

Lane Control System

Installation and Reference Manual
for Version 7.23

By A.K. Microsystems International

www.touchscore.com

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Revision 3.5 for LCS Version 7.27

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1. Introduction

This manual is an operation and installation guide for the Lane Control System .

The system consists of :

- Lane Control System software (LCS)
- Lane Interface Card and cables or Scorer Interface Unit
- Pinspotter Controller (Optional)

When installed on a suitable computer, the system provides control of the scoring system, including turning monitors on and off, setting league or open play, tracking games bowled, recording and printing scores, and many other functions.

The system is compatible with the following scorers:

- AMF Magicscore (including two board, Mark I 40K & 107 , Mark II 51Z & 3.21 and Colorscore)
- AMF Accuscore I, II, and PLUS.
- Brunswick AS80 and AS90
- A.K.Microsystems Touch Score 1 & 2

When the optional Pinspotter Controller is installed, the system can automatically turn the pinspotters on, off or set them to instructomat mode. Most types of pinspotters are supported. The system also supports an AMF LIU, Brunswick LIU, or Source Command for controlling the pinspotters.

The Lane Control System interfaces to CDE's BLS League Secretary program, allowing teams to be sent to the lanes automatically (except two board Magicscores), and completed game scores to be sent to the BLS program for processing.

The Lane Control System is available in two versions - one for DOS and one for 32 bit Windows.

The DOS version is compatible with DOS, Windows 95 or Windows 98, and requires either a Lane Interface Card or a Scorer Interface Unit (*without* USB port) to connect to the scoring system. Not all scoring types are supported, see the section on Installation for more information.

The 32-Bit Windows version is compatible with Windows 98 SE, ME, 2000 or XP, and requires a Scorer Interface Unit (*with* USB port). All scoring types are supported.

An alternative product - the Purrfect Desk - is available from Purrfect Score. It is a full windows front desk system including cash control. It uses an SIU for interfacing to the scoring equipment, and also supports AMF XL & Boss scoring.

2. Quick Installation Guide

This chapter describes a simple standard installation. For more details see the section on *Detailed Installation*. It is assumed that the computer is ready to operate with DOS or Windows loaded, and that a standard connection to the scoring system is available.

The scoring system is connected to the computer via either a *Lane Interface Card* or the newer *Scorer Interface Unit*. Two types of Scorer Interface Unit are available, one with a USB port and one without.

Step 1 - Install the Lane Interface Card.

Open the computer and insert the *Lane Interface Card* into a vacant ISA slot. All switches on the card should be in their default positions, as the card was supplied. (Address 2e8, IRQ 3)

For Magicscore and Accuscore I installations, use the supplied cable to connect the 25 pin socket on the Lane Interface Card to the lane wiring via the standard 4 pin AMF type connector.

For Accuscore II and Plus installations, plug the existing lane cable into the nine pin connector on the Lane Interface Card. This is the plug that normally connects to J5 on the home run box of an Advantage or Accutrak system. Note that early Lane Interface Cards (revision B) do not have a nine pin connector and do not support this type of scorer. See *Detailed Installation* for further options

To connect the optional Pinspotter Controller, see the Pinspotter Controller manual.

To connect an AMF LIU (not available on all systems), connect the 15 way plug on the Lane Interface Cable either directly to the COMM connector on the LIU, or to the plug normally connected to J4 on the Home Run Box.

Note that the Lane Interface Card is compatible with the DOS version of the Lane Control System only.

Proceed to step 2.

Alternate Step 1 - Install the Scorer Interface Unit *without* USB port

To determine if the Scorer Interface Unit has a USB port, look into the small square hole on the top edge of the box. If there is no connector present, the USB port is not fitted.

Connect the AUX port on the *Scorer Interface Unit* to a standard serial port on the computer, either COM 1 or COM 2. Connect the power supply.

Connect the Magiscore or Accuscore I scoring communication cable to the Acc I connector on the box.

If you have an A.K.Microsystems Pinspotter Controller, connect it to the Acc I connector also, not to the Pinspotter Controller Port. The jumper inside the Pinspotter Controller should be in the LIU position.

Note that this type of Scorer Interface Unit is compatible with the DOS version of the Lane Control System only, and is compatible with Magiscore, Accuscore I and Touch score only.

Alternate Step 1 - Install the Scorer Interface Unit *with* USB port

To determine if the Scorer Interface Unit has a USB port, look into the small square hole on the top edge of the box. If a connector is present, the USB port is fitted.

Connect the USB port on the SIU to a vacant USB port on the computer or an attached USB hub. Connect the power supply to the SIU.

Connect the Magiscore or Accuscore I communication cable to the Acc I port on the SIU, or connect the Accuscore II or Accuscore Plus cable to either of the AccII/Plus ports on the SIU.

If an A.K.Microsystems Pinspotter Controller is present, connect it to the Pinspotter Controller port, and make sure the jumper in the controller is set to RS232 (not available on some early controllers).

If an AMF LIU, Brunswick LIU or Brunswick Source Command is present, connected it to the appropriate port on the SIU.

If Brunswick AS80 or AS90s with overheads are being used, connect the overhead comm line to the appropriate port on the SIU.

When the SIU is first connected to the computer and powered up, Windows will recognise that new hardware has been connected, and will prompt for the driver. Use the **have disk** or **browse** button to locate the driver - SIU.INF which is located in the folder **c:\usr\lcs** if the program has been installed, or on the Lane Control System install floppy (A:) if it has not yet been installed.

Note that this type of Scorer Interface Unit is compatible with the Windows version of the Lane Control System only.

Step 2 - Install the Lane Control Software.

Insert the installation disk in drive A:

For DOS, at the C: prompt, type:

```
a:  
install
```

For Windows, click on *Start, Run* and type:

```
a:install
```

The Lane Control System will now install. You will be asked a number of questions. Simply press **ENTER** for all questions, except the following which must be answered correctly.

Scorer type - Enter the type of your scorers as shown.

Last Lane number - enter the number of lanes in the centre.

Pinspotter Controller type - enter the type of your controller or none.

If you are using a *Scorer Interface Unit without USB*, type the name of the com port to which the box is connected (COM1 or COM2) when prompted for the Lane Communication Port.

If you are using the DOS version of the Lane Control System, you will need to reboot before running the program.

To start the Lane Control System, click the **START** button, then click on **PROGRAMS**, and then on Lane Control System.

IMPORTANT NOTE: Windows 95/98 and Accuscore II or Plus users should turn off screen savers, and restrict the use of other programs while the Lane Control System is running. Using other programs can slow the Lane Control System down, and it may not service the scoring system quickly enough. This will cause the lanes to go offline.

DOS users who have other programs or menus installed may find that the Lane Control System program does not start when the computer is started, as these other programs take control of the computer. You will need to exit to a DOS prompt and type the following lines to start the Lane Control System:

```
c:  
cd \usr\lcs
```

DOS users should also ensure that they have a disk caching program such as SMARTDRV loaded. The Lane Control System frequently accesses the hard drive, and will cause premature wear of the drive if a caching program is not used. See the DOS manuals for information on SMARTDRV.

Step 3 - Apply for Registration.

If your system has already been registered, you may skip this step. A registered system will show your correct bowling centre name at the top of the Main Menu. Unregistered systems will show the words UNREGISTERED SOFTWARE.

Fill out the *Application for Registration* form included with the Lane Control System and send it to A.K.Microsystems or your supplier. When you receive your *Registration Certificate*, select *Maintenance*, then *System Configuration* and enter your centre name and activation key exactly as shown on your *Registration Certificate*. Shut the Lane Control System down then restart it. The correct bowling centre name should appear at the top of all menus.

Note that if you upgrade your scoring, you may need to re-register. Some registration keys support only limited types of scoring.

3. Detailed Installation

3.1 Requirements

There are two versions of the Lane Control System - the DOS version and the Windows version. Which version you use will depend upon whether your computer has an ISA slot, whether it has a USB port, the type of scoring, and the version of Windows.

3.1.1 DOS Version

The DOS version requires:

- A PC compatible computer with:
 - 386, 486, Pentium or better processor
 - at least 1 Megabyte RAM
 - at least 15 Megabytes free hard disk space
 - 1 ISA slot for the Lane Interface Card *OR* 1 standard serial port for the Scorer Interface Unit
 - DOS 5.0 (or later), or Windows 95 or 98

- Lane Interface Card and cables
OR
- Scorer Interface Unit (without USB), Power supply & cable

- Lane Control System Software (see below for version information)

- One or two Score printers
 - Epson or IBM dot matrix or compatible, on LPT1,2 or 3.
Preferably with a cut sheet feeder
 - OR*
 - PCL compatible printer (includes many lasers and ink jets)

When the LCS is running under Windows 95 or 98, it is also possible to use any windows printer along with a DOS to Windows printing utility such as DOSPRN. DOSPRN is available from www.dosprn.com.

The DOS version is compatible with the following equipment:

- Magicscore (all types)
- Accuscore I
- Accuscore II (with Lane Card only)
- Accuscore Plus (with Lane Card only)

- Touch Score 1
- Touch Score 2 on Magicscore/Acc 1 port
- A.K.Microsystems Pinspotter Controllers (AMF or Standard type only)
- AMF LIU (with Lane Card only)

3.1.2 Windows Version.

The Windows version of the Lane Control System requires:

- Windows PC running Windows 98/ME/2000/XP with a USB port and 15 Meg Bytes free hard disk space on drive C:
- Scorer Interface Unit with USB port.
- Printer as above for DOS version. If using DOSPRN, ensure you have Lane Control System V7.21 or later.

The windows version supports all types of scoring and pinspotter controllers.

3.1.3 DOS Versions and Compatibility.

Some early versions of the DOS Lane Control System software are not compatible with newer Lane Interface cards. Current versions of the software support all cards.

- Revision B cards are compatible with all LCS versions.
- For revision D and for 8MHz revision E cards, you need LCS version 6.0 or later
- For 16MHz revision E cards you need LCS version 6.4 or later

The revision level of each card is printed on it. The speed of the card (8 or 16MHz) can be identified by the label on the crystal. The crystal is a bright silver component approximately 12mm (1/2 inch) square. The version of the Lane Control System is displayed at the top of the *Main Menu* screen.

The Scorer Interface Unit without USB is compatible with all versions of the DOS Lane Control System, but does not support Accuscore II, Accuscore Plus or an AMF LIU.

3.2 Installing the Lane Interface Card

The Lane Interface Card can be fitted in any free ISA slot in the computer. Before fitting the card, the card must be configured by setting the jumpers as below. The default configuration is suitable for most installations.

The jumpers set the I/O address and interrupt number of the serial port on the

interface card. The I/O address must not conflict with any other device in your system, and the interrupt number can be shared with other serial ports only if those ports are not in use when the Lane Control System is in use.

To set the jumpers, select an I/O address and interrupt number, and install one jumper on the address jumper block, and one on the IRQ jumper block, as marked on the card itself. Note what the settings are, as you will need them when installing the Lane Control System software.

Note that interrupt settings above 7 are not currently supported and should not be used.

The following table shows the I/O address and interrupt number used by other devices, to help you to choose a suitable setting.

	I/O Address	Interrupt Number.
COM1:	3F8	4
COM2:	2F8	3
COM3:	3E8	4
COM4:	2E8	3 (DEFAULT)
LPT1:	378	7
LPT2:	278	5

Table 1. Standard I/O Addresses

The default setting allows a mouse fitted to COM1 to be used in conjunction with the Lane Control System for Windows installations, and for two score printers to be fitted to LPT 1 and 2.

If you are using Windows 95 or 98, you can view a list of all used addresses and interrupts by clicking on **START, SETTINGS, CONTROL PANEL, SYSTEM, DEVICE MANAGER**. Then right click on **COMPUTER** and select **PROPERTIES, VIEW RESOURCES**.

3.3 Connecting the Scoring System to the Lane Card

There are two basic types of connection to the scoring system. The first type is used for AMF Magicscore, Accuscore I and A.K.Microsystems Touch score. The second type is used for AMF Accuscore II and Plus.

If you have AMF Magicscore, Accuscore I or A.K.Microsystems Touch Score, use the cable supplied with the Lane Interface card to connect between the 25 pin connector on the card and the scorers. This 4 pin scorer connection plug is compatible with AMF front desks, and AMF SIUs, and should plug straight into the existing wiring. For new installations, the connections between this plug and the terminal strip in the bowlers console leg, or the 9 pin plug on AMF logic boards (J9) or A.K.Microsystems' ALS boards (P2) or Touch Score 2 (J9) is as follows.

Lane Interface Cable (4 Pin Plug)	Logic J9/ ALS P2 (9 Pin Plug)	AMF I/O Plate (Terminal Strip)	Acc 1 J3/J4 (6 Pin Plug)
1	2	6	2
2	6	4	1
3	9	3	4
4	3	5	5

Table 2. Lane Wiring - Magicscore, Accuscore I & Touch Score

If you have AMF Accuscore II or Plus wired for Advantage, then there are three possible configurations.

1. You may have a single communications cable connected to J5 (or J6,J7...) on the AMF Home Run box. Connect this cable to the 9 pin socket on the Lane Interface Card. The Home Run box is no longer required. You can also use option 3 below, if this makes the cabling easier.
2. You have a single communication cable connecting directly to the 25 pin connector on an Advantage computer. Use the cable supplied with the Lane Interface Card to connect this plug to the 9 pin socket on the Lane Interface Card.
3. You may have more than one communication cable connecting to J5, J6, J7... on a Home Run box. The cables are left connected to the Home Run box, and the cable supplied with the Lane Interface Card is used to connect J2 on the Home Run box to the 9 pin socket on the Lane Interface Card.

If you have an Accuscore II system wired for an Accutrac front desk, You should connect the 9 pin plug on the cable that connects to J6 on the first scorer directly to the Lane Interface Card. NOTE: you should check that this cable is wired as per the table below. It is possible that pins 2 & 8 of the 9 Pin connector will need to be swapped .

The connections from the Lane Interface Card directly to a scorer or via a Home Run

box are shown below.

Lane Interface Card	Acc II J6	Acc Plus J3	HomeRun J2
2 (RX-)	2	4	10
3 (CLK-)	6	6	15
4 (TX +)	3	1	11
7 (RX+)	1	3	9
8 (CLK+)	5	5	14
9 (TX-)	4	2	12

Table 3. Lane Wiring - Accuscore II & Plus

To connect the optional Pinspotter Controller, see the Pinspotter Controller manual.

To connect an AMF LIU (not available on all systems), connect the 15 way plug on the Lane Interface Cable either directly to the COMM connector on the LIU, or to the plug normally connected to J4 on the Home Run Box.

The table below shows the wiring of the supplied Lane Interface Card cable.

Lane Interface Card (25 Pin)	Magicscore (4 Pin)	LIU (15 Pin)
1 (Shield)		
3 (RX)	1	
24,25 (TX+)	2	
2,15 (TX-)	3	
7 (GND)	4	
8 (Gnd)		1
10 (TX-)		2
11 (TX+)		3
13 (RX+)		4
12 (RX-)		5
1 (Shield)		15

Table 4. Lane Interface Cable Wiring

3.4 Installing the Scorer Interface Unit (without USB).

To determine if the Scorer Interface Unit has a USB port, look into the small square hole on the top edge of the box. If there is no connector present, the USB port is not fitted.

Connect the Scorer Interface Unit to its power supply. The pin out for the power connector is shown below:

1. GND
2. Not Connected
3. +12 VDC

Connect the AUX port on the unit to a standard serial port on the computer using a standard straight through serial cable. Note that the serial port on the computer **MUST** be 16450 or 16550 compatible.

The Magicscore or Accuscore I scoring and the A.K.Microsystems Pinspotter Controller (if fitted) connect to the Acc I port on the unit. The jumper inside the Pinspotter Controller should be on the LIU position (not available on some early controllers).

Note that Accuscore II, Plus and AMF LIUs are NOT supported.

The Scorer Interface Unit is also used for the Purrfect Desk, although it is configured differently. Therefore there are many additional connectors on the unit that are not used with the Lane Control System.

Note that this type of Scorer Interface Unit must be used with the DOS version of the Lane Control System.

3.5 Installing the Scorer Interface Unit (with USB).

To determine if the Scorer Interface Unit has a USB port, look into the small square hole on the top edge of the box. If a connector is present, the USB port is fitted.

Connect the USB port on the SIU to a vacant USB port on the computer or an attached USB hub.

Connect the Scorer Interface Unit to its power supply. The pin out for the power connector is shown below:

1. GND
2. Not Connected
3. +12 VDC

Connect the scoring communication cable to the SIU using the appropriately labelled connector.

For Magicscore scoring use the Accuscore I connector.

For Accuscore 2, the connector wiring may need to be altered if upgrading from an Accutrak system. See the section above on connecting to a Lane Card for more information.

Connectors are also provided for Brunswick or AMF LIUs, A.K. Microsystems Pinspotter Controllers, Brunswick Source Commands and Brunswick AS80 & AS90 overhead commlines. All connectors are compatible with the original equipment.

To connect a Brunswick Source Command, remove the cable from the Source Command keypad unit, and connect this cable to the SIU.

When connecting an A.K. Microsystems Pinspotter Controller, be sure to use the Pinspotter port on the SIU, and set the jumper within the controller to RS232. Do not connect to the same port as the scoring, as used in some earlier installations.

When the SIU is first connected to the computer and powered up, Windows will recognise that new hardware has been connected, and will prompt for the driver. Use the **have disk** or **browse** button to locate the driver - SIU.INF which is located in the folder `c:\usr\lcs` if the program has been installed, or on the Lane Control System install floppy (A:) if it has not yet been installed.

Note that this type of Scorer Interface Unit is compatible with the Windows version of the Lane Control System only.

3.6 Installing the Lane Control System software

Insert the installation disk in drive A:

For DOS, at the C: prompt, type:

```
a:  
install
```

For Windows, click on *Start, Run* and type:

```
a:install
```

The Lane Control System will be installed, and an initial configuration will be performed. You will need to supply the following information as requested. To accept the default response, just press **ENTER**. After installation, you may re-run this

configuration at any time by selecting *Configure* from the *Maintenance* menu, or running the **LCSCONF** program in the **C:\USR\LCS** folder.

1. Owners Name and Activation Key.

You must enter your centre name, and activation key **EXACTLY** as shown on your *Registration Certificate*. If this data is not entered correctly, the Lane Control System will not operate correctly.

If you do not yet have your *Registration Certificate*, fill out the *Application for Registration* form included with your Lane Control System and fax it to your supplier or A.K.Microsystems. We will fax your *Registration Certificate* back to you. You will need to supply:

- the name of the bowling centre (32 characters maximum)
- the address of the centre
- a contact name and phone number
- return fax number
- Lane Interface Card or Scorer Interface Unit serial number
- place of purchase and date of purchase
- type of scoring
- number of lanes
- is the AMF LIU interface required (charge applies)

Take care when selecting your 32 character centre name, as this name will appear on score printouts, and on the overhead monitors. The name should be specific to your bowling centre. Note that Accuscore II and Plus systems will only display the first 20 characters on the overhead monitors; other AMF systems will display 29 characters. You may wish to abbreviate your centre name to fit within these limits.

Your registration key may be specific for your type of scoring. If you change or upgrade your scoring system, you may need to re-register.

