

# ZOT Pinsetter Parts Catalog

ZOT Pinsetter Parts Catalog is divided into easy-to-use sections, as determined by assembly, e.g., Gearbox & Deck, Elevator, Foul Detectors, Triggering, etc. Each section starts with its own index in which the ZOT parts are identified in bold outlines, and noted with the page number where you will find more details (photos, illustrations and description) of the product.

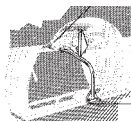
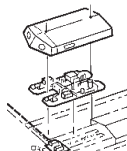


The symbol as applied to selected products in this catalog, identify those products which have very distinct added features, benefits and/or functions not found in the original parts or assemblies supplied by the various pinsetter manufacturers.

AMF and/or Brunswick, as used throughout this catalog, are the registered trademark of QubicaAMF Worldwide, LLC. and Brunswick Bowling and Billiards Corp., respectively; and neither are in any way associated with ZOT Pinsetter Parts, Inc.

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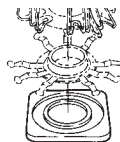
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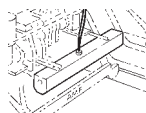
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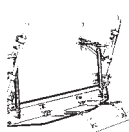
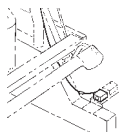
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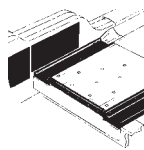
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### IMPORTANT NOTICE

**Call your ZOT Distributor or ZOT Pinsetter Parts, Inc. for Pricing**  
**Tel: 1-800-525-8116 Toll-free 1-800-525-8116**

#### ZOT Policies and Procedures

##### Warranty Returns:

ZOT Pinsetter Parts, Inc., offers a 1-year Factory Direct Warranty Exchange on any defective product. Our Factory Direct Warranty Exchange procedure is as follows:

1. Call ZOT toll-free 800-525-8116 ask for an RGA number.
2. ZOT will ship replacement product.
3. ZOT will issue an invoice for the replacement product.
4. ZOT will issue a Credit (against item three above) once the defective product has been returned and received.

##### Special Orders Policy:

Orders for custom, or customized, products, and/or packaging, cannot be altered, adjusted, or canceled. Special Orders do not qualify under the returned goods policy.

##### Returned Goods Policy:

All returns for credit must have prior authorization. The products must be listed in the current catalog, and be in saleable condition. Returns Goods Policy as follows:

1. You must contact ZOT for an RGA number, and prepay all shipping costs.
2. Acceptance of the return is subject to the amount of Abuse and Misuse of the product, and these returns are separate to products returned under warranty.
3. There will be a minimum 15% restocking charge on all returns, and additional charges if the products require reworking as a result of Misuse or Abuse.
4. Special orders do not qualify under Returned Goods Policy. (See special orders policy)

##### Short Shipment Policy:

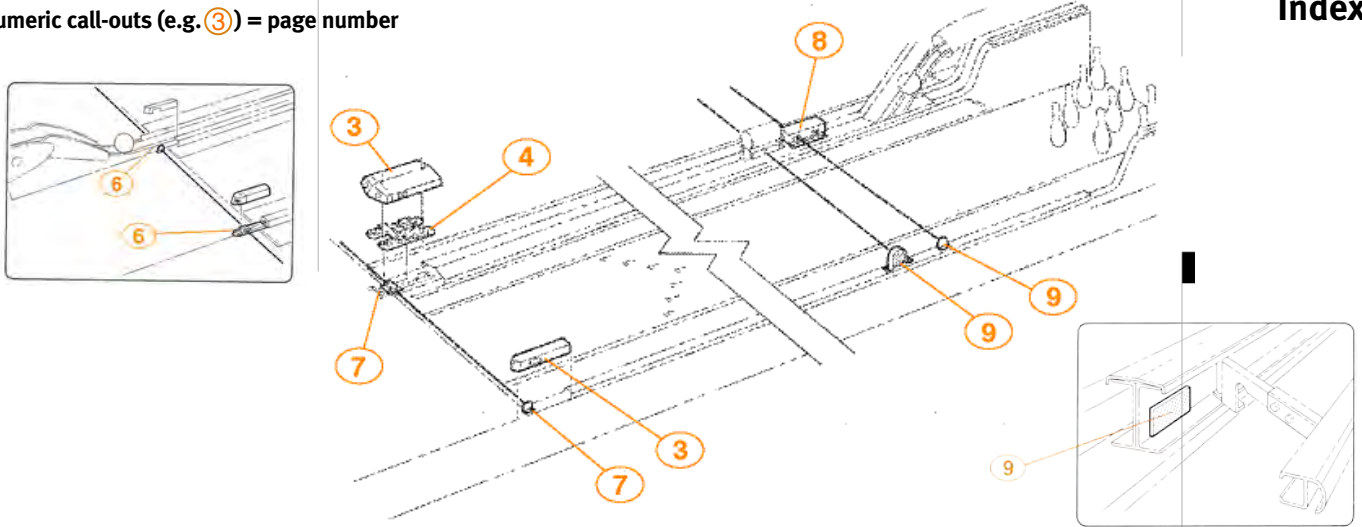
If any products have been inadvertently short shipped, ZOT's Customer Service Department must be notified within 7 days of receiving the order. Providing the above mentioned 7 day qualification has been met, ZOT will either ship the missing products or issue a credit.

It is not acceptable to simply deduct the value of the missing products from the invoice.

##### Breakage, Damage, Loss of Goods:

All shipments leave ZOT's warehouse in good condition. In the event of breakage and/or damage, you should contact ZOT's Customer Service Department. The carrier will probably send someone to inspect the package; so it's important to retain all interior and exterior packing materials until the claim is resolved. You should also contact ZOT's Customer Service Department if a shipment does not arrive.

