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Alco Tag Installation Manual

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1. Introduction

This document is intended to be the source reference material for using the Alco Tag product, with the exception of electronic configuration (including set-up and interaction with the on-line monitoring portal). There are 2 variants of the Alco Tag containing different size batteries – HVIN 343015 containing the 1200mAh battery and HVIN 343016 containing the 1800mAh battery. The emphasis here is upon describing the physical features, charging, correct fitting and removal etc.

2. Equipment Description



- A. Alco Dock – used to charge the Alco On-Body Charger (OBC) battery. The Alco Dock is plugged into the mains and the Alco OBC is fitted over it for charging.
- B. Alco OBC – used to daily charge the Alco Tag battery. The Alco OBC is clipped over the Alco Tag during charging.
- C. Alco Tag Strap – for securing the Alco Tag to a subject. The strap is available in a number of sizes depending on the subject's ankle size.
- D. Alco Tag - Ankle worn electronic monitoring device. One is required per subject.
- E. Locking Plate- Two plastic Locking plates are required per Alco Tag. The locking plates will be damaged upon removal of the Strap, therefore new locking plates must be installed in the Smart Tag before it can be fitted to a new Subject.

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F. Removal Tool – is used to release the strap and remove the Alco Tag from the subject. It punctures very small holes in a very controlled location on the Locking Plates and releases the strap. Not shown above.

3. Alco Tag Fitting

The Alco Tag should be prepared for fitting to the subject by clipping two new Locking Plates in position as shown below in red for clarity.



The Locking Plates will be secured in position when the Strap is inserted into the Alco Tag, they protect the strap from being released without physical damage being created for evidence gathering purposes.

Measure around the ankle, holding the measuring tape loosely. Record the measure in millimetres (mm).



Using the strap sizing reference material select the strap size recommended for the subject's ankle measurement.

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Fit the Strap into the Alco Tag at one side, then wrap around the ankle of the subject ensuring the arrow on the front surface is pointing upwards, and connect the free end of the Strap into the Alco Tag. A clear 'click' will be heard as the Strap securely engages inside the Alco Tag, it should be possible to slip two fingers behind the strap to ensure enough movement for cleaning, charging and general comfort.

The fitting of the strap will create a closed optical circuit which is continuously monitored by the Smart Tag.

4. Alco Tag Operation

The Alco Tag communicates to a server-based monitoring platform, which interprets the data provided to populate a web portal user interface. The data sets include the following:

- Event Time
- Alcohol level
- GPS Location (Intervals can be defined, or a real-time request made).
- Geofence Data (Virtual zones for inclusion or exclusion set by map data).
- Position Type (GPS, RF Beacon).
- Speed of Motion.
- Battery Level.
- Charger On / Off.
- Signal Strength.
- Strap On / Off (Off includes tampering or cutting).
- Alerts (Based upon one or more of the above).

Alerts can take the form of notifications within the web portal, by e-mail, SMS to mobile phone notifications or vibration feedback within the Smart Tag on the subject.

When in proximity to an RF Beacon, the Alco Tag will not attempt to achieve new GPS fixes, resulting in significantly less demand on battery power.

5. Alco Tag Removal

Note any obvious sign of damage to the Alco Tag, or Strap in accordance with local protocol.

When removing the Alco Tag from a subject, protective gloves should be worn.

Check that the locking plates are complete, correctly located and undamaged. If locking plates are damaged, follow local protocol which may include cutting the strap and retaining evidence if necessary.

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With no locking plate damage, use the removal tool to release the strap at one end.

Using the release tool, engage the plastic jaws over the Alco Tag and begin to squeeze the handles together. The jaws will self-locate to the correct position and the release pins will puncture the Locking Plate, continue to squeeze until the Strap is released. Only one end of the Strap will be released, this is indicated by the red markers on the end of the release pins.



6. Alco OBC

The Alco OBC battery will require recharging at intervals consistent with the operating mode being used. It is intended that the Alco OBC is connected to an Alco Dock when not in use, to charge up the device in preparation for connection to the Alco Tag, to fully charge the Alco OBC it should be connected for at least 4 hours.

The Alco OBC is attached to the Alco Tag by clicking it over the unit. The Alco Tag can only be inserted in one orientation and as the Alco OBC fits over it there is a click sound which indicates the correct fit.

The status LED on the Alco OBC provide the following information:

Status	LED
Battery flat	None
Charging OBC on dock	Quick flashing green LED
Charged OBC on dock	Solid green LED
Charged OBC ready to use (not on dock)	Blink green LED
OBC - charging Tag	Fading in and out green LED
OBC – fully charged Alco Tag	Slow flashing green LED

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7. Sanitization and Re-Use

7.1. Alco Tag

7.1.1. Collection

The Alco Tag will be removed as per the removal process above.

