Operators Manual

J-ALERT

Model JA-2030

DYPLEX COMMUNICATIONS LTD.

April 2012 Ver 1.4

INDEX

Jammer Detector

Models JA-2030

OVERVIEW

The *J-Alert* is multi-band receiver capable of detecting Radio Frequency Jamming. The *J-Alert* uses signal analysis to identify valid communications and differentiate them from malicious Radio Frequency Jamming signals.

When Jamming is detected, visual alerting of the jammed radio spectrum is identified on the front of the unit and the RSSI (received signal strength indication) LED's on the front display are activated as well as an audible beep will also be heard. The LED activity will indicate target vehicle position relative to the *J-Alert* equipped vehicle.

Theory of Operation

The J-Alert contains a number of sensitive radio frequency receivers tuned to specific radio bands.

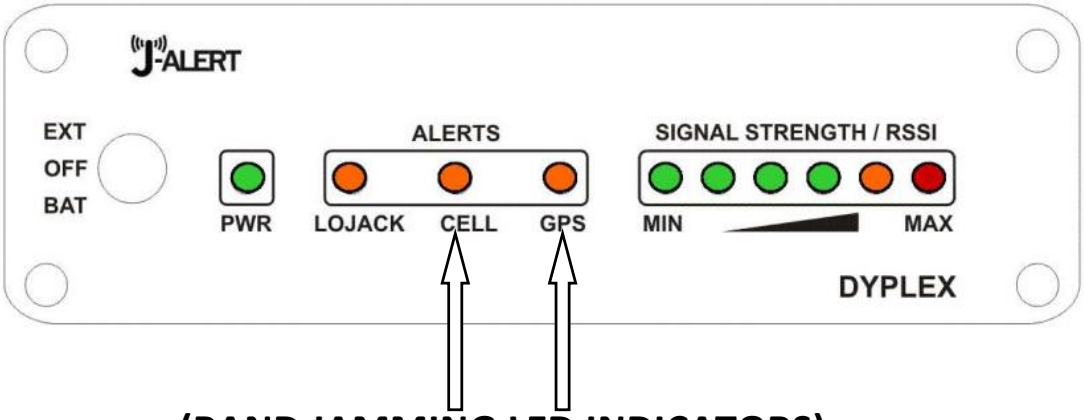
Model JA-2030 (Europe & Brazil)

GPS – L1

GSM /900 – GSM/1800 MHz

UMTS

These radio receivers are tuned to the Downlink (Site) frequencies of their respective cellular bands. Very fast scanning within the bands is used with an adaptive signal analysis to identify jamming signals from legitimate radio signals. When jamming is detected the receiver identifying the jammed signal will indicate band jamming on the front panel illuminating the respective led's.



(BAND JAMMING LED INDICATORS)

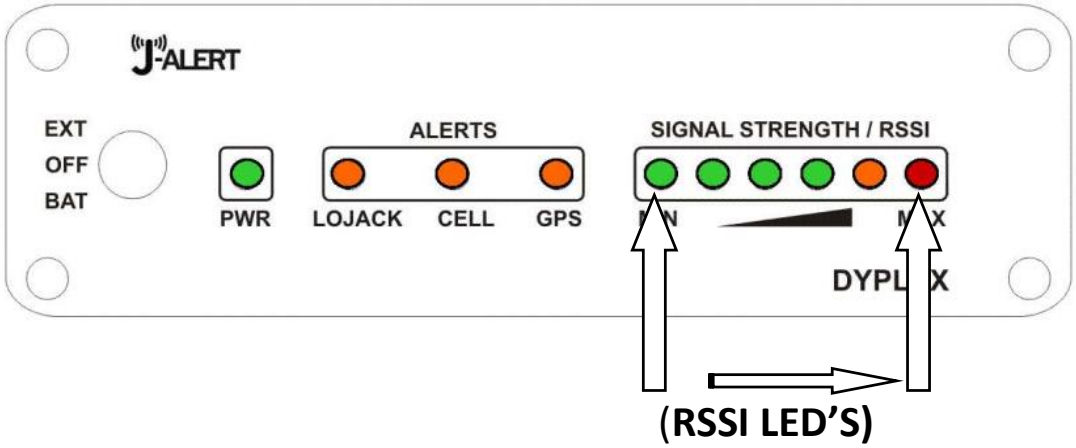
Cell Jamming

When cellular jamming is detected on any of the cellular bands, the Cell LED will illuminate. RSSI LED indication will be displayed indicating the strength of the Cellular Jammer received signal.

