



PAN AND TILT POSITIONERS AND CAMERA ENCLOSURES



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Will-Burt United Kingdom designs, manufactures, and assembles pan and tilt positioners and camera housings. Pan and tilt positioners are available for mobile - PositionIt - and fixed applications - AccuPoint - along with multiple sizes in each range creating flexibility and options for our customers. An IP68 rating delivers dust and water protection for our maintenance-free positioners guaranteeing a long life in all weather conditions. Will-Burt PositionIt and AccuPoint positioners have a high gear ratio providing lower speeds for smooth operation with sensors and antennas. Universal mounting plates are included that are suitable for the most common payloads. Simple to install, easy to use, and lightweight construction make Will-Burt positioners a great solution across a wide range of industries.



Our all-weather environmental camera housings are made with a proven, traditional design keeping them compact yet spacious to accommodate larger camera and lens combinations. Toughened glass and stainless-steel fittings/fastenings ensure long operational life. Two entry glands and a grommeted hole are provided for efficient cable management to secure the units' IP66 integrity.

Because of our set up, customers' specific needs can be addressed faster and more effectively than ever. We also offer a full pre-build service for customers who require a turnkey solution for their requirements. If you need additional control equipment or CCTV accessories, we will help find the best solutions for you.

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POSITIONIT®



For Mobile Applications

PositionIt models PI 35, PI 75 & PI 150 are maintenance-free pan and tilt positioners designed to provide years of trouble-free service. An IP68 rating delivers dust and water protection. The gear box is designed to minimize backlash and provides higher gear ratios for lower speeds along with mechanical braking. Long-life potentiometers are standard with PositionIt.



ESSENTIAL FEATURES

- **Pelco-D RS-485 Communications**
- **Strong lightweight construction**
 - Die-cast aluminum casing
- **Minimal backlash**
 - Precision turned and milled components with ball races on major axes
- **Built to last**
 - Stainless steel fasteners
- **Weatherproof**
 - IP 68 rating
- **Simple to install**
- **Universal mounting plate**
 - Suitable for most common payloads
- **Corrosion resistant finish**
 - Black
- **Regenerative braking**
 - On motor shaft
- **Long operational life**
 - 2-year warranty on Will-Burt PositionIt Positioners
- **Flexible connection**
 - Bottom or side
- **Replacement for MOOG QuickSet QPT Positioners**
 - Direct connection to existing QuickSet control/power cable
- **We also offer a complete range of positioners for fixed applications and camera enclosures.**

SPECIFICATIONS

Model	PI-150	PI-75	PI-35
Payload Capacity*	150 ft lb / 202 Nm	75 ft lb / 101 Nm	35 ft lb / 47 Nm
Height	11.32 in. / 287.7 mm	11.32 in. / 287.7 mm	9.7 in. / 246 mm
Width	12.4 in. / 314 mm	9.21 in. / 234 mm	10.8 in. / 273 mm
Depth	6.8 in. / 171 mm	6.8 in. / 171 mm	5.7 in. / 144 mm
Weight	37 lb / 16.8 kg	35 lb / 16 kg	19.5 lb / 8.9 kg
Operating Temperature	-20°C to 50°C / -4°F to 122°F		
IP Rating	IP68 - Waterproof (immersion) and Dustproof		
Pan Axis	400° (± 200°)		
Pan Speed (proportional)	0.02 to 6.5° / second		1° to 12° / second
Tilt Axis	180° (± 90°)		
Tilt Speed (proportional)	0.02 to 5.5° / second		1° to 12° / second
Backlash	≤ 0.15°		
Repeatability	≤ 0.3°		
Maximum Continuous Power	44 W		
Maximum Running Current	1.85 amps		
Input Voltage	24 VDC - Converters available for 12 VDC and AC power sources		

*Capacity measured at 12 inches or less from the tilt axis.
 Dimensions and weights are for reference only and are subject to change.
 Contact Will-Burt for current engineering specifications.



POSITIONIT®

Rack Mount Controller



The latest positioner controller from Will-Burt is loaded with new features. You will always know the status of the positioner with real-time positional, speed, and status feedback. Control multiple positioners and third-party equipment with a single controller. This controller is optimized for positioners with stow and deploy buttons located on the front panel.