Until your *Registration Certificate* arrives, you may use the default by just pressing **ENTER** or entering a blank centre name. The centre name will become *Unregistered Software*, and this will be printed on score sheets and on the overhead monitors. The program will otherwise operate normally.

2. Lane Scorer Type.

Enter the type of scorer as shown. Available types are:

1. Two Board (Three Keypads)

2. **Mark II Magicscore (three keypads, 2810 board, 40K software)**
3. **Mark II Magicscore (single keypad, 51Z software)**
4. **Colorscore (one keypad, colour board, 2.0 software)**
5. **Updated Mark I (107 software) or Mark II (3.21 software)**
6. **Accuscore I (3.21 software)**
7. **Accuscore II**
8. **Accuscore Plus (4.18 or later)**
9. **Brunswick AS80 (9.0.1)**
10. **Brunswick AS90 (9.0.1)**
11. **A.K.Microsystems Touch Score 1 (ALS board)**
14. **A.K.Microsystems Touch Score 2 on Magicscore/Acc 1 port**
15. **A.K.Microsystems Touch Score 2 on Acc II/Plus port**
16. **A.K.Microsystems Touch Score 2 on Brunswick port**

The software version installed in your scoring must match those listed above.

If you have Magicscores, you may wish to fit the latest software (107 for Mark I or 3.21 for Mark II) and select **Updated Mark I or II** . You will have access to on screen editing, full score transfer and restore, and other advanced features. If you have older Magicscore software (40K or 51Z) you must select the appropriate type, and these features will not be available. If your Magicscore software is older than 40K or 51Z, it may work on these settings. Otherwise, you will need to upgrade to at least these versions.

All scorers by A.K.Microsystems using an ALS board, whether touch screen or keyboard based should be entered as **A.K.Microsystems Touch Score**.

Touch Score 2 can be connected to the front desk in a variety of ways depending upon the model of TS2. Options 14-16 allow for TS2 connected on any of the SIU communication ports.

Generally all lanes must have the same type of scoring with the following exceptions.

1. You can mix Magicscore I and II, as long as all software is updated to 107 & 3.21.
2. You can mix Accuscore I and Magicscore, as long as all software is updated (107 & 3.21). Select Accuscore I as the scorer type. Some functions such as setting the colour will obviously not work on the Magicscores.
3. You can mix Accuscore II and Accuscore Plus. Select Accuscore Plus as your scorer type. Some functions such as setting the pindication type, will not work on the Accuscore II lanes. You may need to upgrade your Accuscore II software.
4. You can mix Touch Score 1 and 2, by selecting Touch Score 2 as the type. Some newer functions shown on the LCS screen will not work for the older Touch

Score 1.

If you have any doubts as to what type of scoring you have, contact your supplier.

3. First Lane.

Enter the number of the first lane to be controlled by the Lane Control System. Usually 1.

4. Last Lane.

Enter the number of the last lane to be controlled by the Lane Control System. Usually equal to the number of lanes present.

5. Lane Communication Port.

This section does not apply to Windows versions of the Lane Control System.

Enter the address and interrupt number of the Lane Interface card (as set by the jumpers on the card) or the serial port to which the Scorer Interface Unit is connected. If the port address and interrupt correspond to a standard COM port, you may enter just the COM port name. For example you can enter **2e8 3** or **COM4** .

In general, the interrupt and address selected must not be used by any other device in your system. However you can share the interrupt with another serial port, as long as that port is not in use when the Lane Control System is in use.

Note that interrupts above 7 are not currently supported and should not be used.

Users of SCO Unix should enter the device name. eg: **/dev/tty1a** .

6. Pinspotter Controller Type

Enter the type of pinspotter controller, and the pinspotter type as shown. Available choices are:

1. No Pinspotter Controller fitted
2. A.K.Microsystems AMF type Controller with AMF 8230 type pinspotters
3. A.K.Microsystems AMF type Controller with AMF 8270 type pinspotters
4. A.K.Microsystems AMF type Controller with Brunswick or other pinsetters
5. A.K.Microsystems STANDARD type controller
6. AMF LIU with AMF 8230 type pinspotters

7. AMF LIU with AMF 8270 type pinspotters
8. AMF LIU with Brunswick or other pinsetters
9. Brunswick Source Command
10. Brunswick LIU
11. A.K. Microsystems BRUNSWICK type controller

Note that the AMF LIU option is not available on all systems. Brunswick controllers are only available on the Win version of the Lane Control System.

See the *Pinspotter Controller* documentation for more information.

7. Snack Bar Terminal port.

Enter the port or address and interrupt number of the serial port which is connected to the Snack Bar terminal. If you do not have a snack bar terminal, enter **NONE**. SCO Unix users should enter the device name of the port. Not available for Windows LCS.

8. Scores Printer 1 port.

Enter the port name to which the first scores printer is connected. Valid entries are **LPT1**, **LPT2**, **LPT3** or **PRN**, or any valid filename (Windows LCS only)

If you are using a serial printer, you should use the DOS mode commands to set the communication parameters, and redirect an LPT port to this serial port.

For example:

```
mode com1:9600  
mode lpt2:=com1:
```

If you are using DOSPRN to print to any windows printer with the Windows LCS, then you should enter **c:\prnspl**.

If you are using DOSPRN with the DOS LCS on Windows 98, enter LPT1, and set DOSPRN to capture the port. See DOSPRN for more information.

SCO Unix users should enter the device name of the port. The LCS will configure a printer called **scores** on this port. Changes to this configuration should be made via the Unix printer administration utilities.

9. Scores Printer 2 port

Enter the port for the second scores printer. If you do not have a second printer, enter an unused port, and ensure that all printouts are directed to the first printer. See

Printer Setup in the Printer Control Menu

SCO Unix users see the section above. The printer name will be **scores2**. If you do not have a second printer, enter the port used for the first printer.

10. Is CDE's BLS being used on a network ?

Enter **YES** if you are running CDEs BLS program on a different computer to the Lane Control System, and the computers are linked with a network. If CDEs program is not being used, or is on the same computer as the Lane Control System, enter **NO**.

If the word **SPECIAL** appears as the default, then your system has been specially configured. Press **ENTER** to accept the default and make no changes.

See the section on *Special Configurations* and the section on *Using CDEs BLS Program* for more information.

IMPORTANT NOTE: Windows 95/98 and Accuscore II or Plus users should turn off screen savers, and restrict the use of other programs while the Lane Control System is running. Using other programs can slow the Lane Control System down, and it may not service the scoring system quickly enough. This will cause the lanes to go offline.

DOS users who have other programs or menus installed may find that the Lane Control System program does not start when the computer is started, as these other programs take control of the computer. You will need to exit to a DOS prompt and type the following lines to start the Lane Control System:

```
c:  
cd \usr\lcs  
lcs
```

DOS users should also ensure that they have a disk caching program such as SMARTDRV loaded. The Lane Control System frequently accesses the hard drive, and will cause premature wear of the drive if a caching program is not used. See the DOS manuals for information on SMARTDRV.

3.7 Installing Printers.

The preferred printer for score printing is a dedicated dot matrix type printer. These give the longest life and the cheapest operating costs. These are directly supported by

the Lane Control System as detailed below.

Note: Many users prefer to use a general purpose windows printer. In order to use these with the LCS, a capture program such as DOSPRN is required. DOSPRN is available from www.dosprn.com.

One or two score printers can be used. With two score printers, each printer can be loaded with different paper. For example, one might have pre-printed sheets for customers, and the other cheaper blank paper for internal record keeping.

Each printer should be a dot matrix Epson or IBM , or a printer that provides basic compatibility with these printers such as a PCL compatible laser or inkjet.

It is recommended that the printers be fitted with cut sheet feeders, and that single A5 score sheets be used. This eliminates having to tear scores sheets apart, and tear off the tractor holes. However continuous stationary may be used if required. Score sheets may be blank or pre-printed with a grid. The program supports AMF format sheets, or A.K.Microsystems' own format, with or without a printed grid.

The printers can have a serial or parallel interface, and be connected to LPT1,2,3 or COM 1, 2, 3 or 4. See the section above on setting the printer port.

4. Operation

4.1 General

This chapter contains basic information on operating the system. Detailed information on performing various functions can be found in the next chapter, *Menu Selections*.

When the Lane Control System is first started, all systems except Accuscore II and Plus will display the *Main Menu*.

Accuscore II and Plus systems will first display the *Lane Status* screen. The Lane Control System will attempt to establish communications with all lanes. This may take a minute or so. You do not need to wait for the lanes to come on-line, you can press **ESC** and the *Main Menu* will appear. The Lane Control System will continue to try to bring all lanes on-line. Lanes that are not on-line are shown with red Xs, and will not respond to any commands.

When first started, the Windows version of the Lane Control System will initialize the SIU. The SIU version information shown at the top of the main menu will be XXX until this initialization is complete. It will then change to show the version number of the firmware running inside the SIU. If this version is different to the version of the firmware file in the `c:\usr\lcs` folder, a prompt will appear asking whether the SIU firmware should be updated. Click on **YES**, and the new firmware will be downloaded to the SIU and the SIU restarted.

If your computer is running Windows, and other programs such as the Point of Sale System or the Bowling League Secretary are displayed, you can use **ALT-TAB** to switch between programs. Hold the **ALT** key down, and press the **TAB** key until the Lane Control System icon is highlighted. Release the **ALT** key. The Lane Control System will now be displayed.

Once the *Main Menu* is displayed you can select an item as follows:

- use the arrow keys to move the cursor to that item, then press **ENTER**
- Type the number of the item, and then press **ENTER**.
- Press the first letter of the item, and the cursor will move to that item.

Some of these menu items will perform a function, while others will display another menu with more choices.

Once you have selected a function, the program will ask you for various information,

such as a lane number. Enter each value as required, pressing the **ENTER** key after each one. If you make a mistake, press the **BACKSPACE** key to remove the last character you typed, or use the arrow keys to move to a previously entered value and type over the top. Sometimes pressing the **SPACE BAR** will cycle through a list of valid choices.

To cancel a function and return to the menu, press the **ESCAPE** key (usually marked just **ESC**) . Pressing the **ESC** key a number of times from anywhere in the program will always return you to the *Main Menu*.

Throughout the program, the bottom line of the screen will show which keys can be used and what information is required.

When the program is prompting you for information, it will usually display the information in a blue box. However if this function is a critical function, such as clearing a score, the box will be red. This indicates that you should show extra care not to enter the wrong information, such as the wrong lane number.

If you know what information is required, you can type ahead without waiting for the prompt to appear. For example, after checking in a lane you will be asked for the players names. If Bob is playing on the left lane and Bill on the right, you can type Bob **PAGE-DOWN** Bill **PAGE_DOWN** Y, without waiting for the boxes to appear.

On the right hand side of every menu is displayed a list of common functions, each associated with a function key (**F1** through to **F12**). To perform these functions, simply press the associated function key at any menu. You can change these keys so that they perform different functions to those listed. Move the cursor to a new function in any menu, and then press the **SHIFT** key and the function key you wish to change.

Many of the available menu selections involve setting or resetting a particular function of the scorers. You should pay attention to the wording at the bottom of the screen, to ensure that you do not set a function which you intended to reset. For example: to turn the overhead monitors on, you need to select *Main Screen Off*, then **RESET** this function. The terminology of many of these functions should be familiar to users of AMF's BCC and MCC consoles.

Some menu selections may have (**Not Avail**) displayed beside them. This indicates that this function is not available for your particular configuration.

If you have a Point of Sale terminal, then many of these functions can only be performed via the Point of Sale terminal. For example, it is not possible enter prepaid games without the Point of Sale recording the sale.

If you have an Accuscore II or Plus system, you will notice that the words "**Working...Press any key to return to menu**" will appear after each function is performed. You can wait for the function to be completed (may take several seconds), or simply press any key and continue with other functions. If you do not wait, the system will complete the function at the first available opportunity.

4.2 Basic Lane Control

Although the Lane Control system provides many commands and functions, it is not necessary to use all of these to successfully operate the system. The following procedures detail basic lane control, using only a few functions.

The two main commands are *Check In* (used to start a booking) and *Check Out* (used to complete a booking). These commands perform many functions in one easy step, such as turning on monitors, clearing the score grid, etc. They also allow the bowling for each booking to be tracked, ensuring that the customer is charged correctly. If this level of tracking is not required, the *Check In* and *Check Out* functions need not be used. You must then ensure that the scores are cleared, the monitors are switched on, and the pinspotters are started when required by using the individual commands.

For more information on any of these functions, see the section on *Menu Selections*.

To start a booking:

Select *Check In*, then enter the lane numbers to be switched on, the mode (open, league or practice) and any prepaid games or time. The overhead monitors will come on, and the screen will be cleared ready for play. If pinspotter control is fitted, the pinspotters will also start.

You may turn on more than one lane at the one time. If you select league or practice mode, you must turn on pairs of lanes, not just an individual lane.

If there is no prepaid game or time, enter 0 (or just press **ENTER**). Note that you cannot enter a value for both prepaid games and prepaid time for the one booking

If there is a team for a tournament or league waiting for these lanes, then you will be asked if you wish to send these names to these lanes (except for two board MagicScores).

If you are not sending a team to these lanes, you will be asked to enter the names yourself (except for two board MagicScores). Type each name for each lane, pressing **PAGE DOWN** to advance to the next lane. If you do not wish to enter the names, press **ESC**.

If you entered names, or sent a team to the lane, you will be asked if you also wish to bring up the players arrows to start play.

To monitor progress on a lane:

There are two ways to monitor the progress of a booking on a lane. You can select *Lane Status*, which will show a summary of all lanes, or select *Adjust Prepay* which will show detailed information on a particular range of lanes.

The *Lane Status* screen shows the number of games and time prepaid, and the actual games and time. If the actual games and time is highlighted in green, then this is the games or time remaining on a prepaid booking. If the actual games or time is highlighted in red, then this is the games or time that exceeds the prepaid amount. It is therefore possible to see at a glance which lanes have games or time remaining (green) and which owe money (red).

Lanes may be grouped together so that the total number of games for the group is displayed. Lanes may be grouped by pairs, or grouped with other lanes that were checked in together. Press the **SPACE BAR** to change how the lanes are grouped for display.

When you select *Adjust Prepay*, you will be prompted for a range of lanes. Detailed booking information for this range will then be displayed. Press **ESC** to return to the menu, without making any changes.

To adjust or change a booking:

Select *Adjust Prepay* if you need to change the prepaid amounts for a booking due to the customer purchasing more games, or just to correct an error. Enter the range of lanes you wish to adjust, and enter the additional prepaid games or time. Note that you can reduce the prepaid amount by entering a negative adjustment.

To complete a booking:

When the bowlers have finished their game, select *Fast Check Out* or *Check Out*.

Fast Check Out will simply turn off the lanes immediately.

Check Out will display detailed information about the current booking, such as the games bowled and the time on the lane, before checking out the lane.

It is important to note that *Check Out* only displays information on games that have been cleared from the scorer's screen. This allows the next booking to start play

before the previous booking has checked out. However if a completed or nearly completed game has been left on the screen, this score will be displayed and you will be asked if it should be cleared. This ensures that bowlers who forget to clear their last game are still charged correctly.

Check Out has several pages. Use the **PAGE UP** and **PAGE DOWN** keys to change pages

The first page shows the detailed booking information. The amounts shown highlighted in RED represent money owing. This is the amount of games or time that the customer should be charged.

The second page shows the games bowled for each player, to allow each player to be charged separately.

The remaining pages show the scores for each game in this booking. Press **P** if the customer requires a printed copy of the score.

Press **Y** at any screen to complete the check out. You will then be asked if you wish to turn these lanes off. If you answer **Y**, then the monitors will be switched off, and the pinspotters will stop. You will then need to use the *Check In* function before the lane can be used again. If you do not turn the lanes off, then the lanes are ready for use immediately and the *Check In* function is not required.

To set League/Open/Practice mode:

Normally the mode is set correctly when the booking is checked in, but sometimes it is necessary to change the mode after check in. For example, to remove practice play so that bowling can commence. Select either *Practice*, *League Play* or *Open Play* in the *Lane Functions Menu* (or just press the appropriate function key). To remove practice play, select *Practice Play* then RESET this function.

To print a score:

If the score is still on the screen, use *Print Scores*. If the score has been cleared use *Re-print Scores*. Both functions are in the *Scores Handling Menu*.

To run a league:

To run a league that has been set up with CDE's BLS League Secretary program, take the following procedure.

Prior to the scheduled starting time, select *Check In*. Enter the lanes on which the

league is to bowl, and select Practice mode. You will be informed that a team is waiting for these lanes, and asked if the names should be sent. Press **Y**.

Note: if a team is not waiting for these lanes, the league file has not been loaded. See the chapter on *Using CDE's Bowling League Secretary* for more information.

At the lanes, the bowlers will need to change any absent bowlers to blind (the correct absentee score should be displayed), and any VACANT player positions to blind (the correct vacancy score should be displayed). To change the lineup, or move the league to a different lane, see the section on *Using CDE's Bowling League Secretary*.

At the end of practice time, select *Practice Play* in the *Lane Functions Menu*, and RESET practice play. You may also bring up the player arrows at this time, or let the bowlers do this themselves.

The league is now ready to bowl.

Ideally, you should wait until the entire league is complete before checking out the lanes. However it is often necessary to check out lanes as they complete their games, allowing the next booking to use the lanes.

If you need to check out a lane pair before all lanes have completed their games, select *Check Out* and enter the lane numbers. Press **Y** to check out as usual. The Lane Control System will borrow the required number of paid games from the rest of the league to allow the Check Out.

If all lanes have finished bowling, select *Check Out* and enter the lanes the league bowled on. Press **Y** to clear any scores not yet cleared if asked. The main Check-Out screen will now be displayed. To display the names of the bowlers and the number of games bowled, press **PAGE DOWN**. To print score sheets, press **PAGE DOWN** again then press **A** to print all. From any screen, press **Y** to complete the check out. Note that any lanes that were checked out earlier will not be included in these score printouts or player lists.

Once all bowling is complete, and all lanes have been checked out, Select *League Management* and examine the screen for any entries remaining for the league that has just bowled. There should not be any entries for this league, except where a team consisted only of vacancies, or a team forfeited. Any other entries indicate that the Lane Control System did not received the required number of games from this team. Delete all entries by using the arrow keys to move the cursor to the entry, and pressing **DELETE**.

The League is now complete and ready for processing.

See the chapter on *Using CDEs Bowling League Secretary* for more information.

4.3 Automating Tasks

Many of the functions described above can be performed automatically by the Lane Control System. These functions are listed below.

Printing Scores:

Select *Print Open Play* to automatically print all open games as they are cleared, or *Print League Play* to print all league games. Both these functions are in the *Printer Control* menu.

Starting Leagues:

Lanes used for a league may be automatically turned on, and the names sent to the lane a preset time before the scheduled start time. See the section on *Using CDE's Bowling League Secretary Program*.

Turning Off Lanes:

The system can be set to warn bowlers when their prepaid limit is near, and shutoff the lanes when they exceed the prepaid limit.

When bowlers finish their last game, the Lane Control System can automatically turn off their lanes as long as no money is owing.

