ITRONIX®

HUSKY fex21

Vehicle Mount User Guide

Please read this guide before using your Husky fex21 Vehicle Mount

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Any other trademarks used in this booklet are acknowledged.

The other guides

In addition to this manual, you may wish to refer to some of the other documentation available for the fex21 computer.

Getting Started With Your Husky fex21 - This booklet provides basic information for the care and use of your fex21 computer.

The Husky fex21 Developers CD - This provides more detailed information about installing and maintaining a fex21 system.

Microsoft Windows CE Manual - this manual includes detailed information about using Windows CE and the applications supplied with it.

INTRODUCTION

The Husky fex21 Vehicle Mount provides a communications path and charging facility that enables the fex21 computer to be recharged from a vehicle and/or connected to a laptop PC or in-vehicle peripheral.

To connect your fex21, simply place it into the cradle of the Vehicle Mount and secure it with the clamping levers fitted to the mount. The spring-loaded contacts in the Vehicle Mount engage with the contacts in the fex21 to connect power to the computer.

When you connect the power cable supplied with your Vehicle Mount and switch on, charging begins immediately.

Communication is by RS232 serial port or IrDA infrared optical relay. USB (Universal Serial Bus), which allows data to be exchanged at extremely high speed with a USB host (i.e. a PC), is available as an optional extra.

WHAT'S IN THE BOX

The contents of the fex21 Vehicle Mount package should include:

- The fex21 Vehicle Mount unit.
- Two cable ties to secure comms and charger cables.
- Two grub screws, which can be used for locking the fex21 into the Vehicle Mount.
- One 3mm Allen key, for use with the grub screws.
- Vehicle battery converter or vehicle power cable (optional).
- This User Guide.

Please retain all packaging material in case you need to return the computer to your supplier.

INSTALLATION

Please read this chapter in full before you install your Husky fex21 Vehicle Mount.

Power

You will need either a 12 volt power cable or a 24 volt battery converter, according to the battery fitted to your vehicle. Both plug into the vehicle's cigar lighter socket and can be obtained from Itronix.

NOTE: Your Husky fex21 computer may be damaged if it is connected to a 24V system without the correct battery converter. If in doubt, check with your system provider.

Cables

To connect your Vehicle Mount direct to a laptop PC use the serial cable supplied with your fex21 computer.

If you are connecting through a modem, you will need a straight through cable.

If your Vehicle Mount is fitted with the USB (Universal Serial Bus) option then you will need a single USB cable to connect it to a PC using USB.

Where to install your Vehicle Mount

The main thing to bear in mind when deciding where to install your Vehicle Mount is that the location must comply with the environmental details shown in the Specification section of this booklet.

Make sure that the location has easy access for inserting and removing the Husky fex21 computer easily, and that it is unlikely to be accidentally knocked in normal use. Ensure that the chosen location does not interfere with safe operation of your vehicle.

EMC and FCC legislation

To ensure that your Husky fex21 Vehicle Mount installation complies with EMC legislation:

- Be aware that changes or modifications to the Vehicle Mount could void your authority to operate the equipment.
- Use only the 12 volt power cable or 24 volt battery converter supplied with your fex21 Vehicle Mount
- Use approved communications cables and be sure they are shielded, and that the shield is grounded.
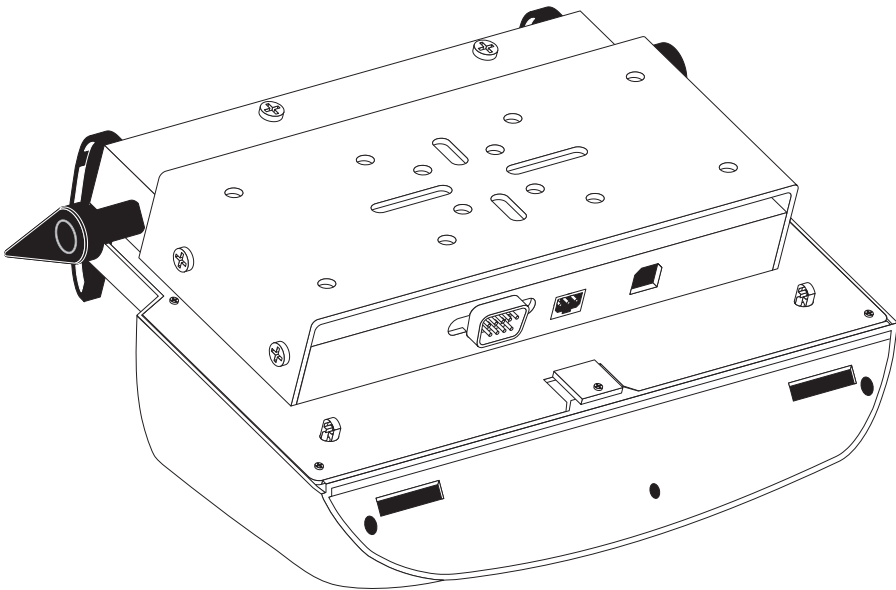- Use the fex21 Vehicle Mount only with approved peripherals and approved power supplies.