Numeric call-outs (e.g. ③) = page number



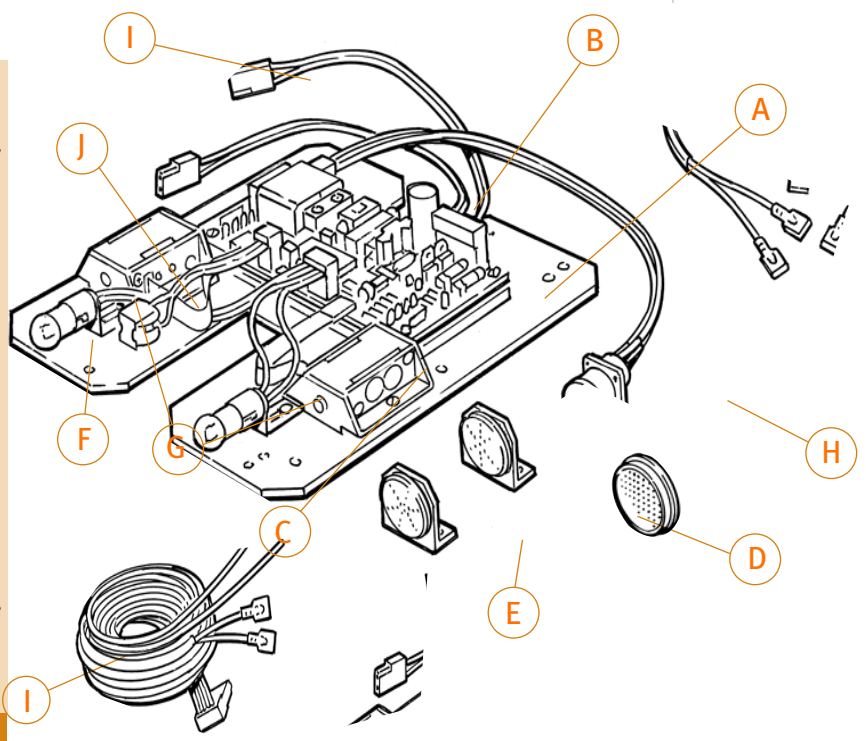
Spare Parts For Older Model Foul Detectors

**Wizard Double Spare Parts**  
Brunswick & AMF

Description	Part Number
Spare Parts Kit	#400112
A. PC Board	#431034
B. Fuse (pkg. of 6)	#400110
C. Sensor Assembly	#431015
D. Reflector Only	#800018
E. Reflector Assembly	#420088
F. Lamp (pkg. of 10)	#400094
G. Lamp Socket Assembly	#440020
H. Power Harness	#440017
I. Scoring Harness for Brswk.	#440018
I. Scoring Harness for AMF	#440039
J. Buzzer	#400111

**Foul Conversion Spare Parts**  
1991 Model Only

Description	Part Number
C. Sensor Assembly	#431015
D. Reflector Only	#800018
E. Reflector Assembly	#420088



**Wizard 'Plus' Spare Parts:**

Description	Part Number
Spare Parts Kit	#400137
PC Board	#431043
Fuse (pkg. of 6)	#400110
Sensor Assembly	#431015
Reflector Only	#800057
Reflector Assembly	#400052
Lamp (pkg. of 10)	#400094
Lamp Socket Assembly	#440020
Power Harness	#440017
Scoring Harness	#440056
Buzzer	#400111
Transformer	#431040

**Wizard Surface Spare Parts:**

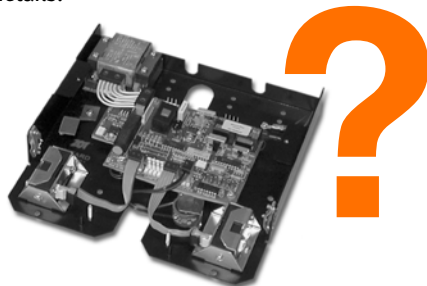
Description	Part Number
Spare Parts Kit	#400113
PC Board	#431025
Sensor Assembly	#431027
Reflector Only	#800018
Reflector Assembly	#420088
Lamp (pkg. of 10)	#400094
Lamp Socket Assembly	#440020
Power Harness for #400064	#440042
Power Harness for #400066	#440043
Scoring Harness	#440041
Buzzer	#400111
Transformer	#400065

# Foul Detectors

## How to select the right Foul Detector product for your center

In the following seven pages you will find details of ZOT's fine line of Wizard Foul Detector products, which fall into four categories.

Identify which Foul Detector is the best fit for your center in the grid to the right and then go to the appropriate product page to find all the details.



The ZOT's Wizard 'Plus' Foul Detector is universally recognized as the most reliable product in the industry. No other brand can match the features included in the ZOT product.

Wizard Enhanced PC Board #400078 Infrared Head Conversion # 400075 See Page 7
Wizard Surface # 400064 & 400029 - 400066 & 400030 See Page 6
Wizard Low Voltage # 400102 See Page 5
Wizard Plus # 400140 See Page 4

Subway (Underlane) Ball Returns	✓			
Subway Ball Returns with no 115V available at the foul line —replaces early model Brunswick Telefoul		✓		
Surface (overlane) Ball Returns			✓	
Modification for ASTRO/2000 System				✓

## AMF Radaray Plus Foul Detector Conversion - For Brunswick Centers with AMF Radaray Plus Foul Detectors #400272



**Replaces all problem parts:** e.g. New Transformer, New Sensors and Main PC Board.

**Cost Effective:** the new ZOT parts will run 'trouble-free' for the next 20-years.

**All Modular Design:** all individual components simply plug into the PC Board, making troubleshooting and replacing parts easy.

**Self Diagnostics:** ZOT's microprocessor automatically checks the sensors every time a foul occurs and the unit will turn itself off automatically, one lane at a time, if it detects a problem.

**Alignment Indication:** a 4-unit LED system indicates signal strength, assisting the installer and/or mechanic in aligning the sensors.

**Light Source Recognition:** ZOT's infrared design features a special operational frequency for its emitter and receiver communications. Matching this frequency eliminates being affected by alternate light sources, e.g. overhead and cosmic/glow lighting.

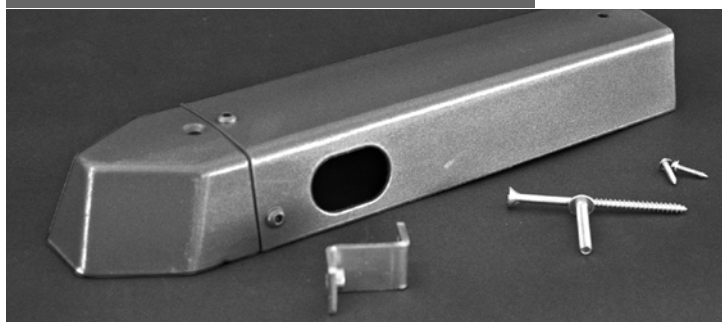
**Vibration Protection:** The PC Board is mounted on a shock-absorbing buffer that minimizes ball-impact vibration that can damage delicate circuitry common to PC Boards.

