access the Pogle Evolution Telecine Interface Rack PBX6002 after cables have been connected.

Cables must be dressed in such a way as to allow sufficient movement for the racks to be slid forward. The Pogle Evolution Workstation Rack may be slid forward on its own in order for work to be carried out. In order for the Telecine Interface Rack to be slid forward it is also necessary to pull forward the Pogle Workstation unit which then provides additional support for the Telecine Interface Rack. To provide the best service access to the Pogle electronics it is better not to mount any other equipment directly above in the rack, a 1U blanking panel is recommended.

Please take care when sliding rack's forward that the equipment rack does not become unbalanced and fall over.

Each of the two main Pogle racks are equipped with fans which pull in fresh air from a grill at the front of the rack and expel it along the left hand side [when viewed from the front].

Provision should be made when mounting the units to allow some air circulation around the sides of the racks.

The Pogle Evolution Control Panel can be mounted some distance away from the main electronics racks. The connection between the Pogle Evolution Control Panels and the Pogle Evolution Workstation is via a short (1.5m) cable to the USB Hub, which in turn is connected (and also physically connected very closely) to the 1U Poweredge 350 PC via USB. It is essential that the distances between the panels and the PC are kept short, do **not** extend them, the Ethernet cable is designed for networking and can be quite happily extended beyond the 10m supplied .

## 2] Mains Power Wiring

Each of the Pogle racks requires mains power on a standard IEC type mains connector. Suitable connectors are supplied with the system.

**Note** power requirements are as follows....

PBX6001 + PBX6002

Line Voltage :	100-250VAC @ 50/60Hz Auto Range Sensing by Power Supply Unit.
Line Current :	1A Max @ 240V
VA Rating :	110VA @ 110V, 140VA @ 240V

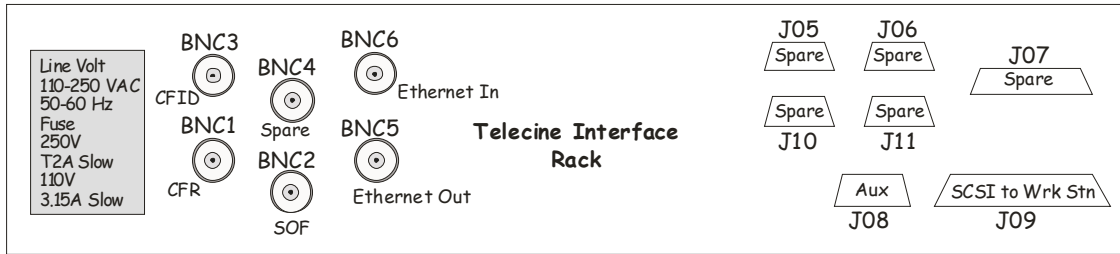
The SGI Computer and VDU monitor also require mains power and are normally supplied with a cable for this purpose. Please consult the relevant documentation supplied from SGI.

As with all computer systems it is important that the power supplied to the system is well regulated and noise free - interference may cause data corruption and in serious cases the computer may crash causing the operator to lose control of the telecine.

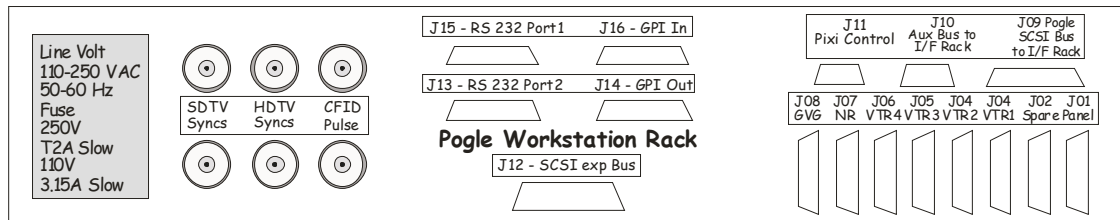
Preferably the VDU monitor should be driven from the same supply as the computer rack or at least the same phase.

All units should be connected to a good technical ground. A special earth terminal is fitted to this rack which may be used to link the system directly to the telecine chassis using heavy gauge wire if noise problems are apparent.

