

Bluetooth® communication data. If tapping on the "Close" button the Bluetooth® Manager Device window will be closed.

4. Tap on the "Discovery" button to enter the related window; then, tap on the "Scan" button to run the Discovery procedure:



Once the Discovery procedure has been completed, select the desired Bluetooth® device from the list. It is also possible to digit (12 hexadecimal digits) the Bluetooth® address of the desired device by tapping on the "Add" button. The "Clear" button deletes all discovered devices from the list.

5. Once the desired Bluetooth® device has been selected, tap on the "Connection Wizard" button to enter the related window where selecting the connection type to be used for communication with the Bluetooth® device:



The "Serial Port" button starts communication through the Bluetooth® serial port COM 5 (typically used for connection with GPS devices).

The "Printer" button starts communication with a printer through the Bluetooth® serial port COM 5.

The "Kbd Emulation" button allows connection with a barcode reader using the keyboard emulation.

The "ActiveSync" button starts communication with a PC equipped with a Bluetooth® antenna and the related ActiveSync.

6. Hide the Bluetooth® Manager Device window by tapping on the  icon available on each window or close it through the "Close" button available in the "Me" window (see step 3 of this procedure).

draft

3.14.5 FTP Server Setup

The Datalogic JOYA™ X2 Operating System includes a File Transfer Protocol (FTP) server. FTP is used for copying files to and from remote computer systems over a network using TCP/IP. You can establish a connection to your Datalogic JOYA™ X2 using its FTP Server through the WLAN using the WiFi radio

Proceed as follows:

1. Create a registry file (extension .reg) to setup and enable FTP Server communication. A simple example file for "anonymous" logon is given below:

```
REGEDIT4
```

```
[HKEY_LOCAL_MACHINE\Comm\FTPD]
"DefaultDir"="\"
"AllowAnonymousUpload"=dword:00000001
"UseAuthentication"=dword:00000000
"BaseDir"="\"
"IsEnabled"=dword:00000001
"LogSize"=dword:00001000
"DebugOutputMask"=dword:00000017
"DebugOutputChannels"=dword:00000002
"IdleTimeout"=dword:0000012c
"AllowAnonymous"=dword:00000001
"AllowAnonymousVroots"=dword:00000001
```

2. Copy this file to the Datalogic JOYA™ X2 using ActiveSync®.
3. Launch the .reg file from the Datalogic JOYA™ X2
4. Perform a warm boot on the Datalogic JOYA™ X2
5. From the PC > Explorer address bar (or running an FTP Client from the PC), enter the Datalogic JOYA™ X2 IP address.



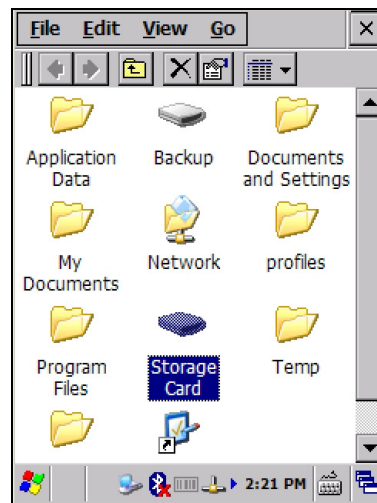
NOTE

For more information on FTP Client/Server connections refer to the following web page:

<http://msdn2.microsoft.com/en-us/library/aa922316.aspx>.

3.15 BACKUP DIRECTORY FILE MANAGEMENT

All of the Windows CE 6.0 system files reside in RAM (volatile memory) except for the Backup directory, which resides in FLASH (non-volatile memory). Therefore the contents of the Backup directory are persistent even if the mobile computer is rebooted or the battery pack is changed. You can save your more important files that you don't want to lose due to mobile computer reboot, in the Backup directory or create a sub-directory within Backup. Even though the Windows Directory resides in RAM, it often contains files or sub-directories created by the user or by installation programs that you don't want to lose at re-boot. To keep these files persistent it is necessary to copy them to the directory \Backup\Windows. This directory doesn't exist originally (only Backup exists), and therefore it must be created. At the next cold boot, before activating the shell, Windows CE 6.0 will copy the contents including all sub-directories of \Backup\Windows to \Windows. Likewise, to maintain files that must be run at Windows CE 6.0 startup, (i.e. .exe, .lnk, .vb, .htm, etc.), it is necessary to copy them to the directory \Backup\Startup. This directory does not exist originally (only Backup exists), and therefore it must be created. The applications programs will be run after any type of re-boot (both software and cold boot). However, since file system persistence is performed after the "BACKUP\Startup" folder execution, for those programs which depends upon the DLLs and resources copied from "BACKUP\Windows" to "\Windows" during the cold-boot, the "BACKUP\Windows\dl_startup" folder is to be preferred to execute programs and applications, since the execution follows the file system restore (and no DLL and resource dependence failure will occur). As an alternative to the Safe Setup function, it is possible to copy the .cab files to the directory \Backup\Cabfiles (the Cabfiles sub-directory doesn't exist originally and must therefore be created) and perform a mobile computer cold boot to have the application installed. Once these files are copied to the directory \Backup\Cabfiles, the application will be run after each re-boot. From the second cold boot on, a message may be displayed such as "<application name> is already installed. Reinstall?". This message blocks the boot process. Press the [Enter] key to continue the system initialization. In a specific JOYA™ X2 version, a 4GB DS type card is available as permanent general purposes storage device (path = \Storage Card).



3.16 FIRMWARE UPDATE

The Datalogic JOYA™ X2 is equipped with a tool that implements a firmware update service.

This tool, called **Datalogic Updater (DLUpdater)**, is compatible with all hardware versions of the Datalogic WindowsCE 6.0 models:

An update can be explicitly invoked by running the application **DLUpdater.exe**, provided together with the update file **DLUpdate.zip**. The update must be contained in the root.

**CAUTION**

It is advisable, even if not binding, to connect the terminal to an external power source before starting the update process. This prevents the terminal from turning off while running and avoids a corruption of flash content.

**CAUTION**

After the update process, all the data stored in the backup folder could be irreparably lost, as well as the device configuration (even that one stored in persistent memory). Therefore, before starting a firmware update it is advisable to run a backup copy of the data you want to preserve on PC (e.g. using ActiveSync or Windows Mobile Device Center Connection).

3.16.1 Retrieving a Firmware Image Update

The following instructions use Internet Explorer to retrieve the most current firmware image.