GPS Jamming

When jamming of the GPS L-1 frequency is detected, the GPS LED will illuminate and tracking using the RSSI LED display is active.

Front Panel



Front Panel Controls

Ext/Off/Bat : 3 position power switch

Ext – power is provided via usb plug on the back of the unit 5vdc direct or a 12v to 5v Cigarette lighter/convertor plug

Off – Unit is turned off.

Bat – Internal 5v Li-polymer rechargeable battery is used. JA-2030 will operate for approximately 2 hours.

Charging of the internal battery occurs when the external power is connected.

PWR: Red LED illuminates when J-Alert is turned on and power is supplied.

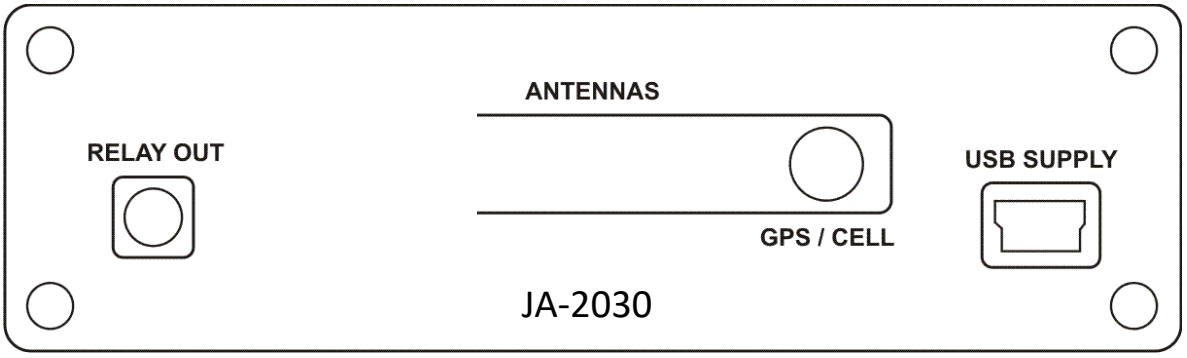
Cell: Yellow led illuminates when Jamming is indicated on at least one of the Cellular frequency Bands.

GPS: Yellow led illuminates when Jamming is indicated on the GPS L1 frequency.

Signal Strength/RSSI

6 LED display that will indicate the RSSI of the GPS L1 or Cellular frequency that is being jammed. Used for tracking the jammer.

Rear Panel



Rear Panel Connections

Relay Out **2.5mm Stereo jack providing a 3 wire N/O N/C dry contacts for remote triggering of external devices. On valid alarm sense the relay will activate and latch for 10 sec.**

Antennas **SMA whip antenna**

USB Supply **USB connection for external power input 5v dc.**

Installation and Operation

Package Contains

1- J-Alert Model JA2030 (EU & BR)
1- DC to DC convertor 12/24 to 5 v dc.
1- 220v AC to 5 v dc adaptor
1- Whip antenna
4- Pieces of 3M Dual Lock adhesive strips for unit mounting

1) Install J-Alert Model JA-2030 in a dry location either at a fixed location or inside a vehicle to suit the requirements of your operation. Antenna location should be at a line of level to intercept signals from the suspect vehicle either at Dashboard or Sun Visor level. Numerous configurations of equipment in vehicles pre-exist therefore ensure antennas are located above dashboard height and the device is secured to the vehicle in a manner to prevent movement during driving maneuvers 4 strips of 3M Dual Lock recloseable tape are provided, 2 for the J-Alert and 2 for the surface to be attached to in the vehicle. The JA-2030 is a small and light weight device allowing for the application of double sided tape or Velcro for the purpose of mounting the unit within the vehicle and this method also

allows for the JA-2030 unit to removed from the vehicle for the purposes of taking on foot to confirm location of a jammer.