### 3] Pogle Inter-Rack Connections



**Telecine Interface rack PBX 6002 (Spirit version shown)**



**Pogle Workstation rack PBX 6001**

Two cables are supplied with the system to interconnect the **Pogle Workstation** with the **Pogle Telecine Interface Racks**.

The first of these is a 50 way ribbon equipped with CENTRONIC type connectors; this carries the SCSI BUS connection between the two racks.

The second is a 15 way male dee to dee ribbon cable which carries various timing pulses and signals.

<b>PBX6001</b>	<b>PBX6002</b>	
J09	J09	50 Way SCSI Bus
J10	J08	15 Way Aux Bus

### 4] Pogle Workstation to SGI Computer

The SCSI port of the SGI Computer must be connected to J12 [SCSI Expansion Bus] on the rear of the PBX6001 rack. Pandora supply the necessary adaptor cables for this but note that different cables are required for Indy and O2 so the correct type must be specified at the time of ordering!!

If required Optional Removable Storage Drives may also be connected in series with the SCSI interface. E.g. for an Indy a CD Rom drive may be required or perhaps a JAZZ or ZIP drive for file backup.

In all cases the following rules apply ....

#1] The **Pogle Workstation** rack will be SCSI ID#3 and this cannot be changed. Make sure that the ID setting of any additional drive does not conflict with this.

#2] The Pogle Workstation **MUST BE** the last device on the SCSI chain i.e. furthest down the cable from the SGI workstation. Ensure that **SCSI termination** is **DISABLED** on any additional devices.

#3] Keep the SCSI cables as short as possible.

In some cases a SCSI mounted floppy drive may be required in order to read EDL's etc. In this case the Floppy drive will have to be mounted in the equipment room rather than the Control Desk. If it is important for the operator to have a floppy drive available locally we recommend that a low cost PC [even a laptop] to be installed into the control room, this can then be connected via Ethernet to the SGI which can then be any distance away. Data can easily be transferred over the network using FTP or NFS.

Visit our web site for the latest information:- <http://pogle.pandora-int.com/>

## 5] SGI to Poweredge PC

A connection is made from the SGI to a Netgear 4 Way Hub, the hub will also have connections to the Telecine Interface, with most modern telecines, as well as a connection to the Pixi for all Moore Mega 1, Mega 2, Megashapes and Megagamma control. The Hub then is also connected to the 1U Poweredge PC, situated in the editing suite via a standard 10m RJ45 ethernet cable. The Poweredge then converts this into control signals & power to the Evolution desk.

## 6] GUI - Graphical User Interface

A connection will be required to the Computer Monitor in the control room for the Graphical User Interface. On **Pogle Platinum** systems the monitor is driven directly from the SGI computer. O2 computers are fitted with a 15pin HD Connector [similar to the type found on most standard PC's] Indy's are equipped with a 13V3 connector [looks rather like a 25 way Dee type but with three Coax inserts replacing some of the pins].

In both cases Pandora supply a suitable adaptor box that converts the Monitor Connection from the SGI to three standard 75  $\Omega$  BNC cables. Video Information is transmitted as RGB with Sync on Green Channel. A similar box is provided to connect to the monitor at the other end although some monitors are already equipped with BNC inputs and these should be used where available. Please refer to our web site (<http://pogle.pandora-int.com/>) for a discussion on the type of monitor that should be used as there are many options for SGI.

Note that there are also some LCD flat screen displays available for SGI. Some of these use standard video connections however there are a few which provide a ribbon cable between the screen and a special interface card within the O2. In general this type should be avoided as they compromise the correct placement of the Pogle and SGI equipment — normally the SGI computer is mounted some distance away from the control room as it has to be connected directly to the Pogle Workstation Rack.

## 7] Control Panel Wiring

There are two options for mounting the new control consoles into a desk...  
The normal option is three panels supplied as one 'self contained' unit, although the panels can be broken out and fitted wherever are best suited.

For more information on the panels please refer to page ?????? where the panels and their dimensions are shown. The panels maybe mounted in any order although obviously individuals will have a preference. The Panels are connected to the Poweredge PC via an RS422 style cable, which supplies the control voltage and signals to and from the panels, this is then connected via the USB hub and a USB cable to the Poweredge PC.