- Place the Alco Tag and strap into a clean plastic bag and return them to the vehicle for inspection and cleaning.

7.1.2. Inspection

The Alco Tag should be inspected for signs of damage, units with damage should be dealt with in accordance with local protocols. Damage includes any significant surface marking which may be indicative of the unit being exposed to high impacts or tampering. Special care should be taken to ensure the following areas are inspected;

- Any seam between plastic casings, damage here may indicate the sealing surfaces of the unit are damaged.
- The inside surfaces of the strap acceptance area. The unit should be returned for testing if there is any sign of wear in this area.

7.1.3. Cleaning

If there is any heavy soiling or biological matter on the unit that is unlikely to be easily removed by a sanitising wipe, then the unit should be cleaned thoroughly in line with local protocol.

To sanitise a Alco Tag in the field the following process should be followed;

- Wear gloves.
- Using the removal tool, release the Alco Tag from the Strap and remove the locking plates.
- Wrap the unit in an approved sanitising wipe.
- Rub the unit vigorously with the wipe ensuring all surfaces receive a good covering of alcohol.
- Wrap the unit in a new wipe and place in a sealed plastic bag for at least one minute.
- Remove the unit from the bag, dispose of the wipe and allow the unit to dry in a well-ventilated area.

The unit can then be returned to stock for re-use.

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7.2. Alco Tag Strap

7.2.1. Collection

When handling the Strap protective gloves should be worn.

The strap will be freed from the Smart Tag as part of the Alco Tag Removal process above.

7.2.2. Inspection

The Strap should be inspected for signs of damage, straps with damage should be dealt with in accordance with local protocols. Damage includes any significant surface marking which may be indicative of the unit being exposed to high impacts or tampering. Special care should be taken to inspect the following areas;

- The flexible strap material, both inner and outer most surfaces.
- All visible surfaces of plastic, particularly the join between the flexible and rigid sections. Damage in this area could be indicative of tampering and may adversely affect the future performance of the device.
- The tongue area that engages with the Smart Tag, particularly the locking clips. Damage or excessive wear in this area could affect the future performance of the device.
- Debris, soiling or damage to the optical end of the strap.

7.2.3. Cleaning

If there is any heavy soiling or biological matter on the unit that is unlikely to be easily removed by a sanitising wipe, then the unit should be cleaned thoroughly in line with local protocol.

To sanitise a Strap in the field the following process should be followed;

- Wear gloves.
- Wrap the strap in an approved sanitising wipe.
- Rub the strap vigorously with the wipe ensuring all surfaces receive a good covering of alcohol.
- Wrap the strap in a new wipe and place in a sealed plastic bag for at least one minute.
- Remove the strap from the bag, dispose of the wipe and allow the strap to dry in a well-ventilated area.

The strap can then be returned to stock for re-use.

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7.3. Alco OBC

7.3.1. Collection

When collecting an OBC from a subject protective glove should be worn.

- Note any obvious sign of damage.
- Return the OBC to the vehicle for inspection and cleaning.

7.3.2. Inspection

The OBC should be inspected for signs of damage, units with damage should be dealt with in accordance with local protocols. Damage includes any significant surface marking which may be indicative of the unit being exposed to high impacts or tampering. Special care should be taken to inspect the following areas;

- Any seams between plastics, check for loose fits or evidence of attack by screwdriver or similar.
- The clipping features that lock the unit closed over the Alco Tag. Any damage to these could affect the unit's future performance.
- The charging cable and jack connectors. Any damage to this could mean the unit is unable to be recharged.
- The charging pins, any damage to these could mean the unit is not effective at charging a Alco Tag.

7.3.3. Cleaning

If there is any heavy soiling or biological matter on the unit that is unlikely to be easily removed by a sanitising wipe, then the unit should be cleaned thoroughly in line with local protocol. It should be noted that the OBC is only a splash proof product and therefore it is important not to fully immerse the unit in any liquid.

To sanitise an OBC in the field the following process should be followed;

- Wear gloves.
- Rub the unit vigorously with an approved sanitising wipe, ensuring all surfaces receive a good covering of alcohol.
- Allow to dry in a well-ventilated area.

The unit can then be returned to stock for re-use.

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8. FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Specific Absorption Rate (SAR) information:

This Alco Tag meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

FCC RF Exposure Information and Statement

The SAR limit of USA (FCC) is 4.0 W/kg averaged over one gram of tissue. Device types:

Alco Tag (FCC ID: ZDLST8) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for properly worn on the body is 1.647W/kg. This device was tested for typical body-worn operations with the back of the handset kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 0mm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 0mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.