QUBICAAMF

THE POWER OF PARTNERSHIP

USER MANUAL

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TABLE OF CONTENTS

SUMMARY OF CHANGES **5**

GENERAL INSTALLATION NOTES **6**

1. SYSTEM LAYOUT **7**

T.90.227 – QScore typical scoring layout 8

2. SYSTEM DESCRIPTION **9**

2.1 System brief description 10

3. SYSTEM COMPONENTS **11**

3.1 3QT 12

3.1.1 Label description 12

3.1.2 Connections 13

3.1.3 How the 3QT works 14

3.1.4 USB memory stick 15

T.20.003 – 3QT Unit 16

3.2 Overhead interfaces: OH-RX 4 and OH-RX 4/B 17

T.20.101 – OH-RX 4 and OH-RX 4/B 18

3.3 CONSOLES 19

3.3.1 Fly 19

3.3.2 InfraRed Fly 19

3.3.3 Micro II 19

3.3.4 InfraRed Micro II 19

3.3.5 Micro I 19

3.3.6 InfraRed Micro I 20

4. FRONT DESK BRIEF DESCRIPTION **21**

5. HOW TO **23**

5.1 How to turn on/off the 3QT units 24

5.1.1 Turning ON the system. 24

5.1.2 Turning OFF the system. 24

5.2 Boot-up screen description 25

5.3 How to upload programs to the 3QT 28

5.4 How to replace the 3QT 29

5.5 How to download logs from the 3QT 32

5.6 3QT Error list 35

5.7 Lanes control box service 37

6. STAND ALONE **38**

6.1 Introduction 39

6.2 How to enter in Stand Alone mode 39
6.3 How to setup the lane (HW configuration) 39
6.3.1 Introduction 39
6.3.2 How to enter in the HW SETUP 39
6.3.3 Setup of the lanes 39
6.4 Camera, parameters and monitor setup 44
6.4.1 Introduction 44
6.4.2 How to access the camera and parameters setup 44
6.4.3 Camera setup 44
6.4.4 Camera calibration 49
6.4.5 How to access the X/Y POS setup 50
6.4.6 X/Y Pos 51
6.5 How to open/close the lane 51
6.5.1 Opening a lane 51
6.5.2 Closing a lane 51
6.6 How to enter the activation key 52
6.7 How to upgrade the 3QT software 52

7. PARTS LIST 56

T.90.231 – QScore parts 57
T.90.232 – QScore parts – Fly console 58
T.90.233 – QScore parts – IR Fly console 59
T.90.243 – QScore parts – Micro II console 60
T.90.234 – QScore parts – IR Micro II console 61
T.90.245 – QScore parts – Micro I console 62
T.90.244 – QScore parts – IR Micro I console 63

Summary of changes

Rev. 3 (February 2015)

- Added Micro II, Micro I, IR Micro I consoles.

GENERAL INSTALLATION NOTES

For devices directly connected to the power, it is necessary to check that the electrical capacity of the system is suitable for the maximum power requirements of the equipment (as indicated on the labels of the 3QT).

Always open the circuit breaker and disconnect the power plug from the powered units before looking for, and clearing, any problem.

To reduce the risk of fire or electrical shock, do not expose this equipment to moisture.

This appliance must be positioned such that the mains supply cord connector is accessible after installation.

Be aware of the voltage being supplied to the equipment (i.e. from 110V to 240V) and that the equipment is set for the correct voltage(when applicable).

Failure to set the equipment for the correct voltage will result in damage to the equipment.

The electrical safety of the equipment is obtained only when the equipment is connected to an effective GROUNDING SYSTEM (in accordance with the existing electrical codes and safety regulations). See 3QT Pre-Installation Manual.

It is necessary to have the power and grounding inspected by a licensed and certified electrician.

The manufacturer cannot be responsible for possible injury, damages or malfunctioning of the equipment due to the absence of or improper grounding of the equipment.

Each 3QT unit contains a non-replaceable lithium battery.

Only authorized QubicaAMF technicians are allowed to open the 3QT unit and replace the battery.

CAUTION: risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

ATTENTION: Il y a risque d'explosion si la batterie est remplacée par une batterie de type incorrect. Mettre au rebut les batteries usagées conformément aux instructions.

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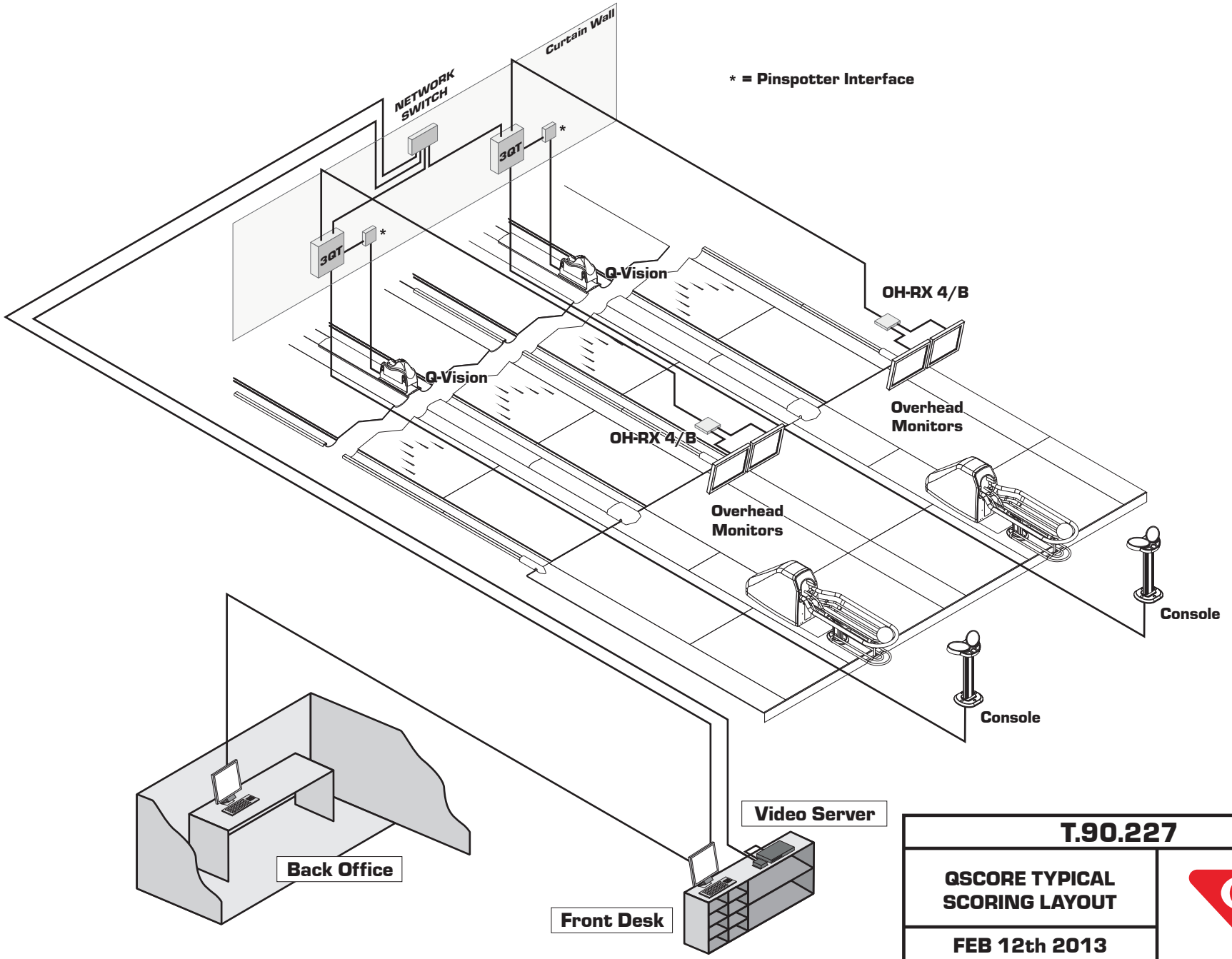
SECTION 1

SYSTEM LAYOUT

USER MANUAL



T.90.227

QSCORE TYPICAL SCORING LAYOUT

FEB 12th 2013

SECTION 2
SYSTEM DESCRIPTION

USER MANUAL

2.1 System brief description

The QScore system is composed by different kind of units. All of these units are designed to manage up to two lanes. Each unit has to be installed in a particular area in order to function properly. Usually in one pair of lanes based on the QScore system there will be:

- One (Fly) or two (IR Micro II) consoles in the bowl return area, in order to let the bowlers to perform specific actions with the scoring system, such as enter the names, specify the gender, etc...;
- One camera assembly on the double capping in front of the pinspotters, used to spot the pins;
- One pinspotter interface on the back of the curtain wall, a unit that lets the scoring system to communicate with the pinspotter in order to open/close a lane, reset the pinspotter from the front desk area, etc...;
- One bumper control unit interface on the back of the curtain wall, in order to use the bumpers;
- One 3QT Lane Control Box on the back of the curtain wall, the core and the graphic engine of the QScore system. This unit is a dedicated CPU that manages the scoring system and provides two video outputs.
- One overhead interface unit located or on the ceiling near the overhead monitors or directly on the frames of the overhead monitors, that amplifies the video signals coming for the 3QT unit;
- Two overhead monitors.

In the front desk area there is a network cable that connects the second network card of the ConquerorPRO server with a network switch located on the back of the curtain wall, in the middle of the lanes. We will call these network switches "scoring network switches" for simplicity. Depending on the number of lanes installed there will be one or more scoring network switches:

- in centers with up to 24 lanes there will be just one scoring network switch;
- in centers with more than 24 lanes there will be two or more network switches: one used as main scoring network switches and one for each group of maximum 24 lanes used as slaves switches, so for example in a 46 lanes center there will be 3 scoring network switches (one main and two slaves).

Finally each 3QT unit will be connected to a scoring network switch.

This connection permits the communication between the front desk computers and the 3QT Lane Control Boxes.

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SECTION 3

SYSTEM COMPONENTS

USER MANUAL

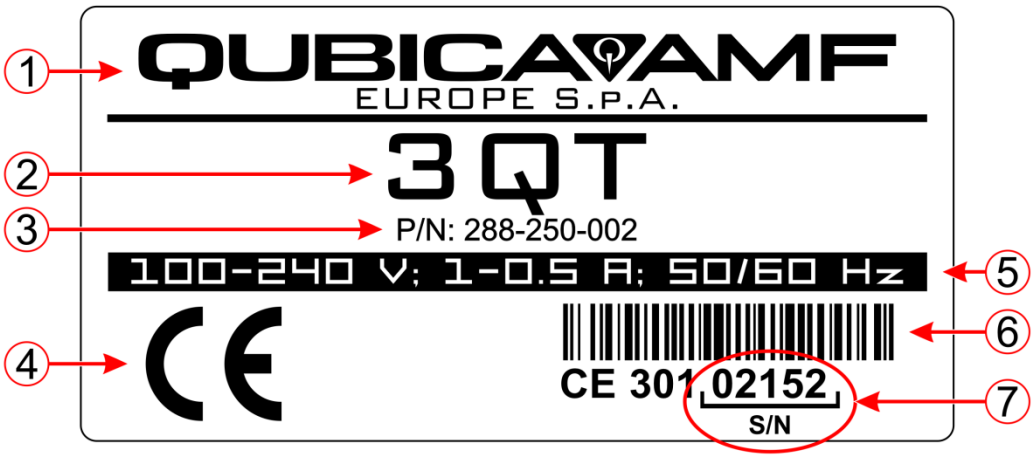
3.1 3QT

The QScore system is based on the 3QT Lane Control Box. This unit is a dedicated CPU, that manages the scoring system and provides two video outputs per lane pair.

Each 3QT unit manages up to two lanes (one pair of lanes).

The 3QT unit is usually installed on the back of the curtain wall, in the middle of the pair of lanes managed by the unit itself. If during the installation was, for any reason, not possible to fix the 3QT to the curtain wall, this unit has to be located on the wall behind the pinspotter or if XLi pinspotter with safety kit are present, the 3QT unit will be installed on the panel located at the end of the aisle present between each pair of pinspotter.

