⬥DATALOGIC

Falcon™ X3 Powered Mobile Dock

The Falcon X3 Powered Mobile Dock allows to charge the Falcon X3 while holding it safely in your vehicle. It also functions as a serial or USB communication interface between a printer (or a PowerScan) and the Falcon X3.

THE PACKAGE

The dock package includes the following items:

Figure 1

A) Falcon X3 Powered Mobile Dock 94A151131
B) Power Cable
C) Fuse Holder
D) Cable guard with small and large brackets
E) Stylus Pen
F) Ferrite beads
G) Mounting Screws

THE DOCK

Figure 2

A) Indicator
B) Speaker
C) Audio Jack
D) Mounting Holes
E) Power Jack
F) 2 Stacked USB Connectors
G) RS232 Connector

MOUNTING OPTIONS

The recommended solution to mount the Powered Mobile Dock on the desired surface is by using the Ram Mount.

Mounting with Ram Mount (*not included*)

The Ram Mount Adjustable Arm allows a wide range of fixing positions. It can be mounted on any flat surface while the ball joints enable position flexibility.

Figure 3

Align the adjustable arm with the four screw holes on the rear of the dock. Then secure the adjustable arm to the rear of the dock using the four screws and nuts (included in the package).

👆 **NOTE**	*The recommended RAM Mount solution for the Falcon X3 Powered Mobile Dock is Datalogic's P/N 95ACC3420 [1.5" Arm, one 2.5" base w/ 1.5" ball, one 2.75" base w/ 1.5" ball]. If the mounting surface required by the forklift truck is not flat, please make sure you use another mounting solution compatible with the recommended 1.5" Arm.*

Securing the Cables

The communication and power cables connected to the Powered Mobile Dock can be secured and protected by the cable guard.

Proceed as follows to secure the cables with the cable guard:

1. Attach the ferrite beads to each cable*, as shown in Figure 4.a.

Figure 4a

2. Connect the cables to the Powered Mobile Dock as shown in Figure 4.b.

Figure 4b

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*the power cable in the box comes with the ferrite bead attached

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3. Push the cable guard until it fits into the bottom of the dock (Figure 4.c).

Figure 4c

4. Tighten the cable guard to the Powered Mobile Dock by fastening the large bracket with a screwdriver, then secure the cables by fastening the small bracket (B) of the cable guard (A) as shown in Figure 4.d.
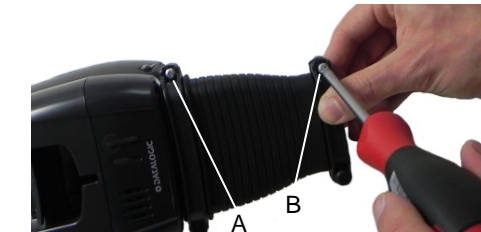

Figure 4d

⚠️ **CAUTION**	*Do not install the cradle on or near an airbag cover plate or a blower.* *Also, do not install it in a location that may affect vehicle safety, visibility and driveability.*

POWERING THE DOCK

This section covers electrical connection to +12V, +24V, +36V and +48V systems.

⚠️ **CAUTION**	*The Powered Mobile Dock must be supplied by a Limited Power Source according to IEC 60950-1:2005* *Do not connect the Powered Mobile Dock directly to the battery.* *In case a LPS source is not available, use the 94ACC0073 accessory.*

👆 **NOTE**	*To maximize battery life, it is recommended to connect the dock to a power connection point switched by the ignition key.*

Connection to +12V and +24V systems

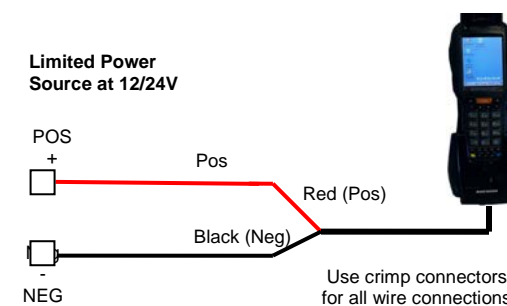Figure 5 illustrates the required wiring connection for a +12 or 24 volt to a Limited Power Source system.

