



**QUBICAAMF**  
Pinspotter Upgrades

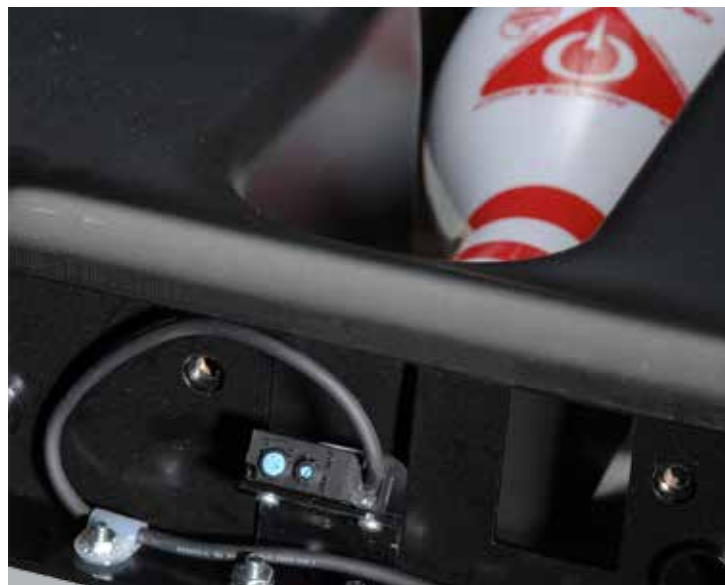




EDGE Pinspotter Upgrade with Durabin - Upgrade Contents



Durabin



Durabin Optical LED Bin Switch



Available for:  
82-70 XL / 82-70 XLi  
82-90 XL / 82-90 XLi

## EDGE Pinspotter Upgrade

Boost your pinspotter reliability by thousands of frames-per-stop

Your pinspotters can make or break your operation. But do pin-feed issues, pin pile-ups, double-shuttling or pin jams have your staff running ragged—instead of focusing on other areas of your business?

An EDGE Upgrade may be the answer. It's often the best way to eliminate pin handling problems and save maintenance costs, while keeping both your bowlers and technicians happier with:

### Unprecedented Performance Reliability

EDGE Upgrades eliminate virtually all pin-handling and pin-feed issues, giving your staff more time to add value to other areas of your business.

#### Patented EDGE Performance Lift

This innovation puts pins in a perfect orientation—for far fewer pile-ups.

#### EDGE Cam for Durabin

It's designed to work with the Durabin pin storage system to deliver optimal placement of pins in the Durabin pin pockets for fewer pin pile-ups.

#### EDGE Shuttle Rod

Its strong spring improves shuttle motion, helping to prevent double-shuttling and pin jams.

### Easier and Safer Operation and Maintenance

With fewer adjustments, better machine access and quieter operation, the EDGE Upgrade can make maintenance more efficient.

#### Fewer Adjustments

The new EDGE lift eliminates seven adjustments required with the steel pinwheel system.

#### Easier Access

The EDGE Performance Lift has an open, modular design for better access to the rear and pit areas.

#### Ladder with Handrails

This great feature makes it safer and easier for your technicians to access the top of the machines.

#### Quieter Operation

The EDGE Performance Lift is 7 to 8 dB(A) quieter on average than the steel pinwheel system.

### Longer Pin Life

EDGE Upgrades eliminate areas where pin damage can occur with the pinwheel and steel bin system. Pins last longer. And you save money.

#### No Metal Parts

All the metal parts associated with the old steel pinwheel pin handling system that could damage the pins are eliminated.

#### Durabin with Optical Switch

This one-piece bin has no metal parts to damage pins. Plus, unlike a mechanical switch, the optical switch does not contact and wear pin heads.



# XLi

## XLi Pinspotter Upgrade

Eliminate the electrical problems with your older pinspotters

If you're experiencing electrical problems on older model pinspotters, that means more downtime, more maintenance and, most impactful to your business, more dissatisfied bowlers. That's why you should consider an XLi Upgrade from QubicaAMF.

You and your technicians will enjoy:

### Greater Electrical Reliability

No more struggling with pinspotter downtime and wasting resources troubleshooting electrical issues as a result of old and unreliable wiring and electrical components.

#### Electronics based on today's technology

The XLi Upgrade replaces all of the old electronics on existing pinspotters—including wiring, solenoids, motors, control chassis and more.

#### Back-end motor rotation (70 XLi Upgrade only)

To keep pins from falling onto and damaging the motor, we orient it 90 degrees from the original.

#### Back-end motor overload protection

After an XLi Upgrade, the control chassis constantly monitors the back-end motor current and will shut down the pinspotter if a jam occurs that could damage the motor.

### Easier Operation and Maintenance

With modern machine control and the elimination of six mechanical adjustments, your pinspotters will be easier for technicians to use, saving time and money.

#### XLi machine control with LCD display

Your technicians will have easier access to the machine and its settings through a keypad and LCD display at the rear of the machine pair, and from the front with a handheld unit.

#### Integrated diagnostics

The new XLi control chassis monitors major machine functions and displays any issues or warnings on the LCD display, which saves troubleshooting time.

#### Table and sweep encoders

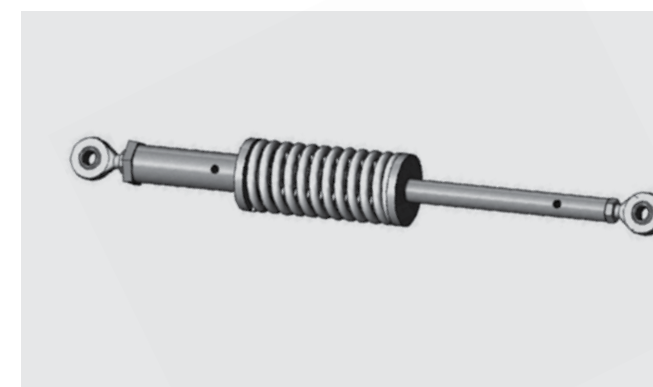
Mechanical cams and switches are replaced with encoders that allow the table and sweep position and motion to be controlled by the XLi chassis.