1. Launch Internet Explorer on your PC and navigate to <http://www.adc.datalogic.com..>
2. Navigate the Downloads section of the web site.
3. Select the product, desired language, and software updates. Click Go!
4. Select the file you want to download, then click Save and navigate to the location where you want to save the firmware files.
5. Click Save again to begin copying the files to your local machine (or local network location).

3.16.2 Firmware Update Procedure

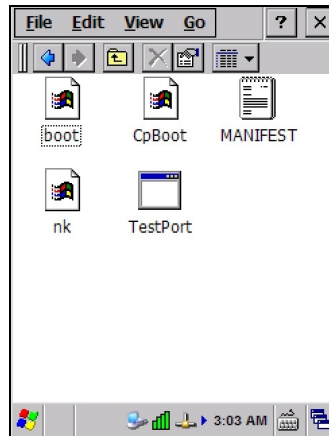
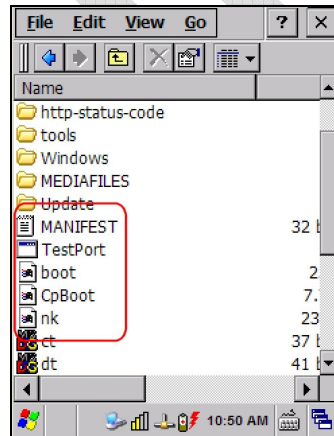
1. Download the update from the web site (see previous par.). It is a zip file containing the files:
 - DLUpdater.exe – that starts the update;
 - DLUpdate.zip – archive file containing the updated firmware;
2. Copy the files DLUpdater.exe and DLUpdate.zip in the root.
3. Open the root on the terminal and run DLUpdater.exe by double tap the icon (JOYA™ X2 Plus) or by ActiveSync/Mobile Companion (JOYA™ X2 Basic).
4. The DLUpdater starts decompressing files in the memory card or in the \Backup folder depending upon the JOYA™ X2 version.



CAUTION

There are no feedback messages on the screen while the DLUpdater operates, just wait for the terminal to reboot.

5. DLUpdater performs all the necessary operations of check, update and verify and, if no errors occur during the update, terminates the running invoking a cold boot of the terminal, so that the update process could be completed
6. At the end of the process, the updated files will remain where decompressed. They must be manually removed.



3.17 DATALOGIC CONFIGURATION UTILITY

Datalogic Configuration Utility (DCU) is a Datalogic Windows-based utility tool allowing the uploading, modifying and downloading of the configuration of a Datalogic device. Configuration settings include Scanner, Control Panel, and Datalogic Desktop Utility (DDU). The DCU installer is downloadable from the Datalogic website (<http://www.datalogic.com/eng/support-services/automatic-data-capture/downloads/software-utilities-sw-2.html>).

DCU functions in both direct (with an ActiveSync connection) and indirect (with Wavelink Avalanche™) modes.

In direct mode, connect a device through ActiveSync and then click on the Get from Device icon to receive the device's current configuration.

Once loaded, the Configuration Tree (on the left side of the window) is used to navigate the device's configuration. The right side of the window is a work area where the values of different parameters may be set for each branch of the configuration tree. Click on the parameter group branch to open it and inspect the parameters you wish to modify.

After altering the device's configuration, the new configuration can be sent to the terminal by clicking on the Send to Device icon.

Reference the Wavelink Avalanche™ documentation on the Wavelink website (www.wavelink.com/Datalogic-device-downloads) for a description of indirect mode for DCU, which will allow you to update the configuration of multiple devices simultaneously over Wi-Fi.

3.18 DATALOGIC DESKTOP UTILITY

Datalogic Desktop Utility (DDU) allows administrators to configure Windows® CE and Embedded Handheld devices to control individual user access. This includes the ability to:

- Prevent users from changing your device OS settings.
- Use Application Selector to replace desktop with a selection of authorized applications
- Internet Explorer access restriction, configuration and customized recovery mechanisms.

To open DDU for the first time, tap Start > Settings > Control Panel > or Start > programs > Device tools > and then double tap the icon for "Datalogic Desktop Utility".

4 MAINTENANCE



NOTE

Battery packs are not initially charged. Therefore the initial operation to perform is to charge them. See below.



CAUTION

By default, the battery pack is disconnected at the factory to avoid damage due to excessive draining. Annual replacement of rechargeable battery pack avoids possible risks or abnormalities and ensures maximum performance.

4.1 CHARGING THE BATTERY PACK

The battery pack autonomy varies according to factors, such as the frequency of barcode scanning, RF usage, etc.

The battery icon on the Taskbar indicates when the battery pack is low.

It is also possible to recharge the battery pack by using a JOYA Cradle.

Moreover recharging is possible by USB Direct connection with the host computer, but with longer charging times and in this case it is advised to keep the mobile computer off.



NOTE

The battery pack autonomy varies according to many factors, such as the frequency of barcode scanning, RF usage, battery life, storage, environmental conditions, etc.



CAUTION

The maximum time required to recharge a completely run-down standard battery pack is about 12 hours by using the USB and 7 hours by using the cradle.

**NOTE**

Even if the storage temperature range is wider, In order to achieve the longest battery life, store the terminal and the spare batteries between 20 to 30 °C (68 to 86 °F).

JOYA™ X2 should be charged at an ambient temperature between 0 - 35° C to achieve the maximum charging rate. Never charge the main device or spare batteries in a closed space where excessive heat can build up.

4.2 REPLACING THE BATTERY PACK

To correctly replace the battery pack, proceed as follows.

1. Unscrew the two screws placed on the back bottom. The battery pack cover is now released.



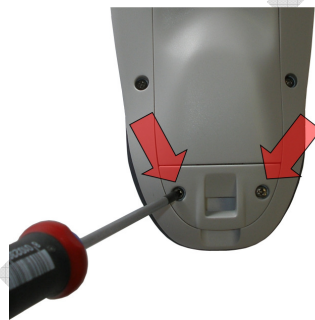
2. Remove the cover and then the battery pack, using the proper plastic strips. Pay attention when disconnecting the connector.



3. Install the new battery pack, first insert the connector respecting the right way, then the upper side, finally the bottom side, leaving the plastic strip available for future replace.



4. For correct locking, first insert the upper part of the battery cover, then the lower and screw the two screws placed on the back bottom.





To install, charge and/or do any other action on the battery, follow this manual.

WARNING The battery pack may get hot, explode, ignite, and/or cause serious injury if exposed to abusive conditions.

If the battery pack is replaced with an improper type, there is risk of explosion.