2) Insert the in-car power adapter or ac power adapter to provide power via the rear USB charging port.

3) Turn on the J-Alert by switching the power switch to Ext for use in a fixed location or in a vehicle where an external power source is available or to Bat if taking the unit on foot using the internal battery. (When powered the LED's will all illuminate on the face of the J-Alert and then after 2 sec. only the power LED will be illuminated.

The device is now operational.

When a jamming device is detected operating in a Radio Frequency band monitored by the J-Alert, the Led corresponding to the band being jammed will illuminate on the front of the device.

Jammer locating

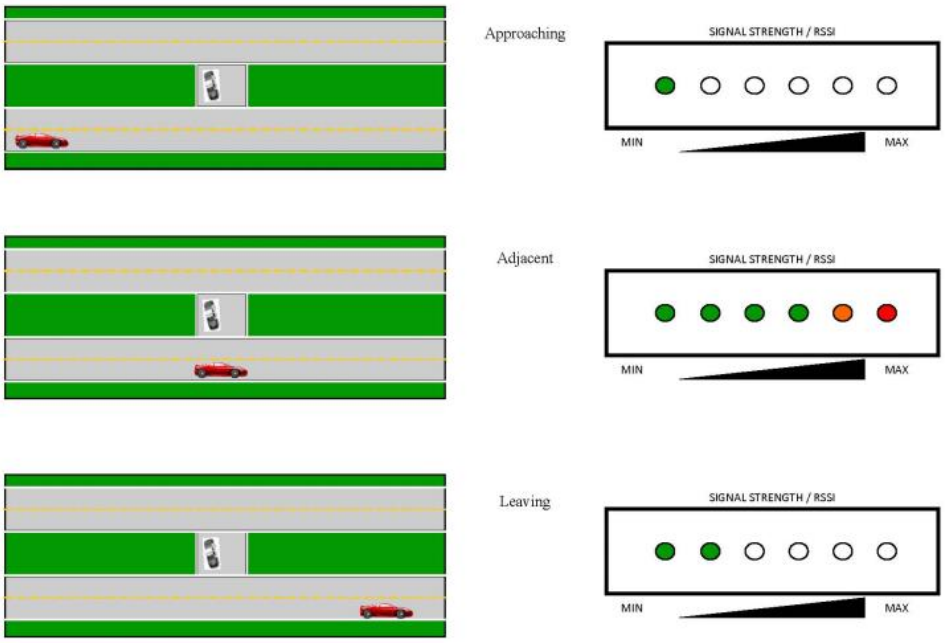
(Mobile)

When jamming is detected, the Cell and GPS LED illuminates, an audible alert will be heard and the received signal strength from the jammer will be displayed. The received signal strength will vary according to the proximity of the offender to the J-Alert. When maximum Received Signal Strength is indicated on the RSSI display, you can confirm the location of the jammer by removing the J-Alert from the vehicle, switching the power to battery and walk towards the offending vehicle or location. Walk in the direction which indicates maximum signal.

(Fixed)