For further information about EMC and FCC legislation, please refer to the Electromagnetic Compatibility section of this guide.

VEHICLE MOUNTING

The Husky fex21 Vehicle Mount has a universal metal mounting plate on the back. This plate has a number of holes and slots to enable it to be fitted to a wide variety of different vehicles. It is your responsibility to ensure that the mount is fixed in a safe and appropriate location to avoid injury or damage in the event of an accident.

Simply choose the most suitable combination of these holes and slots through which to insert the screws to hold the mount to the vehicle dashboard or other preferred mounting position.

In addition, there are two clamping arms that locate in slots under the serial ports of the fex21 computer to prevent it from falling out of the mount when the vehicle is moving. Levers on each side of the Vehicle Mount lock and unlock these clamping arms.

Two cable clamps and ties are provided on the back of the Vehicle Mount. These are to enable the power and communications cables to be fixed securely in position. We recommend that these ties are always used to prevent accidental damage to the cables.

Checking operation

Place your Husky fex21 in the Vehicle Mount and plug the appropriate power cable into the cigar lighter socket on your vehicle. Check that the Power On indicator located in the infrared window is alight.

If it is not, check the connections to the cigar socket and that the power lead is securely connected into the socket on the back of the Vehicle Mount.

If you have a USB connection to the host PC, the LED indicator at the left-hand side of the Vehicle Mount should be lit (either continuously or flashing) to show that you have a USB connection. It will remain lit when the USB is operating correctly and when USB is not in use.

If it is not alight, this indicates that there is a problem in the USB connection. Check all cables and connector carefully to isolate the problem. The LED will light again when the USB connection has been re-established.

USING THE VEHICLE MOUNT

ActiveSync

Before you can use your fex21 Vehicle Mount for communicating with a desktop or laptop PC, you will need to install Microsoft ActiveSync onto the PC from the CD-ROM that came with your fex21 computer.

If you have not already installed ActiveSync, do so now. You will find details in the booklet accompanying the ActiveSync CD included with your fex21 computer.

Microsoft ActiveSync enables you to compare the information held on your fex21 with that held on your desktop or laptop PC and update both computers with the latest data. This process is called synchronisation.

You can, for example, keep the information in Pocket Outlook on your fex21 up to date by synchronising it with Microsoft Outlook on your PC. Or you can synchronise Word and Excel documents, and Access databases and tables between your fex21 and your desktop PC. ActiveSync also converts the files to the correct format.

ActiveSync also lets you copy files between your fex21 and your PC, add and remove programs, and backup and restore your fex21 data.

Where to find out more

You will find full details on using ActiveSync in the booklet included with the ActiveSync CD that was supplied with your Husky fex21.
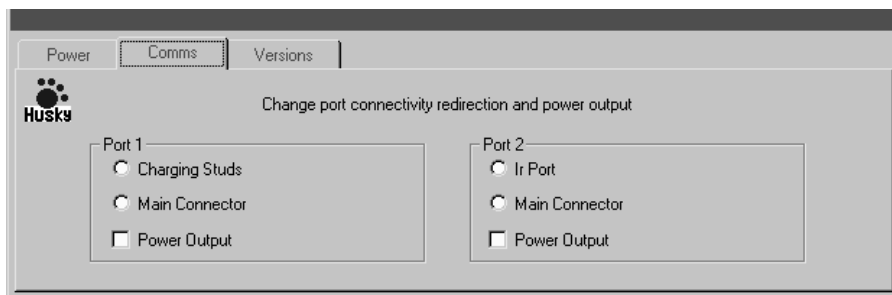
How to use the infrared port for file transfer

In addition to the serial port, your fex21 Vehicle Mount is equipped with an infrared window that allows you to transfer files from the unit to any other device fitted with a similar infrared window compliant with the IrDA industry standard. This includes other handheld PCs and printers.

You will find details on using the infrared port in the fex21 User Guide supplied with your fex21 computer.