**Steel Foul Detector Covers**

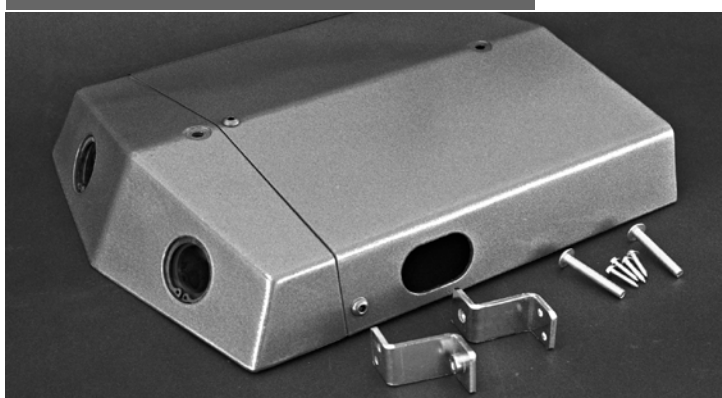
#420299 Wide Ball Return Cover/Black  
#420195 Wide Ball Return Cover/Aluminum



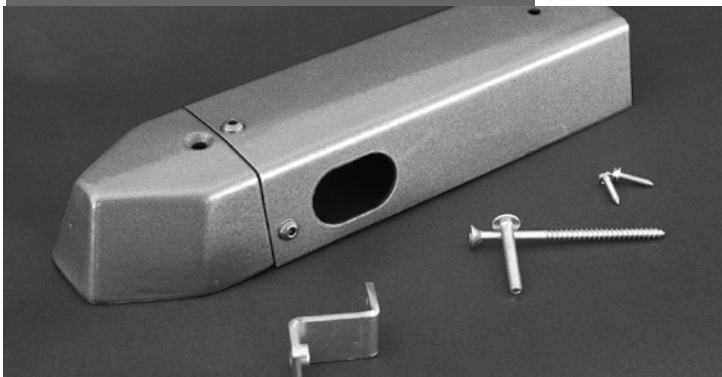
#420300 Narrow Divider Trim Cover Black  
#420196 Narrow Divider Trim Cover/Aluminum



#420291 Wide Ball Return Cover Black  
#420193 Wide Ball Return Cover/Aluminum



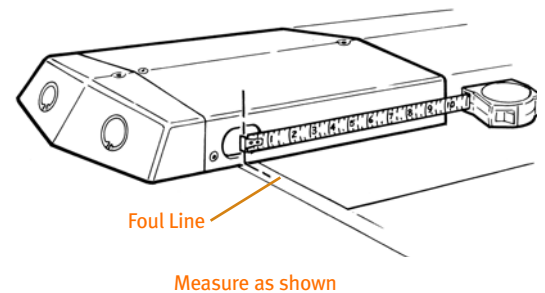
#420292 Narrow Divider Trim Cover Black  
#420194 Narrow Divider Trim Cover/Aluminum



**Features & Benefits**

**Vinyl Finish:** Available in black and aluminum.

**Rugged Construction:** ZOT's Metal Foul Detector Covers are designed and manufactured for decades of trouble free service.

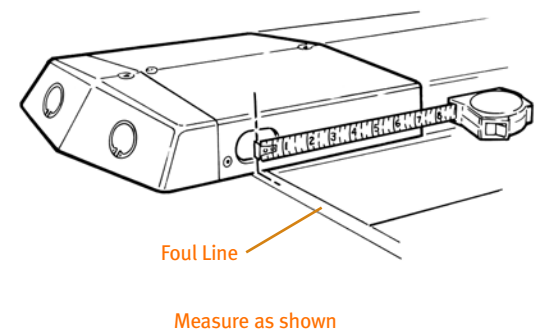


Replacement for Astro and 2000 Covers (10" [.254M])  
See illustration above.

**Features & Benefits**

**Vinyl Finish:** Available in black and aluminum.

**Rugged Construction:** ZOT's Metal Foul Detector Covers are designed and manufactured for decades of trouble free service.



Replacement for Gold Crown and Crown Imperial Covers (7-1/4" [.184M] or 8" [.204M])  
See illustration above.