3.1.1 Label description



The image above displays the label located on the left side of the 3QT unit.

1. Manufacturer (QubicaAMF Europe S.p.A.);
2. Name of the unit (3QT);
3. Part number (P/N: 288-250-002);
4. List of certifications (CE certification);
5. Electrical notes (100-240 V; 1-0.5 A; 50/60 Hz);
6. Bar code;
7. Serial number (Composed by the last 5 digits).

3.1.2 Connections

Power Specifications for the 3QT are: **100-240 V – 50/60 Hz, 1 A - 0.5 A.**

On the 3QT the following connections are available:

- **V1 – MONITOR OVERHEAD ODD:** Video signal of the odd upper lane monitor, power supply for the overhead interface and audio for upper lane monitors.
- **V2 – MONITOR OVERHEAD EVEN:** Video signal of the even upper lane monitor, power supply for the overhead interface and an XCOM communication channel.
- **M4 – MONITOR LOWER ODD:** Currently NOT used.
- **M5 – MONITOR LOWER EVEN/SINGLE:** Currently NOT used.
- **D1 – CONSOLE DATA ODD:** Power supply, XCOM and input/output audio channels (Q-COM intercom system) for the odd lane console. When two consoles per pair of lanes are installed, the D1 output is connected to the odd lane console.
- **D2 – CONSOLE DATA EVEN/SINGLE:** Power supply, XCOM and input/output audio channels (Q-COM intercom system) for the even lane console. This output is used when a single console is installed. When two consoles per pair of lanes are installed, the D2 output is connected to the even lane console.
- **P1:** NOT USED.
- **Y1 - YCOM:** NOT USED.
- **C1 – LCOM:** LCOM network signal source. Pin-out for C1 connector is:
  + : +18 Volts unregulated;
  B : Communication –;
  A : Communication +;
  - : Common.
  The wires + and – carry the LCOM power, B and A the communication.

Connectors on the upper side of the 3QT unit:

- **N1 - NETWORK:** Connection to the scoring network.
- **U1:** Animation memory stick port (where the USB stick have to be inserted).
- **U2:** NOT USED.

LEDs:

Each RJ45 port is provided of two colored LED (orange and green)

- **V1:**
  - Green: Power output status. When the LED is on, it indicates the CPU is providing the correct power to the connected device.

  - Orange: CPU status. The LED is blinking during boot. When the CPU is running, this LED remains ON.

- **V2:**
  - Green: Power output status. When the LED is on, it indicates the CPU is providing the correct power to the connected device.
  - Orange: XCOM communication line. The LED is flashing when the XCOM line is running.

- **M4:**
  - Green: NOT USED.
  - Orange: NOT USED.

- **M5:**
  - Green: NOT USED.
  - Orange: NOT USED.

- **D1:**
  - Green: Power output status. When the LED is on, it indicates the CPU is providing the correct power to the connected device.
  - Orange: XCOM communication line. The LED is flashing when the XCOM line is running.

- **D2:**
  - Green: Power output status. When the LED is on, it indicates the CPU is providing the correct power to the connected device.
  - Orange: XCOM communication line. The LED is flashing when the XCOM line is running.

- **N1:**
  - Green: The LED is on when the network card uplink is established.
  - Orange: Flashes when is transmitting or receiving data from the network.

3.1.3 How the 3QT works

The communication between 3QT units and front desk is based on the TCP/IP protocol.

Thus 3QT units have an IP address that changes depending on the number of the pair of lanes where they are installed. E.g., the address is 192.168.10.101 for the pair no. 1, 192.168.10.102 for the pair no. 2, ...103 for the pair no. 3 and so on.

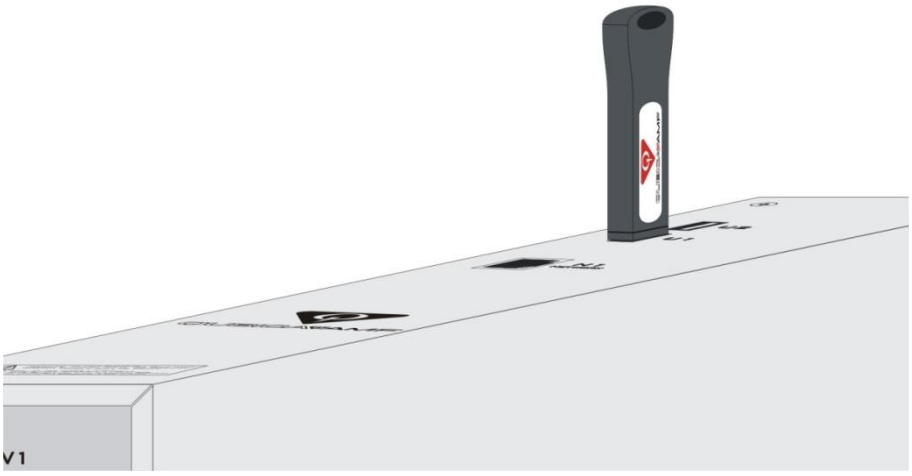
This information is displayed on monitors during the booting process, when testing the peripheral devices, together with the information concerning the version of programs on 3QT, and the serial number, that is an univocal number that identifies the 3QT lane control box. The serial number is used to address the 3QT units, it can be read on the Lane monitors and on a specific label applied on the back of the 3QT.

3.1.4 USB memory stick

In order to manage all the QScore environments, a USB memory stick plugged in the U1 port of the 3QT is required.

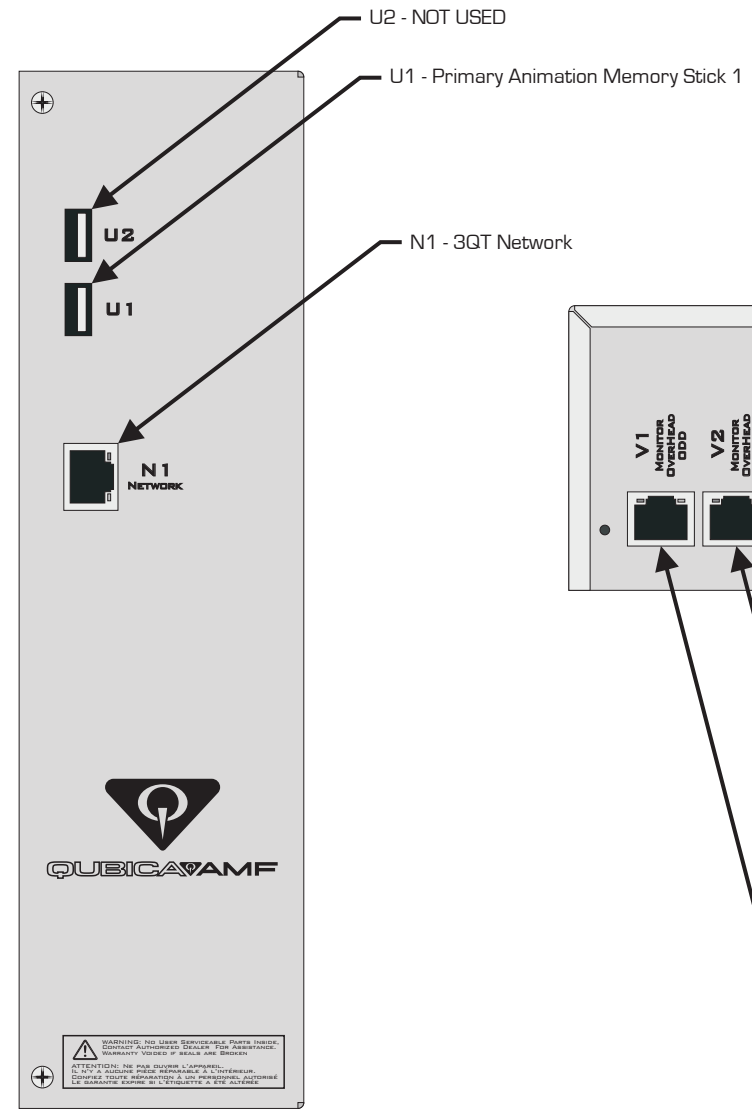
If the USB memory stick is not plugged into the system during the boot up sequence, the top part of the screen will be totally green; this indicates that the USB memory is not present, is not properly inserted, or is damaged. Without the USB memory stick the system will keep working using basic scoring grids and no animation.

In order to connect the USB memory stick the 3QT lane Control box must be turned off.



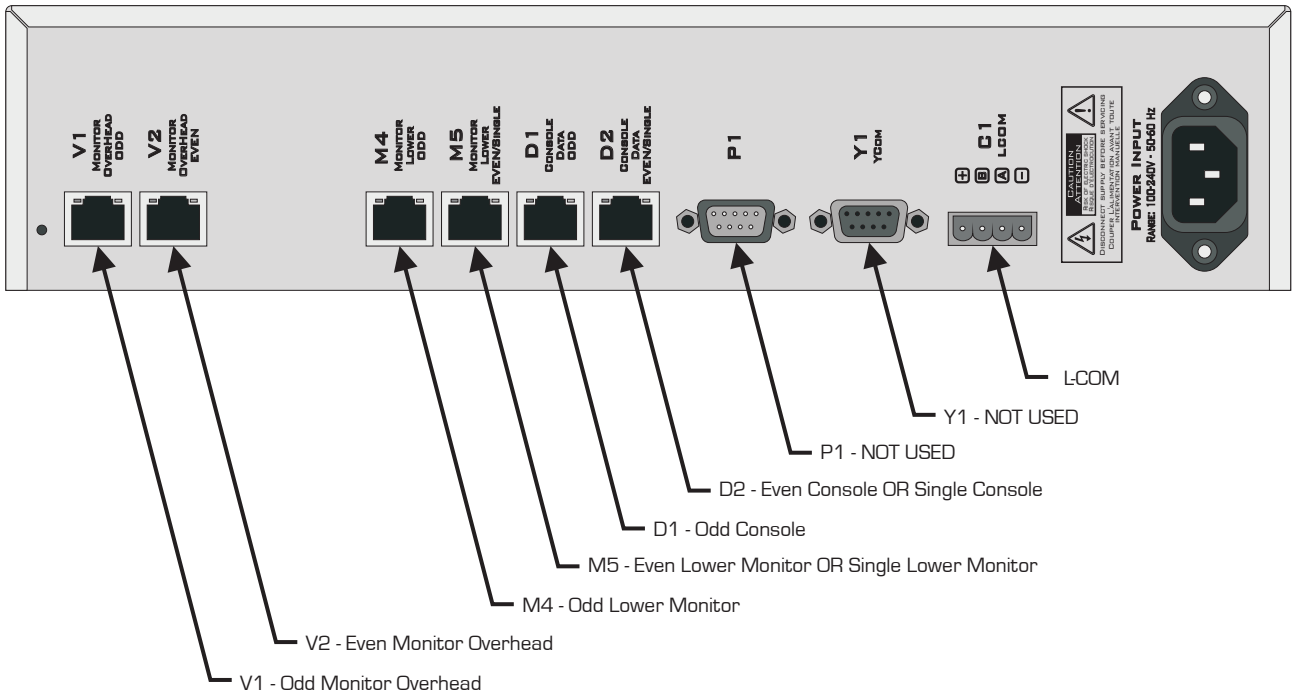
IMPORTANT: only USB memory stick provided by QubicaAMF are allowed.

P/N: 288-250-002



3QT - Upper View

3QT - Front View



T.20.003	
3QT	
MAR 13th 2013	

3.2 Overhead interfaces: OH-RX 4 and OH-RX 4/B

3QT units can be connected to different NTSC video devices, such as standard televisions, LCD monitors, plasma screens and video-projectors.

The lane monitors are installed on the Bowl Return area. The distance between the 3QT and the lane monitors makes it mandatory to install an interface between the 3QT output and the lane monitors, in order to amplify the incoming video signal.

The overhead interface unit is the audio, video and data interface for the overhead lane monitors.

Overhead interface units receive power, audio-video signal and data directly from the 3QT into the V1, V2 connections. The overhead interface inputs are direct connections from the V1 and V2 connectors on the 3QT. The connection is made using colored network cables. V1 Cable is Red, V2 Cable is Blue.

