VKBD1 Installation and user manual

Installation and user instructions for :
VKBD1 Telemetry Keyboard

VKBD1 Manual

:: CONTENTS

:: CAUTION

ELECTROMAGNETIC COMPATIBILITY (EMC)
This is a Class A product, in a domestic environment it may cause radio interference, if this is the case the user may be required to take remedial measures.

MANUFACTURER'S DECLARATION OF CONFORMANCE
A Declaration of Conformity in accordance with the following EU standards has been made and is kept on file at Norbain SD Ltd. Norbain House, Eskdale Road Wokingham, RG41 5TS.
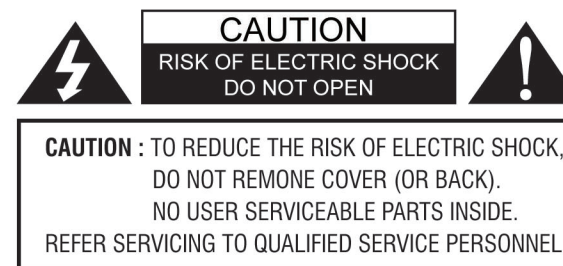
The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 89/336 EEC, the Low Voltage Directive LVD 73/23, the CE Marking Directive 93/68 EEC, and all associated amendments.

This document is intended to provide accurate information; however, the information contained herein is s ubject to change without notice Vista, in keeping pace with technological advances, ia a company of product innovation. Therefore, it is difficult to ensure that all information provided is entirely accurate and up-to-date. Vista accepts no responsibility for any inaccuracies or omissions and specifically disclaims any liabilities, loss, or risk, personal or otherwise which is incurred as a consequence, directly or indirectly, of the use and/or application of any of the contents of this document.

Specification subject to change without notice

ELECTRICAL SAFETY
Explanation of electrical safety symbols

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMONE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

:: INTRODUCTION

This manual covers the installation, set up and operation of the VKBD1 Vista telemetry control keyboard.

The VKBD1 remote keyboard allows the user to control up to 255 PTZ domes over an RS485 Network. Using either Vista PowerDome or Pelco D or P protocols

Note : This keyboard does not control any DVR functions.

Features:

• Controls 1 – 255 PTZ cameras
• Multiple Protocols including Vista PowerDome ,Pelco D and P
• RS485 Communications
• Built-in 3-Axis joystick
• Built-in 2 line LCD display
• User password protection
• Easy programming
• Programmable transmission speed

Before Installation

1. This keyboard system must be installed by qualified service and installation personnel
2. Unpack all components and confirm nothing is missing (See packing List)
3. Read instruction in this manual
4. Use wiring configurations shown in this manual

Packing List

1. VKBD1
2. Manual

:: FRONT KEY BOARD LAYOUT

<Figure 1>
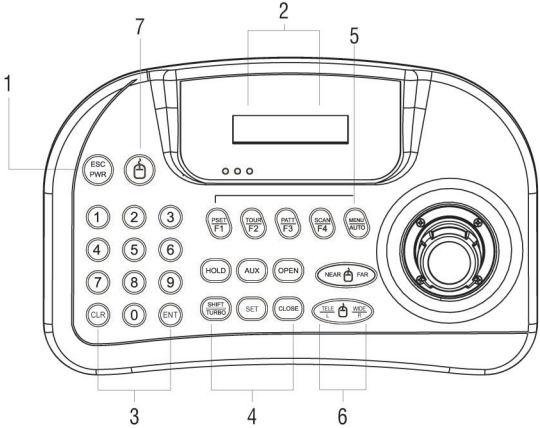
Number	Button	Description
1	ESC/POWER	Power on and off, press and hold for 3 seconds
		Escape/ step back with in menu setup
2	LCD DISPLAY 16 x 2 Graphic display	Displays camera ID, Protocol, Function status, general status and menu functions
3	Numbers	Camera selection keys, PTZ setup (1+ SET), Main setup (2+ SET)
4	Controller Function keys	HOLD System Locking (Unlock using 4 digit password). SHIFT/TURBO: Shift for function program, Turbo- High speed. AUX: External equipment on/off SET: PTZ and Main setup OPEN: Iris open CLOSE: Iris close
5	Function keys	Control of: Presets, Tours, Learn Tours and Auto Pan. Menu is used to access camera menu Function keys are programmable
6	NEAR FAR	Camera Focus control
	TELE WIDE	Camera Zoom control

