BXR HLF-C 2005 USER MANUAL

Bartec Auto ID BXR HLF-C 2005 Rugged Hand Held Tag Reader

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Class A Device Statement: (Section 15.105(a) of the FCC Rules)

Note: This equipment has been tested and found to comply with the limits for a Class A digital service, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interface when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interface in which case the user will be required to correct the interface at there own expense.

Product Overview

The Bartec BXR HLF-C unit is a rugged hand held radio tag reader configured to read TPMS sensors when installed in a wheel.

The sensor is activated by means of a low frequency (125KHz) magnetic field. This is emitted from the round antenna attached to the front of the unit.

The magnetic field is activated by means of a trigger located on the front of the unit.

The magnetic field or other features are selected from the menu driven system controlled by the keypad.

There is a liquid crystal display (LCD) of 4 lines of 20 characters. This is used to display menus, and to display the sensor's ID number.

There are also two LEDs on the rear of the reader that are visible while the reader is in use. The green LED indicates a good read, while the red LED indicates a failure to read a sensor. Both LEDs remain illuminated until the next sensor is read or after one minute elapses.

A sounder is provided to indicate the reader is activating and decoding the TPMS and also indicates a successful read.

Theory of Operation

Tag Reader

While in the presence of the magnetic field, the TPMS becomes active and transmits its ID number by modulating the applied magnetic field. This is picked up by the reader's antenna and demodulated into an electrical signal that is filtered and processed by the reader. The reader then decodes the sensor's ID number and displays it on the LCD screen.

Sequence of Operation

Introduction

The BXR range of readers has been developed to be easy and quick to use. This allows operators to become proficient within a short period and minimises the risk of user error.

The BXR HLF-C 2005 will activate and read radio tags at ultra high frequency.

The BXR HLF-C 2005 will activate and read radio tags and has additional bar code scanning capabilities. The bar code reader scans, displays and records the Vehicle Identification Number (VIN). The TAG reader will activate, display and record the TPM ident of all four wheels on the vehicle.

For efficient operation, the reader utilises a tight structured menu system.

Power up Instructions

Hold trigger and quickly touch and release power button, continue to hold trigger until release trigger comes onto screen. Enter password 123456.

Navigating the Menus

There are two methods for navigating the menus.

The first method is to use the **UP/DOWN** arrow keys to move to the desired function and pressing **ENTER** to select.

The second method is to use the function number. Pressing the number will take you directly to the function.

Clear key

Pressing **CLEAR** at any point in the operating sequence will return the user to the beginning of the complete sequence. That is, even if the user is on the last wheel to be recorded, pressing **CLEAR** will return the user to the start requiring all the VIN and wheels to be scanned and activated again. All data to this point will be lost.

Arrow keys

Using the arrow keys allows the operator to move between the operations as required.

Operation Cycle

When the unit is first initialised, the display may indicate company or location and firmware version.

The user will then be at the beginning of the operating cycle and will not see the main screen again unless the unit is re-booted.

The unit's antenna should be placed adjacent to the sensor before pulling the trigger. In most cases, the optimum position for the antenna is half over the sensor and half over the tire close but not touching the wheel. This is because the metal of the wheel attenuates the magnetic field. Placing the antenna directly over the valve will probably result in an unsuccessful read.

When the trigger is pressed, the unit immediately starts to generate the 125KHz magnetic field. The trigger must be held in until an audible tone is sounded and the UHF ID appears on screen. If the sensor is not read properly, read TPM ID try again, will appear on the screen.

After receiving the UHF ID the user may enter another information screen by pressing the up arrow key. The PSI, temperature in Celsius, tool, check pass or fail, battery, and rotating or not rotating, will all appear on the screen.