NOTE: The 3QT to overhead interface connection is made with standard network cables, but the signals running on them are NOT standard network signals. Do NOT connect to the 3QT V1 and V2 ports any standard network device. It will may result in major damages for the equipment involved.

The V2 (orange) LED on the overhead interface, under normal circumstances, flashes. If during normal operations this LED is off or constantly on there could be a problem with the 3QT unit. In the event this occurs, check the 3QT unit's orange status LED on the V2 port. Other problems may be related to the V2-Blue cable or the overhead interface unit itself.

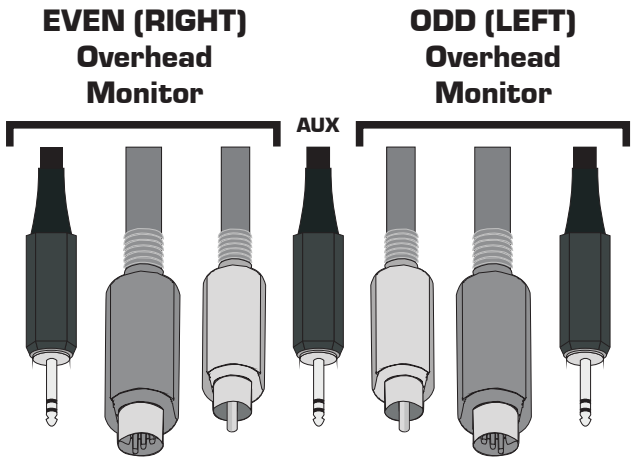
Whatever the cause, when the V2 (orange) LED is off there might be no sound on the lanes.

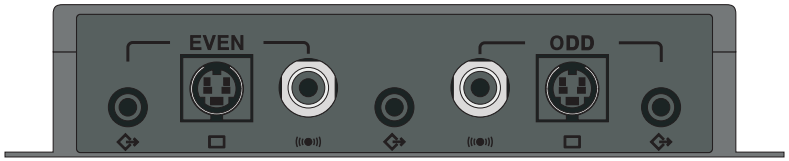
(Table T.20.101) For standard TV, Plasma, LCD monitor or video projectors with NTSC S-Video input and equipped with internally integrated speakers.

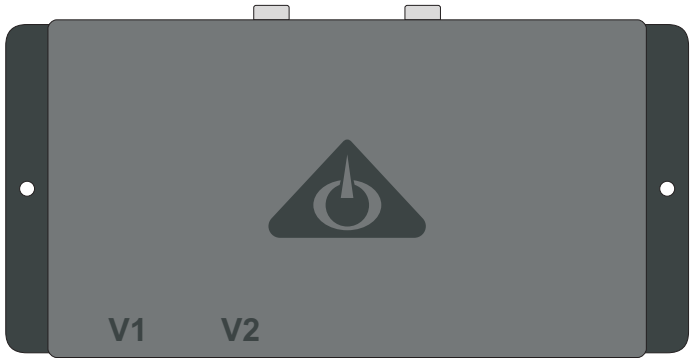
Connectors on the OHRX 4 interface:

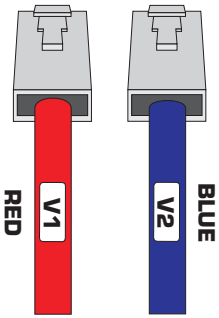
- Two S-Video connectors for upper odd (left) and upper even (right) monitors.
- Two RCA connectors for non-amplified (line) audio output, one for each lane monitor.
- Three serial jack output, to control the monitor functions (if compatible).

P/N: 288-250-006









**FROM 3QT
LANE
CONTROL BOX**

NOTE: ONLY WITH CONQUERORPRO VERSION 6.09.00 OR HIGHER

T.20.101	
OH-RX 4 AND OH-RX 4/B	
FEB 14th 2013	

3.3 CONSOLES

The consoles are installed in the bowl return area. The consoles permits to the bowlers to interact with the scoring system, permitting to them to perform different actions, such as enter the names, set the gender, etc... There are three different models of consoles for the QScore system: Fly, InfraRed Fly and InfraRed Micro II consoles.

3.3.1 Fly

The Fly console is composed by two keyboards mounted on a single pedestal. This console serves two lanes (one per pair of lanes). In this version the console is connected to the D2 port of the 3QT with a single network cable (yellow).

3.3.2 InfraRed Fly

The InfraRed Fly console is composed by two keyboards mounted on a single pedestal. This console serves two lanes (one per pair of lanes). In this version the console is equipped with infrared transmitter (QIT-RDB) that communicates with an infrared receiver (QIR-RDB) located over the false ceiling near the overhead monitors. The infrared receiver (QIR-RDB) is connected to the D2 port of the 3QT unit with a single network cable (yellow).

3.3.3 Micro II

The Micro II console is composed by one keyboard mounted on a single pedestal, or on a single gooseneck for table mounting. This console serves one lane (one per lane). In this version the console is connected to the D1 (for the odd lane console) or D2 (for the even lane console) ports of the 3QT unit with a single network cable (grey for the D1 connection and yellow for the D2 connection).

3.3.4 InfraRed Micro II

The InfraRed Micro II console is composed by one keyboard mounted on a single pedestal, or on a single gooseneck for table mounting. This console serves one lane (one per lane). In this version the console is equipped with infrared transmitter (QIT-RDB) that communicates with an infrared receiver (QIR-RDB) located over the false ceiling near the overhead monitors. The infrared receiver (QIR-RDB) is connected to the D1 (for the odd lane console) or D2 (for the even lane console) ports of the 3QT unit with a single network cable (grey for the D1 connection and yellow for the D2 connection).

3.3.5 Micro I

The Micro I console is composed by one keyboard mounted on a single pedestal, or on a single gooseneck for table mounting. This console serves one pair of lanes (one per pair). In this version the console is connected to the D2 (for the even lane console) port of the 3QT unit with a single network cable (yellow).

3.3.6 InfraRed Micro I

The InfraRed Micro I console is composed by one keyboard mounted on a single pedestal, or on a single gooseneck for table mounting. This console serves one pair of lanes (one per pair). In this version the console is equipped with infrared transmitter (QIT-RDB) that communicates with an infrared receiver (QIR-RDB) located over the false ceiling near the overhead monitors. The infrared receiver (QIR-RDB) is connected to the D2 port of the 3QT unit with a single network cable (yellow).

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SECTION 4
FRONT DESK
BRIEF DESCRIPTION

USER MANUAL

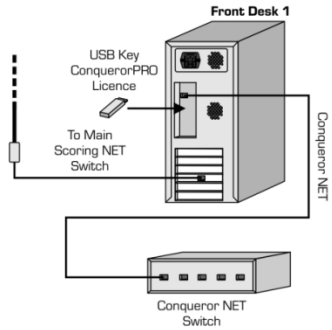
Each computer provided by QubicaAMF is equipped with two network cards, one for the connection with the other ConquerorPRO terminals (Conqueror NET) and one for the connection with the 3QT unit (Scoring NET).

The Front Desk 1 (or Separate Server if present) is the PC where the Scoring Network (Scoring NET) is connected to. During this manual it is called ConquerorPRO server for simplicity. Only the ConquerorPRO server is to be connected to the Scoring Network (Scoring NET).

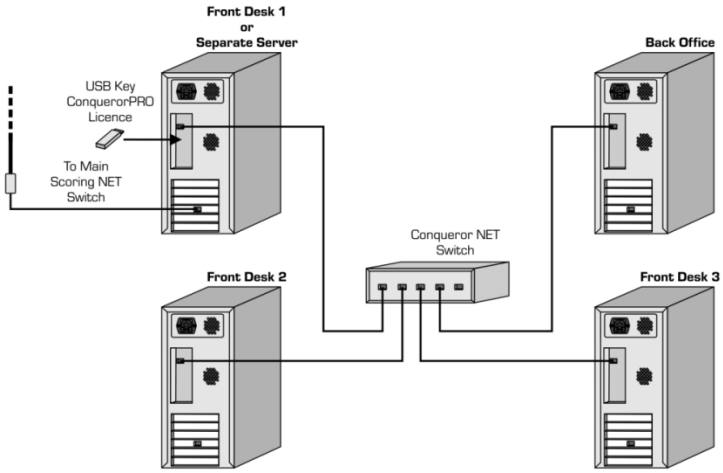
The Scoring Network (Scoring NET) is kept separated from the PC network (Conqueror NET), and has a different IP address matrix. For standard installations, the PC network (Conqueror NET) standard IP address matrix (starting from ConquerorPRO version 6) is **192.168.71.xxx**, while the address matrix for the Scoring Network (Scoring NET) is **192.168.10.xxx**.

NOTE: The second network card on the computers different from the ConquerorPRO server is to be used only in the case that it is necessary to convert one of these computers into a ConquerorPRO server computer.

SINGLE FRONT DESK COMPUTER INSTALLATION



MULTIPLE FRONT DESK COMPUTERS INSTALLATION



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SECTION 5
HOW TO

USER MANUAL

5.1 How to turn on/off the 3QT units

3QT units must always be turned on after the ConquerorPRO server, because it is the ConquerorPRO server that sends the pair number to the lanes at each startup of the 3QT.

If 3QT units are turned on before turning on the ConquerorPRO server, they do not receive their pair number. The lanes will be reset some minutes after having turned the ConquerorPRO server on. This occurs because the ConquerorPRO server detects that the 3QT units do not have pair number (IP address), and resets them in order to readdress them with the proper pair number.

5.1.1 Turning ON the system.

This is the procedure to follow in order to turn on the system in the mornings for QScore systems:

- Turn on the ConquerorPRO server (Front-desk 1);
  If a separate server is present it should already be On;
- Turn on overhead monitors;
- Wait until the ConquerorPRO server (Front-desk 1) boot up completely then turn on 3QT's;
- Turn on all other ConquerorPRO terminals.
- In case of LCD monitors controlled from the Front Desk (AccuVision, etc...) turn on the monitors from the Special Functions of the Front Desk.

5.1.2 Turning OFF the system.

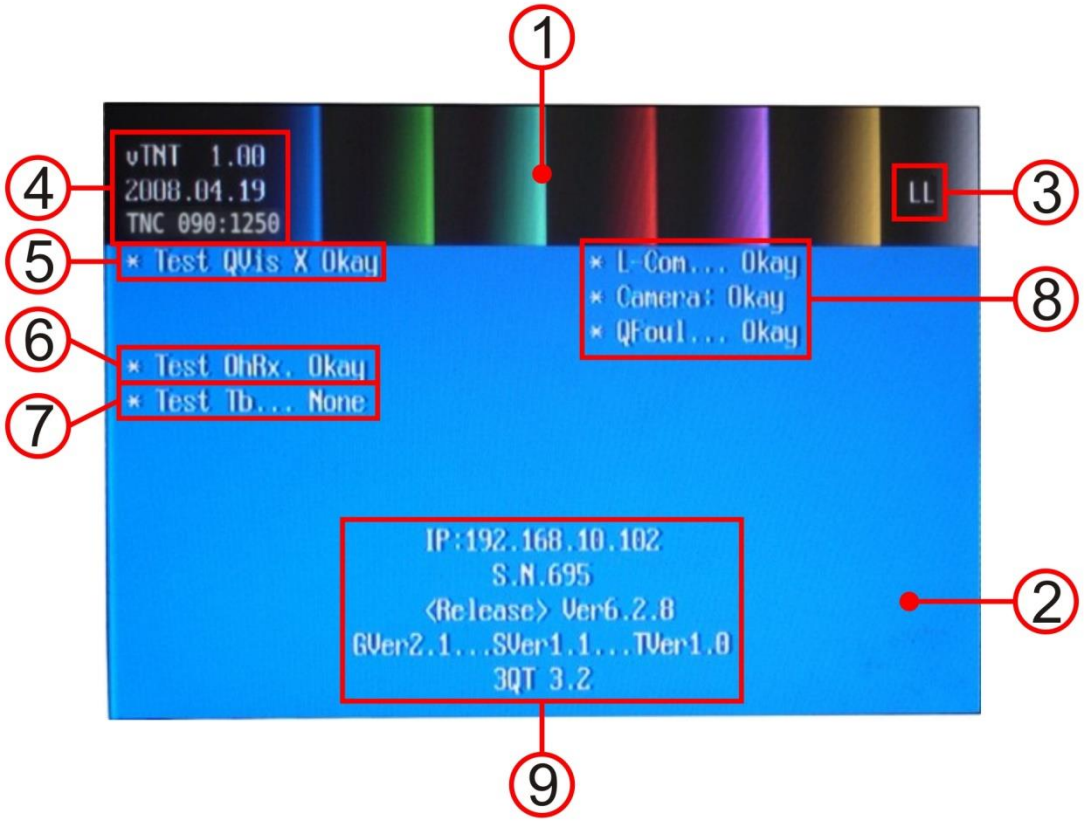
This is the procedure to follow in order to turn off the system in the nights for QScore Scoring systems with 3QT:

- In case of LCD monitors controlled from the Front Desk (AccuVision, etc...) turn off the monitors from the Special Functions of the Front Desk.
- Close ConquerorPRO in all the stations;
- Turn off the ConquerorPRO server;
- Accept "Execute daily task";

  Note: if a separate server is present, or in the case you purchase a web-booking system the ConquerorPRO server computer should be kept on at all times;

- Turn off all the other ConquerorPRO terminals;
- Turn Off 3QTs from the electronic sub-panel breakers;
- Turn off Overhead Monitors from the Electronic sub-panel breakers.

