W•B
WILL-BURT

LAW ENFORCEMENT AND EMERGENCY MANAGEMENT LIGHTING AND ELEVATION SOLUTIONS

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INNOVATION ELEVATED®

The Will-Burt Company, located in Orrville, Ohio, USA, is the world's premier manufacturer of telescoping pneumatic and mechanical masts, light towers, video towers and lattice tower elevation solutions – the world's one stop shop offering virtually every payload elevation solution from one source – for law enforcement, military, fire, cellular, broadcast, entertainment and other applications. Will-Burt is an employee-owned company that has been operating nearly 100 years, providing the best elevation and payload integration solutions available. Will-Burt has a strong commitment to the continuous improvement process set forth by its ISO 9001:2015 certified quality system.

Will-Burt Night Scan® Light Tower and Video Advantages

- Minimal vehicle space required with lightweight and compact design
- Full internal wired design protects payload power and data transmission lines
- Provides 360° of light – dual tilt feature provides light in two directions at once
- Fast and Flexible – light at any height and in any direction and automatic stow function
- Reliable in extreme environments – tested and proven in the cold and ice of Canada and the heat and dust of Afghanistan
- Designed to accommodate cameras in combination with lights or camera only
- Easy and safe to operate with multi-function hand held control with LED information screen

Will-Burt can install lights on any vehicle, new or already in service.
Squad / Utility and Mobile Command, Pumper, Engine, Rescue, Hazmat, Aerial, ARFF

CONTENTS

night**FIT**scan®

The name says it all! Night Scan Fit – the light tower that Fits your Space and Fits your Budget.

Don't let the narrow footprint and lightweight design mislead you. This is a powerful Night Scan with powerful LEDs to illuminate your work without blinding your crew. A remote-controlled positioner that puts the light where you need it regardless of your apparatus' position and most importantly, it turns night into day, helping to keep your crew safe.

ESSENTIAL FEATURES

- Narrow – less than 16"
- Lightweight – less than 100 pounds
- Positions powerful LED light, 56,000 lumens, where you need it, regardless of the apparatus' position
- Easy to install, Self-contained system only requires 12-volt power

Specifications	1.0	2.3
Height	3.25 ft. / 1 m	7.5 ft. / 2.3 m
System Weight Approx.	89 lb. / 41 kg	97 lb. / 44 kg
Auto Deploy and Auto Stow®	8 seconds	10 seconds
Number of Lights Available	4	4
Light Type Available	WB 140 LED	WB 140 LED
Maximum Lumens	56,000	56,000
Pan and Tilt Light Positioning	Yes	Yes
Opposable Light Fixtures	No	No
VDC / Watts Maximum	200	200
VAC / Watts Maximum	120 or 240 / 6000	120 or 240 / 6000
Beacon Light Option	No	No
Camera Option	No	No
Color Option	Standard Color White. Black Option for Additional Charge.	
*Wind Speed Survival	140+ mph / 225+ km/h	114 - 140 mph / 184 - 225 km/h
Operating Temperature	-22°F to +149°F / -30°C to +65°C	

* 125% NFPA Safety Factor

Night Scan Fit with WB-140 lights
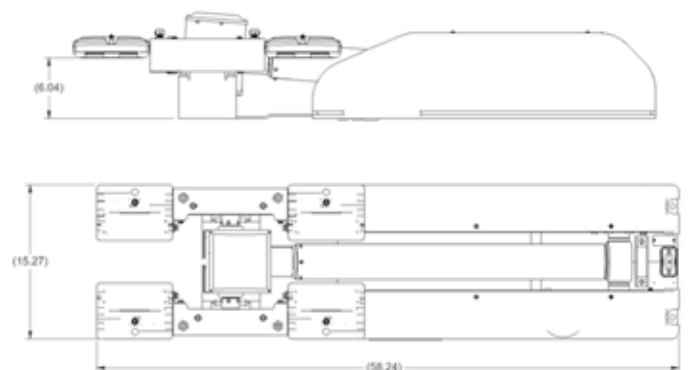
NIGHT SCAN® CHIEF

The Will-Burt Night Scan® Chief is a roof-mounted, fold-down light tower which requires no interior vehicle space. It is typically used on medium-size rescue, pumper rescue, service and utility vehicles. The Night Scan® Chief features a self-contained air system (no external air supply needed) and is available with all DC (12V/24V DC) operations in which generator or inverter is not required.

Specifications	1.0	1.8	2.3
Height (ft.) / (m)	3.25 / 1	6 / 1.8	7.5 / 2.3
System Weight Range (lb.) / (kg)	97 lb. / 44 kg – 135 lb. / 61 kg		
Auto Deploy and Auto Stow®	Yes	Yes	Yes
Time to Light	8 seconds	8 seconds	10 seconds
Number of Lights Available	2 or 4	2 or 4	2, 4 or 6
Light Type Available	LED	LED	LED
Maximum Lumens	80000	140000	140000
Full Pan and Tilt Light Positioning	Yes	Yes	Yes
Opposable Light Fixtures	No	No	No
VDC / Watts Maximum	12 or 24 / 500	12 or 24 / 640	12 or 24 / 920
VAC / Watts Maximum	120 or 240 / 6000	120 or 240 / 6000	120 or 240 / 6000
Profiler – Space-Saving Fixture Option	Yes – 2 or 3 lights	Yes – 2 or 3 lights	Yes – 2 or 3 lights
Beacon Light Option	Yes	Yes	Yes
Camera Option	Yes	Yes	Yes
Color Option	Standard Color White. Black Option for Additional Charge.		
*Wind Speed Survival	140+ mph / 225+ km/h	140+ mph / 225+ km/h	114 - 140 mph / 184 - 225 km/h
Operating Temperature	-22°F to +149°F / -30°C to +65°C		

*Varies depending on light package – 125% NFPA Safety Factor

Profiler narrow light fixture option

NIGHT SCAN® POWERLITE

The Will-Burt Night Scan® Powerlite is a roof-mounted, fold-down light tower which requires no interior vehicle space. It is typically used on heavy-rescue vehicles, mobile command centers and airport ARFF vehicles. Opposable light fixtures provide equal lighting forward and backward at the same time – 360˚ of light. Delivering up to 240,000 lumens, the Night Scan® Powerlite is ideal on any vehicle where maximum light is required. The Powerlite 3.0 and 4.5 can be elevated with truck air or optional on-board compressor. The 2.3 comes with a built-in compressor.

**Profiler narrow
light fixture option**

Specifications	2.3	3.0	4.5	6.0	7.5
Height (ft.) / (m)	7.5 / 2.3	10 / 3	15 / 4.5	20 / 6	25 / 7.5
System Weight Range (lb.) / (kg)		139 / 63 – 178 / 81		161 / 73 – 199 / 91	
Auto Deploy & Auto Stow®	Yes	Yes	Yes	Yes	Yes
Time to Light (seconds)	8	12	14	17	21
Number of Lights Available	4	4, 6, 8 or 12	4, 6, 8 or 12	2, 4 or 6	2 or 4
Light Type Available	LED	LED	LED	LED	LED
Maximum Lumens	120000	240000	240000	210000	140000
Full Pan & Tilt Light Positioning	Yes	Yes	Yes	Yes	Yes
Opposable Light Fixtures	Yes	Yes	Yes	Yes	Yes
VDC / Watts Maximum	12 or 24 / 920	12 or 24 / 1380	12 or 24 / 1380	24 / 920	24 / 460
VAC / Watts Maximum	N/A	120 or 240 / 9000	120 or 240 / 9000	120 or 240 / 9000	120 or 240 / 6000
Profiler – Space-Saving Fixture Option	No	Yes – 2 or 3 lights	Yes – 2 or 3 lights	Yes	Yes
D-TEC® Power Line Detection System Option	No	Yes	Yes	Yes	Yes
Beacon Light Option	Yes	Yes	Yes	Yes	Yes
Camera Option	Yes	Yes	Yes	Yes	Yes
Color Option		Standard Color White. Black Option for Additional Charge.			
*Wind Speed Survival (mph / km/h)	114 - 140 / 184 - 225	86 - 140 / 138 - 225	69 - 118 / 111 - 190	64 - 94 / 103 - 151	62 - 78 / 100 - 126
Operating Temperature (°F / °C)		-22 to +149 / -30 to +65			

*Varies depending on light package – 125% NFPA Safety Factor

Night Scan® Powerlite with Profiler

NIGHT SCAN® VERTICAL LIGHT TOWER

The Will-Burt Night Scan® Vertical Tower is a vertically mounted light tower which may be installed internally or externally to the side or rear of a vehicle. Used for elevating lights and/or cameras, it is typically used on heavy rescue vehicles, full-size mobile command centers, airport ARFF vehicles and large wreckers. Delivering up to 240,000 lumens with the Sirion light package, the Night Scan® Vertical Light Tower is ideal on any vehicle where maximum light and height are required.

