08.2014 Communications Van Operations Manual

Cupertino Office of Emergency Service



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1 Contact Information

Fire, Ambulance, other Emergency (9-1-1 alternate)	408-299-3233
Cupertino Service Center	
Main Office	408-777-3170
After hours, non-emergency	. 408-299-2311
After hours, Emergency	.408-299-2507
Cupertino Service Center	. 408-777-3170
Cupertino City Office	408-777-3200
Citizens Corp Coordinator	. 408-215-8459
CARES Emergency Coordinator	408-839-8798
CARES AEC, Training	. 408-718-0783
CARES AEC, Membership	408-813-4168

2 Operating Frequencies

147.570	Simplex, PL=151.4
146.460	Simplex, PL=151.4
440.150 +	PL=100.0 W6TDM
146.115 +	PL=100.0 AA6BT
145.270 -	PL=100.0 W6ASH
147.360 +	PL=110.9 W6TI
not assigned	
145.450 -	PL=100.0 K6FB
145.230 -	PL=100.0 N6NFI
146.640 -	PL=162.2 WR6ABD
444.625 +	PL=110.9 N6NAC
442.500 +	PL=100.0 WB6ZVW
443.275 +	PL=107.2 K6SNY
145.750 223.620	W1XSC-1 (CUP Primary)
145.730 223.560	W2XSC-1
144.310 223.540	W3XSC-1
145.690 223.600	W4XSC-1 (CUP Secondary)
	W5XSC-1
	146.460 440.150 + 146.115 + 145.270 - 147.360 + not assigned 145.450 - 145.230 - 146.640 - 444.625 + 442.500 + 443.275 + 145.750 223.620 145.730 223.560 144.310 223.540

Emergency Alert System, stations of interest

KCBS	740 KHz	LP1, National Primary EAS Station
KFBK	1530 KHz	CA State Primary EAS Station
KLIV	1590 KHz	Public AM Station, a CNN affiliate
WQGH344	1670 KHz	Cupertino Community Radio

3 Safety Briefing

The City requires that you pay attention to all safety briefings, and maintain a safe operating environment at all time. If at any time you see an unsafe behavior or a safety hazard to any staff or participant, you must stay away from the hazard and report it at once to an event official.

Please read, and observe the safety issues addressed below. The Shift Supervisor should review this with all Operators at the beginning of each Operational Period.

Compliance with all Applicable Laws

Event responders are expected to comply with all applicable laws during the course of this event. This includes wearing seatbelts and following all traffic laws, observing speed limits, full stops at stop signs, etc.

Driving Safety

- 1. If you cannot see the wheels of the vehicle in front of you, you are too close.
- There are some trees that will clip the mast. Ride closer to the center of the road to avoid mast and antenna damage.
- 3. This is a heavy vehicle -- give yourself plenty of room to slow down.
- 4. We will never be in a rush to get anywhere. Give yourself enough room ahead of you to anticipate changes in road conditions and other driver behaviors.

Vehicle Safety

- 5. Always put on a Safety Vest before performing working in outside the vehicle.
- NO SMOKING: There are gasoline engines and fuel tanks on the van, both in close proximity of our working area. There is NO SMOKING when inside or outside the van.
- 7. All gasoline-powered engines emit noxious fumes. The van engine or generators may be running to supply us power. Stay clear of the exhaust areas at all times. If you feel faint, notify the Shift Supervisor.
- 8. The telescoping mast is considered heavy equipment. If used improperly, it could cause injury or damage. Never touch the up/down controls or the manual back up features unless so approved by the Shift Supervisor.
- 9. Make sure that the van brakes are set, and the stabilizers are deployed before starting operations.
- 10. Even though all radios work on the 12VDC distribution, there are also 120VAC utility outlets. Respect the 120 V lines.
- 11. Call to the Shift Supervisor's attention any safety concerns that you have.

Medical or Other Emergency

Should an emergency or injury occur during this event, call 408-299-3233. Move the casualty only if they are not in a safe place (such as where traffic could hit them).

4 Vehicle Pre-Departure Checklist

This checklist is performed every time the vehicle is driven.

