



## Stand Alone Vision Lane computer Installation manual (rev c.)



### Worldwide Headquarters

#### **Steltronic S.p.A.**

Via Artigianale 34, 25082 Botticino Sera Brescia - Italy

Tel: +39 030 2190811 fax: +39 030 2190798

<http://www.steltronic.com>

Worldwide Service: + 39 030 2190830

Email: [service@steltronic.com](mailto:service@steltronic.com)

### North America Headquarters

#### **Steltronic Incorporated**

2738 S. 163rd Street

New Berlin, WI. 53151

Toll Free: (800) 942-5939

Telephone: +1 (262) 754-2300

FAX: +1 (262) 754-2301

## Index

Warnings .....	3
General.....	4
General installation note .....	5
Stand Alone VLC connection diagrams .....	6
VLC (Vision Lane Computer) connection view .....	8
API →Lane Computer & Bowlers Console- “Long Cable” installation .....	9
Lane Computer →Pinsetters “Long Cables” installation without API .....	10
Steltronic cables diagrams .....	11
Stand Alone VLC software settings .....	15
Access to the Stand Alone configurator (from QWERTY bowler’s Console).....	20
Access to the Stand Alone configurator (from Steltronic Bowler’s Console emulator) .....	20
Access to the Stand Alone configurator (from local keyboard and mouse) .....	22
Access to the Stand Alone configurator (using Remote Desktop or VNC from a laptop).....	22
Stand Alone configurator .....	23
Ticket dispenser configurator .....	24
Pinsetter Configurator .....	25
Setup the Stand Alone Vision settings (using a Temporary Focus Front Desk) .....	28
About PinDetect Calibrator .....	31
Pin detect calibrator (Sciba).....	32
Pin detect calibrator (PinCam) .....	36
Commit the VLC HD.....	39

## Warnings

---

This manual contains instructions for the installation of Stand Alone VLC only.  
Please contact Steltronic service for pinsetter interfacing, Camera installation and any other installation or user manuals that could be necessary.

Steltronic Stand Alone VLC is a Lane Computer that needs custom configuration files,  
please, contact Steltronic service to obtain the VLC setup in the proper way; in the request form  
please specify the pinsetter model to interface.

Any attempt of hard drive cloning or mother board replacing will cause configuration key corruptions  
and the unavailability of VLC, please contact Steltronic Service in case of hardware problems.

A Bowler's Console is mandatory for access to the bowler's menu options.

The VLC Stand Alone configurator menu is accessible only from Bowler's Console equipped with wired QWERTY or ABC keyboard; in installation with Joystick (wired or wireless)\Touch Screen bowler's console, the installer need a keyboard + mouse connected to the VLC, in order to access to Stand Alone configurator menu, otherwise a laptop equipped with at least one of the following program:

VNC Viewer

Steltronic Bowler's Console emulator

Steltronic Focus Front Desk software (min. plug in required, lane manager\lane server)

The Vision software version referred to this manual is 12.18

For further information or request, please contact [service@steltronic.com](mailto:service@steltronic.com)

## General

The VLC (or V.L.C.) is the acronym name for Vision Lane Computer. The Stand Alone VLC is a special lane computer for Scoring System, designed to be installed in small entertainment centre, pub, hotels, on any place where is not necessary the use of the Front Desk functions. To open the lanes and play, the players insert token\money in the coin\money boxes, (usually located near the bowler's console), alternatively the cashier can turn on a "toggle switch" that remain closes until player end to play.

Each Stand Alone VLC could be used for equipped one lane or one pair of lanes. Pinsetter Interfacing, long and short cable are the same of a VLC installation with Focus Front Desk, the bowler's console is mandatory for operate.

VLC could be interfaced with vary pinsetters (see the following list), the \* means "NO Camera required for pins detection", the \*\* means "NO Pinsetter interface (A.P.I.) required".

AMF 8270 -solid state chassis (5 boards\Omniboard)	AMF 8270 µP Chassis (with APS)- VPS 2000/3000
AMF 8230/8245/823000	AMF 8290 "Big Chassis"
AMF 8290-XL - AMF with ZOT 8290-XL chassis	AMF-Qubica 8290 Xli – AMF with ZOT 8290 Xli chassis
Brunswick A1/A2	Brunswick (Schmid )GS10 Red chassis
*Brunswick GS92/96/98	*Brunswick GS-X NexGen
* Brunswick Eclipse (String p.)	*Brunswick Convertible 5-10 pins (String p.)
*Schmid PBS81-5 (String 5 pins)	*Vollmer 10 CPU KS-34C (String p.)
**Kebo-tech (Vollmer) Vision-3 chassis (String p.)	* Schmid K-740E (String p.)
*Spellman (String p.)	*Vilati – chassis K-800-E (String p.)
Yangji Vision	*S.E.S. 2003 (String p.)
**S.E.S. 2012 (string p.)	Via Bowling MC2 – Via B. MC2 with Switch chassis
**Via Mini-bowling	Funk KF3000
*Mendes 500 Mechanic	Mendes- Mag3

The bowler's console model recommended for Stand Alone VLC is UFO QWERTY (single or double), anyhow the Stand Alone VLC could works with Joystick (wired or Wireless) or Touch screen bowler's console monitors. When the installation is made with joystick or touch screen bowler's console, the installer must be equipped with keyboard + mouse or laptop with VNC Viewer and\or Steltronic Bowler's Console emulator and\or Focus front desk program.

## General installation note

---

The VLC must be placed in a safe and clean place. Usually there are two possible locations for VLC:

- a) Near\behind the overhead monitors (the max clearance from the monitors depends by VGA cables, usually 1,8 meters)
- b) Pinsetter area, generally on the curtain wall, near to API or pinsetter chassis.

### **Electrical requirements**

Installation (a): Is required #1 receptacle with 3 outlets for each of pair of monitors lanes. Place the receptacle (flush mounted on the ceiling) as close as possible to the location of where the monitors will be placed, considering that each monitor is supplied with a power cord of 1,8 meter length (5.9 feet). A circuit breakers located in a new electrical panel, accessible by bowling staff, should control each pair of monitor (max 4 monitors, depends by circuit breaker model).

Installation (b): each lane computer should be located on the curtain wall, close to the Steltronic A.P.I. or pinsetter chassis, considering that the CA0092C cable from API to VLC is 80 cm-31.4”.

Is required #1 duplex receptacle with 1 outlets for each lane computer; place the receptacle close as possible to the Lane computer, considering that each lane computer is supplied with a power cord of 1,8 meter length. A circuit breakers located in a new electrical panel, accessible by bowling staff, should control each lane computer (max 3 VLC, depends by circuit breaker model).

Is required #1 duplex receptacle with 2 outlets for each of pair of monitors lanes. Place the receptacle (flush mounted on the ceiling) as close as possible to the location of where the monitors will be placed, considering that each monitor is supplied with a power cord of 1,8 meter length (5.9 feet). A circuit breakers located in a new electrical panel, accessible by bowling staff, should control each pair of monitor (max 4 monitors, depends by circuit breaker model).

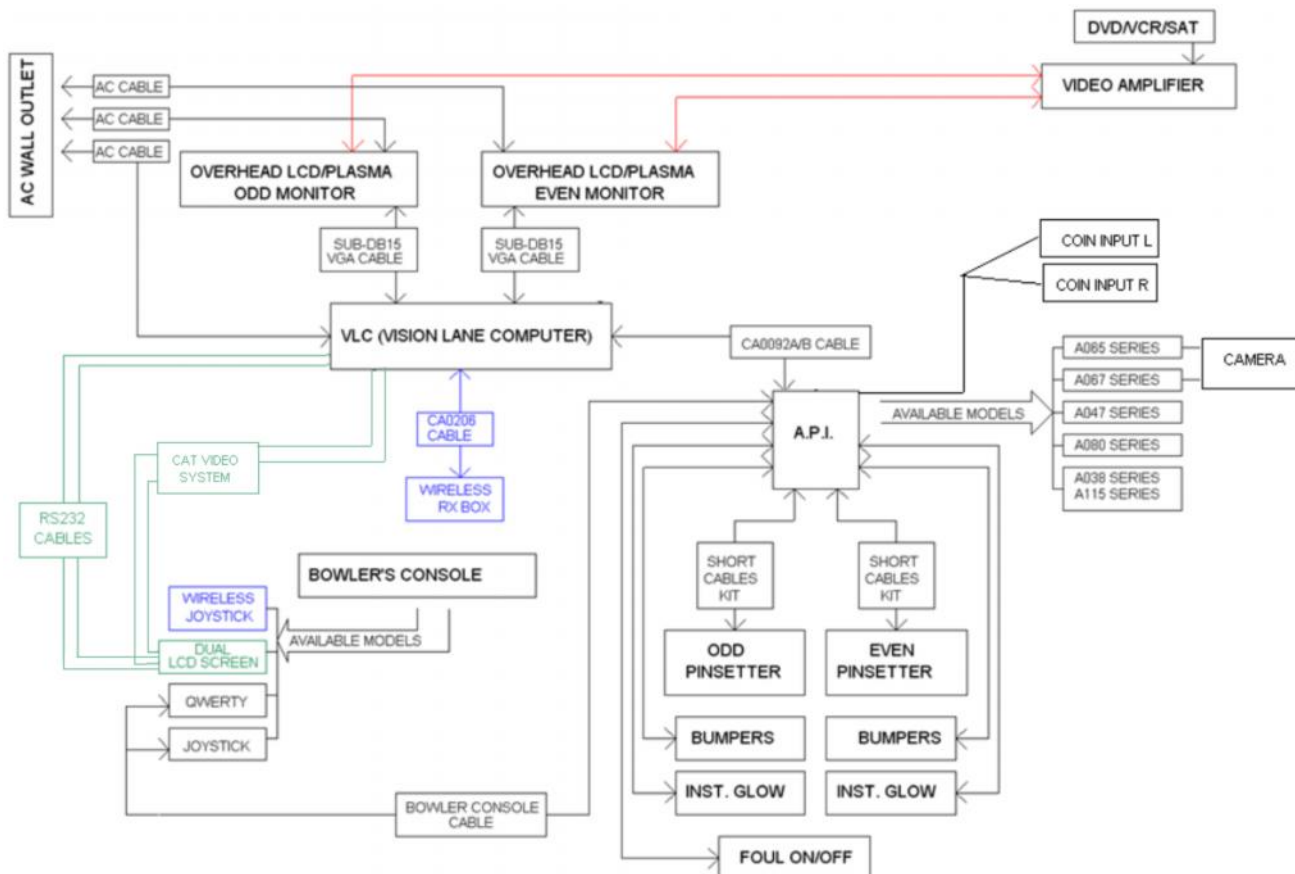
The video signal from VLC to the overhead monitors could be provide with CAT video system\* or using a H.Q. Long VGA cables (one for each monitor).

Long cables, Pinsetter interface and bowler’s Console installation for Stand Alone VLC are the same of Standard VLC installation, proceed in the same way.

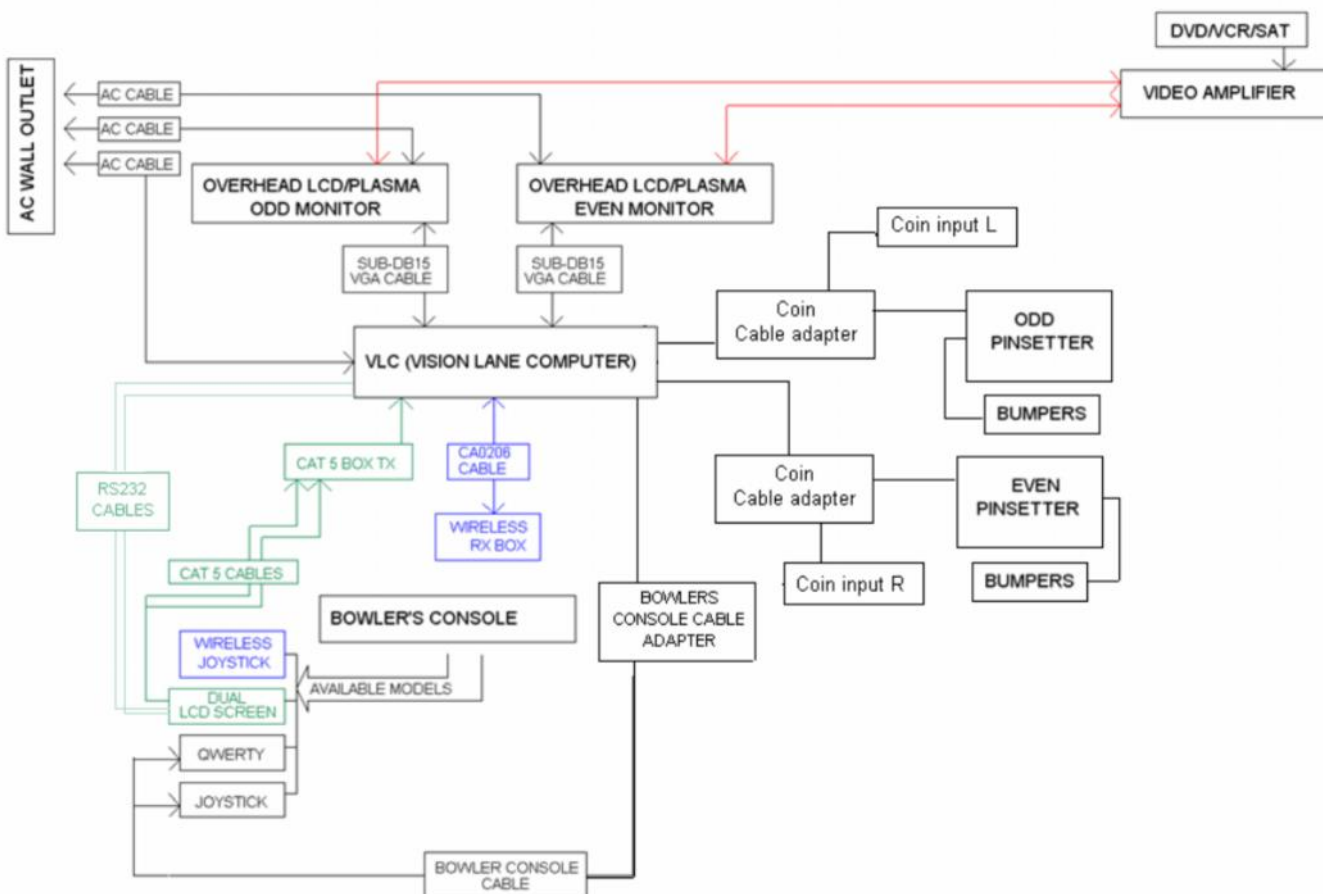
Coin/money drop box and cables are not supplied by Steltronic Spa, please contact your score vendor for further details.

\* see the CAT video installation manual for further details.