Figure 5

⚠️ **CAUTION**	*Make sure your vehicle's power source is between 9V to 30V, and is capable of supporting a 4000mA current drain. If you have any concerns regarding this, refer to your vehicle owner's manual.*

Connection to +36V and +48V systems

Figure 6 illustrates the required wiring diagram for +36 and +48 volt Limited Power Source systems. The use of a DC/DC converter is required to step down the battery voltage for use by the dock.
It is mandatory to use the slow-blow 8A 250V (with holder) supplied with the package. The use of the LPS PROTECTION BOX is still required downstream the DC/DC converter.
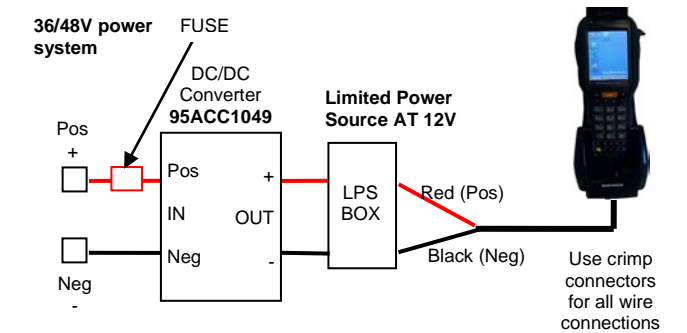

Figure 6

Preparation of the DC/DC power cable

For DC/DC connection to the power source, you first need to prepare the power cable termination.

1. Verify that the fuse is contained within the holder (Figure 7).
2. Cut the fuse holder cable in two (Figure 8).
3. Splice one end of the holder cable to the end of the power cable's red wire, as shown in Figure 9. Make the distance between the fuse holder and the power source connection point as short as possible.
4. Apply a caution label on the fuse holder.

Figure 7

Figure 8

Figure 9

Once the power cable termination has been completed, it is possible to connect the DC/DC converter to the 36/48V system.

Installation on forklifts

One common characteristic of forklifts is the possibility of producing high levels of electrostatic voltage. The recommended method of reducing electrostatic buildup is to install ground contacting anti-static straps or conductors to the frame of the forklift (Figure 10). It is recommended that more than one strap be installed on each vehicle.
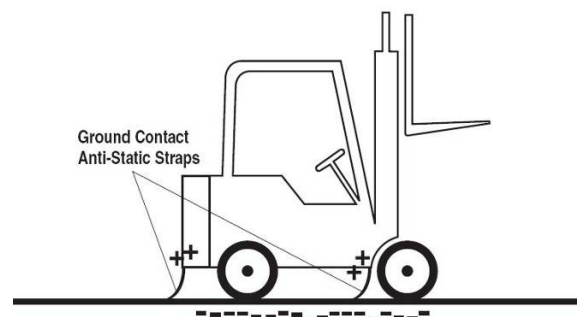

Ground Contact Anti-Static Straps

Figure 10

⚠ **CAUTION**

Proper installation requires that source power connections be made directly to the vehicle's positive and negative battery terminal. It is important to maintain electrical isolation when installing the Powered Mobile Dock and any accessory equipment, to ensure safe and proper operation. Do not make any electrical connections directly to the chassis of the forklift

BATTERY CHARGING

The dock provides battery charging for the Falcon X3 when powered.

☞ **NOTE**

The Falcon X3 will charge its installed battery when power is applied to the dock.

INSERTING THE FALCON X3 IN THE DOCK

To insert the Falcon X3 into the dock, perform the following steps:

1. Slide the Falcon X3 into the cradle.
2. Push the Falcon X3 towards the locking arm until the retaining roller at the top clicks.

Figure 11

REMOVING THE FALCON X3 FROM THE DOCK

To remove the Falcon X3, use the thumb to lift the upper part of the arm, then grab the terminal from the top and pull until it stands clear from the locking arm. Then extract the Falcon X3 from the cradle.