Specifications	5.4-17	6-20	7-25	8-30
Height (ft.) / (m)	17 / 5	20 / 6	25 / 7.6	30 / 9
Auto Deploy and Auto Stow®	Yes	Yes	Yes	Yes
Number of Lights Available	4, 6, 8 or 12	4, 6, 8 or 12	4, 6, 8 or 12	4, 6, 8 or 12
Light Type Available	LED	LED	LED	LED
Maximum Lumens	240000	240000	240000	240000
Full Pan and Tilt Light Positioning	Yes	Yes	Yes	Yes
Opposable Light Fixtures	Yes	Yes	Yes	Yes
VDC / Watts Maximum	12 or 24 / 1380	12 or 24 / 1380	12 or 24 / 1380	12 or 24 / 1380
VAC / Watts Maximum	120 or 240 / 9000	120 or 240 / 9000	120 or 240 / 9000	120 or 240 / 9000
Profiler – Space-Saving Fixture Option	Yes	Yes	Yes	Yes
D-TEC II® Power Line Detection System Option	Yes	Yes	Yes	Yes
Beacon Light Option	Yes	Yes	Yes	Yes
Camera Option	Yes	Yes	Yes	Yes
Color Option	Standard color white. Black option for additional charge			
*Survival Wind Speed (mph / km/h)	100+ / 161+	88+ / 141+	74+ / 119+	63+ / 101+
Operating Temperature	-22°F to +149°F / -30°C to +65°C			

*Varies depending on light package – 125% NFPA Safety Factor

STANDARD DUTY NON-LOCKING
INTERNALLY WIRED MAST SPECIFICATIONS

Specifications	3.3-10	4.7-10	5.7-13	4.3-15	6.7-16	5.4-17	6-20	7-25	8-30
Payload Capacity (lbs.) / (kg)*	100	50	50	100	50	100	100	100	100
Extended Height / (ft. / (m)	8.4 / 2.6	10.2 / 3.1	13.3 / 4	13.4 / 4.1	16.3 / 5	17 / 5.2	20.4 / 6.2	25.4 / 7.7	30.4 / 9.3
Nested Height (ft.) / (m)	3.3 / 1	4.7 / 1.4	5.7 / 1.7	4.3 / 1.3	6.7 / 2	5.3 / 1.6	6 / 1.8	7 / 2.1	8 / 2.4
Approximate Mast Weight (lbs.) / (kg)	35	27	32	45	37	50	55	60	65
Tube Diameter (in.) / (mm)	5-3 / 127-76	4-3 / 102-76	4-3 / 102-76	5-3 / 127-76	4-3 / 102-76	5-3 / 127-76	5-3 / 127-76	5-3 / 127-76	5-3 / 127-76
Number of Sections	5	3	3	5	3	5	5	5	5

*Capacity will be affected by wind sail area. Consult factory.

nightscan iQ®

IQ SYSTEM

ATHERION iQ

Intelligent Light Tower System

Adjustable LED Scene Lights

The Night Scan IQ system gives you total control of your scene lighting

Night Scan IQ delivers ultimate control over your scene lighting. It can be programmed to deploy automatically to a specific direction and angle. Night Scan IQ always knows where it is directed in relation to your apparatus and displays this graphically on the 4.3" LCD screen. Flexibility is built-in with easy to change settings and real-time feedback. Night Scan IQ is Smart Illumination.

Essential Features

- Programmable positioning
- Graphical User Interface
- Simple to operate and program
- System status feedback
- Panel Mount – optional tethered controller
- Multiplex system compatible
- Available with Atherion IQ adjustable scene lights
  - 4, 6, or 8 lamps / tower
  - 30,000 lumens / lamp up to 240,000 lumens
  - Power Required / lamp 200 watts
  - 120 VAC 1.7 amps / 240 VAC .84 amps
  - 12 VDC 16.7 amps / 24 VDC 8.4 amps

Available as Powerlite Light Tower

The Night Scan Powerlite IQ was tested at -15° F (-26° C) with a ¼" (6mm) of ice

Identify the exact light position at any given time with Smart Control System

Smooth Deploy and Stow with Smart Actuator

nightscan®
by Will-Burt
Tower and LED Light Package Options

Brand	Model	Light Warranty	Lumens / Lamp**	Watts	Voltage	Amps	Chief 1.0 (3.25 ft.)	Chief 1.8 (6 ft.)	Chief 2.3 (7.5 ft.)	Chief Profiler 1.8 (6 ft.)	Chief Profiler 2.3 (7.5 ft.)
Will-Burt	Atherion IQ	Limited Lifetime	30,000	200	12 / 24	16.7 / 8.4					
		Limited Lifetime	30,000	200	120 / 240	1.7 / .84					
Will-Burt	sirion	Limited Lifetime	110000 / 6	600	12 / 24	50 / 25					
					120 / 240	5.5 / 2.75					
Will-Burt	Will-Burt 480	2	72000 / 6	480	120 / 240	4.0 / 2.0					
Will-Burt	Will-Burt 300	2	45000 / 4	300	120 / 240	2.5 / 1.3					
Will-Burt	Will-Burt 150	2	22500 / 2	150	120 / 240	1.3 / .7	4	4	4		
Will-Burt	nightscan X200	Limited Lifetime	20000	125	12 / 24 / 120 / 240	9.2 / 4.6 / 1.1 / .55	2 / 4	2 / 4	6	2 / 3	2 / 3
Will-Burt	Will-Burt 140	5	14000	50	12 / 24	4.2 / 2.1	2 / 4	2 / 4	2 / 4		
					120 / 240	.42 / .21	2 / 4	2 / 4	2 / 4		
FRC	SPECTRA MAX	Limited Lifetime*	28000	230	12	19.2		2	2		
				230	24	9.6		2	2 / 4		
				336	120 / 240	2.8 / 1.4		2	2 / 4		
FRC	SPECTRA	Limited Lifetime*	20000	230	12	18.3		2	2		
				230	24	9.2		2	2 / 4		
				230	120 / 240	2 / 1		2	2 / 4		
FRC	EVOLUTION	Limited Lifetime*	20000	160	12	13		2 / 4	2 / 4		
				160	24	6.5		2 / 4	2 / 4		
WHELEN	Pioneer Plus Spot / Flood	Limited Lifetime*	20614	150	120	1.3		2 / 4	2 / 4	2 / 3	2 / 3
			20261	150	12 / 24	13 / 6		2 / 4	2 / 4	2 / 3	2 / 3
WHELEN	Pioneer Plus Max	Limited Lifetime*	19819	180	120	1.5		2	2 / 4		
				225	12	18.8		2	2		
			19305	210	24	8.8		2	2 / 4		

**Lumens per light manufacturer specifications - Multiply lumens by number of lamps for total lumens.
*See manufacturer's web site for limitations of warranty.

*Visit nightscan.com to customize a light tower using our Night Scan EZ Spec interactive table

Powerlite			Powerlite Profiler		Powerlite Xtreme		Vertical Complete	Vertical			
2.3	3.0	4.5	3.0	4.5	6.0	7.5	2.3	5.4-17	6-20	7-25	8-30
Tower Height											
7.5 ft.	10 ft.	15 ft.	10 ft.	15 ft.	20 ft.	25 ft.	7.5 ft.	17 ft.	20 ft.	25 ft.	30 ft.
	4 / 6 / 8	4 / 6 / 8						4 / 6 / 8	4 / 6 / 8	4 / 6 / 8	4 / 6 / 8
	4 / 6 / 8	4 / 6 / 8						4 / 6 / 8	4 / 6 / 8	4 / 6 / 8	4 / 6 / 8
	12	12	6	6				12	12	12	12
	12	12	6	6				12	12	12	12
	12	12						12	12	12	12
	8	8						8	8	8	8
4											
							2 / 4				
							2 / 4				
	4 / 6	4 / 6	3	3			2	4 / 6	4 / 6	4 / 6	4 / 6
	4	4	3	3			2				
	4 / 6	4 / 6	3	3	2 / 4	2	2	4 / 6	4 / 6	4 / 6	4 / 6
	4 / 6	4 / 6	3	3			2	4 / 6	4 / 6	4 / 6	4 / 6
	4	4	3	3			2 / 4				
	4 / 6	4 / 6	3	3	2 / 4	2	2 / 4	4 / 6	4 / 6	4 / 6	4 / 6
							2				
	4	4					2 / 4	4	4	4	4
4	4 / 6	4 / 6	3	3	4 / 6	2 / 4	2 / 4	4 / 6	4 / 6	4 / 6	4 / 6
4	4 / 6	4 / 6	3	3	4 / 6	2 / 4	2 / 4	4 / 6	4 / 6	4 / 6	4 / 6
	4 / 6	4 / 6			2 / 4	2	2 / 4	4 / 6	4 / 6	4 / 6	4 / 6
							2 / 4				
	4 / 6	4 / 6			2 / 4	2	2 / 4	4	4	4	

Revised: February, 2024_v1

ATHERION IQ

You adapt to everything emergency scene, shouldn't your light tower do the same?

Atherion IQ scene lights, combined with a Night Scan IQ light tower gives you 100% control of your scene illumination.