Do not place the battery pack in or near a fire or heat; do not place the battery pack in direct sunlight, or use or store the battery pack inside unventilated areas in hot weather; do not place the battery pack in microwave ovens, dryer, high pressure containers, on induction cookware or similar device. Doing so may cause the battery pack to generate heat, explode or ignite. Using the battery pack in this manner may also result in a loss of performance and a shortened life expectancy.

Use only a Datalogic ADC approved power supply. The use of an alternative power supply will void the product warranty, may cause product damage and may cause heat, explode or ignite.

The area in which the units are charged should be clear of debris and combustible materials or chemicals.

Do not use the battery pack of this terminal for power devices different from this mobile computer.

Immediately discontinue use of the battery pack if, while using, charging or storing the battery pack, the battery pack emits an unusual smell, feels hot, changes colour or shape, or appears abnormal in any other way.

Do not short-circuit the battery pack contacts connecting the positive terminal and negative terminal. This might happen, for example, when you carry a spare battery pack in your pocket or purse; accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the contacts of the battery pack (these look like metal strips on the battery pack). Short-circuiting the terminals may damage the battery pack or the connecting object.

Do not apply voltages to the battery pack contacts.

Do not pierce the battery pack with nails, strike it with a hammer, step on it or otherwise subject it to strong impacts or shocks.

Do not disassemble or modify (i.e. bend, crush or deform) the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite.

**WARNING**

In case of leakage of liquid from the battery, avoid contact with liquid the skin or eyes. If the contact occurs, immediately wash the affected area with water and consult a doctor.

Do not solder directly onto the battery pack.

Do not expose the battery pack to liquids.

Avoid any knocks or excessive vibrations. If the device or the battery is dropped, especially on a hard surface, you should take it to the nearest Authorised Repair Centre for inspection before continuing to use it.

Do not replace the battery pack when the device is turned on.

Do not remove or damage the battery pack's label.

Do not use the battery pack if it is damaged in any part.

Battery pack usage by children should be supervised.

Collect and recycle waste batteries separately from the device in comply with European Directive 2006/66/EC, 2011/65/EC, 2012/19/EC and subsequent modifications, US and China regulatory and others laws and regulations about environment.

**NOTE**

In order to guarantee an adequate operating autonomy, when replacing the battery pack the mobile computer checks the battery energy level. If the battery is not sufficiently charged, Datalogic JOYA™ X2 does not turn on. In this case, either substitute the battery pack with a charged one (sufficiently charged) or insert Datalogic JOYA™ X2 into a powered cradle or plug into the USB PC port.

**NOTE**

To achieve the best battery life, turn off the radios not in use.

4.3 CLEANING THE MOBILE COMPUTER

Periodically clean the Datalogic JOYA™ X2 with a slightly dampened cloth.

5 JOYA CRADLE DISPENSER

5.1 INTRODUCTION

JOYA Cradle Dispenser has the following responsibilities:

- to recognize the insertion and extraction of the JOYA™ X2
- to control the blocking device
- to signal status using the LEDs
- to supply power to the JOYA™ X2 for battery recharging



JOYA Cradle Dispenser has three JOYA™ X2 slots, each equipped with its own control unit, an electromechanical system for blocking/releasing the terminal, notification light, battery power and recharging circuits. Its special structure makes it possible to design any type of dispenser (wall-mounted or island) easily, allowing twice the number of terminals to be installed per vertical square meter with respect to the competing systems.

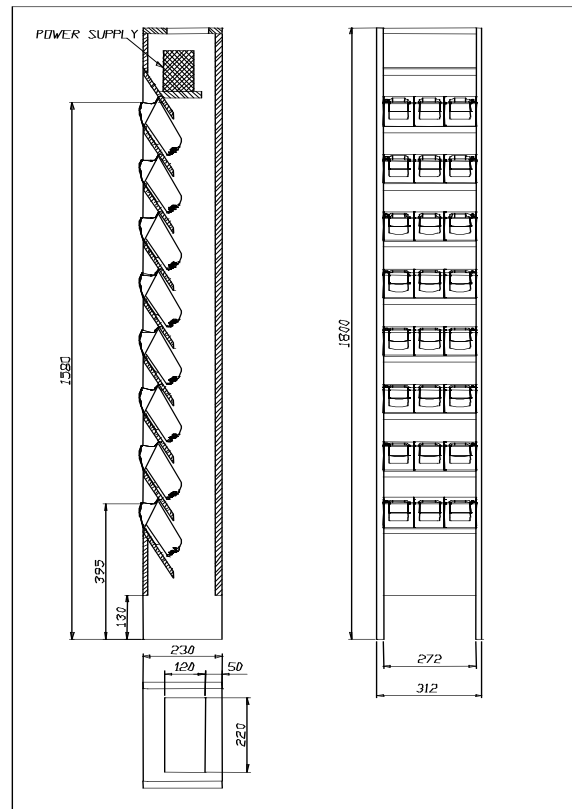
5.2 ACCESSORIES

- 91ACC1000 Power Supply 12V 300W
- 91ACC0730 Power Junction Cable I90x/3 Cradle (8 pcs.)
- 91ACC0650 Term. Unlock Magnets (5 pcs.)

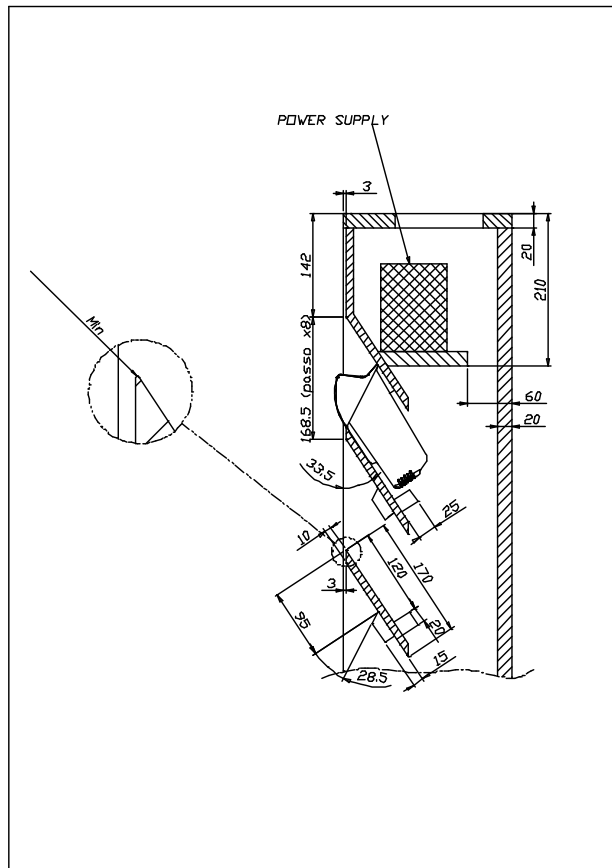
5.3 INSTALLATION REQUIREMENTS

The figure below represents an 8 JOYA™ X2 Cradle Dispenser Base Unit organized in a single column.