Figure 12

SUPPORTED TERMINALS

The Powered Mobile Dock is designed to support any Falcon X3 model, either Handheld or Pistol Grip. It is highly recommended to use your Powered Mobile Dock with Falcon X3 devices updated to the firmware version v.1.70 or later.

SETTING THE LOUDSPEAKER VOLUME

It is highly recommended you adjust the volume settings of the Powered Mobile Dock loudspeaker through the Control Panel of your Operating System (verify that your Falcon X3 device is updated to the firmware version v.1.70 or later). Follow the steps below:

- **Windows CE**: from **Windows Start** => select **Control Panel** => select **Audio** => Select the tab **Dock** => Select the **Dock Playback** setting. Recommended volume settings go from 0% to 60% of the maximum loudspeaker volume.

- **Windows Mobile/ WEHH**: from **Windows Start** => select **Settings** => select **System** => select **Audio** => Select the tab **Dock** => Select the **Dock Playback** setting. Recommended volume settings go from 0% to 60% of the maximum loudspeaker volume.

SAFETY RECOMMENDATIONS

While driving, please keep the Falcon X3 always inside the Powered Mobile Dock.

⚠ **CAUTION**

Do not use the Falcon X3 while driving.

The user is responsible for driving safely.

CONNECTIONS

Connection to peripherals (USB/RS232)

Falcon X3 Powered Mobile Dock can be connected to a device (i.e. a printer or a PowerScan) by means of a USB or RS232 interface. Connect the device to the USB (RS232) port of the dock. Once the device has been turned on, insert the Falcon X3 into the dock.

A

Power cable

B

Figure 13

A) Falcon X3 Powered Mobile Dock 94A151131
B) PowerScanr

☞ **NOTE**

The Falcon X3 Powered Mobile Dock supplies power (5V @ 0.5A) to devices on pin 9 of the serial port.

☞ **NOTE**

When connected to the USB port of the Powered Mobile Dock, the PowerScan needs to be configured as USB keyboard.

RS232 Connection

Connect the Falcon X3 Powered Mobile Dock to the host by means of a standard null modem cable such as Datalogic 94A051020 CAB-427. Please refer to Figure 13 for the connection scheme.
Once the host has been turned on, insert the Falcon X3 into the dock. Please note that, in order to collect the input data from the RS232 port, you need to install and run a wedge application on the Falcon X3.

TECHNICAL FEATURES

Falcon X3 Powered Mobile Dock	
Electrical Features	
Power Supply	from 9 to 30 VDC
Consumption	Max. 1.6 A (with Falcon X3)
Quiescent Consumption (without Falcon X3)	Max. 22 mA (@ 12V)
LED Indicator	Green: Power on Yellow: Falcon X3 inserted
Communication Features	
Serial	RS232; power on pin 9: 5V @ 0.5A
	Baud Rate: up to 115200 b/sec
USB (x2)	1.1 version
Environmental Features	
Working Temperature	-20° to +50 °C / -4° to +140 °F
Storage Temperature	-40° to +70 °C / -4° to +158 °F
Degree of protection	IP42
Vibration Resistance (*)	EN60068-2-64 frequency range 5-1000 Hz; acceleration RMS: 3.1 g; initial slope: 26dB/oct 5-10 Hz; final slope: -3dB/oct 10-1000 Hz
Shock Resistance (*)	EN60068-2-29 – ±30g, 6ms duration, 5000 positive and 5000 negatiive shock impacts per axis
Mechanical Features	
Dimensions	290 x 112 x 110 mm / 11.4 x 4.4 x 4.3 in
Weight	540 g / 19.04 oz

(*) with ram mount

FCC COMPLIANCE

Modifications or changes to this equipment without the expressed written approval of Datalogic could void the authority to use this equipment.
The 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 which may cause undesired operation.
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference 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 islikely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

INDUSTRY CANADA COMPLIANCE

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.