IDENTEC
SOLUTIONS

ILR i-B350 BM Tilt
Beverage Measuring ILR Tag
Installation and Operation Manual

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Radio Frequency Compliance Statement

IDENTEC SOLUTIONS is the responsible party for the compliance of the following devices:

MODELS:	i-B350 BM Tilt /NA, i-B350 BM /NA, i-B350 BM Tilt /EU, i-B350 BM /EU	
Region/Country	Organization	Marking
EUROPE:	EC	CE
USA	FCC	FCC ID OO4-ILR-IB350BM
Canada	Industry Canada	IC:3538A-IB350BM

The user(s) of these products are cautioned to only use accessories and peripherals approved, in advance, by IDENTEC SOLUTIONS. The use of accessories and peripherals, other than those approved by IDENTEC SOLUTIONS, or any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Warning: This product requires professional installation. Any frequency and RF-power setting not expressly authorized by Identec Solutions is prohibited and will void the users authority to operate the equipment.

European Notification according R&TTE Directive

This equipment complies to Art. 6.4 of R&TTE Directive (1999/5/EC). It is tested for compliance with the following standards: ETSI EN 300 220, ETSI EN 301 489, EN 60950

USA Notification

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.

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Contents

1   Introduction

1.1   Preparations

This installation manual must be read carefully prior to starting the installation. The described installation works assume that installation materials like cable, antenna and tag holder etc are available.

1.2   Recommended Procedure

1.   Check the Scope of Delivery according to the Bill of Delivery
2.   Read this manual completely
3.   Mount the tags
4.   An additional performance check of the tags and a system test can now be done

1.3   Scope of this Document

This document is the user's manual of this tag model: i-B350 BM Tile
This document is intended only for mechanical installation rsp. everyday use.

1.4   Responsibility

IDENTEC SOLUTIONS is not responsible for any errors occurring in this document.

1.5   Associated Documents

- i-B350 BM Tilt Data Sheet

1.6   Scope of Delivery—Visual Inspection

Check delivery whether it is complete and for any damages. If the delivery is not complete or damaged immediately inform the carrier. The dispatch and service organization of IDENTEC SOLUTIONS should also be informed to facilitate the repair or exchange of the system.

1.7   Updates

Updates will be provided on request. The information in this document can be changed without prior notice and IDENTEC SOLUTIONS are under no obligation.

1.8   Scope of Delivery—Visual Inspection

Check delivery whether it is complete and for any damages. If the delivery is not complete or damaged immediately inform the carrier. The dispatch and service organization of IDENTEC SOLUTIONS should also be informed to facilitate the repair or exchange of the system.

2   Safety Precautions

Important Safety Note

The devices described in this manual is for exclusive operation by trained employees. Only qualified personnel that know the potential dangers involved should perform the installation, settings, maintenance and repair of the units used.

Operational Safety

The correct and safe use of these systems assumes that operating and service personnel follow the safety measures described in the manual alongside the generally acceptable safety procedures.
If there is a possibility that safe operation cannot be guaranteed the system must be switched off and secured against accidental use. Then the service unit responsible must be informed.

Do Not Clean The Device In a Dish Washer

Do not open the housing

There is no need to open the housing. There are no user serviceable parts inside. Set-up and configuration during initial operation is done wireless with the built-in air interface.

Handling Safety

On account of high operating temperature of 80 °C (+176 °F) care must be taken, if the tags are heated. To avoid burn wait a while until the tags have cooled down or use gloves. At temperatures below 0 °C (+32 °F) tags can be iced. In this case, wait a while until tags are warmed up or use gloves.

Battery Inside

All tags contain a battery. That is the reason for the following instructions:

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Warning

Fire, explosion and burn hazard

Risk of explosion if battery is replaced by an incorrect type

Do not recharge, short circuit, crush, disassemble, heat above 100 °C (212 °F)

Do not incinerate, or expose contents to water

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Electrostatic Discharge

This product contains components that are sensitive to electrostatic discharges. Please observe the special instructions for their protection. Incorrect handling can damage the unit and cause the invalidation of the warranty.

Safety Documents

This ILR system was designed, tested and supplied in perfect condition according to document test report EN60950.

Condensation/Change of Temperature

Moving the systems from a cold to a warm environment could lead to dangerous situations due to condensation. Therefore it must be ensured that the system can adjust itself to the warmer temperature.