5.2 Boot-up screen description



This is an example of the boot-up screen that is displayed on the lane monitors during the boot-up sequence of the 3QT lane control box.

1. The background color of this part of the screen indicates the presence of the USB memory stick or not and the status of the internal battery. The background color can be as follows:

   - *A group of colored columns (as shown in the picture above)*: the USB memory stick is plugged into the 3QT unit and works correctly.

   - *Totally green*: the USB memory stick is not present, it is not properly inserted, it is damaged, or the USB memory stick is not a genuine QubicaAMF memory stick. Without the USB memory stick the system will keep working using the custom scoring grids and classic animations.

   - *Totally red*: Low internal battery. This is normal if the 3QT has been left switched off for a long period of time (5 days or more). This does not affect the normal bowling game.

   - *Half screen green / half screen red*: in this case both of the above green and red cases occurs on the 3QT lane control box.

2. The background color of this part of the screen indicates if the 3QT unit is able to communicate with the front desk. The background color can be as follows:

   - *Red*: The 3QT unit does not have a valid IP address, so it is not able to communicate with the front desk.

- *Blue*: The 3QT unit is able to communicate with the front desk.

3. Monitor video output:
   - *UL*: Upper Left (odd lane).
   - *UR*: Upper Right (even lane).
4. vTNT software version/date.

   On the third row of this section the total amount of animations is displayed. The first number shows the total amount of the animations stored in the internal memory of the 3QT unit and the second number shows the total amount of the animations stored in the USB memory stick. If the USB memory stick is not present, only the first number will be shown on the monitor. This feature will be available only from ConquerorPro version 7.00.00 or higher.

5. L-COM main device test. The L-COM main device test result will be displayed in this row. If the particular device works properly, the result of this test will be "*Okay*", alternatively an error code will be displayed and the entire boot of the 3QT will stop. Each main device will be displayed with a different code:
   - *Test QVis-X*: QVision camera connected to an AMF XL/XLi series pinspotter.
   - *Test QVis-Q*: QVision camera connected to an AMF non XL/XLi series pinspotter.
     - *Test FBox*: this test will be displayed under the *Test QVis-Q* row only if an FBox pinspotter interface has been installed and configured.
   - *Test QAll-X*: this test will be displayed if an MVision camera with an ALL/XL pinspotter interface has been installed with AMF XL/XLi series pinspotters.
     - *Test TV*: This test will be displayed under the *Test QAll-X* row to test the presence of the MVision camera.
   - *Test TV*: This test will be displayed if a TVision camera with FBox or Six pinspotter interface has been installed.
     - *Test FBox*: this test will be displayed under the *Test TV* row only if a TVision camera with an FBox pinspotter interface has been installed and configured.
   - *Test QAll-c*: QBK-Corde pinspotter interface (string machine interface).
   - *Test QAll-m*: ALL pinspotter interface, for Mendes MM2001, ME90 or Qubica MAG3IT, TMS pinspotters.
   - *Test QAll-s*: ALL-GS pinspotter interface, for Brunswick GS series pinsetters (not NEXGEN).
   - *Test QAll-g*: ALL pinspotter interface, for Brunswick GS X NEXGEN series pinsetters.
6. Overhead monitor interface test. The Overhead monitors interface test result will be displayed in this row. If the particular device works properly, the result of this test will be "*Okay*", alternatively an error code will be displayed and the entire boot of the 3QT will stop:

- *Test OhRx4 (Run)*: an OH-RX 4 interface is installed.

7. Terminal board test: the test result of the terminal board connected to the 3QT unit will be displayed in this area. If there are no terminal boards installed, the result of this test will be "*None*" and the boot-up of the 3QT unit will continue as usual. If the particular device works properly, the result of its test will be "*Okay*", alternatively an error code will be displayed and the entire boot of the 3QT will stop. Every different type of terminal board is displayed with a different code:

   - *Test Tb on D2*: 1 wired console with keypad is connected to the D2 port of the 3QT unit (one per pair).
   - *Test TbQir on D2*: 1 infrared receiver is connected on the D2 port of the 3QT unit.
   - *Test TbQir on D1 & on D2*: 2 infrared receivers are connected to the D1 and to the D2 port of the 3QT unit.

8. If the particular device works properly, the result of its test will be "*Okay*", alternatively an error code is displayed, and the entire boot of the 3QT will stop.

   - *L-COM*: test of the entire L-COM line integrity.
   - *Camera*: test of the connection between the camera and the camera board.
   - *Q-Foul*: the Q-Foul (or Radaray on AMF XL/XLi series pinspotters) device is connected to the system.
   - *M-I/O*: an EDC unit is connected to the L-COM.

9. In this area additional information regarding the 3QT software is displayed:

   - First row: IP address assigned to the 3QT unit.
   - Second row: Serial number of the 3QT unit.
   - Third row: Version of the scoring software.
   - Fourth row:
     - *GVer*: Grids version.
     - *Sver*: Spare finder version
     - *TVer*: TNC (animations) versions
   - Fifth row: NeXOS software version.

5.3 How to upload programs to the 3QT

The program loading process requires a variable amount of time. The time is dependent on the changes being made to the current lane software.

When sending the programs to the 3QT, the ConquerorPRO program displays the status of the loading of the programs process divided into several steps. At the end of the process the ConquerorPRO program displays the success or the failure of the program upload process.

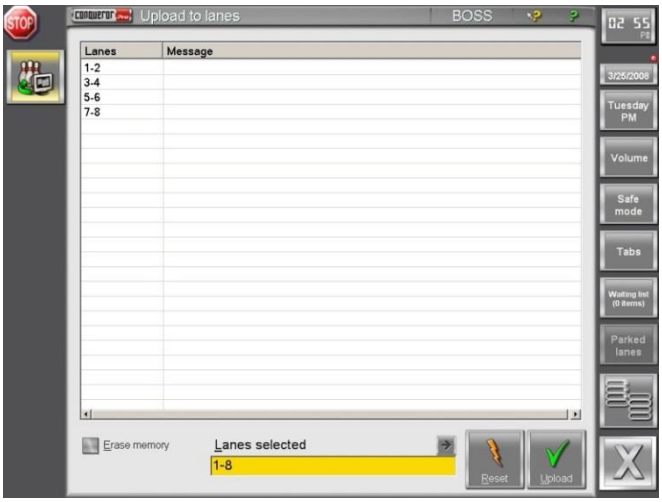
The utility can be accessed from ConquerorPRO by selecting the icon SETUP – TECHNICAL SETUP – UPLOAD TO LANES

ERASE MEMORY: If this option it is selected the game will be erased and all the software into the internal memory will be recharged, so if this option it is selected the uploading programs process will be longer.

LANES SELECTED: Clicking on this field will open a window where it is possible to select the lanes

RESET: The selected lanes will be reset.

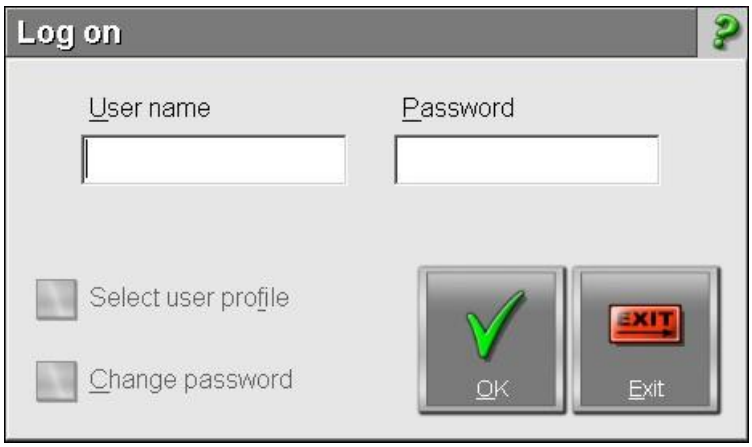
UPLOAD: Upload programs to the selected lanes.



5.4 How to replace the 3QT

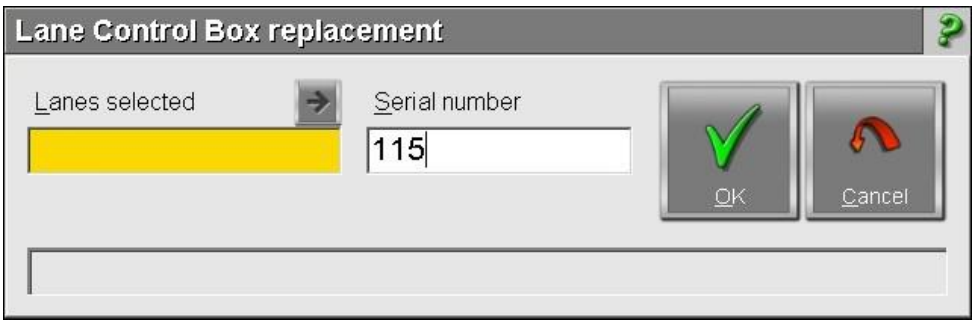
This is the procedure to follow in order to replace a faulty 3QT

- Disconnect and remove the faulty 3QT;
- Remove the USB memory (if present) from the faulty 3QT and plug it into the new 3QT unit (U1 port).
- Connect the new 3QT in the same way as the old one. Check that all the cables are connected;
- Turn on the new 3QT;
- Wait until the boot up image is displayed on the lane monitor;
- Read the serial number written on the lane monitor;
- Enter ConquerorPRO with a user allowed to operate the LANE CONTROL BOX REPLACEMENT;

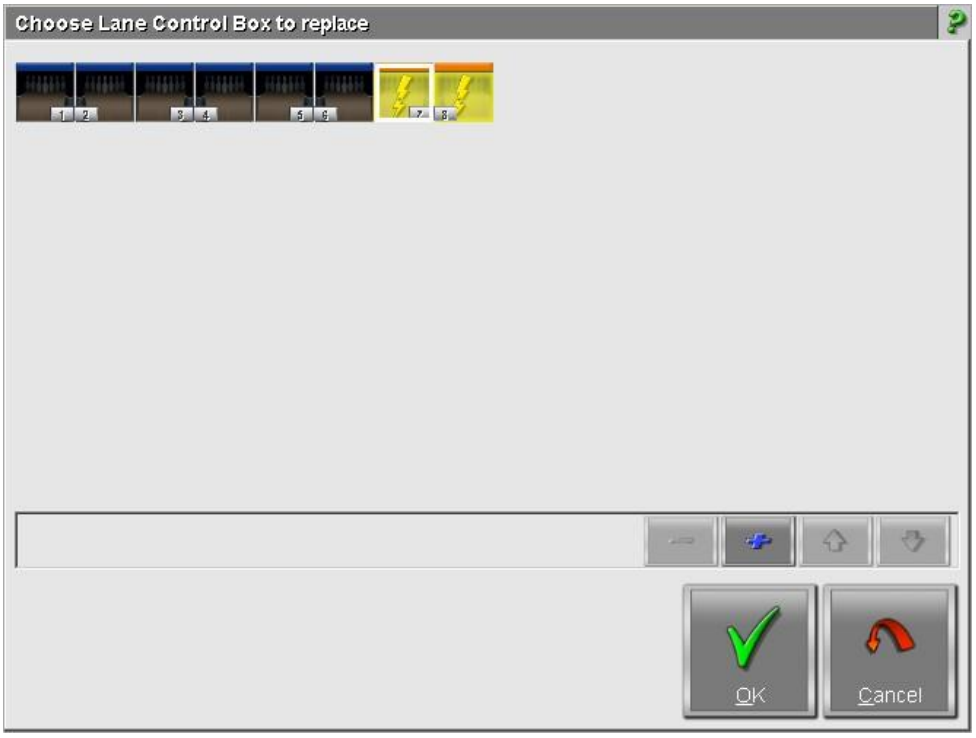


- Select SETUP - TECHNICAL SETUP - LANE CONTROL BOX REPLACEMENT;