As the panels are fed via USB they are if needed Hot swappable.

## 8] System Sync Pulses

Two signals must be provided from the main System Pulse Generator.  
Pogle will **NOT** operate without the correct sync signals connected.

### a] **Black + Burst** [or Mixed Syncs]

Required by the Pogle Workstation Rack. This signal is used to time all communication between Pogle and other devices within the telecine or tape suite and is crucial for correct operation. A high impedance loop-thru connection is provided on standard 75Ω connectors [J23-24 PBX6011 rack].

It is obviously important that this signal should be obtained either from the same source or from a correctly timed derivative of the reference signal used to drive both the Telecine and any VTR's attached to Pogle.

Newer Pogle systems are also equipped with a separate input for HDTV [tri-level] sync. [An update kit can be ordered for older racks]. Pogle software can select between the two inputs as required.

Note that it is not always necessary to have a separate connection for HDTV sync when working in a multi-standard environment. Spirit Telecine's provide a SDTV reference sync at all times even when working in HDTV modes and this can be used to drive Pogle directly.

There are now some dual standard pulse generators that provide both HDTV and 525/625 syncs locked together.

### b] **Field 1 Ident [CfiD]**

Not normally now required as this signal is used only when controlling SDTV VTR's in a Composite edit, it is not required at any other time, attaching an incorrect signal will create more problems than not having anything connected. If the VTR control option is not fitted then this signal is not required.

This pulse is used by the Pogle's Internal Colour Framer to ensure that edits are performed with correct timing when using PAL or NTSC **composite** recorders. When running in PAL format this pulse marks the first field of an 8 field sequence. In NTSC the pulse occurs after every 4 fields.

Some Pulse Generators output this pulse as a narrow [1 line wide] pulse during field 1, others provide a square wave. Either type may be used as the input to Pogle is edge triggered.

Another form of this pulse is a narrow white pulse superimposed on a black signal with normal syncs etc. It is possible to use this type of pulse as well but the input threshold level of Pogle will need to be set carefully.

Connection usually should be made via a 75  $\Omega$  cable to BNC 3 on the rear of the **PBX 6002 Telecine Interface Rack**. It will then be necessary to adjust the input threshold level as described in the section **Timing Pulse Adjustment** on the relevant page of this manual.

If there is no **Telecine Interface** [i.e. Tape to Tape System] then an alternative input for CfiD will be provided on the rear of the **PBX6001 Workstation Rack**.

Open the SOURCE SETUP window on the Pogle Platinum display to show the correct operation of the system sync signals. The Vertical frequency of attached sync signals is displayed.

**Other pulse inputs are specific to the Telecine type in use, see the relevant section of this manual for details.**

## **RS422 Cables**

Pogle uses standard RS422 9 pin "D" type cables for the control of VTR's, Noise Reducers, Switchers and the Control Panel.

Note that Pandora doesn't supply any RS422 cables, they maybe ordered in specific lengths, for older Telecines such as Ursa, Pandora also supplies 2 x 5 meter cables for the FAST and E.S. bus.

The RS422 interface uses two twisted pairs each with an individual screen.

These are connected as follows.....

2 + 7 First Pair

4 Ground for first pair

3 + 8 Second Pair

6 Ground for second pair

## **9] Evolution PC**

**Network:** The Evolution PC is connected via the Ethernet Hub to the O2 and the rest of the system. A USB cable is linked from the Evolution PC to the USB Hub. The Pogle & the

Evolution PC has to be on the same house network address. I.e. the TCP/IP house network address of the Evolution PC has to match the house address of the Pogle.

USB Hub. USB from PC to hub. Standard USB along 9 pin D outs of hub including the 5V. They also have an extra 24V along one line. This is to supply power to the panel board via a 24V to 5V DC-DC converter.

This is to supply a bit of extra current available to the panels.

There's a switch on the panels to go from this 24V derived source and the normal 5V USB. This is so an engineer could just plug an individual panel to a USB link and power it of that only.

The Wacom tablet is also linked to the PC via the USB of its panel.

The panels have a USB 8051 controller each and when you have a good USB connection to the PC via the hub you see a green led on the panel board.

When data is coming from the panel when you move an encoder or hit some buttons then you should see another led flashing.