:: REAR KEY BOARD LAYOUT

<Figure 2>
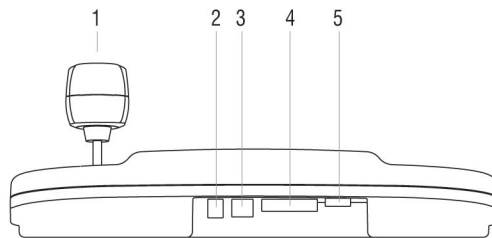
Number	Item	Description
1	Joystick	3 Axis Joystickv allows panning, tilting and Zooming of PTZ cameras. Also used to navigate the setup menu structure.
2	DC 12V Input	12V DC 2.1mm Jack plug required (140mA)
3	USB PORT	The USB port is reserved for future development
4	TRx Tx3 Tx2 Tx1 RS-485	RS485 Connector, Use Tx1, 2 or 3 for RS485 connection.
5	Program	This port is for factory use only.

:: SYSTEM CONFIGURATION

Before operating the domes, ensure that the Protocol, Addresses and Termination are correctly set

SIMPLEX

DOME 1 (Rx+)
DOME 1 (Rx -)
DOME 2 (Rx+)
DOME 2 (Rx -)
DOME 3 (Rx+)
DOME 3 (Rx -)

Tx 1 +
Tx 1 -
Tx 2+
Tx 2-
Tx 3 +
Tx 3-

Currently the TRx + and - ports are not utilised and are reserved for future development.

There are two options for wiring configurations from any of the three ports, either Daisy chained or Starred via an RS485 Star Driver, examples below :

Daisy Chained from single port

Tx 1 −   Tx 1 +

Dome 1 Un-terminated   Dome 2 Un-terminated   Dome 3 Un-terminated
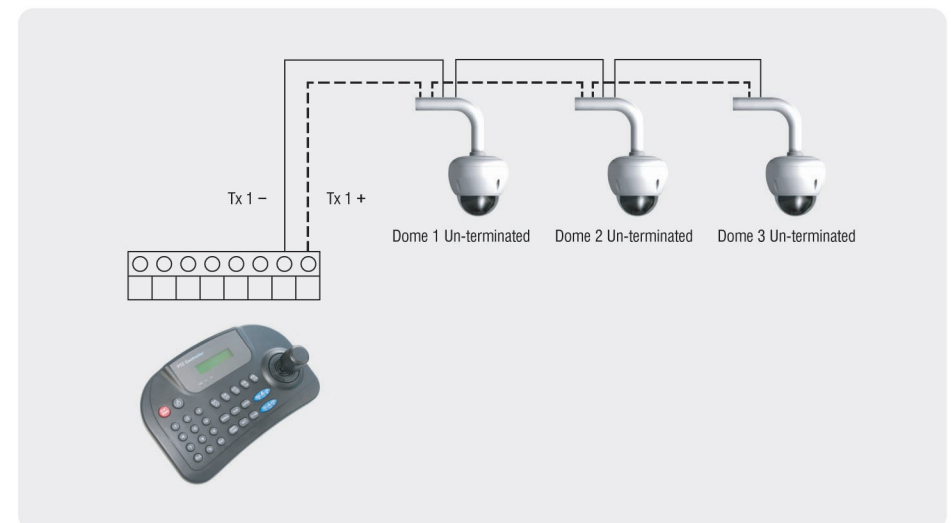
Using a VSD/16 Star Driver

Note: If there is a single dome on each leg, then terminate it. If there are multiple then terminate the last one and un-terminate the others..

VSD/16
Star Dirver

Using Multiple Outputs

Note: If there is a single dome on each leg, then terminate it. If there are multiple then terminate the last one and un-terminate the others..