## Stand Alone VLC connection diagrams



Installation with A.P.I. (Advanced Pinsetter Interface)



Installation without A.P.I.(pinsetters connected to VLC via RS232)

Some of the devices indicated in the diagrams are optional and depends by the center configuration and customer request, anyhow **the following items are strictly necessary for one pair of lane's installation:**

- #01 Stand Alone VLC (Vision Lane Computer)
- #01 power cord for VLC
- #01 DVI adapter (supplied with VLC)
- #01 Bowlers console (+ interfacing cables set)

**The following items depends by the installation method and pinsetters models (list is for pair of lanes):**

VLC installed near or behind the overhead monitors:

- #02VGA SubD15 male-male high quality cable (min. length 1,8 Mt)

VLC installed in the pinsetter area:

- #02 H.Q. VGA long cables or #01 CAT video system (Cat video system consist in #02 Rx devices, #01 TX device,# 04 VGA SubD15 male-male high quality cable, #01 CA0315 splitter cable for each pair of lanes)

Installation with API (Advanced Pinsetter Interface):

- #01 CA0092A/CA0092B/CA0092C cable (RS232+12VDC cable, from Lane computer to A.P.I.), the CA0092C is used when the VLC is installed close to the API.
- #04 wires cable for coin input (lay the cable from API to coin devices, 2 wires each side)
- #01 API – Advanced Pinsetter Interface
- #01 Camera for pins detection(if required for detecting pins) + cables for connections
- #02 Short cable kit for pinsetter Interfacing
- #02 Coin drop box or toggle switch (not supplied by Steltronic Spa)

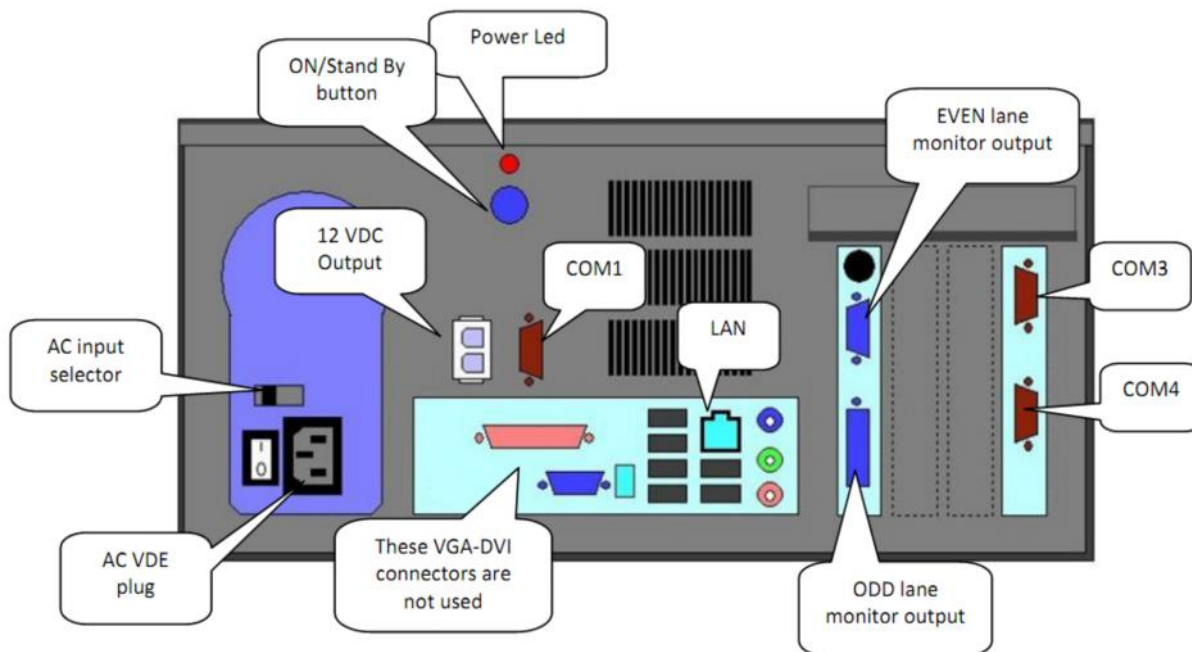
Installation without API (pinsetters connected to VLC com's):

- #02 Coin Cables adapter
- #02 Coin drop box or toggle switch (not supplied by Steltronic Spa)
- #02 RS232 cable (from VLC com's to Pinsetter chassis, models depends by pinsetter type)

Additional cable for installation with PinCam (camera for detect knocked pins):

- #01 standard UTP network cable (CAT5\CATe\CAT6) need to lay from the PinCam to the corresponding VLC. this "Stand Alone Network connection" is mandatory to perform the camera calibration from Stand Alone Menu; is also mandatory install the antistatic discharge line between the devices ☞ *see PinCam installation manual for further details.*

## VLC (Vision Lane Computer) connection view



Installation with PinCam (camera for pins detection): connect the UTP cable from each PinCam to the correspondent VLC,, using the LAN input.

### VLC monitors output

The VLC monitor output is Analog video, XGA, 1024 x 768 pixel. Is possible connect #01 monitor for each lane of the lane pair or #01 monitor\projector for both lanes of the same pair. The monitors must be powered directly from AC outlet; monitor Stand-by and Input switch Score/TV can be perform as following: a)with monitor remote control b) via VLC: with monitors compatible with Steltronic software, the VLC could send a command (via RS232) to switch the monitor in Stand-by/TV/AV/SVideo, when the lane is not in use.

☞ Contact [service@steltronic.com](mailto:service@steltronic.com) for the list of compatible "RS232 commands" monitors model.

☞The VLC send only the Score signal to the monitors, AV/RF/SVideo signal must be connected directly to the overhead monitor inputs; see the monitor installation manual for further details.

### VLC AC Input

The VLC AC input power is 110AC/220AC/240AC;\_please check the VLC power supply model and switch before to plug the VLC to the AC outlet.



VLC with Autoswitch power supply (USA)



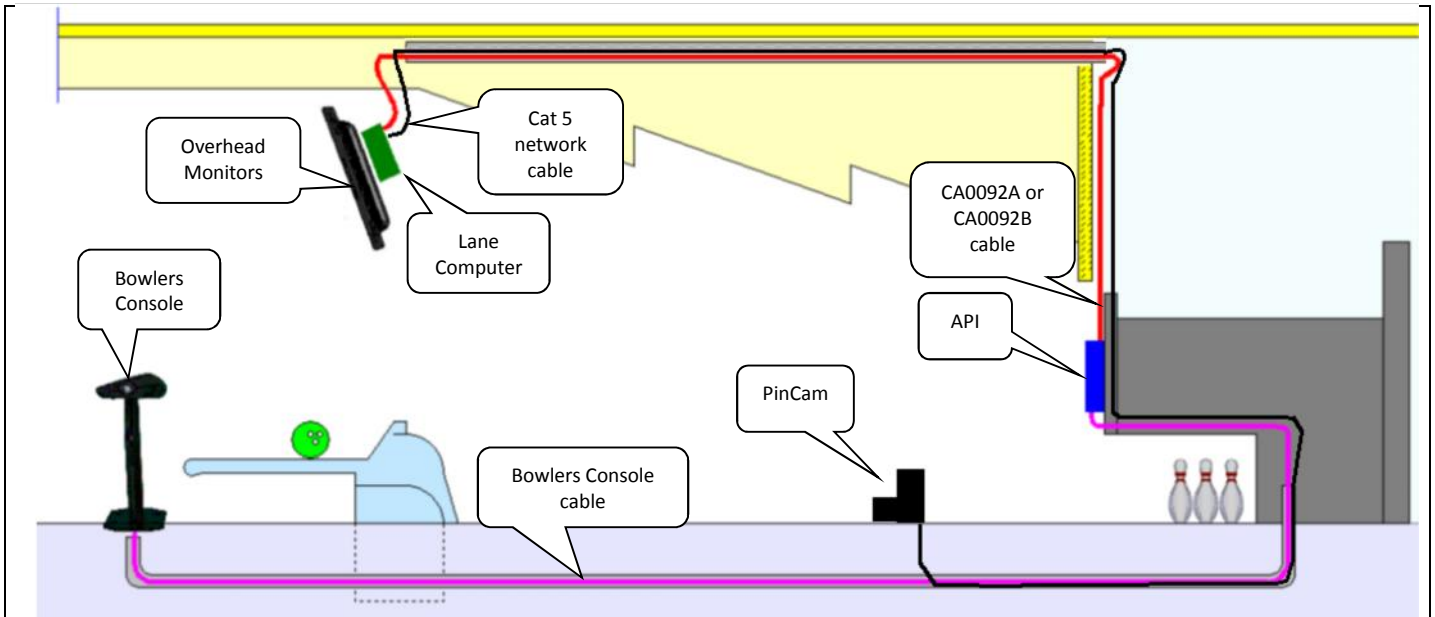
VLC with "230VAC only" power supply (Europe)



VLC with 110/240 manual Switch (USA/Europe/Asia)



## API → Lane Computer & Bowlers Console- “Long Cable” installation



### **Example of Installation [A] where each Lane computer is installed behind the monitors.**

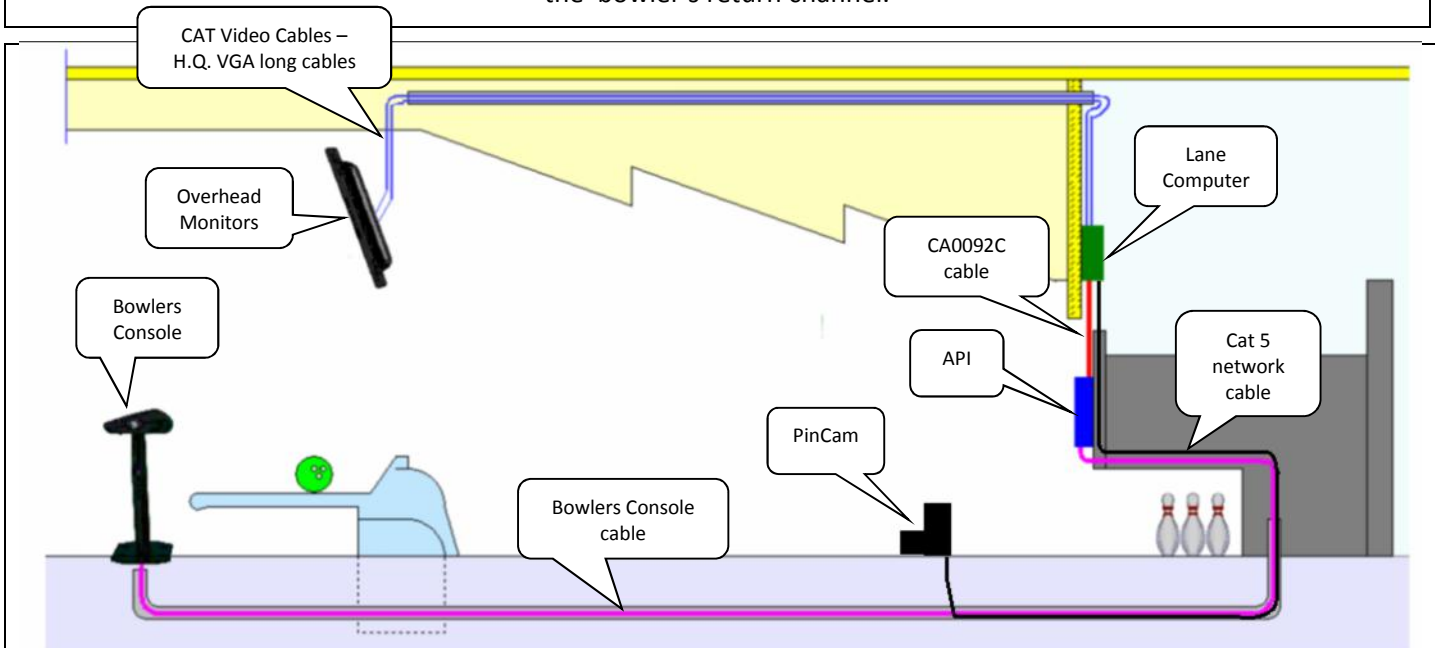
CA0092 and the Network cable are routed into a conduit ( $\geq \varnothing 4$  cm, 1.57 inch) laid above the ceiling tiles.

The CA0092 cable is available in two measures: CA0092A= length 33 meters (108.2 feet)

CA0092B= length 40 meters, maximum allowed(131.2 feet).

The network cable (standard UTP cat cable) must not exceed 80 meters; the network cable is used only for installation with PinCam, is not necessary in installation with Sciba.

The bowlers console cable is routed into a conduit ( $\geq \varnothing 4$  cm, 1.57 inch), laid under the bowling lane tracked by side in the bowler's return channel.

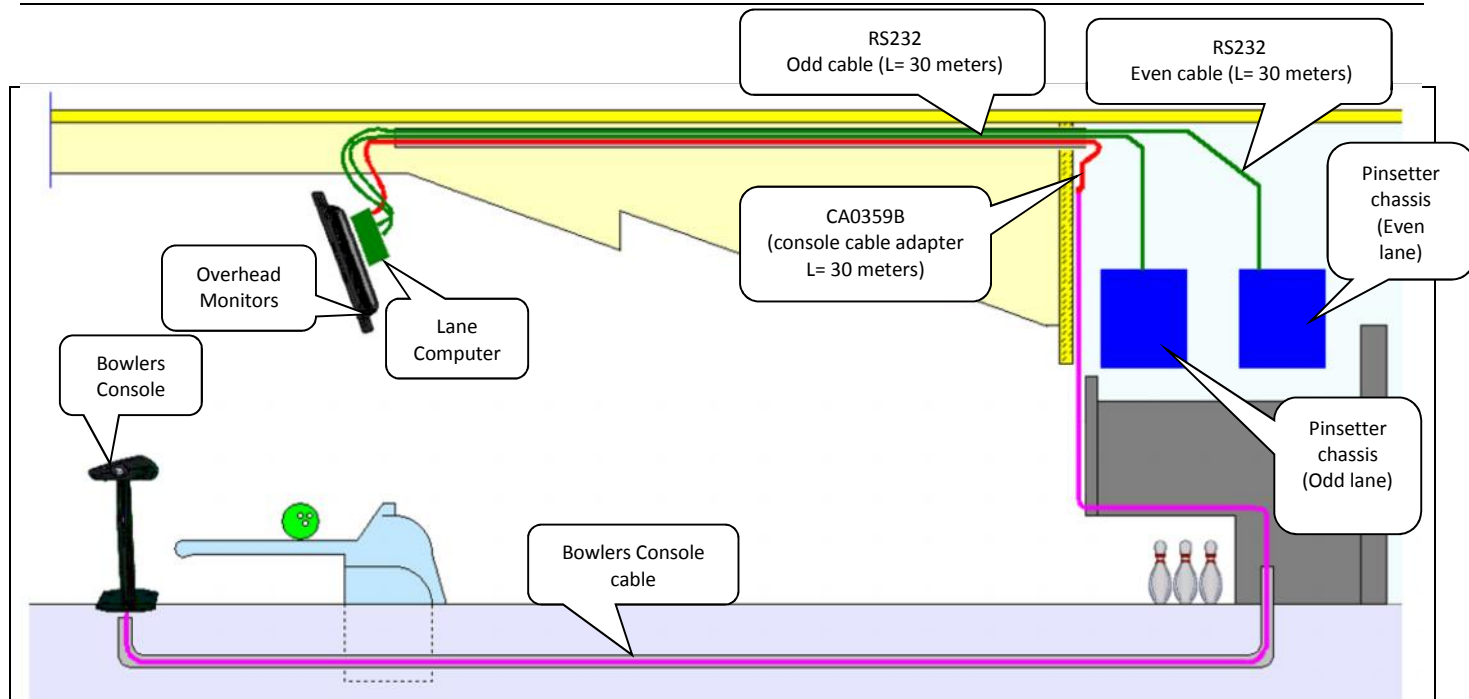


### **Example of Installation [B] where each Lane computer is installed in pinsetters area, on curtain wall, monitors are connected with CAT Video System or using High quality long VGA cables.**

The Lane computer is mounted on the Curtain wall of Pinsetter area; the overhead monitors are connected with cat Video cable to Lane computer or with a high quality long VGA cables; the connection with API is made with CA009C cable which length is 1 meter (3.2 feet).