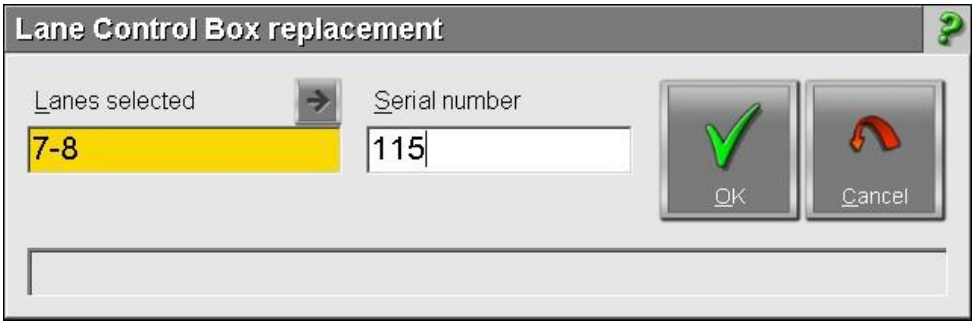
- Wait until the lane monitor stops with a lane off image or an error code;
- Enter the serial number, retrieved from the lanes monitor, inside the LANE CONTROL BOX REPLACEMENT window and if necessary press the Lanes Selected field;



- Select the destination lanes of the 3QT and press OK;

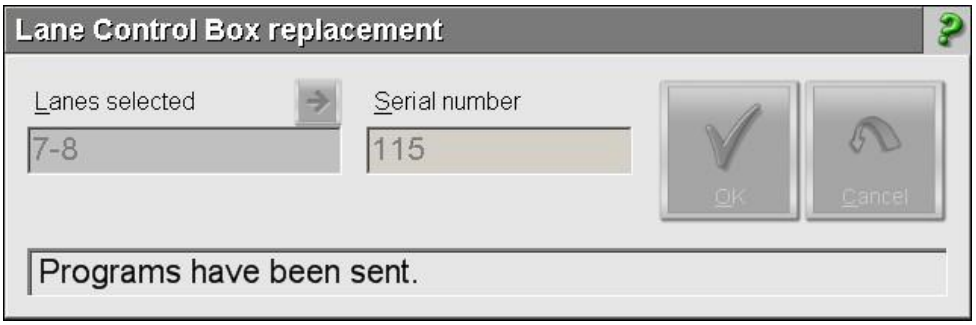


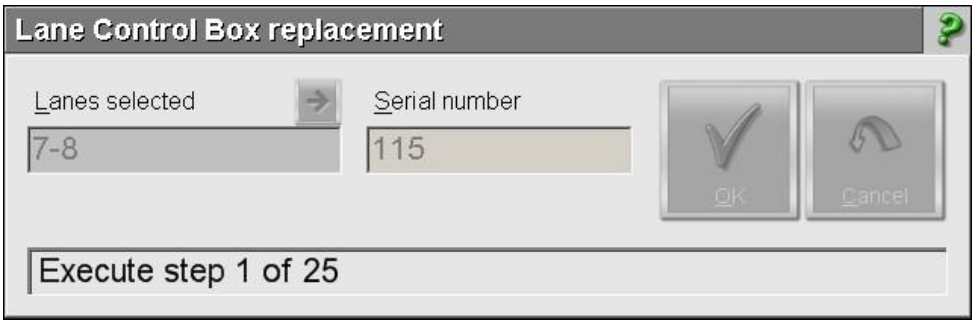
- Press OK in the LANE CONTROL BOX REPLACEMENT window;



- Press YES in the Warning window that asks if you are sure you want to replace the LANE CONTROL BOX;

- Wait for the Conqueror to process the request (the system will lock up for a few minutes);





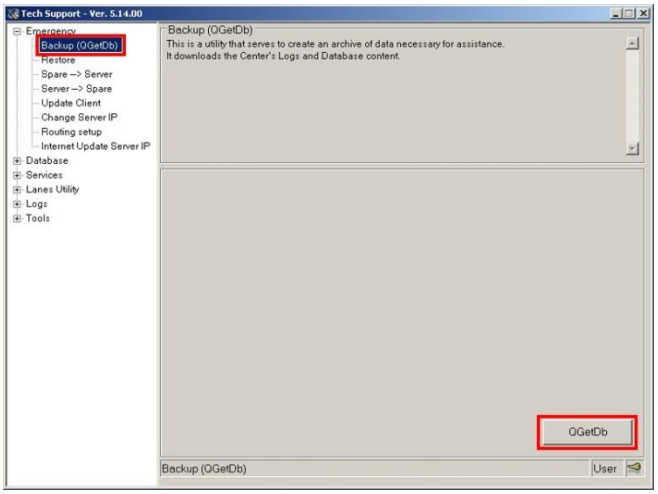
- When the whole process is completed, a confirmation message (LANE CONTROL BOX REPLACED) will appear. Press ok to close the message box.

5.5 How to download logs from the 3QT

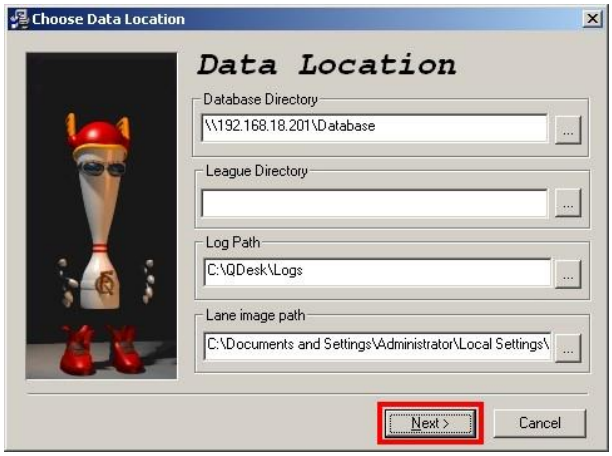
To download the 3QT logs use the QGETDB utility.

The utility can be accessed on the ConquerorPRO selecting the icon UTILITIES – TECHNICAL SUPPORT.

Select EMERGENCY – BACKUP (QGETDB), then press the QGETDB button.

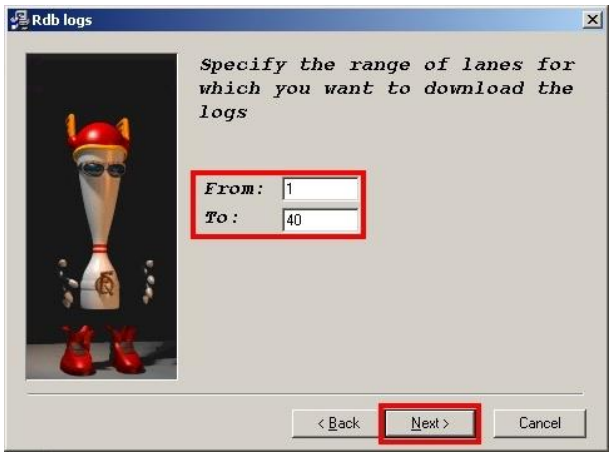


Press NEXT

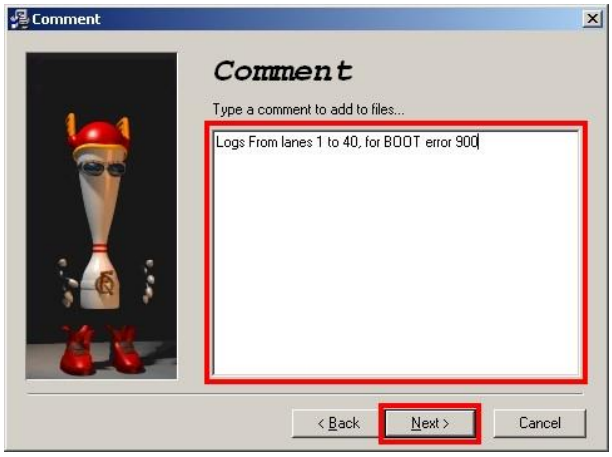


Select LANE IMAGES and 3QT LOGS, then press NEXT

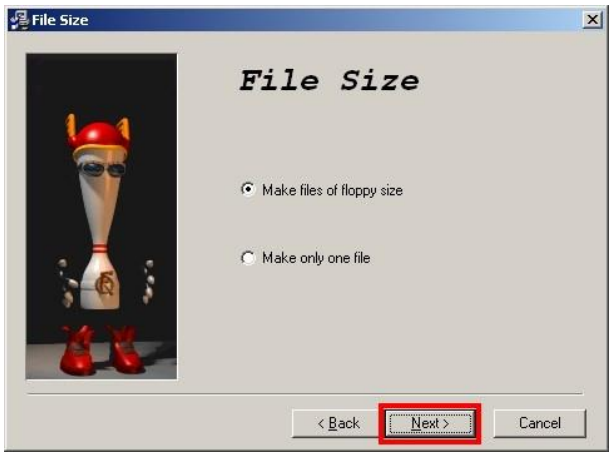
Specify the range of lanes you want to download the logs, then press Next



Write in the Comment box every information that can help us to understand the problem, as the center name, the problem description, the current date and the time of the download, etc... , then press NEXT.



Select the size of the files, then press NEXT.



On the Start screen press NEXT.

QGETDB starts to download the log file. The download procedure can last several minutes.

At the end of the download the QGETDB signals that the procedure is finished. Press FINISH.

QGETDB has stored a copy of all the data inside the folder QSUPPORT on drive C.

You can call QubicaAMF Tech Support, that will remotely download the log files.

5.6 3QT Error list

The following errors are all displayed on monitors during the start-up test except for Runtime Errors, which are displayed when game is in progress.

CPU Internal Error:

Error 160	VTNT not initialize (1)
Error 161	VTNT not initialize (1)
Error 162	VTNT not initialize (1)
Error 163	Safe program loaded in memory (1)
Error 65535	Missing file in the CPU internal memory (1)

XCOM Devices:

Error 190	No communication with the Xcom Device (2)
Error 191	Xcom Device program check Fail (2)
Error 192	Xcom Device program check Fail (2)
Error 193	Xcom Device program check Fail (2)
Error 194	Xcom Device program check Fail (2)
Error 195	Xcom Device program check Fail (2)
Error 196	Xcom Device program check Fail (2)
Error 197	Xcom Device program check Fail (2)
Error 198	Xcom Device program check Fail (2)
Error 199	Xcom Device not found (2)

Test TV Error Number:

Error 200	No communication with TVision (2)
Error 200/1	Unexpected communication character (2)
Error 200/2	Wrong character communicating with Tvision (2)
Error 200/3	TVision seems okay (2)
Error 200/4	Six seems okay (2)
Error 200/5	Six communication fail (2)
Error 201	Wrong char on Tele.Bin file (1)
Error 202	TVision communication failure (4)
Error 203	Camera Fail Check. If there is a camera on each lane, the problem is with the camera of the Left lane (3)
Error 204	Check Camera Lane Right Fail (3)
Error 205	TVision communication failure (4)
Error 206	Wrong header on Tele.Bin file (1)
Error 208	Impossible to communicate with F-Box (5)
Error 209	Old F-Box version (Version 1.0) (6)
Error 210	T-Vision hardware not compatible (7)
Error 211	Fbox strike time not valid

Runtime error:

Error 900	Internal Error (2)
Error 901	NexOS Version Error (2)
Error 902	Internal Error on score initialize (2)
Error 903	Internal Error (2)
Error 904	Internal Error on video initialize (2)
Error 905	Internal Error on score initialize (2)

(1) Upload program to the lanes with ERASE MEMORY enabled.

