DAP

TECHNOLOGIES

USER AND INSTALLATION GUIDE FOR

UC840 and CBCE540E
Universal Cradle / Ethernet Cradle

DN840M
DAPNET MASTER

CBCE540V AND CBCE540VC
IN-VEHICLE CRADLE

Return Merchandise Authorization (RMA)

SERVICING

In order to have your product serviced, you must first obtain a Return Material Authorization (RMA) from DAP TECHNOLOGIES. You may then return your MICROFLEX, correctly enclosed in its original packaging if possible, to your Value Added Reseller (VAR), an Authorized Service Center, or directly to DAP TECHNOLOGIES. Service under the conditions of this warranty requires prepaid shipment from your facility to a Service Center.

The MICROFLEX and its accessories have no user serviceable parts.

To obtain a RMA you can make your request by phone or use our on-line form at:

http://www.daptech.com/rma

EXTENDED WARRANTY ON DAP MANUFACTURED PRODUCTS

The original purchaser may, at any time during the initial warranty period, extend the warranty through purchase of a DAP CARE Service Contract. For more information, contact DAP TECHNOLOGIES

WARRANTY STATEMENTS

DAP TECHNOLOGIES makes no representation or warranty with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose.

The information in this manual is subject to change. DAP TECHNOLOGIES reserves the right to update and modify the MICROFLEX, its accessories and manuals without notice.

No part of this manual may be copied, distributed, transmitted, transcribed, stored in a retrieval system, or translated in any form or by any means, whether electronically or manually, without the express written consent of DAP TECHNOLOGIES.

MICROFLEX AND ACCESSORIES LIMITED WARRANTY

As manufacturer, DAP TECHNOLOGIES will replace or repair, at its discretion, any products that prove to be defective, in either material or workmanship, for a period of one year following the purchase date of the MICROFLEX hand-held computer and for a period of nineteen (90) days following the purchase date of MICROFLEX accessories sold by DAP TECHNOLOGIES. The warranty only cover the material and workmanships

This warranty does not cover damages caused by misuse, abuse, neglect, or occurred during shipping or storage; the warranty does not also cover any modification or servicing by any one other than a DAP TECHNOLOGIES Authorized Service Center.

DAP TECHNOLOGIES cannot be held responsible for any damage caused by the misuse of the MICROFLEX or by any other software or hardware added to the MICROFLEX.

The operating system, MS-DOS®, Windows CE and all other software sold or supplied by DAP TECHNOLOGIES are provided as is, without any warranty, either expressed or implied.

In no event shall DAP TECHNOLOGIES be liable for any direct, indirect damages or damages of any kind, including but not limited to damages on account of the loss of present or prospective profits arising out of or in connection with the use or failure of performance of the product. No claim may be made against DAP TECHNOLOGIES under this head, whether arising from contractual, extra-contractual or statutory liability.

The warranty allowed hereby excludes all other legal warranty related to the quality of the product or its capacities to fulfill specific purposes, including all warranties granted by the United Nations Convention on Contracts for the International Sales of Goods, the application of such Convention being expressly excluded.

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT
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 is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.
Any software described in this document is furnished under a license agreement or non-disclosure agreement. It is against the law to copy any software supplied by DAP TECHNOLOGIES onto magnetic tape, disk, or any other medium for any purpose other than the purchaser's personal use.

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TABLE OF CONTENT

CE CONFORMITY & NOTICE

UC840, DN840M, CBCE540V, CBCE540VC and CBCE540E

This series of cradles meets the 89/336/EEC directive intent for Electromagnetic Compatibility Compliance when used with DAP's accessories.

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

The compliance was demonstrated to the following specifications as listed in the official Journal of the European Communities:

Emissions:
EN 52022	Radiated & conducted, CLASS A
EN 60555	PART 2 & 3.
CISPR 22	for CLASS A

EN 50082-2:1995, Electromagnetic Immunity:
ENV 50140	Radiated RF electromagnetic field.
ENV 50204	Radiated electromagnetic field from radio telephones.
EN 61000-4-8	Power frequency magnetic field.
EN 61000-4-2	Electrostatic discharge.
EN 61000-4-4	Electrical fast transient/burst.
ENV 50141	Conducted disturbances induced by RF field.

These products require a configuration that is specific to your application before being used

Refer to the "PC9800 Technical Guide" or "CE5000 Series Technical Guide" for complete information about installing and configuring that product.

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For an updated copy of this document you can access our web site at https://www.daptech.com (with the "s" in the https).

On DAP Technologies secure web site, you will have to enter a valid username and password or enter *Guest* for the username and leave the password option blank.

Username: Guest
Password:
Login

MODEL NUMBERS AND CHARACTERISTICS

You will find in back of the product a label with the model number. The following manual will refer to the model number.