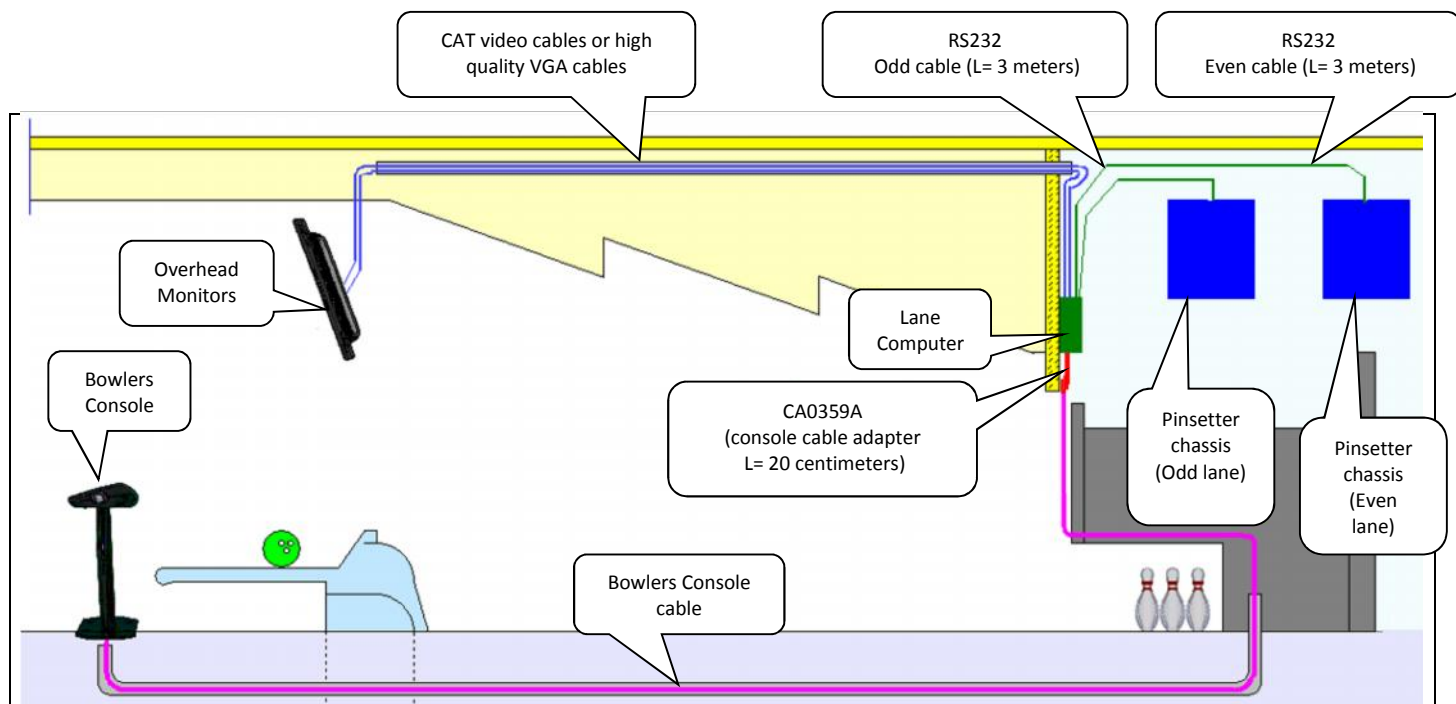
The network cable is used only for installation with PinCam, cable is not necessary in installation with Sciba. The video wires are routed into a conduit ( $\geq \varnothing 4$  cm, 1.57 inch) laid above the ceiling tiles (*see the CAT Video system manual for further details*). The bowlers console cable is routed into a conduit ( $\geq \varnothing 4$  cm, 1.57 inch) laid under the bowling lane, tracked by side in the bowler's return channel.

## Lane Computer → Pinsetters “Long Cables” installation without API



**Example of Installation [A] where each Lane computer is installed behind the monitors.**

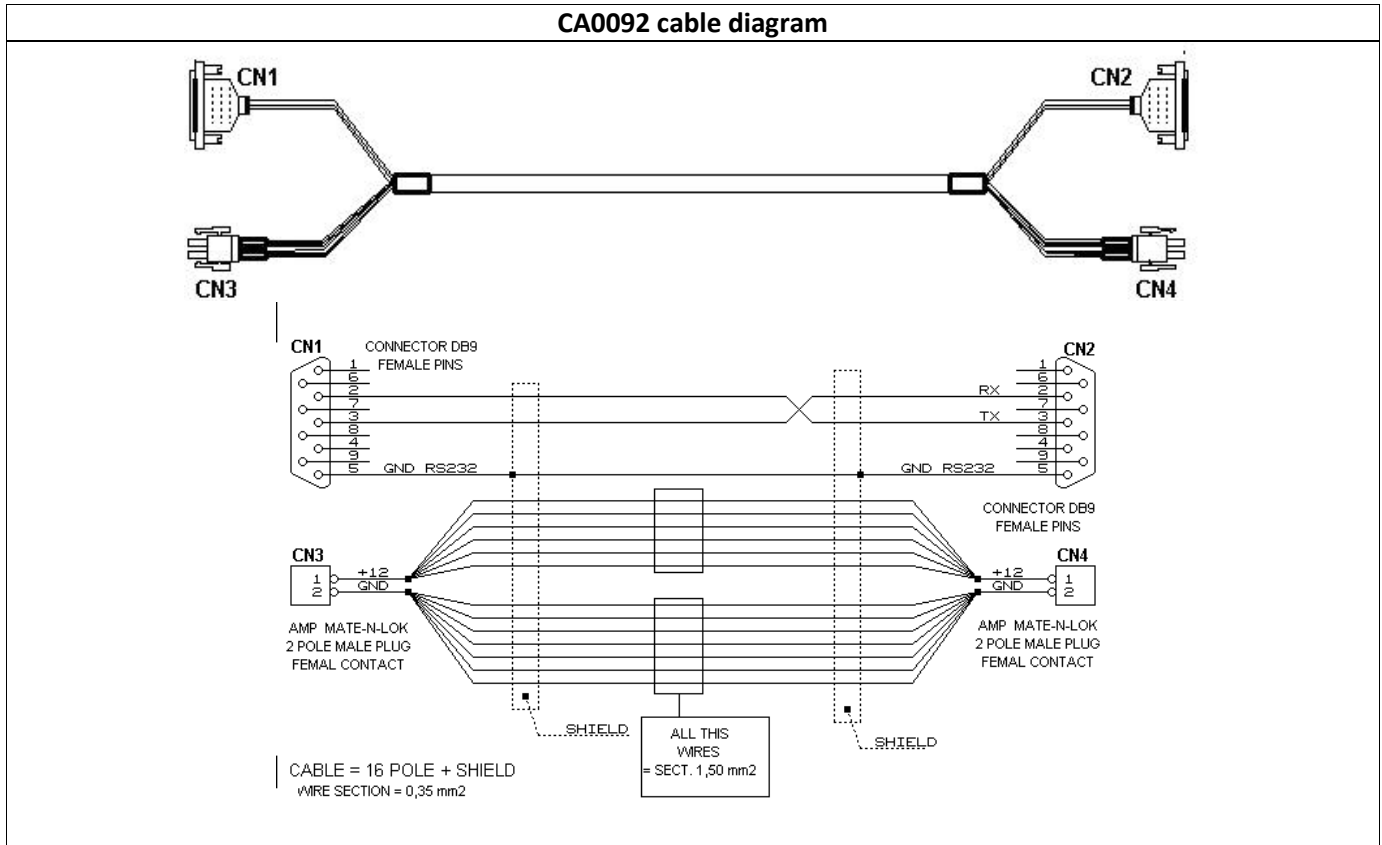
the RS232 cables are routed into a conduit ( $\geq \varnothing 4$  cm, 1.57”) laid above the ceiling tiles. The bowlers console cable is routed into a conduit ( $\geq \varnothing 4$  cm, 1.57”) laid under the bowling lane and it joint the CA0359B cable in the pinsetter area.



**Example of Installation [B] where each Lane computer is installed in pinsetters area, on curtain wall, monitors are connected with CAT Video System or using High quality long VGA cables.**

The Lane computer is mounted on the Curtain wall of Pinsetter area; the overhead monitors are connected with cat Video cable to Lane computer or with a high quality long VGA cables. The video wires are routed into a conduit ( $\geq \varnothing 4$  cm, 1.57”) laid above the ceiling tiles (see the CAT Video system manual for further details). The bowlers console cable is routed into a conduit ( $\geq \varnothing 4$  cm, 1.57”) laid under the bowling lane, the cable is connected to the COM1 of the Lane computer through the CA0359A cable adapter.

## Steltronic cables diagrams



**CA0092 Cable:** the cable provide the RS232 communication + power supply (12VDC) from Lane Computer to the Steltronic API. The CA0092 cable is reversible, same connector in each side, Conduit for the cable must be  $\geq \varnothing 4$  cm (1.57").

**For installation method [A],** the standard cable is CA0092A, which length is 33 meters. For installation without ceiling tiles, it's possible order the CA0092B which length is 40 meters = (131.2 feet). The CA0092B cable is usually routed by wall side, max 2-3 pair of lanes by same wall side.

**For installation method [B]** use the cable CA0092C which length is 1 meter (3,2 feet).

### **Bowlers Console cables for wired Bowler's Console**

The bowler's Console cable provide the RS232 communication + power supply (12VDC) for the bowler's console interface board. In Score installation without Steltronic A.P.I., the Bowler's Console cable is connected on COM1 of Lane computer (VLC) through the [CA0359 cable adapter](#).

The length and the model of bowler's console cable vary by Bowler's Console model, anyhow all cable models require a conduit  $\geq \varnothing 4$  cm = 1.57 inch. *Refer to Bowlers Console installation manual for bowler's console cable diagrams.*

#### **Bowlers Console cable for wired Joystick/keypad/ ABC keyboard:**

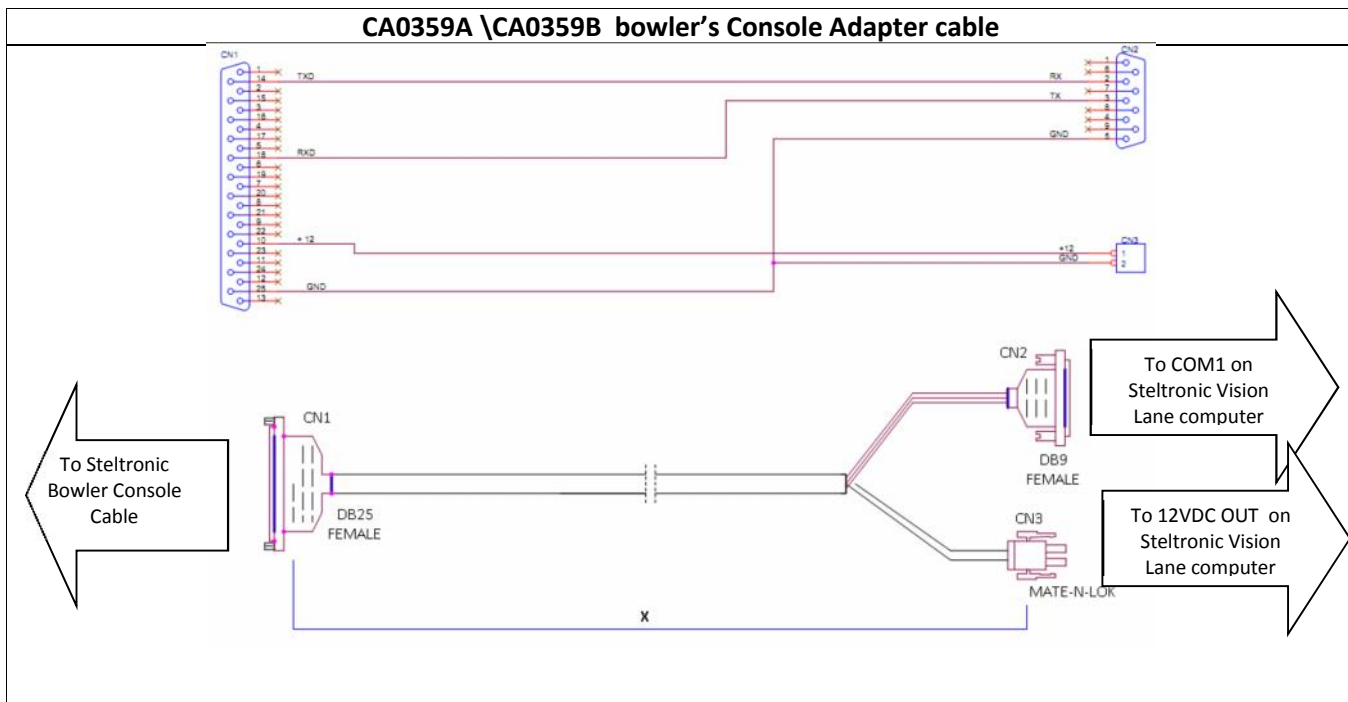
Use cable **CAB-FSAS9A\CAB-FSAS9B\CA0327B**; the cable length is 33 meters=108.2 feet, cable is side reversible, same connector in each side.

#### **Bowlers Console cable for UFO Qwerty:**

Use cable **CA0286B**; the cable length is 33 meters= 108.2 feet. Pay attention, the cable is not side reversible, keep the DB25 connector always to the Lane Computer/API side.

#### **Touch Screen bowler's Console:**

the connection between the Touch Screen Bowlers Console and Lane Computer is direct,, cable depends by the touch screen model (*See Touch Screen Bowlers console installation manual for further details*).

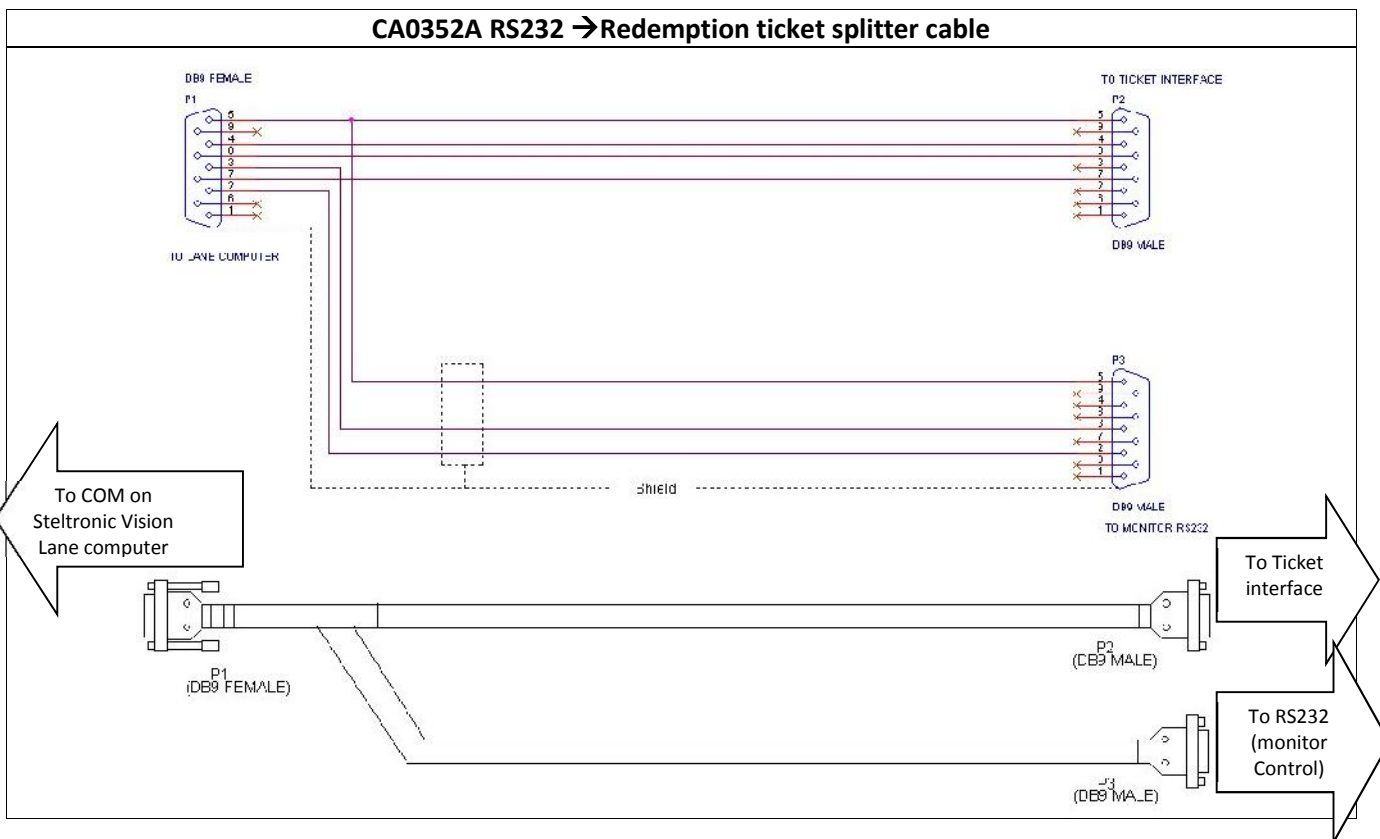


**CA0359 cable:** the cable adapt the bowlers Console and provide the RS232 communication + power supply (12VDC) from Lane Computer to the Bowler Console. The cable code and length vary by the position of Lane computer:

**For installation method [A],** the cable is CA0359B, which length is 25 meters (81.9 feet); the conduit for the cable should be  $\geq \varnothing 4 \text{ cm} = 1.57 \text{ inch}$ .