The new Positioner Controller from Will-Burt will simplify deployment and operation of communications and video equipment.

ESSENTIAL FEATURES

19-inch (2U) Rack Mount Controller for controlling Will-Burt mobile and static positioners

- LCD Home Screen displays real-time positioner information
- LCD Selector Menu provides additional control functionality
- Control third-party equipment through (7) digital discrete outputs with USB and RS-485 inputs
- Control multiple positioners in single system through address selection
- Positioner control with front panel directional push buttons and configurable 'Stow' and 'Unstow' presets
- Pelco-D over RS-485 half-duplex output to positioner
- 100-240VAC input voltage with 24VDC output voltage to positioner
- 2-year warranty



SPECIFICATIONS

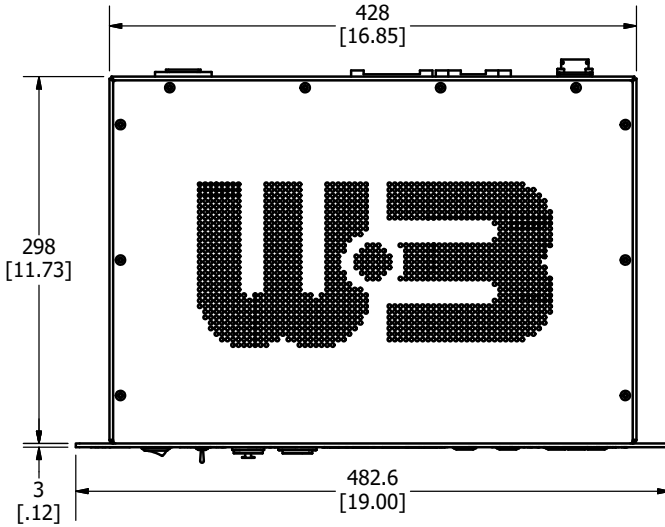
Rack Mount Controller with Real Time Positioner Feedback	
Communication	Pelco-D over RS-485 half-duplex at 2400 bps
Operating Temperature	32°F to 122°F / 0°C to 50°C
Weight	6.6 lb. / 3 kg
Dimensions (W x H x D)	19" x 3.5" x 11.7" / 48.26 cm x 8.81 cm x 29.8 cm
Power	100-240VAC input 24VDC output

POSITIONIT®

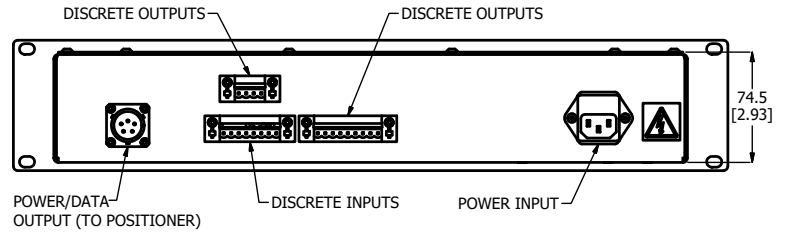
Rack Mount Controller

ENGINEERING SPECIFICATIONS

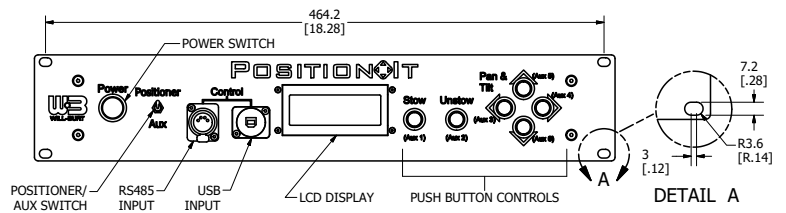
Top View



Rear View



Front View



POSITIONIT®

Handheld Controller

The Pelco-D compatible controller with LCD screen has all of the features necessary to optimize the performance of the PositionIt positioner. Precision joystick controller flawlessly controls the pan and tilt functions. Includes LCD screen, keyboard and programmable presets that simplify operation. The positioner handheld controller can also be optionally used in conjunction with the pan and tilt positioner controller.