The USB's are hot swappable but if you get some kind of USB crash then it's best to unplug the power to the USB hub, wait, and then plug it in again. Check that the LEDs on the hub are on. In Admin tools > Services > Pandora Evolution Panel on the PC you can start/stop service.

On the PC toolbar on the right you can see this service running and it's status.

The number of panels running in devices.

The IP address of any controllers are kept in PCP\_Service > Boot > Config.xml.

You see Server etc. The first one is the default. You can switch/toggle between PCs that you are having control over with the Wacom tablet etc from the panel by hitting three keys at once to toggle.

You can start / stop the services with /pogle/bin/aps/udpinputs.

There are two drivers for each 8051 controller. One for accessing the device and one for what's programmed on it.

When installing you see 2 for each panel being installed.

It may be a good idea to use the forth usb hub socket on a panel momentarily just to get the driver installed. This would save having to load the driver again if anyone was to use the forth.

Then the wallpaper is loaded.

Then, plug in all the devices.

Stop services. Sort out the config.xml if you have to.

Not all tablet pens work the same.

There are some 'out there' that will not work with the wacom.

Make sure you have the right one. Check under the panel if you have to and wave the pen over the surface of the tablet. You should see an LED flash.

For testing the panel encoders and buttons...

There is TestTool.exe which is a debug for hitting the buttons etc and seeing data. It's one way only from panel to PC.

On the Pogle in debug there is GenB. Activate this and when you hit buttons they light up. This indicates that there is feedback ok.

## **To set up a new Pogle Evolution Panel (June 2003):**

1) Install the Evolution drivers.

1.1) Insert the Evolution CD.

Normally autorun should work and the setup starts automatically. If not double click Setup.exe

1.2) Follow the on screen instructions

2) Modify the default setup

2.1) Modify the file c:\PCPService\Boot\config.xml

You have to add the Pogle O2 here by adding a server.

Example:

```
<server>
  <name>Pogle Academy</name>
  <ip>192.168.0.180</ip>
  <port>4818</port>
</server>
```

Note that the default O2 should be on top of the server list.

2.2) Create a link from PCPTray.exe to the Autostart

3) Plug in the USB from the Evolution Panel into the PC

3.1) The new devices will be found. Click Next (many times)

3.2) Plug in the USB into the second USB port and redo 3.1

4) On Platinum

4.1) Platinum version 468 and higher go to "Room Setup" and select CP Type Evolution.


4.2) Platinum version < 468:

open console and write checkconfig -f pogleinput

Note: you can start /pogle/bin/apps/udpinput manually if you want to see debug info but make sure that no udpinput is running (killall udpinput).

5) Test

## **Troubleshooting**

To check that the system is working correctly, look on the start tray for the PCP services icon, looks like this  by right clicking on the icon you will bring up the following menu:-

- Devices
- Servers
- Use my tablet as a mouse
- / Use my keyboard on Pogle
- / Use my mouse on Pogle
- / Use my tablet as a mouse on Pogle
- Stop the service
- Restart the service
- Exit Program

The Devices menu will expand out to show the state of the connected panels:-

- 0: SCC Panel: 1 firmware: 5 status: ok
- 1: Trackerball panel type: 3 firmware: 5 Status: ok
- 2: Operations panel type: 0 firmware: 5 status: ok

The Services menu can expand out to show the connected devices, i.e. SGI and PC:-

- 0: Academy (or whatever the name of the SGI attached to the Pogle is)
- 1: Local Host (the 1U PC)

