

## WARRANTY & LIABILITY

All fiber optic transmission systems, products and accessories manufactured by Liteway, Inc. and its subsidiaries are fully tested prior to shipment and are warranted against defective materials and workmanship for a period of five full years from the date of the original shipment. Should a problem occur, a Return Material Authorization Number (RMA) must be obtained from Liteway Inc. at (516) 931-2800 and the item returned to Liteway, Inc. 166 Haverford Road, Hicksville, NY 11801, USA, prepaid. Liteway Inc. will then, at its option repair or replace the defective item.

Liteway, Inc. maximum liability under this warranty is limited to the cost of the defective item only. No contingent liabilities of any kind are either assumed or implied.

Any items returned to Liteway, Inc. that have been misused, abused, damaged, modified, connected or adjusted in any way contrary to the instructions furnished by Liteway, Inc. or repaired by unauthorized personnel will not be covered by this warranty. Any non-warranty repairs required will be quoted at the current rate for such services.



### Important Notices



#### **CAUTION ! AVOID DIRECT EXPOSURE TO BEAM.**

All -5, -7, -8, and -9 Models use laser diodes. These solid-state laser diodes are located in the optical ports of these units. Laser diodes produce invisible radiation that may be harmful to human eyes. Never look directly into the optical port of any fiber optic unit designed to operate with single-mode optical fiber.

#### **NOT FOR LIFE SUPPORT SYSTEMS**

Liteway, Inc. does not authorize or warrant any of its standard products or accessories for use in critical life support systems or applications of any kind. Please contact us for this critical specialty equipment.

## OPERATING INSTRUCTIONS

**Litelink<sup>®</sup>**

### Fiber Optic Intercom System Models INCX-2101, INCX-2201



Remote (Bucket) INCX-2201



Local (Cab) INCX-2101

The INCX-2101 & INCX-2201 form a weatherproof fiber optic intercom system for point-to-point applications where electrical isolation between the two ends of the system is desired. The local intercom is push to talk, while the remote is 'hands free' and battery powered, making the system ideal for insulated bucket truck applications. The local unit has an alarm input (e.g. tilt alarm) which sounds an alert to both units.

#### Technical Specifications

Audio Bandwidth:	200 Hz to 5 KHz
Audio Input/Output:	Integral speaker and microphone
Audio Output Power:	6 watts peak maximum
Operating Wavelength:	850nm or 1310nm
Optical Fiber Loss Budget:	Multimode/10dB typical
Optical Connectors:	Industry standard ST
Bucket Controls:	Power, Volume
Cab Controls:	Power, Volume, Push-to-Talk
Bucket Indicators:	Power Battery Charge, Link
Cab Indicators:	Power Battery Status, Link
Operating Temperature:	-35° to +75°C
Power Requirements:	12 VDC nominal
Bucket Battery Life:	24 hours (typical) per charge.
Physical Size (mm):	6.0 "(153)l x 5.0"(128)w x 3.0"(76)d

All specifications are subject to change without prior notice.