JOYA™ X2 will be inserted into the JOYA Cradle Dispensers are at a minimum height of approximately 40 cm. from the floor and a maximum height of about 160 cm. from the floor.



5.3.1 Base Unit Construction Details



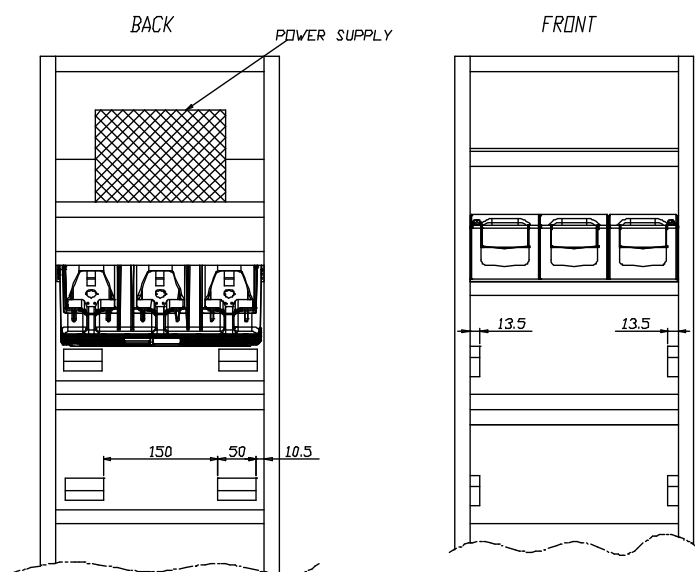
All of the dimensional quotes necessary for building and correctly mounting the supporting crosspieces and fixing blocks for the JOYA Cradle Dispensers are indicated.

The zoom of the upper edge of the supporting crosspiece indicates the necessity of reducing the radius of this edge as much as possible in order to provide a stable contact surface for the upper cover of the JOYA Cradle Dispenser.

The power supply shelf is positioned so that it guarantees a sufficient volume of air flow for the cooling of the power supplies.

Suggestion:

The cradle fixing blocks shown in the figures are mounted to the supporting crosspieces under the JOYA Cradle Dispensers. Their purpose is to prevent the Cradle Dispensers from falling inside the cabinet during the mounting phase in which the JOYA Cradle Dispensers may not be correctly positioned before fixing them.



5.3.2 JOYA Cradle Dispenser Supports

JOYA Cradle Dispensers are supported inside the Base Unit from crosspieces fixed to the side panels of the cabinet. The front part of each JOYA Cradle Dispenser cover rests on the upper edge of its supporting crosspiece, while the back part rests on two fixing blocks attached to the crosspiece above it.

JOYA Cradle Dispenser is mounted to the cabinet using two screws that are inserted into the holes provided towards the back of its cover and screwed into the corresponding holes in the fixing blocks.

To correctly position JOYA Cradle Dispensers, the supporting crosspieces and the fixing blocks must be mounted according to the dimensional quotes and the angles.

5.3.3 Internal Cabinet Space and Openings

The space between the rear of the JOYA Cradle Dispensers and the back part of the cabinet must be left for two reasons:

- it must be possible to retrieve objects that accidentally fall through the cradles from the floor behind the cabinet.
- there must be a zone for air to freely circulate behind the JOYA Cradle Dispensers to aid their cooling during operation.

For these reasons the cabinet must not be closed at the bottom and must have an opening at the top. To allow retrieval of objects that could accidentally fall into the cabinet, it is necessary to leave space between the lower edge of the lowest crosspiece and the floor. This space must be a compromise between the necessity of allowing object retrieval and the necessity of prohibiting access behind the cabinet.

5.3.4 Anchoring and Maintenance Issues

The cabinet must be anchored to the wall in at least two points, since the contact surface area on the floor is small and therefore not sufficient to guarantee full stability.

Suggestion:

It is preferable for the cabinet to have a removable back panel for easy access inside when performing cabling.

The top of the cabinet should also be removable for access to the power supplies during maintenance without the necessity of removing the cabinet from the anchoring points to the wall. For this reason the power supplies should also be able to be mounted and removed from the top of the cabinet.

5.3.5 Power Supply Positioning and Cooling

At the top of the cabinet there must be an opening not small. This opening generates a natural convection effect allowing the flow of air to remove heat generated by the JOYA Cradle Dispensers during their operation.

The power supplies or single power supply must be mounted on their shelf in the upper part of the cabinet.

This position for the power supplies has been chosen to aid the flow of air inside the cabinet taking advantage of natural convection. The hot air generated by the power supplies, in fact, leaves through the opening at the top and takes in cooler air from the lower part of the cabinet.

The power supplies therefore must be placed on the shelf in such a way as not to block the flow of air coming up from the lower part of the cabinet.

The opening at the top of the cabinet must be covered with a grill or mesh, which allows air to flow freely but protects against access to the inside of the cabinet. In this way the power supplies can not be reached externally.

Power Supplies

- Single 300 W power supply capable of supplying all 8 Cradle Dispensers (91ACC1000 Power Supply 12V 300W).

The power supplies must be mounted inside the cabinet onto their shelves so that the necessary air flow for cooling the JOYA Cradle Dispensers below is not limited. In addition, the openings on the power supplies must not be obstructed at any time, which could impede correct cooling.

If the power supplies are mounted using angular brackets, use the threaded holes provided on the power supply case. Make sure that the mounting screws are size M4 and do not penetrate the power supply case by more than 5.5 mm.



5.3.6 AC Power Cabling

Connection of the Power Supply to the AC line must be made using a cable having characteristics that meet the Safety **Normatives** currently in force.