Each 30,000 lumen lamp has a combination of powerful spot and flood LEDs that you control from the LCD screen of Night Scan IQ.

Night Scan Powerlite Dual Tilt action allows you to control two banks of lights independently. The staging area can be washed with floodlighting by one bank of lights, delivering wide and consistent coverage. The second bank of lights can be directed at the work area such as a car accident where the Atherion IQ lights can be dialed to spotlight mode, providing pinpoint illumination allowing your team to perform the most demanding tasks.

Alert oncoming traffic to your presence by setting one or both banks of light to flash mode – you control the speed.

There are some situations where too much light is on the scene – this is no problem for the IQ system – you can dim the lights to the proper level for the situation.

The Night Scan IQ System gives you total control of your scene lighting!

ESSENTIAL FEATURES

- Variable Illumination
  - Shift from Spot to Floodlight or anything in between
- Dimmable
  - Lower the light output for the situation
- Control Two Light Banks Independently
  - Floodlight and / or Spotlight and / or Flash
- Two light banks can be controlled independently – You Decide!
  - Flood and / or spotlight and / or Flash
  - Floodlight for staging area and Spotlight for work area
- Traffic Warning
  - Variable speed flash of one bank or two

- **Available on all Night Scan IQ light towers**
  - 4, 6, or 8 lamps / tower
  - 30,000 lumens / lamp up to 240,000 lumens
  - Power Required / lamp 200 watts
  - 120 VAC 1.7 amps / 240 VAC .84 amps
  - 12 VDC 16.7 amps / 24 VDC 8.4 amps

Independent control of each light bank

ATHERION IQ

The Atherion IQ gives you total control of your scene lighting. Up to 240,000 lumens of LED light can be quickly shifted from spot to floodlight or anything in between, allowing your team to perform the most demanding tasks safely and efficiently.

ATHERION IQ

80° Flood / 20° Spot @ 300'

50° Flood / 50° Spot @ 300'

30° Flood / 70° Spot @ 300'

NIGHT SCAN® SIRION

Sirion LED lamps deliver maximum illumination on Night Scan light towers. These scene lights were designed to optimize the inherent benefits that Night Scan light towers have over the competition. A mix of short and long-range optics insure that the proper level of illumination is provided whether the tower is fully extended to cover the maximum area for a large and diverse scene or lowered to provide intense light on a focused situation.

Essential Features

- Consistent and constant illumination from the beginning of the mission until the end is assured by an electronic thermal management system and top bin LEDs
- Water-proof and designed for high-vibration applications
- Compact and highly efficient
- Limited Lifetime Warranty

The three major areas of a nighttime scene are illuminated by Sirion Triple Coverage optics technology:

- The critical work area is illuminated by focused spot light optics
- The apparatus is covered by short-range flood lamps
- The entire scene is evenly illuminated by long-range flood lights

Sirion available on the following light towers:

Night Scan Powerlite: 3.0 and 4.5
Night Scan Vertical Powerlite: 17', 20', 25' and 30'

Total power 1,200 watts
120 VAC / 11 amps, 240 VAC / 5.5 amps
12 VDC / 50 amps, 24 VDC / 25 amps

Effective lumens are a true measure of real world light output of a fixture. Raw lumens don't tell the entire story. Bigger numbers don't always mean more light.
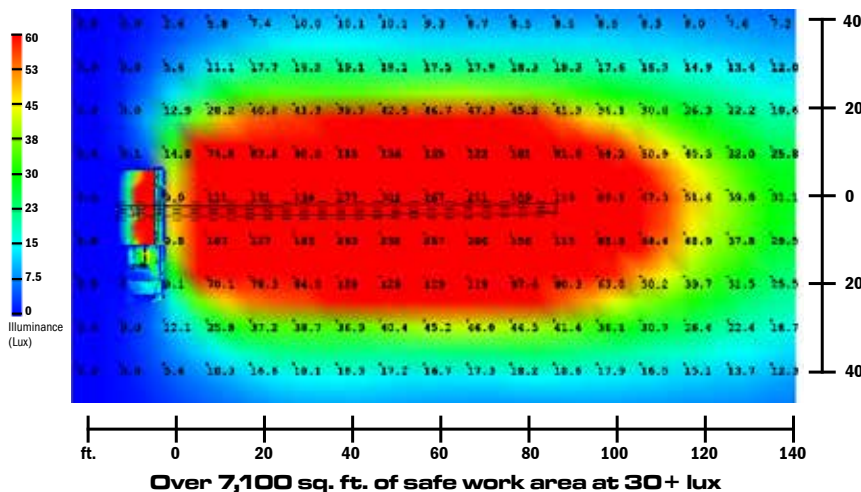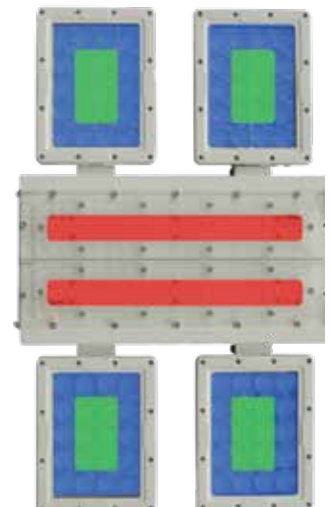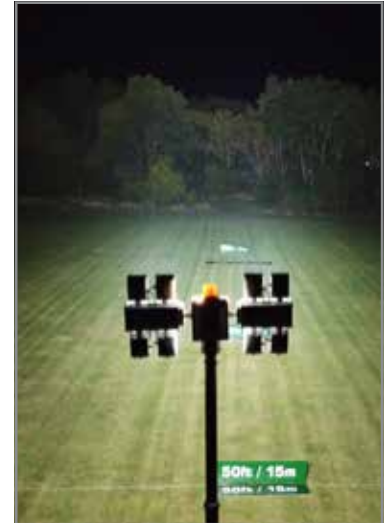
Sirion Light Package

Raw Lumens: 220,000 / Effective Lumens: 122,340
30 LUX of light is considered safe for a work area by NFPA

Now Available in narrow Profiler design

**Over 7,100 sq. ft. of safe work area at 30+ lux**

NIGHT SCAN® LED LAMPS

The Night Scan family of LED lamps are the only LED scene lights designed specifically for Night Scan light towers. These lamps are engineered to optimize the inherent benefits of Night Scan towers, producing more light, using less power, and covering larger areas. Reliable in extreme environments, the Night Scan family of LED lamps are IP69K rated for high-pressure spray and are submersible under water. Consistent illumination from the beginning of the mission until the end is assured by an electronic thermal management system, large heat sinks, and top-bin LEDs.
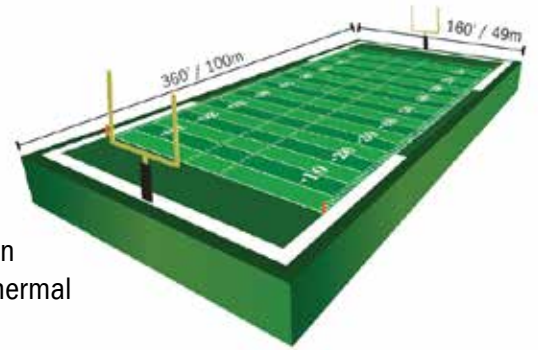
The Night Scan LED lamps deliver maximum lighting performance and will always create light through out the mission. The 220,000 lumen Sirion provides usable light for more than the area of a football field.

MORE LIGHT COVERAGE
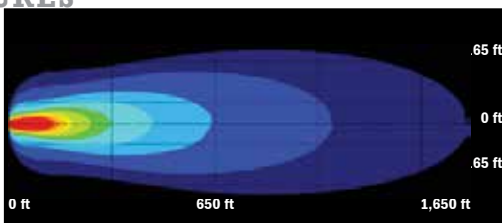
Night Scan X200 - 6 Lights
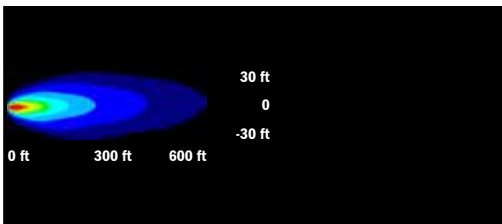
Model	X200
Raw Lumens	20,000 each
Effective Lumens	11,323 each
Warranty	Limited Lifetime
Optics	Double – Spot / Flood

1.000 lx	2.000 lx	5.000 lx	10.00 lx
15.00 lx	30.00 lx	40.00 lx	60.00 lx
80.00 lx	100.0 lx		
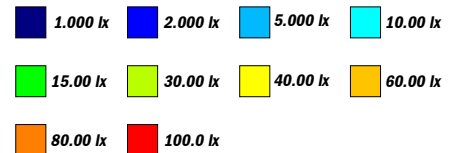
Night Scan Sirion - 12 Lights

FEATURES

Model	Sirion
Raw Lumens	110,000 each
Effective Lumens	61,170 each
Warranty	Limited Lifetime
Optics	Triple – Spot / Short & Long Flood

1.000 lx	2.000 lx	5.000 lx	10.00 lx
15.00 lx	30.00 lx	40.00 lx	60.00 lx
80.00 lx	100.0 lx		
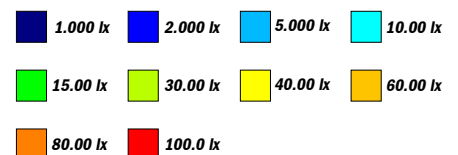
VALUE-ADDED ACCESSORIES

BEACON LIGHTS

Will-Burt lighting solutions include reliable, compact beacon lights for added visibility and safety. Beacon lights feature a rugged, impact-resistant polycarbonate dome and base, exceptional fiber optics, and a double-flash power supply that automatically adjusts to function at any voltage – from 12V to 24V DC. They meet SAE J1318 Class 3 specifications and are available in LED beacons and a variety of colors: amber, blue, clear, red and green.