See the section on *System Options* for more information.

5. Menu Selections

This section details the functions performed by each menu choice. The order and numbering within this chapter corresponds to the menu numbering. Functions which apply to Touch Score Systems will be denoted as Touch Score only. Those applying to AMF scorers only will be denoted as AMF only.

5.1 Check In

Check In is used to start a new booking. The overhead monitors will come on and the pinspotters will start. The scorers will be set to league, open or practice mode as required. The game and frame counters and the lane timer will be set to zero.

If the lane was already on, and there has been bowling on the lane since the last check out, you will be warned that money may be owing on this lane. You may use the *Check Out* function to view and clear this prior booking if desired, or simply proceed with the new booking anyway.

You may *Check In* more than one lane at the one time. If you select league or practice for the mode, you must turn on pairs of lanes, not just an individual lane. Lanes that are checked in together are treated as one booking.

If there is no prepaid game or time, enter 0 (or just press **ENTER**). Note that you cannot enter a value for both prepaid games and prepaid time for the one booking

If there is a team for a tournament or league waiting for these lanes, then you will be asked if you wish to send these names to these lanes. (Except two board MagicScores). When sending names to a lane, you will be asked if you wish to turn on the pinspotters now. See the section on *Using CDE's Bowling League Secretary program*.

If there are no teams waiting for this lane, you will be prompted to enter the bowler's names. Enter the names for each lane using the **PAGE DOWN** key to advance to the next lane. Press **ESC** if you do not wish to enter the bowler's names.

After entering names, or if a team has been sent to a lane, you will be asked if you wish to bring up the player arrows. For Mark I MagicScore, this function is only available for open play.

Due to a limitation of Mark I MagicScores, it may not be possible to bring up the arrows from the Lane Control System after names have been sent to the scorer in

league mode. To bring up the arrows you must use the centre keypad at the bowler's console. Press **LEFT** (or **RIGHT**) **TEAM** (or **BOWLER 1**) on the *centre* keypad.. Now use the left or right keypads to bring up the arrows in the normal way.

Note that for TS2, league extensions will be enabled for league and practice play and disabled for open play. League extensions allow the entry of handicaps, blind scores etc. League extensions can be changed at any time from the *Player Permissions* function in *Lane Functions*.

5.2 Check Out

Use *Check Out* to complete a booking. *Check Out* will display the number of games or time owing for this booking, and optionally turn off the monitors and pinspotters.

You can *Check Out* a lane after the bowlers have left the lane, even if the next booking has started on the same lane. This is possible because the *Check Out* function shows only those games that have been cleared from the scorer's screen. However, if an almost completed game is left on the scorer's screen, *Check Out* will display this score and ask if it should be cleared. This ensures that bowlers who forget to clear their last game are still charged for this game.

Note that for Accuscore II and Plus systems, you must set the *Auto Restore Grid after END BOWLING* option in *System Options*, in order for the score grid to reappear after the first booking finishes.

Check Out will display several pages of information. The **PAGE UP** and **PAGE DOWN** keys are used to change pages.

Page 1 - The first page shows the number of games prepaid, bowled, remaining and owing, and the amount of time prepaid, bowled, remaining and owing. You should ensure that any money owing is collected before proceeding with the *Check Out*. The number of games bowled is based on the game and frame counters on the scorer's screen. In centres with automatic scoring, this will register every frame bowled even if the bowler's name was not entered.

If games or time has been prepaid, and has not yet been fully used, the remaining games or time will be shown highlighted in green. If the prepaid games or time has been exceeded, the games or time owing will be shown highlighted in red. If there are no prepaid games or time, then both the games and time owing will be shown in red, indicating that money is owed for either games or time, but not both.

The warning message "**Further games are in progress on these lanes**" will appear if there has been bowling on these lanes since the last score was cleared. This bowling

will not be included in the display, as it is assumed to belong to the next booking.

The warning message “**These Lanes are not a single complete booking**” will appear if the range of lanes you selected was not checked-in together as one booking, or you have not selected all of the lanes that were checked in together. The *Lane Status* screen can be used to show which lanes were checked in together.

If you are checking out part of a multilane booking, the Lane Control System will borrow the exact amount of paid games required from other lanes in the same booking. Only when the last lane of the booking is checked out will the total paid games required be displayed. For example, assume that a league has two players per team and bowls 3 games on 10 lanes. As each pair is checked out, the check-out screen will show 12 games bowled, and 12 games prepaid. When the last pair is checked out, the screen will show –48 games prepaid, 12 games bowled and 60 games owing. This allows lanes that finish early in a league (or any multilane booking) to be checked out and freed for the next booking without finalising the league booking. The *Check Out* screen will always display the message “**Games have been Borrowed from Other Lanes**” when borrowing occurs.

You can *Check Out* a number of lanes at the one time, even if these lanes were not checked in together. The booking information that is displayed will be the total of all the lanes in the group. For example, if 2 lanes have bowled 1 game each, the total games bowled will be 2. If these lanes have been bowling for 1 hour each, the total time bowled will be 2 hours.

Where bowling is being charged on a time basis, it is possible to temporarily stop the clock. For example, if a breakdown should occur. The amount of time during which the clock was stopped is shown as Time On Hold, and is not included in calculations. To start and stop the clock, see the *Time Bowling* function in the *Lane Functions* menu.

Page 2 - The second page shows the number of games bowled by each person, to allow money to be collected separately. Note that this screen only shows frames that were registered by the scorer. Any games bowled without entering a name will not be displayed. Press **P** to print the list.

Only six names are allowed per lane. If more than six names were used for successive games, the first six are shown by name, and the remainder as “Others”. Likewise, if there are too many names to fit on the screen, some will be shown as “Others”. This screen can be used as a useful record of league attendance. Blinds and vacancies are not shown. If the entire league won’t fit on the one screen, use a smaller lane range. For example, if a league bowls on lanes 1 to 20 with 6 players per lane, all these names will not fit on the one screen. Select *Check Out* lanes 1 - 10 and print the list,

then *Check Out* 11 - 20 and print the list.

Other Pages - The remaining pages show each score that is associated with this booking. Each score may be printed by pressing **P**, or press **A** to print all scores associated with this booking.

To complete the *Check Out*, press **Y** at any screen.

You will then be asked if you wish to turn the lanes off. If you answer **Y**, then the monitors will be switched off, and the pinspotters will be stopped. If you answer **N**, then the lanes are left on and are ready for use. In fact, the next booking may have already started. The *Check In* function is not required for the next booking , unless there are prepaid games to be entered.

Note that when lanes are left on waiting for the next booking, the lane timer will not start until a ball has been bowled. However, if the *Check In* function is used, the timer starts at the time of check in.

5.3 Fast Check Out

The *Fast Check Out* function simply turns off the lanes. The booking information such as the number of games bowled is not displayed. The lanes will be switched off even if there are games in progress.

5.4 Adjust Prepay

The *Adjust Prepay* function is used to change the amount of prepaid games or time for an existing booking. This may be necessary if the players purchase additional bowling, or to correct a mistake. This function can also be used to display detailed booking information, without making any changes.

The detailed booking information will be displayed in a similar format to the *Check Out* function. However, **ALL** games are shown, including those still in progress on the lanes. The *Check Out* function shows only games that have been cleared.

You can then enter additional prepaid games or time. To reduce the amount of prepaid games or time, enter a negative adjustment.

If the booking already has prepaid games, you will not be able to adjust prepaid time and vice-versa. This is because a booking cannot have both prepaid games and time.

5.5 Lane Status

This function is used to display the status of all the lanes. Up to 20 lanes are displayed on the screen at the one time. Use the **PAGE-UP** and **PAGE-DOWN** keys to view other lanes.

Lanes that have been turned on are displayed in green. Lanes that are off are displayed in red. Lanes that are not communicating with the Lane Control System are shown with an X in every field.

The actual games and actual times fields are further colour coded, so that you can see at a glance which lanes have games or time remaining (highlighted in green), and which lanes owe money (highlighted in red). Values shown in non highlighted green are simply the games or time bowled.

Lanes may be grouped together so that the total number of games for the group is displayed in brackets. Eg. <[10]>. Lanes may be grouped by pairs, or grouped by booking. A booking consists of all lanes that were checked in together. Press the **SPACE BAR** to change how the lanes are grouped for display.

When a lane is on hold, (the charge clock has been stopped), the prepaid time will be highlighted in blue.

Each field on the Lane Status screen is described below. Some fields are not available for some scorer types.

Mode is L for League, O for Open, P for Practice, E for European style league, or W if the workshop flag is set

Prepaid Games is the number of prepaid games for this lane. If the lane is in League or Practice mode, this is the number of games per pair and is shown in square brackets across both lanes.

Actual Games is the number of games remaining on a prepaid booking (if highlighted in green) or the number of games exceeding a prepaid booking (highlighted in red).

Prepaid Hours and Minutes is the prepaid time for this lane.

Actual Hours and Minutes is the actual time bowled. This is equal to the time since the lane was turned on, less any time on hold.

League Game is the current league game (ie 1,2,3 etc)

9th/10th frame is Y if there is a bowler in the 9th or 10th frame.

Slow Bowling is Y if there has been no bowling on the lane for 3 minutes or more.

Score Waiting is Y if score is waiting to be collected by the Lane Control System (All except Accuscore II and Plus)

Request Waiting is Y if the lane is waiting for names from the league secretary program to be sent. (All except Accuscore II and Plus)

Bowling Started is Y if a ball has been bowled (Accuscore II & Plus only)

END BOWL pressed is Y if the END BOWLING button has been pressed at the lanes (Accuscore II and Plus only)

Arrows Inhibit is Y if the arrows have been prevented from appearing.

Remove Inhibit is Y if the players have been prevented from removing their score. For two board Magicscores, this will show the Remove Score Option that has been set.

Clear Inhibit is Y if the players have been prevented from clearing their score. For two board Magicscores, this will show the Clear Score Option that has been set.

No-Tap will show if no-tap play is enabled, and for some systems what type of no-tap.

Pictures On is Y if picture displays are enabled (Accuscore, Brunswick & Touch Score only)

Manual Scoring is Y if manual scoring is enabled (Touch Score only).

Score Keeping is Y if score keeping is enabled (Accuscore II & Plus only)

4 Frame Lower is Y if 4 frame lower girds have been selected. (Brunswick only)

Intercom Call is Y if the bowlers have pressed the DESK CALL button (Brunswick only)

Language is 0 or 1, depending upon the language set for the console (Brunswick only)

Advertising is Y if Automatic advertising has been enabled (Brunswick only)

If *Display Lane Status Screen When Not In Use* is set to YES in the *System Options* screen, then the Lane Status screen will appear whenever no keys have been pressed for more than a few seconds. Thus the status screen is displayed rather than a menu when the system is not being used.

For Brunswick scoring, the intercom screen will be displayed if **I** is pressed. This allows the operator to quickly answer the intercom from this screen.

5.6 Scores Handling.

This menu contains all the functions relating to clearing, printing, editing, transferring and viewing of scores.

5.6.1 Clear Scores & Names

All names and scores from a lane will be cleared from the screen, and collected by the Lane Control System. If printing is enabled, the score will be printed.

5.6.2 Remove Scores

The score, but not the names, will be removed from the lane and collected by the Lane

Control System. If printing is enabled, the score will be printed.

Not applicable for Brunswick scoring.

5.6.3 Print Current Scores

The score currently displayed on a lane will be collected and printed. The lane will not be affected.

5.6.4 Print Cleared Scores

This command prints games that have already been cleared from the lanes. For example, reprinting of the last three games for a range of lanes might be used to re-print a league's score sheets after the league is over. This mode will only print completed games. Partial scores collected automatically (See *System Options*) or scores collected using the *View* or *Print* command are not included.

5.6.5 View Scores

View scores will display the game currently in progress on a lane. The right and left arrow keys will change lanes. The up and down arrow keys will move through the previous games for that lane.

Press **P** to print the score currently displayed.

Press **S** to send this score to a lane. This can be useful in the event of a scorer malfunction.

Press **N** to send only the names to a lane. This can be useful for moving teams between games during tournaments. See the section on *Transfer Scores* for limitations on transferring scores with some types of scorer. Blind scores may need to be re-entered with some scorer types, as these will not be sent to the lanes

Note that the latest score has the highest record number, normally record number 100. Using the **DOWN-ARROW** key moves down towards record number 1 which is the oldest. The **PAGE-DOWN** key (or **CONTROL-D**) will move down 10 records at a time. Similarly the **UP-ARROW** and the **PAGE-UP** (or **CONTROL-U**) key can be used to move up through the stored scores. The number of scores that is stored is usually 100 per lane, but it can be varied. See the section on *Special Configurations*.

When a score is displayed, edited scores will be shown highlighted (when printed they will be underlined) . Splits are shown with a ! character.

See also the section on automatic score collection in *System Options*. To search the stored scores for a players history, see *View Player/Team History* in the *Maintenance*

Menu.

5.6.6 Display a Lane Screen

This function is available for Magicscores only.

If the optional lane monitor has been fitted to the front desk, this function will display the selected lane's screen on this monitor. Note that the score is NOT collected from the lane, and cannot therefore be later printed with *Print a Cleared Score*.

5.6.7 Edit a Lane

This function is NOT available for two board Magicscores.

For updated Magicscores, Accuscore I and Touch Score 1 there are two ways of editing the lane : *ON-SCREEN* and *FULL EDIT*. Accuscore II, Plus, Brunswick & TS2 support only FULL EDIT. For other types of scorers only *ON-SCREEN* is available.

ON-SCREEN editing allows you to edit the score directly on the lane's screen. You need to be able to see the lane's screen, or have a lane monitor connected at the front desk. This method is similar to using the **CORRECT** keys at the bowlers' console.

FULL EDIT will get the score from the lane and display it on *the Lane Control System* screen. Here you can change the score as required. The entire score is then sent back to the lane. This method has the advantage that you do not need to be able to see the lane's screen; neither do you require a lane monitor.

5.6.7.1 ON-SCREEN Editing

This function allows the editing of a score at a lane. The lane's screen is displayed on the optional lane monitor (see *Display a Lane* above). Various keys can then be used to edit the score on the lane. These keys are:

C - For correct. Required to bring up the editing cursor.

R - For restore. Restores a previously edited score.

Arrow Keys - Move the cursor around the screen.

0 through **9** - Used to enter the new score.

X - Strike

F - Foul

/ - Spare

- - Miss

. or **!** - Split

ESC - Exit from the editing function.

5.6.7.2 FULL-EDIT Editing

An abbreviated copy of the score will be displayed. Use the cursor keys to move to the item you wish to change, and type the corrected score. You can also change the bowler's names on this screen. When you have completed all the changes, press **ESC**. Then press **Y** to send the edited score back to the lane, or **N** to discard your changes.

5.6.8 Restore an Old Score/Print Score at Lane

5.6.8.1 Restore an Old Score

This function is available on Touch Score and Accuscore II and Plus only.

For Accuscore II and Plus, the last cleared score will be restored to the screen.

For touch score, a score that has been previously cleared from a lane is restored. This score is stored at the lane and is independent of the 100 scores stored by the Lane Control System.

Each time the **SPACE-BAR** is pressed, the next most recent game stored at the lane is displayed. After all scores have been displayed, the cycle repeats. Each lane will store ten or more scores.

The optional lane monitor will display the lane's screen to allow the correct score to be chosen. See *Display a Score* above.

It is also possible to load the league information table with the totals from a restored score. Pressing the 1 key will load the current score as league game 1, etc. The current league game may be altered by using the **RIGHT-ARROW** key to increase the league game, or the **LEFT-ARROW** to decrease the league game.

For convenience, the **Y** and **N** key may be used to enable and disable the league information display on Touch Score systems with keypads.

To retrieve a restored score from the lane to the Lane Control System, press **G** for 'get'

5.6.8.2 Print Score at Lane

This function is only available for two board Magicscores fitted with on-lane printers.

This function will cause the score currently displayed on the lane to be printed on the lane printer.

5.6.9 Transfer a Score

This function applies to all scorers except the Two Board MagicScore.

A score from one lane will be transferred to another lane. All booking information will also be transferred. The new lane will be turned on and the old lane cleared and turned off. If the lane is in league mode, both lanes in the pair must be transferred.

For Touch Score systems, if the score to be transferred has been cleared, *Restore an Old Score* should be used to restore the score first.

For all scorers, if the score to be transferred has been cleared, use *Re-Print Scores* to send it to the new lane.

Touch Score, updated MagicScores and Accuscore scorers have full transfer capability. The score is transferred immediately and completely.

Other types of MagicScore do not have an inbuilt transfer capability, however the Lane Control System can transfer a score by editing the new lane. This technique has the following limitations:

- It can take up to 2 minutes to complete the transfer of a 6 player by 10 frame game.
- Any players that are blind or pacers must be set again to blind or pacer after the transfer.
- All transferred scores appear as edited scores.
- The transferred score will contain no splits, even though the original score may have.
- Due to a problem with the MagicScores, the third ball of the tenth frame for one player may not transfer correctly, it may be overwritten by the arrows.
- In cases where the bowlers have bowled out of turn, only frames that have been completed by all bowlers will be displayed.
- For Mark I MagicScores in league mode, it may be necessary to press **LEFT TEAM** on the centre keypad before the arrows can be bought up.

Despite these limitations (which are limitations of the MagicScore), the transfer function is very useful following breakdowns, and is much easier than re-entering scores manually.

5.6.10 Send a Team to a Lane/Remove Clear Options

5.6.10.1 Send a Team to a Lane

This function applies to Touch Score scorers only, and requires A.K. Microsystems' League Secretary.

The names of the players for the specified team will be collected from the League Secretary System and sent to the specified lane. The order of the players is the default order. This function is identical to entering the team code at the lane. However, if the lane is in use (ie. other names are currently displayed) these will have to be cleared before the downloaded names will appear.

If the team name "**LEAGUE SECRETARY OFF-LINE**" or "**USE MANUAL ENTRY**" appears at the lane, then the League Secretary program is not running, or it is not enabled in *System Options*.

5.6.10.2 Remove/Clear Scores Options

This function is available for two board Magicscores only.

It is generally desirable for the Lane Control System to collect every completed score from the lanes. This score may then be printed if required, or sent to the League Secretary for processing,

With two board Magicscores and AMF's MCC front desk, it was necessary to manually print the score from the MCC, then clear the lane. The Lane Control System can do this automatically.

The *Remove/Clear Scores* function determines what will happen when a player attempts to clear or remove their score. There are three options.

Option 1. Allow the score to be cleared or removed by the player. If the on-lane printer is enabled, the score will be printed at the lane, otherwise it is lost.

Option 2. When the player attempts to remove or clear the score, the score will not be removed or cleared immediately. However the Lane Control System will collect the score from the lane, then remove or clear the score. The bowler will notice a short delay between pressing the clear or remove key, and the screen clearing. This delay depends upon what other functions the Lane Control System is performing at the time, but should not be longer than a few seconds. If the on-lane printer is enabled, it will print the score. If *Print Open Play* or *Print League Play* is enabled, the score will be printed at the Lane Control System. In any case, the score may be re-printed later with

the *Print a Cleared Score* function.

Option 3. The players are prevented from clearing or removing the score. The score is not collected or printed, or removed or cleared.