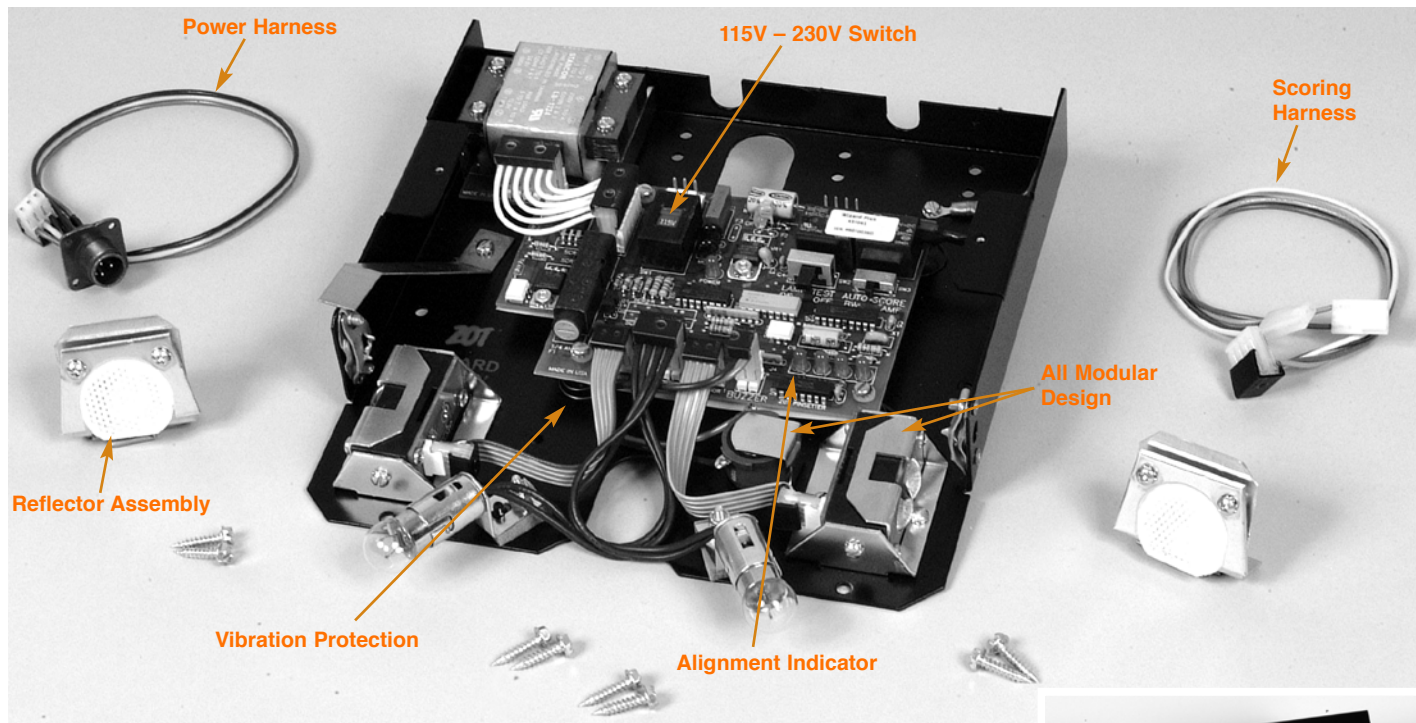
# Foul Detectors

## Wizard 'Plus'

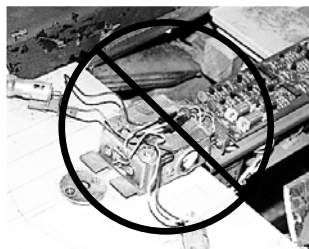
For Brunswick Subway Ball Returns

#400140

1 Foul Detectors



Replaces Brunswick Gold Crown and Astro/2000



**Only Available from ZOT:** No other manufacturer or supplier offers a foul detector unit that even comes close in terms of features and benefits. Check it out for yourself.



**Dust Cover (Optional Add-on)**  
#620145

## Wizard Plus Features and Benefits:

**Infrared Technology:** The ZOT Wizard Plus features an infrared sensor that is solid state and rated for millions of hours of dependable service. Infrared sensors eliminate old incandescent bulbs.

**Alignment Indicators:** A 4-unit LED system indicates signal strength. This aids the installer and/or mechanic in the alignment of the sensors.

**Automatic Scoring Compatible:** ZOT Wizard Foul Units transmit the proper signal needed to communicate with automatic scoring systems. Changing the signal is as easy as: either flipping a switch.

**Marginal Signal Alert:** ZOT Wizard Foul Units will alert the mechanic to pending problems. Four different sequences of buzzer signals can occur if the unit has a failure allowing the mechanic to troubleshoot.

**All Modular Design:** All the individual components simply plug onto the PC Board, making troubleshooting and the replacement of parts simple.

**Self Diagnostics:** ZOT's microprocessor automatically checks the sensors every time there is a foul. If the any Wizard unit detects a problem it will automatically turn itself off... one lane at a time.

**Remote Switching:** ZOT's Wizard Plus can be disabled remotely lane by lane (e.g., from the front desk), in centers with compatible scoring systems.

**Microprocessor Efficient:** All ZOT Wizard Foul Units have State-of-the-Art Microprocessor technology. This simplifies the circuitry, making all Wizard Units more cost effective and reliable.

**Light Source Recognition:** ZOT's infrared design features a special operational frequency for its emitter and receiver communications. Matching this frequency eliminates an affect from alternate light sources: e.g. overhead lighting, and cosmic/glow lighting.

**Vibration Protection:** The PC Board is mounted on a shock-absorbing buffer to minimize ball impact vibration that can damage delicate circuitry common to PC Boards.

**ZOT Wizard Extreme**  
For Brunswick Subway Ball Returns

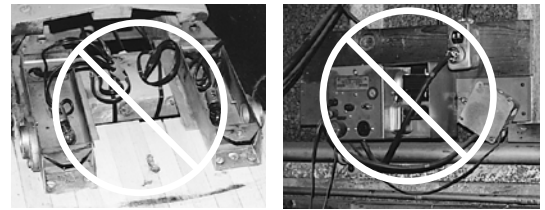
**Low Voltage Power Wire Kit**

Centers with no 115V power supply available at the approach area should order the ZOT Wizard Extreme Foul Detector and Covers package (see facing page) plus **Wire Harness #400302**



This kit allows transformer installation at mask unit.

**Kit Requires:** A standard 115 Volt duplex outlet to plug the transformer into for supplying power to the Foul Unit. (e.g. on the curtain wall).



Replaces Crown Imperial Telefoul

**Wizard Extreme Spare Parts:**

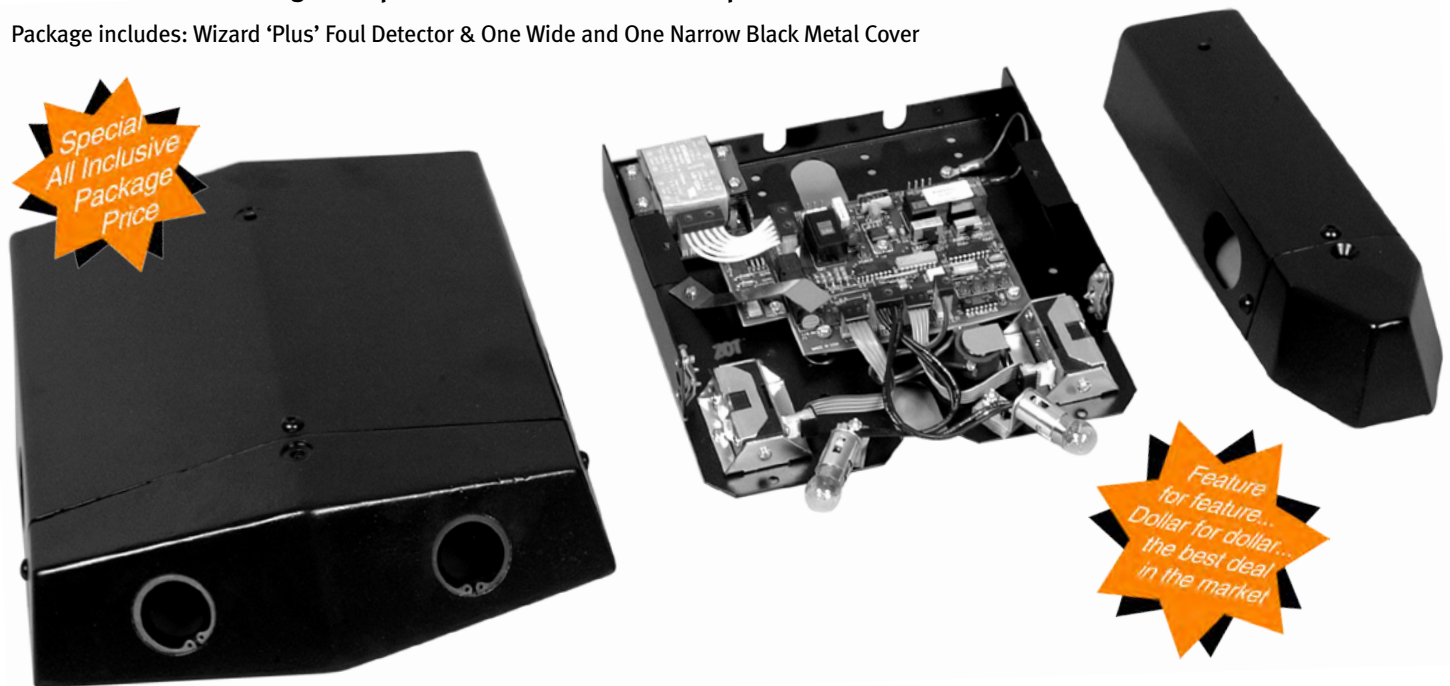
Description	Part Number
Spare Parts Kit .....	#400292
PC Board.....	#431097
Sensor Block Assembly.....	#431099
Reflector Only .....	#800057
Reflector Assembly (2) .....	#400169
Foul Signal LED, Including Holder and Harness .....	#440145
Scoring Harness (Bswk) .....	#440155
Scoring Harness (AMF) .....	#440153
Buzzer Assembly.....	#400170
Transformer Assembly (115V60Hz) ..	#400281
Transformer Assembly (230V50Hz) ...	#400293
Sensor harness (3-wire) .....	#440146