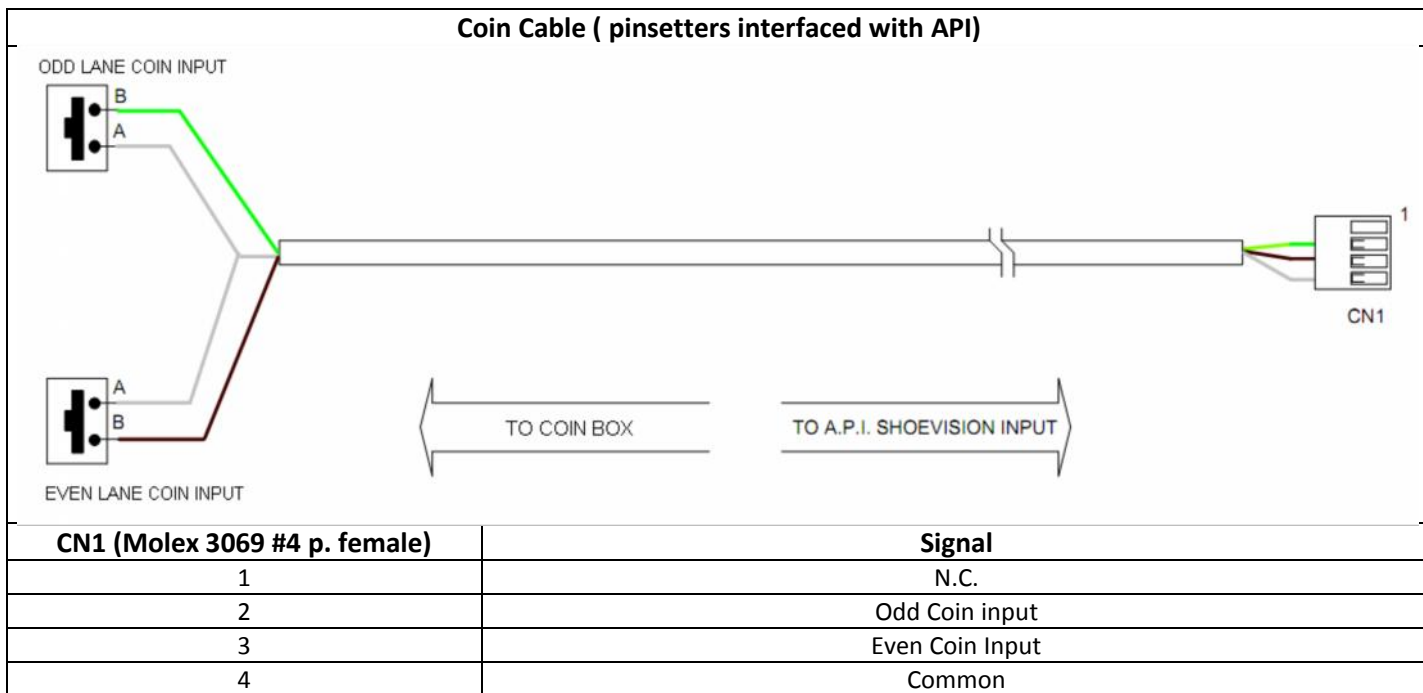
**For installation method [B]** the cable is CA0359A, which length is 20 centimeters (7.8”).

☞ *Bowler's console cable and bowler's console adapter cable are not necessary for installation with wireless or Touch Screen Bowler's Console.*



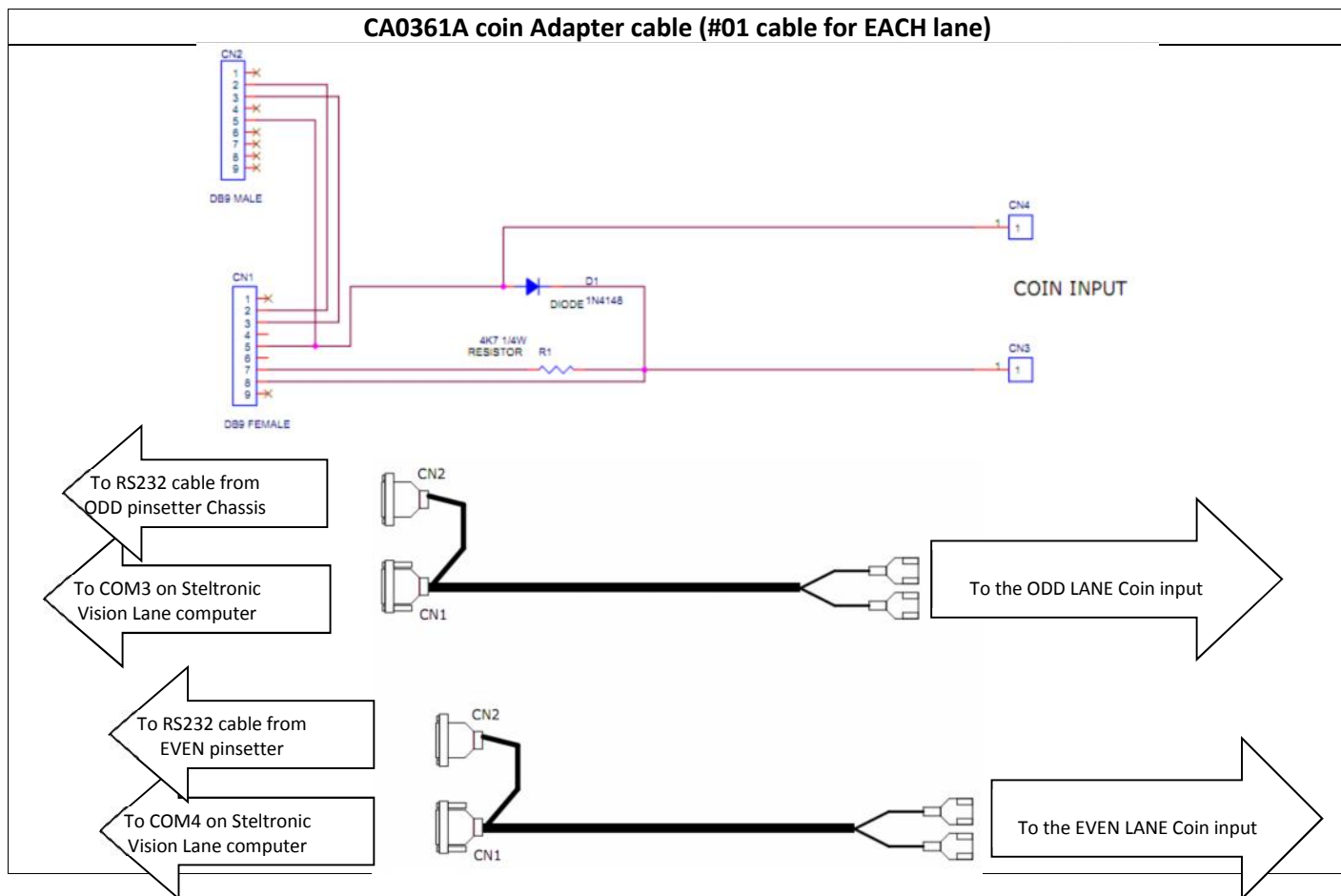
The CA0352A cable is used to share a VLC com among Ticket dispenser interface and the RS232 line for monitor remote control.

### Coin Cable ( pinsetters interfaced with API)



The coin cable must not exceed 70 meters (229,66 ft.); the coin input contact can be temporary (push button, coin micro-switch) or toggle (on/off switch, normally open).

### CA0361A coin Adapter cable (#01 cable for EACH lane)



The Coin Adapter cable (#01 for each lane) is used only in installation where the pinsetter is interfaced without the API. The coin adapter cable is placed between the VLC com and pinsetter interfacing RS232 cable.

The length of the adapter cable is 20 centimeters, installer must provide a #4 wires cable (max length 70 meters, (229,66 ft.); the coin input contact can be temporary (push button, coin micro-switch) or toggle (on/off switch, normally open).

### UTP Network cable



#### Standard T568B

- 1) White/ Orange
- 2) Orange
- 3) White/Green
- 4) Blue
- 5) White/Blue
- 6) Green
- 7) White/Brown
- 8) Brown

UTP cable consist of 4 twisted pairs.

The standard colors are:

- White/Blue - Blue
- White/Orange - Orange
- White/Green - Green
- White/Brown - Brown

#### T568B (with clip down)

The UTP cable is made with 2 connectors, one for each side of the cable, same pins on each side. A Segment of UTP cable is used to connect each Stand Alone VLC to the corresponding PinCam camera; cable is not necessary for installation with Sciba.

Note: the cable do not need to be a cross-over link cable, VLC & PinCam auto-set the link. *See PinCam installation manual for further details.*

## Stand Alone VLC software settings

### WARNINGS

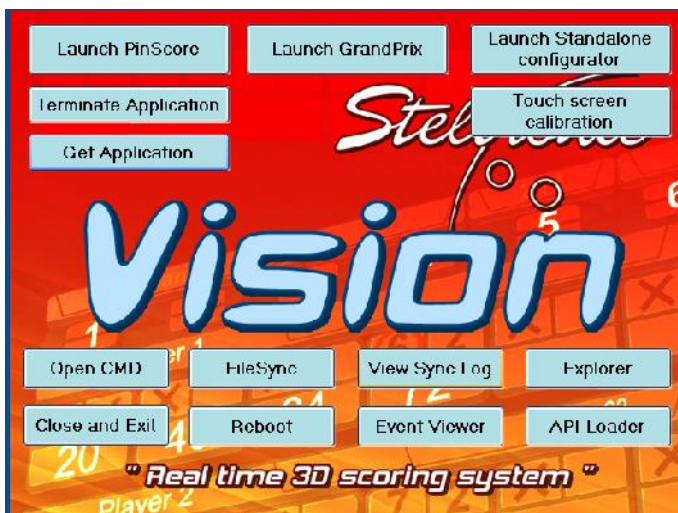
Steltronic Stand Alone VLC needs a custom configuration file to works as Stand Alone, [please, contact Steltronic service before proceeding with installation, specifying the pinsetters models too!](#)

**The instruction of this document refer to Vision ≥ 12.18**

The XML configuration files for Stand Alone VLC are contained in the folder [\\Visionsettings](#) of the lane computer.

A quick way to setup up the Stand Alone VLC parameters is using a Temporary Focus Front Desk ,installed even on an a Laptop\*, If a Focus Front desk is not available, its necessary edit the files manually.

To access to Stand Alone configuration files, connect to the VLC to the Monitors, keyboard and mouse OR, from a Remote computer, use VNC\Remote Desktop to login with VLC via Lan *the Remote computer must be set with IP 10.11.1.x (where x is a number between 11 to 20), Subnetnet mask 255.0.0. user name and password required for authentication.*



**Using a local mouse and keyboard connect to the VLC:** hit ESC key on keyboard to stop the Pinscore.exe program, the VisionRoot menu pops up, click on Explorer button.

**From Remote computer:** using VNC , connect remotely to the VLC, when logged in, hit ESC key on keyboard to stop the Pinscore.exe program, the VisionRoot menu pops up, click on Explorer button.

Following: list of the editable parameters in the vary configuration files. Use Notepad to edit the files, do not change the syntax, edit ONLY the suggested parameters.

\*see the chapter "Setup the Stand Alone VLC from temporary Focus front Desk".

**Editable lines of the file \\VisionSettings\Visionsettings.xml**

**Screen Size**

`<wideScreen>true</wideScreen>`  
Set the monitors screen size for 16:9

`<wideScreen>>false</wideScreen>`  
Set the monitor screen size as 4:3

**VLC Stand Alone mode (enable-disable)**

<code>&lt;standAlone&gt;true&lt;/standAlone&gt;</code>	<code>&lt;standAlone&gt;&gt;false&lt;/standAlone&gt;</code>
Enable the Stand Alone mode (default for Stand Alone)	Disable the Stand Alone mode (use temporary for configuration from Front Desk)

**VLC Auto-reboot**

<code>&lt;autoRebootHours&gt;0&lt;/autoRebootHours&gt;</code>	<code>&lt;autoRebootMinutes&gt;0&lt;/autoRebootMinutes&gt;</code>
Enter a value (24h format) to select at which hour the VLC will restart	Enter a value (in minutes) to select when the VLC will restart
<code>&lt;autoRebootEnable&gt;true&lt;/autoRebootEnable&gt;</code>	<code>&lt;autoRebootEnable&gt;&gt;false&lt;/autoRebootEnable&gt;</code>
Enable the VLC Auto-reboot function	Disable the VLC- Auto-reboot function

**Lane Language**

<code>&lt;cultureInfo&gt;en-US&lt;/cultureInfo&gt;</code>	<code>&lt;cultureInfo&gt;en-GB&lt;/cultureInfo&gt;</code>
Lane language = English (USA)	Lane language = English (Great Britain)
<code>&lt;cultureInfo&gt;it&lt;/cultureInfo&gt;</code>	<code>&lt;cultureInfo&gt;de&lt;/cultureInfo&gt;</code>
Lane language = italian	Lane language = German
<code>&lt;cultureInfo&gt;fr&lt;/cultureInfo&gt;</code>	<code>&lt;cultureInfo&gt;-es&lt;/cultureInfo&gt;</code>
Lane language = François	Lane language = Spanish
<code>&lt;cultureInfo&gt;nl&lt;/cultureInfo&gt;</code>	<code>&lt;cultureInfo&gt;-da&lt;/cultureInfo&gt;</code>
Lane language = Dutch	Lane language =Danish
<code>&lt;cultureInfo&gt;cs&lt;/cultureInfo&gt;</code>	<code>&lt;cultureInfo&gt;-fi&lt;/cultureInfo&gt;</code>
Lane language = Czech	Lane language = Suomi
<code>&lt;cultureInfo&gt;pl&lt;/cultureInfo&gt;</code>	<code>&lt;cultureInfo&gt;-ko&lt;/cultureInfo&gt;</code>
Lane language = Polish	Lane language = Korean
<code>&lt;cultureInfo&gt;ru&lt;/cultureInfo&gt;</code>	
Lane language = Russian	



**COM ports Usage (xxx must be substitute by Com description)**

```

-<serialPorts>
-<SerialUsage>
<ComNumber>1</ComNumber>
<ComDescription>xxx</ComDescription>
</SerialUsage>
-<SerialUsage>
<ComNumber>3</ComNumber>
<ComDescription>xxx</ComDescription>
</SerialUsage>
-<SerialUsage>
<ComNumber>4</ComNumber>
<ComDescription>xxx</ComDescription>
</SerialUsage>
</serialPorts>

```

<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;1&lt;/ComNumber&gt; &lt;ComDescription&gt;API&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>	<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;1&lt;/ComNumber&gt; &lt;ComDescription&gt;BOWLER_CONSOLE&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
COM 1 used for API (default)	COM1 used for wired bowler Console (installation without API, COM3 and COM4 used for direct pinsetter interfacing)
<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;1&lt;/ComNumber&gt; &lt;ComDescription&gt;WBC&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>	<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;3&lt;/ComNumber&gt; &lt;ComDescription&gt;WBC&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
COM 1 used for Wireless Bowler's Console (installation without API, COM3 and COM4 used for direct pinsetter interfacing)	COM 3 used for Wireless Bowler's Console (COM1 is used for API)
<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;3&lt;/ComNumber&gt; &lt;ComDescription&gt;XXX&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>	<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;4&lt;/ComNumber&gt; &lt;ComDescription&gt;XXX&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
COM 3 used for Pinsetter interfacing (without API), where XX could be one of the following parameters (SX=ODD PINSETTER): <b>VIA_MINIBOWLING_SX</b> <b>SES_RS232_SX</b> <b>KEBOTECH_VISION3_SX</b>	COM 4 used for Pinsetter interfacing (without API), where XX could be one of the following parameters (DX=EVEN PINSETTER): <b>VIA_MINIBOWLING_DX</b> <b>SES_RS232_DX</b> <b>KEBOTECH_VISION3_DX</b>
<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;3&lt;/ComNumber&gt; &lt;ComDescription&gt;XXX&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>	<pre> -&lt;SerialUsage&gt; &lt;ComNumber&gt;4&lt;/ComNumber&gt; &lt;ComDescription&gt;XXX&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
(COM1 is used for API or for a single string pinsetter interfaced without API) COM 3 used for Touch Screen Bowler's Console where XXX could be one of the following parameters: <b>ELOTOUCH</b> <b>CHINATOUCH1</b> <b>CHINATOUCH2</b>	(COM1 is used for API or for a single string pinsetter interfaced without API) COM 3 used for Touch Screen Bowler's Console where XXX could be one of the following parameters: <b>ELOTOUCH</b> <b>CHINATOUCH1</b> <b>CHINATOUCH2</b>

**Com's Configuration for Ticket redemption and Overhead Monitors control**

The following settings are referred to a VLC with 3 Com's ports; anyhow is possible order a special VLC with more COM ports if is necessary.