In all cases, if the score is removed or cleared from the Lane Control System using the *Scores Handling Menu*, then the score is collected.

Option 2 is recommended, as it ensures that all scores are collected and can be reprinted if desired. This is particularly important for league and tournament play.

Once a MagicScore has been set to the required mode, it will retain this mode, even if it is switched off, reset, or replaced with a spare unit. The settings for each lane are retained by the Lane Control System, and sent to each MagicScore on power up. Note that this setting is NOT affected by the *Clear All LCS Controls* function.

5.6.11 Enter Names at Lane

This function does NOT apply to two board MagicScores.

Accuscore II and Plus users should use *Edit a Lane* instead.

The player names and a team name for one lane can be entered and sent to the lane immediately. The arrows may also be brought up ready for play. You may also enter handicaps and blind scores for each player and a handicap for the team.

You need only enter the information required, then press **PAGE-DOWN** to advance to the next lane, or **END** to exit this screen.

For Mark I MagicScores in league mode, the arrows may not appear. You will need to press **LEFT TEAM** on the centre keypad at the bowler's console, then bring up the arrows as usual.

Also, some MagicScores will not accept a team handicap that is different to the sum of the player's handicaps. You will have to enter it at the console.

5.7 Display Commands

This menu contains functions relating to the display on the lane's screen, including messages, colours, etc.

5.7.1 Main Screen ON/OFF

This function turns off the main screen at the lanes. The screens will be black. Note that **SETTING** the function turns off the screen, and **RESETTING** the function turns them on.

For Accuscore II and Plus systems, turning off the monitors will also clear the score. That is, when the screens are turned back on, the scores have gone. When turning the screens on, you have the option of displaying either a score grid, or the AMF logo with your centre name. Note that if the *Auto Restore Score Grid after END BOWLING* option in *System Options* is set, then the Logo cannot be displayed, as it will be immediately replaced by a score grid.

5.7.2 Set Default Colours/Display On-Lane Help/Anticipate Pinfall

5.7.2.1 Set Default Colours

This function applies to Accuscore and Colorscore only.

This function will set the default screen colours that will be used when a lane is switched on, or starts a new league game. Lanes that are already on will not change. Press the **space bar** to select a colour, or type the number of the colour.

Different colours are set for open play, and for each league game. Thus you can easily see what game each lane is on from the colour of the overheads.

5.7.2.2 Display On-Lane Help

This function applies to keypad versions of Touch Score only.

For Touch Score 1, the score will be compacted into the top half of the lane's screen, and help messages will be displayed in the lower half. This has the same effect as pressing the **HELP** button at the lane.

Touch Score 2 will display the main user menu.

5.7.2.3 Anticipate Pinfall

This option applies to Brunswick Scorers, and enables the anticipate pinfall option. See Brunswick manuals for more information.

5.7.3 Change Lane Colours

This function applies to Colorscore, Accuscore, Brunswick and Touch Score.

For AMF systems, the colour will be set immediately on the lanes specified. However when the lane is next turned on, or starts a new league game, the colour will be set to the default colours. See *Set Default Colours* above.

For Touch Score & Brunswick systems, the colours shown represent the default colours and are also displayed immediately. You can select the colour scheme for Open play, each of three League games. For Touch Score 1 you can also select the overbowed game colour. An overbowed game is one which has exceeded the amount of prepaid games or time.

Standard schemes or patterns are provided, alternatively you can select the individual colour for each part of the display.

To use a standard pattern, enter the name of the pattern in the pattern column. To design an alternative pattern, enter the number corresponding to the desired colour for each of the components of the display (eg. background, grid, names etc) in the columns provided.

For Touch Score, a colour is made by adding the numbers for each constituent colour from the table shown. For example, the colour grey is made up of medium levels of red, green and blue, and is therefore equivalent to colour 56 (32+16+8). Colours range from 0 (black) to 63 (bright white) .

For Brunswick, a colour is made by entering the RED, GREEN and BLUE values that make up the colour. Values range from 0 to 63.

The definition of the standard patterns can be changed. See the section on *Special Configurations*.

5.7.4 Change Brightness

This function applies to Touch Score only.

The brightness of the overhead monitors is individually adjustable to compensate for differences in the monitors. Select a level from 1 (dull) to 5 (bright).

5.7.5 Display a Line Message

A line message will be displayed at the top of the lane's screen. This function is NOT available for Brunswick scoring.

You can enter a time after which the message will be cleared, or enter 0 in which case the message is never cleared.

Note that the message will be cleared in AMF systems if the score is cleared, or in all systems when another messages is sent - such as the centre name.

The Lane Control System also has the ability to display all the lines in a text file one by one, at a preset interval. For example, you could use this feature to display the results of a tournament. The file to be displayed must be called *c:\usr\lcs\lcsdisp.txt*. The first line of the file should contain the start lane, end lane, and interval. Below is a sample file:

```
1 30 45  
John Smith 289  
Bill Brown 290  
Mary Jones 275
```

This file would display each of the 3 lines above for 45 seconds, on lanes 1 through 30. To stop the display, delete the file.

5.7.6 Display a Page Message

This function applies to Touch Score, Brunswick and Accuscore Plus only.

A full page message in large text will be displayed, overwriting the score.

In Touch Score systems the message will be cleared when the players press a key, touch the touch screen or bowl a ball.

For AMF systems, you can specify the time the message is to remain on the screen. Enter 0 to leave the message on screen indefinitely.

For Brunswick systems, the message will remain until cleared.

Up to twenty messages can be stored and used again later. Use the **PAGE-UP** and **PAGE-DOWN** keys to view each of the twenty messages. Each message can be given a title. Press **ESC** when you are ready to send the message.

For Touch Score 2, the message can be displayed in a variety of ways:

- 1) Full Page Large Text (6 lines of 20 characters)
- 2) Full Page Small Text (12 lines of 40 characters)
- 3) Half Page . Score at top of screen, message below. (7 lines of 40)
- 4) Scrolling Line. Message scrolls in a single line across the top of the screen.
- 5) Full Page Large (Quick). This is the same as 1) above, except the message will clear in 10 seconds even if the players do not press a key.
- 6) Full Page Small (Quick). This is the same as 2) above except the message will clear in 10 seconds even if the players do not press a key.

For Brunswick scoring, the message can be sent to either the upper or lower monitors.

5.7.7 Pre-Programmed Displays

See the section on *Pre-Programmed Displays* in the *Picture Control Menu*.

5.7.8 Enable Television

This function applies to Accuscore, Brunswick and Touch Score with automatic TV switching only, and is used to change the overhead monitors between TV and the score grid.

5.7.9 Change Channels/ Enable Marks

5.7.9.1 Change Channels

This function applies to Touch Score 2 scorers fitted with the optional tuner card.

5.7.9.2 Enable Marks

This option enables display of marks on the overhead monitor. It is available for Brunswick scoring only.

5.7.10 Show T.V. when Lane Off/ Enable Doubles Singles

5.7.10.1 Show T.V. when Lane Off

This function applies to Accuscore and Touch Score with automatic TV control.

When a lane is switched off, the screen will display T.V.. When the lane is switched on, the score grid will appear. Without this function enabled, lanes that are off will display nothing.

5.7.10.2 Enable Doubles/Singles

This function enables either a single or a doubles style score grid on the overhead

monitor. It is available for Brunswick scoring only.

5.7.11 Enable TV Control/ Enable Frame Scores

5.7.11.1 Enable TV control

This function applies to Touch Score 2.

If TV control is not enabled, players on the lanes will not be able to change channels, or change video source.

5.7.11.2 Enable Frame Scores

This option is available for Brunswick scoring only. When enabled, the frame scores will be filled in for multiple strikes. When disabled, these scores will not be shown until the run of strikes has been completed.

5.7.12 Set Pindication Display/ Enable Cumulative Total

5.7.12.1 Set Pindication Display

This function applies to Accuscore Plus and Touch Score with automatic scoring with pindication.

For Touch Score, pindication can be displayed on both the overheads and the touch screen (if fitted) following each ball. Pindication can be displayed after the first or second ball or both, and may optionally include spare maker arrows.

For Accuscore Plus, the pindication is either enabled or not.

5.7.12.2 Enable Cumulative Total

This option enabled the display of players cumulative total for a series. It is available for Brunswick scoring only.

5.7.13 Set Score Grid Type/ Enable 4 Frame Lowers

5.7.13.1 Set Score Grid Type

This function applies to Touch Score and Accuscore only.

For Touch Score 1, the large text display grids may be enabled or disabled. The large text grids display 2 or 4 players by 4 frames. Large grids are not available for more than 4 players.

For Touch Score 2, the options are:

- 1) Normal (10 Frame)
- 2) Normal 4 Frame
- 3) Tournament 10 frame (no team totals, full name, up to 2 players)
- 4) Tournament 4 frame
- 5) TV in a window (requires video signal connected to Touch Score chassis)
- 6) Scores for both lanes on left screen, TV on right screen

In addition, the following features can be set for some grid types:

- 1) Classic or Blocks. The score grid is drawn in either the classic style using lines, or as a series of shadowed blocks.
- 2) Hide Empty frames. Frames that are not yet bowled can be removed from the screen. This is useful if there is a background picture or video, as it allows more of the background to be seen.
- 3) Background TV. Enables a TV or video picture to appear behind the score grid. Requires a video signal connected to the Touch Score chassis.

Note that handicap totals etc will only be shown if *Allow handicap/blinds/pacers* is set to *yes* in *Player Permissions* .

For Accuscore, 4 types of score grid are available. These are:

- Normal 10 frame
- Large text 5 frame
- Tournament 10 frames each (no team total)
- combined left and right score on the left monitor, TV on the right

Accuscore Plus also supports Open T.V. (T.V. on both lanes)

5.7.13.2 Set Score Grid Type/Enable 4 Frame Lowers

This option is available for Brunswick scoring only, and enables the large text 4 frame score grid on the lower monitors, rather than the normal 10 frame small text grid.

5.7.14 Centre Picture/ Select Video TV Source/ Auto Advertising

5.7.14.1 Centre Picture

This function is available for Touch Score 1 only, and allows the picture on the overheads to be shifted left or right. This allows the picture to be centred, despite differences in various monitors.

5.7.14.2 Select Video/TV Source

This function applies to Touch Score 2 only. It is used to select the source for video or

TV pictures. The options are :

1. Pin Camera. The J48 connector on TS2
2. Line in. J46 .
3. Chained Line In. J47
4. TV Tuner. The optional TV tuner card in TS2
5. AMF Monitor Video In. For use with AMF monitors with separate video-in signal.
6. Self Switching TV. A TV that automatically reverts to TV when the AV signal from TS2 is removed.

5.7.14.3 Auto Advertising

This option enables the auto advertising function of Brunswick scorers. See the Brunswick manuals for more information.

5.8 Picture Control

The *Picture Control Menu* applies to Touch Score only, except for *Enable Picture Displays* which also applies to Accuscore, and High Game Exciter which applies to Brunswick scoring.

This menu controls the graphics (both stills and animations) which can be displayed on the overhead monitors.

For Touch Score, the pictures are stored at the Lane Control System computer, and must be downloaded to the lanes before they can be displayed. Once at the lanes, they are available for immediate display.

For Touch Score 2, the pictures need only be downloaded once, as they will be retained indefinitely even if the power is lost. The Maintenance Menu at the lanes can be used to list, view and delete the graphics files in memory.

For Touch Score 1, the pictures will be lost if the Touch Score computer loses power. Typically, a large range of pictures is downloaded automatically using the *Pre-programmed Displays* function. For example, if Touch Score is switched off overnight, use *Preprogrammed Displays* to send the graphics early each morning. Further graphics can be sent throughout the day. For example, a different style may be sent for the evening bowlers.

Downloading is a fairly slow procedure, due to the communication link being AMF compatible. A typical still picture will take about 1 minute, but large animations can take up to 10 minutes depending upon the system load at the time. The *Show File Queue* function can be used to show the list of files currently waiting to be downloaded.

Although pictures can be downloaded at any time, they will download faster when the lanes are not being used and are checked out, as the system will not be collecting scores at the same time.

For Touch Score 1, two special types of pictures, Casino Bowl and Pick a Player, are downloaded automatically, and need not be included in the *Pre-programmed Displays*.

Note that the graphics files for Touch Score 1 and 2 are NOT interchangeable. Touch Score 1 files are in a special format called frame files. A program call PACK is available to pack standard GIF format files into frame files. Touch Score 2 uses standard GIF files. Animations are not currently available with Touch Score 2.

Touch Score 2 also supports downloading of an alternate font file.

5.8.1 Enable Picture Displays

This function applies to Touch Score, Accuscore & Brunswick only.

Automatic display of pictures or sequences, such as those displayed after strikes, may be enabled or disabled. Manual display of pictures is not affected.

For Accuscore Plus, various combinations of automatic graphics can be enabled.

5.8.2 Display a Picture/ High Game Exciter

5.8.2.1 Display a Picture

This function will send a single picture to the lanes, or display a picture already there. To send a large number of pictures, see *Send Default Pictures* or *Pre-Programmed Displays*.

To display a picture already stored at the lane, enter the number of the sequence as listed. The lane scorer will choose a picture of the correct type from those it has received, and display it immediately. If it does not have a picture of that type, it will display nothing.

To send a new picture to a lane, enter the name of the picture file. Large picture files may take several minutes to send. You must also enter the sequence type, so that the lane computer knows what to use the sequence for. If you selected **IMMEDIATE**, the picture will be displayed immediately it has been received, and then it is discarded.

For Touch Score 1, pictures that are sent to the lanes are maintained until power is lost. Then they must be sent again.

For Touch Score 2, the pictures are retained even if power is lost. To delete a picture from the lanes see the section on *Delete Pictures*.

See the section on *Pre-programmed Displays* for a list of sequence types.

5.8.2.2 High Game Exciter

This option sets the High Game score for Brunswick scorers. When a score higher than the high game score is bowled, the High Game Exciter will be displayed. Set the High Game score to 0 to disable the exciter.

5.8.3 List Pictures

The contents of the picture directory are displayed.

5.8.4 Get a Picture from Floppy

This function copies a picture file from a floppy disk (or a hard drive on the network) to the picture directory. See the manual for your scoring system for instructions on designing your own graphics.

5.8.5 Pre-Programmed Displays

The Lane Control System can be programmed to produce various displays on the lanes at pre-determined times. Different scoring types have different capabilities. See the various sections on line messages, page messages and pictures for more information on each type of display.

Touch Score users can also use Pre-Programmed Displays to regularly send pictures to the lanes ready for later display. This is particularly useful for Touch Score 1, as all pictures at the lanes are lost in the event of a power loss.

The screen will display one of three pages, each containing fifteen pre-programmed events. You may alter or edit these events, using the arrow keys to move around the screen. The **PAGE-UP** and **PAGE-DOWN** keys are used to view any of the 3 pages. See the section on Editing Screens.

Each event has a number of parameters:

-How Often. This field may be either **NEVER** (nothing will happen), **DAILY**, **WEEKLY**, **HOURLY**, **WEEKEND HOURLY** or **ONCE OFF**. **ONCE OFF** events will be cleared (set to **NEVER**) after they have occurred. **WEEKEND HOURLY** is intended for downloading graphics for the weekend. The weekend starts at 18:00 on Friday and ends at 23:59 on Sunday.

-**Date**. For **ONCE OFF** events, this is the day and month desired, in the form DD/MM . For **WEEKLY** events, this is the day of the week.

-**Time**. The time the event is desired, in the form HH:MM. Only minutes are required for hourly events.

-**Type**. Type may be one of the following.

-**Page-1**. Send a full page message, cleared 1 minute later.

-**LINE**. Send a line message.

-**LINE-1**. Send a line message and clear it 1 minutes later

-**LINE-5**. Send a line message and clear it 5 minutes later

- LINE-30**. Send a line message and clear it 30 minutes later
- CLR-LINE**. Clear a line message
- MIXED**. Randomly choose a sequence type for each lane pair in the list and send a randomly chosen file as this sequence.
- IMMEDIATE**. Send a picture for immediate display.
- MOTD**. Send a picture to be used as the message of the day or logo
- 2 STRIKES**. Send a picture to be displayed when 2 strikes in a row occur
- 3 STRIKES** up to 12 Strikes. As above.
- OPEN SPARE**. This picture is displayed after a spare in Open play only.
- SPLIT SPARE**. This picture is displayed after a split followed by a spare.
- OPEN STRIKE**. This picture is displayed after a strike in Open play only.
- LEAGUE END**. This picture is displayed after the end of a league series.
- MIDGAME**. Send a sequence to display after the 5th frame.

For Touch Score 1 only:

- CASINO**. Send the casino bowl sequences.
- PICK-A-PLAY**. Send the pick-a-player sequences.

For Touch Score 2 only:

- Open Background 1**. This will be the background for game 1 in open mode.
- Open Background 2**
- Open Background 3**
- League Background 1**
- League Background 2**
- League Background 3**
- Pindeck**. This is the pin indication graphic as supplied with Touch Score 2
- Slow Bowling**. This is displayed when the bowlers are slow between balls.
- Open Game End**. Displayed at the end of a game in Open mode
- Stop Sign**. This is displayed when the TS2 is about to cycle the pinspotters, and asks bowlers to stop bowling. There is a backup text message if no graphic file is loaded.
- FOUL**. Displayed after a foul is bowled
- FONT**. This is not a graphic, but an alternate font file.
- Message Background**. This is the background used for full page messages
- Touch Background**. This is the background for the Touch Screen

-**Lanes**. This is the range of lanes that are to display the picture or message.

-**Message Line/Picture Name**. Depending upon the type, this field contains either the full name of the picture to be sent (eg. picture.frm) or the message to be displayed.

In the case of a full page message, select the name of the message to be sent. See *Display a Page Message* for details on editing these messages.

When a specific type of sequence is being sent (eg. 4 STRIKES), the file name may be entered as **RANDOM**, **SELECT** or **ANIMATE** . **RANDOM** will randomly select a different sequence of the correct type for each lane pair in the list. **SELECT** will randomly select one sequence of the correct type and send it to all lanes in the list. **ANIMATE** is the same as **SELECT**, except that only animated sequences will be chosen.

In order for these random selection functions to work, each sequence must be named as follows, to ensure that the correct type of sequence is sent.

Sequence Type	Default File Name
Immediate	immed
Message of the Day	motd
2 Strikes	bag2
3 Strikes etc.	bag3 to bag12
Foul	foul
Open Spare	spare
Split Spare	split
Open Strike	strike
League End of Series	endgame
Midgame	midgame

Touch Score 2 only:

Open Background 1	openbg1
League Background 1	leagbg1
Pindication	pindeck
Slow Bowling	slow
Open End Game	openend
Stop Sign	stop
Foul	foul
Font	font.tfn
Message Background	messbg
Touch Background	touchbg

For Touch Score 1, each file name should have an extension in the range A to Z. For example, 2 bagger files should be named **BAG2.A**, **BAG2.B** etc. There should be at least 3 files of each type if random selection is to be used - A,B & C.

For Touch Score 2, each file name should have an extension of .GIF, but be appended with a letter in the range A to Z. For example, 2 bagger files should be named

BAG2A.GIF, **BAG2B.GIF** etc. Note that font files need no extension.