(2) Restart the 3QT manually

(3) The TVision / Q-Vision board is not able to work with the camera. The problem is usually in the wiring between the board and the Camera.

(4) Unusual kind of problem; retry by switching the 3QT off and on again.

(5) The lane configuration needs an F-Box (Enhanced pinsetter interface) but it is impossible to communicate with it.

(6) The microprocessor on the F-Box is an old version, and the lane cannot be configured to handle the strike signal.

(7) Internal errors should be made known to QubicaAMF. To restart the program switch the 3QT off and on again.

5.7 Lanes control box service

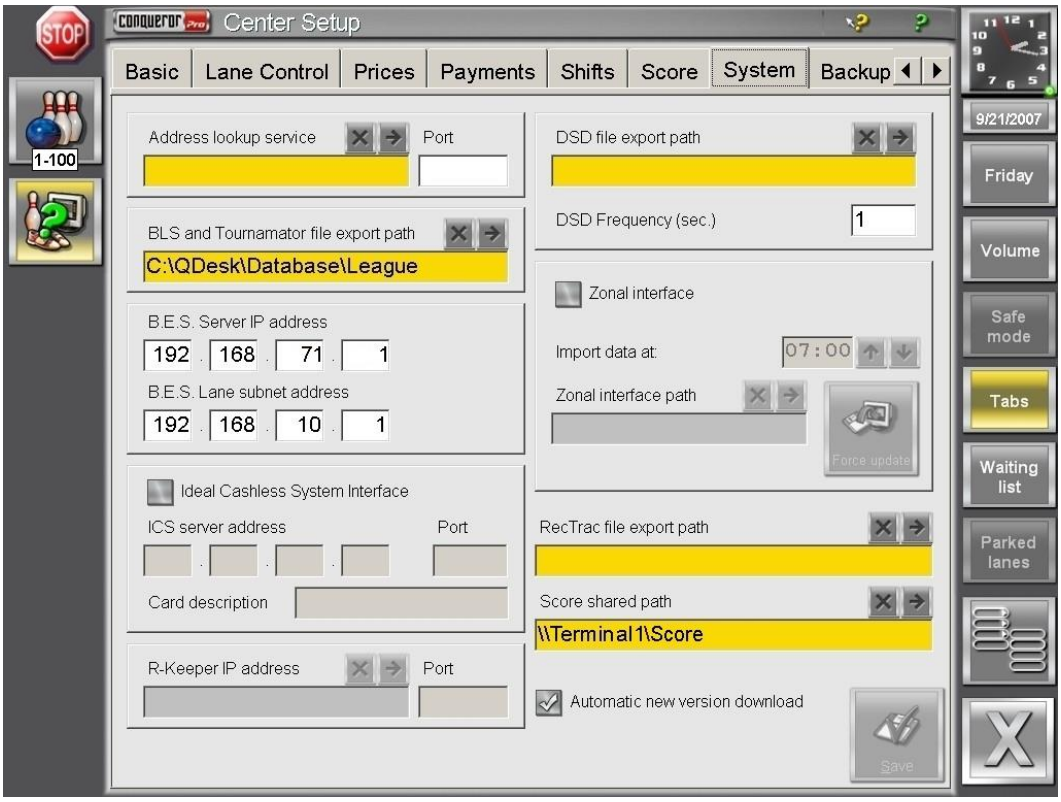
The Lanes Control Box Service (called also Matrix Configuration service or MxServer) is the program that manages the allocation of IP addresses of the 3QT boxes each time they boot up.

To setup the lane control box service you have to open the SYSTEM tab under the icon SETUP-CENTER SETUP.

In the field under **B.E.S. Server IP** you should insert the IP of the ConquerorPRO server computer where the Lanes Control Box Service is installed, the IP should be (from Conqueror 6) 192.168.71.1 (in the case that the Front Desk PC acts as the server) or 192.168.71.99 (in the case of a Separate Server), while in the case of early Conqueror versions it should be 192.168.1.1 (in the case of the Front desk that acts as the Server) or 192.168. 1.99 (in the case of a Separate Server).

In the field under **B.E.S. Lane Subnet address** you should insert the IP address of the second network card of the Conqueror computer where the Lanes Control Box Service is installed, the IP should always be 192.168.10.1

WARNING: You can have only one Lanes Control Box Service running per Bowling Center.
If these 2 IP addresses are not set, ConquerorPRO will give an error each time the system boots up.



In order to be able to properly manage the 3QT CPU the **Score Shared Path** field must be pointed towards the score shared folder of the computer where the Lanes Control Box Service is installed.

In order to apply any change on this screen press SAVE, ConquerorPRO will restart.

QUBICAAMF

THE POWER OF PARTNERSHIP

SECTION 6
STAND ALONE

USER MANUAL

6.1 Introduction

The QScore Stand Alone is a system with limited functionality available in the case that the bowling center has a problem with the front desk, or in the case a customer wants to purchase a basic system without the front desk control.

In order to work with QScore in Stand Alone mode the scoring software loaded onto the 3QT lane control box must be 8.1.4.9 or higher

NOTE: Do not use in a standard installation.

6.2 How to enter in Stand Alone mode

To run the QScore in Stand Alone mode, it is necessary to have no communication with a ConquerorPro server computer.

In the case of a real Stand Alone installation the network card N1 will not be connected.

In the case of an emergency in an existing bowling center, it is enough to leave the ConquerorPro Server Computer switched off.

6.3 How to setup the lane (HW configuration)

6.3.1 Introduction

In the Hardware Setup screen (HW SETUP) it is possible to configure the hardware configuration of the lanes. In particular from this menu it is possible to configure the type of consoles installed, the camera and the monitors (overhead monitors and lower LCD monitors).

6.3.2 How to enter in the HW SETUP

During the booting sequence, just before the red screen appears, the monitors will turn yellow for a couple of seconds. During this period of time press the "1" button once on one of the keyboards.

Once the boot up procedure is done (this can take a while) the HW SETUP screen will appear on one monitor of the lanes, proceed now to setup the lanes.

NOTE: If one keyboard per pair has been installed, activate the keyboard by pressing the buttons "LEFT LANE" or "RIGHT LANE" and keep the console activated until the yellow screen appears, then press the "1" button to enter the HW SETUP screen.

6.3.3 Setup of the lanes

1. Keyboard Selection

In the first screen you will be able to select which type of keyboard you have, using the "UP/DOWN" arrows then confirm the selection by pressing the "CHECK" (or "TICK") button.

English rectangular (en_us_001_001) → old style rectangular English keyboard (used on Heart console);

English oval (en_us_004_001) → oval English keyboard (used on grey style Micro or Fly console);

Japanese rectangular (ja_002_001) → old style rectangular Japanese keyboard (used on Heart console);

Japanese oval (ja_005_001) → oval Japanese keyboard (used on grey style Micro or Fly console);

German oval (de-de_006_001) → oval German keyboard (used on grey style Micro or Fly console);

Russian oval (ru_007_001) → oval Russian keyboard (used on grey style Micro or Fly console);

Swedish oval (sv-se_006_001) → oval Swedish keyboard (used on grey style Micro or Fly console);

Universal 2008 (en_us_008_001) →Universal English keyboard (used on black style Micro or Fly console);

Russian 2008 (ru_008_002) →Russian keyboard (used on black style Micro or Fly console);

Japanese 2008 (ja_008_003) →Japanese keyboard (used on black style Micro or Fly console).

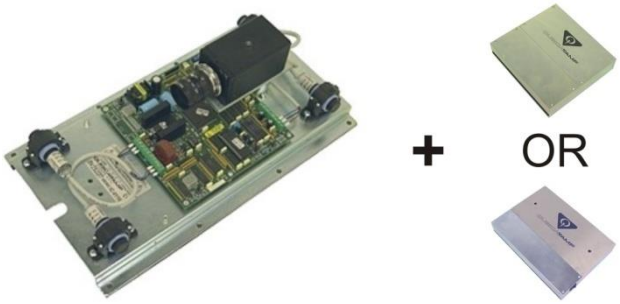
2. Camera/Interface selection

On the following screen you will be able to select which type of camera/interface you have, using the "UP/DOWN" arrows then confirm the selection by pressing the "CHECK" (or "TICK") button.

TVISION
QBK-MM
QBK-NEXTGEN
QVISION
QBK-CORDE
QBK-GS
QVISION-XL
MVISION
MI330

3. TVISION

Select this Camera assembly in the case that you have a TVISION camera installed with an FBOX or SIX (and XMLP if present).



4. QBK-MM

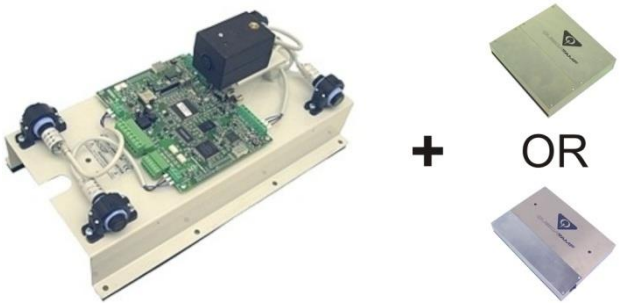
Select this Interface if you have an ALL interface or ALL-422 installed with a Mendes (MM2001 or ME90) or Qubica machine (MAG3IT or TMS)

5. QBK-NEXTGEN

Select this interface if you have an ALL/B interface connected to a BRUNSWICK GSX NEXTGENERATION CHASSIS

6. QVISION

Select this Camera assembly in the case that you have a QVISION camera installed with an FBOX or SIX (**NOT IN THE CASE OF THE XL OR XLI PINSPOTTER**)



7. QBK-CORDE

Select this interface in the case that you have a QBK-CORDE (even if is /C) interface connected to a string machine.

8. QBK-GS

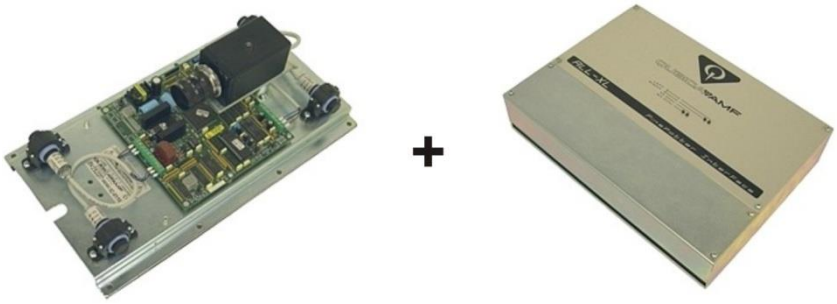
Select this interface if you have an ALL-GS interface connected to a BRUNSWICK GS10 Silver chassis, BRUNSWICK GS92, BRUNSWICK GS96, BRUNSWICK GS98, or BRUNSWICK GSX with GS98 chassis

9. QVISION-XL

Select this Camera assembly if you have a QVISION installed with the AMF 8800 Gold, AMF XL series (Silver or Black chassis) or 90 XLi

10. MVISION

Select this Camera assembly if you have an MVISION + ALL-XL Interface installed with the AMF 8800 Gold, AMF XL series (Silver or Black chassis) or 90 XLi



11. MI330

Not to be used in a real installation. This option exists only for QubicaAMF testing purposes.

12. Monitor Setup

On the following screen you will be able to select how many upper monitors you have, using the UP/DOWN arrows, then confirm the selection by pressing the "CHECK" (or "TICK") button.

2 UP;

3 UP (DO NOT USE, this option is not working in a system installed without front desk).

Once this selection has been performed the scoring system will show the lane-off image on the monitor for a while and then it will restart automatically.

6.4 Camera, parameters and monitor setup

6.4.1 Introduction

In order to set the pinspotter parameters, calibrate the camera and setup the monitor image you have to access the dedicated setup pages.