Ticket redemption could share the COM ports with monitors or Bowler's Console (wired or wireless) com sharing is not possible with Touch screen bowler's Console.

<pre> -&lt;SerialUsage&gt;   &lt;ComNumber&gt;1&lt;/ComNumber&gt; &lt;ComDescription&gt;<b>BOWLER_CONSOLE,TICKET_DISPENSER_SX,TICKET_DISPENSER_DX</b>&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
<p>COM 1 used for wired Bowler's Console + Ticket Redemption; ONE ticket dispenser manage the tickets for both lanes (odd &amp; even)</p>
<pre> -&lt;SerialUsage&gt;   &lt;ComNumber&gt;3&lt;/ComNumber&gt; &lt;ComDescription&gt;<b>TICKET_DISPENSER_SX,XXX</b>&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
<p>(COM1 is used for API or for a single string pinsetter interfaced without API) COM 3 is used for ODD lane Ticket Redemption, the port could be shared (XXX) with one of the following devices: <b>WBC</b> <b>MONITOR#1_SX</b> (Hantarex monitor 32"/42" - playfair series, ODD lane controlled via COM) <b>MONITOR#2_SX</b> (Westinghouse monitor 42", ODD lane controlled via COM) <b>MONITOR#3_SX</b> (Hantarex monitor 32"SQTV series, ODD lane controlled via COM) <b>MONITOR#4_SX</b> (Samsung monitor MX series 32"/40", ODD lane controlled via COM)</p>
<pre> -&lt;SerialUsage&gt;   &lt;ComNumber&gt;4&lt;/ComNumber&gt; &lt;ComDescription&gt;<b>,TICKET_DISPENSER_DX,XXX</b>&lt;/ComDescription&gt; &lt;/SerialUsage&gt; </pre>
<p>(COM1 is used for API or for a single string pinsetter interfaced without API) COM 3 is used for ODD lane Ticket Redemption, the port could be shared (XXX) with one of the following devices: <b>WBC</b> <b>MONITOR#1_DX</b> (Hantarex monitor 32"/42" - playfair series, EVEN lane controlled via COM) <b>MONITOR#2_DX</b> (Westinghouse monitor 42", EVEN lane controlled via COM) <b>MONITOR#3_DX</b> (Hantarex monitor 32"SQTV series, EVEN lane controlled via COM) <b>MONITOR#4_DX</b> (Samsung monitor MX series 32"/40", EVEN lane controlled via COM)</p>

**Editable lines of the file [\\VisionSettings\Uisettings.xml](#)**

**Bowler's Console type and timeout menu**

<code>&lt;uiDevice&gt;Keyboard&lt;/uiDevice&gt;</code> QWERTY Bowler's console	<code>&lt;uiDevice&gt;JoyStick&lt;/uiDevice&gt;</code> Wired Joystick Bowler's console "ABC" SAS\Wins keyboard
<code>&lt;uiDevice&gt;WbcTelecontrolli&lt;/uiDevice&gt;</code> Wireless Bowler's Console (USA)	<code>&lt;uiDevice&gt;WbcAurel&lt;/uiDevice&gt;</code> Wireless Bowler's Console (Europe)
<code>&lt;uiDevice&gt;TouchScreen&lt;/uiDevice&gt;</code> Touch Screen Bowler's Console	<code>&lt;bcTimeout&gt;600&lt;/bcTimeout&gt;</code> Bowler's console timeout where 600 is the countdown time (in seconds)

**Editable lines of the file [\\GameSettings\UiSettings.xml](#)**

<code>&lt;slowMinutes&gt;2&lt;/slowMinutes&gt;</code> Countdown for "slow bowlers" where 2 is a time in seconds (zero = disabled)	<code>&lt;waitMinutes&gt;0&lt;/waitMinutes&gt;</code> Countdown for turn off the pinsetter after slow time if bowlers do not play; time in minutes. (zero = disabled)
--	--

**Editable lines of the file [\\VisionSettings\StandAloneSettings.xml](#)**

<code>&lt;pincam&gt;false&lt;/pincam&gt;</code> Use Sciba for Pins detection (installation with API and camera)	<code>&lt;pincam&gt;true&lt;/pincam&gt;</code> Use PinCam for Pins detection (installation with API and camera)
---	---

## Access to the Stand Alone configurator (from QWERTY bowler's Console)

Type on bowler's console the following sequence: **YYNNYYY**

The pinscore.exe program stops and the VLC will load the Stand Alone configurator

## Access to the Stand Alone configurator (from Steltronic Bowler's Console emulator)

The VLC must be connected to the Laptop or a house PC with a UTP Network cable; is possible disconnect temporary the PinCam Lan cable or use a network switch to bridge the connection.

The installation of the Bowler's console emulator on a Laptop or home pc require the following:

- 1) the operating system must be Windows (XP/W7), firewall must be disabled on the local lan.
- 2) the TCP-IP(4) settings of lane card connected to the VLC network, the IP must be set with a fix IP, as 10.11.1.x , where X is a number between 20 to 30; the subnet mask must be 255.255.0.0.
- 3) to optimal view of the program is 1280x1024 , 1024x768 is the minimum resolution required.

### Installing the Bowler's Console Emulator program on laptop – home PC

Contact Steltronic Service for download the program, then install the file <\\BCRemoteKeyboardSetup.msi>

Install the program with default settings, clicking on Next >, at the end close the window; the installation create a shortcut icon on the Desktop area called BC Remote Keyboard.

### Use of the Bowler's Console Emulator

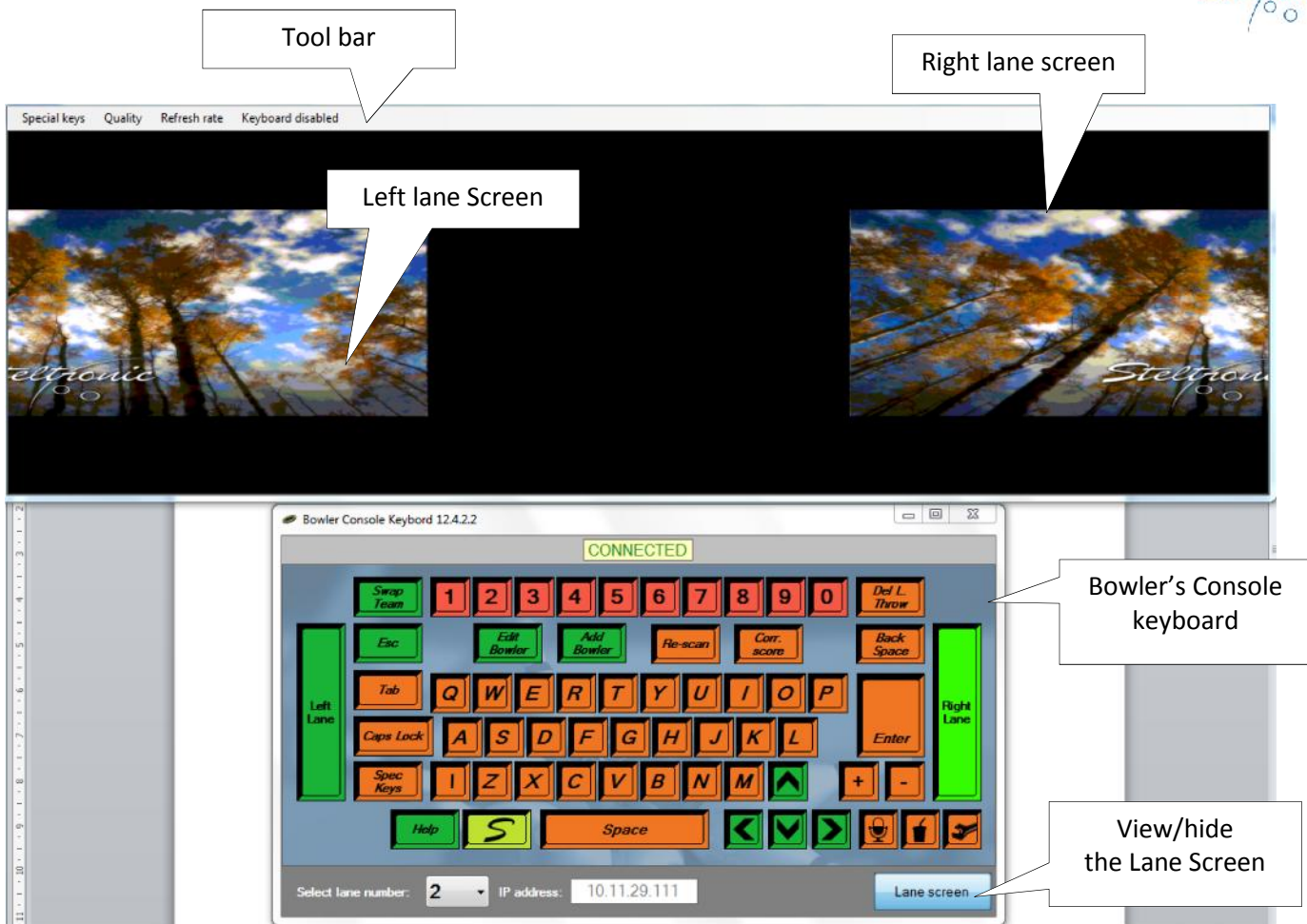


Open the program clicking on the BC Remote Keyboard shortcut icon located in the Desktop area or from <\\programs\Steltronic-Focus\BCRemoteKeyboard>



Type the VLC IP address here

Once the VLC address is entered, the program shows the lane screen.



Once the connection is established, the Lane screen pop up automatically on the top of the bowler console window, both windows are independent and can be moved around in the monitor as needed.

To control the Bowler's Console menu the Front Desk operator need only to can use the keys located in the bowler console window ,or click directly in the lane screen area with the mouse on the objects.

**Tool bar commands:**

Quality (Poor\good\Best) – change the resolution of the Lane Screen view.

Refresh Rate (Slow\Fast) – change the speed of the Lane Screen view.

Keyboard disabled (keyboard enabled) – toggle command for enable-disable the keyboard connected to the Front Desk PC.

Special keys (Alt-Ctrl\_Del): this command work only if the Keyboard is enabled, when is done, sends a CTRL-ALT-DEL to the lane computer that will switch to Windows Security screen. This procedure could be used to force the lane computer restart or shutdown, choosing the option shutdown → Restart from the Security Screen menu.

To startup the VLC Stand Alone configurator, proceed as following:

enable the keyboard (just click on keyboard disable screen).

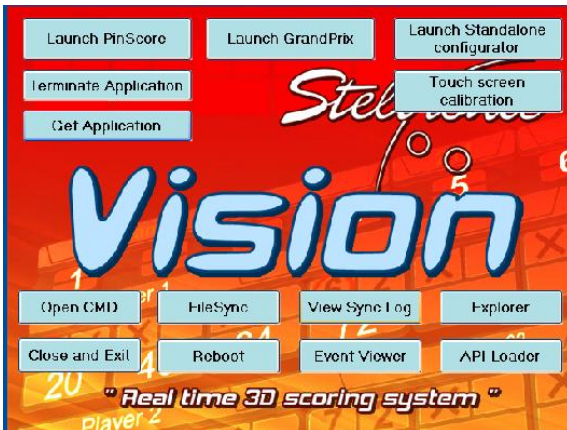
Place the mouse pointer on the lane screen, then hit the ESC key on the keyboard.

The pinscore.exe program stops and the VLC will load the Vision Root menu.



Click on Launch Stand Alone configurator button.

## Access to the Stand Alone configurator (from local keyboard and mouse)



**Using a local mouse and keyboard connect to the VLC:** hit ESC key on keyboard to stop the Pinscore.exe program, the VisionRoot menu pops up, click on Stand Alone configurator button.

## Access to the Stand Alone configurator (using Remote Desktop or VNC from a laptop)

The Laptop or home pc require the following:

the operating system must be Windows (XP/W7), firewall must be disabled on the local lan.

the TCP-IP(4) settings of lane card connected to the VLC network, the IP must be set with a fix IP, as 10.11.1.x , where X is a number between 20 to 30; the subnet mask must be 255.255.0.0.

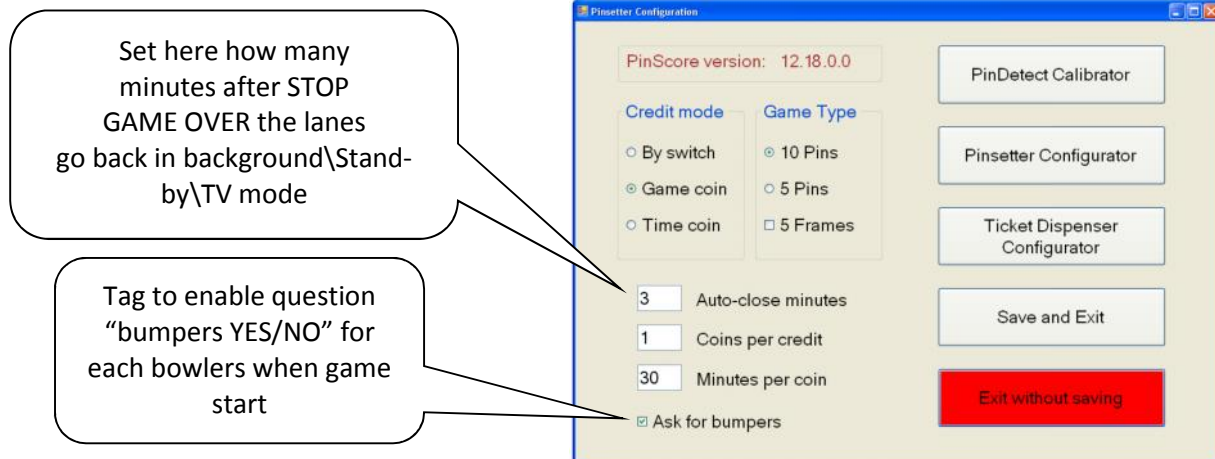
1024x768 is the minimum resolution required.



using VNC or remote desktop, connect remotely to the VLC, when logged in\*, hit ESC key on keyboard to stop the Pinscore.exe program, the VisionRoot menu pops up, click on Launch Stand Alone configurator button.

\*username and password required

## Stand Alone configurator



### How to use the menu:

Qwerty Bowler's console: press up- down arrow keys to move between the tabs, press left-right arrow keys to vary the selected field.

Local or remote keyboard+mouse: use the mouse to move between the fields and keyboard when necessary.

### Credit mode selection

**By switch:** the switch is a Toggle mode to play: Switch ON= game active - Switch OFF=game off. The score starts with one bowler, to add more bowlers the player can use the bowler's Console Add player function. The bowler's continue to play until the Switch is in OFF position.

**Game Coin:** 1 credit = 1 player+1Game. Each credit unit increase one bowler+1 game each. The Coins for credit is the field where define how many coins are necessary to obtain one credit.

**Time Coin:** bowling by time. 1 coin= 1 Time unit. The score starts with one bowler, one strip of 10 frame. To add more bowlers the player can use the bowler's Console Add player function. The bowler's continue to play until the time is over.