Once the screen has been edited, the **ESC** key is used to exit back to the menu. If any changes have been made, you will be prompted to either save the changes, or discard them.

5.8.6 Delete Pictures

This function applies to Touch Score 2 only. It is used to delete pictures that have been stored at the lanes. All pictures may be deleted, or just those of a specific type.

For Touch Score 1, simply turn the power off then on again to clear all pictures.

TS2 stores pictures in flash memory that is retained even when the power is lost. Therefore pictures need only be sent once. They will remain until deleted.

Note that if the pindication graphic is deleted, there will be no on-screen pindication.

5.8.7 Send Default Pictures

This function is used to send all the default pictures to the lanes. The default pictures are any whose name is one of the default names shown above in *Pre-programmed Displays*. For example, **BAG2A.GIF** etc.

Note that these pictures will be added to those already at the lanes, unless the memory is full. To delete the files at the lanes, see *Delete Pictures* above.

5.8.8 Show File Queue

All files (including pictures) waiting to be sent to the lanes are stored in a queue. *Show File Queue* will display this queue. The entry at the top of the queue will be sent first. The percentage sent is also displayed.

The **PAGE-UP** and **PAGE-DOWN** keys may be used to view more of the queue.

5.8.9 Clear File Queue

This function will clear ALL files from the queue. Any file that has been partially sent will be aborted.

5.9 Lane Functions

This menu contains various miscellaneous lane functions not contained in *Scores Handling*, or *Display Commands*.

5.9.1 Open Play

The scorer is set to Open mode. For Touch Score Systems, the League/Open Lock is also set, preventing players on the lane from changing the mode.

For Accuscore II and Plus systems, setting the mode will bring up a score grid if it isn't already displayed.

5.9.2 League Play

The scorer is set to League mode. For Touch Score Systems, the League/Open Lock is also set, preventing players on the lane from changing the mode.

For Accuscore II and Plus systems, setting the mode will bring up a score grid if it isn't already displayed.

Brunswick users should use League Play in place of cross lane play.

5.9.3 Practice Play

The scorer is set to practice mode. Scoring will not take place until Practice mode has been reset. If pinspotter control is fitted, and your pinspotters support Instructomat, then the pinspotters can be set to the correct mode - normal or instructomat.

When resetting practice play, you may optionally bring up the player arrows, ready for play. (Not applicable to Brunswick)

5.9.4 Lock Open/League / European Style League

5.9.4.1 Lock Open/League

This function applies to all systems except Accuscore II, Plus & Brunswick

When this lock is set, it is not possible for the bowler at the lane to change the mode from open to league or vice-versa.

5.9.4.2 European Style League

This function applies to Accuscore II and Plus systems only.

Use this function to select European style league play. The players change lanes after every game, not every frame as in normal league play.

5.9.5 Set No Tap Scoring

This function is not available for two board Magicscores.

For Accuscore Plus & Brunswick, scoring may be set to 3-6-9, 8, 9 no-tap or normal scoring.

For Accuscore I and II, and updated Magicscores 8, 9 no-tap or normal scoring is available.

Other AMF systems can be set to 9 no-tap or normal scoring.

For Touch Score, 6,7,8,9 no-tap or normal scoring is available. Touch Score 2 also supports 3-6-9.

For Accuscore Plus, the no-tap method can be individually set for each player. Note that 3-6-9 no tap is not available for individual players.

For Touch Score 2, the no-tap can also be set for individual players. When no-tap is set for a player, it will be cleared if that player is cleared from the screen. When no-tap is set for a lane, it remains on until reset.

5.9.6 Time Bowling

For AMF Magicscores (other than two board) and Touch Score 2, a clock may be displayed on the lane screen. This clock is loaded with the hours and minutes sent by the Lane Control System (usually 0:00), and counts upward.

For other systems, the clock cannot be displayed on the screen, however the start and stop clock functions can be used to prevent bowlers being charged for a period.

Four functions are provided to control the clock:

- **Set and Display Clock.** The clock is displayed and can be set to any value, but is usually set to 0:00.
- **Remove On-screen clock.** The clock is removed from the screen.
- **Stop the clock.** The clock is stopped, but remains on screen. The bowlers will not

be charged for time while the clock is stopped or on-hold.

- **Re-start the clock.** The clock is re-started, charging recommences.

Note that this clock is not the same as the time shown on the Lane Status screen or when turning a lane off. Changing the setting of the on screen clock will not effect the time charged to each lane. However, when this clock is stopped, the charging clock is also stopped, and when this clock is restarted, the charging clock also restarts.

For Magicscores, the bowlers will be prevented from clearing their scores while the clock is displayed. This prevents them from clearing the on screen clock. They may remove their scores as normal.

5.9.7 Prevent Remove Scores

Removal of scores by the bowler at the lane is prevented. Users of two board Magicscores should see the *Remove/Clear Scores Option* for more information.

For Accuscore II and Plus, the NEXT GAME key is disabled. See also *Prevent Partial Remove*.

This option is not available for Brunswick scoring.

5.9.8 Prevent Clear Scores

Clearing of scores and names by the bowler at the lane is prevented. Users of two board Magicscores should see the *Remove/Clear Scores Option* for more information. Note that for scorers that support time bowling, clearing of scores is prevented whenever time bowling is enabled. This prevents the bowlers from clearing the on screen clock.

For Accuscore II and Plus systems, the END BOWLING key is prevented from clearing the screen. See the section on *System Options* for restoring the score grid after the END BOWLING key has been pressed.

This option is not available for Brunswick scoring.

5.9.9 Inhibit Player Arrows

This function is not available for two board Magicscores or Brunswick.

When this function is set, the lane scorer's arrows will not appear, preventing the commencement of the game. Resetting this function will bring the arrows up on to the screen.

5.9.10 Reverse Player Arrows/ Set League Game

This function is not available for two board Magicscores or Brunswick.

5.9.10.1 Reverse Player Arrows

This function is available for AMF systems only. In league mode, the arrows on both lanes are reversed. ie. point to the opposite lane.

5.9.10.2 Set League Game

This function is for Touch Score only. In league mode, the current league game for both lanes is set. This will correct the direction of the arrows should the league game count be incorrect for any reason.

5.9.11 Disable Keyboard

This function is used for AMF and Touch Score 2 systems only, to disable the keypad.

5.9.12 Clear all LCS Controls / Enable Lane Viewing

5.9.12.1 Clear All LCS Controls

This function is for all systems except Accuscore II , Plus & Brunswick

Various locks and controls placed on the lane by the Lane Control System will be reset. For example: *Inhibit arrows, Lock Open/League, Prevent Remove*, etc.

For Accuscore II and Plus system, most settings are cleared when the lane is turned off then on again. However, some settings remain - such as Prevent Clear/Remove, Enable Pindication , Enable Graphics displays, etc.

5.9.12.2 Enable Lane Viewing.

This function is for Accuscore II and Plus only.

Players may view another lane from the console when this function is enabled.

For Touch Score 2, see Player Permissions.

5.9.13 Enable Manual Scoring / Score Keeping

5.9.13.1 Enable Manual Scoring

This function is available for Touch Score only.

Manual scoring with the keypad or touch screen may be enabled or disabled.

A DIP Switch on the ALS board may be set to force manual scoring on, regardless of the Lane Control System setting. This is intended for systems where no automatic scoring is fitted.

5.9.13.2 Enable Score Keeping

This function is for Accuscore II and Plus only. When enabled, scoring on the lane can proceed.

5.9.14 Arrow Advance/ Player Permissions/ Semi-Auto Sequencing/ Partial Remove/ Intercom

5.9.14.1 Enable Arrow Advance

This function is for Touch Score 1 only.

When disabled, it is not possible for the players to move the arrows, thereby changing bowling order.

5.9.14.2 Player Permissions

This function is for Touch Score 2 only. It is used to allow or disallow the player from using certain features at the lanes. These features are:

- **Arrow Advance.** Allows the players to move the arrows so as to bowl out of turn
- **No Tap.** Allows the players to set their own individual notap scoring method.
- **Bumpers.** Allows the player to deploy the bumpers
- **Grid Changes.** Allows the players to change the score grid type.
- **Lane Viewing.** Allows the players to view the score from another lane.
- **Score Correction.** Allows players to correct a score.
- **Handicap/Blinds and Pacers.** Allows players to enter and change handicap, blinds etc.
- **Access to Bowler Menu.** Allows the bowlers to use the bowler menu to interact with the scoring. If not allowed, they must use the original AMF special keys. Note that with out the menu, some other features (such as individual notap) will not be accessible by the bowlers.

Note that if handicap/Blinds and Pacers is not allowed, handicap totals will not be shown on screen.

5.9.14.3 Semi-Automatic Sequencing

This function applies to two board Magicscores only. When semi-automatic sequencing is enabled, the arrows will not automatically advance to the next player.

5.9.14.4 Prevent Partial Remove

This function is available for Accuscore Plus only.

Setting this function prevents players from removing their score with the NEXT GAME key when the game is not over. See also *Prevent Remove Scores and Prevent Clear Scores*.

5.9.14.5 Intercom

This function is for Brunswick scoring only, and enables the intercom to the specified lane.

5.9.15 Enable Speaker Paging/ Enable Bumpers

5.9.15.1 Enable Speaker/Paging

This option enables the speaker at the scoring console for Accuscore & Brunswick scorers. If an A.K.Microsystems Brunswick model pinspotter controller is in use, the volume of each lane pair can be set.

5.9.15.2 Enable Bumpers

This function is available for Touch Score 2 only.

The bumpers can be enabled for a lane, or for individual players.

When bumpers are enabled for a player, they will only be enabled until that player is cleared. When bumpers are enabled for a lane, they remain enabled until reset by the Lane Control System.

5.10 Prize Functions

This menu controls the various prize functions that are available on Touch Score 1 systems only.

When *Casino Bowl* is enabled, certain events (such as a strike) will trigger a graphic of a poker machine to appear on the overhead monitors. The wheels of the poker machine will spin for a few seconds, and if the result is three of a kind, the current bowler wins a prize. The events that trigger the wheel, the prizes that are awarded, and the probability of these prizes being won is all programmable. Bowlers are notified of their win on the overhead monitor, and the win is recorded at the front desk in a log file and on the printer.

When *Pick-a-Player* is enabled, the Lane Control System will randomly choose a player from those on the lanes. The chosen player is notified on the overhead monitors, and their name recorded in the log file and on the printer. The message shown on the overhead monitor is programmable. This allows *Pick-a-Player* to be used for a wide range of promotions.

5.10.1 Setup Casino Prizes.

This screen is used to setup the prizes for *Casino Bowl*.

The screen is divided into two parts, OPEN and LEAGUE, allowing separate configurations to be entered for each mode of play. At the bottom of the screen is the name of the Casino Bowl graphic. This is normally poker, but may be different if you have designed a new graphic.

Each wheel has eight symbols, and each symbol is associated with a prize. When the result of a spin is three identical symbols, the associated prize is awarded. Note that the first symbol is a wild symbol. If the result of a spin is two identical symbols plus the wild symbol, then the prize associated with the two identical symbols will be awarded.

The left hand side of the screen lists the name of each symbol. For each symbol you can enter the following information.

- Weighting
- Prize
- Graphic
- Value

-Weighting. This is the number of symbols on the wheel, and affects the probability of that prize being won. For example, if the weighting for the eight symbols is 1 1 1 1 1 1 1 10, then each wheel contains a total of 17 symbols, 10 of symbol number 8, and 1 of

each of the other symbols. Symbol number 8 is therefore much more likely to come up.

-Prize. This is the name of the prize associated with each symbol. This name will be displayed on the overhead when the prize is won, and will be shown in the log of prizes.

-Graphic. This is the name of the graphic file for the associated prize. For example, if the prize is a free coke, you may wish to design a graphic of a coke bottle, and use this rather than a simple "you have won a coke" message. The graphic should be of the "Inserted Name" type, and the player's name will be included in the graphic.

-Value. The value is the estimated value of the prize.

As the weighting for each symbol is varied, the program will calculate the probability of each prize being won. Based on this information and the entered value of each prize, the program will calculate the estimated cost per spin of the casino wheel.

It is important to note that the Casino Bowl wheel is truly random, and that the result of any individual spin is uncontrollable. Even though a prize has a low probability, it may be won several times in a row. However, the probabilities given are based on probability theory, and should prove accurate when averaged over a large number of spins.

5.10.2 Setup Casino Triggers

This screen is used to configure when the casino wheel will appear and spin. There are six basic triggers as shown below. These triggers can be separately configured for Open and League mode.

-**After Spare.** The casino wheel will spin after a player bowls a spare.

-**After Strike.** The casino wheel will spin after a player bowls a strike.

-**At Middle of Game.** The casino wheel will spin for each player after their fifth frame.

-**At End of Game.** The casino wheel will spin for each player after their last frame.

-**Always during every game.** The wheel will spin the specified number of times during each player's game. The spins will be randomly spread out during the game.

- **Randomly During Each Game.** The wheel will randomly spin approximately the specified number of times during each game. The difference between this trigger and the previous one is shown in the example below.

Assume that there are four players on a lane. If the **Always** trigger is set to 1, then each player will receive one spin each. However, if the **Random** trigger is set to 1, then player-1 may receive 1 spin, player-2 no spins, player-3 3 spins, and player-4 no

spins. There may not even be exactly four spins for the four games. Over a large number of games however, there will be approximately 1 spin per player per game.

Once all the triggers have been set, the program will calculate the estimated number of spins per game. This figure is combined with the estimated cost per spin shown on the prize setup screen, to give the estimated cost per game.

5.10.3 Enable Open Casino

Casino Bowl can be enabled or disabled for each lane, separately for Open mode or League mode. When enabled, the wheel will appear based on the triggers listed above.

5.10.4 Enable League Casino

See *Enable Open Casino* above.

5.10.5 Spin Casino Now

This command will spin the casino wheel on the specified lanes immediately, regardless of whether these lanes are enabled or not.

5.10.6 Setup Pick-a-Player

See the description on *Pick-a-Player* at the start of the Prize Functions section.

This screen is used to set the number of minutes between each time a player is chosen, and the message that is displayed on the overhead monitor. If the time is set to 0, no players are ever chosen. The message can be either a full page text message, or a graphic.

To enter a text message, enter the message in the space provided. If you enter #s, the player's name will appear rather than the #s. For example, enter: **Congratulations ##### you have won!**

To use a graphic, enter the name of the graphic in the space provided. This graphic should be of the "Inserted Name" type, so that the player's name is included in the graphic.

5.10.7 Enable Open Pick-a-Player

Pick-a-Player can be enabled or disabled for each lane, separately for Open mode or League mode.

5.10.8 Enable League Pick-a-Player

See *Enable Open Pick-a-Player* above.

5.10.9 Pick-a-Player Now

This command will choose a player from the lanes specified immediately, regardless of whether these lanes are enabled or not.

5.10.10 View Prize Log

The prize log is a file which records all *Casino Bowl* and *Pick-a-Player* prizes. This command will view the last page of this file. Use the **PAGE-UP** and **PAGE-DOWN** keys to view other pages. Press **P** to print the current page.

Each line in the log contains the following information.

- Record Number. An internal number used by the program
- Date
- Time
- Lane Number
- League or Open
- Player. The player's number on the lane (1-6) plus the name entered at the lane.
- Spin. The result of the spin for Casino Bowl Prizes. Example: *11 is wild symbol & two of symbol-1 .
- Prize. The name of the prize for Casino Bowl or the words Pick-a-Player for Pick-a-Player winners.
- Value. The value of the prize (Casino Bowl only)
- Probability. The probability set for this prize when it was won (Casino Bowl only)

The log file also contains a record of the Casino Bowl Setup and Triggers screen. Each time these screens are changed, the new configuration is written to the log file.

5.10.11 View Summary of Log

This command compiles a summary of all prizes awarded between the dates and times given. The summary is displayed on the screen, and may be printed by pressing **P**.

5.10.12 Clear Prize Log

This command clears the prize log. Once cleared, the information cannot be displayed. This command should be used occasionally to prevent the prize log from becoming huge.

5.11 Printer Control

This menu allows control of the printers. One or two printers can be connected. Use *System Configuration* to specify the port to which each printer is connected.

5.11.1 Printer Setup

This screen is used to change various printer options. Some of these options affect the printing of scores. When these options are changed, only new scores collected from the lanes will be affected. Old scores that are reprinted will use the options that were set at the time they were collected from the lanes.

Once the screen has been edited, the **ESC** key is used to exit back to the menu. If any changes have been made, you will be prompted to either save the changes, or discard them.

The options are :

News Banner. These 3 lines of text appear on each score printout and can be used for promotions etc. Some printers are unable to print to the very bottom of a page, and depending upon the paper size and the alignment of the score on the paper, it may not be possible to use all three lines.

Printout Type. Scores printouts may be one of three types.

- Standard, No Grid.** Standard formatting, the grid lines around the score are not printed.

- Standard, with added grid.** Standard format, but with the grid lines printed, and therefore the score printout is longer

- AMF Half Sheet, no grid.** This is for an AMF type score sheet, occupying half of an A4 page.

Printer Alignment. This option specifies the number of lines between the top of the page, and the first line of the score. This allows accurate alignment of the printout with pre-printed score sheets. Fractions of lines are allowed. eg. **1.57** . The page can be aligned from left to right by adjusting the paper feed on the printer.

Printer Page Length. This option sets the length of the page. If a cut sheet feeder is being used, or the printer defaults to the correct page length, then this option may be set to **0**. Otherwise it should be set to the length of the paper in lines.

Printer for Open Scores. This option selects the printer (1 or 2) that will be used when an Open score is collected from the lanes. Note that the *Print Cleared Scores*

and the *View Scores* functions are not affected by this option. Normally one printer is loaded with pre-printed score sheets, and the other with blank paper. If only one printer is fitted, all printer select options should be set to printer 1.

Printer for League Scores. This option selects the printer (1 or 2) to be used when a League score is collected from a lane. See Printer for Open Scores above.

Printer for Reprinted Scores. This option selects the printer (1 or 2) to be used when a score is reprinted using the *Print Cleared Scores* or *View Scores* function.

Printer for Prizes and Logs. This option selects the printer (1 or 2) to be used for prize slips, and prize log printouts.

5.11.2 Show Printer Queue

A list will be displayed of the scores waiting to be printed. If the printer has been off-line for a long time (eg out of paper), this list may be very large.

5.11.3 Clear Printer Queue

In the event of a large backup of scores (see *Show Printer Queue* above), the queue may be cleared and the prints cancelled. Note that although cleared from the queue, the scores may still be reprinted using the *View Scores* or *Print Cleared Scores* function.

5.11.4 Print Open Play

At the end of each game when the score on the lane is cleared, the score is collected by the Lane Control System. This score may optionally be automatically printed. Scores that are not automatically printed may be printed later using *Re-Print Scores*.

This function enables or disables automatic printing for Open games.

5.11.5 Print League Play

This function enables or disables automatic printing for League games. See *Print Open Play* above.

When a leagues is setup with CDEs BLS program, automatic score printouts can be enabled. A score will be printed for these leagues even if *Print League Play* is not enabled.