In the main menu screen of both of the lanes there will be two additional menu choices: CAMERA SETUP and X/Y POS. These additional menu choices will appear only during the first 15 minutes after the start-up of the system and will appear in the menu for the next 15 minutes after one of them has been selected.

When one of the CAMERA SETUP or X/Y POS options has been selected, the system will prompt for a password, type the following sequence: 3107 (nothing will be shown on the lane monitors).

NOTE: If it is needed to perform one of these actions after the first 15 minutes, the system has to be completely rebooted.

6.4.2 How to access the camera and parameters setup

In order to set the pinspotter parameters and calibrate the camera, you should access the CAMERA SETUP.

To enter in the CAMERA SETUP: Open one lane by pressing the menu button. Enter at least one player per lane and confirm the lane opening. Once the lane is open press the menu button in order to get into the lane menu. Now Select the CAMERA SETUP button (this menu choice will be available only for the first 15 minutes as explained above).

6.4.3 Camera setup

By pressing the up/down arrow keys, you can scroll through the second half of the setup menu.

NOTE: Any change made in the parameters can potentially cause a malfunction of the scoring system. Please always refer to the Pinspotter Installation Manual before applying any modification to the parameters and always under the control of a QubicaAMF authorized technician.

- **How to modify the parameters**

In order to set the options appearing on the menu screen, you can use the up/down arrows (to move the cursor through the menu items) and the left/right arrows or number keys (to change the corresponding values).

- **How to save the parameters**

Press the “CHECK” (or “TICK”) button on each lane to save the parameter changes;

‘R’ button to reboot both lanes: if you reboot manually, the changes will not be saved.

NOTE: The reboot option in the lane parameters setup restarts the 3QT, erasing the current game.

Here are the descriptions of the various settings in the setup menu:

- **1st ball delay**

Q-Vision/T-Vision Only

Indicates how many seconds must pass between the moment the ball hits the pins and the movement of the pinspotter for the first ball.

The allowed values are between 0.0 and 25.5 seconds.

- **1st read**

Defines how many seconds must pass between the moment the ball hits the pins and the sensing of the fallen pins (both mechanically, or through the camera) for the first ball.

- **2nd ball delay**

Q-Vision/T-Vision Only

Indicates how many seconds must pass between the moment the ball hits the pins and the movement of the pinspotter for the second ball.

The allowed values are between 0.0 and 25.5 seconds.

- **2nd read**

Defines how many seconds must pass between the moment the ball hits the pins and the sensing of the fallen pins (both mechanically, or through the camera) for the second ball.

- **Delay**

Defines the distance from the nearest sensor to the pins and the end of the lane, in order to calculate the moment the ball hits the pins.

For standard installations it is usually set at 15, but values can be set between 1 and 255.

- **Cm**

Defines the distance (in centimeters) between the sensors, to calculate the ball speed.

The allowed values are between 1 and 200 (the most common is 30).

- **Level**

Q-Vision/T-Vision Only

This brightness setting allows the camera to count the pins.

The default setting must always be 30, so if the camera sees 26 (< 30), the pin will be considered knocked down.

- **Reset Time**

Defines the time that the pinspotter requires to perform an entire cycle on the first ball. This time interval must be calculated from the first pulse until the moment the pinspotter stops in order to wait for the second ball.

The system uses this time to turn the pinspotter on again, for example after a tenth incomplete frame, or when fouls or No-Taps occur.

- **Pulse W 1/2 or Cycle**

Selects the duration of the pulses that cause the pinspotters to move from cycle to reset.

The allowed values are between 0 and 1.5 seconds.

By choosing 0, the PSI pinspotter will use the default value of 0.5 seconds.

- **Pause 1/2 or Reset**

Selects the duration of the reset pulse.

Allowed values are between 0 and 1.5 seconds.

By choosing 0, the PSI pinspotter will use the default value of 0.5 seconds.

- **Time out**

FBox Only

Defines the time interval between the last ball and the automatic shutdown of the pinspotter.

The allowed values are between 0 and 255 sec (set 0 to deactivate this option).

- **Strike time**

Indicates how many seconds the strike signal has to remain visible in the case of a strike.

The time entered can be between 0 and 12 seconds.

By setting 0 the strike function is deactivated and the corresponding output can be used to control the pin fall light.

- **Mode**

Indicates if the lane is using TVISION connected to an optional device such as the XL/MP.

- **Auto Power**

Enable this option to associate the pinspotter turning-on signal with the score. In this way the system can turn the pinspotter on only when a lane is being used for a game and can turn it off when the lane is not being used.

- **Impulse Divided**

Indicates that the connection to the pinspotter has been made, allowing the normal and double cycle.

A double pulse is possible in the case of a foul or an incomplete tenth frame.

- **Short Pulse**

Brunswick type A model only.

Enable this option to send a short cycle pulse to the pinspotter. This generates a magnetic field that closes an electric circuit consisting of a solenoid. Electricity normally runs through it for 1 second, but by setting this option the time is reduced to 0.5 sec.

Here it is very important to preserve the solenoid; for other models this is not so relevant.

- **Aux**

Enable if there is an auxiliary camera added to the system with two cameras per pair of lanes, used when the field of vision is blocked (e.g. by a column) and it is impossible to see both sets of pins with a single camera.

- **Second Lamp**

The filled dot indicates that the score has been connected to the 2nd ball lamp. In this way the program can check the pinsetter and enables the two following functions:

1. When starting a new game on the lane, if the pinsetter is on the 2nd ball, a cycle impulse is given in order to position the pinsetter on the 1st ball.
2. If the score is waiting for a 1st ball and the pinsetter is positioned on the 2nd, the result of the ball bowled in this context is discarded.

- **Automatic Foul**

Enable if the scoring system has to generate all the necessary signals for the pinspotter to work in the case of a foul. This setting is necessary only for pinspotters that do not manage this particular situation autonomously.

- **Strike N.C.**

FBox Only

Indicates that the relay contact is normally closed, opening only after a strike.

- **FBox+**

FBox Only

When the seventh or the tenth pin is knocked down and the ball goes to the gutter, the pinspotter does not cycle. This is because these two situations exclude the strike.

- **Swap Left/Right**

PSI and QBK-ALL Only

Defines the orientation of the two PSI sides and the related pinspotters: the PSI device on the left side is connected to the lane on the left, while the PSI device on the right side is connected to the lane on the right; while the pinspotter interface is connected vice versa if installed on the curtain wall.

This setting is for machines that can read data without requiring cameras.

- **2nd Lamp 10th Frame**

PSI only and QBK-CORDE Only

During the double cycle the lamp is switched on the second ball. This option allows the score to give the cycle pulse immediately without having to wait for the reset time. If the lamp does not switch on, the second pulse will have to be given, but only after the reset time has elapsed.

- **Pins signal**

PSI and QBK-CORDE Only

This sets the pin fallen voltage as 0 V.

- **Sensor Polarity**

Defines the configuration of the input connected to the pinspotter's sensor.

The filled dot indicates a normal presence of voltage, which falls to zero during the passage of the ball.

If set, the signal is 0 volt, rising to 1 when the ball passes between the sensors.

- **Pin Add Mode**

Certain pinspotters that count the fallen pins themselves can give the wrong score for a complete frame because they count the number of fallen pins after each ball, but they do not combine the totals (from both balls) together unless this option is enabled.

The following settings are not related to the pinspotter, but these settings enable or disable some functions on the lanes:

- **Messages Languages**

Language used on the lanes.

The following lists all the supported languages. All other languages not present in this list are not included in the software yet.

Available languages:

- USA → English (U.S.A.)
- RUS → Russian
- ITA → Italian
- ENG → English
- FRE → French
- GER → German
- JAP → Japanese

- **Sound Volume**

Sound volume of the animations. It can be set between 0 and 31.

- **Active Console Speaker**

Enables the sound on the console speaker. Suggested only in the case that overhead monitors have not been installed.

- **Close Lane From Console**

It can be ON (enabled) or OFF (disabled). Enables the functions "1 CLOSE LANE" when the button STOP has been pressed. This permits the lane to be closed directly from the console. If this parameter is set to OFF, when the button STOP has been pressed, on the lane monitor appears only the function "2 RESTART LANE" that permits the bowler to restart completely the sign-in procedure, without closing the lane.

- **Speed Unit**

Defines the unit that is used to display the speed of the ball. This option has two possible values: Kmh and Mph.

6.4.4 Camera calibration

The following steps are required to setup the camera on each pair of lanes:

- Open both lanes with at least a single player
- Configure the camera, as explained in the "QScore installation manual" or in the "Q-Vision installation Manual".

- Enter the Camera Setup screen. Here, press the letter "G" (**Get**) to view the camera image. Then select a single pin target, using the numbers from 0 to 9, and move it, using the arrow keys to the center of the pin's head, as shown below:

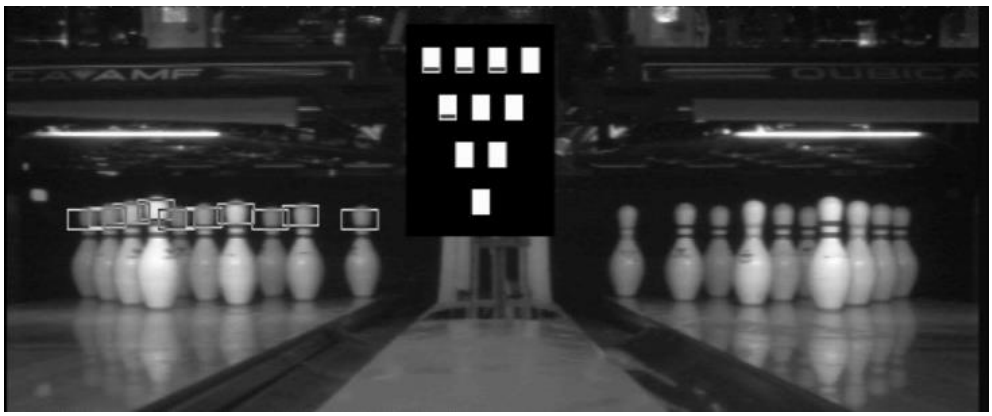
*) press the letter "C" (Coarse) for coarse cursor movement

*) press the letter "F" (Fine) for fine cursor movement

- Save the adjustments by pressing the "CHECK" (or "TICK") button on each lane and then the 'R' button.

NOTE: The Number should match the Pin location.

- Press the letter "I" to get status information about the pins:



A black square means that the pin has been knocked down.
A white square means that the pin remains standing.
Press the letter "L" to obtain similar status information, but for the last image captured by the camera.

6.4.5 How to access the X/Y POS setup

In order to adjust the image size and position on the lane monitors you should access the X/Y POS setup.

To enter the X/Y POS screen: Open one lane by pressing the menu button. Enter at least one player per lane and confirm the lane opening (please refer to the chapter "8.5 – How to open/close the lane"). Once

the lane is open, press the menu button in order to access the lane menu. Now Select the X/Y POS button (this menu choice will be available only for the first 15 minutes as explained before).

6.4.6 X/Y Pos

A colored frame highlights the monitor currently affected by the settings.

The active monitor can be changed pressing the "**X**" key (for NEXT).

You can change the settings of the lane pair you are operating on.

The accessible monitor settings are (clockwise, from the upper left corner):

- Horizontal position;
- Vertical position;
- Vertical size;
- Horizontal size.

Select the setting by pressing the ARROW keys to select the desired setting, then modify with the **PLUS/MINUS** keys.

Press the "CHECK" (or "TICK") button to save changes and return to the game.

Press the CANCEL button to return to the game without saving changes.

6.5 How to open/close the lane

6.5.1 Opening a lane

1. Press once the "CHECK" (or "TICK") button.
2. Select the type of opening mode desired using the "NUMERICAL" keys. You can choose between "1 - OPEN PLAY" and "2 - LEAGUE PLAY":
   - OPEN PLAY: at the end of the sign-in procedure the lane will open normally and the bowlers can start to play.
   - LEAGUE PLAY: at the end of the sign-in procedure the lane will not open until the sign-in procedure has been finished in LEAGUE PLAY on the other lane of the pair.

