

PORTABLE SECURITY

Specifications





Wanco Portable Security & Surveillance has everything you need to establish remote access video surveillance and more, in minutes. Deployed in virtually any scenario for short- or long-term security needs, versatile pan-tilt-zoom cameras and an integrated digital video recorder make monitoring a site fast and easy.

For more information, visit www.wanco.com, or contact Wanco sales at **800-972-0755**.

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Trailer

TRAILER BODY

Weight

Base model	1860 lb. (844 kg)
Base model with solar panel	1880 lb. (853 kg)
Diesel model, empty fuel tank	1960 lb. (889 kg)
Diesel model, full fuel tank	2176 lb. (987 kg)

Construction

MIG welded, unibody-style

Material

Tubular steel and 14-gage cold-rolled sheet steel

Finish

Oven-baked powder coat

AXLE ASSEMBLY

Description

Single electrometric torsion axle

Hub

Idler, 5 bolts on 4.5 in. centers

Capacity

2500 lb. (1134 kg)

Track

46 in. (117 cm)

TIRES

Description

Two trailer tires, bias ply

Size

ST175/80D13

Load rating

1360 lb. @ 50 psi, Load Range C

Fenders

Bolt-on steel

LEVELING JACKS

Description

Four rotating-handle jack stands
Front tongue jack has a plastic caster
Two side jacks are mounted on telescoping outriggers

TOW HITCH

Description

Standard combination hitch mounted on removable drawbar
Two hitch pins hold drawbar to trailer frame during transport

Coupler

2-in. ball
2½-in. dia. x 1-in. CS pintle

LIGHTS

Rear

Two stop/turn/tail lights
One license plate light

Sides

Two amber front clearance lights, two rear red clearance lights

Electrical

Standard flat-four trailer plug

EQUIPMENT CABINET

Doors

Two side-opening gull-wing-style doors

Construction

Individual steel panels, riveted and bolted

Latches and locks

Exterior doors	Two industrial-grade cam locks One paddle latch accepts a padlock
Interior door	One locking L-handle One hasp accepts a padlock

Venting

Filtered outside-air vents

Cooling

Electric cooling fans activated by temperature sensors mounted to embedded controller

Primary control panel

Modular, removable panel holds camera power supplies, low-voltage disconnect, camera switches

Panel slides out for service

All cables have service loop

LED lights indicate status

Control panel switches

Master	Master power switch activates and deactivates entire system
Cameras	Four power switches for individual control of each camera
DVR	Power switch shuts down or resets DVR
Monitor	Power switch shuts down monitor to extend battery life
Modem	Power switch deactivates or resets modem and other communications equipment
Warning device	Activates and deactivates siren or external warning beacons
Test switch	Momentary contact tests each activated circuit (green LED indicates power supplied to the tested device)
Auxiliary	Four auxiliary switches for custom add-ons

Tower Assembly

MAST

Description

Three-piece, telescoping, steel tower assembly

Stowed horizontally for transport or storage

Raised vertically for deployment

Material

Square steel tubing

Rotation

60 degrees left or right

Number of camera mounts

0 to 4

Height

Minimum 15 ft. (4.5 m)

Maximum 26 ft. (7.9 m)

WINCHES

Description

Two electric winches raise and extend mast

One winch pivots mast from horizontal to vertical position

One winch raises mast to desired height

Construction

Bolted in place using security hardware

An automatically locking safety pin ensures tower remains upright

Controls

Located inside equipment bay

Each winch has a heavy-duty momentary sector switch

Capacity

1500 lb. (680 kg)

Voltage

12 V dc

Circuit breaker

Automatic-reset thermal circuit breaker protects winches and wiring

Cable

3/16 in. (4.8 mm) dia. plated aircraft cable

Hand-crank

For backup use in case of power failure

Stored inside equipment bay

Power System

BATTERIES

Description

Sealed, valve-regulated lead acid (VRLA), absorbed glass mat (AGM)
 Leak proof, spill proof, minimal gassing
 Maintenance free
 Air transportable