Vehicle I	nterio	r Inspection
	1.	Unlock all doors.
	2.	At the Rear Cabinet Circuit Breaker panel, CB4 to ON.
	3.	Front cab curtains are OPEN and tied back.
	4.	Operating position chairs are stowed and secured.
	5.	All radio operating gear is stowed (headphones, foot switches, etc)
	6.	Operating positions are clear of loose objects.
	7.	All interior cabinet doors and drawers are CLOSED and secured.
	8.	Turn off fans; close roof vents.
	9.	At Dash Control Panel, turn on switches #4, 10, 11 and #12.
	10.	Make Van Operations Log entry.
Vehicle E	Exterio	or Inspection
		Mast is lowered (see Section 7 Mast Operations).
	12.	Mast antenna cable is coiled and secured.
	13.	Mast antennas are removed and stored (as needed).
	14.	HF antenna is down and secured.
	15.	Television antenna is down and secured.
	16.	Awning is retracted and locked.
	17.	Vehicle stabilizers are raised (CCW to raise).
	18.	Generators are off (Section 10 or 11), or Shore power cable is disconnected and stowed.
	19.	The Generator exterior cabinet door is secured.
	20.	Front generator cover is removed and stowed.
	21.	Door retractable steps are secured.
	22.	Wheel Chocks, Traffic Cones are stowed.
	23.	Walk around, walk away, look up
	24.	Check behind you for obstacles
Startup		
	25.	Reread the Driver Safety section of the Safety Briefing
	26.	Cab radio is connected and powered ON.
	27.	GPS is mounted, power ON (Optional).
	28.	Gear shift to NEUTRAL, use clutch.
	29.	Ignition ON. Apply choke as necessary.
	30.	Visual check headlights and turn signals.
	31.	Parking Break RELEASED.
	32.	Check Fuel levels. Refuel if necessary.
	33	Let the engine idle for one minute before driving

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5 Vehicle Deployment Checklist

This checklist is performed every time the vehicle arrives at a deployment site. Whenever deployed, do not leave the vehicle unattended.

On Arriva	l	
	1.	Choose a location that is clear of overhead obstructions, well lighted with little traffic, and as flat as possible.
	2.	Ignition OFF.
	3.	Parking Brake to PARK.
	4.	Make Van Operations Log entries.
	5.	Put on Safety Vest before working in the street.
	6.	Deploy wheel chocks and traffic cones as required.
Operations	s Set	up
	7.	Start ICS 214 Unit Log. Make deployment entries.
	8.	Plug in the shore power cable to on-board generator. Start the front generator (Section 10 or 11).
	9.	Stabilizers are lowered (CW to lower).
	10.	At the Rear Cabinet Circuit Breaker panel, all 12vdc CBs are ON.
	11.	Deploy the Antenna Mast (Section 7 Mast Operations).
	12.	Confirm all radios are powered up and operational.
	13.	Open roof vents, turn on fans when running any generator.
	14.	Start ICS 211B Check-In list. Log in Comm Van staff.
Vehicle F	Park	ing / Shutdown Checklist
This checkl	ist is	performed every time the vehicle is parked after a deployment.
	1.	Check Fuel levels. Refuel if necessary.
	2.	Ignition OFF; Parking Break to PARK.
	3.	Front generator is covered.
	4.	Connect the shore power cable to building's local outlet.
	5.	Make final Van Operations Log entry – mileage, battery voltage, gasoline used, etc.
	6.	Cab radio OFF and stowed.
	7.	GPS OFF, remove and stow.
	8.	Open roof vents; turn on fans to OUT (HOT weather only).
	9.	All Dash Board Control switches are OFF except SW #10, #11.
	10.	Front cab curtains are pulled CLOSED.

11. All 12vdc Circuit Breakers (Rear Cabinet) are OFF

14. Log and report any mechanical problems with the Service Center.

13. Vehicle alarm is ARMED (see Section 12).

12. All vehicle doors are LOCKED.

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7 Mast Operations

Read this entire procedure before proceeding.