Spare Parts

We recommend that only original products, spare and replacement parts authorized by IDENTEC SOLUTIONS be used for installation, service and repair. Otherwise IDENTEC SOLUTIONS does not accept any responsibility for materials used, work carried out or possible consequences.

3   Tag Mounting And Initial Operation

The tag is equipped with a factory pre-set software, that takes up its job automatically whenever the tag is attached to a bottle neck. When out of use the tag can be switched off with a handling procedure. Therefore no configuration is needed in order to operate the tag.

3.1   Mounting And Switching The Tag On

The tag is mounted onto the neck of a bottle

Push the tag onto the neck of a bottle.

The orientation has to be so, that the label on front can be read in storage position for best appearance.

After the tag is attached to a bottle it automatically takes up its custom-specific pre-programmed monitoring of the bottle position. Therefore it sends out small data packages regularly and burst different short data packages whenever the bottle changes its position.

3.2   Shutting Off The Tag

For shipping, transportation and long term storage the tag has the possibility to bring it into a dormant mode. If the tag is simply removed from the neck of the bottle it will still remain active sending out a status message.

The dormant mode is activated by a special sequence:

- Start a pour and tilt the bottle horizontally
- Wait about 4 seconds
- Detach the tag while the bottle is still horizontal.

The tag is automatically switched on again after it is re-mounted to the neck of a bottle.

4   Maintenance

4.1   General

In principle, the ILR system is maintenance-free. When correctly installed it operates for many years without any problems.

4.2   Regular Cleaning of The Surface

Remove dust with a brush or compressed air. In case there are fatty or oily substances use a soft cloth moistened with mild rinsing agent.

Warning

Do not clean the tag in a dish washer. Do not sandblast the tag.

4.3   Precautionary Maintenance

Regular checking of all ports and cables belonging to the system is recommended. Unstable connections could lead to damage and malfunctions of the system and therefore should be repaired as soon as possible.

A Brief Checklist

- Are all housings intact?
- Are all cables intact?
- Are all connectors intact?
- Are all connectors securely fastened?
- Are all screws still tight?
- Is there suddenly a malfunction at a specific unit?

4.4   Returns

Parts or main components returned for repair or exchange must be handled with great care. PC cards must be returned in the appropriate ESD-protecting packaging material.
All returns should include a completed returns form (see appendix) and be sent to the local distributor or to:

        IDENTEC SOLUTIONS AG
        Service Department
        Millenium Park 2
        6890 Lustenau
        AUSTRIA / AUTRICHE

5   Technical Data

RF Characteristics

Frequency	919.0 MHz (NA version) or 868.2 MHz (EU version)
Modulation	FSK ±64 kHz at 115200bit/sec data rate
Range	30 to 60 m (100 - 200 ft) (bottle outside on bar, not inside metal shelf)
Output power	about 1mW – according to national regulations
Protocol, compatibility	Identec i-B350 broadcast compatible packet

Power Supply

Power source	1 Lithium battery, non-replaceable
Battery lifetime	2-3 years (@ 6 min broadcast + 25 pour events per day = 270 messages)

Temperature Measurement Characteristics

Range	–10 °C to +60 °C (–14 °F to +140 °F)
Resolution	0.1 °C
Accuracy	±3 °C
Measuring interval	6 min

Tilt Switch Measurement Characteristics

Tilt switch angle	± 60° from vertical position 1

Accelerometer Measurement Characteristics

Span	± 1.5 g
Accuracy 0 g Offset	± 0.14 g
Resolution	0.047 g
Interval	6 min. or triggered by tilt switch

Environmental Conditions

IP rating	IP65 (no dishwasher)
Humidity	10% to 90% relative humidity at 30°C non-condensing
Operating temperature:	–10 °C to +60 °C (+14 °F to +140 °F)
Storage temperature:	–20 °C to +70 °C (–4 °F to +158 °F)
Chemical resistance:	Drinking Alcohol

Tag housing

Dimensions	max. 45.4(W) x 22(H) x 9(T) mm
Weight	13 g
Protection class	IP65
Color	The Silicone is black and the plastic is anthracite grey (RAL 7016)
Material:	combination of hard plastic (ABS) and soft silicone or rubber
Mounting range bottle neck diameter	25 - 38.5mm
Maximum Lip diameter	45 mm (only during attaching)
Bottleneck cone	up to 10%