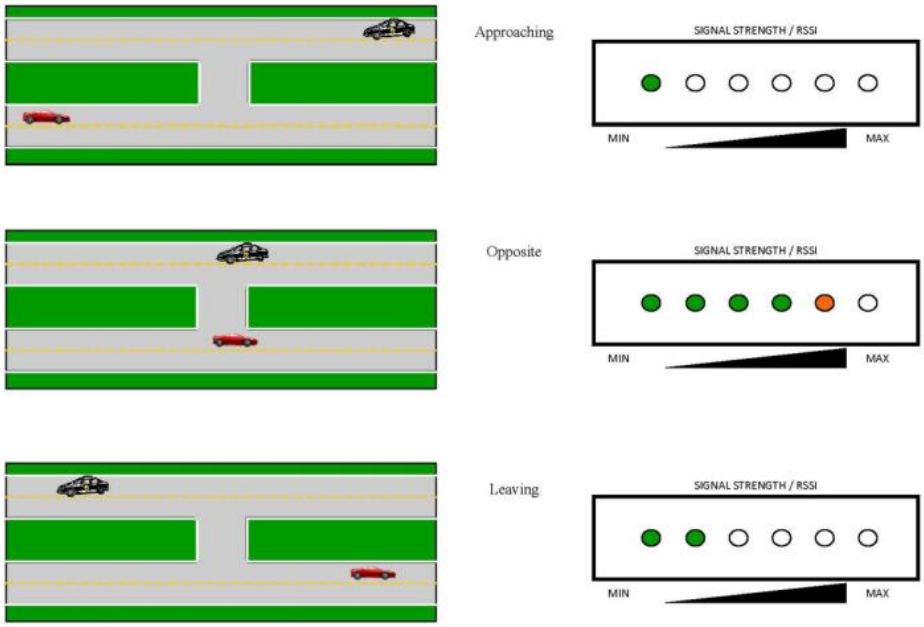
When jamming is detected using a J-Alert operating at a fixed location (pinch point). Insert a 2.5 mm stereo plug into the rear of the J-Alert relay out. Using the N/O (normally open) or the N/C (normally closed) dry contacts you can trigger an external device such as an alarm or a video camera to record the offending vehicle or person.

- **Using a transmitting cellphone within 24” of a J-Alert can cause false sensing.**



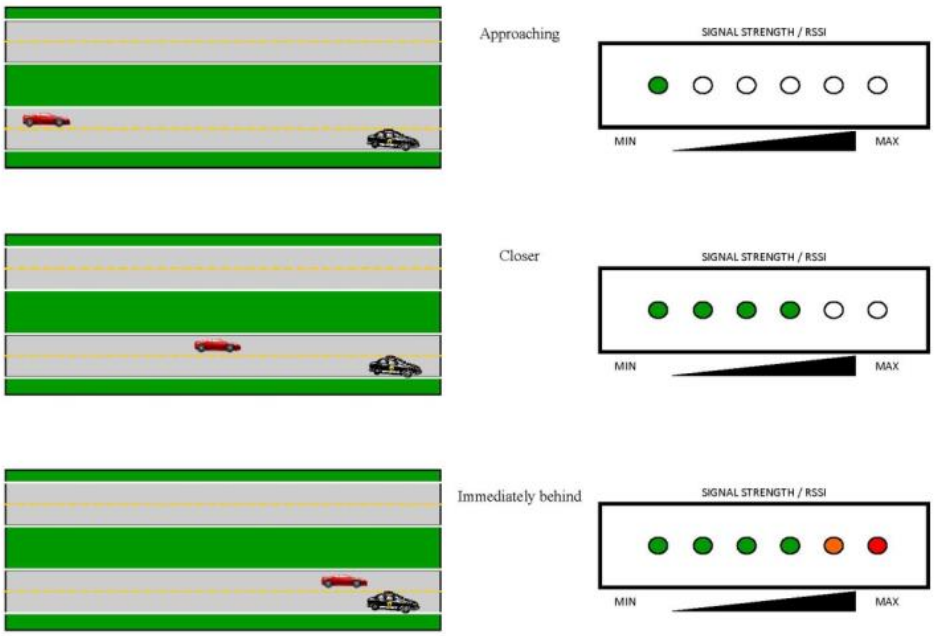
J-Alert being operated in a stationary mode from a cruiser in the centre median of a highway.
Red car operating a jammer with Cell and GPS jamming (J-Alert Cell and GPS led's will illuminate.)
Signal strength display shown as vehicle passes cruiser.