REMOTE CONTROLLERS

Will-Burt offers wired and wireless full-function, simple-to-use remote controls. Designed for rugged environments and gloved hands, they can withstand the harshest weather and operating conditions.

All controllers have an emergency stop button for immediate reaction to unexpected situations. All controllers have a one button auto-deploy and auto-stow function to simplify tower operation and they also include a digital display for status feedback.

Choose from our handheld tethered models or a panel-mount version. A full-function, wireless / rechargeable remote-control system with 300' range is available for all Night Scan models. The wireless remote can also be paired with an optional tethered remote control for the ultimate in flexibility and peace of mind operation.

Night Scan Universal Wireless Controller

WIRED REMOTES

Chief and Vertical Complete

Powerlite, Xtreme and Vertical

WIRELESS REMOTE

All Night Scan Models

PANEL MOUNT CONTROLS

Chief and Vertical Complete

Powerlite, Xtreme and Vertical

D-TEC® LIVE POWER LINE DETECTION SYSTEM

The D-TEC® safety system provides overhead power line detection and above-the-mast illumination. The built-in high voltage, electromagnetic and electrostatic field detection system automatically stops mast extension, providing added protection for the operator and equipment. The D-TEC® safety system is available on powerlite and vertical telescoping masts.

Safety Features

• Dual threshold AC alert, E-Field (current) and H-Field (magnetic)
• 3-axis field detection
• LED Look-Up Light
• Audible alerts
• Alphanumeric LED display
• Built-in Emergency Bypass
• Expanded self-testing features
• Factory pre-set siren and verbal warning in English and Spanish

PNEUMATIC NON-LOCKING TELESCOPING MASTS

The Will-Burt Pneumatic Heavy-Duty Non-Locking (HDNL) and Super Heavy-Duty Non-Locking (SHDNL) Masts offer a light-weight solution with a high payload lifting capacity. Our Pneumatic Non-Locking Masts also feature high pointing accuracy and long mast life for high performance and dependability. The pneumatic heavy-duty design makes it inherently safe – the payload sits on a "cushion of air" enabling it to better absorb shocks for on-the-move applications*. What's more, the Pneumatic Non-Locking Masts have controlled exhausting of air for smooth and safe retraction. Locking models are available for extended deployments.

Essential Features

- **Maintains azimuth - minimal twist deflection**
  - Reliable full-length external keyways
- **Operates in extreme environments**
  - External wipers protect against sand and dust
- **Low maintenance and life-cycle costs**
  - Easy to operate and maintain low friction synthetic bearings
- **Long life**
  - Black hardcoat protects against salt fog corrosion

Super Heavy Duty Non-Locking Masts Specifications

Model*	10-38	12-48
Payload Capacity (lbs. / kg)	1,200 / 544	1,200 / 544
Extended Height (ft. / m)	38 / 11.6	48 / 14.6
Nested Height (ft. / m)	10 / 3	12 / 3.6
Approximate Mast Weight (lbs. / kg)	400 / 181	475 / 215
Number of Sections	5	5
Tube Diameter (in. / mm)	11.25 - 7.5 / 286-191	11.25 - 7.5 / 286-191
Maximum Operating Pressure	35 PSIG (2.4 bar)	35 PSIG (2.4 bar)

Low-Profile Non-Locking Masts Specifications

Model*	7-27	6-29	7-42	6-42	7.3-50
Payload Capacity (lbs. / kg)	300 / 136	200 / 91	300 / 136	200 / 91	200 / 91
Extended Height (ft. / m)	26.7 / 8.2	28.4 / 8.7	41.2 / 12.5	41.2 / 12.5	50 / 15.3
Nested Height (ft. / m)	6.5 / 2	6 / 1.8	6.8 / 2.1	6.3 / 1.9	7.3 / 2.3
Approximate Mast Weight (lbs. / kg)	118 / 53	119 / 54	230 / 104	223 / 101	257 / 117
Sections	5	6	8	9	9
Tube Diameter (in. / cm)	6.75 / 17.15 through 3.75 / 9.53	6.75 / 17.15 through 3 / 7.62	9 / 22.86 through 3.75 / 9.53	9 / 22.86 through 3 / 7.62	9 / 22.86 through 3 / 7.62
Collars	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking	Internal, Non-Locking
Maximum Operating Pressure	35 psig (2.4 bar)	35 psig (2.4 bar)	35 psig (2.4 bar)	35 psig (2.4 bar)	35 psig (2.4 bar)

Standard Duty Non-Locking Masts Specifications

Model*	5-20	6-27	7-34	8-30
Payload Capacity	70 lbs. / 32 kg	40 lbs. / 18 kg	40 lbs. / 18 kg	100 lbs. / 45 kg
Extended Height	20 ft. / 6.1 m	27 ft. / 8.2 m	33.8 ft. / 10.3 m	29.8 ft. / 9.1 m
Nested Height	5.3 ft. / 1.6 m	6 ft. / 1.8 m	7 ft. / 2.1 m	8 ft. / 2.4 m
Approx. Mast Weight	45 lbs. / 21 kg	54 lbs. / 25 kg	67 lbs. / 31 kg	64 lbs. / 29 kg
Number of Sections	6	7	7	5
Tube Diameter	5-2.5" / 127-64 mm	5-2" / 127-51 mm	5-2" / 127-51 mm	5-3" / 127-76 mm
Maximum Operating Pressure	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)	20 PSIG (1.4 bar)

*Capacity will be affected by wind sail area. Consult factory.

INFLEXION™ ROOF-MOUNTED TELESCOPING MAST

The Will-Burt Company has partnered with the industry leaders in broadcast vehicle integration for over 30 years. This has allowed Will-Burt to identify advances and achanges in broadcast technology early and design elevation solutions to optimize that technology.

Inflexion™ was designed to meet the elevation requirements of smaller, advanced broadcast devices. The roof-mounted, self-contained Inflexion™ can easily be integrated onto nearly any vehicle, from traditional broadcast vans to small, front-wheel drive vehicles. This allows you to take full advantage of fuel and vehicle cost savings.

Optional Features

- **Compact, roof-mount design**
  - No interior space needed
- **Self-contained elevation system**
  - No compressor or generator required
- **Years of reliable service**
  - Field proven design with over 25 years of service - 2 year manufacturer warranty
- **High payload capacity and height options**
  - From 3 ft. / 1.0 m to 25 ft. / 7.5 m
- **Accommodates a variety of payloads**
  - Antennas, satellite dish, radar, lighting and cameras
- **12 VDC operation**
- **Color**
  - White
- **Analog Handheld controller**
  - Includes mast up/down function

Optional Features

- **PositionIt**
  - Integrated pan and tilt positioner
- **InflexionPlus**
  - Accomodates full function handheld controller (sold separately)
- **Color**
  - Black
- **Internal wiring or Nycoil**
  - Consult factory for specific application
- **24 VDC operation**

Specifications	1.0	1.8	2.3	3.0	4.5	6.0	7.5
Extended Height (in. / cm)	39 / 99	60 / 152	79 / 200	108 / 274	168 / 427	228 / 579	287 / 729
Maximum Payload Capacity (lb. / kg)*	60 / 27	60 / 27	60 / 27	100 / 45	100 / 45	70 / 31	57 / 25
Approximate Stowed Dimensions (L x W x H) (in. / cm)	41.5 x 15 x 10 / 104 x 38 x 25	37 x 15 x 10 / 94 x 38 x 25	43 x 16 x 11 / 110 x 38 x 23	51 x 16 x 12 / 130 x 41 x 31	63 x 16 x 12 / 159 x 40 x 29	80 x 16 x 11 / 202 x 40 x 28	91 x 16 x 11 / 223 x 40 x 28
Approximate System Weight (lb. / kg)	60 / 27	63 / 29	66 / 30	105 / 48	110 / 50	123 / 56	134 / 61
Operating Temperature Range (°F / °C)	-22 to +149 / -30 to +65						

*The added weight of a positioner or D-TEC II will reduce maximum payload capacity. Capacity will be affected by wind sail area. Consult factory.

ANTENNAMAST®

The AntennaMast model AM2 is a rugged, lightweight, man-portable, aluminum tripod mast designed for rapid payload deployment. The AM2 is extremely flexible and reliable and is capable of elevating multiple devices on a single mast.