How to use the COM1 serial port

Before you can use the COM1 port on the back of the Vehicle Mount, you must use the communications parameters menu in the Configuration Options to be found in the Control Panel on your fex21 computer. This allows you to configure the communications port COM1 to either *Main Connector* or *Charging Studs*.
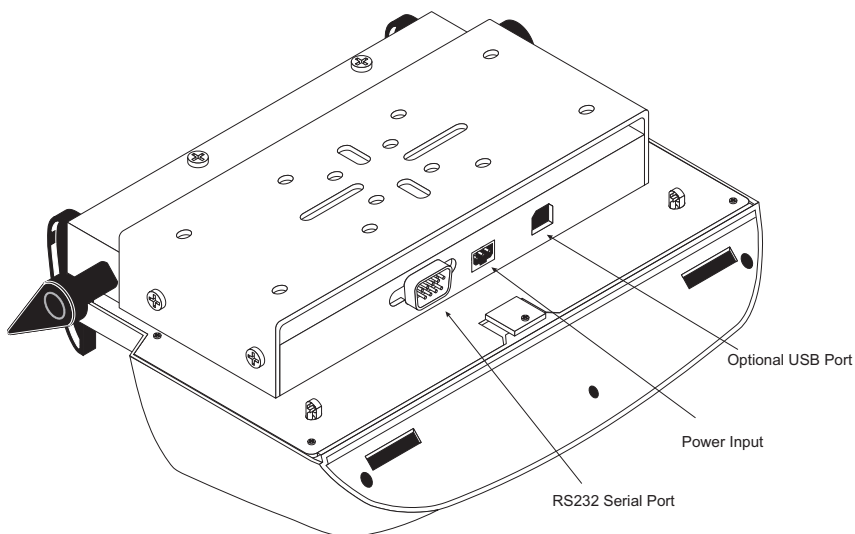

The Husky fex21 allows the COM1 port (Port 1) to be configured for use on the standard male 9-way D-type connector at the top left of the unit, or for use with the Vehicle Mount charging studs connector on the bottom left of the unit.

This connects through to the 9-way D-type connector on the rear of the Vehicle Mount and supports a fully featured RS-232 communications port.

The Vehicle Mount connector supports a sub-set of the port 1 signals: transmit (TX), receive (RX), request to send (RTS) and clear to send (CTS).

Plug one end of the serial cable supplied with your fex21 into the 9-pin serial port (COM 1) on the back of the Vehicle Mount and the other end into the serial port (COM 1) of your PC.

Optional USB Port

Power Input

RS232 Serial Port

It is important to note that only certain pins of the serial port on the Vehicle Mount are connected – see the pinout diagram at the back of this booklet. This in no way impedes the ability of the serial port to transmit and receive data using ActiveSync, as long as the cable supplied with your fex21 is used.

Optional USB data transfer

USB (Universal Serial Bus) is a high speed data link that can be used to connect devices at extremely high speeds. It is available as an optional extra for the Husky fex21 Vehicle Mount.

If your Vehicle Mount is equipped for USB data transfer it will have a USB port on the back. To use it, simply plug one end of a standard USB cable into this port and the other end into the USB port of your PC.

HOW TO LOOK AFTER THE VEHICLE MOUNT

Although the fex21 computer is water resistant and sealed against rain, dirt and dust, **the fex21 Vehicle Mount is not**.

We recommend the following precautions to make sure your fex21 Vehicle Mount will give you many years of reliable service.

- Avoid exposing the Vehicle Mount to extremely damp or dusty conditions.
- Use only a soft, dry cloth to remove dust and dirt.
- NEVER use solvents or abrasive cleaners of any kind.
- Avoid dropping your Vehicle Mount or subjecting it to severe impacts.

TROUBLESHOOTING

Although your Husky fex21 Vehicle Mount is robust and reliable, there may be times when you encounter problems.

The following notes give solutions to the most likely problems. However, if a problem persists, contact your service provider or the dealer from whom you bought your fex21 Vehicle Mount.

Problem: The screen is blank.

Solution: Check that your fex21 is seated correctly in the Vehicle Mount.

If this does not solve the problem, adjust the display contrast.

If the screen is still blank, reset your fex21 as instructed in the fex21 User Guide.

Problem: You cannot communicate correctly with your PC.

Solution: Make sure the serial cable is connected properly to both computers.

Check that you have the correct serial port selected in the ***Comms Configuration Options*** on your fex21 computer. If you are using the serial port on the computer itself, ***Main Connector*** should be selected. If you are using the serial port on the Vehicle Mount you should select ***Charging Studs***.

If this does not solve the problem, unplug and reconnect the cable to your fex21 computer.

If the problem persists, switch your fex21 off and then on again.

Problem: You cannot transfer data with the infrared port.

Solution: Check that nothing is obstructing the infrared window on either unit.