SPECIFICATIONS

Handheld Controller	
Input Voltage	12V DC
Power	0.5 watts
Communication Interface	RS485
Communication Frequency	2400, 4800, 9600, 19200 bps
Operating Temperature	32°F to 122°F / 0°C to 50°C
Dimensions (L x W x H)	6.6" x 5.4" x 4.2" / 168 mm x 136 mm x 105 mm
Weight	.89 lb / .4 kg



AccuPoint™

FOR STATIC APPLICATIONS



Introducing the AccuPoint range of positioners, retaining everything that was great about the original static mounted range but now includes our improved next generation control electronics. The AccuPoint series is dimensionally and electrically identical to the first generation of Will-Burt positioners with backwards compatible software. Improved motor control is assured with higher resolution speed control, slower minimum speeds, and user adjustable min speeds and speed amps. The new GUI for configuring and commissioning allows users to set home positions, receive position feedback, and adjust many other features that were originally factory set standards. Rugged and robust as ever before, AccuPoint can withstand the harshest weather conditions.

ESSENTIAL FEATURES

- Backwards compatible
- Greater level of control with user set features
- Higher level of motor control and greater positional accuracy
- Faster setup
- Positional feedback
- Rugged and robust
- Pelco D over RS485 Communications
- IP68 Rated
- 3 year warranty

SPECIFICATIONS

	AP-50		AP-30		AP-8	
	Side Mount	Over the Top	Side Mount	Over the Top	Side Mount	Over the Top
Height (Standard)	9.3 in. / 235.1 mm	9.8 in. / 248.1 mm	7.4 in. / 187 mm	8 in. / 204 mm	5.2 in. / 131 mm	5.8 in. / 146.2 mm
Platform Width	7 in. / 177.2 mm	9.2 in. / 234 mm	7 in. / 178.7 mm	7.8 in. / 197 mm	6.4 in. / 162.1 mm	5.8 in. / 147 mm
Total Width	15.8 in. / 400.9 mm	9.6 in. / 243.6 mm	14.6 in. / 369.8 mm	8.2 in. / 207.5 mm	12.2 in. / 309.5 mm	6.2 in. / 158.1 mm
Depth (without plugs)	7 in. / 177 mm	7 in. / 177 mm	6 in. / 152.8 mm	5.9 in. / 149.64 mm	5.2 in. / 132 mm	5 in. / 127 mm
Weight	< 27.4 lb. / 12.45 kg	< 29.7 lb. / 13.5 kg	< 14.55 lb. / 6.6 kg	< 14.7 lb. / 6.7 kg	< 5.5 lb. / 2.5 kg	< 5.07 lb. / 2.3 kg
Voltagess	24 VDC - Converters available for 12 VDC and AC power sources		24 VDC - Converters available for 12 VDC and AC power sources		24 VDC - Converters available for 12 VDC and AC power sources	
Pan Gear Box Speed (Max)	30°/sec		48°/sec		24°/sec	
Tilt Gear Box Speed (Max)	10°/sec		12°/sec		6°/sec	
Capacity	50 ft-lb		30 ft-lb		8 ft-lb	
Pan Range	±180°		±180°		±180°	
Tilt Range	±90°	+90° / -45°	±90°	+90° / -45°	±90°	+90° / -45°
Backlash	0.15°		0.15°		0.15°	
Repeatability	< 0.3°		0.3°		< 0.3°	
Ingress Protection	IP68		IP68		IP68	
Temperature Range	-4° to 122° F / -20° to +50° C		-4° to 122° F / -20° to +50° C		-4° to 122° F / -20° to +50° C	
Max Current Draw	1.85 A		1.85 A		0.85 A	
Protocol	RS485 / Pelco D		RS485 / Pelco D		RS485 / Pelco D	
Absolute Positioning	YES		YES		YES	
Positional Feedback	YES		YES		YES	
Application	Static Mount		Static Mount		Static Mount	
Housing Color	Grey		Grey		Grey	
Addresses	User Set via GUI		User Set via GUI		User Set via GUI	

MAINTENANCE FREE ALL-WEATHER CAMERA HOUSINGS

Made to a proven, traditional design, the Mitre range of environmental camera housings are extremely compact yet spacious enough (particularly the new 903) to accommodate larger camera/lens combinations.