Quantity

Base model	4 batteries provide operating power
Diesel model	2 load-bank batteries provide operating power 1 start battery provides power for engine startup

Recharge

Battery charger	0 to 90% in 24 hours
Hybrid-diesel system	0 to 90% in 4 to 5 hours

Voltage

12 V dc (14.4 to 14.6 max @ 68°F)

Capacity

Base model	245 Ah @ 20 hr. rating, 980 Ah total capacity
Diesel, load bank	245 Ah @ 20 hr. rating, 490 Ah total capacity
Diesel, engine start	450 CCA

Size

Base model	Group 8D
Diesel, load bank	Group 8D
Diesel, engine start	Group 24

Weight

158 lb. (71.7 kg)

Terminal boots

Each battery post protected with red (+) and black (-) rubber boots

BATTERY CHARGER

Description

Charges batteries from commercial power or standby generator

Receptacle

Location	Right front corner of trailer
Connection	Heavy-duty 15 A extension cord, 12/3 min.

Output amperes

Base model	75 A
Diesel, load bank	45 A
Diesel, engine start	15 A

Output voltage

13.6 V dc @ no load ±0.7%

Input voltage

108 to 132 V ac

Maximum input current

17 A @ 108 V ac

Frequency

47 to 63 Hz

Typical efficiency

80%

Cooling

Electric fan proportionally controlled as needed only by charger heating (for diesel model, this applies only to load bank batteries)

Fuse

One ANL 100 A main system fuse protects wiring and components

Battery monitor

Battery condition meter shows the battery bank charge level
 DPDT momentary switch activates the meter
 Located on winch control panel

HYBRID-DIESEL OPTION

Description

Recharges load-bank batteries
Auto-start function engages based on load battery status
Continuous charging is optional

Enclosure

Isolates engine heat, noise, and oil and fuel contaminants

Location

Rear of trailer

Vibration

Virtually no engine vibration observed through cameras

Engine model

Kohler Lombardini 15LD-350D
Single-cylinder air-cooled diesel

Horsepower

5.9 hp @ 3600 rpm

Oil System

Lubrication	Pressurized oil system
Safety shutdown	Low oil pressure shuts down engine
Deep sump	2-quart deep sump provides extra run time between oil fillings and provides additional oil cooling
Filter	Replaceable cartridge type

Stability

Counterbalanced shaft provides smooth operation

Starting

Electric 12 V dc start motor with recoil rope-pull backup

Start-battery charging

Integral 12 V dc flywheel charging with voltage regulator

Safety shutdown points

Low oil, high temperature

Alternator

Type	Heavy-duty automotive-grade
Amperage rating	130 amps max.
Voltage	12 V dc
Voltage regulator	External voltage regulator continuously monitors load battery condition Adjustable for different battery banks

Cooling

Hot alternator air ducted out bottom of engine compartment

Belts

Dual V-belt system

Genset mounting

Four rubber vibration mounts located at the genset's center of gravity reduce engine vibration

Fuel tank

Location	Centered over axle to eliminate effect on trailer tongue weight
Capacity	30 gallons
Material	Crosslink high-density polyethylene
Color	Natural
Filler cap	Vented, 3-inch diameter, screw-on

SOLAR CHARGING OPTION

Description

Solar panel assists in charging the battery bank, and keeps the batteries charged when not in use

Location

Top of trailer body

Mounting

Brackets designed for vandal resistance

Voltage regulator

10 A solar regulator tied into charging system

Power

Maximum voltage	17.6 V dc
Maximum output	130 W +10%/–5%
Maximum current	7.39 A

Power Management System

LOW-VOLTAGE DISCONNECT (LVD)

Description

Monitors and controls power to all cameras and the DVR, monitor, cellular modem, and auxiliary equipment
Switches off power to equipment when battery voltage gets low
System automatically restarts when batteries are recharged
Voltage and temperature settings are adjustable

Max. power input

60 A

Disconnect setting

10.5 V dc

Reconnect voltage

11.6 V dc

Fuse

60 A maxi-type

LED indicator

Denotes operational status: operating, low voltage, shut down, or out of low-temperature start range