**Wizard ‘Plus’ Foul Detector and Cover’s Package**

**#400195** Cover’s Package to Replace Astro/2000

**#400196** Cover’s Package to Replace Gold Crown and Crown Imperial

Package includes: Wizard ‘Plus’ Foul Detector & One Wide and One Narrow Black Metal Cover



*“Replacing Foul Detectors Improves the Bowler’s Experience...  
Replacing Foul Detector Covers Improves the Image of your Center”*

For individual product information, including features and benefits, See pages 3, 4, 5, etc.

# Foul Detectors

## Features & Benefits

**Infrared Technology:** ZOT Wizard Foul Units feature infrared sensors that are solid state and rated for millions of hours of dependable service. Infrared sensors replacing troublesome incandescent bulbs.

**Self Diagnostics:** ZOT's microprocessor automatically checks the sensors every time there is a foul. If any Wizard Foul Unit detects a problem it will automatically turn itself off .....one lane at a time.

**Alignment Indicators:** A 4-unit LED system indicates signal strength. This aids the installer and/or mechanic in the alignment of the sensors.

**All Modular Design:** All the individual components simply plug onto the PC Board, making troubleshooting and the replacement of parts simple.

**Vibration Protection:** The PC Board is mounted on a shock-absorbing buffer to minimize ball impact vibration that can damage delicate circuitry common to PC Boards.

**Marginal Signal Alert:** ZOT Wizard Foul Units will alert the mechanic to pending problems. Four different sequences of buzzer actions can occur if the unit has a failure allowing the mechanic to troubleshoot.

**Microprocessor Efficient:** All ZOT Wizard Foul Units have State-of-the-Art Microprocessor technology. This simplifies the circuitry, making all Wizard Units more cost effective and reliable.

**Automatic Scoring Compatible:** ZOT Wizard Foul Units transmit the proper signal needed to communicate with automatic scoring systems. Changing the signal is as easy as: either flipping a switch or moving jumpers to a different set of pins.

**No need for an Electrician to Install:** The ZOT Wizard (Surface) comes with a Transformer and Low Voltage supply cable allowing a Mechanic to complete the installation with no added help.

**Light Source Recognition:** ZOT's infrared design features a special operational frequency for its emitter and receiver communications. Matching this frequency eliminates an affect from alternate light sources: e.g. overhead lighting, and cosmic/glow lighting.

### Wizard Extreme Spare Parts:

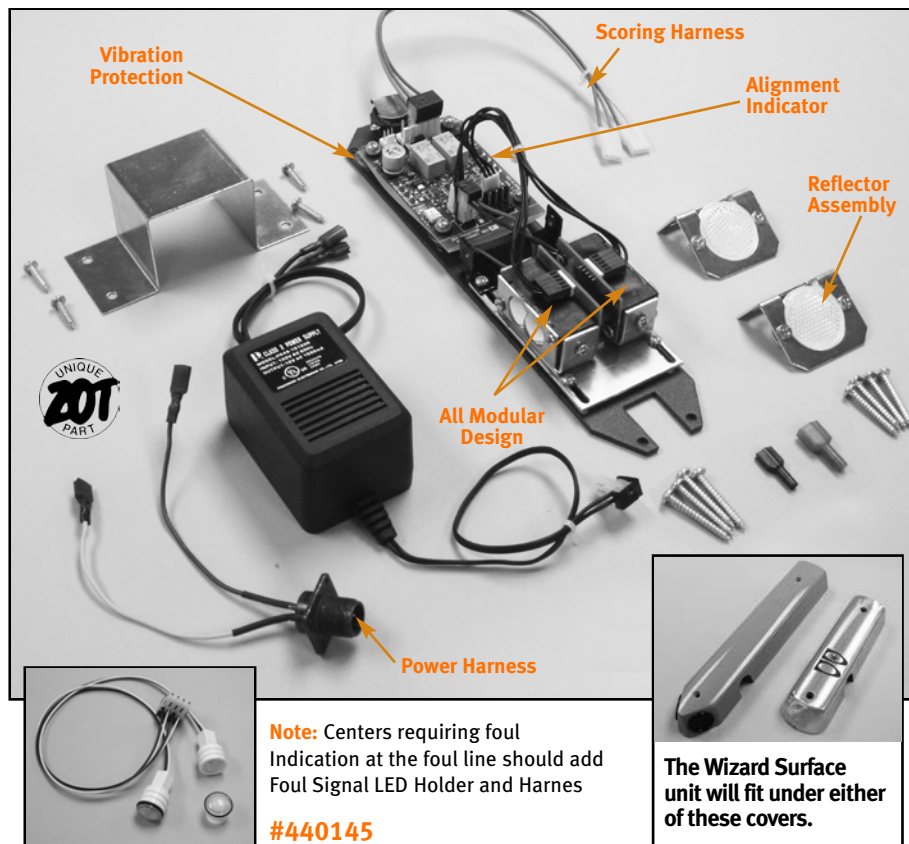
Description	Part Number
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Reflector Only .....	#800057
Reflector Assembly (2) .....	#400169
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Scoring Harness (Bswk) .....	#440155
Scoring Harness (AMF) .....	#440153
Buzzer Assembly.....	#400170
Transformer Assembly (115V60Hz) ..	#400281
Transformer Assembly (230V50Hz) ...	#400293
Sensor harness (3-wire) .....	#440146