Broadening the range of applications to include corrosive and clean environments, Small (901) and Medium (900) aluminium cased housings cases are now available in 316 stainless steel (801 and 800).

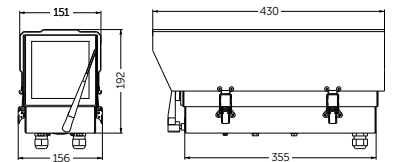
Toughened glass and stainless steel fittings/fastenings ensure long operational life and two entry glands and a grommetted hole are provided for efficient cable management to secure the units' IP66 integrity.

A deep base allows the fitting of an optional integral wiper which incorporates a micro switch for self-parking. Standard accessories include an extended camera plate, steel safety strap and wiring distribution block. A PTC resistor heater with progressive performance is also provided which eliminates the need for a thermostat and when the heat's on, optional double skinned sunshields are available for all models. The roomy new 903 (standard length) can even be supplied with a fan cooled sunshield which draws air through the housing to prevent overheating in extreme conditions.

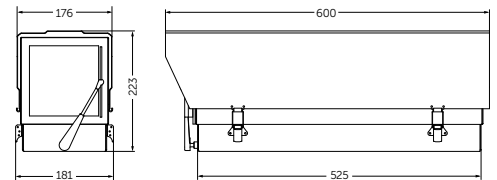


ESSENTIAL FEATURES

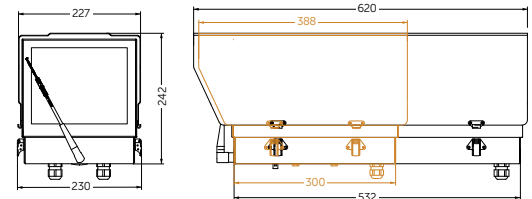
- **Uncompromising construction**
 - Lightweight sheet aluminium or 316 stainless steel casing and tray
- **New 903 series**
 - Extra height and width as standard plus short and integral cooling fan versions
- **Deep bottom tray**
 - Suitable for housing integral wiper or accessories such as receivers or RFTX's & RX's
- **Built to last**
 - Stainless steel fastenings
- **Weatherproof**
 - Sealed to IP rating 66
- **Accessories**
 - Extended paxolin camera plate and stainless steel safety strap
- **PTC Resistor heater**
 - Progressive performance without the need of a thermostat (available on request)
- **Cable management**
 - Two entry glands at 20mm and one hole at 25mm for Kopex or Adaptaflex
- **Integral wiper option**
 - Micro switch self parking wiper with blade toggle action



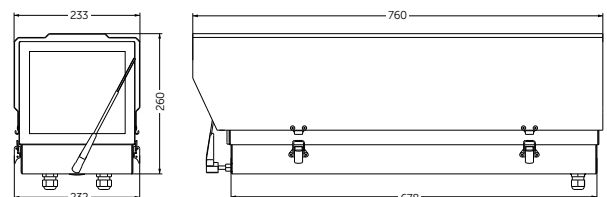
MITRE
901 / 801



MITRE
900 / 800



MITRE
903 / 903 SHORT



MITRE
902



MAINTENANCE FREE ALL-WEATHER CAMERA HOUSINGS



SMALL 901



MEDIUM 900



LARGE 902



WIDE 903 STANDARD



WIDE 903 SHORT

The 903 housing shown here is fitted with an optional double skinned sunshield which is available for all models



**WIDE 903 WITH
FAN COOLED SUNSHIELD**

Available exclusively for the Standard sized 903, the sunshield uses an electric fan to remove built up hot air from within the unit.