UC840	Universal cradle for PC9800 (LS). Supports RS232 and DAPNET mode. Also used with the CE5000 series in RS-232 mode. Dedicated for office environment.
DN840M	Master cradle for the UC840 in DAPNET mode.
CBCE540VC	In-vehicle charging cradle for the CE5000 series. It has no RS-232 and no DAPNET communication. Dedicated **ONLY to** charge the device. This model has a latch to hold firmly the unit in a vehicle. It also has a metal plate to attach a pedestal.
CBCE540V	In-vehicle charging cradles for the CE5000 series and PC9800 Series. Same has the CBCE540VC but supports the RS-232 communication
CBCE540E	Ethernet cradle used to connect a CE5000 Series unit to the network. Requires the onboard Ethernet option on the CE5000.
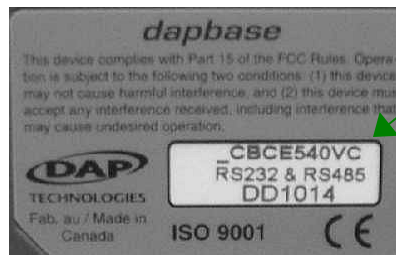
Model Number

<table>
<tr><td>

<u>Note about the in-vehicle charging cradle</u>

DAP Technologies cannot be held responsible for injuries caused by the in-vehicle cradle or hand-held computer in case of collisions.

The in-vehicle cradle has been designed to hold the hand-held computer in place during normal bumps and vibrations that can occur when traveling. It has not been designed to secure the hand-held in case of collisions.
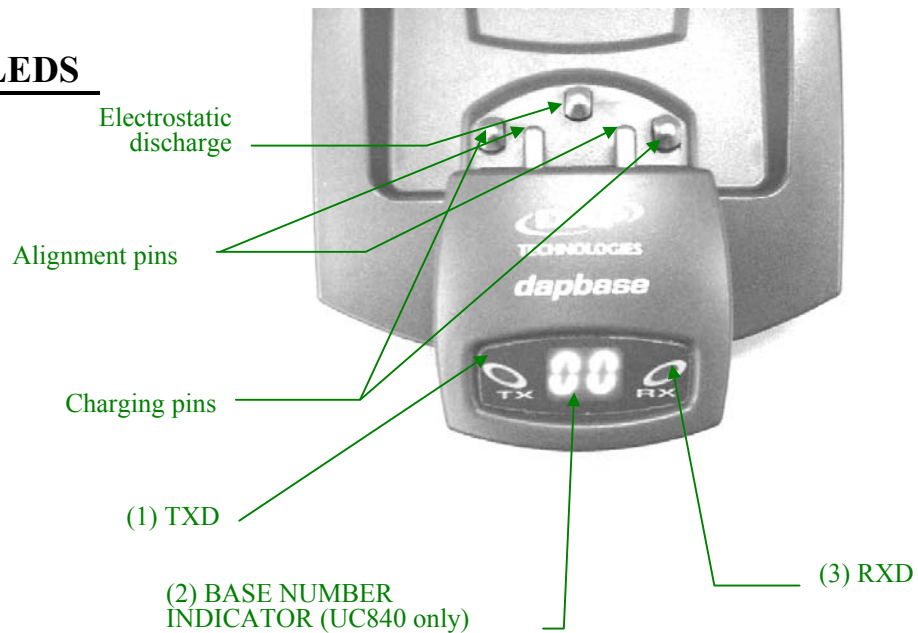
</td></tr>
</table>

INDICATOR LEDS AND CONNECTORS

INDICATOR LEDS

All models except
CBCE540E

Electrostatic
discharge

Alignment pins

Charging pins

(1) TXD

(2) BASE NUMBER
INDICATOR (UC840 only)

(3) RXD

(1) TXD

Character-transmission indicator LED

This LED lights up to show that the hand-held computer is transmitting characters. Characters are sent to the host computer.

(2) BASE NUMBER INDICATOR

Only present on cradle model UC840. Not present on the other models.

00 means that the RS-232 mode is selected.

01 to 31 indicates that the base number is in DAPNET mode

(3) RXD

Character-reception indicator LED

This LED lights up to show that characters are being received by the hand-held computer from the host computer.

CONNECTORS ON THE UNIVERSAL CRADLE (UC840)
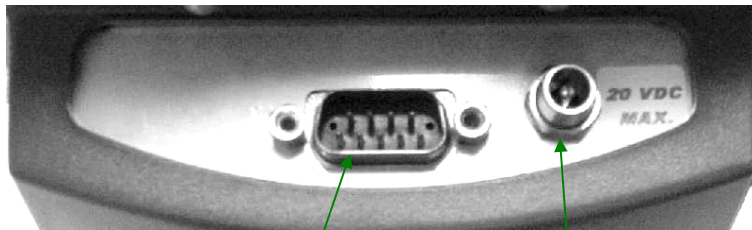