Raising th	ie ma	st
	1.	Verify the Van location is clear from overhead obstructions.
	2.	Cease all radio operations while raising the mast.
	3.	If previously stowed, on the mast, remove the antenna caps and install any antennas that are stored.
	4.	Retrieve the mast controller from its storage location and plug it into the mast control connector.
	5.	Release the mast coax cable bundle. Ensure it is untangled and laying flat on the ground away from any obstructions.
	6.	While holding the Mast Controller in one hand and the coax in the other hand, raise the mast by pressing the OUT Switch. Guide the coax bundle off the ground as it feeds through the mast guide rings.
		NOTE: If the coax bundle gets tangled or caught, STOP reverse direction and correct the problem.
	7.	Once you see the Red Band on the mast, STOP . Back the mast down until the Red Band is just out of sight from where you stand NOTE: The Mast will automatically stop if the upper limit switch is hit.
	8.	Unplug the mast controller and return it to its storage location.
	9.	Notify the Shift Supervisor of the mast deployment.
Lowering	the n	nact
	10.	
	11.	Ensure the area is clear of objects that can tangle the coax bundle.
	12.	Retrieve the mast controller from its storage location and plug it into the Mast control outlet.
	13.	Holding the Mast Controller in one hand, begin lowering the mast by pressing the IN Switch. Guide the coax bundle through the mast guide rings and let the coax settle on the ground.
	14.	Watch the Mast Limit Switch plate as it descends. Stop the mast just before the lower limit switch is pressed. NOTE: The Mast will automatically stop once the lower limit switch is hit. DO NOT leave the mast depressing the switch as its stowed position.
	15.	Unplug the mast controller and return it to its storage location.
	16.	Carefully coil the coax bundle and attach it the coax tie.
	17.	Remove any antennas that need to be stored as necessary; replace the antenna caps.

8 Mast Operations, Emergency Procedures

Read this entire procedure before proceeding. This procedure should be used whenever the mast cannot be raised or lowered by the electric winch due to any failure.

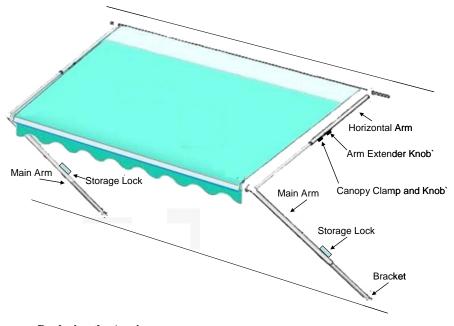
WARNING! When using the manual crank, <u>DO NOT LET GO</u> while the Clutch is in Free Wheel. Damage to the mast may result.

WARNING! When using the manual crank, keep inward pressure on the crank against the winch to prevent the crank from slipping out.

Raising tl	ne ma	st
	1.	Perform steps 1 and 2 in Section 7 Mast Operations.
	2.	Retrieve the manual hand crank from the storage location.
	3.	Remove the manual crank cap on the Winch and insert the hand crank. Make sure it is fully inserted.
	4.	While firmly holding the mast crank, slowly rotate the Clutch CLOCKWISE to the <u>Free Wheel</u> position.
	5.	Turn the crank COUNTER-CLOCKWISE to raise the mast.
	6.	STOP when you see the Red Band on the mast and back the mast down until the Red Band is just out of sight from where you stand.
	7.	While firmly holding the mast crank, slowly rotate the Clutch COUNTER-CLOCKWISE to the <u>Engaged</u> position.
	8.	Ease off tension with the mast crank to confirm the clutch is engaged.
	9.	Remove the hand crank and return it to its storage location. Replace the manual crank cap on the Winch.
Lowering	the n	nast
		Perform steps 10 and 11 in Section 7 Mast Operations.
	11.	Retrieve the manual hand crank from the storage location.
	12.	Remove the manual crank cap on the Winch and insert the hand crank. Make sure it is fully inserted.
	13.	While firmly holding the mast crank, slowly rotate the Clutch CLOCKWISE to the <u>Free Wheel</u> position.
	14.	Turn the crank CLOCKWISE to lower the mast.
	15.	STOP the mast decent just before the lower limit switch is pressed.
	16.	While firmly holding the mast crank, slowly rotate the Clutch COUNTER-CLOCKWISE to the Engaged position.
	17.	Ease off tension with the mast crank to confirm the clutch is engaged.
	18.	Remove the hand crank and return it to its storage location. Replace the manual crank cap on the Winch.

9 Awning Deployment

Read this entire procedure before proceeding.