## Wizard Surface for Brunswick Surface Ball Returns

**#400287**  
Serving Two Lanes

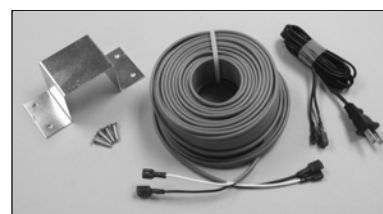
**Approach Mounted Transformer:** For centers with 115V Power Supply at Foul Line.  
**Replaces:** Brunswick Gold Crown and Astro/2000.

**Masking Wall Mounted:** For centers with 115V Power supply at Pinsetters.  
**Purchase Separately:** New Wire Run from Transformer to Foul Unit.  
**Replaces:** Brunswick Crown Imperial Telefoul.



### Low Voltage

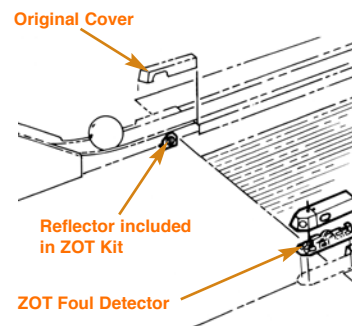
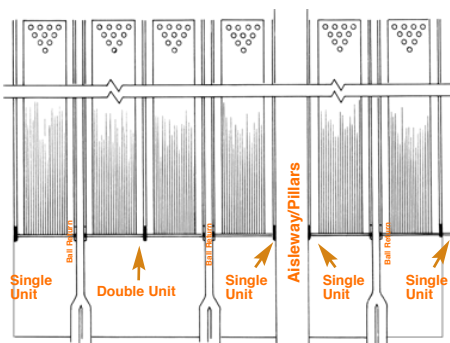
Centers with no 115V power supply available at the approach area should also order the following wire harness. This kit allows transformer installation at mask unit.



### Wire Harness

**#400302**

**Kit #400287 Includes:** Detector Assembly, Transformer, two Reflector Assemblies and All Mounting Hardware to install complete kit. **Power Supply Cable #400302** (order separately).

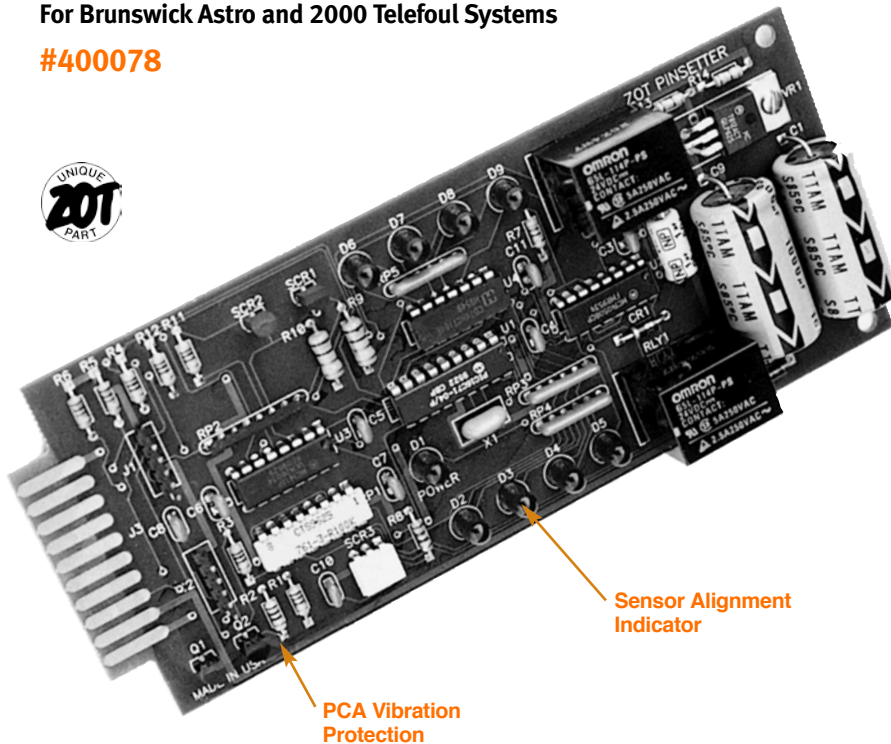


Example: 6-Lane Center with Aisleway

## Enhanced PC Board

For Brunswick Astro and 2000 Telefoul Systems

#400078



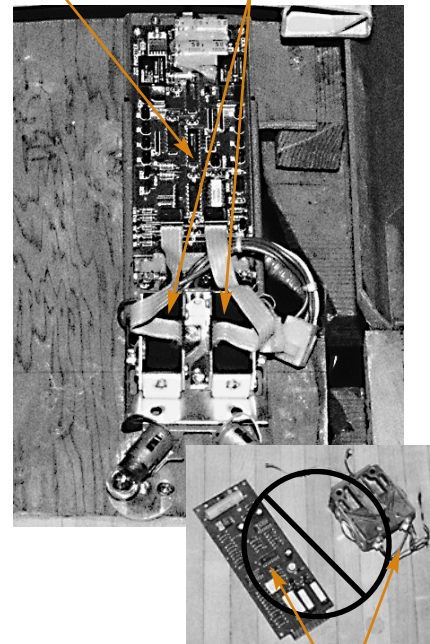
PCA Vibration Protection

Sensor Alignment Indicator

**Note:**

For Single Lane Application: One Lane Blockout Jump Wire #400187

Enhanced P C Board    Infrared Head



Removed Original Parts

1  
Foul Detectors

### Features & Benefits

**Vibration Protection:** The PC board is mounted on a shock absorbing buffer to minimize ball impact vibration which can damage delicate circuitry common to PC boards.

**Simple Plug in Installation:** The ZOT Enhanced PC Board simply plugs into the existing equipment, with no modification necessary.

**Alignment Indicator:** A 4-unit LED system indicates when the signal is strongest. This aids the installer and the mechanic, should realignment ever be necessary.