5.11.6 Enable Lane Printer

This function applies to two board MagicScores fitted with an on-lane printer. When enabled, the players may print their score. The score will also be printed when it is

cleared or removed.

5.11.7 Print Casino Prize

This function is for Touch Score only.

When Casino Bowl is in use, a prize slip may be automatically printed whenever a player wins a prize. This function enables or disables the printing of prize slips. Prizes are always recorded in the log file, even if a prize slip is not printed.

5.11.8 Print Pick-a-Player.

This function is for Touch Score only.

This function enables or disables automatic prize slip printing for *Pick-a-Player*. See *Print Casino Prize* above.

5.12 Pinspotter Control

This menu applies to systems with pinspotter control fitted.

5.12.1 Start/Stop Pinspotters

Use this function to control a pinspotter. There are three modes: OFF, ON or INSTRUCTOMAT. You may also cycle the machines. Some type of pinspotters may not support INSTRUCTOMAT or cycling.

Note also that many pinspotters are fitted with timers, and may continue to run for a short period even though the pinspotter controller has shut them off.

5.12.2 Emergency ALL Off

Selecting this function will cause all pinspotters to shutdown instantly. It is intended for emergency situations. Note that the manual frame switches can override the computer, and start the pinspotters even though the computer switches them off.

Note also that many pinspotters are fitted with timers, and may continue to run for a short period even though the pinspotter controller has shut them off.

To restart the pinspotters, use the *Start/Stop Pinspotters* command.

5.12.3 Set Pinspotter Cycle Time

This function applies to Touch Score systems whose cycle switch is connected to the pinspotter.

After a no-tap "strike", or after the third ball in the tenth frame, the pinspotters will automatically do an extra cycle and reset the pins. The delay between the score being received and the machine cycling can be adjusted to suit different speed pinspotters. The delay should be set to between 0 and 20 seconds (whole seconds only). If set to 0, the pinspotters will not automatically cycle.

Note that for TS2 systems using a camera and connected to pinspotters that support short strike cycles, a short strike cycle will be used in these cases and this delay should be set to 0 to prevent an extra cycle.

For TS2 with a camera but without pinspotters that support short strike cycles, the delay should be set to the time between the start switch opening, and the next machine cycle. See the TS2 manual for more information.

5.13 Maintenance

This menu contains tasks pertaining to the operation and setup of the Lane Control System.

5.13.1 System Options

This function allows the setting of system options. Once the options have been set correctly, press the **ESC** key to exit back to the menu. If any changes have been made, you will be prompted to either save the changes, or discard them.

The options are :

1. Type of League Secretary. Select the type of League Secretary Program that you are using by pressing the space bar. The available types are:

- None
- A.K. Microsystems LST** (SCO Unix only)
- CDE BLS-X**

Select CDE BLS-X for all CDE packages, including T-Brac and Tournamator.

2. Display a new lane on Lane Monitor every ?? seconds. This allows a continuous display of the lane's screen on the optional Lane Monitor. See the section on *Display a Lane*. The display will show each lane for a set time, then advance to the next lane. If the time is set to zero, no lanes will be displayed. Applies to Magicscore only.

3. Collect a score from a lane every ?? seconds. The Lane Control System can be programmed to periodically collect a partial score from each lane during play. If the scorer malfunctions during the game and loses the score, the score may still be displayed and printed using *View Scores*. The score may also be sent to a new lane, allowing the game to continue.

Typically the system should collect a score every 15 seconds or so. This means that in a 20 lane house, each lane would be collected every 5 minutes (15 seconds x 20 lanes). If you have a larger number of lanes, you may wish to collect scores more frequently, to ensure that fewer frames are lost. However, be aware that collecting scores more frequently will increase the workload of the Lane Control System, and will slow its response to other events.

If you set this time to 0, then partial scores are not collected. The completed score will still be collected at the end of each game as usual.

Brunswick scoring always collects scores, regardless of this setting.

4. Display lane status screen when not in use. If this option is set to yes, then the Lane Status screen will be displayed whenever the keyboard has not been used for several seconds. This allows constant monitoring of the lanes with out having to select *Lane Status* after performing other functions.

5. Load League files ??? minutes prior to start of league. This option sets the time at which the league file will be automatically loaded. If auto-starting is enabled, the names will be sent to the lanes at this time. A league file must be loaded in order to be used by the system. A league file can be manually loaded at any time in the *League Management* screen.

6. Allow auto-starting of leagues. When a league file is loaded, the player's names can be sent to each lane automatically. This is called autostarting the league. In order for a league to autostart, this option must be set to yes, and the autostart box in the BLS program must be ticked when the league is exported. Also, if the bowlers change lanes during a league, the names will be automatically transferred to the new lanes if this box is set to yes.

7. Pinspotters on when autostarting. If this option is set to yes, the pinspotters will start when a league autostarts. If it is set to no, then the names will still appear on the lanes, but the pinspotters will not start.

8. Issue Pre-paid Limit and Game Over warnings. If this option is set to yes, the message *PREPAID LIMIT NEAR* will appear on the top line of the scorer's screen when the prepaid number of games, or the prepaid amount of time has been reached. When the extra games or time as set below has also been reached, the message changes to *GAME OVER - See Desk*. Note that multilane bookings of 4 or more lanes in league mode will not display these messages, as they are assumed to be part of a league or tournament.

9. Shut off pinspotters. If this option is set to yes, the pinspotters will be turned off when the prepaid number of games or prepaid time has been reached, including any extra allowance as shown below. Note that multilane bookings of 4 or more lanes in league mode will not automatically shut off, as they are assumed to be part of a league or tournament.

10. Allow extra frames or extra minutes before Game-Over. Use this option to set the number of extra frames (for prepaid games bookings) or the number of minutes (for prepaid time bookings) before the pinspotters shutoff, or before the message *GAME OVER - See Desk* appears.

11. Clear lanes at Game-Over and no bowling for ? mins (Open) or ? mins

(League). If a time is entered here, then the lane's screen will be cleared automatically this preset time after the last ball is bowled at *Game-Over*. If 0 is entered, the lanes screen will not clear.

For open bookings, *Game-Over* occurs when the prepaid games or time has been bowled. For BLS-X leagues, the *Game-Over* occurs after the predefined number of games per series have been bowled.

Note that this option only clears the screen, the *Turn Off* option below must also be set to complete automatic check out.

The time should be set to at least 2 minutes, to allow players to study their score before it is cleared. If the time is set to 0, then the scores will not automatically clear.

The scores will not clear while the arrows are still displayed, or if the lane has overbowled (exceeded the allowed extra time or games), unless the option below is also set.

12. Clear these lanes after extra frames or time even if still bowling. If this option is set, then the screen will be cleared after the allowed extra frames or time, even if the bowlers are still bowling. This applies to open bookings only.

13. Turn off lanes when score cleared at Game Over. If this option is set to yes, then any lanes whose scores are cleared at *Game-Over* will be automatically checked out, turned off and the pinspotters will stop. The lanes may be cleared by the players, cleared at the front desk, or cleared automatically as set above.

For open bookings, the *Game-Over* is defined when the number of prepaid games or time has been bowled. For BLS-X leagues, *Game-Over* occurs when the required number of games per series has been bowled.

Note that for multilane bookings (including BLS-X leagues), each pair will borrow the required number of paid games from other lanes in the same booking as they check out. The last lane pair will not automatically check out until the required number of paid games has been entered.

14. Restore Score Grid after END BOWLING pressed. This option applies to Accuscore II and Plus systems only. Normally when the **END BOWLING** key is pressed, the score grid is cleared and the logo appears. If this option is set to YES, then the score grid will be restored a few seconds later, allowing bowling to continue. This is important if you wish a second booking to start bowling before the first booking has been checked out. You must also ensure that you have enabled the END BOWLING key by resetting the *Prevent Clear Scores* function. Note that if this

option is set, you will not be able to display the logo, as it will be replaced with a score grid almost immediately

15. Lanes Removed From Service. In the event of a lane scorer being switched off for service or disconnected from front desk communications, the Lane Control System will remove that lane from service. Lanes that have been removed from service are shown highlighted.

A lane that has been removed from service cannot be controlled by the Lane Control System. However, the Lane Control System will periodically attempt to restore the lane to service.

The **SPACE BAR** can be used to manually remove a lane from service, or restore it to service. For Accuscore II and Plus systems, you can reset the communications with a lane pair by removing the lane from service. The program will then reset and re-establish communications.

When any lanes are removed from service, a message will be displayed at the top of all the menu screens showing which lane pair is removed. If a number of lanes are removed, the message "**Some Lanes are Off**" will appear.

5.13.2 System Configuration

This command allows you to change the basic configuration of the Lane Control System. See the section on Installation in this manual for a description of the configuration options.

The options in System Configuration only take effect when the Lane Control System is started. After changing an option, you must exit the Lane Control System and restart it for the new option take effect.

5.13.3 Operating System Commands

5.13.3.1 DOS Commands

This function is for DOS or Windows 95 systems only.

This function runs the DOS command shell, and allows DOS commands to be entered. Note that the Lane Control System is suspended while in DOS, and no scores are collected or printed. Type **exit** to return to the Lane Control System. See the DOS manuals for information on DOS commands.

For Windows 95 users, it is possible to run a DOS command from Windows, thereby leaving the Lane Control System running, rather than using the DOS command from the Lane Control System. See the Windows 95 manuals for more information.

5.13.3.2 Unix Commands

This function is for Unix systems only.

This function runs a Unix shell, and allows Unix commands to be entered. The Lane Control System continues to run and poll the lanes while the Unix shell is in use. Type **exit** to return to the Lane Control System. See the Unix manuals for details on Unix commands.

5.13.3.3 Superuser Commands

This function is for Unix systems only.

This function is used to enter superuser (privileged) commands in Unix. The super user password is required. Type **exit** to return to the Lane Control System. See the Unix manuals for details on Unix commands.

5.13.4 Scorer to Test Mode/ Maintenance Menu

5.13.4.1 Scorer to Test Mode

This function is for Touch Score 1 only.

The lane scorer will be placed in a self test mode, and diagnostics will be displayed on the overhead monitors. The scorer will be removed from polling. (See *System Options*).

5.13.4.2 Enable Maintenance Menu

This function is for Touch Score 2 only. The scorer Maintenance Menu is available from within the normal menu at the lanes, and allows various diagnostic functions to be performed. It should normally be disabled to prevent bowlers accessing it.

5.13.5 View Event Log

An event occurs when the Lane Control System loses communications with a lane, restores communication, or encounters some form of error.

These events are recorded in a log file. This command allows viewing of this event log file.

This command is not available with Unix systems, as the events are normally

constantly displayed on a separate terminal screen.

5.13.6 View a Score Log File

A log file is kept for every day of the year, which records valid competition scores. This record is kept for up to 10 months, and is automatically cleared by *the Lane Control System* at that time.

The records are only kept for completed (or nearly completed) games, and for games which either have a team name entered or are in played in league mode. Only the bowlers scratch and handicap totals are kept. Individual frame scores are not recorded.

See the *Re-Print Scores* command for displaying more complete details of recent scores.

5.13.7 View Player/Team History

This command is used for scores belonging to a particular player or team. Two areas are searched – the *VIEW SCORES* and the *LOG FILES*.

The *VIEW SCORES* contain the most recent scores from each lane. Usually 100 scores are stored.

The *LOG FILES* contain any score that was played in league mode, or where a team name had been entered, for the last ten months.

Enter the player or team name whose scores you wish to find. Note that scores will be returned for any player or team whose name contains the name you enter. For example, if you enter **JOHN**, you will get scores for players **JOHN SMITH** and **BILL JOHNSON**, and for the team **THE JOHNSENS**.

The *Lane Control System* will start searching the *VIEW SCORES* first, searching backwards from the latest scores. Then it will start searching the *LOG FILES*, backwards from yesterday. The number of scores found will be displayed. At any time, press **ESC** to stop the search and display the results.

The scores found will be displayed along with the time and date and the lane number on which the score was bowled. Press **P** to print a single page of the report, or **A** to print all the pages. Note that recent scores may be shown twice, once from *VIEW SCORES*, and once from the *LOG FILE*.

The source of the score will also be shown, so that you can go to the source and get more information. For example, say you wanted to know who the other bowlers were

on the lane for a score you have found. If the source is *View Lane 5 Record 55*, then select *VIEW SCORES*, select lane 5, and use the **PAGE-DOWN** or **ARROW-DOWN** keys to display record 55. Note that the record number may have changed to 54 if another score has been collected from lane 5 since the report was run. To get more information on a log file, select *View a Score Log File*.

Note that the team handicap shown on log file scores is always the sum of the player handicaps, even though a different handicap may have been used at the time. This is because the log file does not store the separate team handicap.

5.13.8 View Games Report

A Games Report will show the number of games bowled during a given period. Note that records are kept for the last 40 days only, then they are deleted. This allows you to print a monthly summary, as long as you do so during the first 10 days or so of the following month.

From version 6.8 onwards, games bowled up until 5AM are included in the previous days count. Prior to version 6.8, the cut off time was midnight.

There are three ways the Lane Control System can count the number of games. Which of these methods is most suitable depends upon your particular installation. Because of the differences outlined below, each method may show slightly different totals for your centre.

The first method uses the frame counter built in to the scorers, as displayed on the bottom line of the screen (eg. G 0 F 0). For centres with automatic scoring, this method will count all bowling, even if the bowlers have not entered their names. However it will not count frames bowled when the scorer is in practice mode. Also, it will count the tenth frame as one frame, even if three strikes are bowled.

The second method counts the number of frames that have been scored every time a score is collected from a lane as shown on a score sheet. This method will not count frames when names have not been entered into the scoring system, or when the arrows aren't displayed. However it may be the only option if you do not have automatic scoring, or if your frame counters are not connected.

The third method uses the frame counters in the optional *Pinspotter Controller*. All frames are counted.

Games which are presently in progress are not included in the report for some methods. Therefore, in order to show a daily total accurately, the report must be compiled after all lanes have been switched off for the day, or on the following day.

When compiling the report, ensure that you enter the date in European format as shown, ie. DD/MM not MM/DD.

The report can show subtotals for each lane, or subtotals for each day within the period. Total lineage is also shown. When daily subtotals are displayed, the number of days used for lineage calculations is the total number of days in the period. When only lane subtotals are shown, the number of days on which games were bowled is used. In both cases, the number of days used for lineage calculations is displayed.

5.13.9 Workshop Flag

Use this function to set or reset a workshop flag for a given lane. Workshop flags are used to mark lanes that are being serviced or are not available for use.

The *Lane Control System* will display a warning if the user attempts to use a lane whose workshop flag is set. The user may choose to ignore the warning and use the lane anyway.

A workshop flag will also prevent the pinspotters from coming on when a league checks in automatically. The scorers will check in normally.

5.13.10 Set Scorer Language/Touch Score Configuration

5.13.10.1 Set Scorer Language

This function applies to Accuscore Plus & Brunswick systems only.

The prompt language used on the lanes' screens can be changed. The Lane Control System is not affected.

The language should be set prior to checking in the lane.

5.13.10.2 Touch Score Configuration

This function applies to Touch Score 2 only, and is used to:

- 1) Update the software within Touch Score to the latest version
- 2) Configure Touch Score for various hardware.

The screen will show the version of the Touch Score Update file (usually `c:\usr\lcs\ts.bin`) currently on the Lane Control System computer.

The screen will also show the following information for each Touch Score computer:

- **Serial Number.** The unique serial number.

- **Hardware Type.** The type number of the Touch Score computer hardware.
- **Core Version.** Each Touch Score computer contains two versions of software - the CORE version and the USER version. The CORE version is loaded when the unit is manufactured. The CORE version never changes. The CORE has no scoring functionality, but can be used to load a new USER version.
- **User Version.** The USER version of the software is the fully functional scoring software and can be updated at any time from the front desk.
- **Currently Running.** This field shows whether the Touch Score computer is currently running the CORE or USER version. It would normally be the USER version unless one of the following is true.
 - No USER version has been loaded
 - The loaded USER version is invalid
 - The LCS has disabled the USER version, thereby forcing the CORE version to run. See below.

See the Touch Score manual for more information on CORE & USER versions.

- **Current Configuration number.** This is the configuration number currently at the Touch Score computer. Touch Score needs to be configured for each particular installation. The configuration number contains information about keypad type, screen type etc. This configuration is usually manually set up on each Touch Score when first installed.
- **Configuration number to Send.** This is a copy of the configuration number for each Touch Score that is stored at the Lane Control System computer. If a Touch Score memory is cleared, or a new Touch Score computer installed, the LCS will reload this configuration number automatically. If this number is zero, it is NOT sent to the lanes. See the Touch Score manual for more information on configuration numbers.

5.13.10.2.1 Update User Software.

Use this function to send the current update file to the lanes. The file is sent using the same method as for picture files. Use *Show File Queue* to monitor the download. Once the file has been downloaded, the Touch Score computer will restart, and should now show the same USER version as the file version.

Note that all scores and settings within TS2 will be cleared when a new update is loaded.

5.13.10.2.2 Disable User Software

Use this function to disable a previously downloaded user version, thereby causing the CORE version to be used. This should only be necessary if there has been a problem with the downloaded USER file. This function may also be reset, to allow the USER

version to again run.

Once the CORE is running, a new USER version can be downloaded from the front desk.

5.13.10.2.3 Set Configuration Number.

This function will set the configuration number that is stored at the front desk and sent to the scorers. Assuming the scorers have been configured, it should be set to be the same as the current configuration number, and would usually be the same for all lanes. If set to zero, the configuration number is not sent to the lanes.

5.13.11 Reset Lane Scorer

This function is available for Touch Score only. The scorer at the lane will be reset. This is similar to disconnecting the power from the lane then restarting the lane. Should the scorer fail to function, after a power surge etc, the scorer should be reset. No scores will be lost.

5.13.12 Clear Lane Memory

This function applies to Touch Score only. The battery backed memory at the lane will be cleared. This will clear ALL SCORES AND SETTINGS ! This function should not normally be required.

5.13.13 Exit Lane Control System

This option shuts down the Lane Control System, but not the entire computer system.

DOS users are returned to the DOS prompt, Windows users are returned to the desktop, Unix users are logged out, and must log in again to re-run the Lane Control System.

If the A.K. Microsystems League Secretary is in use, the Lane Control System may pause at the line "**Waiting for League Secretary to Terminate**". If it pauses at this line for more than a few seconds, then the League Secretary Program has most likely encountered an error. Press **ESC** to force termination.

5.13.14 Total System Shutdown

This function applies to Unix systems only.

This option is used to shutdown the entire system prior to disconnecting the power.

All users will be logged off, and all processing stopped. You will need the superuser password.

5.14 League Management

This screen is used for managing the league data available from CDEs BLS program. See the chapter on using this program for more information.

6. Using CDE's Bowling League Secretary

6.1 Overview

CDE's BLS-X, Tournamator and T-Brac programs provide automatic processing of leagues and tournaments.

The following chapter describes the use of BLS-X for processing leagues. The operation of the *Lane Control System* when using CDEs tournament packages is identical.

Before the League begins, the player and team data must be *exported* to the scoring system. See the CDE manual for information on how to export a league. The data may be exported well in advance of the starting time.

This data is then automatically loaded by the Lane Control System a preset time before the league or tournament is scheduled to start. Once loaded, this data is available to the scorers.