On the desktop there is a shortcut to the PCP Service folder, this contains files & drivers, in the Boot Folder you will find the Panel Boots and Config Doc, the Config Doc needs to be accessed to insert the correct SGI IP address and name, to do this Go to c:\PCPService\ Boot\ Config XML doc. Right click on this file and select EDIT, this will then display the following file:-

```
<?xml version= "1.0" encoding= "utf-8"?>
<TabletOptions xmlns:xsd= "http://www.w3.org/2001/XMLSchema" xmlns:xsi =
"http://www.w3.org/2001/XMLSchema-instance" xmlns= "http://pogle.pandora-int.com">

<servers>
  <server>
    <name> academy</name>
    <ip> 192.168.0.180 </ip>
    <port> 4818 </port>
  </server>
  <server>
    <name> Localhost</name>
    <ip> 127.0.0.1 </ip>
    <port> 6666 </port>
  </server>
</servers>
<TestNodes>
  <test_x0020_nodes>
    <name> Localhost </name>
    <ip> 127.0.0.1 </ip>
    <port> 6666 </port>
  </test_x0020_nodes>
</TestNodes>
</TabletOptions>
```

```

</testNodes>
<xScale> 10000 </xScale>
<yScale> 10000 </yScale>
<msUDPSend> 30 </msUDPSend>
<msTablet> 10 </msTablet>
<maxUSBDeviceNumber> 100 </maxUSBDeviceNumber>
<maxUSBDeviceTypes> 4 </maxUSBDeviceTypes>
<filesDirectory> C:\PCPSERVICE\Boot </filesDirectory>
<filesXilinx> xilinx.boot </filesXilinx>
<filesLamps> lamps.boot </filesLamps>
<myUDPPortListen> 4818 </myUDPPortListen>
<myUDPPortSend> 4817 </myUDPPortSend>
<myRemotingPort> 4819 </myRemotingPort>
<shouldSendMouse> true </shouldSendMouse>
<shouldSendKeyboard> true </shouldSendKeyboard>
<shouldSendTablet> true </shouldSendTablet>
<shouldSendTabletAsMouse> false </shouldSendTabletAsMouse>
<filesPanel>
  <string> panel0 </string>
  <string> panel1 </string>
  <string> panel2 </string>
  <string> panel3 </string>
</filesPanel>
<headers>
  <PacketHeader name= "start" description= "start of packet">
    <bytes> 60 </bytes>
  </PacketHeader>
  <PacketHeader name= "pen x" description= "pen x coordinate">
    <bytes> 16A8 </bytes>
  </PacketHeader>
  <PacketHeader name= "pen y" description= "pen y coordinate">
    <bytes> 16A9 </bytes>
  <PacketHeader name= "pen pressure" description= "normal pressure">
    <bytes> 16AA </bytes>
  <PacketHeader name= "pen button down" description= "pen button down">
    <bytes> 16AB </bytes>
  <PacketHeader name= "pen button up" description= "pen button up">
    <bytes> 16AC </bytes>
  <PacketHeader name= "key down" description= "key down">
    <bytes> 16A0 </bytes>
  <PacketHeader name= "key up" description= "key up">
    <bytes> 16A1 </bytes>
  <PacketHeader name= "switch down" description= "control panel switch event">
    <bytes> 16AE </bytes>
  <PacketHeader name= "switch up" description= "control panel switch event">
    <bytes> 16AF </bytes>
  <PacketHeader name= "encoders" description= "control panel encoders">
    <bytes> 16AD </bytes>
  <PacketHeader name= "displays" description= "control panel displays">
    <bytes> 16DA </bytes>
  <PacketHeader name= "lamps" description= "control panel lamps">
    <bytes> 16DB </bytes>
  <PacketHeader name= "ping" description= "pogle ping">
    <bytes> 16E0 </bytes>
  <PacketHeader name= "sleep" description= "control panel sleep">
    <bytes> 16E1 </bytes>
  </PacketHeader>

```

</headers>  
</TabletOptions

In the Boot folder you will find the Config file; Xilinx.boot file; and four folders panel0, 1, 2 &3, which contain the file lamps.boot for the relevant panel.

In the Drivers folder you will find a hex file 05472131.hex; Generic a Sys file; Loadme a Sys file; PCP a Sys file; PCP containing set up Info & Loadme containing set up Info.

Install Drivers folder contains Install drivers which is an MS-DOS Batch file.

Wallpaper folder contains the wallpaper for the PC.

Remove Drivers folder contains devcon a Windows Setup API; Remove Drivers which is an MS Dos Batch File; Remove loadme & remove pcp which are both MS Dos Batch files.

Other files in the Boot folder are keybook.dll; monitor config xml.doc; DeviceDriver Install; PCPRemotingShared.dll; PCPSChange; PCPService; PCPService. Install State; SetupAPI.dll a windows setup API; Test Tool & finally PCP Tray.