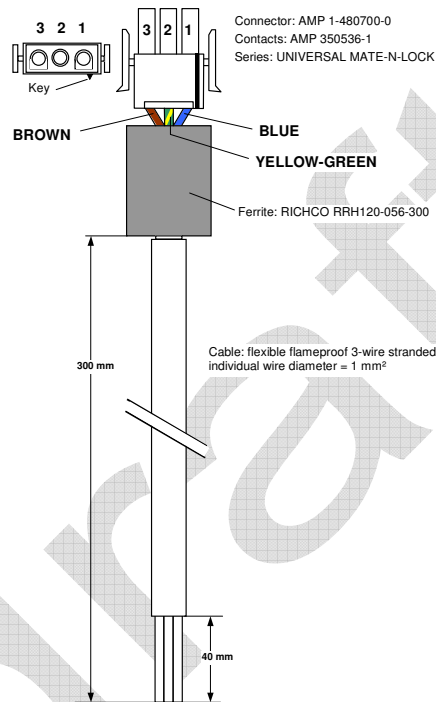
The cable must have an earth ground wire that is connected to the earth ground terminal of the power supply.

The cable must have wire dimensions that meet or exceed the nominal current and power specifications of the power supply to which it is connected.

There must be a cable clamp applied to the power cable where it enters the cabinet, which meets the Safety **Normatives** currently in force.

5.3.7 Wiring

To wire the JOYA Cradle Dispensers, pre-wired power junction cables are provided as accessories (91ACC0730 Power Junction Cable I90x/3 Cradle -8 pcs.), which are ready to be connected to the power connector at the bottom of the JOYA Cradle Dispenser.



To connect the JOYA Cradle Dispensers to the power supplies, the pre-wired junction cables must be connected to three multi-strand copper wires (singly or incorporated in a cable) and these must be connected to the power supply terminals.



These wiring connections must be made with particular care and meet or exceed the nominal current and power specifications; the current flowing through them is 2.5 A per JOYA Cradle Dispenser. The wires must meet the Safety **Normatives** currently in force.

The following table indicates the maximum current specifications for some wire conductor sections according to the EN 60950 Electrical Safety **Normative**.

Maximum Current	Wire Section
10 A	1 mm ²
16 A	1.5 mm ²
25 A	2.5 mm ²

Suggestion:

It is advised to use a cable made up of two groups of three-conductor multi-stranded wire with flame retardant insulation (single or together in a cable with flame retardant insulation) having a copper wire section equal to 1.5 mm².

The two groups of three conductors are connected to the output terminals of the power supplies: in the case of two power supplies, one group of wires is connected to one power supply and the other group is connected to the other power supply; in the case of a single power supply, both groups of wires are connected to the same power supply.

Each three conductor cable group must be used to connect four of the JOYA Cradle Dispensers mounted in the Base Unit via their junction cables.

JOYA Cradle Dispenser junction cables can be connected to the three-conductor cable groups using IDC connectors having a maximum current capability not less than 3 A.

5.3.8 Cable to Power Supply Connection

All 12 Vdc power supply connections, both the main power cable and the power junction cables must be made according to the following requirements:

Power Junction Cable Wires	Connection	Designation
Brown	+12V	+V
Blue	ground	-V
Yellow-Green	earth ground	FG or 

5.3.9 Affixing Cables to Cabinet

The ends of the junction cables that are connected to the main cable groups must be affixed to the cabinet sides so as to guarantee the following conditions:

- it must be possible to extract the JOYA Cradle Dispenser from the front of the cabinet while the cable is connected so that the connector can be plugged in or out of the Cradle Dispenser from outside the cabinet.
- when the JOYA Cradle Dispenser is mounted in the cabinet, its cable must be laid against the supporting crosspiece so that it does not block objects which may accidentally fall through the Cradle Dispenser into the inside of the cabinet.

Next image shows an example of affixing the Cradle Dispenser cables to the cabinet. The Cradle Dispenser cables are connected to the main power cables through IDC connectors.



5.3.10 Safety Precautions

JOYA Cradle Dispenser Cabinet, the relative electrical wiring and connection to the AC power line must be made according to the Safety Normative currently in force.

The following paragraphs contain some particularly important considerations to keep in mind.

- Cradle Dispenser Operating Temperature

JOYA Cradle Dispensers are designed and built to operate within the following environmental conditions:

Operating Temperature Range:	10 to 30 °C
Storage Temperature Range:	-20 to 60 °C
Humidity:	90% non condensing

- Cabinet

The cabinet must not have any exposed sharp edges, which could represent a danger to customers.

The requirements for air passages to cool both the JOYA Cradle Dispensers and the power supplies must be adhered to in order to avoid overheating problems for the components inside the cabinet.

All components having dangerous voltage levels must be protected from unauthorized access. Only qualified personnel should be authorized access for maintenance purposes.

In particular, the opening at the top of the cabinet must be closed with a grill or mesh that prevents access from the outside to the power supplies below. In addition, the plastic protection covers must be mounted over the power supply terminals to avoid accidental contact by maintenance personnel when the cabinet is open.

- Wiring

The wires used for cabling must have flame retardant insulation.

The cables must be affixed to the cabinet avoiding types of cable clamps that use screws or have moving parts that press directly upon the cable itself. Cable clamps must also be applied close to the wires coming from the power supplies so that they won't be accidentally pulled out of the power supply terminals to which they are connected.

Avoid running cables with sharp bends or that rest on sharp edges which can damage them over time and in the long run pose a danger inside the cabinet.

After making all the wiring connections, if some connections have wire exposed without insulation, they must be insulated.

5.3.11 Connection to AC Line Voltage

If connection to the AC power line is made with a plug at the end of the cable, the outlet to which it is inserted must be close by and easily accessible. The outlet must also be rated for the maximum power consumption, which can be considered equal to the nominal power of the connected power supplies.

If the Terminal Distributor is connected in a fixed electrical plant, a circuit breaker must be provided in order to completely disconnect the AC line voltage from the Cradle Dispenser cabinet. This circuit breaker must be positioned close to the cabinet and be easily accessible. It must also be rated for the maximum power consumption and must meet the Safety Normative currently in force.

5.4 JOYA™ X2 CRADLE DISPENSER FIRMWARE

JOYA Cradle Dispenser is provided with a full operational Firmware, therefore it doesn't require any kind of software developing activity. Instead, the behaviour of the JOYA Cradle Dispenser could be controlled at high level using the JOYA™ X2. In SDK Tools is furnished the JOYA Cradle tool program, to upgrade JOYA Cradle Dispenser firmware release.