PAYLOAD DEPLOYMENT OPTIONS:

1. The EZ Raze™ system with cable winching device and safety brake enables the user to lift and lower heavier payloads in a safe and controlled manner without disassembling the mast system.

2. The mast tube lift winch provides a mechanical assist for the lifting of the mast tubes for heavier payloads.

3. The user is also able to elevate the mast tubes and payload by breach loading the tubes through the tripod center collar.

Essential Features

- **Rapid set-up –** Includes a tripod with two (2) built-in levels and large no-slip adjustment knobs that are easy to operate. Interlocking mast tubes allow for directional adjustment of the payload.
- **Flexible –** A variety of payload adaptors and accessories are available to accomplish diverse missions.
- **Simple –** No tools or special training are needed for deployment.
- **Rugged –** Designed to meet MIL-STD-810 for use in a variety of harsh environments.
- **Durable –** Components are constructed of aluminum and stainless steel and are covered by a two (2) year warranty.
- **Complete system –** AM2 system includes all components needed to safely deploy rated payload at selected height.
- **Transportable –** Every mast system comes with a rugged wheeled transport bag designed for easy unloading and loading.
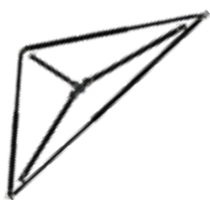

**AM2 with EZ Raze
Payload Elevation System**

Easily elevate and lower multiple antennas and sensors

AM2 with Mast Tube Lift Winch

A FULL RANGE OF INTERCHANGEABLE ACCESSORIES AND PAYLOAD ADAPTORS ARE AVAILABLE FOR THE ANTENNAMAST

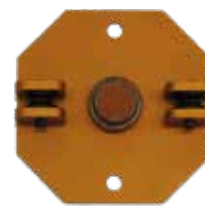| STAKE FREE TRIPOD KIT	MANUAL LIFTER	LIGHTNING GROUNDING KIT	ADJUSTABLE CUP HOLDER	DUAL, TRI & QUAD ARM COLLAR

BOLSTER PLATE	HALF CLAMP	LIFT WINCH	WINCH LIFT PLATE	NATO PLATE
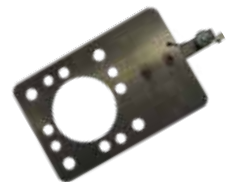
KVL, KVK, & KVR TELESCOPIC CABLE DRIVE MASTS

GEROH KVL | KVK | KVR

The Family of light duty GEROH Telescopic Cable Drive Masts is characterized by lightweight construction in addition to superior stability, reliability and long life. The KVL, KVK, and KVR mast systems are in use in military and commercial applications such as communications testing, surveillance and lighting and are designed for vehicle, trailer, shelter or field deployment. The mast sections consist of close tolerance precision mast profiles which ensure precise pointing accuracy. Safe deployment and retraction is assured, even with ice or heavy wind conditions.

Essential Features

- Automatic locking system (KVR
  - Deploy at any height
- Precision tube fit
  - Maintains azimuth

- Powerful cable drive system
  - Deploy and retract in extreme weather conditions
- Optional motor drive system

- Designed for trailer, shelter, vehicle or field mounting
- MIL-STD 810–F & G qualified
- Field Deployment Kit Optional

Specifications

KVL	120 - 2.5 KVL 3	120 - 4 KVL 4	120 - 6 KVL 5	120 - 8 KVL 5	145 - 8 KVL 6	145 - 10 KVL 6
Extended Height (ft. / m)	8.2 / 2.5	13.1 / 4	19.7 / 6	26.2 / 8	26.2 / 8	32.8 / 10
Nested Height (ft. / m)	3.5 / 1.1	4.3 / 1.3	5.1 / 1.5	6.4 / 2.0	5.75 / 1.75	6.9 / 2.1
Payload Capacity (lb / kg)	67 / 30	67 / 30	55 / 25	44 / 20	44 / 20	33 / 15
Approximate Mast Weight (lb / kg)	62 / 28	71 / 32	82 / 37	95 / 43	106 / 48	122 / 55
Number of Sections	3	4	5	5	6	6

KVK	120 - 2.5 KVK 3	120 - 4 KVK 4	145 - 6 KVK 4	145 - 8 KVK 5	170 - 10 KVK 5	170 - 12 KVK 6
Extended Height (ft. / m)	8.2 / 2.5	13.1 / 4	19.7 / 6	26.2 / 8	32.8 / 10	39.3 / 12
Nested Height (ft. / m)	3.5 / 1.14	4.3 / 1.34	6.3 / 1.9	6.9 / 2.1	8.2 / 2.5	8.2 / 2.5
Payload Capacity (lb / kg)	132 / 60	99 / 45	132 / 60	99 / 45	110 / 50	88 / 40
Approximate Mast Weight (lb / kg)	62 / 28	78 / 35	122 / 55	139 / 63	183 / 83	194 / 88
Number of Sections	3	4	4	5	5	6

KVR	145 - 8 KVR 5	145 - 10 KVR 5	145 - 12 KVR 5	170 - 8 KVR 5	170 - 10 KVR 5	170 - 12 KVR 5	170 - 14 KVR 5	170 - 8 KVR 6	170 - 10 KVR 6	170 - 12 KVR 6	170 - 14 KVR 6
Extended Height (ft. / m)	26 / 8	32 / 10	39 / 12	26 / 8	32 / 10	39 / 12	45 / 14	26 / 8	32 / 10	39 / 12	45 / 14
Nested Height (ft. / m)	7.2 / 2.2	8.5 / 2.6	9.9 / 3.0	7.2 / 2.2	8.5 / 2.6	9.9 / 3.0	11.2 / 3.4	6.6 / 2.0	7.6 / 2.3	8.9 / 2.7	9.9 / 3.0
Payload Capacity (lb / kg)	110 / 50	99 / 45	88 / 40	110 / 50	110 / 50	99 / 45	88 / 40	110 / 50	99 / 45	88 / 40	88 / 40
Approximate Mast Weight (lb / kg)	148 / 67	163 / 74	176 / 80	181 / 82	201 / 91	220 / 100	240 / 109	176 / 80	194 / 88	212 / 96	229 / 104
Number of Sections	5	5	5	5	5	5	5	6	6	6	6

Additional sizes available. Specifications are for reference only and are subject to change. Please contact Will-Burt for current and exact specifications.
In addition to its masts, Will-Burt Germany also engineers and manufactures its own line of specialty single and double-axle military trailers, designed for maximum mobility with high payload capability and low curb weight.

HURRY-UP PORTABLE PUSH UP TELESCOPING MAST

The Hurry-Up manual push-up mast, can be extended to a full height of 30 feet (9 m) in one minute or less. The Hurry-Up mast features quick lock/release collars. Extend the mast manually by pushing up the sections and fixing them in position. This mast is ideal for fast deployment of light-weight antennas and instruments.

Essential Features

- **Rigid Azimuth Locking Collars**
  - Quick direction adjustments
- **Black anodized finish**
  - Corrosion resistant
- **Simple design and operation**
  - Manual push-up deployment, retraction, and locking of mast

Accessories

(mounting option required):

- **Drive-on plate mounting**
  - No guylines required
- **Removable payload extension stub**
  - Easy payload mounting
- **External support brackets**
  - Permanent vehicle mounting
- **Hitch Mount**
  - 2" Hitch – Removable

Hitch Mount	Drive-On Plate	External Mount
2" Removable Hitch	**No Guylines Required**	**Shelf and Support Brackets**

Specifications	710103010	903614	719901610	719900790
Extended Height	30 / 9	24.3' / 7.6 m	16.4' / 5.3 m	7' / 2.1 m
Nested Height	6' 9" / 2 m	5' 9" / 1.8 m	5' 4" / 1.6 m	3' 5" / .9 m
Payload Capacity	20 lb. / 9.1 kg	20 lb. / 9.1 kg	20 lb. / 9.1 kg	20 lb. / 9.1 kg
Approximate Mast Weight	36 lb. / 16 kg	29 lb. / 13 kg	19 lb. / 9 kg	15 lb. / 7 kg
Number of Sections	6	6	4	3
Tube Diameter	3.5-1.5" / 89-38 mm	3.5-1.5" / 89-38 mm	3.5-2.25" / 89-57 mm	3.5-2.625" / 89-67 mm
Collar Type	Friction Locking	Friction Locking	Friction Locking	Friction Locking
Finish	Black Anodize, MIL-A-8625, Type II, Class 2	Black Anodize, MIL-A-8625, Type II, Class 2	Black Anodize, MIL-A-8625, Type II, Class 2	Black Anodize, MIL-A-8625, Type II, Class 2

CLARK MASTS QT SERIES

The QT Range of lightweight telescopic pneumatic masts are designed to be portable and erected quickly where they are required. Available in a wide range of heights from 3m to 15m and in a range of sizes to suit varying headloads. It is a highly versatile system capable of being field mounted using a folding tripod stand or field guy set. Equally at home when mounted to a vehicle or shelter, the QT Range is designed to be versatile. Made from high strength 16 swg aluminium tube,to save weight, the QT Range is non keyed and each section is fitted with a locking collar.Headloads are quickly attached using the quick clamp 24mm socket.