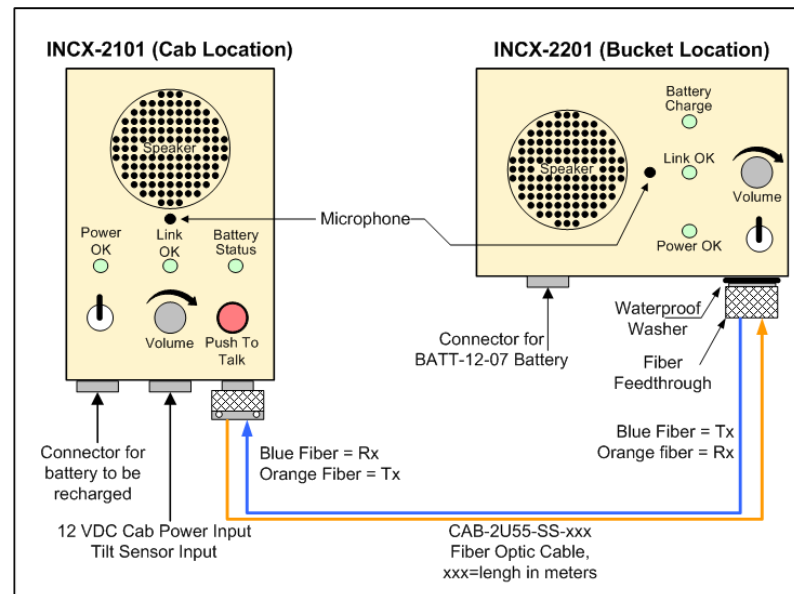
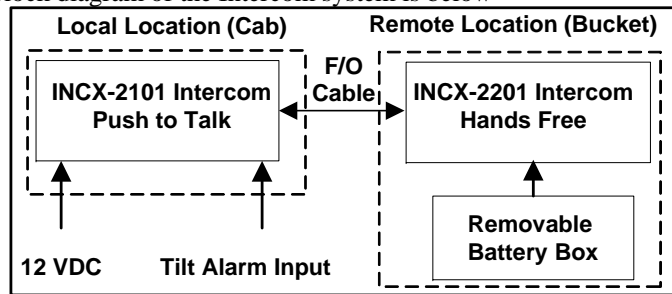
**Liteway<sup>®</sup>**

Fiber Optic Transmission Systems

www.Liteway.com  
USA 516-931-2800

## Installation Instructions

The block diagram of the Intercom system is below



The INCX 2101/2201 is designed to operate with rugged tactical 2 fiber multimode fiber optic cable. The specific recommended cable is Liteway CAB-2U55-SS-028 which is approximately 90 feet (28 meters) long. Custom lengths are available on special order.

### Cab Power Connections:

The CAB-PWR-1F502 cab power cable contains 3 wires to be connected as follows:

Wire Color	Function
Brown	+12 volt supply
Blue	12 volt return or ground
Green	Alarm When this wire is connected to +12 volts (i.e. through an external tilt switch), the bucket and cab intercom units will sound an audible alarm

### Bucket Power Connections:

The bucket unit is connected to a BATT-12-07 battery by means of a CAB-BATT-1F5 cable.

### Operating Controls and Indicators

**Power Switch:** Turns operating power on and off.

**Power Indicator:** Green indicator shows operating power present

**Volume Knob:** This control sets the received audio volume. Note that it cannot be set to totally eliminate all audio.

**Link Indicator:** Green indicator will lights when a valid fiber optic path is present between the bucket and cab units.

### Remote Intercom (Bucket) Battery Charge Indicator:

Green	Battery is charged and unit is ready for operation.
Red	Battery needs to be recharged.

### Local Intercom (Cab) Battery Status Indicator:

Green	Battery is fully charged or charger is ready for use.
Red	Battery being charged is not fully charged.

Note that the battery charge indicator will monitor the external voltage the Cab is connected to when not actually charging a battery

**Push-to-Talk (only on Cab unit):** Pressing this switch will configure the unit so that the cab unit can talk to the bucket unit. If this switch is not pressed, the bucket unit can only talk to the cab unit.

### Battery Charging

The battery pack BATT-12-07 powers the remote intercom (bucket) unit for daily use. When discharged the local intercom (cab) is used to recharge the battery pack. The BATT-12-07 battery needs to be recharged when battery charge indicator on the INCX-2201 turns red (with the Power switch on). *To charge the BATT-12-07 connect it to the Battery connector on the INCX-2101 Cab unit by means of a CAB-BATT-1F5. Turn off the main power switch on the INCX-2101 but leave it connected to the external 12 volt cab power. The battery status indicator will turn from red to green when the battery is fully recharged.*

### Hand Held Radio Interface (Optional)

This optional interface allows a waterproof hand held radio units to allow direct communications between a person at the remote location and a person a short distance from the local location.

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