Deploying the Awning

- Retrieve the Awning hook (long metal pole located above the passenger door).
- 2. On the <u>front and rear Main Outer Arm</u> (runs from the bottom of the van to the awning roller), open the Storage Lock covers located at the middle of each support.
- 3. On the <u>rear Main Outer Arm</u>, shift the lock lever to **UP Unlocked**.
- 4. At both <u>Inner Arms</u>, loosen the Black Arm Extender Knob (allows this arm to telescope as the awning unrolls).
- 5. Find the black strap in the center of the awning. With the awning hook, pull so that the awning unrolls. It will ratchet as it rolls out.
 - 6. As you unroll the awning, verify that the <u>front and back Inner Arms</u> slide free (inside to the Main Arm channels).
 - 7. Once the awning is fully unrolled, slide each <u>Inner (Horizontal)</u>
 <u>Arms</u> toward the awning roller.
 - 8. Once the <u>Inner (Horizontal) Arm</u> reaches the roller, align the metal catch to the locking slot, and insert it. It will lock in place.
 - 9. Tighten the Arm Extender Knob on each <u>Inner Arm</u>, now in the Horizontal position.
 - On both <u>Horizontal Arms</u>, loosen the Black Canopy Clamp Knob. Rotate the Canopy clamp so that it pinches the awning material. Tighten the clamp.

		Option #1: On both Main Arms, release the arms from the Vehicle Bracket at the bottom of the van, and walk them out to the point directly below the awning roller. Extend the arms to the desired height. Anchor the Main Arms to the ground. Option #2: On both Main Arms, leave the arms attached to the Vehicle Bracket and extend the arms to the desired height.
Retracting	g the	Awning
		If Required (Option #1): Remove the anchor at the base of the Main Arms. On both Main Arms, collapse the arms to their default (stowed) position. Walk the Main Arms back toward the van and lock them in position on the Vehicle Bracket.
	14.	<i>If Required (Option #2):</i> On both <u>Main Arms</u> , reposition the arms to their default (stowed) position.
	15.	On both <u>Horizontal Arms</u> , loosen the Black Canopy Clamp Knob and release the awning material from the clamp. Rotate the Canopy clamp so it is aligned with the horizontal support bar and tighten the Canopy Clamp Knob.
	16.	On both <u>Horizontal Arms</u> , loosen the Arm Extender Knob. Disengage the metal clip where the Horizontal Arm and awning roller meet. Start sliding the arm back down inside the Main Arm track.
	17.	While holding the Awning strap, shift the Storage Lock to DOWN Locked for Travel . It is now tensioned to rewind.
	18.	Slowly let the awning wind up. Ensure that all Horizontal Arms slide freely and do not jam.
	19.	Once the awning is fully retracted, tighten the front and rear upper arm Black Extender Knobs.
	20.	At the front and rear Main Arm, position the Storage Lock Covers to secure the Storage Lock.
	21.	Return the Awning Hook to the van. Insert the hook round end in first.

10 Generator Operations (Front)

Read this entire procedure for the Honda EU3000iS Generator before proceeding.



Starting the Generator

- Verify that the Generator power cable is connected from the generator 23.3A power outlet to the power connector to the receptacle on the front of the vehicle.
 - 2. Turn the fuel valve counter-clockwise to the 12 o'clock position.
 - 3. Set the **ECO THROTTLE** switch to **OFF**.
 - 4. Ensure there are no 120VAC loads plugged into any Van outlets.
 - Remove the generator key from the vehicle key ring. Insert it in the Engine Switch, and turn to ON, then START, and then back to ON once the generator starts to run.

NOTE: if the engine is cold, pull the choke control out, and then turn the key to Start. Once the generator is running, push in the choke control.

- If the Air Conditioner is <u>not</u> used, turn the ECO THROTTLE to ON.
- In the vehicle's rear generator compartment, plug the Shore Power cable into the receptacle labeled GEN FRONT.

Shutting down the Generator

- 8. Power off or unplug all 120VAC loads.
- 9. Turn the fuel valve clockwise to the 3 o'clock position (this drains any fuel from the carburetor).
- _____ 10. When the engine stops, turn the generator key to **OFF**. Return the key to the Vehicle Key Ring.