As bowling progresses, the Lane Control System will store the results in a file. At the end of the league or tournament, this file is *imported* into the BLS program for processing. Some CDE programs may process these scores "on the fly" before bowling is finished. See the CDE manual for more information.

6.2 Installation and Setup

You should purchase your BLS program from the supplier where you purchased your Lane Control System. They will ensure that you are supplied with the correct version for your Lane Control System.

The BLS program may be installed on the same computer as the Lane Control System, or on a separate computer in the back office which is linked to the Lane Control System computer with a network. The use of a separate computer is highly recommended, to allow both programs to be used simultaneously.

After installation, ensure that you set the *type of league secretary program* to **CDE BLS** in the *System Options* screen in the *Maintenance menu*.

6.2.1 Installing on the same computer

In order to load the BLS program onto the same computer as the Lane Control

System, you will need to use Windows 95 or later as your operating system. Earlier versions of Windows do not allow the Lane Control System to remain sufficiently active while other programs are being used.

Follow the instructions for installing the BLS and the Lane Control System. During the Lane Control System installation, you will be asked if CDEs programs are being used on a network. Answer no.

The *Configure Automatic Scoring* screen in the BLS program should show the import/export directory as **c:\usr\lcs\bls**. The scorer type should be **Touch Score by AKM** or **AK Micro LCS system**. The *Location/Computer Name of Front Desk* should be **c:**. The location of the feature file should be **c:\windows\system**.

6.2.2 Installing on separate computers.

To install BLS on a different computer to the Lane Control System, you will need to link the two computers with a network. The network can be any type (Lantronic, Novell, Windows etc.) that provides file sharing via drive redirection. The Lane Control System computer need only have DOS 5 or later, although the BLS computer will require Windows.

The network must be configured so that the hard drive on the Lane Control System computer can be accessed as drive I on the BLS computer, and the hard drive on the BLS computer can be accessed as drive J on the Lane Control System computer.

Note that the Lane Control System only needs to access the back office computer once - to write the feature file for BLS to read. It writes this file every time it starts. As this file never changes unless your scorer configuration changes, you can re-configure you network after the file has been written once, so that the front desk cannot access the back office. You may not wish your front counter staff to be able to access back office programs.

Follow the instructions for installing the BLS and the Lane Control System. During the Lane Control System installation, you will be asked if CDE's programs are being used on a network. Answer yes.

The *Configure Automatic Scoring* screen in the BLS program should show the import/export directory as **I:\usr\lcs\bls**. The scorer type should be **Touch Score by AKM** or **AK Micro LCS system**. The *Location/Computer Name of Front Desk* should be **\\DESK\C**, where "DESK" is the name assigned to the front desk computer. The location of the feature file should be **c:\windows\system**.

If you wish to use different drive designators to the default ones (I: and J:), you will

need to edit the *lcs.con* file. See the chapter on *Special Configurations*.

6.3 Preparing for a League

The first step in running a league, is to setup the event in the BLS program, then export the file. See the CDE manuals for more information on setting up and exporting.

IMPORTANT NOTE: Do not use long file names for your league file name, or you may not be able to import scores. The file name must consist of 8 characters or less, and contain only A-Z, 0-9 and the underscore character.

The Lane Control System will automatically load the export file a preset time prior to the event commencing. The *League Management* screen will show all files that are currently loaded. The file remains loaded until the event is completed. If this file is not loaded, then no names will be sent to the lanes, and no scores for this league will be processed.

See the section below on the *League Management* screen for information on loading a file.

6.4 Sending Names to the Lanes

The Lane Control System uses the export file to determine which players and teams are scheduled to bowl on each lane, and sends this information to the scorers. Once this information appears at the scorers, the bowlers can make any necessary changes, such as setting an absent player to blind, or adding a pacer.

With Two Board MagicScores, it is not possible to send the names to the scorers. The team's name will appear at the top of each screen, and the player and team names must be typed in manually at the bowlers' console. The names should be typed in exactly as shown in the BLS program. If a name is misspelt, the league may not process correctly. Ensure the team name is also entered correctly. The export file should still be loaded, even though names are not being sent to the lanes.

With any other type of scorer, the names can be sent to the lanes in several different ways.

1. Autostart

When autostart is enabled, the names will be sent to the lanes automatically when the

export file is loaded prior to the start of the league.

To enable autostart, ensure that *Allow Autostarting of Leagues* is set to **yes** in the *System Options* screen of the Lane Control System, and that the Auto-start box is ticked when exporting the league from the BLS program. The *System Options* screen is also used to set the time at which the league file will be loaded

The names will only be sent to lanes that are off, and these lanes will be switched on as the names are sent. See the *Check Out* function to switch off a lane.

The names can be sent prior the preset start time, simply by manually loading the export file at any time. See the section on *League Management* for instructions on manually loading a league export file.

2. At Check In

When an export file is loaded, and you check in a lane, the program will ask whether the names should be sent to the lanes. Enter yes, and the correct names for each lane will be sent to the scorers.

3. From the League Management Screen

The bowlers names can be sent from *the League Management Screen*. Select the appropriate lane, then select *Send these names to this lane*.

4. From the bowlers console.

The names can be requested from the bowlers console, by entering an appropriate team code. Press **Left** or **Right**, then **Team** or **Team Name**, then enter the four character team code as shown below.

Accuscore II and Plus users must use only the codes **111X** or **333X**. Code **111X** will bring up the team scheduled to bowl on this lane in this league. Code **333X** will turn off the lane. This can be used when a whole team is vacant, as the scorer will not allow every player to be a blind, and clear scores may be inhibited.

For all other systems, the valid codes are shown below. Usually code **999X** is entered for all lanes.

All codes consist of three digits followed by an X, Y or Z.

001X Team number one for the league scheduled to be on this lane

002X Team number two for the league scheduled to be on this lane

...etc
999X The team scheduled to play on this lane for this league.

001Y Team number one for the next league on this lane.
002Y Team number two for the next league on this lane.
...etc
999Y The team scheduled for this lane in the next league.

001Z Team scheduled to be on lane one now, in any league.
002Z Team scheduled to be on lane two now, in any league.
...etc

Note that the code **999X** can be used on all lanes, whenever there are no changes to the scheduled draw. For Touch Score 2, if no code has been entered, **999X** is used.

The codes ending in Y may be required if is necessary to bring up a team when the previous league has not finished. For example, if a team does not bowl on a lane for any reason, the X codes will keep bringing up this old team, even though the new league is about to begin. The Y codes can be used to skip this old team, and bring up a new team.

Any unused teams should be cancelled at the end of a league. If this is done, Y codes should never be needed.

The Z codes are used when a team must move to a different lane due to machine break down or for some other reason. If the new lane they are assigned to is not part of the league, then the X codes will not work.

A team can also be moved to a different lane by using the *League Management* screen. The X codes can then be used as normal for the newly assigned lanes.

If the bowlers are scheduled to move lanes between games, and the *Allow Autostarting of Leagues* option in *System Options* is set to yes, then the new bowlers names names will automatically appear on each lane after the previous game is cleared. If *Allow Autostarting of Leagues* is not set, one of the methods above must be used to send the players to their new lane after each move.

When multiple teams are scheduled to bowl on the lane at the same time (eg: three doubles teams bowling together) the team name will become "Team X Y Z" where X,Y and Z are the team numbers. For example, "Team 4 5 6 ". In this case, players in positions 1 & 2 belong to team 4, positions 3 & 4 belong to team 5 and positions 5 & 6 belong to team 6. When entering substitutes, ensure that they are entered in the correct position depending on the team they are joining.

6.5 Before Bowling Commences

Once the names are loaded, but before bowling commences, the bowlers should make any changes to the line up that are needed, and mark all absent and vacant players as blind.

To change the line up, enter the player's position in the team as the player's name, and download the team again. For example, if 2 is entered as the first players name, and 4 for the second, and 1 for the third, then player number 2 will appear as the first bowler, player number 4 as the second, and player number 1 as the third.. To change only one player, change only that player's name, the other player's names can remain unchanged. If your scoring system will not accept a number as a bowlers name, use A for 1, B for 2 and so on. Once all the new player positions have been entered, change the team name to **999X** (**111X** for Accuscore II and Plus) and the new names will be sent from the Lane Control System.

If you have a Touch Score 2 system, the line-up can be altered directly at the console.

To add new bowlers or substitutes, simply type the correct name and handicap in the desired position. Note that if there are multiple teams bowling on the one lane at the same time, substitutes **MUST** be entered in the same position as the bowler they are replacing, or they may be assigned to the wrong team.

Once the line up is correct, change any absent or vacant players to blind. When the **BLIND** key is pressed, the correct absentee score, as calculated by the BLS, is displayed. For player positions already marked as **VACANT**, the correct vacancy score will be displayed.

If the required team handicap is not the sum of the player handicaps, then the correct team handicap may need to be entered at the console. This applies to some Magicscores only.

Once bowling has commenced, then any changes to the line up are fixed. If the team needs to be checked in again for any reason, the new lineup will appear. However you can still use player position codes as described above to make further changes.

6.6 After bowling is complete

When all games have been completed, and all screens cleared, the scores can be imported in to the BLS program. See the CDE manuals for more information on importing. Note that the scores are not sent to the Lane Control System until they have been cleared from the lanes.

It may also be necessary to clear any entries for the league that remain in the *League Management* screen of the Lane Control System. These entries normally clear themselves when the event is over, but forfeits or byes may leave a team entry remaining. If these entries are not cleared, they may affect the next league or tournament.

As soon as practical, the scores should be imported and checked for completeness. If any scores are missing, due to machine breakdown for example, they will need to be entered manually.

There are two commands in the *Lane Control System* that can be used to retrieve an old score. Use the *Re-print Scores* command in the *Scores Handling* menu if the score is fairly recent. If the score is quite old, use the *View a Score Log File* command in the *Maintenance* menu.

6.7 League Management Screen

The *League Management* screen is used to view the league files that are loaded, and make changes where necessary. This data must be correct in order to send the team and player data to the lanes.

Where two leagues are loaded for a given lane, the earliest will be shown first, with the later entry below it. The top entry is available using the X codes, and the second entry is available using the Y codes. See the section above on *Sending names to a lane* for more information.

For leagues where the bowlers change lanes between games, there will be an entry for each team on each lane that they bowl.

6.7.1 Loading a league

Each league's data is automatically loaded a preset time prior to the league commencing. Sometimes it may be necessary to manually load a file. For example, if the starting time has changed. To manually load a file, press F at the *League Management* screen to bring up the list of available files. Use the arrow keys to select the file to load, and press **ENTER**. If the file you require is not listed, then it has not been exported from the BLS program.

6.7.2 Cancelling a league or team

When a league is complete, the data is automatically unloaded and the entry in the *League Management* screen will disappear. Sometimes, it may be necessary to

manually delete an entry for a specific team, or for a whole league. For example, if the event is cancelled, or an entry remains after the event is over due to a team forfeit. If these unwanted entries are not deleted, they may affect the next league.

To delete an entry or a whole league, use the arrow keys in the *League Management* screen to select the correct entry and press **ENTER**. A menu will appear allowing you to cancel this team, or cancel this entire league. Make sure that you do not cancel a league that is not yet over, or any remaining scores will not be processed.

6.7.3 Stopping a League from loading

Each league's data file will automatically load a preset time prior to the start of the league. Sometimes it may be necessary to stop a league from loading. For example, the starting time might be wrong, or the event cancelled.

To stop a file from loading, it must be deleted. Press **F** at the *League Management* screen to display the list of available files. Use the arrow keys to select the file to be deleted, and press **DELETE**. If the file is required at a later time, it should be exported again from the BLS program.

If a file is deleted after it has been loaded, it will no longer be possible to send team and player data to a lane for this league. However, scores that have not yet been received will be processed normally.

6.7.4 Moving a team

The *League Management* screen can be used to shift a team to another lane. It is possible to send a team to a different lane by entering a different team code at the bowlers console. However, by rearranging the teams in the *League Management* screen first, the team will download correctly first time.

To move a team, use the arrow keys to select the team to be moved on the *League Management* screen. Press **ENTER** to display the menu, press **1** for *Shift this team to another lane*, and enter the new lane number.

If there is already an entry for this lane, the moved entry will appear below it. To move an entry to the top of the list for this lane (so that is available using X codes), all entries above it must be moved to the bottom or to another lane. Select the top entry, use *Shift this team to another lane*, and enter the same lane number. The top entry will now be at the bottom.

If the bowlers are scheduled to change lanes during the league (ie lane movement was enabled when you exported the league), then the teams will automatically move as required on the League Management screen. If the *Allow Autostarting of Leagues* option in *System Options* is set, the name will also be automatically sent to the scorers after each lane movement.

6.8 Scorer Restrictions

Various types of scorers have built in restrictions, which may make them behave differently to what the BLS program suggests. You should be aware of these restrictions when setting up leagues.

For example, MagicScores support only 16 character player names, and team names. The BLS will combine the first and surnames that you enter to create a 16 character lane name for each player.

Some functions which may seem to be available on BLS screens, may not be available with your scorers. You will not be able to access most unavailable functions, but there may be some which you can access, but don't work.

For example, only Accuscore and Touch Score support 8 pin no-tap bowling. Other types support only 9 pin no-tap. Yet the export screen in BLS shows 8 no-tap as an available option for all scorers.

With Two Board MagicScores, it is not possible to send the player and team names to the lanes. The team name will appear as a line message at the top of the screen on each lane. The bowlers must then enter their names and the teams name manually. It is important that each name is entered and spelt correctly, or the scores from this team may not process correctly.

Most MagicScores will not accept a team handicap that is different to the sum of the players handicaps, unless it is entered at the bowlers console.

MagicScores and Accuscore 1 will not accept a team name that consists of a number immediately followed by a letter. Eg. 12A. The LCS will add a space in these cases to prevent problems with the scorer. But then the team name on the score sheet will not match the team name sent by BLS.

7. Graphics

The Lane Control System supports sending graphics to a Touch Score system for displaying at the lanes. The format of the graphics for Touch Score 1 is different from the format for Touch Score 2. Information on producing these graphic files can now be found in the relevant Touch Score manual.

8. Special Configurations

The Lane Control System will normally require no special configuration, and may be run in the default mode. However, some applications may require some changes to various parameters. This chapter details such changes, which should only be attempted by persons familiar with the operating system (Unix or DOS).

Note that the most common of these parameters can be set by selecting System Configuration. See the chapter on Installing the Lane Control System Software.

The configuration file contains various parameters that the Lane Control System reads at startup. The default configuration file is `\usr\lcs\lcs.con` (DOS) or `/u/lcs/lcs.conf` (Unix). To use an alternate configuration file, pass the name of this file to Lane Control System at startup. For example, entering **lcs testfile** will start the Lane Control System, using `testfile` as the configuration file.

The configuration file is a text file, and may be altered with any text editor. Any line starting with a `#` is ignored, and may therefore be used for comments. All parameters must appear, and all must be in the correct order.

The parameters contained in the configuration file are as follows :

-Owner's Name. This name will appear on the menu screens, all score printouts, and the overheads. A maximum of 32 characters are allowed. The name must be entered EXACTLY as shown on your licence sheet.

-Activation Key. This 10 digit number is provided on your licence sheet and validates the program operation. Different owners are provided with different keys. For the program to function, this key must be entered EXACTLY as provided on the licence sheet.

-Lane Scorer Type. Nine types of scorers are currently supported, they are:

1. **Two Board (Three Keypads)**
2. **Mark II Magicscore (three keypads, 2810 board, 40K software)**
3. **Mark II Magicscore (single keypad, 51Z software)**
4. **Colorscore (one keypad, colour board, 2.0 software)**
5. **Updated Mark I (107 software) or Mark II (3.21 software)**
6. **Accuscore I (3.21 software)**
7. **Accuscore II**
8. **Accuscore Plus**
9. **Brunswick AS80**

10. **Brunswick AS90**
11. **A.K.Microsystems Touch Score 1 (ALS Board)**
12. **Pre 1998 Touch Score (9600 Baud)**
13. **Not Used**
14. **A.K.Microsystems Touch Score 2 on Magicscore/Acc 1 port**
15. **A.K.Microsystems Touch Score 2 on Acc II/Plus port**
16. **A.K.Microsystems Touch Score 2 on Brunswick port**

-Use System Print Spooler. Using the spooler allows the scores to be printed without interrupting the operation of the Lane Control System. On some Unix backup floppy systems where disk space is limited, it may not be possible to run the spooler. Legal values are **yes** or **no**, the default is **yes**. DOS systems have a built in spooler.

-Number of Lanes. Maximum is 64. The number of lanes can be optionally followed by a start lane number. eg: **20 10** will use lanes 10 to 20. eg: **20** will use lanes 1 to 20.

-Lane Communications Device Port. This is the serial port which is to be used for lane communications. The default is **COM4** (DOS) or **/dev/tty1a** (Unix). In DOS, the address and interrupt number may be given rather than the port name. See the chapter on Installation. Up to 20 characters are allowed.

-Pinspotter Controller Type. This is the type of Pinspotters controller and the type of pinspotters used.

1. **No Pinspotter Controller fitted**
2. **AK Micro AMF Controller with AMF 8230 type pinspotters**
3. **AK Micro AMF Controller with AMF 8270 type pinspotters**
4. **AK Micro AMF Controller with Brunswick pinsetters**
5. **AK Micro STANDARD controller**
6. **AMF LIU with AMF 8230 type pinspotters**
7. **AMF LIU with AMF 8270 type pinspotters**
8. **AMF LIU with Brunswick or other pinsetters**
9. **Brunswick Source Command**
10. **Brunswick LIU**
11. **A.K.Microsystems BRUNSWICK type controller**

-Video Switch Port Reserved, leave as NONE

-Snack Bar Terminal Port. This is the port to which an A.K.Microsystems Snack Bar Terminal is attached. Enter a port name or an address and interrupt.

-Point of Sale Port. Reserved, leave as NONE.

-Error Messages Device. This is the device to which detailed error messages are sent. For DOS, the default is a file named **errors**. For Unix, the default is **/dev/tty10**, one of the multiscreens on the main terminal. Up to 20 characters are allowed.

-Diagnostics Log Messages Device. When diagnostics are enabled, messages are sent to this device detailing all Lane Control System communications and operations. For DOS the default is **con**, meaning that diagnostics are sent to the console. For Unix, the default is **/dev/tty09**. Up to 20 characters are allowed. Diagnostics can be enabled using the diagnostic menu. Type **CONTROL-A** at any menu to bring up the diagnostic menu.

-Printer Device. Two lines are required, one for the device for each printer. The default is **lpt1** (DOS) or **/dev/lp0** (Unix). Up to 20 characters are allowed. Unix systems will configure two printers named scores and scores2 with these ports as their associated ports.

-Setup/Default parameters file. This file is used for storing the values entered in the setup section of the Lane Control System. The default is **c:\usr\lcs\lcs.def** (DOS) or **/u/lcs/lcs.def** (Unix). Up to 30 characters are allowed.

-Picture Directory. This is the directory where all picture files are stored. The default is **c:\usr\lcs\pict** (DOS) or **/u/lcs/pict** (Unix). Up to 20 characters are allowed.