Try transferring one file at a time.

CAUTION!

There are no user serviceable parts inside the fex21 computer or Vehicle Mount. Do not attempt to open either unit.

HOW TO GET HELP

If you have any problems with your Husky fex21 Vehicle Mount, your first course of action should be to contact your service provider.
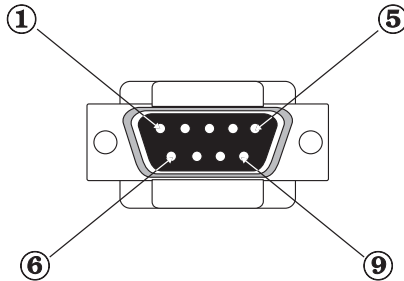
Information about the fex21 and its accessories, as well as other Itronix products, is available on the Itronix Web Site: www.Itronix.co.uk

SPECIFICATION

Case	PC/ABS
Size	258 x 130 x 100mm including metal mounting frame
Environmental standards	Designed to appropriate IEC68, EN60068, BS2011, & MIL-STD-810E standards
Service temperature	-40°C to +70°C (stand alone)
Shock	Vibration resistant to MIL-STD-810E
Keyboard and screen	Accessible whilst in docking station
Communications	EIA RS-232 serial port (9-pin 'D' connector) IrDA optical relay USB port (optional)
Power input specification	12 Vdc, negative earth or (if using optional Husky 24 volt battery converter) 24Vdc, 1 amp maximum drain
Power input devices	12V charger cable (2 metres long, cigar lighter plug, 3A fuse) or optional 24V vehicle battery converter.
EMC	Compliant when tested in Husky fex21 system
Safety	Crash tested for safety, exceeding MIL-STD-810E at 56 g continuous for 1 minute in every axis with fex21 computer locked in
Clamping	Quick release clamping mechanism to retain the computer in the Vehicle Mount

9-way D-type socket Serial Port

The pin connections for the serial port on the rear of the Vehicle Mount are:

Pin	Description	Pin	Description
1	Not connected	6	Not connected
2	Received Data I/P (RX)	7	Request to Send O/P (RTS)
3	Transmitted Data O/P (TX)	8	Clear to Send I/P (CTS)
4	Not connected	9	Not connected
5	Signal Ground		

POWER CABLE & BATTERY CONVERTER

CAUTION: Use the power cable or battery converter only after reading and understanding these instructions:

- Inspect before connecting. Do not use if there are signs of damage or deterioration.

- Ensure connectors are firmly mated.

- Avoid mechanical strain to cables or connectors. Use the cable clamps and ties provided to ensure there is no strain on the cables.

- Do not remove the input cigar lighter plug as it contains a safety fuse (and will void the warranty).

Additional instructions for the 12V dc power cable

CAUTION: Use the 12 volt dc power cable only after reading and understanding the following instructions.

- The 12 volt dc power cable is for use only with the Husky fex21 and its Vehicle Mount.

- Use only the 12 volt dc power cable supplied. Do not replace with an alternative unapproved model, as damage may result.

- Do not attempt to use the 12 volt dc power cable to power other equipment.

- Use only in vehicles with a nominal 12V electrical supply. In particular, if your vehicle is equipped with a 24V system, use the Husky 24V Vehicle supply converter. Damage to your fex21 may result from use contrary to these recommendations.

Additional instructions for the 24V vehicle battery converter

This converter option provides a source of stabilised low voltage for the Husky fex21 computer. It connects to most vehicle cigar lighter sockets.

CAUTION: Use the 24 volt vehicle battery converter only after reading and understanding the following instructions.

- There are no user serviceable parts inside. Do not attempt to open.

- Only use in negative earth vehicles

- Use in the vehicle only

- Avoid liquid spillage.

- Ensure ventilation is not restricted.

- Do not replace with an alternative unapproved model, as damage may result.

- Do not attempt to use the 24 volt dc power converter to power other equipment.

- Do not use the converter in any vehicle with a battery voltage higher or lower than 24 volts.

NOTE: If neither the 12 volt dc power cable nor the 24 volt battery converter is suitable for your vehicle, please contact your system provider for advice.

ELECTROMAGNETIC COMPATIBILITY

CAUTION!
Approved accessories only may be used with this equipment. In general, all cables must be high quality, shielded, correctly terminated and normally restricted to 2 metres in length.

Unapproved modifications or operations beyond or in conflict with these instructions for use may void authorisation by the authorities to operate the equipment.

Europe

This product complies with the European EMC Directive 89/336.

USA & Canada

Refer to the approval statements in the **Getting Started with your Husky fex21** manual.

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Home of the
HUSKY
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