Thermal sensors

Temperature inputs regulate two equipment-bay cooling fans
One temperature probe mounted to DVR chassis
One probe monitors ambient temperature (base model only)

Cooling fans

Fans run only when DVR temperature rises

On setting 110 °F

Off setting 100 °F

Serial interface

Displays battery voltage and temperature readings
Imprints readings onto DVR recording (video image remains unaffected)
Provides remote access to battery status
Allows activation of auxiliary equipment, such as warning siren and beacons

Recording System

EMBEDDED CONTROLLER

Description

Embedded fanless PC-based design

Location

Equipment bay

Construction

Aluminum alloy chassis

Size

Width	8.4 in. (214 cm)
Depth	9.4 in. (239 cm)
Height	4.6 in. (117 cm)

Weight

13.7 lbs. (6.2 kg)

Mounting

Anti-vibration plate with four rubber vibration isolators

Processor

Intel® Celeron® M Processor, 1.3 GHz

Operating system

Microsoft® Windows® XP Professional

Input voltage

9 to 30 V dc

Ports

	Available	Used
Ethernet	1	0
USB 2.0	2	2
Serial	3	1
Parallel	1	0
Audio	1	0
VGA	0	1
Compact flash	1	0
PCI	1	0
PCMCIA	1	1

Hard-drive capacity

Standard	40 GB
Optional	80 or 160 GB

Recording modes

Continuous, triggered, scheduled

Optional external hard drive

Up to 200 GB

Operating temperature limits

-22 to 185 °F (-30 to 85 °C)

Operating vibration limits

9.8 m/sec² (1.0 g), 5 to 500 Hz

Shock limits

Operating	325 g
Non-operating	850 g

Low-voltage disconnect

Switches off power to equipment when battery voltage gets low
Prevents a computer crash by shutting down the controller first before cutting power to the rest of the system

Temperature sensor

Thermal sensor mounted to top of DVR

Below operating temperature range, prevents controller startup
Above operating temperature range, activates cooling fans

MONITOR

Description

Hardened, industrial-grade 15-inch LCD monitor for outdoor use

Screen

Sunlight-readable, TFT active matrix with anti-glare film bonded to a glass overlay

Location

Equipment bay

Mounting

Side-out frame

Resolution capability

VGA to SXGA, 640 x 480 to 1280 x 1024 dpi

Color support

16.2 million colors

Pixel pitch

0.297 mm

Active display area

12 x 9 in. (307 x 231 mm)

Viewing angle

Left/right	70/70°
Up/down	65/70°

Brightness

450 nits

Contrast ratio

300:1

Response time

TR	5 ms typical
TF	20 ms typical

Backlights

Cold cathode 50,000-hour half-life

Video connector

HD15(F)

Sync support

Separate H&V, combined, SOG (sync on green), digital

Input voltage

9 to 18 V dc

Power consumption

Normal	35 W
DPMS	< 5 W

Temperature range

Operating	32 to 122 °F (0 to 50 °C)
Storage	-4 to 140 °F (-20 to 60 °C)

Humidity range

10 to 95% NC

Maximum altitude

10,000 ft. (3048 m)

KEYBOARD AND OPTICAL MOUSE**Model**

Grandtec Virtually Indestructible

Material

Waterproof, silicone-based

Lifespan

MTBF > 20,000 hrs.

Actuations > 1,000,000

Temperature range

Operating 32 to 158 °F (0 to 70 °C)

Storage -22 to 185 °F (-30 to 85 °C)

Humidity range

5 to 100%

STANDARD CAMERA**Model**

Vicon® Surveyor

Clear-domed, pan-tilt-zoom (PTZ) cameras

Description

Mast accepts up to 4 cameras

Travel cover protects camera during transport

Format

Color, NTSC day/night

Optical zoom

23X

Maximum zoom

276X optical/digital

Cable connection

Coaxial

Operating voltage

24 V dc

Operating temperature

-29 to 165 °F (-33 to 73 °C)