Tx 3   Tx   Tx 1

There are two menus to set up within the VKBD1 keyboard:
1. Main menu – this sets up the main functions of the keyboard such as Keyboard address, buzzer etc
2. PTZ menu – This sets up the protocol, baud rate etc.
Within both menu structures there are sections not currently used, these are there for future development.
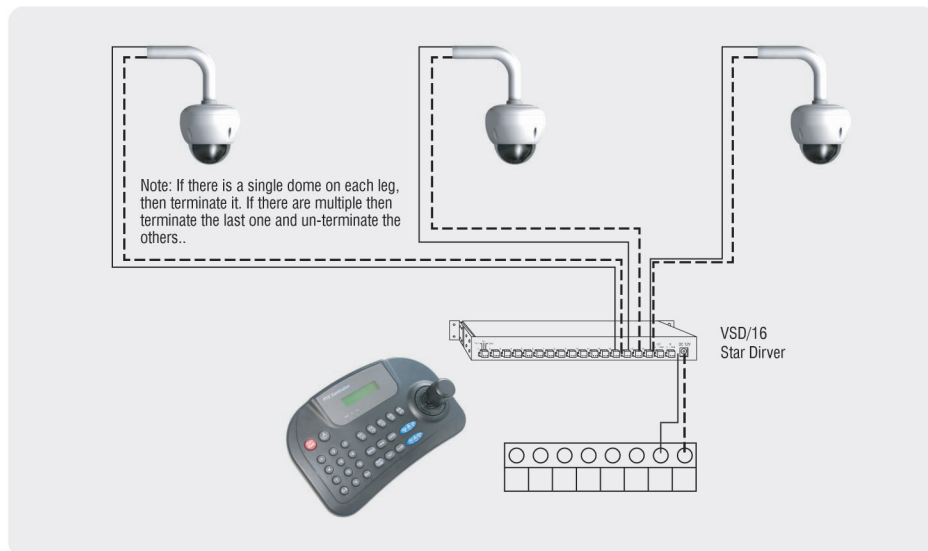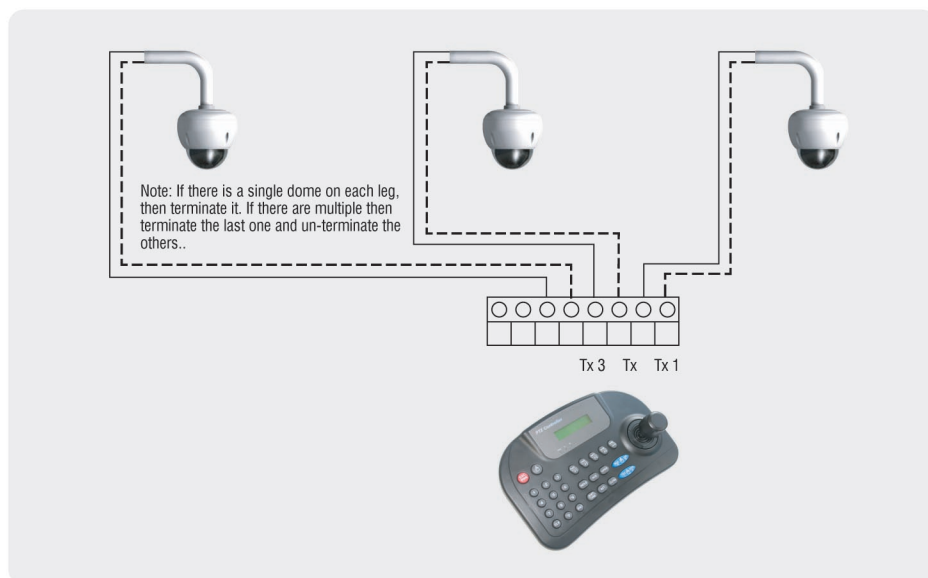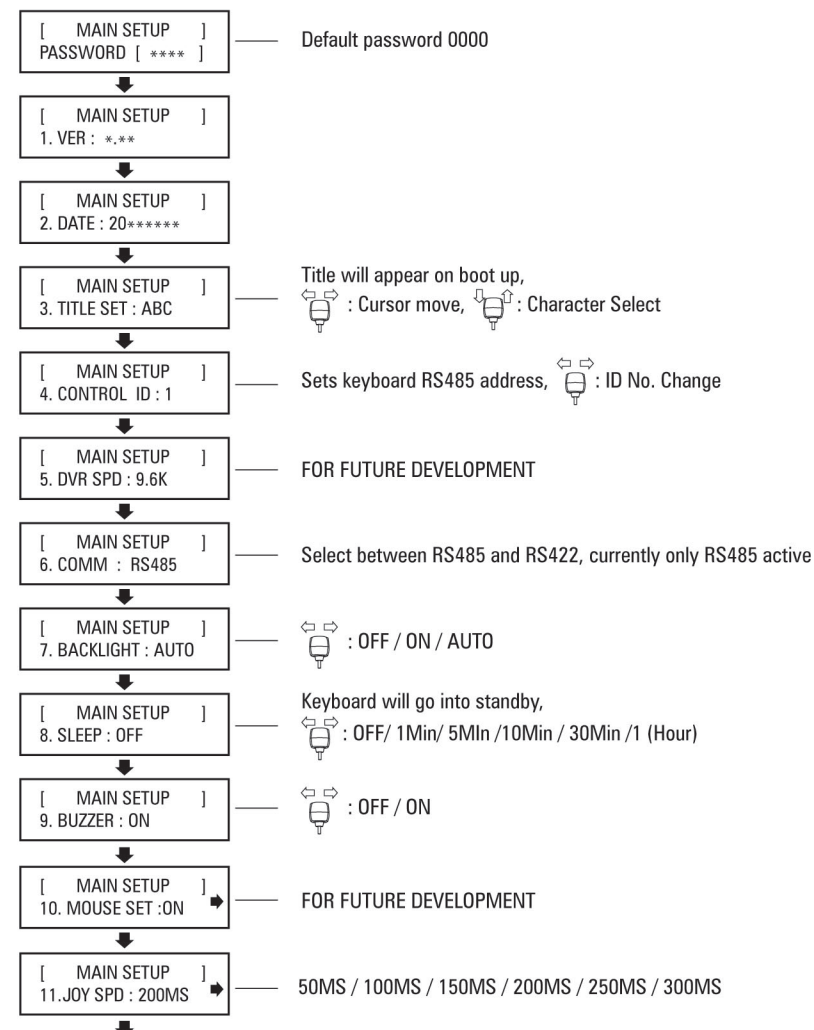
Main menu