**#Coins per Credit:** specify of many coins are necessary to buy one credit (game or #time).

**#Minutes for coin:** specify how many minutes of play for each inserted coin.

### Game Type

**10 pin:** 10 pins pinsetters (AMF/Brunswick/String, etc.)

**5 pin:** 5 pins String pinsetters (use ONLY for 5 pins lanes)

**5 Frame:** sort of "Quick game", when enabled, each game strip is composed by #5 frames instead of #10 frames

## Ticket dispenser configurator



**Left lane**

Enable dispenser

tickets every  points

tickets every throw

tickets every strike

tickets every spare

tickets every gutter

**Right lane**

Enable dispenser

tickets every  points

tickets every throw

tickets every strike

tickets every spare

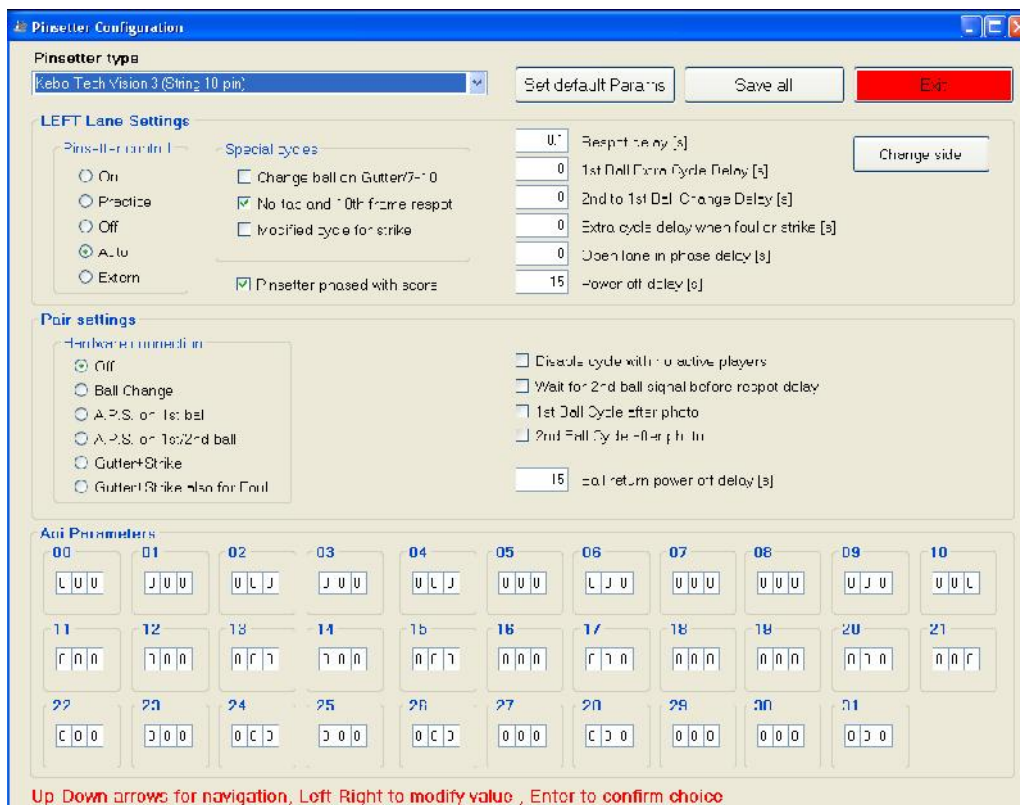
tickets every gutter

Up-Down arrows for navigation, Left-Right to modify value, Enter to confirm choice

Tag the checkbox “enable dispenser” to enable the ticket dispenser of each\both side; choose the appropriate ticket emission for every events; click on Save and Exit when done.



# Pinsetter Configurator



Select the pinsetter Type from the list and click on Set default parameters to load the parameters (from 00 to 31). Choose the Left\ Right settings, use the Change side to toggle between the pinsetter side; vary, only if necessary, the parameters; click on Save all button, than on Exit. *The button Save all could be clicked any time.*

**WARNING!** VIA\_MINIBOWLING; SES\_RS232; KEBOTECH\_VISION3 pinsetters. These machines, interfaced without API, requires a special VLC configuration for works. Choosing these pinsetters model, without an appropriate configuration file, will cause a program interruption with “incompatible hardware” message on the lanes screen.

## Editable fields for pinsetters configurator

### Pinsetter Control

- ON:** pinsetter always ON
- PRACTICE:** pinsetter always in practice mode (score not count)
- OFF:** pinsetter always OFF
- AUTO:** pinsetter ON with Active lane, OFF when lane empty (recommended)
- EXTERNAL:** pinsetter always controlled by external ON/OFF switch

### Special cycles

**Change ball on Gutter/7-10:** *require pinsetter change ball switch contact (Enable only in installation with 8270-823000 AMF with change ball switch connected to A.P.I; installation with Brunswick A1/A2 with change ball extra solenoid connected to A.P.I.)* When enable, the score send a pulse on change ball API output to switch the pinsetter from 1<sup>st</sup> ball, without cycle the pins. “1<sup>st</sup> ball cycle after photo” selection mandatory.

**No-Tap and 10th frame respot:** when enable, the score send a cycle pulse for 10th frame respot or no-tap pins (no tap pins not available with Stand Alone).

**Modified cycle for Strike:** *require pinsetter change ball switch contact (Enable only in installation with 8270-823000 AMF with change ball switch connected to A.P.I; installation with Brunswick A1/A2 with change ball extra solenoid connected to A.P.I.)* When enable, the score send a pulse on change ball API output to switch the pinsetter from 1<sup>st</sup> to 2<sup>nd</sup> all, than a pulse for cycle. “1<sup>st</sup> ball cycle after photo” selection mandatory.

### Other lanes settings

**Pinsetter phased with Score:** when enabled, the score check the 2<sup>nd</sup> ball signal before detect the second shot of the frame. **KEEP ENABLE:** disable this tag only if pinsetter can't provide the 2<sup>nd</sup> ball information to the score.

→ **Respot Delay:** indicate how many second after 2<sup>nd</sup> ball lights ON before send a new trigger to pinsetter.

☞ if the checkbox "Wait for 2<sup>nd</sup> ball signal before Respot delay" is disabled, the countdown starts form last trigger.

→ **Open lane in phase:** time between pinsetter switch ON and trigger pulse sent by Score, if the pinsetter is detected in 2<sup>nd</sup> ball at the begin of the new game.

→ **Power Off Delay:** countdown after end of game before pinsetter will be switch off.

### Hardware connection

**Off:** No special connection

**Ball change:** require pinsetter change ball switch contact. When enable, the score send a pulse on change ball API output to switch the pinsetter from 1<sup>st</sup> to 2<sup>nd</sup> ball for simulating the Fast strike and Fast Gutter cycle.

**APS on 1<sup>st</sup> ball:** enable the APS code for AMF/VPS/ZOT compatible 8270uP/8290 "Big chassis"/Steltronic 82/3000.

**APS on 1<sup>st</sup> /2<sup>nd</sup> ball:** enable the APS code for AMF/ZOT compatible 8290XL/8290Xli chassis.

**Gutter + Strike:** enable the Gutter and strike output for VIA/YANGJI/XIMA /ZONDA pinsetters.

**Gutter + Strike also for foul:** enable the Gutter and strike output for VIA/YANGJI/XIMA pinsetters and force a Strike cycle to pinsetter when foul detected by score.

### Other lane pair Settings

**Disable cycle with no active player:** pinsetter do not cycle if the players are stop or lane empty. *Warning: this function is not working with string/GS pinsetter.*

**Wait for 2<sup>nd</sup> ball signal before respot:** The Respot delay start after the 2<sup>nd</sup> ball detection, when disable delay start from last trigger.

**1st ball cycle after photo:** mandatory for Brunswick A1/A2 or pinsetter where sweep interfere with pins detection; when enable the score detect the pin then send trigger pulse to pinsetter.

**2<sup>nd</sup> ball cycle after photo:** mandatory for pinsetter where sweep interfere with pins detection; when enable the score detect the pin then send trigger pulse to pinsetter for makes the 2<sup>nd</sup> ball cycle.

→ **Ball Return power off delay:** countdown after end of game before ball return will be switch off. ☞ *it's working only if ball return is connected directly to the API ball return output.*

### Parameters

The parameters field vary by pinsetter type and are pre-loaded after clicking on Set Default parameter button. It's recommended to leave the parameters as default and change the following suggested parameter only if is necessary; for the complete list of the parameter consul the appropriate A.P.I. installation manual.

→ **00:** 000= No camera for pins detection, 015= Sciba, 012= PinCam.

→ **08:** Odd lane distance, in centimeters, between Start and Speed sensors; in installation with PinCam this parameter determinate the ball section detected ☞ *see PinCam installation manual for further details.*

→ **09:** Even lane distance, in centimeters, between Start and Speed sensors; in installation with PinCam this parameter determinate the ball "cord" section detected ☞ *see PinCam installation manual for further details.*

→ **18:** distance between Camera Start sensor and last row of pins, steps are in ball diameter (396/22 cm). This parameter is used for determinate with an algorithm when API should send the pulse for trigger the pinsetter; parameter should be reduce when the Sciba sensors are rise up over the bumpers, why photocells detect only a bowling ball "cord section" instead of whole diameter.

→ **21:** Bumper activity: 000 =(default) bumpers with a contact CLOSE for all the time that the bumper is Active (Q-bump, Brunswick Pinball wizard, etc.); 001 to 127= Toggle mode bumper + Up switch\* ; 128 to 255= Toggle mode bumper only\*\*

\* one pulse= Bump UP, next pulse = Bump Down, up switch stop the bumper up. Value indicate length of close pulse (1unit= 100 ms) 1 = 1 sec of pulse length, 127 = 12,7 Sec of pulse length; This parameter require the parameter 22 enabled

\*\* One pulse= Bump UP, next pulse = Bump Down Value (-128) indicate length of close pulse (1unit= 100 ms) 129 = 1 sec of pulse length, 255 = 12,7 Sec of pulse length.

→**22**: this parameter is used only with bumpers+ UP switch. Leave the default (**50**) and change only if necessary; the value indicate the timeout for UP Switch detection (time starts after parameter 21), if a UP/DOWN switch is not detected before par\_22 time expires, score give another pulse for bumper; (1 unit= 100Ms).

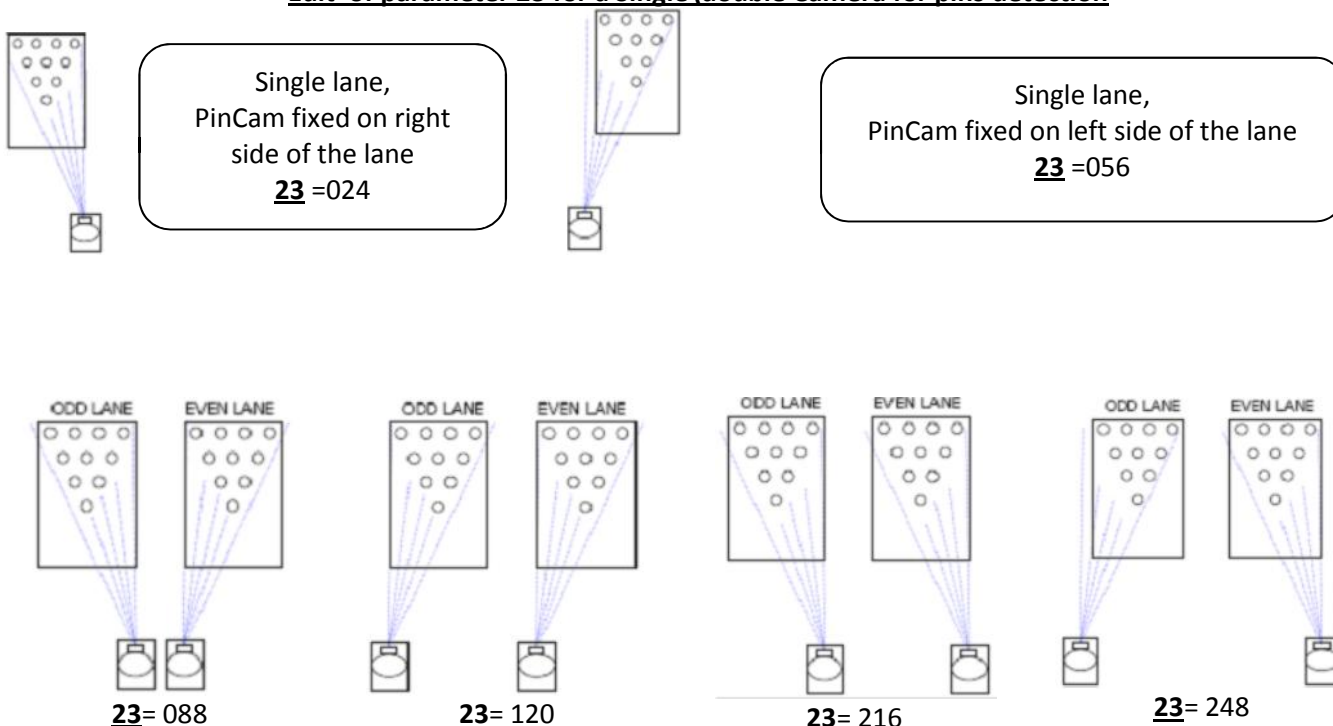
→**23**: parameter for Camera installation (double or single camera), vary only if necessary (see the next table)

→**24**: Pin read delay (odd lane) Delay for pins detection after ball passes through the start photocell. Time is in 20ms steps; time could be adjusted if need, but it's important scan the pins when they are standing correctly on deck, before pinsetter table run (1<sup>st</sup> ball) or Sweep run (2<sup>nd</sup> ball).

→**25**: Pin read delay (Even lane) Delay for pins detection after ball passes through the start photocell. Time is in 20ms steps; could be adjusted if need, but it's important scan the pins when they are standing correctly on deck, before pinsetter table run (1<sup>st</sup> ball) or Sweep run (2<sup>nd</sup> ball).

→**31**: leave default for most of pinsetters, change as follows for these pinsetters: 048= AMF 8290XL; 144=AMF8290Xli (AMF/Zot compatibility mode + Off Spot enabled).

**Edit of parameter 23 for a Single\double Camera for pins detection**



## Setup the Stand Alone Vision settings (using a Temporary Focus Front Desk)

This method is the most easy way to setup the Stand Alone settings; in addition, using Focus front desk, is also possible load the own advertising and change the Score grids style.

☞ *contact Steltronic Service department for further information about Temporary focus front Desk installation.*

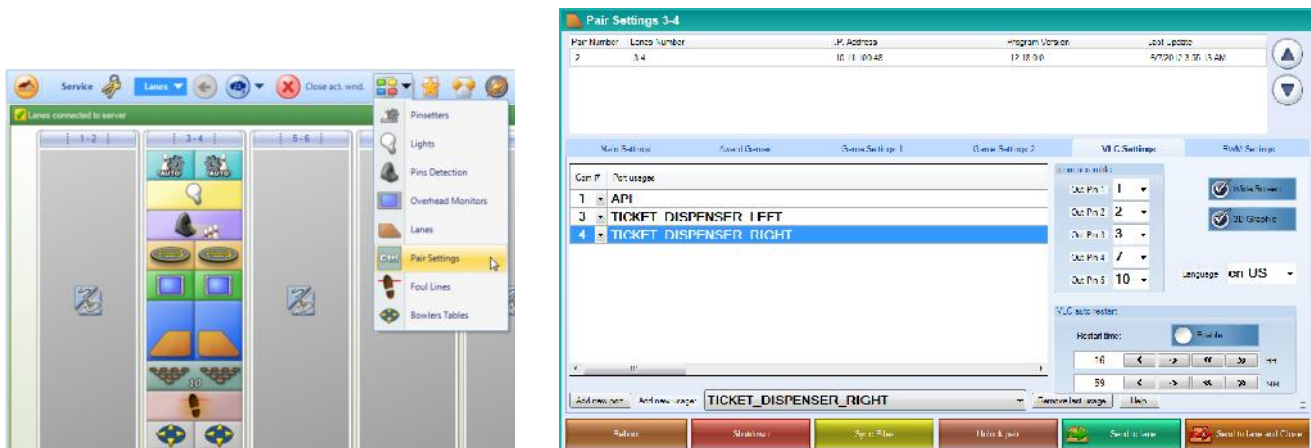
☞ *See Focus user manuals for details about Score grids and advertising changing.*

Installation with Kebo-tech (Vollmer) string pinsetters with Vision 3 chassis, Installation with SES 2012 string pinsetters: mandatory Focus version 12.5.0.0

- Connect the Stand Alone VLC to a Focus Front desk using the Lan input (Focus version 12.5 or higher).
- From Front Desk, browse the network resource and find the VLC: `\\10.11.1.xxx\c$` where 10.11.1.xxx is the VLC IP. When prompt, type the login name `\\10.11.1.xxx\administrator` and the VLC password.
- Once the connection is established, edit the VLC file `\\VisionSettings\Visionsettings.xml` changing the line `<standAlone>true</standAlone>` as `<standAlone>false</standAlone>`.
- Reboot the VLC.
- Now the VLC is available on the Focus Front Desk, as a standard VLC; the lanes do not load the program and shows "Error: incompatible hardware".
- Perform the Vision settings from Focus front Desk menu\*.