   The sign-in procedure does not change between OPEN PLAY or LEAGUE PLAY.
3. Select the Environment for the lane using the "NUMERICAL" keys.
4. Insert the names of the players, in order to enter different players move onto other rows using the "ARROW" keys.
5. If all the data are correct, press the "CHECK" (or "TICK") button. Otherwise press the "M" button in order to modify the inserted data.

6.5.2 Closing a lane

1. Press the Menu button.

2. Select the STOP GAME menu item by pressing the corresponding number on the keyboard.
3. The STOP GAME menu will appear on the grid, from here you can choose between 2 different options 1 CLOSE LANE or 2 START NEW GAME:
   - 1 CLOSE LANE: This option will be available ONLY if it is enabled from the CAMERA SETUP menu (refer to chapter "4.2 – Camera parameters setup" for further information). Press the "1" button to end the current game and close the lane.
   - 2 START NEW GAME: Press the "2" button to end the current game and start a new one. The system will wait on the sign-in screen.

   In case the of LEAGUE PLAY: the closing of a lane in LEAGUE PLAY will close both the lanes of the pair.

6.6 How to enter the activation key

A non-activated system can be used for a period of 20 days or 20 times where the system has been kept up and running for at least 2 hours.

In order to activate the QScore Stand Alone system enter in the Camera Setup screen, as explained above, then press the letter F. The activation screen will appear on the monitor.

On this screen the following will be displayed: activation status, serial number, activation code.

ACTIVATION STATUS:

1. NOT ACTIVE: the system has not been activated;
2. ACTIVE: the system has been correctly activated.

SERIAL NUMBER: in this field two different numbers will be displayed separated by a "-". The first number of seven digits is the serial number of the unit. The second is the number of the activation code. Note that both numbers are required for the activation process.

ACTIVATION CODE: insert here the 16 digit activation code provided by QubicaAMF. Note that the activation code will be visible in this field only when it is inserted. Once the activation code has been accepted by the system, it will no longer be visible.

When the activation code has been correctly entered, press the OK button. The ACTIVATION STATUS will change according to the activation key that has been inserted and the monitor will display the message: "Activation code accepted. Rebooting...". When the reboot process has been completed, the system will be activated.

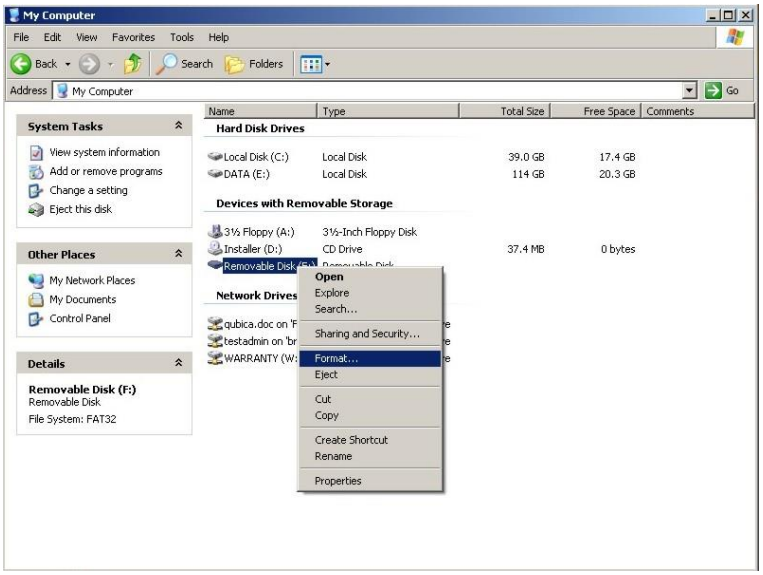
If an incorrect activation code has been entered, after the OK button is pressed, the message "Invalid activation code. Exiting..." will be displayed on the lane monitor and the system will exit from the activation screen. In this case the system has not been activated.

6.7 How to upgrade the 3QT software

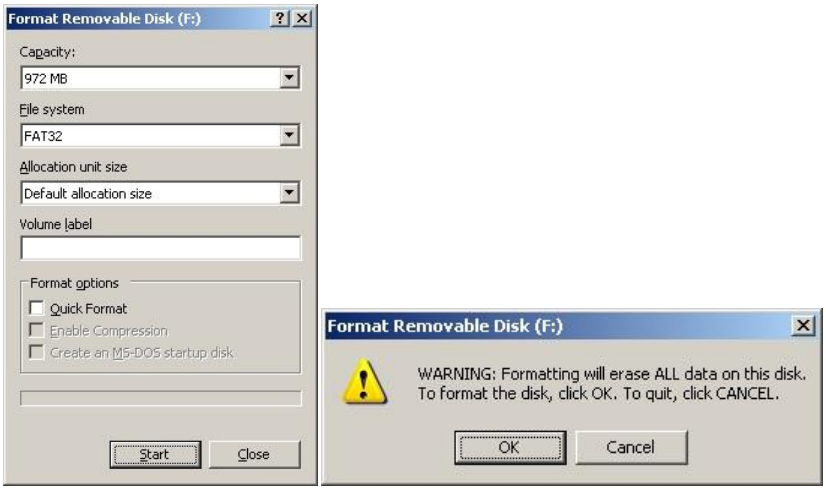
To upgrade the programs to the 3QT in Stand Alone mode use the following procedure:

1. Format a generic USB key (NOT QubicaAMF).

To format a USB key connected to the computer, right-click on it and select “Format...”.



In the window that appears select Start then Ok on the next window. The formatting process will begin.



2. Download from the ftp site, using the link provided by QubicaAMF, the file “usbupdateX.X.X.zip”.
3. Unzip the downloaded file on the generic USB key (NOT QubicaAMF) previously formatted and verify that the only file contained on the USB key is “usbupdate.gpg”.
4. Safely remove the USB key using the icon in the Windows task bar, by right-clicking on the Windows task bar icon and selecting *Safely Remove Hardware*.

5. When the window below appears, select the USB device and click on the *Stop* button.

6. Then select the *Generic volume* and click on *OK*.

7. When the following message appears, it is now possible to disconnect the USB key from the computer.

8. Remove the USB key from the computer.
9. Turn off the 3QT.
10. Remove from the U1 port the USB memory stick (if present).
11. Plug the USB key containing the files for the upgrade into the U1 port of the 3QT.
12. Turn on the 3QT.
13. On the lane monitors the QubicaAMF logo will be displayed, then the upgrade process will start and on the lane monitors a message appears showing the progress of the upgrade process.
14. Once the whole process is finished the 3QT will reboot.
15. If an error occurred during the upgrade process, an error message will be displayed on the lane monitors.
16. If the upgrade process was completed successfully, the 3QT will erase the contents of the USB key and reboot normally.
17. Once the 3QT is completely rebooted, turn it off.
18. Remove the USB key from the U1 port.
19. Plug the USB memory stick with the animations in the U1 port (if previously removed).
20. Turn on the 3QT.
21. The Stand Alone software upgrade is completed. To upgrade another 3QT you have to restart from point 2 of this procedure.

QUBICAAMF

THE POWER OF PARTNERSHIP

SECTION 7

PARTS LIST

USER MANUAL

3QT Unit

PN: 288250002

3QT USB key

PN: 288201002

OH-RX 4 or OH-RX 4/B

PN: 288250006

Please visit
http://stsspare.qubicaamf.com
for further information

T.90.231	
QSCORE PARTS	
FEB 27th 2015	

Fly console
PN: 612325115

Complete keyboard
w/out pedestal
PN: 288150017 (EN)
PN: 288150018 (JA)
PN: 288150019 (RU)

Console pedestal
PN: 122725002

Terminal board
PN: CONBOATBXL

Keyboard
PN: 288100005 (EN)
PN: 288100006 (JA)
PN: 288100007 (RU)

Plastic case
PN: 288100014

Speaker & microphone cable
with speaker chamber
PN: 610325101

Please visit
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for further information

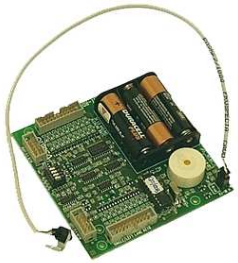
T.90.232	
QSCORE PARTS FLY CONSOLE	
FEB 27th 2015	

Fly console
PN: 612325116

Complete keyboard
w/out pedestal
PN: 288150006 (EN)
PN: 288150007 (JA)

Console pedestal
PN: 122725002

Infrared Receiver
PN: CON-QIR-RDB



Infrared Transmitter
PN: CONQITRDB

Keyboard
PN: 288100005 (EN)
PN: 288100006 (JA)

Plastic case
PN: 288100014

Speaker & microphone cable
with speaker chamber
PN: 610325101

Please visit
http://stsspare.qubicaamf.com
for further information

T.90.233	
QSCORE PARTS IR FLY CONSOLE	
FEB 27th 2015	

Micro II console
PN: 612325122

IR Micro II console
table mounted
PN: 612325123

Complete keyboard
w/out pedestal
PN: 288150011 (EN)
PN: 288150012 (JA)
PN: 288150013 (RU)

Console pedestal
PN: 122725002

Micro keypad
gooseneck
PN: METSUPAXEBK

Terminal board
PN: CONBOATBXL

Keyboard
PN: 288100005 (EN)
PN: 288100006 (JA)
PN: 288100007 (RU)

Plastic case
PN: 288100013

Speaker & microphone cable
with speaker chamber
PN: 610325101

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T.90.243	
QSCORE **PARTS** **MICRO II CONSOLE**	
FEB 27th 2015	

IR Micro II console
PN: 612325124

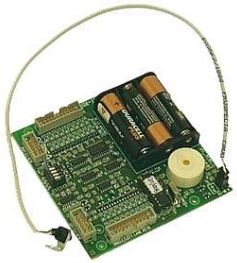
IR Micro II console table mounted
PN: 612325125

Complete keyboard w/out pedestal
PN: 288150015 (EN)
PN: 288150014 (JA)

Console pedestal
PN: 122725002

Micro keypad gooseneck
PN: METSUPAXEBK

Infrared Receiver
PN: CONQIRRDB



Infrared Transmitter
PN: CONQITRDB

Keyboard
PN: 288100005 (EN)
PN: 288100006 (JA)

Plastic case
PN: 288100013

Speaker & microphone cable with speaker chamber
PN: 610325101

Please visit
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T.90.234	
QSCORE PARTS IR MICRO II CONSOLE	
FEB 27th 2015	

Micro I console
PN: 612325118

IR Micro I console
table mounted
PN: 612325119

Complete keyboard
w/out pedestal
PN: 288150008 (EN)
PN: 288150016 (JA)
PN: 288150020 (RU)

Console pedestal
PN: 122725002

Micro keypad
gooseneck
PN: METSUPAXEBK

Terminal board
PN: CONBOATBXL

Keyboard
PN: 288100005 (EN)
PN: 288100006 (JA)
PN: 288100007 (RU)

Plastic case
PN: 288100012

Speaker & microphone cable
with speaker chamber
PN: 610325101

Left Arrow Key
PN: 288100008

Right Arrow Key
PN: 288100009

Please visit
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T.90.245	
QSCORE **PARTS** **MICRO I CONSOLE**	
FEB 27th 2015	

IR Micro I console
PN: 612325120

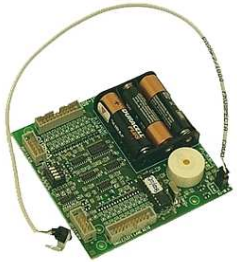
IR Micro I console table mounted
PN: 612325121

Complete keyboard w/out pedestal
PN: 288150009 (EN)
PN: 288150010 (JA)

Console pedestal
PN: 122725002

Micro keypad gooseneck
PN: METSUPAXEBK

Infrared Receiver
PN: CONQIRRDB



Infrared Transmitter
PN: CONQITRDB

Keyboard
PN: 288100005 (EN)
PN: 288100006 (JA)

Plastic case
PN: 288100012

Speaker & microphone cable with speaker chamber
PN: 610325101

Left Arrow Key
PN: 288100008

Right Arrow Key
PN: 288100009

Please visit
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for further information

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