J-Alert Operation from a Highway Median



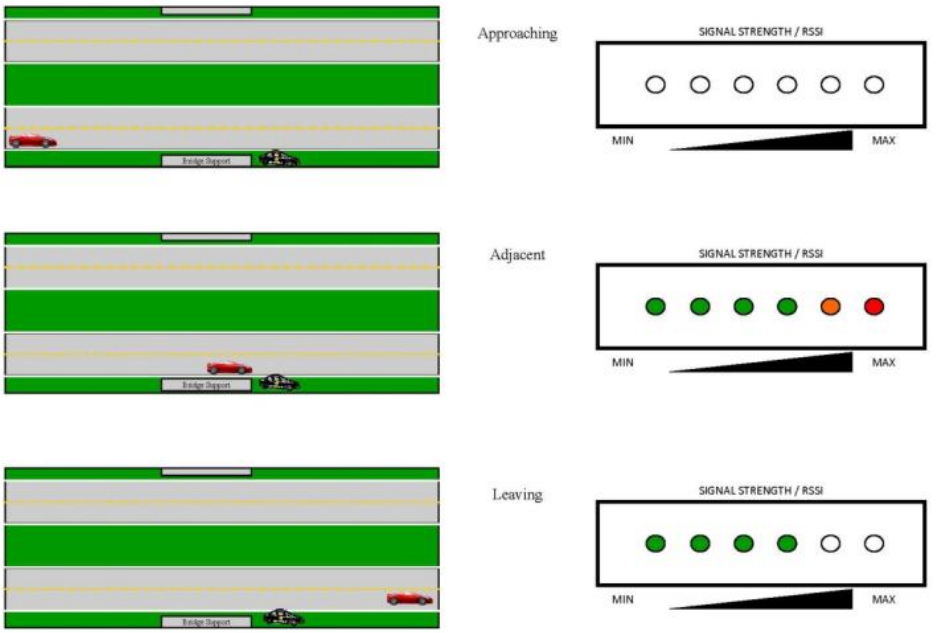
J-Alert being operated in a moving mode from a cruiser in the right lane of a highway.
Red car operating a jammer with Cell and GPS jamming (J-Alert Cell and GPS led's will illuminate.)
Signal strength display shown as vehicle approaches, meets, and departs from the cruiser.

J-Alert Operation while mobile, Jammer vehicle oncoming



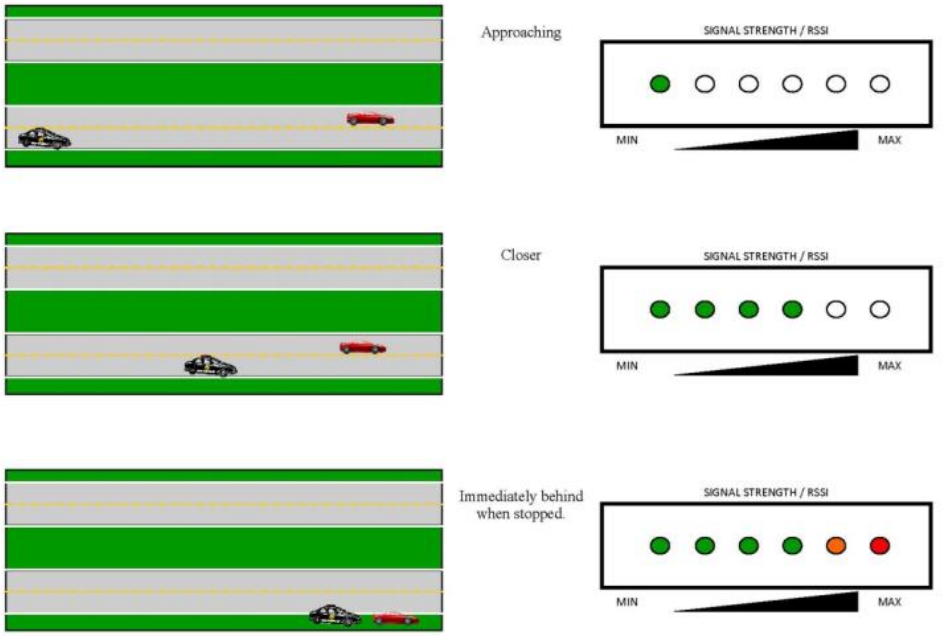
J-Alert being operated in a moving mode from a cruiser in the right lane of a highway.
Red car operating a jammer with Cell and GPS jamming (J-Alert Cell and GPS led's will illuminate.)
Signal strength display shown as vehicle approaches cruiser.