Camera response

Onboard control Instantaneous

Remote control 2 to 3 seconds

Theft Protection

TRAILER FRAME

Tow hitch

Removable drawbar prevents unauthorized towing

Stows onboard when not in use

Wheel lock

Lock bar placed through wheel spokes and trailer frame prevents wheels from turning

Bar stows onboard when not in use

Tie-down loops

Welded steel loop at each trailer corner allows trailer to be anchored to ground or chained to other equipment

Tower swivel lock

Tower swivel base has holes to accept one or more padlocks

TRAILER BODY

Primary compartment

All electronic components and controls for power and winches located inside steel body enclosure

Compartment doors

Each compartment door has two cinching tubular keyed latches

Each compartment door can accept a padlock

No door hardware is exposed

Equipment bay

All electronics housed in secondary, interior compartment

Equipment bay door can accept a padlock

WIRING

Accessibility

No exposed wiring at ground level

All ground-level wiring completely encased within steel structures

Wiring to cameras on mast encased in hardened, industrial-grade Nycoil® cable conduit

Mast cable conduit located approximately 11 ft. (3.3 m) off ground

OPTIONAL EQUIPMENT

Siren and beacon

Optional warning siren and beacon at top of mast can be set off by motion detectors or connected to a secondary alarm system

Optional Equipment

WIRELESS COMMUNICATIONS

Cellular service options*

Cellular communication (recommended through Sprint®)

Cellular standards

2G EvDO & GPRS/GSM, 3G EvDO Rev. A, HSPA

Wireless network options

Wi-Fi, WLAN, 802.11, Mesh

Satellite options

WildBlue

Line-of-site options

Trango Broadband

Video quality

Cellular 3 to 8 frames per second

Other Varies based on available upload bandwidth

Connection speed

Upload 300 to 600 Kbps (with Sprint EvDO Rev A)

Downstream speed Up to 1.8 Mbps (with Sprint EvDO Rev A)

Camera views

2 to 15 seconds delay, depending on connection speed

Camera presets result in faster touring

WARNING SIREN

Activation

Manual on-site, manual remote, event-triggered

Location

Top of lower mast assembly

Tone type

Yelp

Sound level

97 dB @ 50 ft.

Power

58 W

*Requires service in designated area; contact service provider for coverage

SENSING EQUIPMENT**Camera technology**

Infrared (IR), thermal

Other technology

Radar, lights, motion sensors

POWER INVERTER**Purpose**

Converts 12 V dc battery voltage to 115 V ac 60 Hz power for AC-powered equipment

Contact factory for other available output voltages

Output

600 W continuous true sine wave, 1100 W surge

Outlets

Two

Automatic shutoff

Over-voltage	At maximum input voltage, per input conditions
Under-voltage	At minimum input voltage, per input conditions; warning buzzer sounds before shutoff
Temperature	105 °C internal temperature; warning buzzer sounds at 5 °C before shutoff
Output short-circuit	Unit shuts down and must be manually reset

Operating limits

Temperature	-25 to 40 °C full power, derated above 40 °C
Humidity	5 to 95% non-condensing
Altitude	-200 to 10,000 ft. full power Derated above 10,000 ft.

Audible noise

< 45 dBA

Cooling

Thermostatically controlled fan

LED LIGHTING**Description**

High-power white light illuminator

Activation

Daylight sensor auto-activates

Optics

SMT LEDs

Input

Universal 100-240V AC auto-sensing

Output

25 W max.

Distance

Up to 492 ft. (150 m)

Angularity

10 to 180°

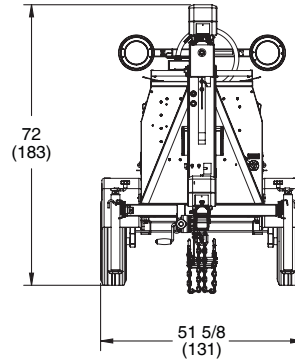
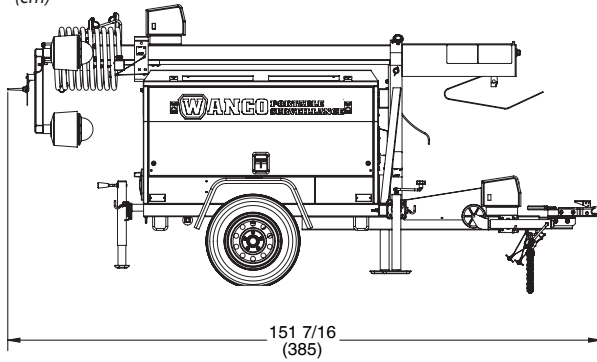
Temperature range