Essential Features

- Lightweight and portable
- Field, vehicle or shelter mounted
- Extended heights from 9.8 ft. / 3m to 49.2 ft. / 15m
- Payload capacity up to 50 lb. / 22.5 kg
- Integral handpump
- Locking collars
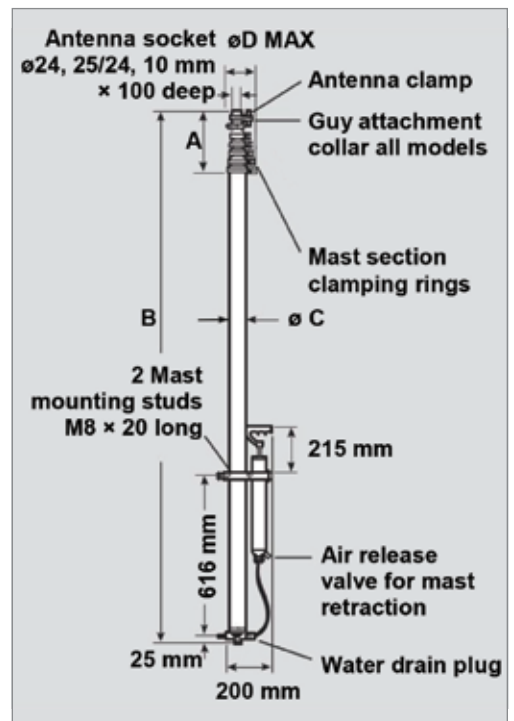- 24mm quick clamp top socket

Technical Specifications

1. Aluminium alloy sections
2. Handpump
3. Mounting studs M8
4. Water-drain plug
5. Air-release screw
6. Section-clamping screws
7. Guy collar
8. Quick-clamp for headload

WILL-BURT CLARK MASTS
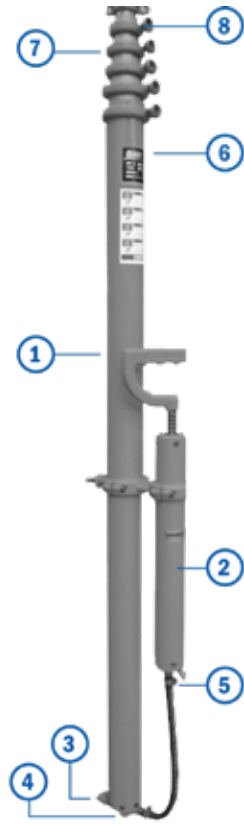
Specifications	CQTX4-6/HP	CQTX6-6/HP	CQTX8-6/HP	CQTX10-6/HP	CQTX12-6/HP	CQTX15-7/HP
Deployed Height (ft. / m)	13.1 / 4.0	20.0 / 6.1	26.0 / 7.9	33.3 / 10.1	40.0 / 12.2	49.2 / 15.0
Payload Capacity (lb. / kg)	44 / 20	44 / 20	44 / 20	39 / 18	33 / 15	22 / 10
Time to Extend (seconds)	15	30	40	50	60	70
Time to Retract (seconds)	10	20	30	40	45	60
Mast Weight (lb. / kg)	18.8 / 8.5	23.9 / 10.8	29.2 / 13.2	33.1 / 15.0	39.7 / 18.0	46.3 / 21.0
A - Collar Stack (in. / mm)	9.9 / 250	9.9 / 250	9.9 / 250	9.9 / 250	9.9 / 250	11.3 / 285
B - Stowed Height (in. / mm)	41.4 / 1050	59.1 / 1500	70.9 / 1800	86.7 / 2200	104.4 / 2650	110.3 / 2800
C - Base Tube ø (in. / mm)	3.5 / 88.9	3.5 / 88.9	3.5 / 88.9	3.5 / 88.9	3.5 / 88.9	3.5 / 88.9
D - Max. Collar ø (in. / mm)	5.6 / 140	5.6 / 140	5.6 / 140	5.6 / 140	5.6 / 140	5.6 / 140
Top Section ø (in. / mm)	2.25 / 57	2.25 / 57	2.25 / 57	2.25 / 57	2.25 / 57	2.0 / 50.8
Safe Unguyed (mph / km/hr) (1ft² / 0.1m²)	60 / 100	60 / 100	50 / 80	40 / 65	40 / 65	25 / 40
Safe Guyed (mph / km/hr) (1ft² / 0.1m²)	80 / 128	80 / 128	80 / 128	80 / 128	75 / 120	50 / 80

Antenna socket øD MAX
ø24, 25/24, 10 mm × 100 deep

Antenna clamp

Guy attachment collar all models

A

Mast section clamping rings

B   ø C

2 Mast mounting studs M8 × 20 long

215 mm

616 mm

Air release valve for mast retraction

25 mm

200 mm

Water drain plug

CLARK MASTS QT SERIES
Ground Tripod

This very stable stand folds vertically and is easy to carry and store. All Mk VI Tripods an either be stored vertically or horizontally. Suitable for non-rotatable masts up to 15 meters.

WILL-BURT *CLARK MASTS*

Horizontal storage position

Example 1: Tripod legs manually adjustable above ground level, recommended position for Mk VI Tripod with leg lengths 750, 1000, 1250 mm.

Example 2: Tripod legs manually adjustable at ground level, recommended position for Mk VI Tripod with leg lengths 1500, 1750, and 2000 mm.

Vertical storage position

QT SERIES MK VI TRIPOD
Ground / Vehicle / Shelter Tripod with Tripod Mounting Bracket

The Tripod Mounting Bracket can be fixed onto a wall, vehicle, or shelter. A Ground / Vehicle / Shelter Tripod is foreseen with a Locking Block which enables the user to attach this tripod to the Tripod Mounting Bracket for compact vertically storage, **with or without the mast.** Suitable for non-rotatable QT masts up to 15 meters.

Use of the Tripod Mounting Bracket

Tripod Mounting Bracket

Tripod Mounting Bracket with Tripod Stand and Mast Mounted

Tripod Mounting Bracket with Tripod Stand Mounted

MK VI TRIPOD
SPECIFICATIONS (Non-Rotatable Only)

Description	Weight (lb. / kg)	Max Mast Height (ft. / m)
Tripod Mk VI – 4m mast	25.2 / 11.4	13.1 / 4
Tripod Mk VI – 6m mast	28.0 / 12.7	19.7 / 6
Tripod Mk VI – 8m mast	30.9 / 14.0	26.3 / 8
Tripod Mk VI – 10m mast	34.0 / 15.4	32.8 / 10
Tripod Mk VI – 12m mast	36.9 / 16.7	39.4 / 12

CLARK MASTS QT SERIES

W3 WILL-BURT CLARK MASTS

Accessories

MAST WALL MOUNTING BRACKET
For permanent fixture of the mast, used in pairs.

MAST MOUNTING RING
For permanent fixture of the mast, used in combination with the mast mounting studs.

QT CANVA

S COVER
Light-grey canvas cover for mast head protection against dust, rain and snow.

QT HANDPUMP CANVAS COVER
Canvas cover for handpump protection, against dust, rain and snow.
Non-Rotatable Masts Only

TOP ADAPTOR
The adaptor has a circular flange to accept universal camera fixing bolts. Features a central cable routing facility for end fed cameras.
Weight: 0.30 kg

SADDLE CLAMP
For non-permanent fixture of the mast, used in pairs, making the mast instantly removable.

ROOF BEARING
All roof bearings are foreseen with rubber seals to avoid water infiltration.

BASE MOUNTING BRACKET
Used in combination with a roof bearing.
Non-Rotatable Masts Only

CAMERA ADAPTOR
A 24mm spigot adapter to fit the standard camera thread (¼" whitworth) which allows rapid mounting of equipment and cameras to a Clark mast
Non-Rotatable Masts Only

WHEEL MOUNTING BRACKET
For temporary fixture of a mast using the weight of a vehicle.
Non-Rotatable Masts Only

GUYING KIT
1 Level Guy:
(Up to 33 ft. / 10m)
2 Level Guy:
(33 ft. / 10m and above)

IMAGE NOT AVAILABLE

SMALL UNIVERSAL ANTENNA ADAPTOR
Mount a variety of payload equipment

LARGE UNIVERSAL ANTENNA ADAPTOR
Mount a variety of payload equipment

IMAGE NOT AVAILABLE

SOLID STRAIGHT ADAPTOR

INTEGRATED VIDEO SYSTEMS

Will-Burt's video systems have been designed for integration into the wide variety of elevation and light tower solutions. Video solutions have been specifically designed for many industries such as Fire and First Responders, Broadcast, Security, Police, Towing, Oil and Gas, Mining and Construction. Will-Burt can also design custom packages to meet your unique requirements.