This menu is access by pressing (2) and (SET) for 3 seconds, the keyboard will ask for a password, as default this is 0000 (4 zeros)

```
[    MAIN SETUP    ]
PASSWORD [ **** ]
```
Default password 0000

```
[    MAIN SETUP    ]
1. VER : *.**
```

```
[    MAIN SETUP    ]
2. DATE : 20******
```

```
[    MAIN SETUP    ]
3. TITLE SET : ABC
```
Title will appear on boot up,
: Cursor move, : Character Select

```
[    MAIN SETUP    ]
4. CONTROL  ID : 1
```
Sets keyboard RS485 address, : ID No. Change

```
[    MAIN SETUP    ]
5. DVR SPD : 9.6K
```
FOR FUTURE DEVELOPMENT

```
[    MAIN SETUP    ]
6. COMM  : RS485
```
Select between RS485 and RS422, currently only RS485 active

```
[    MAIN SETUP    ]
7. BACKLIGHT : AUTO
```
: OFF / ON / AUTO

```
[    MAIN SETUP    ]
8. SLEEP : OFF
```
Keyboard will go into standby,
: OFF/ 1Min/ 5MIn /10Min / 30Min /1 (Hour)

```
[    MAIN SETUP    ]
9. BUZZER : ON
```
: OFF / ON

```
[    MAIN SETUP    ]
10. MOUSE SET :ON
```
FOR FUTURE DEVELOPMENT

```
[    MAIN SETUP    ]
11.JOY SPD : 200MS
```
50MS / 100MS / 150MS / 200MS / 250MS / 300MS