SPECIFICATIONS

Model	901	900	903 Standard	903 Short	902
Height	7.6 in. / 192 mm	9.1 in. / 230 mm	9.5 in. / 242 mm	9.5 in. / 242 mm	10.2 in. / 259 mm
Width over clips	6.2 in. / 156 mm	7.1 in. / 180 mm	9.1 in. / 230 mm	9.1 in. / 230 mm	9.1 in. / 232 mm
Width over sunshield	6.0 in. / 151 mm	6.9 in. / 174 mm	8.9 in. / 227 mm	8.9 in. / 227 mm	9.2 in. / 233 mm
Length over sunshield	17.0 in. / 430 mm	23.6 in. / 600 mm	24.4 in. / 620 mm	15.3 in. / 388 mm	30.0 in. / 760 mm
Depth inside base	2.2 in. / 55 mm	2.2 in. / 55 mm	2.3 in. / 57 mm	2.3 in. / 57 mm	2.2 in. / 55 mm
Weight (Aluminium without wiper)	< 5.5 lb. / 2.5 kg	< 7.7 lb. / 3.5 kg	15.4 lb. / 7 kg	8.8 lb. / 4 kg	< 13.2 lb. / 6.0 kg
Weight (Aluminium with wiper)	< 6.6 lb. / 3.0 kg	< 8.8 lb. / 4.0 kg	16.5 lb. / 7.5 kg	9.9 lb. / 4.5 kg	< 14.3 lb. / 6.5 kg
Weight (316 stainless without wiper)	10.4 lb. / 4.7 kg	18.1 lb. / 8.2 kg	N/A	N/A	N/A
Weight (316 stainless with wiper)	TBA	TBA	N/A	N/A	N/A
Fixing Centres					
Base	4 holes tapped M6 on 101.6 PCD (4") square to base				
Platform	4 slots 7.0 wide x 25 long in 225 long Paxolin or aluminium (903 units) plate (1 x ¼" UNC hex screw supplied)				
Voltage	24VDC nominal				
Capacity (l x w x h) (in. / mm)	13.0 in. x 4.5 in. x 4.3 in. / 330 x 114 x 110 mm	20.1 in. x 5.5 in. x 5.7 in. / 510 x 140 x 145 mm	19.9 in. x 7.0 in. x 6.6 in. / 505 x 178 x 167 mm	10.8 in. x 7.0 in. x 6.6 in. / 273 x 178 x 167 mm	25.6 in. x 7.1 in. x 6.7 in. / 650 x 180 x 170 mm
Options (all models)	Integral self parking wiper, internal fan, washer, thermostat, double skinned sunshield				
Heater	Progressive up to 32W				
Wiring and connections	Single row (double row with fan option), 12 way terminal block(s), .08 in. x .79 in. / 2 x 20 mm cable glands plus blanked, .98 in. / 25 mm hole for Kopex or Adaptaflex				
Recommended cable	16/0.2 (rated at 230V for mains versions)				
House color (900 series)	Grey				
Temperature Range	-4° to 122° F / -20° to +50° C				

A LONG DISTANCE STUNNER FOR SENSITIVE AREA SURVEILLANCE

The Homburg Slowspeed system is a complete high resolution solution for users requiring a far higher degree of accuracy than is possible with a normal pan & tilt head and receiver. Delivering the capability of video tracking over long distances (dependent on lens), applications for the Slowspeed include airports and border control, harbours, vehicle embedded systems and other sensitive area surveillance.

Quick and easy to install, the receiver and housing are connected together by just nine connections (five power, two data and two video cables) and the receiver can be controlled over a daisy chained or star wired RS422/485 network. System commissioning and diagnostics are performed via a local or remotely located display.



PAN AND TILT

With its dual process heat treated gravity die cast aluminum casing and precision turned and milled internal components with ball races on major axes, the Homburg heavy duty pan and tilt is the highly stable, robust and reliable platform for the Slowspeed system. Weatherproof and maintenance free, the head features external limit switch adjustment to avoid compromising its IP68 rating, full mechanical braking and contactless Hall-Effect sensors for greater accuracy over longer distances.

HOUSING

The Homburg Slowspeed's housing is a modified version of the 902 model from Will-Burt's Mitre range. Compact, yet roomy enough to accommodate the equipment needed for the system's long distance surveillance roll, the IP66 rated unit has a casing and tray of fully welded sheet aluminum with stainless steel fastenings and fittings. Inside, there's an extended camera plate with insulated stainless steel safety strap, wiring blocks and a PTC resistor heater. An integral self-parking wiper is also available as an option.