Menu Setup

Main Menu Options

1. Set Mode
    1. Scan + 4 tires
    2. Scan + 5 tires
    3. Scan + spare
    4. 4 tires only
    5. 5 tires only
    6. Spare tire only
    7. Single wheel only
    8. Exit this menu
2. Set Location
3. Test TPM Read
4. Select TPM Type
    1. Schrader 1820 Man
    2. Schrader 4096 Man
    3. Schrader 1820 PWM
    4. Schrader 4096 LP
    5. Siemens LF16
    6. Siemens LF32
    7. Ford06 AC
    8. Ford06 LB
    9. TRW biphase
    A. Beru biphase
    B. Siemens AUTO
5. Select Barcode
    1. no barcode

2. code 39

3. code 128

4. Test scan

6. Select UHF Mode

1. LF only

2. LF + 433

3. LF + 315

4. UHF only

5. 433 only

6. 315 only

7. Select LF Mode

1. Normal mode

2. No wakeup mode

3. Audio mode only

8. Select Pressure

1. No pressure

2. 0-51 psi

3. 0-63 psi

4. 0-102 psi

5. 0-5 bar

6. Simultaneous

9. Select Read Order

1. LF RF RR LR

2. LF LR RR RF

3. LF LR RF RR

4. LR LF RF RR

A. Select Comms

1. No comms

2. 4 tires 8 byte

3. 5 tires 8 byte

4. 4 tires 10 byte

5. 5 tires 10 byte

6. 4 tires 8 byte ECU

7. 5 tires 8 byte ECU

8. Cable mode

9. single tire record

D. Single record

E. Multiple records

B) Setup menu calls for password, administrator password 741776.

B. Setup Menu

1. Tune antenna

2. Select customer

3. Select baud rate

4. Comms Radix

5. Start up menu

6. Debug

7. Exit this menu

C. General Options

1. Allow duplicate ID

2. No duplicate ID

3. Allow any FCODE

4. Check for FCODE

5. Allow wheel skip

6. Read all wheels

7. Don’t send UHF type

8. Send UHF type

9. No UHF audio

A. UHF audio

B. Exit this menu

D. Exit This Menu

Power Supply

The power supply consists of the following. Curly cable (part No. AF-CAB-1002-01), cable (part No. AF-CAB-1001-01), 110 volt junction box (part No. AF-CDJB-0001-01), PSU / R S232 Interface (part No. AF-CDI-0001-01), 110 volt 5 amp power supply cable. Also if needed there is one item to be supplied by customer, nine pin serial modem cable.

CURLY CABLE (part no. AF-CAB-1002-01)

CABLE (part no. AF-CAB-1001-01)

110 VOLT JUNCTION BOX (part no. AF-CDJB-0001-01)

PSU/RS232 INTERFACE (part no. AF-CDI-0001-01)

110 volt 5 amp POWER SUPPLY CABLE

RS232 port on the PSU/RS232 Interface CD-001 unit runs at 9600 baud, no parity, 8 data bits, and one stop bit.

Nine Pin Serial Modem Cable (supplied by customer)

Additional Information

Environmental

Operating temp	32 degrees to 131 degrees F/ 0 degrees to 55 degrees C
Storage temp	-40 degrees to 140 degrees F/ -40 degrees to 60 degrees C
Humidity	5% to 95% (non-condensing)
Shock	2k G (at 77 degrees F/ 25 degrees C)

BXR HLF-C 2005 Technical Brief

20 MHz Toshiba 95FY64 Processor

512K bytes RAM

256K Flash programme memory

Time-of-Day Clock

122x32 graphics, green/yellow super-twist LCD, viewing area 54x16mm character mode allows 4 lines of 20 characters (standard height), or 2 lines of 10 characters (double height)

Loud Sounder

Enclosure

Constructed from red injection moulded polypropylene-alloy

Rubber antenna mounting cone and buzzer housing

Machined PVC antenna enclosure

Scratch resistant, polypropylene-carbonate, LCD window

Temperature 0 degrees C to 40 degrees C operating range

Sealing IP676 Dust, Shower, Impact (20 joule)

Key overlay label, matt polyester with 3M 7945 adhesive