**Self Diagnostics:** ZOT's exclusive micro-processor circuit automatically checks sensor signal levels every time you switch the unit on, and every time there is a foul.

**Easy Conversion to Infrared:** The ZOT PC Board operates with the original photo cell and bulbs, but it also includes the drive circuit for Infrared sensors. The ZOT Infrared Sensor Source is Solid State Diode rated for millions of hours of dependable service – a great improvement over the 2,000 hours rating of the old incandescent bulbs.

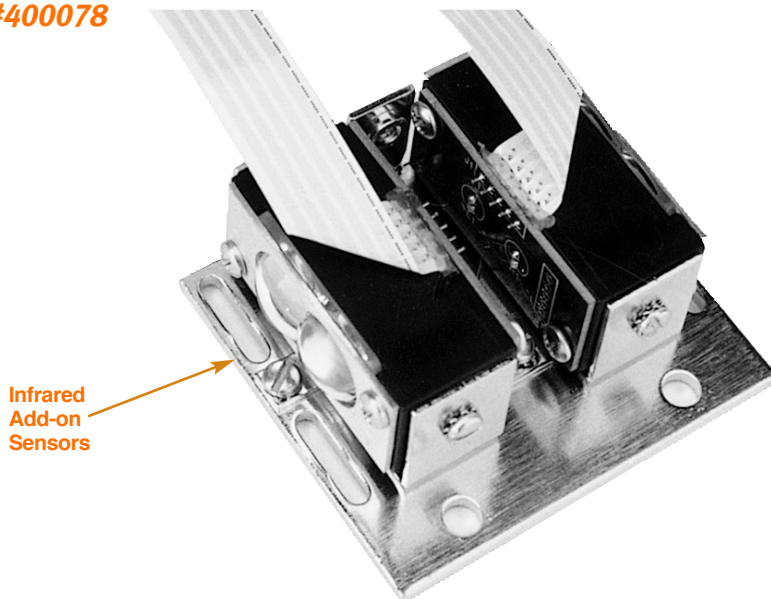
**Easy to Install:** The ZOT Infrared Head Conversion simply plugs into the ZOT Enhanced PC Board.

**All the Features of the ZOT Wizard:** That's what you get when you complete your upgrade and combine the ZOT PC Board with the ZOT Infrared Head.

## Infrared Head Conversion (Optional Add-on to Enhanced PC Board)

#400075\*

\*Requires #400078



Infrared Add-on Sensors

### Enhanced PC Board Spare Parts:

Description	Part Number
PC Board	#431023

### Infrared Head Conversion Spare Parts:

Description	Part Number
Sensor Assembly	#431027
Reflector Only	#800018
Reflector Assembly	#420088



Call ZOT at 1-800-525-8116 for more details

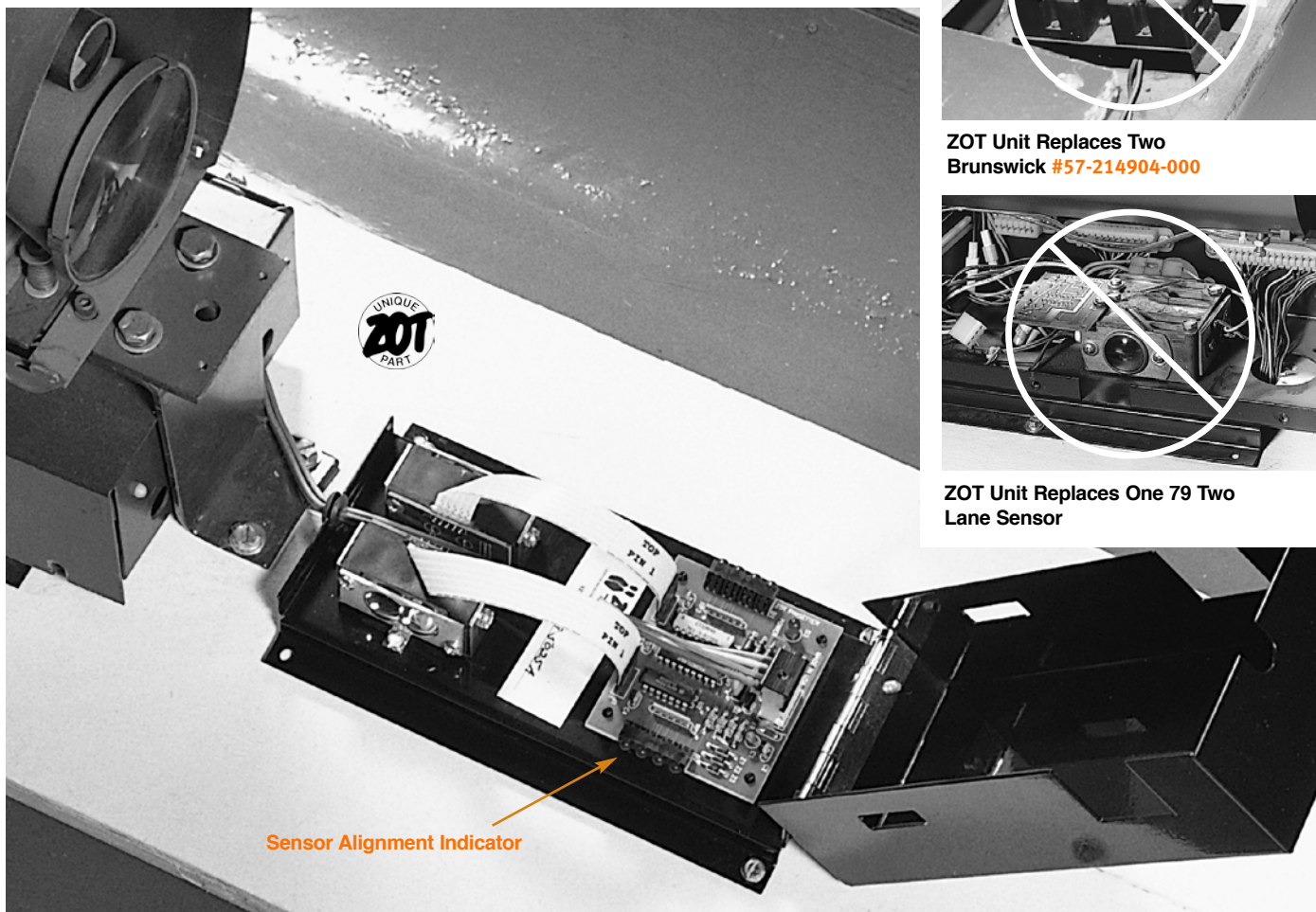


# Foul Detectors

## Infrared Scanner Ball Detector

- #400139 For Brunswick 79 Scanner Ball Detector
- #400151 For Brunswick 86 Scanner Ball Detector
- #400219 For Brunswick 90 and Frameworkx Camera Ball Detector

1 Foul Detectors



ZOT Unit Replaces Two Brunswick #57-214904-000

ZOT Unit Replaces One 79 Two Lane Sensor

### Features & Benefits

**Infrared Technology:** Features an Infrared Sensor Source that's Solid State Diode rated for millions of hours of dependable service. Infrared eliminates replacement of old incandescent bulbs, which are only rated at 2,000 hours.