J-Alert Operation while mobile, Jammer vehicle approaching from behind



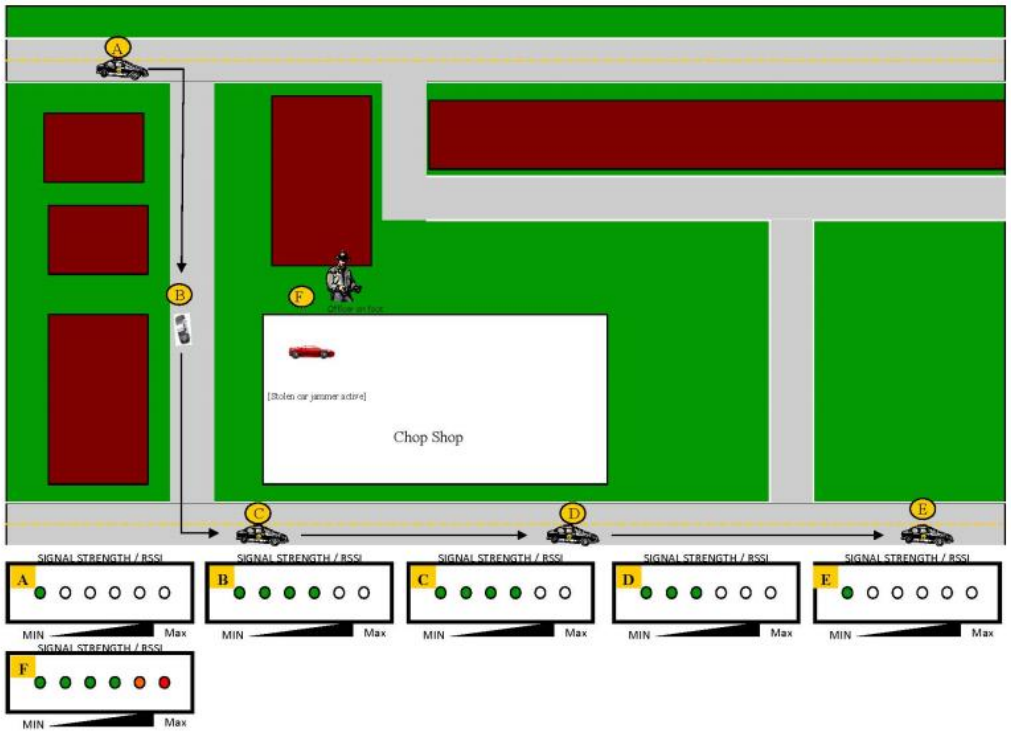
J-Alert being operated in a stationary cruiser. The signal is blocked by a physical structure (ie. Overpass support.)
Red car operating a jammer with Cell and GPS jamming (J-Alert Cell and GPS led's will illuminate.)
Signal strength immediately goes max when adjacent the cruiser, signal reduces as separation increases.

J-Alert Operation while stationary, jammer vehicle approaching from behind a fixed structure



J-Alert being operated in a moving cruiser about to stop an offender.
Red car operating a jammer with Cell and GPS jamming (J-Alert Cell and GPS led's will illuminate.)
Signal strength display shown as vehicle approaches cruiser, when offender is pulled over max reading.

J-Alert confirmation of stopped Jamming vehicle



J-Alert being operated in a cruiser and then on foot to positively ID the location of a jammer in a building.
Red car operating a jammer with Cell and GPS jamming (J-Alert Cell and GPS led's will illuminate.)
Signal strength display shown as officer approaches the building.

J-Alert Operation using a moving vehicle and then on foot to confirm location of a Jamming vehicle

Support & Service

We offer extensive support and service for your new J-ALERT device.

Please contact us at

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Warranty

This product is warranted by Dyplex Communications Ltd. against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from Dyplex Communications.

Except AS PROVIDED HEREIN, Dyplex Communications Ltd. SHALL HAVE NO LIABILITY OR RESPONSIBILITY
TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM
INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF Dyplex Communications Ltd. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
In the event of a product defect during the warranty period, ship the product back to Dyplex Communications Limited will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period. This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a Dyplex Communications Ltd. Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs.

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The J-Alert is a co-designed product from the companies of Dyplex Communications and SEQTOR.

The J-Alert is engineered and built by SEQTOR.

The J-Alert is exclusively distributed in North America and in Brazil by Dyplex.

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Examples of Jamming Devices


J-ALERT