ESSENTIAL FEATURES

- **Long range surveillance**
 - 55-60x lenses
- **Ultra slow speed operation**
 - Pan and tilt speeds <math><0.1^\circ/\text{sec}</math> minimum to
- **Choice of supply voltage**
 - Supply voltage either 110V AC or 230V AC
- **Choice of auxiliary output voltage**
 - Output voltage either supply voltage or 24V AC
- **Easy to install**
 - 9 wire connections between receiver and housing
- **Exceptional accuracy**
 - Revolutionary preset technology with 12 bit resolution
- **Easy to set up**
 - Receiver mountable at base of polex
- **Wide choice of lenses**
 - Compatible with lenses with iris override and x2 converters up to 60x
- **Flexible**
 - Supports 14 different protocols
- **Active motor drive system**
 - Ensures head stays on preset positions

SPECIFICATIONS

Specifications	
Power supply	230VAC or 110VAC
Max load	5A @ 230V (1150W)
Receiver current draw	Maximum of 100VA max
Fuses	Auxiliary fuse F2 5A T (20mm ceramic cartridge) Total max. pan/tilt/lens/24Vac auxiliary 100VA
Outputs	Auxiliary outputs for wash/wipe/lights (1000W max) Driven at supply voltage or 24V ac selectable by SW2
Video input	1V p-p 75Ω terminated input via BNC socket
Video output	1V to 4V p-p 75Ω impedance via BNC socket Video launch amplifier gain locally and remotely adjustable Zoom and focus: adjustable between 6 - 12VDC Inching speed: adjustable between 0-12VDC 1 second inching built in
Lens drives (remotely adjustable)	Iris output: direct drive for 3 motor lens or auto iris override voltage. In auto-iris mode output returns to preset level 15 seconds after manual iris control. Preset level is adjustable. Outputs have red/green LEDs to indicate direction and voltage
Presets Lens 10 bit resolution Head 12 bit resolution	Inputs for pan, tilt, zoom & focus preset feedback pots Up to 32 full scene presets: pan/tilt/zoom/focus (16 with BBV & Baxall up the coax protocols)
Alarm facilities	8 alarm inputs from volt free normally closed contacts Output 1 normally closed volt free contact can be set to operate immediately or when the preset is approached after an alarm input NOTE: The output is used for iris override when using Fujinon or Pentax lens mode
Additional facilities	Software random pan/sequential preset patrol with individual programmable preset dwell/Datum - return to preset 1, start preset patrol or random pan after menu set duration of inactivity
Features	LED readout for continual system status. Programming menu with in-built LCD display and screen display 12V DC/500mA un-switched output Color coded outlets - live, neutral, earth, low voltage



UK NETWORK RAIL ENVIRONMENTAL CAMERA HOUSING

UK Network Rail Approved

Will-Burt's new Environmental Camera Housing meets the exacting specification of the UK Network Rail. The maintenance-free, all-weather camera housing is designed for general CCTV applications and is approved and certified to meet the Network Rail specification BR1682 issue C and carries the certificate number: PA05/07061.

The housing is constructed of powder-coated aluminum and is secured with external stainless-steel fittings that create a weather-proof and corrosion resistant shelter for a camera. The housing provides an impressive ingress rating of IP66.

The toughened glass window, integral thermostatically controlled heater, self-parking wiper and lightning protection circuit protects the camera and optimizes its performance. The wiring loom and internal camera mounting plate delivers maximum versatility for a variety of cameras.

This Environmental Camera Housing is designed to meet the exacting demands of the UK Network Rail and your own demanding requirements.