[MAIN SETUP]
12.MOUSE SPD : HIG → OFF / LOW / MID / HIGH

[MAIN SETUP]
13.PASSWORD: **** → Allows the default password to be changed

[MAIN SETUP]
14. FACORY SET →

[FACTORY SET SET]
<NO>   YES

ALL DATA INITIALIZED → JOYSTICK CALIBRATION

[MAIN SETUP]
15. SAVE/EXIT →

[SAVE / EXIT]
<NO>   YES →

For Joystick Calibration see menu tree after PTZ Set up

PTZ Setup

This menu is access by pressing (1) and (SET) for 3 seconds, the keyboard will ask for a password, as default this is 0000 (4 zeros)
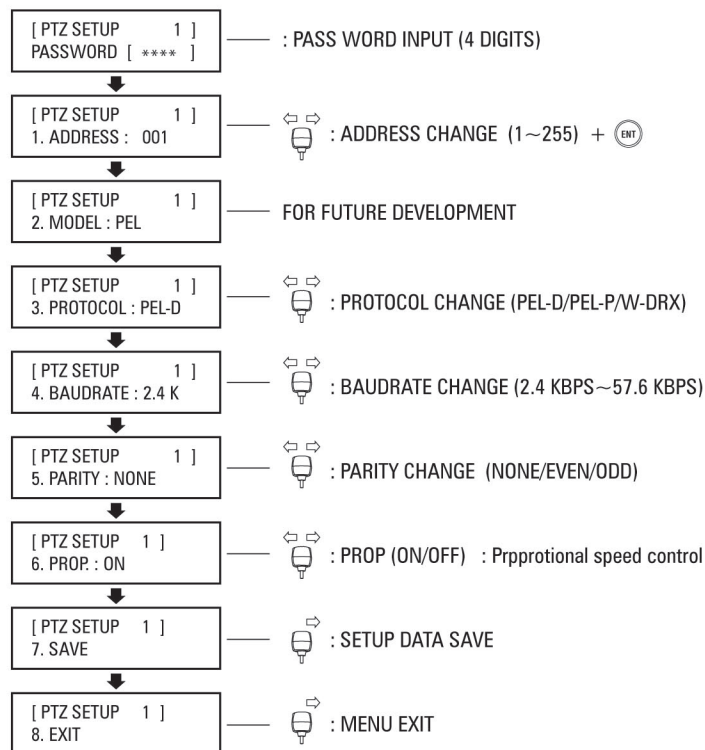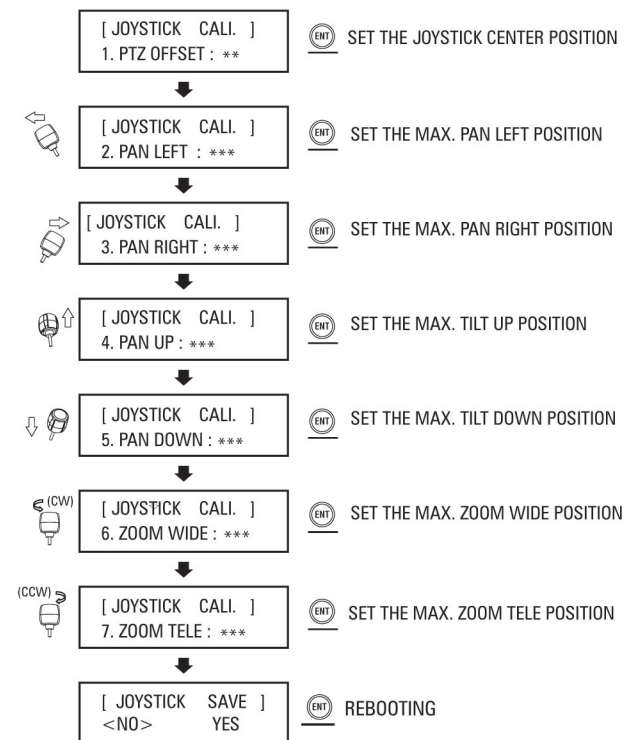
[PTZ SETUP   1]
PASSWORD [****] — : PASS WORD INPUT (4 DIGITS)

