



Vehicle Installation Specifications (MARCH 2009)
- Communications, Emergency Lighting & Livery -

Fleet No. _____ Registration: _____ Allocation: _____

Equipment Supplied

Radios & Phones		Comments
St John UHF	Model: _____ S/N: _____	411 – 480 MHz
St John VHF	Model: _____ S/N: _____	149 – 163 MHz
UHF CB	Model: _____ S/N: _____	
Phone	Model: _____ S/N: _____	
HF	Model: _____ S/N: _____	
Other	Model: _____ S/N: _____	

Antennas (circle applicable)	Location to be fitted	
St John UHF	RF Industries CD91-70-73 with 5m RG58 coax (red) SK954 spring with ¼ wave antenna (blue)	Light bar (central)
St John VHF	MB 12 UHF base with 5m RG58 coax	Light bar
UHF CB	RF Industries UHF on-glass	Front near-side windscreen
Phone	MBC base with 5m RG58 cellfoam	Light bar
Spare	MBC base with RG58 coax	Z bracket at bonnet level
HF	Auto-tune antenna with RG223 coax cable	Bracket – front, nearside, low

Lights & 12V Power (circle applicable)	Comments
Ski- Bar	Red Beacons x 2 Alley Lights
Light Bar	Model: _____ S/N: _____
Additional	Front flashers on bar Elevated rear flashers
Driving lights	Model: _____ S/N: _____
Aux. power	Hella 2 pole surface mounting socket (P/N 4917)

Vehicle signage

Livery	Comments:
Numbering	Roof no. (SJ XXX) & Vehicle Body (above driver's door & offside below rear window)

Cable – minimum specifications

12V power	< 2m (4mm cable)	≥ 2m (5mm cable)	HF radio (6mm cable)
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Vehicle equipment delivered by:

Name: _____ Position: _____ Date: _____ / _____ / _____

Contacts

Name	Phone	E-mail

Installation Standards

1. All 12V electrical wiring to be fed from common fuse box, located within 30cm of vehicle battery.
 - a. All wiring must meet or better the respective manufacturer's recommendations for installation:
 - b. Connections (where necessary) should be soldered & covered with heat shrink where possible.
 - c. Any voltage drop must be kept to an absolute minimum.
 - d. Common fuse box must be easily accessible – minimum 10A rating, no individual in-line fuses
 - e. All lights to be switched from common switch panel - easily accessible, clearly labelled & visible
2. All equipment fitted for use by the driver or passenger must be placed in the safest position possible:
 - a. It must not impede the driver's field of vision.
 - b. It must not obstruct driver access to controls or impair dashboard/console function
 - c. It must not pose a head or knee strike to driver or passenger
 - d. It must be easily accessible to the driver and the passenger
 - e. Holes are not to be drilled into highly visible dashboard / console patterns
3. Equipment location:
 - a. General mounting requirements:
 - i. Radio transceivers are **not** to be mounted under front driver's or passenger's seats.
 - ii. Radios must be adequately protected from physical damage.
 - iii. Fastening of equipment must withstand a force of 20g forward and 10g sideways.
 - iv. No equipment is to be mounted near drink holders
 - v. Junction boxes (where applicable) are to be hidden from view
 - b. Preferred radio transceiver locations (in order):
 - i. radio compartment
 - ii. cargo cage
 - iii. rear of back seat
 - iv. car boot
 - c. Radio head mounting
 - i. St John UHF radio head to be easily accessible & dominate installation
 - ii. Avoid putting screws into prominent duco where possible
 - d. Mobile phones
 - i. Primary phone not to be connected to car radio mute & must be within reach of driver
 - ii. Microphone located to ensure optimal performance with minimal interference
 - e. Speakers
 - i. External speakers, where supplied, are to be positioned to ensure adequate volume & clarity, avoid feedback and minimise chance of damage
 - ii. Preferred locations:
 1. top of cargo barrier
 2. behind front dashboard
 3. avoid cabin headspace
 - f. All cables
 - i. To be hidden from view and cable tied where appropriate – all cables to be run down B pillar on sedans, wagons and twin cab 4WDs.
 - ii. External cable routing, where necessary, to use existing ducts where possible, cause minimal vehicle body damage & have waterproof seal
 - iii. All coax cables at base of antennas to be cable tied with slack to prevent antenna-cable connection damage
 - iv. Coax cable to be joined only when base & coax supplied too short and then all cable joins must be co-located in easily accessible location
4. Emergency Warning Lights (**RED ONLY**)
 - a. Lightbar / skibar
 - i. Minimum components – 2 red beacons (giving 360° visibility) & 2 alley lights
 - ii. 3 antenna configuration (as per specifications in table on page 1)
 - iii. Aligned over B pillar and secured with approved brackets
 - iv. Cables (antenna & power) run down B-pillar and not along the roof with cable run direct to transceiver and hole sealed
 - b. Additional emergency lighting may be required to provide adequate visibility
 - i. Common switch on switch panel for all emergency lighting
 - ii. Alternating reverse lights – standard feature
 - iii. Rear internal LED / halogen flashing lights (**RED ONLY**)
 - sedan (parcel shelf), wagon (rear doorway), twin cab 4WD (inside canopy roof)
 - iv. Twin front external flashing lights (**RED ONLY**) – to be mounted on bar supplied
 - v. Additional lighting in accordance with vehicle design plan
5. Antennas
 - a. All antennas to be fitted in accordance with specifications and location details on page 1.
 - b. HF antennas must comply with State/Territory Government standards and have amalgamating tape on connectors
 - c. All UHF antennas to be positioned to maximise elevation and minimise signal attenuation
 - d. SWR must be checked for all UHF antennas, and tuned (St John-ch 14, UHF CB-ch 15)
 - e. Cable connectors
 - i. All coax must be labelled, tested and an appropriate connector fitted
 - ii. Where no radio is allocated (ie. spare antenna base), a BNC connector is to be fitted and the cable neatly & accessibly stored under the front nearside dashboard
6. Auxiliary 12V socket – Hella socket (P/N 4917), permanent 12V supply
 - a. Easily accessible in front passenger's area but not prominent location or in place of radio/phone.