-Lane Scores Directory. The most recent scores from every lane are stored here, as used by the RE-PRINT command. The default is **c:\usr\lcs\lanes** (DOS) or **/u/lcs/lanes** (Unix). Up to 20 characters are allowed.

-Directory for Status and logfile subdirectory. Various status and work files are stored here. The log files, as used by the League Secretary System are stored in a subdirectory of this directory called logfiles. The default is **c:\usr\lcs** (DOS) or **/u/lcs** (Unix). Up to 20 characters are allowed.

-Directory for POS Transaction Link. (DOS only) When using the Point of Sale terminal, this is the directory in which the POS has been installed. It is usually **c:\usr\pos**, but may be on a different drive on a network.

-Directory for CDE Feature File (DOS only). This is the path as seen by the LCS to the CDE feature file directory. It is **c:\windows\system** for non-network installations, or **j:\windows\system** for network installations. The feature file is written by the LCS on startup. The BLS reads this file to determine the capabilities of the scoring system

- **Directory for BLS import/export** (DOS only). This is the path to the import/export directory used for BLS files, as seen by the BLS program. It is **c:\usr\lcs\bls** for non-network installations or **j:\usr\lcs\bls** for network installations.

- **LSS Write Pipe** (Unix Only). This is a named system pipe, used to send scores and requests from the Lane Control System to the League Secretary System. The default is **/dev/pwrite**. Up to 20 characters are allowed.

-**LSS Auxiliary Write Pipe** (Unix Only). As above. The default is **/dev/swrite**. The data sent to this pipe is identical to the above pipe. Up to 20 characters are allowed.

-**LSS Read Pipe** (Unix Only). This pipe is used to send names, player data, team data, page messages, etc. from the League Secretary System to the Lane Control System. The default is **/dev/pread**. Up to 20 characters are allowed.

-**Transmit intermediate log device** (Unix Only). When diagnostics are enabled, all data sent to the League Secretary System will appear on this device also. The default is **/dev/tty05**. Up to 20 characters are allowed.

-**Receive intermediate log device** (Unix Only). When diagnostics are enabled, all data received from the League Secretary System program will appear on this device. The default is **/dev/tty06**. Up to 20 characters are allowed.

-**Number of scores to keep per lane**. This parameter sets the number of scores kept for each lane and available for viewing. The minimum is 10, the maximum is 1000 and the default is 100. Note that increasing this number requires a considerable amount of disk space. A single score is approximately 1100 bytes without a grid, or 1800 bytes with a grid depending upon the amount of news at the end of the score. Operating systems however will allocate space to files in blocks. In DOS, these blocks are 2048 bytes, therefore each score will use 2048 bytes of disk space. If 1000 scores are kept from 32 lanes, then 64Meg of disk space will be required.

-**Record all sequence traffic is pict.lg file?**. If set to **yes**, a log will be kept of all animations sent to the lanes, in the file **pict.lg**.

-**Timeouts for Preprogrammed Line Messages**. In the Preprogrammed screen, line and page messages can be set to clear a specified number of minutes after they are sent. For example, setting a sequence type of **LINE-30** will cause a line message to be sent and cleared 30 minutes later. Three time limits are available, and they can be set here. The default is **1 5 30**.

-**Casino Bowl Symbol Names**. The name of the symbols used in Casino Bowl can be

entered here. These names will appear on the Setup Casino Prizes screen and should be descriptive of the symbols in your graphic. Eight names are required, the first is always the wild symbol. The symbols should be entered in the same order as they are placed in your graphic. Up to 12 characters are allowed.

-Function Key Definitions. The default function to be performed by each of the twelve function keys is defined here. This definition is only used when the LCS is first installed, and the LCS.DEF file created. Once installed, you can change the definition of a function key by moving the cursor to the desired function in any menu, and pressing **SHIFT** + the function key.

Each definition consists of two numbers. The first is the menu number where the function appears, and the second is the number of that function within the menu. The main menu is menu 0, *Scores Handling* is menu 5, *Display Commands* is menu 6, etc. Enter **00** if a function key is not to be used.

-Standard Patterns. When changing the lane colours for Touch Score or Brunswick systems, 14 standard colour patterns are available. Each pattern consists of a name followed by 4 numbers representing the four colours. For Brunswick, each pattern consists of a name followed by 9 numbers (3 x RGB values). See the section on *Change Lane Colours* for more information.

9. Snack Bar Terminal.

The Snack Bar Terminal is a small keypad which is mounted in the snack bar. When an operator selects a lane number and a meal number, a message will be sent to the appropriate lane notifying the bowler that his/her meal is ready.

The message will be similar to "*Meal number 14 is now ready*". Alternatively, if no meal number is entered, the message will read "*Your meal is now ready*".

9.1 Installation

The Snack Bar Terminal may be wall mounted or placed on a shelf. Do not open the front plate of the terminal as this plate is sealed to prevent spillages from penetrating the unit.

The terminal can be connected to any serial port, the wiring should be as follows.

Snack Bar Terminal	Computer Port	9VDC PlugPak
	9pin or 25 pin	
7 _____shield_____	5 7	
2 _____	2 3	
3 _____	3 2	
14 _____		+ (Positive)
16 _____		- (Negative)

Table 5. Snack Bar Terminal Wiring

The correct port name must be entered in System Configuration.

9.2 Operation

To display a message at the lanes showing that a meal is ready, enter **LANE NO xx MEAL NO yy** at the Snack Bar Terminal, where **xx** is the lane and **yy** is the meal number. The meal number may be omitted if desired. The message will appear on the lanes a few seconds later. Several messages may be entered at once. Ensure that the **LANE NO** key is pressed between each message .

If a wrong lane number or meal number is entered, then as long as no other key has been pressed since the incorrect entry, and the incorrect entry is still displayed, simply enter the correct number and it will overwrite the incorrect one.

When a message has been sent to a lane, it will be automatically cleared after a couple of minutes. To manually clear the message before this time, enter **LANE NO xx CLEAR**, and all messages for lane number **xx** will be cleared.

10. Problem Solving

This chapter deals with problems that may be encountered and details how they may be solved. If these techniques fail to work, make a careful note of any error messages on the main screen or any other information that might be useful, such as what programs were being run at the time, and contact your supplier.

Some problems can be solved by shutting down the system and restarting it. Always try this before seeking further assistance.

10.1 Lane Control System will not start

Symptom: The Lane Control System startup message appears, but fatal errors are encountered during startup before the main menu appears.

Solution: This problem will always be accompanied with an error message. Typical messages and the solutions are :

-Message: **Illegal Activation Key**

-Solution: Either the owner's name or the activation key has been incorrectly entered during installation. The System Configuration program will be run to allow you to re-enter this data. See the chapter on installation for a description of the System Configuration settings.

-Message: **Lane Control System is already in use, or it did not terminate correctly.**

-Solution: This message normally means that the Lane Control System was not correctly shut down the last time it was used. For example, the power was switched off while the Lane Control System was running. Alternatively, it can mean that the Lane Control System is still running. For example, it may be running in another window in Windows 95, or it may be running on a different terminal on a network or Unix system. You will be prompted to continue startup if you are sure that the Lane Control System is not already running. Otherwise the Lane Control System will not start.

-Message: **Can't open device...**

-Solution: The specified device cannot be accessed. Run the System Configuration program, lcsconf and check that all device names have been entered correctly. If this still fails, reinstall the Lane Control System.

-Message: **Incomplete or Illegal Configuration file or No Configuration file**

-Solution: The configuration file is corrupted. The System Configuration program will automatically start, allowing you to re-enter your setup information. If this still fails, reinstall the Lane Control System.

10.2 One pair of lanes will not respond to commands

-Symptom: A particular pair of lanes will not respond to any commands.

-Solution: Select *Maintenance* then *System Options*. Check that the pair of lanes in question is listed.

If it is not listed, then check the first and last lane number in the *System Configuration*.

If it is listed, but highlighted, then the lane in question has been removed from service. This indicates that there is something wrong with the communications to that lane. Check the wiring at the scorer console or chassis. Check that the scorer is powered up. Check that the lane number switches at the scorer have been set correctly. The correct lane number should be displayed on the lanes screen.

For Accuscore II and Plus systems, the lanes will take a few minutes to come on line after power up. If they still do not come on line, try pressing the RESET button on the curtain wall chassis. All scores will be lost.

If the Accuscore II or Plus lane is shown as on line, yet still won't respond to commands, try removing it from service by moving the cursor to the lane in *System Options*, and pressing the **space bar**. This will reset the communications. You will need to wait a couple of minutes for the lane to come back on line. If the lane still won't respond, press the RESET switch on the curtain wall chassis. All scores will be lost.

10.3 All lanes fail to respond to commands

- Symptom: All lanes fail to respond to commands.

- Solution: Check that the Lane Interface Card is connected correctly, and that the jumpers on the card are set to the correct position. Run *System Configuration* in the *Maintenance Menu* to check that the configuration agrees with the jumpers on the Lane Interface Card. Check that the configuration is set to the correct type of scorer. See the chapter on *Installation* for configuring the Lane Control System and the Lane Interface Card. Check that your software version is compatible with your card. See the chapter on *Installation* for details.

It is possible that a faulty lane scorer can disrupt communications to all lanes. You may have to disconnect all lanes from the communications loop, then reconnect them one at a time, until the problem reappears.

Note also that each lane must be set to the correct lane number as shown on the overhead monitor, or the communications will fail.

10.4 One or more lane's scores are scrambled

This section applies to Magicscore, Accuscore I and Touch Score Only.

If a score received from one or more lane pairs is scrambled, a bad Magicscore or a bad connection to a Magicscore is likely. These faults can cause the signal from the Magicscore to be weak. You will see a number of errors recorded in the event file for the faulty pair.

Ideally the fault should be repaired, however it is sometimes possible to adjust the Lane Interface Board to receive these weak signals.

CAUTION - Do not adjust the Lane Interface Board unless you are sure that you know what you are doing ! A badly adjusted board will not communicate with any lanes !

A trimpot on the board labelled "Threshold Adjust" will vary the threshold for the signal received from the Magicscores. Try turning the screw two turns clockwise, as this lowers the threshold. Try viewing a score from the faulty lanes again. If it is still faulty, try another two turns. Once the faulty pair is working, check that you can view a score from all the other pairs.

If you are unable to get the faulty pair working, then the Magicscore or the cabling must be repaired. Return the pot to its original position and repair the fault.

To return the pot to its factory set position, connect a DC Voltmeter between the pad labelled TP next to the pot and ground. Disconnect the lane cable from the board. Adjust the pot so that the meter reads -2.5 volts.

10.5 Scores Printer Won't Print

Symptom: Lane Control System program functions normally, except no scores are printed.

Solution: Check that the power is connected to the printer. The printer must be

ON-LINE. Normally a light on the printer marked "**on-line**" or "**ready**" or "**select**" indicates that the printer is ready to print. If it is not on-line press the "**on-line**" or "**select**" button on the printer. If the printer is out of paper or the top cover is not fully closed, the printer will not go on-line.

Check that the cable from the computer to the printer has not become dislodged.

If automatic printing is expected, check that the *Print League Scores* or *Print Open Scores* function is enabled.

If the program has just been installed, the configuration may be incorrect. Select *System Configuration*, and ensure that the port entered for the scores printer is the port to which the printer is attached. If you need to make any changes in the configuration, restart the Lane Control System after you have made them.

If only one printer is connected, select *Printer Setup* and check that all printouts are directed to printer 1. See also the next section on incorrect printing.

10.6 Scores Printer Prints Incorrectly.

Symptom: The scores printer prints weird characters, or prints all over the page, or won't print at all.

Solution: If the printer has worked in the past, then it is most likely a problem with the printer itself, the cable or the computer. However, if this is a new installation and the printer has never worked correctly, follow the procedures below.

The Lane Control System requires an EPSON or IBM compatible dot matrix printer to work correctly. However, many other types also work satisfactorily. Dedicated Windows only printers are NOT compatible. Your printer must be DOS compatible.

If your printer is not an EPSON or IBM dot matrix, check your manual. Many printers will emulate an EPSON or IBM. It may be necessary to change a switch on the printer. Select EPSON LX, LQ or any other EPSON dot matrix emulation that is available.

If you have a laser (particularly an HP), use the PCL compatible driver, not the native driver which may be incompatible with raw text.

If you are using Windows, ensure that your printer and drivers are setup for LPT1 (or whichever port you entered in *System Configuration*).

The Lane Control System uses special codes to position the paper, or print different size text. However, by adjusting the *Printer Setup* (in the *Printer Control Menu*) you can disable most of these codes. The LCS will then send only standard text to the printer which should work on any DOS printer.

To disable these codes:

Set the Printout Type to STANDARD NO-GRID

Set the Printer Alignment to 0 or to a whole number. e.g. use 2.00 not 2.50

Set the Page Length to 0

Remember to use *Print Scores* to collect a new score from the lanes to test your new settings. If you use *Re-Print Scores* to print an old score it will have the old settings. Once the printer is working, you can test each of these options and see which are available with your printer.

10.7 UNREGISTERED SOFTWARE keeps appearing.

Symptom: The words UNREGISTERED SOFTWARE (or PROGRAM) or NO LICENCE appear on the score printouts, the main menu, and the overhead monitors.

Solution: Your software has not been registered. See the chapter on installation for information on registering your software.

10.8 Arrows won't appear.

Symptom: The player arrows will not appear on the screen.

Solution: Check that the arrows are not inhibited. Select *Inhibit Player Arrows* in the *Lane Functions Menu* and reset this function. Ensure that the scorer is not in practice mode. Select *Practice Play* in the *Lane Functions Menu* and reset this function. If the scorer is in league mode, and there is a vacant or empty team on the opposing lane, you may need to remove the score from the other lane. Select *Remove Scores* in the *Scores Handling Menu*. If you are using Mark I Magicscores (40K software), and the scorer is in league mode, and a name or a team has been sent to the scorer, then press **LEFT TEAM** on the centre key pad, then try to bring up the arrows again.

10.9 Operation under Windows 95 is slow

Symptom: The Lane Control System is slow to turn on or off lanes, particularly with Windows 95 and Accuscore.

Solution: The Lane Control System measures processor speed when started, and uses this speed to determine timing for communications. This enables the Lane Control

System to function at the same speed, regardless of the processor's speed. However, in Windows 95, the processing speed can vary greatly as processor time must be shared with other programs. Therefore it is important to start the Lane Control System in the same environment as it is to be used. By default, the Lane Control System icon as placed in the startup folder will not start the Lane Control System until a key has been pressed. This ensures that the Lane Control System is NOT started during Windows startup, when it would be allotted different processing time compared with normal usage. Also, if you swap to another program while the Lane Control System is attempting to turn on or off lanes, it will work much slower than when the Lane Control System is displayed.

10.10 System Configuration won't run

Symptom: When you try to run *System Configuration* or *DOS commands* from the maintenance menu, the screen flashes straight back to the menu.

Solution: This is caused by a lack of DOS memory. Your computer is unable to run both the Lane Control System and the configuration program or DOS command at the same time. You can free up more memory by using the MS-DOS *memmaker* command. See your DOS manuals for more information. If you are unable to free up enough memory, then you will have to run the configuration program or the required DOS command from outside the Lane Control System. To run the configuration program, shut down the Lane Control System. At a DOS prompt, type:

```
cd \usr\lcs  
lcsconf
```

10.11 Program "Freezes"

Symptom: The program does not respond when you type a key.

Solution: Wait several seconds then try again. The program may be busy processing a score, or trying to re-establish communications with a lane.

If you are using Windows 95 or 98, check that the title bar at the top of the Lane Control Window is highlighted (usually in blue). If not, then the Lane Control System is not the current window, and Windows will not send keystrokes to it. Click the mouse anywhere on the Lane Control Window, the title bar should now be highlighted, and try the keyboard again.

You may have a problem with the settings on the Lane Control Card. See the

installation section for details on setting up the card.

You may have a problem with the computer itself, or other hardware and software installed on the computer. Remove unnecessary hardware and software and try again. If the problem persists, try another computer.

10.12 Windows displays "device conflict" messages

Symptom: Windows display an error message about a device conflict while the Lane Control System is being used.

Solution: Check the settings on the Lane Control Card - see the installation section for more information.

The conflict can also be caused by the Lane Control System attempting to print to a printer port that is in use by another program. The Lane Control System does not require a Window printer driver to print to a standard text printer. Try removing all printer drivers for the Lane Control printer port, and make sure no other Windows devices are using this port.

10.13 Pinspotters won't cycle.

Symptom: The system is fitted with a Pinspotter Controller or an AMF LIU. You can turn the pinspotters on and off, but cannot cause the machines to cycle.

Solution: Check that the manual front desk switches are in the off position, otherwise these switches can interfere with the controller.

You pinspotters may not support cycling. Check that you can cycle the pinspotters with the front counter switches by turning the machines off with the Lane Control system. Now turn them on with the switches, then flip the switch to instructomat mode for a second, then back again. If the pinspotters did not cycle, then your pinspotters do not support this feature.

10.14 Accuscore II or Plus lanes often go offline

Symptom: The scoring system is Accuscore II or Accuscore Plus, and lanes often go offline, that is appear as X in the Lane Status screen, or the message "Lanes ???? polling" or "Some lanes are off" appears.

Solution: If you are using Windows 95/98, make sure that you are not running any other programs at the same time as the Lane Control system. When other programs are run, Windows stops running the Lane Control System, and the lanes will go offline.

Make sure that your Windows screen saver is disabled. Disable any Windows or BIOS power management settings that may power down the computer when unattended.

The Lane Control System should remain the foreground task at all times - the title bar at the top of the Lane Control System window should always be highlighted.

Accuscore Plus systems should be running version 4.19 or later firmware.

Cold start all chassis (scores will be lost). Some older scoring systems benefit from being "cold started" every morning before bowling commences.

The problem may also be with the scoring chassis. Any failure of the scoring chassis will result in the lane being taken off-line by the Lane Control system. However it will be restored a minute or so later.

10.15 Can't find SIU on USB

Symptom: either the message "can't find SIU on USB" appears when starting the program, or the SIU version number stays as XXX .

Solution. Check that the SIU is connected to a USB port, and that the SIU is powered up. The red light on the bottom corner of the SIU shows the SIU state as below:

- 3 flashes - powered up
- 2 flashes - SIU driver loaded by windows
- 1 flash - initialized by Lane Control System

Try disconnecting then reconnecting the USB cable. Try a different USB port on the computer if available. Try disconnecting power from the SIU then reconnecting. Try updating the SIU driver to ensure it is current. (In Windows 98, click on Start , Settings , Control Panel, System, Device Manager, Scorer Interface Unit+,Scorer Interface Unit,Properties, Driver, Update Driver and browse to c:\usr\lcs.)

10.16 LCS stops communicating when clicked.

Symptom: If certain parts of the LCS are clicked with the mouse on some operating systems, the LCS stops running. It will stop communicating with the lanes, and eventually the lanes go offline. Clicking again or pressing a key restarts normal LCS operation.

Solution: Right click on the LCS icon, select properties, and check that the *Quick Edit Mode* is NOT selected. When quick edit is selected, Windows may suspend the execution of the LCS to allow text to be cut and pasted, thus interrupting communications.