5.4.1 JOYA Cradle Tool installation

By using *ActiveSync* copy in the `\BACKUP\CTOOLS` folder the following file:

- JOYA_Cradle_Tool.exe

copy in the `\BACKUP\CTOOLS\fr-FR` folder the following file

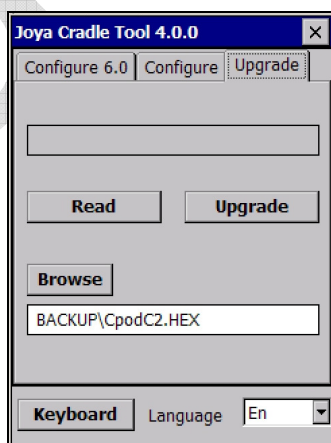
- JOYA_Cradle_Tool.resources.dll

Copy in the `\Backup\windows` folder the following files

- audio.dll
- charger.dll
- cradle.dll
- image.ddraw.dll
- image.dll
- lowlevel.dll
- network.dll
- scanner.dll

5.4.2 Starting program

Run JOYA_Cradle_Tool application, select the tab *Upgrade* by using the upper left key or the touch screen

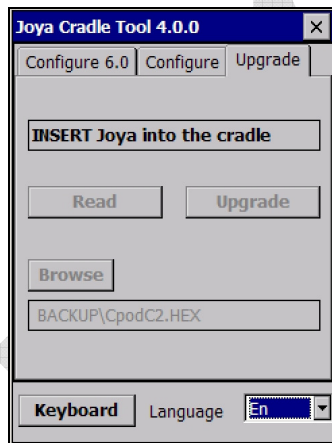


The screen displays the JOYA Cradle Tool version and the mode to interact with the cradle (Read or Upgrade).
Use the touch screen or:

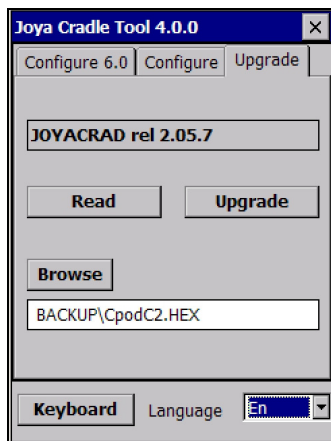
- Use the upper left key (F1) to select the tab.
- Use the upper right key (F2) to browse in the screen.
- Use the “e” key (ENTER) to quit.
- Use the “=” key (ESC) to select the language (when language is focused).

5.4.3 Reading firmware version

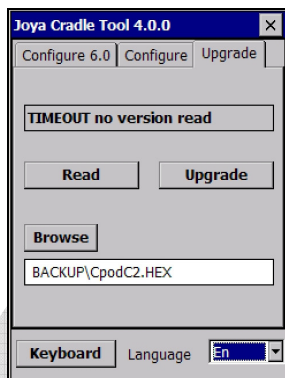
Select the “Read”. JOYA Cradle Tool will display the message:



Insert in any cradle's slot and the result will look as:



Cradle locks terminal in the slot and unlock after a successful reading. If read fails, unlock the terminal by approaching a magnet to the sensitive area (see picture below).



5.4.4 Firmware update procedure



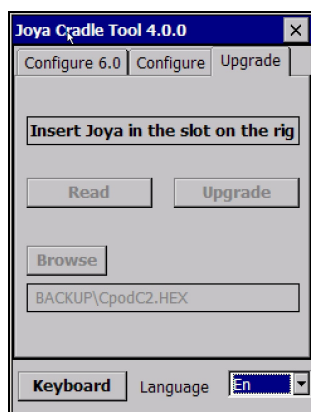
CAUTION

This is a very uncommon procedure. To perform the firmware update you should be advised by Datalogic which will provide the upgrading firmware file CpodC2.HEX

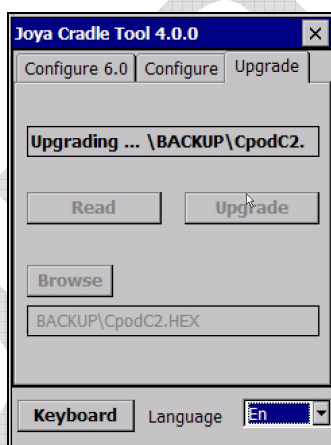
Copy in the \Backup folder the file

- CpodC2.HEX (cradle's latest firmware provided by Datalogic)

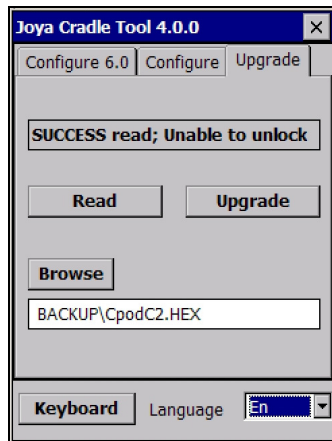
Select the “Upgrade” key and insert the terminal into the rightmost slot of the cradle.



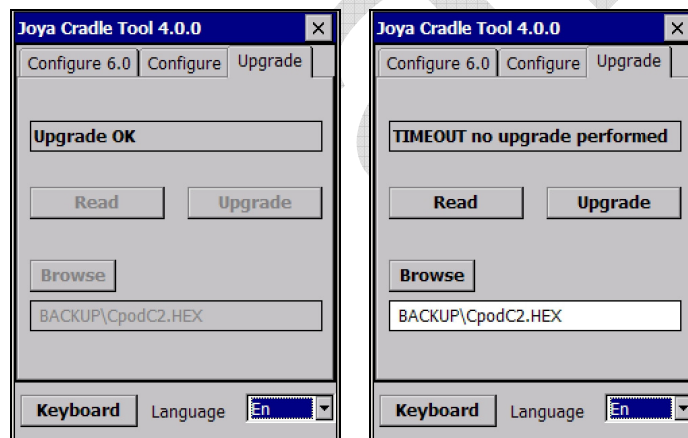
The cradle locks the terminal and JOYA Cradle Tool transfer firmware.



During this period, slot led flashes. At the end, the terminal top flashes three times; approach a magnet to the sensitive area to unlock and extract the terminal.



JOYA Cradle Tool shows a suitable message to inform user if update is correctly completed or an error has been occurred.



5.5 JOYA™X2/JOYA CRADLE DISPENSER CONNECTION

JOYA Cradle Dispenser is equipped with an electrical-serial connection, used to exchange command and response with JOYA™ X2. The communications between the terminal inserted into the slot and the slot itself are performed by means of a special "RPC like command-response" protocol.



5.6 CONFIGURATION

JOYA Cradle Dispenser should be previously configured using an apposite program: JOYA Cradle Tool (see SDK Help for more information).