NOTE: In the event of Loss of Internal 120VAC Power

In the event the van loses 120VAC power, but the generator is still running, check the **OVERLOAD ALARM** on the generator panel. If it is on, turn the generator key to **OFF**, turn off all loads, and restart the generator to reset the alarm.

11 Generator Operations (Rear)

Read this entire procedure before proceeding.

This generator can be started from the Vehicle dash board generator control, as well as locally at the generator.



Starting t	he G	enerator
	1.	Ensure there are no 120VAC loads plugged into any Van outlets.
	2.	From the vehicle Dash Board, press and hold the generator Start switch to start the generator.
	3.	In the vehicle's rear generator enclosure, plug the Shore Power cable into the receptacle labeled GEN REAR .
Shutting of	down	the Generator
	4.	Power off or unplug all 120VAC loads.
	5.	From the vehicle Dash Board, press and hold the generator Stop switch to stop the generator.
In the ever	nt the	event the Generator will not start generator does not start after several tries, you must manually apply e generator engine compartment.
	6.	In the generator compartment, remove the generator front cover.
	7.	Press and hold the Choke lever. Manually starting the generator with the Start switch located on the generator.
	Q	Once the engine starts release the Choke layer

12 Vehicle Alarm Information

Read this entire procedure before starting to execute.

Arming

- 1. Press and release the Arm button (& •). The alarm arms, the siren chirps once and parking lights flash once.
- If a trigger zone fault is detected (some door is open), the siren chirps once again and the Arm LED will flash a Trigger Zone Fault Report.
- 3. If there is a secondary chirp, there may be a zone not closed.

Disarming

4. Press the Arm button (6 o). Confirm the alarm chirps TWICE.

NOTES

Status LED: The Control Center Status LED flashes as a visual indicator that the vehicle's security system is active.

Alarm Report

If the alarm was triggered while armed, it will be reported when the alarm is disarmed via the siren chirps and control center LED flashes. The siren chirps 4 times (or 5 times if NPC On, see below), the parking lights flash 3 times, and the control center LED flashes in groups to indicate the last two zones that were triggered (see Table of Zones). The report output will repeat for each disarm operation until the ignition is turned on.

Table of Zones

Zone	Zone Name
1	Trunk
2	Shock Sensor
3	Door
4	Sensor 2
5	Ignition
6	Hood

Nuisance Prevention (NPC)

NPC monitors all alarm zones and, if any are triggered excessively, bypasses them until corrected. If a point of entry (trunk, hood, door) is left open following a forced entry, it is bypassed. It becomes active again only after being closed. Bypassed sensors automatically reset after one hour and after the vehicle is driven. Disarming then re-arming the alarm does not reset bypassed sensors.

13 Power Distribution Reference

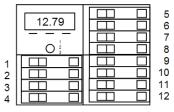
120VAC Distribution

The 120VAC Electrical Distribution Panel is located in the Generator Compartment. Six (6) Circuit Breakers (CBs) are located here.

CB	Amps	Load
1		External Outlet, Battery Charger
2		MASTER, must be on for all other 120VAC circuits to work
3		
4		Air Conditioner
5		Internal Outlets, Pos #2, #3
6		Internal Outlets, Pos #1, #4, Printer Drawer

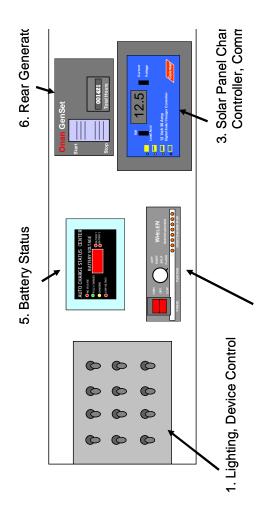
12VDC Distribution

The 12VDC Electrical Distribution Panel is located in the Rear Cabinet above the generator enclosure, top shelf.



CB	Amps	Load	
1	15	Spare	
2	15	Workstation lighting	
3	15	Scanner, Kenwood Low band SUP	
4	40	Dash panel main power	
5	30	12VDC outlets	
6	30	Icom IC-7000	Pos #2
7	20	Kenwood TM-710A	Pos #3
8	20	Kenwood TM-710A	Pos #2
9	20	Alinco DR-235T	Pos #2
10	20	Kenwood TM-710A	Pos #1
11	20	Motorola CDM 1250	Sup
12	20	Kenwood TM-710A	Sup

14 Dash Control Panel Reference



1. Lighting Device Control.

Sixteen (16) toggle switches to control various interior and exterior lighting, and other cab area devices. Switches should be counted from top to bottom, Left to Right.