Inflexion™
Roof-Mount, Fold-Down Mast

Hurry Up
Portable, Push Up Mast

GEROH KVL
Robust, Crank Mast

Night Scan® HDT
Heavy-Duty Towing Light Tower

Night Scan®
Command Center Application

Night Scan®
Light Tower with Camera

VIDEO CAMERAS

Silent Sentinel HD PTZ Camera
Rugged PTZ Camera with HD Video Options

SDI or IP Available

The Silent Sentinel Oculus HD PTZ Camera is a compact, rugged, continuous rotation PTZ camera that has been specifically designed for harsh and challenging environments. Utilizing the latest HD camera modules, the Oculus can provide HD-SDI or IP video outputs.

Silent Sentinel HD PTZ Camera Plus IR Illuminator
Rugged PTZ Camera with HD Video

Infrared Illuminator: 100 Meters
SDI or IP Available

The Silent Sentinel Oculus HD Infrared Illuminator with built-in LED illuminators ensures the capture of images 24 hours per day.

Silent Sentinel EVO2 HD PTZ Camera Plus Thermal Imager
Rugged PTZ Camera with Dual HD-SDI Video and Thermal Modules

SDI or IP Available

The Silent Sentinel Oculus EVO2 utilizes the very latest in both thermal core and lens technology, providing advanced surveillance capabilities in the most extreme conditions.

The continuous rotation dual sensor PTZ camera uses an uncooled LWIR thermal sensor, delivers 640 x 512 pixel resolution, and offers a range of fixed lenses up to 35mm and an HD visible sensor.

The PTZ is well suited for mid-range surveillance applications and supports simultaneous video verification provided by a 30x HD-SDI or IP zoom module.

Specifications

HD Video Camera			
Video Camera	Silent Sentinel HD	Silent Sentinel IR HD	Silent Sentinel EVO2
Camera Type	PTZ – SDI or IP	PTZ – SDI or IP w/Infrared Illuminator - 100 meters	PTZ – HD-SDI or IP w/Thermal Imager
Lens	4.3mm to 129.0mm		
Image Sensor	1/2.8" type Exmor CMOS sensor		
Resolution	2.13MP		
Optical Zoom / Digital Zoom	30x / 12x		
Low Light	Color 0.01 lux / Mono 0.0008 lux		
Signal System	HD: 1080p (1920 x 1080) SD: NTSC / PAL		
Pan & Tilt	360° pan / +90° to -30° tilt		
Ingress Protection	IP67 – Waterproof		
Communications	Pelco-D, Pelco-P, CBC OCP485, Forward Vision Mic1 FV300, Philips, Vicon		
Camera Warranty	2 years		

| Thermal Imager	
Silent Sentinel EVO2	
Detector type	Uncooled VOx Microbolometer
Pixel size	12µm
Spectral band	7.5-14µm (LWIR / 8-14µm)
Thermal sensitivity	≤50mK at 25°C, F1.0
Array format	640 x 512
Frequency	50Hz
Image control	Polarity: White hot / Black hot / Various color palettes Orientation: Invert / Revert
Focus	Automatic / manual
Zoom	1x to 8x (0.1 steps)
FOV	13mm
Color options	Black / white

VIDEO CAMERAS

PositionIt PTZ Camera
Rugged PTZ Camera with high-powered video imaging

The PositionIt video camera provides pinpoint accuracy and high-powered video imaging options that offer enhanced safety and security. Built on Will-Burt's rugged PositionIt pan and tilt platform, the PositionIt camera system excels when subjected to the harsh conditions experienced by a mobile video system. Seamless functionality is assured with an operating system that integrates seamlessly with the elevation control system.

| Specifications	Will-Burt PositionIt HD
Signal System	HD: 1080p (1920 x 1080) SD: NTSC / PAL
Communications	Pelco-D, Pelco-P, VISCA
Other Features	Dynamic Noise Reduction, Digital Image Stabilization, Intelligent Motion Detection
Available Colors	Black / White
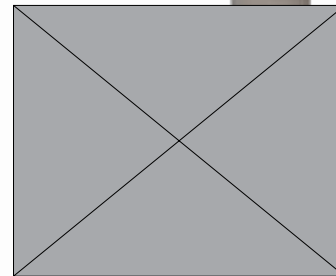
Analog IR Camera
Stationary Surveillance Camera

Available in narrow or wide viewing angle
Aluminum Shell Side CCD Camera
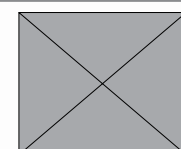
Wonwoo PTZ Camera with IR HD-SDI or IP
Ideal for use in harsh environments

Surveillance and scene monitoring with IR feature
The weatherproof IR PTZ camera with pan/tilt mechanism is ideal for use in harsh environments. It incorporates a powerful 20x optical zoom lens, allowing for a zoom capacity of up to 240x when used in combination with its 12X digital zoom. The integrated Advanced BLC technology is used to improve the cameras dynamic range by 128 times, resulting in high definition image reproduction during extreme high contrast environments. HD-SDI or IP video options.

Viper HD PTZ Camera
The richest viewing experience possible

IP H.264 Video Encoding
The Viper High Definition Pan/Tilt/Zoom Camera provides high resolution broadcast video with a notably sharper, crisper and clearer picture. Features that include Hydrophilic "self cleaning" glass window, Wide Dynamic Range (WDR), Electronic Image Stabilization, and DeFog deliver a consistent image regardless of environmental conditions.

Specifications	Will-Burt PositionIt HD		WONWOO	Viper HD
Camera Type	PTZ HD-SDI	Analog	PTZ – SDI or IP w/Infrared Illuminator	PTZ – IP High Definition
Lens	4.25mm to 170.0mm	8mm / 2.8 mm	4.7mm – 94.0mm	4.3mm – 139.0mm
Image Sensor	2.12MP 1/2.8" type CMOS sensor	Sharp CCD	1/3" 2.2M Pixel CMOS Sensor	2MP CMOS High Definition
Resolution	1920 x 1080	510 x 492 / 420 TV lines	1920 x 1080 pixels - 1080p	1080 x 720
Optical Zoom / Digital Zoom	40x / 32x	Fixed	20x / 12x	30x / 10x
Low Light	Color 0.01 lux / Mono 0.002 lux	0 LUX with 10 IR LED's	0.0005 LUX with 12 IR LED's / 120m	N/A
Pan & Tilt	360° continuous pan / +90° to -90° tilt	No	360˚ endless pan / 15˚ – 270˚ tilt	360˚ endless pan/tilt
Ingress Protection	IP68 waterproof	IP67 – Waterproof	IP66 – Outdoors	IP67 – Waterproof
Camera Warranty	2 years	1 years	1 years	3 years

VIDEO CAMERA CONTROLLERS

Pelco-D Compatible Controller with LCD screen

The Pelco-D compatible handheld 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	
Input Voltage	12 V DC
Communication Interface	RS485
Operating Temperature	32°F to 122°F / 0°C to 50°C
Dimensions	6.6 x 5.4 x 4.2 in. / 168 x 136 x 105 mm

Wonwoo PTZ Mini Controller
Works with all Wonwoo models

- 3-Axis joystick control of PTZ functions
- Preset position control (4 positions)
- IR ON / OFF button
- Fan & heater ON / OFF function
- Slave keyboard support

Viper PTZ Multi-function Desktop Controller
Works with all Viper models

- Three axis proportional joystick for precise control of PTZ functions
- Bright OLED display
- Simple setup of presets and tour functions
- Supports Viper field firmware upgrades

Positioner Controller
Works with Will-Burt Mobile and Static Positioners

The 19-inch (2U) Rack Mount 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 latest Positioner Controller from Will-Burt will simplify deployment and operation of communications and video equipment.

Essential Features

- 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

Specifications	
Input Voltage	100-240VAC
Output Voltage	24VDC
Communication Interface	Pelco-D over RS-485 half-duplex at 2400 bps
Operating Temperature	32°F to 122°F / 0°C to 50°C
Dimensions	19 x 3.5 x 11.7 in. / 48.26 x 8.81 x 29.8 cm
Weight	6.6 lbs. / 3kg

MOBILE VIDEO RECORDING

Hybrid Mobile DVR

Will-Burt offers mobile DVRs that cover virtually every need and budget. From simple SD card recording with simultaneous viewing on a quad LCD screen to robust hybrid DVRs that can accept nearly any video signal and record and output in HD resolution.

Our full-featured Hybrid DVRs can accept signals in IP digital, HD-SDI and analog format. Multiple ports for each ensure that you will have full recording capabilities for all of the cameras on your vehicle or command center. An internal 4TB HDD captures all of the data and a 2TB SSD (solid-state drive) option is available. Wi-Fi N and a cellular modem enable instant transmission from the scene. Several other features round out the robust Hybrid DVR capabilities.