In a typical application there is the need to identify in a unique way each cradle slot, in order to be able to perform selective operations. This requirement is satisfied by each JOYA Cradle Dispenser slot, by means of a set of four parameters, called Config Parameters:

Slot ID: is a string of 2 bytes

Dispenser ID: is string of 1 byte

IP address: is a string of ...bytes

Port ID: is a string of 2 bytes

Using this four byte strings it is possible to setup and identify each slot in a unique way.

This Config Parameters are stored in the permanent memory location dedicated of each slot. They can be configured making use of the JOYA Cradle Tool and they can be read by a well inserted JOYA™ X2.

5.7 USE AND FUNCTIONING

Insert a JOYA™ X2 inside a slot, JOYA Cradle Dispenser will lock the JOYA™ X2, when electrical connectors are contacted.

To unlock JOYA™ X2, approach a magnet to the sensitive area and extract the JOYA™ X2.



All other commands could be developed by developers using JOYA SDK.

6 TECHNICAL FEATURES

6.1 JOYA™ X2 TECHNICAL DATASHEET

WIRELESS COMMUNICATIONS	
LOCAL AREA NETWORK (WLAN)	IEEE 802.11 b/g/n; WiFi Security Standards, WEP, WPA, TKIP, WPA2, CCX 4 compatible.
DECODING CAPABILITY	
1D / LINEAR CODES	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.
ELECTRICAL	
BATTERY*	Removable battery pack with rechargeable Li-polymer batteries
ENVIRONMENTAL	
DROP RESISTANCE**	Withstands drops from 1.2 meters onto concrete - 3.94 feet.
TEMPERATURE	Operating: 0 to 40 °C / 32 to 104 °F.
INTERFACES	
INTERFACES	USB 1.1 Client (with standard micro USB connector) It is not possible to use the USB when the device is inserted in a wall mounted cradle.
PHYSICAL CHARACTERISTICS	
BUMPERS	Top and bottom rubber bumpers (lighting on top bumper); standard available colours: Blue, Green, Red, Orange.
DIMENSIONS	Dimensions 149 x 73 x 44 mm - 5.86 x 2.87 x 1.73 inc
DISPLAY	JOYA™ X2 Basic: Display 2.8 inches high-contrast colours graphic TFT LCD, 65k colors, 320 x240 pixels QVGA. JOYA™ X2 Plus: Display 2.8 inches high-contrast colour graphic TFT LCD, 65k colours, 320 x240 pixels QVGA Touch screen 4-wire resistive touch panel.
KEYBOARD	6 (six) fully programmable keys in standard available colours: Blue, Green, Red, Orange.
TOP COVER	In-mould decorated plastic cover (optionally customizable).
WEIGHT	255 g (with battery) - 0.562 lb.

READING PERFORMANCE	
READER	1D Linear CCD imager engine; Scan rate: 50 scans/sec
READING INDICATORS	Beeper (Polyphonic audio codec); Green Spot "On Code" good reading feedback (Datalogic patented feature).
SAFETY & REGULATORY	
AGENCY APPROVALS	The product meets necessary safety and regulatory approvals for its intended use.
ENVIRONMENTAL COMPLIANCE	Complies to EU RoHS.
SOFTWARE	
CONFIGURATION AND MAINTENANCE	Wavelink Avalanche® device management pre-licensed, available upon request. Datalogic Configuration Utility (DCU).
DEVELOPMENT	SDK Suite available upon request.
SYSTEM	
MEMORY	JOYA™ X2 Basic: System RAM: 128 MB; System Flash: 512 MB Flash Disc JOYA™ X2 Plus: System RAM: 128 MB; System Flash: 512 MB Flash Disk; 4 GB additional Flash.
MICROPROCESSOR	XScale™ PXA310 @ 624 MHz; 32 bit.
OPERATING SYSTEM	Microsoft Windows CE 6.0.

*JOYA X2 should be charged at an ambient temperature between 0 - 35° C to achieve the maximum charging rate. Never charge the main device or spare batteries in a closed space where excessive heat can build up. Close to the limits of the working temperature, some display and/or battery performance degradation may occur. Multiple rapid humidity and/or temperature variations may cause condensing.

** Multiple drops can permanently damage the device.

7 TEST CODES

Test codes here.

0.25 mm (10 mils)

High Density Codes

Code 39



17162

2/5 Interleaved



0123456784

Code 128



test

draft

8 GLOSSARY

Access Point

A device that provides transparent access between Ethernet wired networks and IEEE 802.11 interoperable radio-equipped mobile units. Hand-held mobile computers, PDAs or other devices equipped with radio cards, communicate with wired networks using Access Points (AP). The mobile unit (mobile computer) may roam among the APs in the same subnet while maintaining a continuous, seamless connection to the wired network.

Barcode

A pattern of variable-width bars and spaces which represents numeric or alphanumeric data in binary form. The general format of a barcode symbol consists of a leading margin, start character, data or message character, check character (if any), stop character, and trailing margin. Within this framework, each recognizable symbology uses its own unique format.

Baud Rate

A measure for data transmission speed.

Bit

Binary digit. One bit is the basic unit of binary information. Generally, eight consecutive bits compose one byte of data. The pattern of 0 and 1 values within the byte determines its meaning.

Byte

On an addressable boundary, eight adjacent binary digits (0 and 1) combined in a pattern to represent a specific character or numeric value. Bits are numbered from the right, 0 through 7, with bit 0 the low-order bit. One byte in memory can be used to store one ASCII character.

Decode

To recognize a bar code symbology (*e.g.*, Codabar, Code 128, Code 3 of 9, UPC/EAN, etc.) and analyze the content of the bar code scanned.

EEPROM

Electrically Erasable Programmable Read-Only Memory. An on-board non-volatile memory chip.

Flash Disk

Non-volatile memory for storing application and configuration files.

Host

A computer that serves other mobile computers in a network, providing services such as network control, database access, special programs, supervisory programs, or programming languages.

Liquid Crystal Display (LCD)

A display that uses liquid crystal sealed between two glass plates. The crystals are excited by precise electrical charges, causing them to reflect light outside according to their bias. They use little electricity and react relatively quickly. They require external light to reflect their information to the user.

Light Emitting Diode (LED)

A low power electronic light source commonly used as an indicator light. It uses less power than an incandescent light bulb but more than a Liquid Crystal Display (LCD).

RAM

Random Access Memory. Data in RAM can be accessed in random order, and quickly written and read.

RF

Radio Frequency.

RTC

Real Time Clock.