-58 to 122 °F (-50 to 50 °C)

Dimensions

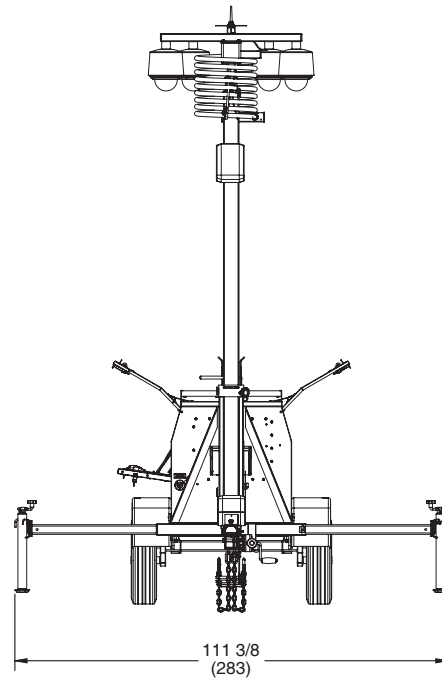
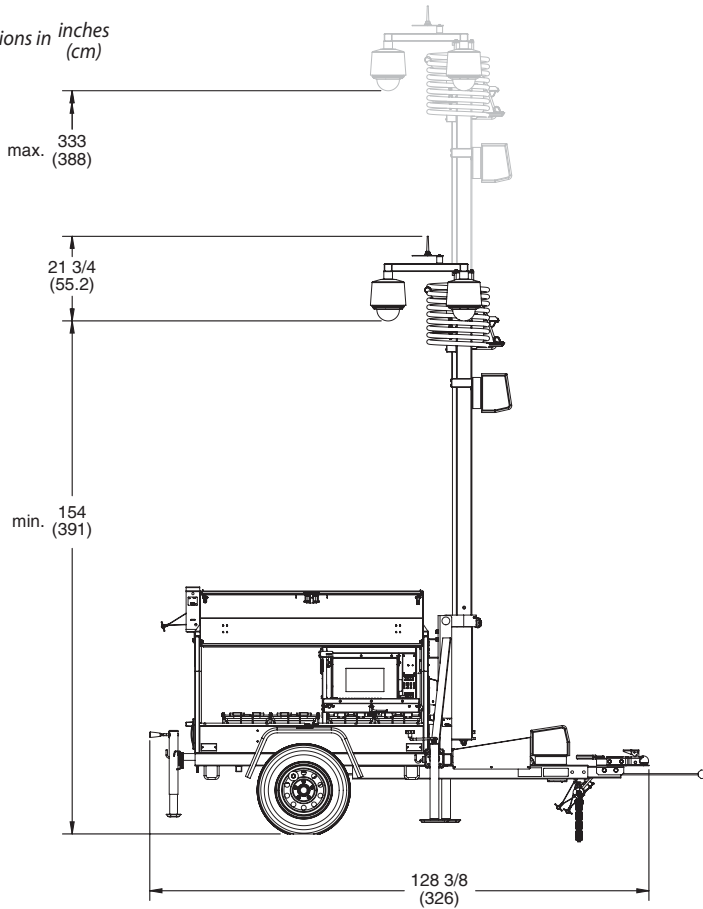
TRAVEL POSITION

Dimensions in inches
(cm)