[PTZ SETUP   1]
1. ADDRESS : 001 — : ADDRESS CHANGE (1~255) + (ENT)

[PTZ SETUP   1]
2. MODEL : PEL — FOR FUTURE DEVELOPMENT

[PTZ SETUP   1]
3. PROTOCOL : PEL-D — : PROTOCOL CHANGE (PEL-D/PEL-P/W-DRX)

[PTZ SETUP   1]
4. BAUDRATE : 2.4 K — : BAUDRATE CHANGE (2.4 KBPS~57.6 KBPS)

[PTZ SETUP   1]
5. PARITY : NONE — : PARITY CHANGE (NONE/EVEN/ODD)

[PTZ SETUP   1]
6. PROP. : ON — : PROP (ON/OFF)   : Prpprotional speed control

[PTZ SETUP   1]
7. SAVE — : SETUP DATA SAVE

[PTZ SETUP   1]
8. EXIT — : MENU EXIT

Joystick Calibration

This is access by the Factory Reset section of the Main menu or by pressing (3) and (SET) .

[JOYSTICK   CALI.]
1. PTZ OFFSET : ** (ENT) SET THE JOYSTICK CENTER POSITION

[JOYSTICK   CALI.]
2. PAN LEFT : *** (ENT) SET THE MAX. PAN LEFT POSITION

[JOYSTICK   CALI.]
3. PAN RIGHT : *** (ENT) SET THE MAX. PAN RIGHT POSITION

[JOYSTICK   CALI.]
4. PAN UP : *** (ENT) SET THE MAX. TILT UP POSITION

[JOYSTICK   CALI.]
5. PAN DOWN : *** (ENT) SET THE MAX. TILT DOWN POSITION

(CW) [JOYSTICK   CALI.]
6. ZOOM WIDE : *** (ENT) SET THE MAX. ZOOM WIDE POSITION

(CCW) [JOYSTICK   CALI.]
7. ZOOM TELE : *** (ENT) SET THE MAX. ZOOM TELE POSITION

[JOYSTICK   SAVE]
<NO>   YES (ENT) REBOOTING

:: USER GUIDE

1. Camera Selection

Enter the camera number 1 to 255 followed by (ENT) .

2. Moving a PTZ camera

Use the Joystick to move Left/Right/Up and Down.
Twist Clockwise to Zoom in.
Twist Anti-Clockwise to Zoom out.

3. Set a Preset Position

Enter preset number followed by (PSET F1) button for 2 seconds.

4. To recall a Preset Position

Enter preset number followed by (PSET F1) button (short press)

5. Set a Learn Tour

Enter the Learn tour number followed by (TOUR F2) button for 2 seconds, this will enter the dome menu section for programming a learn tour.

6. To recall a Learn Tour

Enter Learn Tour number followed by (TOUR F2) button (short press)

7. Recall a Preset Tour

Enter Preset Tour number followed by (TOUR F2) button (short press)

8. Dome Menu

To enter the dome menu press and hold the (MENU AUTO) button for 2 seconds. To exit menus press ESC or move the joystick to the Left.

:: KEYBOARD SPECIFICATION

General

Description	3 axis PTZ control keyboard for Vista and Pelco RS485 Telemetry

Electrical

Voltage	12VDc or 9V battery powered
Power	Max 140mA

Connectors

Power	2.1mm socket
RS485	8 way terminal block

Controls

Keypad	27 Robust rubber buttons
Joystick	3 Axis variable speed

Physical

Dimensions	280mm(W), 174mm(D), 92mm(H)
Weight	Net 0.7 Kg Gross 1.7Kg

Environmental

Operating Temp	0 - 45 Degrees C
Humidity	10%-70% non-condensing

:: MEMO

:: MEMO