INDEX

A

Accessories; 17
ActiveSync® Remote; 65

B

Backup Directory File Management;
70
Bluetooth® Manager Device Setup;
66

C

Charging the Batteries; 75
Cleaning the Mobile Computer; 80
Connections; 18
Control Panel; 57
Conventions; 1

D

Data Capture; 41
Data Capture Configuration; 48
DATALOGIC CONFIGURATION
UTILITY; 74
Datalogic JOYA™ X2 Description;
15
Description of the Keys; 44

E

End User License Agreement; v

F

Firmware Update; 72
FTP Server Setup; 69

G

General View; 13
Glossary; 104

I

Imager Data Capture; 41

J

JOYA cradle dispenser; 81

M

Maintenance; 75
Microsoft® ActiveSync®; 65
Microsoft® Mobile Device Center®;
65
Model Description; 15

P

Package Contents; 17
Patents; 10

R

Radio Compliance; 6
Reference Documentation; 1
References; 1
Registry; 57
Replacing the Batteries; 76
Resetting the JOYA™ X2; 45

S

Safety Regulations; 2
Startup; 22
Status Indicators; 47
Stylus Calibration; 64
Summit Radio Card; 58

T

Taskbar; 47
Technical Features; 99
Test Codes; 101

U

USB Connection; 18
Using the Stylus; 40

W

WEEE Compliance; 10

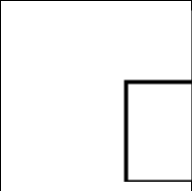
Windows Connections; 65
WLAN Connection; 20

WPAN Connections; 21

DRAFT	DECLARATION OF CONFORMITY	EC-73 Rev.: 0 Pag.: 1 di 2
 14 Datalogic ADC S.r.l. Via S. Vitalino 13 40012 - Lippo di Calderara Bologna - Italy <i>dichiera che</i> <i>declares that the</i> <i>déclare que le</i> <i>bescheinigt, daß das Gerät</i> <i>declara que el</i> JOYA X2 <i>modelli con funzionalità radio 802.11 b/g</i> <i>models with 802.11 b/g radio feature</i> <i>modèles avec 802.11 b/g radio intégrés</i> <i>modelle mit 802.11 b/g radio-funktionalität</i> <i>modelos con funcionalidad radio 802.11 b/g</i> <i>sono conformi alle Direttive del Consiglio Europeo sottoelencate:</i> <i>are in conformity with the requirements of the European Council Directives listed below</i> <i>sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous:</i> <i>der nachstehend angeführten Direktiven des Europäischen Rats:</i> <i>cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:</i> 1999/5/EC R&TTE and 2011/65/EU RoHS <i>La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante ed è basata sulla conformità dei prodotti alle norme seguenti:</i> <i>This declaration of conformity is issued under the sole responsibility of the manufacturer and is based upon compliance of the products to the following standards:</i> <i>Cette déclaration de conformité est établie sous la seule responsabilité du fabricant et repose sur la conformité des produits aux normes suivantes:</i> <i>Diese Konformitätserklärung wurde unter alleiniger Verantwortung des Herstellers ausgestellt und basiert darauf daß das Produkt den folgenden Normen entspricht:</i> <i>La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante y se basa en el cumplimiento de los productos con la siguientes normas:</i> EN 55022: 2010 (CLASS B ITE)+AC:2011 EN 55024: 1998 AMENDMENT A1:2001 AMENDMENT A2:2003 ETSI EN 301 489-1 v1.9.2 : 2011 ETSI EN 301 489-17 v2.1.1, MAY 2009: <i>INFORMATION TECHNOLOGY EQUIPMENT RADIO DISTURBANCE CHARACTERISTICS LIMITS AND METHODS OF MEASUREMENTS</i> <i>INFORMATION TECHNOLOGY EQUIPMENT IMMUNITY CHARACTERISTICS LIMITS AND METHODS OF MEASUREMENT</i> <i>ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); ELECTROMAGNETIC COMPATIBILITY (EMC) STANDARD FOR RADIO EQUIPMENT, PART 17: SPECIFIC CONDITIONS FOR 2.4 GHz WIDEBAND TRANSMISSION SYSTEMS, 5 GHz HIGH PERFORMANCE WLAN EQUIPMENT AND 5.8 GHz BROADBAND DATA TRANSMITTING SYSTEMS</i>		

DRAFT	DECLARATION OF CONFORMITY	EC-73 Rev.: 0 Pag.: 2 di 2
ETSI EN 300 328 v1.7.1 : 2006 EN 60950-1:2006 AMENDMENT A11:2009 AMENDMENT A1:2010 AMENDMENT A12:2011 AMENDMENT A2:2013 EN 50566:2013 EN62209-2: 2010 EN50581:2012 Lippo di Calderara di Reno, Sep 25th, 2014		ELECTROMAGNETIC COMPATIBILITY AND RADIO SPECTRUM MATTERS (ERM); WIDEBAND TRANSMISSION SYSTEMS; DATA TRANSMISSION EQUIPMENT OPERATING IN THE 2.4GHz ISM BAND AND USING WIDE BAND MODULATION TECHNIQUES; HARMONIZED EN COVERING ESSENTIAL REQUIREMENTS UNDER ARTICLE 3.2 OF THE R&TTE DIRECTIVE INFORMATION TECHNOLOGY EQUIPMENT - SAFETY - PART 1 : GENERAL REQUIREMENTS EUROPEAN STANDARD EN 50566: PRODUCT STANDARD TO DEMONSTRATE COMPLIANCE OF RADIO FREQUENCY FIELDS FROM HANDHELD AND BODY-MOUNTED WIRELESS COMMUNICATION DEVICES USED BY THE GENERAL PUBLIC (30 MHz - 6 GHz) HUMAN EXPOSURE TO RADIO FREQUENCY FIELDS FROM HAND-HELD AND BODY-MOUNTED WIRELESS COMMUNICATION DEVICES. HUMAN MODELS, INSTRUMENTATION, AND PROCEDURES. PROCEDURE TO DETERMINE THE SPECIFIC ABSORPTION RATE (SAR) FOR WIRELESS COMMUNICATION DEVICES USED IN CLOSE PROXIMITY TO THE HUMAN BODY (FREQUENCY RANGE OF 30 MHz TO 6GHz) TECHNICAL DOCUMENTATION FOR THE ASSESSMENT OF ELECTRICAL AND ELECTRONIC PRODUCTS WITH RESPECT TO THE RESTRICTION OF HAZARDOUS SUBSTANCES

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