Specifications	5478103 / 5478105	5478104 / 5478106
2.5" Internal Drive	4TB HDD 5478103 / 2TB SSD 5478105	4TB HDD 5478104 / 2TB SSD 5478106
Total Channels	9	9
IP-CAM Channels	4	4
Maximum incoming bandwidth for IP-CAM	40Mbps	40Mbps
HD-SDI Channels	1	1
Analog Channels	4	4
Max. Record/Playback capabilities:	IP-CAM: 120/100fps@1080p/720p	
	HD-SDI: 25fps@1080p, 60/50fps@720p	
	Analog: 120/100fps@960H/D1/Half-D1/CIF	
WiFi: Compliant 802.11b/802.11g/802.11n/802.3/802.3u	Yes	Yes
WiFi and USB support for remote access, with dual streaming support	Yes	Yes
Cellular Modem Carriers	AT&T	Non-AT&T
Hegaplex operation: Simultaneous Recording, Playback, Backup, Control and Remote Access	Yes	Yes
Smart Search & Playback	Yes	Yes
VGA/CVBS output with 3-D de-interlace & de-noise for best picture quality with resolution up to 1920 x 1080	Yes	Yes
Up to 4 alarm inputs, car speeding pulse input, car engine revolution signal input	Yes	Yes
Built-in G sensor for alarm of acceleration, brake, left/right turn	Yes	Yes
Built-in GPS to support Google Earth and Google Maps	Yes	Yes
Ethernet: (2) 10/100 Mbps, RJ45, auto MDI/MDIXDI/MDIX	Yes	Yes
Operating Voltage	10V DC – 35V DC / Max possible amp draw 3.8 amps (Typ.: 12V DC @ 1.8 amps)	
Weight	5.5 lbs. / 2.5kg	
Case Dimensions	7.1" wide x 2.5" high x 9.1" deep / 180mm wide x 63mm high x 229mm deep	

DVR with Quad LCD Monitor

Will-Burt's DVR with Quad LCD Monitor provides standard definition recording and video quality. This Microsoft Windows based system is idea for recording events that do not require watermarking and encryption. This combination unit is a convenient and cost effective solution for viewing and recording a variety of events from up to 4 cameras.

Essential Features

- 7" Quad Screen DVR Color LCD Monitor
- Display resolution (H x V): 800 x 480 pixels (RGB)
- Up to 32GB SD Card Storage
- 4-channel video input: 1.0Vp-p, 75Ω
- DVR video resolution: 800 x 600 / 720 x 480/640 x 480/320 x 240
- DVR video frame: 20fps at 800 x 600, 30fps at 720 x 480, 30fps at 640 x 480, 60fps at 320 x 240 pixels

POSITION◆IT®

For Mobile Applications

Introducing the new PositionIt range of positioners with improved, next-generation control electronics and software while retaining the rugged reliability of the original PositionIt range. The new PositionIt series is dimensionally and electrically identical to the first generation with fully backwards compatible electronics and software. Improved motor control is assured with higher resolution speed control, slower minimum speeds, and user adjustable minimum speeds and speed ramps. The new GUI for configuring and commissioning allows users to set and adjust many features that were originally factory set only. It also boasts many new features such as the ability to receive positional feedback, set home position and limit stops and fault diagnostics.

Essential Features

- Designed, Manufactured, and Tested to excel in Mobile Applications
  - Hardened metal gears
  - MIL-STD 810 certified by independent laboratory
- Strong, lightweight construction
  - Die-cast aluminum housing
  - Stainless steel fasteners
- New Graphical User Interface (GUI)
  - Greater level of control with user set features
  - Faster set-up
  - Positional feedback

- More precise than ever
  - Higher level of motor control
  - Greater positional accuracy
- Regenerative Braking
  - On motor shaft
- Flexible Connection
  - Bottom or side
- Universal mounting plate
  - Suitable for most common payloads

- Pelco-D over RS-485 Communications
- Weather-proof
  - IP 68 Rated
- Long Operational Life
  - 2-year warranty
- Backwards compatible

Specifications	PI-150	PI-75	PI-35
Payload Capacity* (ft lb / Nm)	150 / 202	75 / 101	35 / 47
Height (in. / mm)	11.32 / 287.7	11.32 / 287.7	9.7 / 246
Width (in. / mm)	12.4 / 314	9.21 / 234	10.8 / 273
Depth (in. / mm)	6.8 / 171	6.8 / 171	5.7 / 144
Weight (lb. / kg)	37 / 16.8	35 / 16	19.5 / 8.9
Operating Temperature	-40°C to 60°C / -40°F to 140°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.

ACCU◆POINT®
CONTINUOUS ROTATION

Continuous Rotation

Introducing the AccuPoint Continuous Rotation range of positioners for static mount applications, maintaining everything that was great about the AccuPoint range but now with Continuous Rotation capability. The AccuPoint Continuous Rotation Range utilizes a high-quality slip ring capable of transmitting high-definition 3G-SDI video signals. The AccuPoint Continuous Rotation positioners provide high positional accuracy and are easier to use than ever. With a greater level of motor control, your surveillance capability will be at its highest and antenna accuracy will be precise. Supplied with a simple graphic interface (GUI), it is now easier to configure allowing faster installation times and more capabilities to fulfill your specifications. Know the exact pointing location of your device with positional feedback and adjust it easily to the direction needed.

Improved motor control is assured with higher resolution speed control, slower minimum speeds, and user adjustable minimum speeds and speed ramps. 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.

Available in three sizes, all units can be configured for over-the-top or side mount operation.

Essential Features

- Continuous Rotation pan operation.
- High Quality slipring with 3G-SDI video transmission capability.
- Backwards compatible
- Greater level of control with user set features
- Faster setup

- Higher level of motor control and greater positional accuracy
- Positional feedback
- Rugged and robust
- Pelco D over RS485 Communications
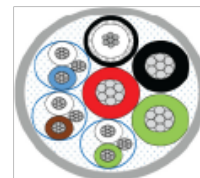- IP68 Rated
- 3-year warranty

Image to show twisted pair data cables for clarity with pin-out table

Connector Face

Specifications	AP CR-50	AP CR-30	AP CR-8
Mounting Option	**Over The Top**	**Over The Top**	**Over the Top**
Height (Standard) (in. / mm)	15.0 / 381.6	13.4 / 341.2	11.2 / 283.5
Platform Width (in. / mm)	9.2 / 234	7.8 / 197	5.8 / 147
Total Width (in. / mm)	9.6 / 243.6	8.2 / 207.5	6.2 / 158
Depth (without plugs) (in. / mm)	7.1 / 179	5.9 / 151	5 / 129
Weight (lb. / kg)	38.6 / 17.5	21.9 / 9.9	7.5 / 3.4
Voltages	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 (ft-lb)	50	30	8
Pan Range	Continuous	Continuous	Continuous
Tilt Range	+90° / -45°	+90° / -45°	+90° / -45°
Backlash	≤ 0.15°	≤ 0.15°	≤ 0.15°
Repeatability	≤ 0.3°	≤ 0.3°	≤ 0.3°
Ingress Protection	IP68	IP68	IP68
Temperature Range (°F / °C)	-40 to 140 / -40 to +60	-40 to 140 / -40 to +60	-40 to 140 / -40 to +60
Maximum Continuous Power	44 W	44 W	44 W
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

Cable Assembly Specification	
Connector Type	Circular Connector, 12 Way
Cable Type	10 Core Composite Cable
Voltage Rating	24v
Max Current Rating	3A
Temperature Range	-40°F to +80°C
Ingress Protection	IP68 Connector

Pin-Out & Flying Lead Assignment		
Pin No.	Wire Ident / Colour	Assignment
A	N/A	N/A
B	Red	+V
C	Black	-0V
D	Green	Ground
E	White/Brown	AUX Data
F	Brown	AUX Data
G	White/Yellow	Data B
H	Yellow	Data A
J	White/Blue	AUX Data
K	N/A	N/A
L	COAX	COAX
M	Blue	AUX Data

ACCU◆POINT

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
- Faster setup
- Positional feedback
- Greater level of control with user set features
- Rugged and robust

- IP68 Rated
- Pelco D over RS485 Communications
- Higher level of motor control and greater positional accuracy
- 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) (in. / mm)	9.3 / 235.1	9.8 / 248.1	7.4 / 187	8 / 204	5.2 / 131	5.8 / 146.2
Platform Width (in. / mm)	7 / 177.2	9.2 / 234	7 / 178.7	7.8 / 197	6.4 / 162.1	5.8 / 147
Total Width (in. / mm)	15.8 / 400.9	9.6 / 243.6	14.6 / 369.8	8.2 / 207.5	12.2 / 309.5	6.2 / 158.1
Depth (without plugs) (in. / mm)	7 / 17	7 / 177	6 / 152.8	5.9 / 149.64	5.2 / 132	5 / 127
Weight (lb. / kg)	< 27.4 / 12.45	< 29.7 / 13.5	< 14.55 / 6.6	< 14.7 / 6.7	< 5.5 / 2.5	< 5.07 / 2.3
Voltages	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 (ft.-lb.)	50		30		8	
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 (°F / °C)	-4 to 122 / -20 +50		-4 to 122 / -20 +50		-4 to 122 / -20 +50	
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	

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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.

ISO 9001:2015

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INNOVATION ELEVATED®