ESSENTIAL FEATURES

- Approved for Network Rail Specification BR1682 issue C
 - Certificate PA05/07061
- IP66 rated
- Thermostat Controlled Heater
- Wiper
- Lightning Surge Protection
- Toughened Glass Window
- Stainless Steel Fittings
- Model: 9499100021NWR50

SPECIFICATIONS

Dimensions	
Height (including gland)	272mm
Width over sunshield	205mm
Length over sunshield	600mm
Depth inside base	55mm
Capacity (mm) (L x W x H)	510 x 140 x 145mm
Weight	5.4kg
Voltage	110VAC
Features	Integral Wiper, Thermostat, Heater, Lightning Protection Circuit, M20 Cable Gland
Fixing Centres	
Base	4 x M6 holes in 101.6mm (4") PCD pattern
Camera Platform	Paxolin Plate with 4 x 25mm slots
Housing & Sunshield Colour	Goose Grey (BS4800 00A 05) & White (RAL9003)
Temperature (°C)	-20 to +50
Cable Gland Kits	2 x M20 Glands for 6-12mm or 13 - 18mm cables
Certificate Number	PA05/07061



VALUE ADDED ACCESSORIES

Good looking, light but strong, Will-Burt's supporting cast includes brackets with and without pan & tilt adjusters, a range of column spacers, quick release and infra red lamp mounting plates and a special extended sun shield for the 901 Mitre housing. The latest addition is a heat diffusing double skin Mitre sunshield for use in hot countries.



**FEZ
COLUMN SPACERS**



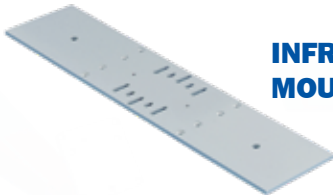
**QUICK
RELEASE PLATE**



STETSON BRACKET



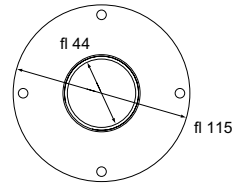
**INFRA RED
MOUNTING PLATE**



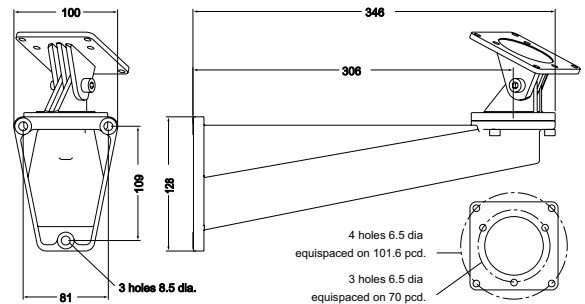
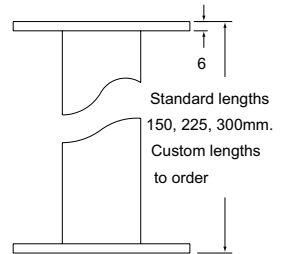
**200mm SUN SHIELD
FOR MITRE 901 HOUSING**



Column spacers are manufactured with 4 X 6.5mm holes on a 101.6mm pcd (4"), or with 80mm dia end plates with 3 X 6.5mm holes on a 70mm pcd. Other plates and configurations can be made to order

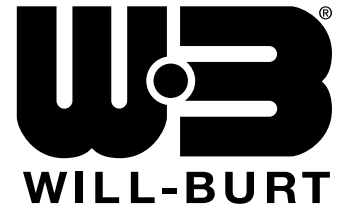


**FEZ COLUMN SPACERS
AVAILABLE IN ANY LENGTH**



**STETSON BRACKET
WITHOUT PAN & TILT ADJUSTER**

CONTACT YOUR SALES REPRESENTATIVE TODAY



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Complete a Contact Form

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The Will-Burt Company, headquartered in Orrville, Ohio, USA, is the world's premier manufacturer of mobile telescoping masts, towers and pan and tilt positioners. We offer virtually every mobile payload elevation and integration solution for defense, government, first responders, cellular and mobile, broadcast, energy production and other markets. Will-Burt also offers contract manufacturing, metal fabrication, powder-coating, and rapid prototyping services. Will-Burt is an international company with offices and manufacturing in the USA, England, and Germany along with offices in Singapore and a joint venture in Turkey. All Will-Burt Company manufacturing locations are backed by a certified ISO 9001:2015 Quality Management System. Incorporated in 1918, Will-Burt is 100% employee-owned and is classified as a small business.