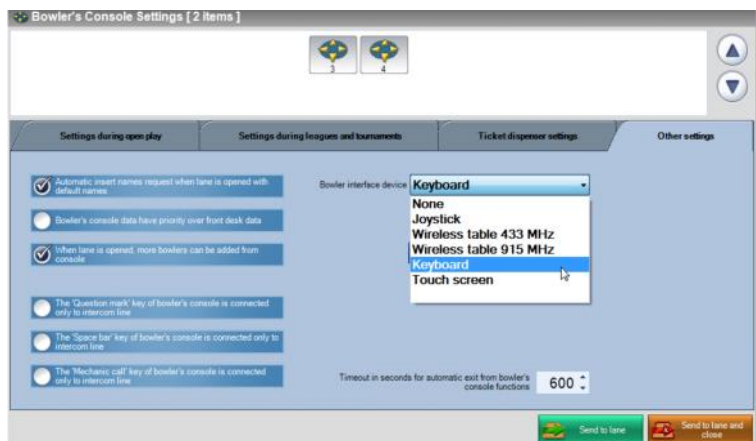
At the end of edit, change the line `<standAlone>false</standAlone>` as `<standAlone>true</standAlone>` in the file `\\VisionSettings\Visionsettings.xml` and reboot the VLC. At the next boot, the VLC will start as Stand Alone.

### VLC Com settings, Lane language, Autoreboot options.



Use Add new port to add COM3 and COM4 (if is not installed). Highlight the line and use the Add new usage to select one of the devices from the list. To remove one usage, highlight the line and click on Remove last usage.

**VLC bowler's console menu (note: not all feature will be available in Stand Alone)**



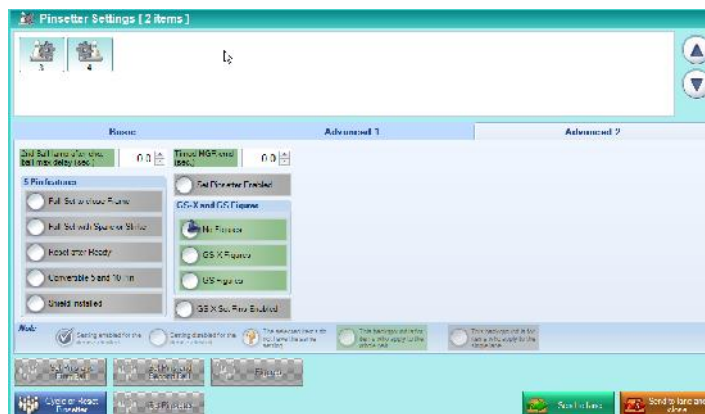
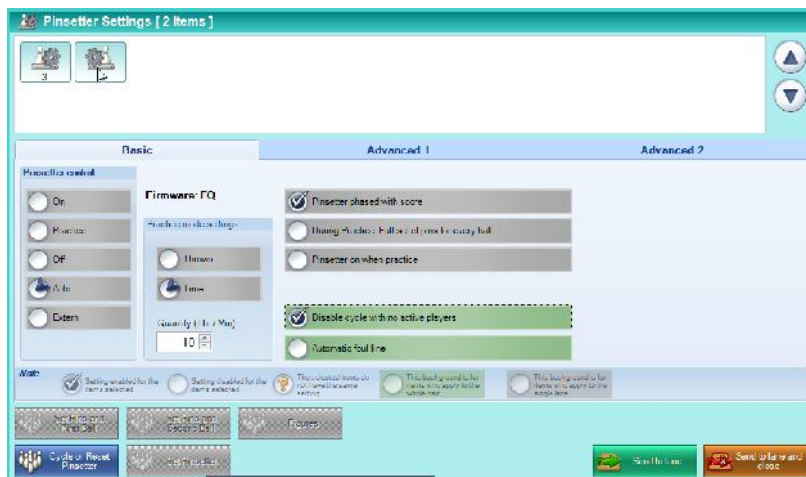
**VLC ticket dispenser configurator**



**Overhead monitors settings (selection with empty lanes)**

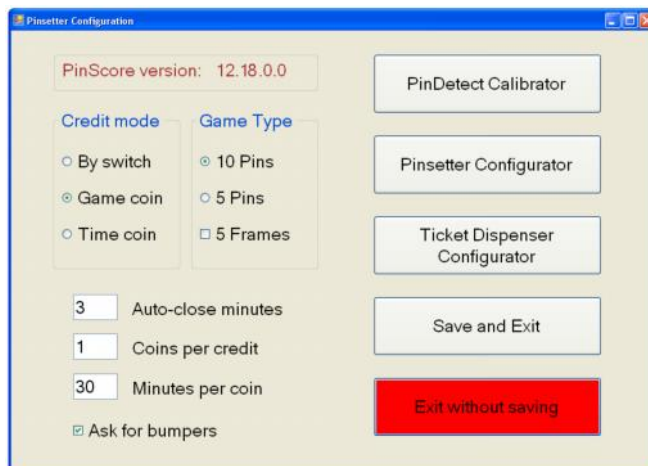


## Pinsetters settings



Settings depends by pinsetter model, please see the pinsetter interfacing manuals for details.

## About PinDetect Calibrator



The PinDetect calibration is a function to check how the Camera read the pins. This function, used only in installation with API series A065 and A067, need to be performed during the first installation, and for calibration check when necessary.

Steltronic developed #02 model of Pins Detection Devices:

**Sciba** linear CCD camera

**PinCam** Custom full CCD camera

The Sciba is connected to the API with a cable (CA0191A\B\C) that provide RS232 line and 12VDC; the PinCam use the same cable for RS232 line and 12VDC, in addition the PinCam need to be connected via UTP cable to the VLC, for display the pins picture on the overhead monitor.

The model of the pins detection device must be specify in the file <\\VisionSettings\StandAloneSettings.xml>

<code>&lt;pincam&gt;false&lt;/pincam&gt;</code>	<code>&lt;pincam&gt;&gt;true&lt;/pincam&gt;</code>
Use Sciba for Pins detection (installation with API and camera)	Use PinCam for Pins detection (installation with API and camera)

### **Checking list before to calibrate the pins**

- Remove the pins that are damage on the pin heads or on pins neck.
- Turn ON the pairs pinsetters with all pins standing on the pin deck – wait until the neon light has a good intensity.
- Even if the Camera recognizes the red and glow pins, it is recommended to calibrate with white lights, then check the calibration with the glow light.
- The black curtain wall behind the pins deck must be installed in the proper way, otherwise the camera cannot read the pins correctly.
- Before to check the pins position by software, is mandatory make the mechanical calibration; *see the Sciba or PinCam installation manuals for further details.*

## Pin detect calibrator (Sciba)

Use the qwerty arrows (up, down, left, right) to jump from each field (selected field is highlight in red), hit Enter button to activate the highlighted choice.



**Camera Icon:** clicking directly on the icon, will send the configuration to the camera. This button is used also for restart the communication with the camera, simply clicking on it.

**Status:** when the link with lane computer and Camera is Ok, the status (task) is Ready. If the Camera or the lane computer do not respond the status is Failed.

**Camera parameters (Bank, Brightness, Ratio, Frequency):** clicking directly on this line will open the Camera Parameters window. In the Camera parameter window is possible change Brightness, Ratio, Frequency and Bank.

**Left Lane – Right lane:** clicking on the tag will change the lane view selection.

**Grab Image:** clicking on Grab image button will send a command to the camera for load in memory a pins photo shot.

**Set default position:** *button available only after Grab image command;* the command move the target line for pins in the nearest position.

**Save pins position:** *button available only after Grab image command.* Save the pins calibration.

### Suggest operations (after the Sciba mechanical calibration) for the first installation

- Check the camera parameters
- Choose e Bank side
- Select a lane side and Grab Image
- Set Default position
- Adjust the pins windows
- Save pins position
- Change side and repeat the Steps
- When done, switch to the glow bank side
- Adjust the camera parameter for the new bank
- Select a lane side and check the pins peak
- Change the lane side and check the pins peak



### Checking the Sciba parameters



Clicking on the blue line will open the CAMERA PARAMETERS window:

**Brightness:** is the value given to the amount of light in the Sciba area. By lifting or lowering this value you let more or less light into the Sciba, just as if it were a standard camera diaphragm. a default settings for bank 1-4 is 4 (40 ms); for glow light (bank 2-4) the brightness value is about 7-10 (70-100 ms).

**Ratio:** is the light variation when the pin has been knocked down. In practical terms if the ratio is set to 50, the Sciba CCD will detect a pin as fallen when the light, in the area where the pin was when the first photo was taken, varies by at least 50%. This parameter need to be change only in EXTREME situation (pins dirty or light too dark), the default value is 50.

**Frequency:** refers to the amount of ‘Hertz’ electricity. Set the value in accord to your local AC frequency: EUROPE = 50 Hz USA= 60 Hz CHINA=50 Hz.

**Bank:** the BANK is a conventional “point” for pre-set a brightness value. Bank 1 is used for saving the brightness value for white light.

During ‘**glow in the dark**’ bowling the pinsetter neon is turned off, the only light is a ‘black’ florescent light. The Brightness set for the white light is not enough for the camera to see the pins correctly. It is necessary to increase the light that enters the camera by lifting the BRIGHTNESS value. In order to make the operation quicker, a second ‘Bank’ (2 or 4) is assigned to the Glow settings (with higher integration time).

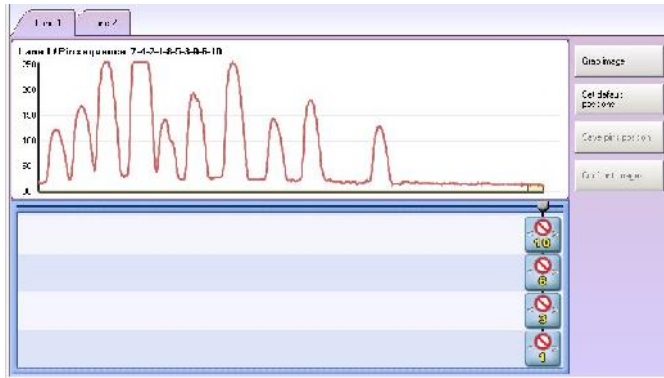
#### Pins Calibration Steps

- (1) select the current ‘bank’ which is needed for this calibration: 1 or 3 for with light, 2 or 4 for glow bowling. Click on Change Bank button to confirm. The screen will come back to main menu.
- (2) Once again click on blue line for opening the camera parameters window, vary (if necessary) the Brightness or other parameter, then click on Save Parameters to confirm and exit.
- (3) Choose a lane side, Grab the image, adjust the pins position and save.
- (4) Change lane side, Grab the image, adjust the pins position and save.
- (5) Change the Bank, adjust the Brightness as need and check the calibration (do not change the pins position, check only the pins peak).

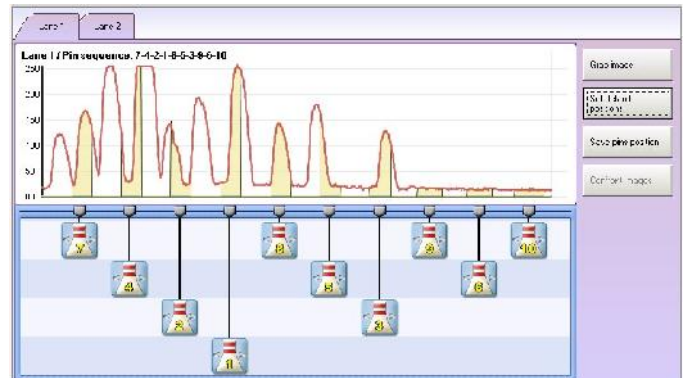
### Grab the image and adjust the pins position

All 20 pins must be standing on both Pins-deck, the pinsetter pit-light must be turned on, the black curtain in the rear of the pins must be placed correctly.

First select one lane side, than clicking on Grab Image button will send a command to the camera for load in memory a pins photo shot.



The Screen shot of the lane is load as a graphic. All the pins cursor are overlapped on right side of the screen.



Click on Set Default position The pins cursor will be displayed on the approximate position.



The pins are represented by the 'peaks' of different heights. The height depends on the distance from the neon light the pin is. Pins 1,3,2 and 5 are the highest 'peaks' as these pins are closet to the light, while pins 7,8,9 and 10 are further away and therefore receive less light resulting in lower 'peaks'. As the example shows the 10 pin 'peak' height is 100, less than half of the height of the pin 1 'peak' (250). This is okay but a 'peak' lower than 50 would not be detected.

Use the arrows keys to move on pin cursor (the border is highlight in yellow), hit Enter to select the pins. Use the ←→ arrows to move the "yellow window" to left or right. Centre the "yellow vertical window" with the corresponding pin, without interfere with the nearest pins.

The yellow vertical window shows the searching area where Sciba looking for the pin. The windows must be in the center of the base of the peak, it's mandatory that all the near window's do not overlap each other, otherwise the Sciba can't read the right pins.

When finish, use the Up-down arrows to move on another pin, and repeat the sequence; at the end, move on Save pins position button and press Enter to save the calibration; change lane side and repeat the sequence.

### Suggestions for a good pins reading

It is important that the pins 'peaks' are a good distance from one another so that the pin detection is good. In cases where it is difficult to get good peaks, move the window slightly to allow more distance between them.

If the Sciba CCD position is not correct or the 'focus' is out it can be regulated, the worst thing is the overlap of pin peaks, causing the Sciba CCD to detect one pin in place of another on the 'ideal line' and scoring it incorrectly.

Brightness value is same for both lanes. Depending by pins illumination's condition, even and odd lanes could display different peaks height, for same pins. It's important to keep a Brightness media value in order to calibrate both lane as well.

It is also possible, when the Brightness is too high, that the light saturates the lens and the peaks overlap (they tend to become one line at the top).

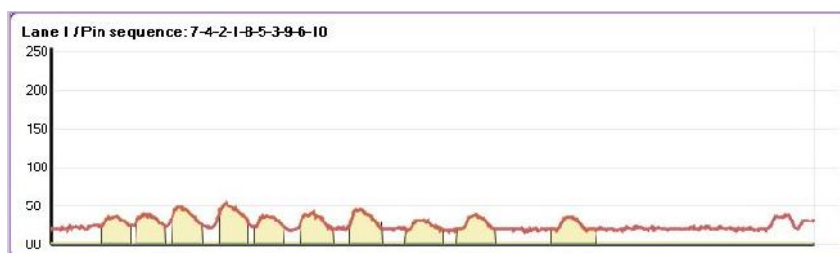
If it is not possible to fix the problem by altering the Brighteners you need to MECHANICALLY CALIBRATE THE SCIBA; If this does not work, replace the Sciba CCD.

The higher the peak is the more the peak tends to flatten. This phenomenon is known as IMAGE SATURATION when a pin peak is too saturated the Sciba CCD tends to 'see' the pin even when it has been knocked down.