**Alignment Indicator:** A 4-unit LED system indicates when the signal is strongest. This aids the installer and the mechanic, should realignment ever be necessary.

**All Modular Design:** All components plug into the PC board separately, making it easy and possible to change parts and troubleshoot.

**Microprocessor Efficient:** ZOT's State-of-the-Art Microprocessor technology simplifies the circuit, making the product surprisingly cost effective and reliable.

**Eliminates Annoying League Interruptions:** Minimizes constant readjusting of lens and socket plate.

**Easy Access:** The units Hinged Dust Cover allows easy access to the unit, without needing a screwdriver.

**Easy To Install:** The system mounts in front of the scanner assembly (Pinsetter side), and plugs into the existing sensor connector.

### 79 Scanner Ball Detect Spare Parts:

Description	Part Number
PC Board	#431042
Sensor Assembly	#431027
Reflector Only	#800018
Reflector Assembly	#420088
Power Harness	#440070

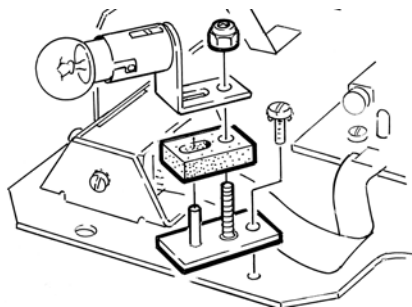
### 86 Scanner Ball Detect Spare Parts:

Description	Part Number
PC Board	#431031
Sensor Assembly	#431027
Reflector Only	#800018
Reflector Assembly	#420088
Power Harness	#440071

### 90 & Frameworkx Camera Ball Detect Spare Parts:

Description	Part Number
PC Board	#431031
Sensor Assembly	#431027
Reflector Only	#800018
Reflector Assembly	#420088
Power Harness	#440072

**Foul Light Lamp Vibration Damper Kit**  
Retrofit for ZOT Wizard Foul Detectors  
#400181

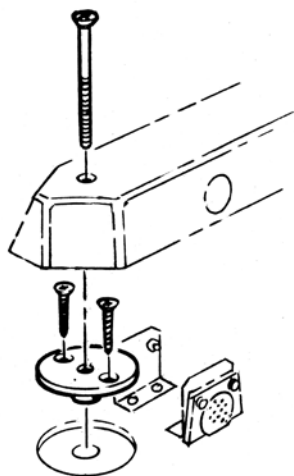


**Extends The Life Of #90 Lamps:** Test results confirm that this vibration system greatly reduces early failure rate of lamp filaments.

**Increased Reliability:** Results in reduced time on routine maintenance.

**Kit Contains Parts For One Complete Unit:** (E.G., Two lamp fixtures).

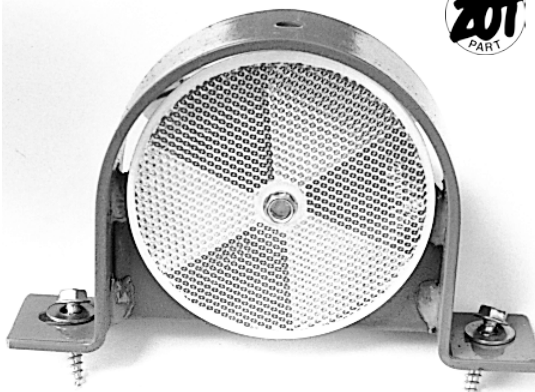
**Cover Hold Down Kit**  
#420182



**Secure Loose Foul Detector Covers:** Steel anchor plate firmly connects to the wood approach regardless of the condition of the screw hole.

**Easy Installation:** Drill recess into wood approach using 1 1/2" wood bit, then fasten steel anchor to approach using two wood screws. To finish, secure foul detector cover with a 3 1/2" machine screw. All screws are included in the kit.

**Scanner Ball Detect Reflector Kit**  
For Brunswick AS 80 And AS 90 Scoring  
#420089



**Improved Signal Strength:** ZOT's simple modification will improve signal strength 2-1/2 times, yielding improved performance from marginal bulbs.

**Cost Savings:** The larger surface reflector, and special 15° retro-reflective face, will result in savings on bulbs and equipment maintenance.

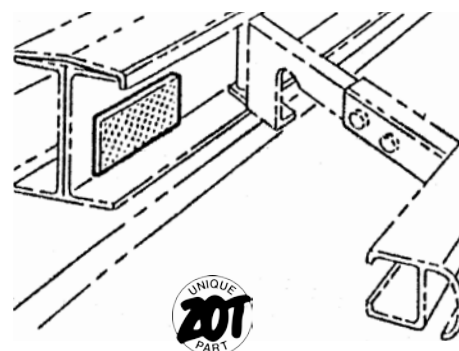
**Reflector Only: #800019**  
**Guard Bracket Only: #640039**

**Note:** Each kit includes two reflectors.

**Rectangular Ball Detect Reflector**  
For Brunswick AS 80 And AS 90 Scoring With AMF Hide-A-Bumper System  
#800041

**Improved 79 Scanner Performance:** When AMF's Hide-a-Bumper system is installed under the divider trim and capping, with AS 80 or AS 90 scoring, ZOT's Rectangular Ball Detect Reflector will dramatically improve marginal operating signal levels.

**Saves Money:** This low cost upgrade not only yields a better performance, it cuts down on bulbs, and other related equipment replacement.



**Signal Strength Reflector Modification Kit**  
For Brunswick Astro/2000 Telefoul  
#420088



**Increased Signal Strength:** The special high output 15° retro-reflective face of this small reflector, which will fit under your existing cover, will increase your signal strength by 50%.

**Low Cost Modification:** Which minimizes problems with dust, alignment and marginal bulbs.