Top Row, Left to right

- 1. Amber Traffic Advisor, Front
- 2. Exterior Spot Light, Drivers side
- 3. Exterior Spot Light, Passengers side
- 4. Backup Camera

Middle Row, Left to right

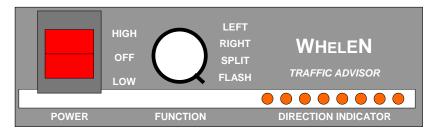
- 5. Exterior Floodlight, Front, Drivers side
- 6. Exterior Floodlight, Rear, Drivers side
- 7. Exterior Floodlight, Front, Passengers side
- 8. Exterior Floodlight, Rear, Passengers side

Bottom Row, Left to right

- 9. Interior, Dome Light, cab area
- 10. Interior, Isle Lights, center
- 11. Interior, Isle Lights, rear
- 12. Batter Status

2. Whelen Traffic Advisor

The rear -facing signaling device that alerts on-coming traffic with a visual warning and a correct direction or signal. This device is powered whenever CB4 (Rear Control Circuit Breaker Panel) is on.



Power: OFF

LOW power HIGH power

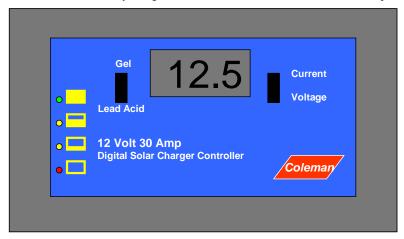
Function

Left: Lights flash in the Left Direction pattern.
Right: Lights flash in the Right Direction pattern.
Split: Lights flash from in to outside in a split pattern

Flash: Flashing Light pattern

3, 4. Battery Charge Controller

There are 2 solar battery charge controllers installed, each with its own solar panel.



- The LEFT Charge Controller (#3) maintains the charge for the batteries that power the communications equipment. This uses the front solar panel located on the roof.
- The RIGHT Charge Controller (#4) maintains the charge for the vehicle engine battery. This uses the rear solar panel located on the roof.

Controls

The following controls are present:

- Left Slide Switch: Choose between a Gel Cell and Lead Acid Battery. This
 must be set to Lead Acid Battery.
- 2. Right Slide Switch: Changes the display to show either the Current (upper position) or the Voltage (lower position) being provided by the battery.
- 3. Digital Readout, Center. Shows either Current or Voltage.
- 4. Visual Battery Status. On the Left, visual indicator of the state of the battery charge

5. Battery Status Indicator

120VAC Charger Indicator for the batteries that power the communications equipment.

6. Rear Generator Controller

Remote generator start and stop capability for the Rear Generator. Press and Hold the desired button to Start or Stop the rear generator.

15 Van Supervisor Responsibilities

The following are the general responsibilities for an individual that assumes the Van Supervisor position.

- 1. If you are holding the vehicle keys, you are responsible for the Van.
- 2. Van Operations safety is the responsibility of the assigned Van Supervisor.
- 3. The Van Supervisor must ensure that all Van systems are used in an authorized and prescribed manner.
- 4. The Van Supervisor must be present at all times that the Van is open.
- 5. Never leave the Van unlocked and unattended.
- 6. It operations are in progress and you must step away from the Van for any reason, transfer Van Supervision to another qualified person.
- 7. If operations are secured and you must step away from the Van, you must **Secure**, **Lock**, and **Arm** the vehicle Alarm.
- 8. Van monitoring is required for the following areas:
 - Ensure all external cabling does not create a safety hazard.
 - Monitor generator fuel levels. Notify the shift supervisor when fuel levels drop below one-half.
 - Record power system performance every hour in the Power Log.
 - Ensure the internal and external operating space is free of clutter.
- 9. Ensure generator or engine fumes are not hindering operations.
- If any unsafe condition arises, stop the associated operations until the situation is resolved.
- 11. Use your judgment.

Cupertino ARES/RACES 10300 Torre Avenue Cupertino, CA 95014-3255