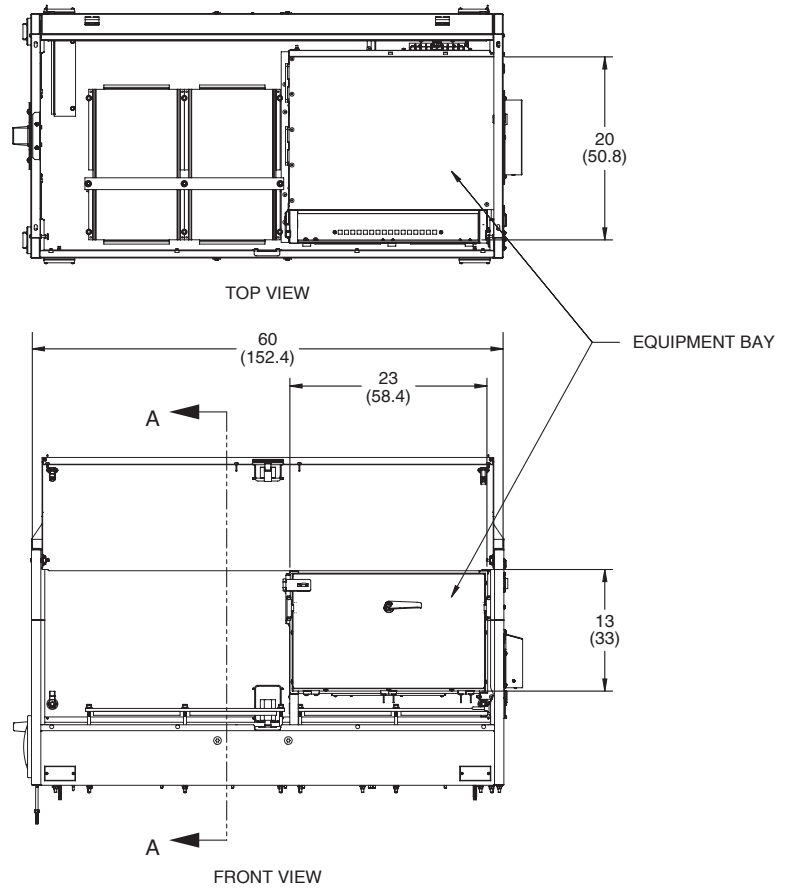
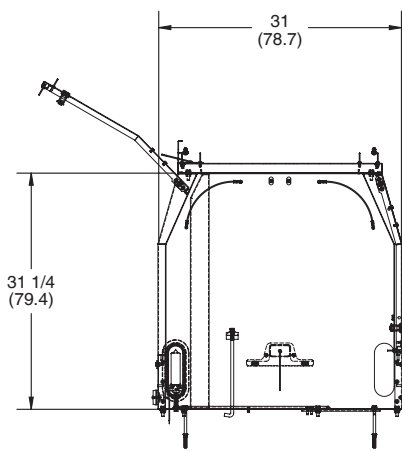
DEPLOYED POSITION

Dimensions in inches
(cm)



EQUIPMENT CABINET

Dimensions in inches
(cm)



Model Numbers

CODE	DESCRIPTION	EXAMPLE
Trailer		
WCT	– Wanco Camera Trailer — includes trailer, dual-electric-winch tower, equipment box, switch panel with low-voltage disconnect and fan controller, wheel-lock, and trailer hitch.	WCT
Power System		
B	– Base model with rechargeable batteries	WCT-B
D	– Hybrid-diesel battery charging system	
Solar Panel		
X	– None	WCT-BS
S	– Solar-powered battery charging system	
Cameras		
0	– None	WCT-BS-4
1	– One domed PTZ camera	
2	– Two domed PTZ cameras	
3	– Three domed PTZ cameras	
4	– Four domed PTZ cameras	
Recording System		
0	– None	WCT-BS-42
2	– Digital video recorder and 15-inch computer monitor	
Remote Communications		
0	– None	WCT-BS-421
1	– Cellular communications package	
2	– RF communications package	
3	– Antenna kit for PCMCIA card	
Accessories		
0	– None	WCT-BS-4213
1	– Beacon strobe	
2	– Switch panel — <i>power system XX only</i>	
3	– Siren horn kit	
4	– Power inverter — 600 W, 12–120 V ac	
Model ID		
06A	– Current model	WCT-BS-4213-06A

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