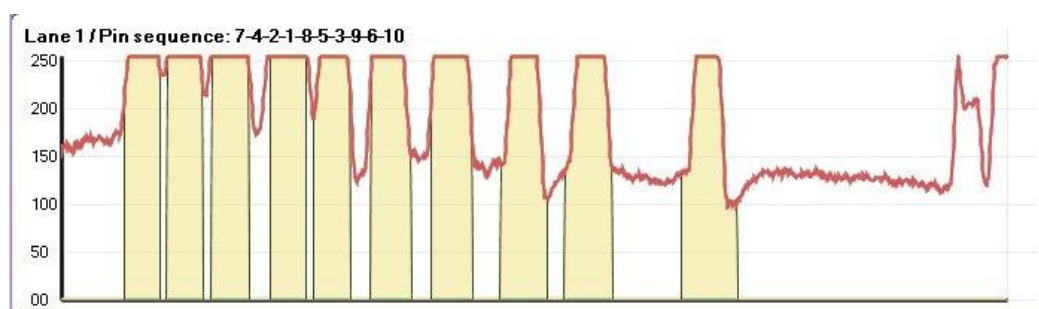
Set the light that enters into the Camera by changing the Brightness. If the pin 'peaks' are too high, being saturated with light, the Sciba CCD tends to 'see' them all the time, if the pin 'peaks' are too low the Sciba CCD has a hard time 'seeing' them.

Integration time is the value given to the amount of light in the Sciba area. By lifting or lowering this value you let more or less light into the Sciba, just as if it were a standard camera diaphragm.

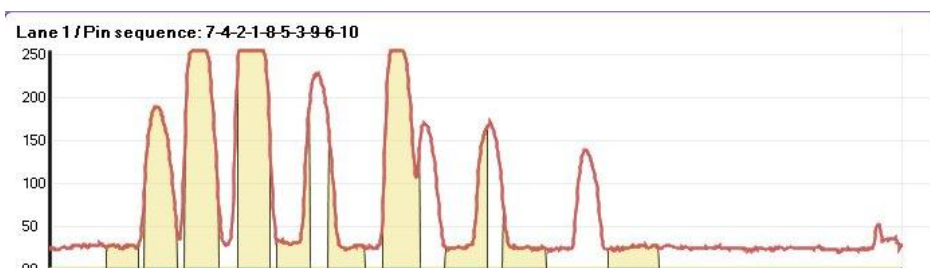
#### Example of wrong calibration



The peaks are too LOW;  
not enough light is entering the lens and the Sciba does not recognize the pins. Lift the Brightness



The peaks are too high; too much light is entering the lens; the Sciba recognizes the pins ALL the time, even when they have been knocked down. Decrease the Brightness.

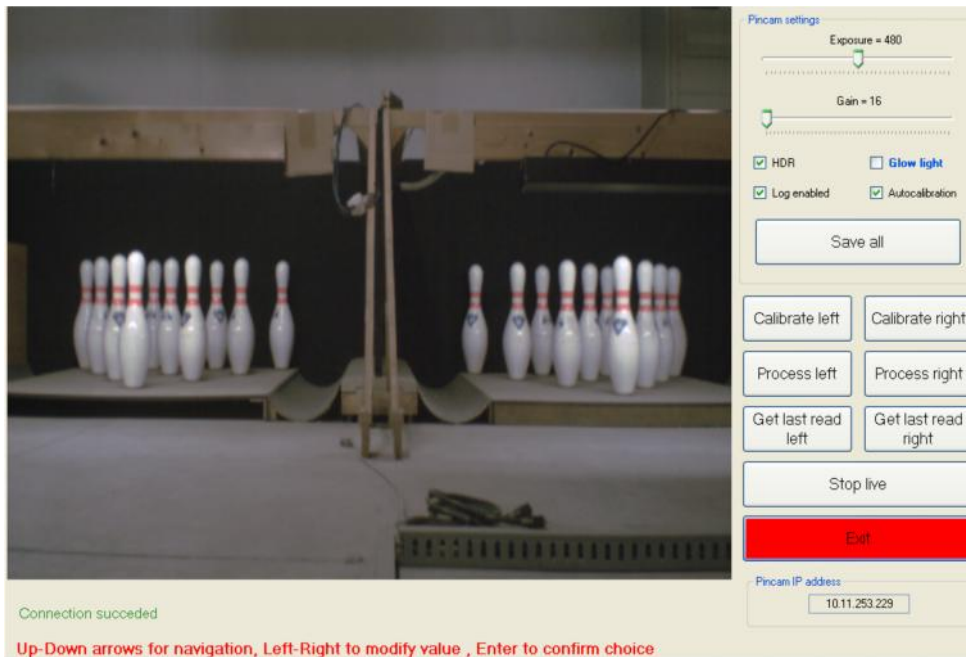


The peaks are overlapped; the Sciba recognizes one pin in place of another, or worse it recognizes the pin in place of the one next to it. The Sciba may be out of focus. Lower the Brightness; if the operation is not successful make a mechanical calibration.

## Pin detect calibrator (PinCam)

If the Laptop and the PinCam client program was used to calibrate the PinCam, is not necessary perform the Pin detect calibrator from VLC, why the parameters are saved in PinCam flash memory. See PinCam installation manual for further details.

Use the qwerty arrows (up, down, left, right) to jump from each field (selected field is highlight in red), hit Enter button to activate the highlighted choice. As default, the program start with Live picture, both lanes are displayed on the Screen.



The Gain, Exposure and most of the PinCam Settings are pre-defined by Factory, change only if necessary.  
Tag the Glow light to change the bank on glow light.  
Enable Autocalibration, the camera will adjust the pins reading automatically (after the first calibration)

**Exposure:** brightness, defines the amount of light received by the camera, the value should be around 400 for white light, and 1000-1225 for glow light

**Gain:** picture contrast, the value should be 16 for white light, and 50 for glow light

**High dynamic range:** leave enabled (camera will auto-balance the picture)

**Auto Calibration:** leave enabled (the will camera auto-adjust the position in case of vibration).

**Log enable:** when on, the PinCam saves all the photos taken in a folder for pin detection (1000 photo each side), disable the function (not working with Stand Alone)

**Calibrate left:** start the calibration for left lane.

**Calibrate right:** start the calibration for right lane.

**Save all:** save the calibration.

**Process left:** verify the nominal position with the actual position (left lane).

**Process right:** verify the nominal position with the actual position (right lane).

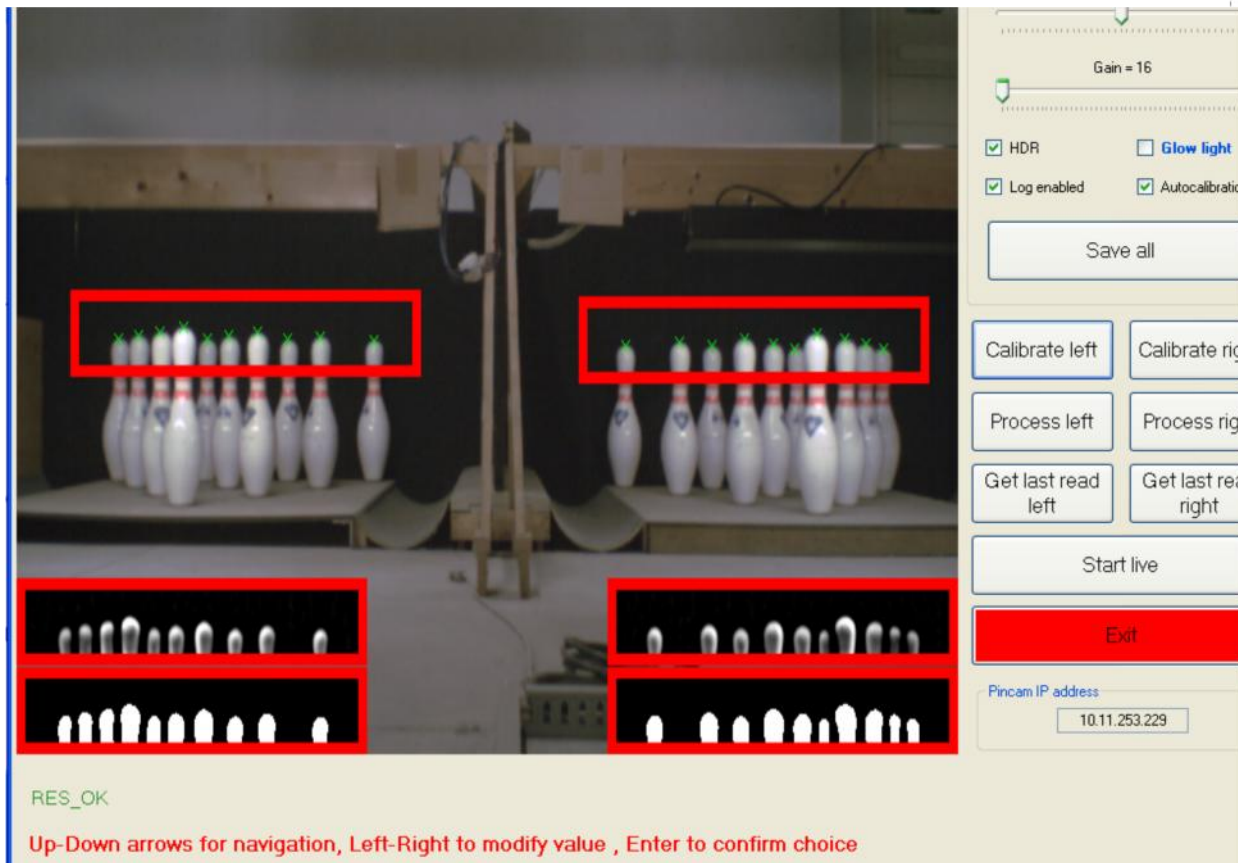
**Get last read left:** load the last photo (left lane).

**Get last read right:** load the last photo (left lane).

**Stop live:** freeze the picture and stop live view.

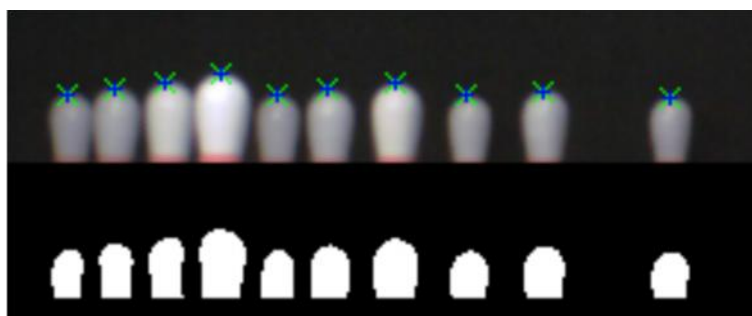
**Exit:** exit from PinCam calibration Program.

To start the calibration, stop the live view, click on Calibrate left, check the calibration, than do the same with Calibration right and verify the results:



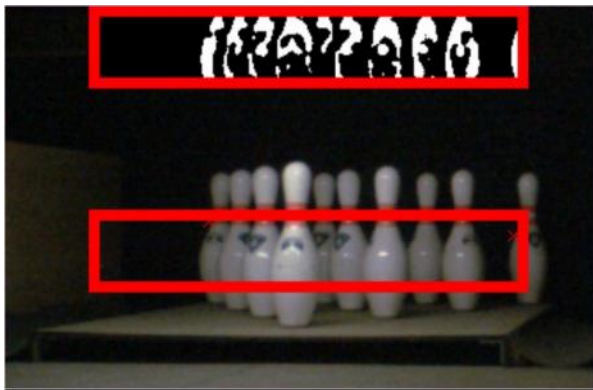
The program search for the pins and display at the end the windows with the pins details; a green cross appear on each pins head, indicating where the camera detect the pins.

The program shows "RES\_OK" if the calibration is successfully, in case of a calibration problem, the program will display "Calibration failed". If an error comes up, check the camera position and the light conditions.

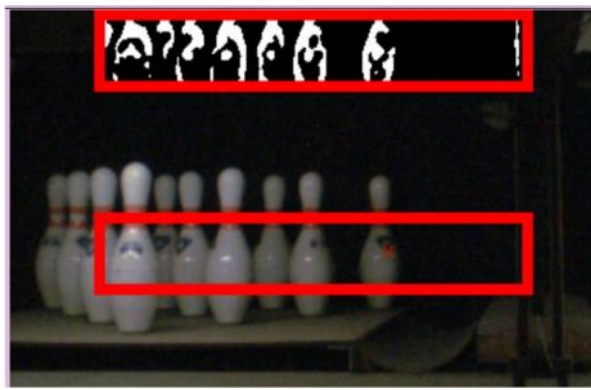


A good calibration is reached when the heads of the pins are separated and white (which represents each pin) with no black patches, normally a sign of overexposure. The camera auto calibrates and is looking for the best value of calibration; the calibration fails in case of errors of positioning or abnormal conditions of light or error in the values of exposure and gain.

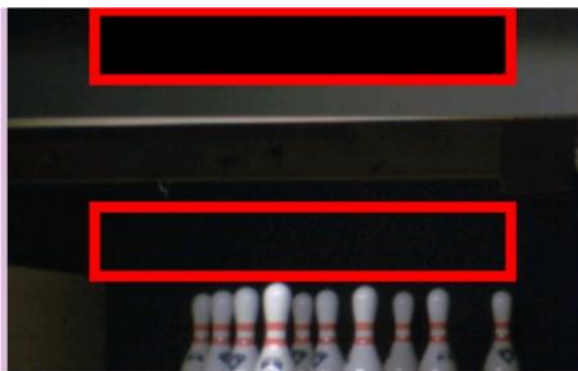
**Examples of PinCam Calibration failed**



Calibration failed because the Camera is looking too much to left side.



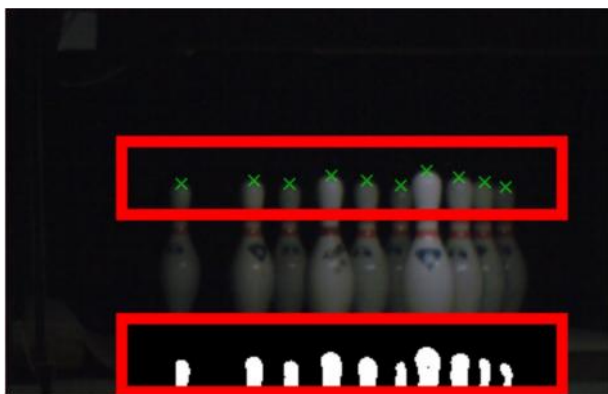
Calibration failed because the Camera is looking too much to right side.



Calibration failed because the Camera is looking to high.



Calibration failed because the Camera is looking too low.



Calibration is succesful but the light is too low; the camera could not recognized some pins when moving. Check the pinsetter light and if necessary raise the exposure level



Calibration is succesful but the light is too much; the camera could see pins even when knocked down. Lower the exposure level

## Commit the VLC HD

When the Stand Alone configuration is full done and tested, is better “seal” the configuration committing the VLC Hard disk. This operation create an image of the current VLC HD active partition; in case of problems (files corruptions, virus on Hd etc.) it will be possible restore the last saved image to resume the VLC.

As first, login with the VLC and stops the pinscore.exe program to load the Vision Root menu:



### Using a local mouse and keyboard connect to the VLC:

hit ESC key on keyboard to stop the Pinscore.exe program, the VisionRoot menu pops up, click on Explorer button.

**From Remote computer:** using VNC , connect remotely to the VLC, when logged in, hit ESC key on keyboard to stop the Pinscore.exe program, the VisionRoot menu pops up, click on Explorer button.

If VNC is not available, use the Bowler’s Console emulator program , enable the keyboard and press ESC to quit from the pinscore.exe program.

Click on Open CMD button to open a command prompt window.

At command line, type **ewgmgr c: -commit** (press enter to confirm).

Close the CMD window and click on Reboot Button. The VLC will reboot, creating the mirror of image. This operation required vary minutes, at the end, the VLC will load the usual menu.

---

Steltronic Stand Alone Vision lane computer – installation (rev c)  
June 2012

Written by Giovanni Gatta ([giovanni.gatta@steltronic.com](mailto:giovanni.gatta@steltronic.com))

## Steltronic

### Worldwide Headquarters

#### **Steltronic S.p.A.**

Via Artigianale 34, 25082 Botticino Sera Brescia - Italy

Tel: +39 030 2190811 fax: +39 030 2190798

<http://www.steltronic.com>

Worldwide Service: + 39 030 2190830

Email: [service@steltronic.com](mailto:service@steltronic.com)

### North America Headquarters

#### **Steltronic Incorporated**

2738 S. 163rd Street

New Berlin, WI. 53151

Toll Free: (800) 942-5939

Telephone: +1 (262) 754-2300

FAX: +1 (262) 754-2301