#### Improved Pinspotter Safety

Helps to make the working environment safer for your staff.

#### Emergency stops

These are added to the front and rear of each pair of pinspotters to give technicians a quick and safe way to stop them in the case of emergency.



#### Shuttle Operator Rod 82/70, 82/90, 82/90XL, 90XLi

Now with an improved spring design, this spring tube and rod assembly operates the shuttle, adjusts its position, and helps it operate smoothly.

- A direct replacement for 070 006 293 and 090 005 263
- If your existing spring measures less than 6" in length, you may experience shuttling problems. We recommend replacement with this new assembly.



XLi Pinspotter Upgrade for 82-70 Pinspotters - Upgrade Contents



XLi Pinspotter Upgrade for 82-90 Pinspotters - Upgrade Contents



Available for:  
82-70 Pinspotters  
82-90 Pinspotters



Top View



Steel Support Frame



Shuttle Guide



## Durabin Upgrade

Reduce pin jams and lower maintenance costs

Are you tired of fighting pin jams and maintenance issues associated with the old metal bin on your 82-70 and 82-90 Pinspotters? Now, there's a simple solution for getting better performance and pin distribution from your Pinspotters. Durabin is an innovative and robust new bin system from QubicaAMF that renders the older metal bin design obsolete. Install Durabin in your Pinspotters and experience:

### Better Pin Distribution

Durabin eliminates the side-to-side shuttle movement inherent in the older metal bin and shuttle design. At the heart of this feature are robust shuttle guides designed to ensure a strictly linear shuttle movement. This feature, in combination with Durabin's individual pin pockets with optimized pocket geometry, results in more accurate pin placement and 20% fewer pin jams on average when compared to the older steel bin design. Fewer pin jams means fewer Pinspotter calls and happier customers.

### Easy Of Installation

The Durabin Upgrade Kit is simple and quick to install. It comes complete with an installation guide and all necessary hardware.

### Reduce Pin Wear

Durabin does not contain metal parts or fasteners near the pockets where the pins are stored. Unlike the older metal bin designs, there is nothing on Durabin that can damage your pins.

### Low Maintenance Costs

Once installed, Durabin requires very minimal maintenance. All that is required is routine cleaning - and the smooth surface and contours make it easy to clean. All of the high maintenance bumpers, pin guides, and shock mounts are eliminated with Durabin, so you have fewer spare parts to stock. Less money in inventory means more money in your pocket.

### Durability

Durabin is supported by a rugged steel frame and attached with elastomeric grommets to reduce vibration for quieter operation. It is formed of a high impact strength engineered thermoplastic to provide years of service. Durabin has been field tested for over eight years to ensure exceptional performance in your center.

### Flexibility

You have the flexibility to upgrade your Pinspotters with Durabin in a manner that best fits your situation and schedule. You can do it a pair at a time until you have your center complete or all at once; it's up to you.



#### Cam Upgrade Kit

- New innovative cam design allows ideal pinfeed and distribution
- Optimized pin delivery to center of pocket for all 10 pins
- Eliminates distributor "wobble"
- Fewer pile-ups

**With the Durabin and Cam Upgrade Kit, you can increase your frames per stop approximately 30%!**

## PBL Kits

### PBL Full Conversion Kit

The most complete PBL conversion kit we offer. This kit will effectively make sure balls are returned every time no matter how oily. It will also make sure no pins enter the ball doors. It's everything needed to bring your system completely up to date. Included are parts necessary to completely rebuild your existing ball lift and convert it to a Positive Ball Lift (PBL) system, including urethane door rings, a new belt tightener assembly, a light ball sensor and the complete gripper ball lifts system. All the necessary springs, linkages and hardware are also included.

### PBL Mini Kit

This is the entry level system that will improve the performance of your pinspotters in regard to returning balls. You get new urethane door rings, the necessary components of PBL system including lift arm and ratchet assemblies, belts, hardware, a new paddle, rudder arm and lift kit that increases control over the down force of the ball lift. Also included are the adjustable drive link and drive pulley.

### Gripper Upgrade Kit

Put all lane oil, lightweight ball, and finicky adjustment problems in the past with our exclusive Gripper kit for PBL's. Specially engineered ball lift belt, rod covers, "thimbles," and adjustable support bracket team up to provide superior ball lift performance. Everything you need to quickly & easily convert any PBL to the Gripper system.



### PBL Template and Drill Bits Kit

This needs to be ordered with the PBL Full or Mini Kits. You need one of these kits per center. It includes the necessary template required to modify the ball lift and mount the ratchet wheel assembly and the necessary drill bits.

### QubicaAMF Pinspotter Upgrade Solutions

Maintenance Issue	Shuttle Rod	Cam Upgrade	Gripper Upgrade	PBL Mini Kit	PBL Full Conversion	Durabin	XLi Upgrade	Edge Upgrade
Improve pin feed issues		•				•		•
Reduce double shuttling						•		•
Reduce pin jams	•	•				•		•
Eliminate electrical problems							•	
Reduce pin wear						•		•
Lower replacement parts costs						•	•	•
Improve safety							•	•
Quieter operation								•
Less machine downtime								•
Easier to maintain					•	•	•	•
Return light balls				•	•			
Return oily balls			•		•			
Stop pins entering ball door					•			



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