DAPNET Connectors (RJ-11) NOT USED IN RS232 MODE
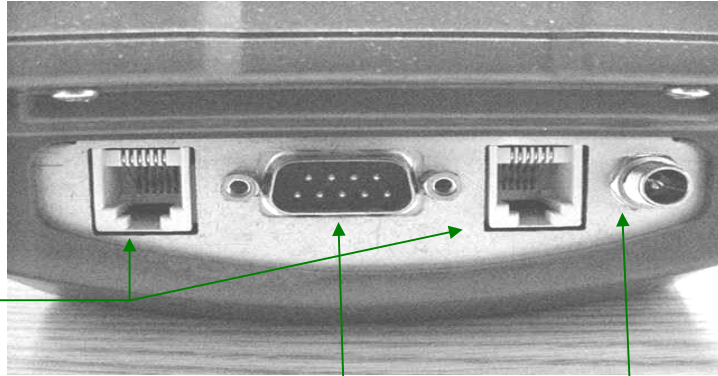
RS-232 Connector (male DB-9)

NOT USED IN DAPNET MODE

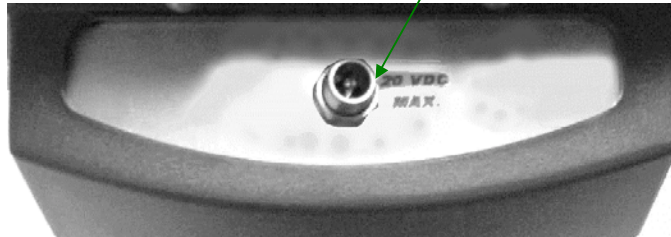Power Line Input (Maximum Voltage: 20V) DAP charger models: CS810, CS820, CS512 or CS 512SCH

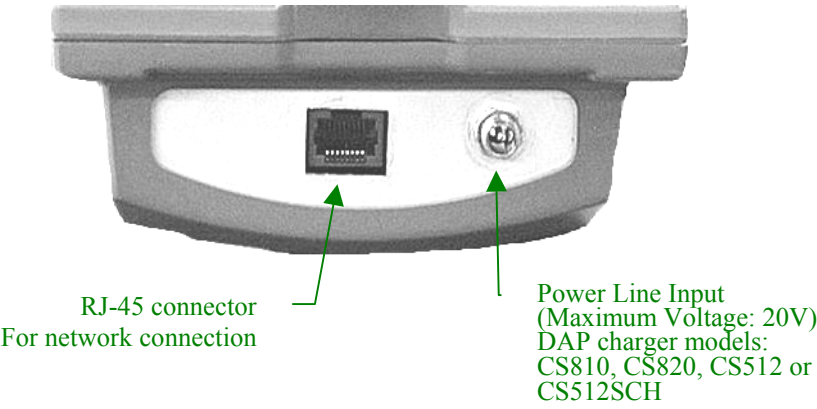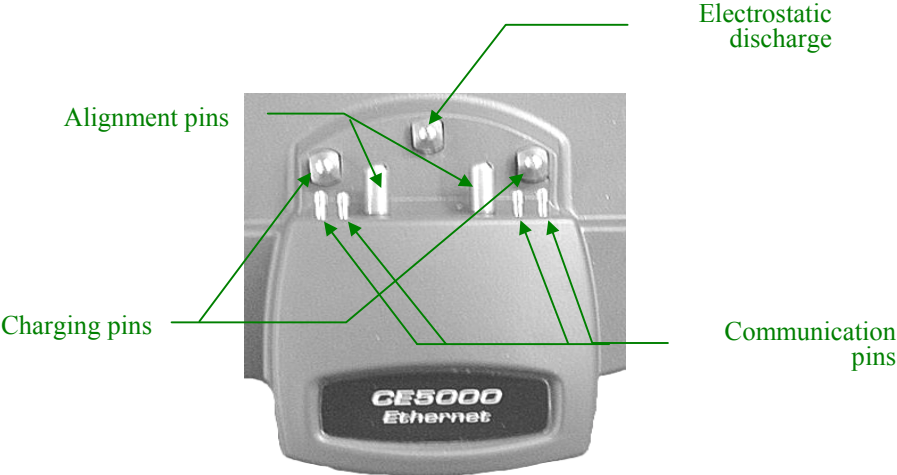## CONNECTORS ON THE IN-VEHICLE CRADLE

Model CBCE540V

RS-232 Connector (male DB-9) (CBCE540V only)

Power Line Input (Maximum Voltage: 20V) DAP charger models: CS810, CS820, CS512 or CS512SCH Connector type: LZ1001A made by LZR

**Model CBCE540VC**

CONNECTORS ON THE ETHERNET CRADLE (CBCE540E)

Electrostatic discharge

Alignment pins

Charging pins

Communication pins

CE5000 Ethernet

RJ-45 connector
For network connection

Power Line Input
(Maximum Voltage: 20V)
DAP charger models:
CS810, CS820, CS512 or
CS512SCH

DAPNET MASTER

**INDICATOR LEDS
ON DAPNET
MASTER (DN840M)**

(1) RXD ——————→ RX

(2) TXD ——————→ TX

(3) POWER INDICATOR ——————→
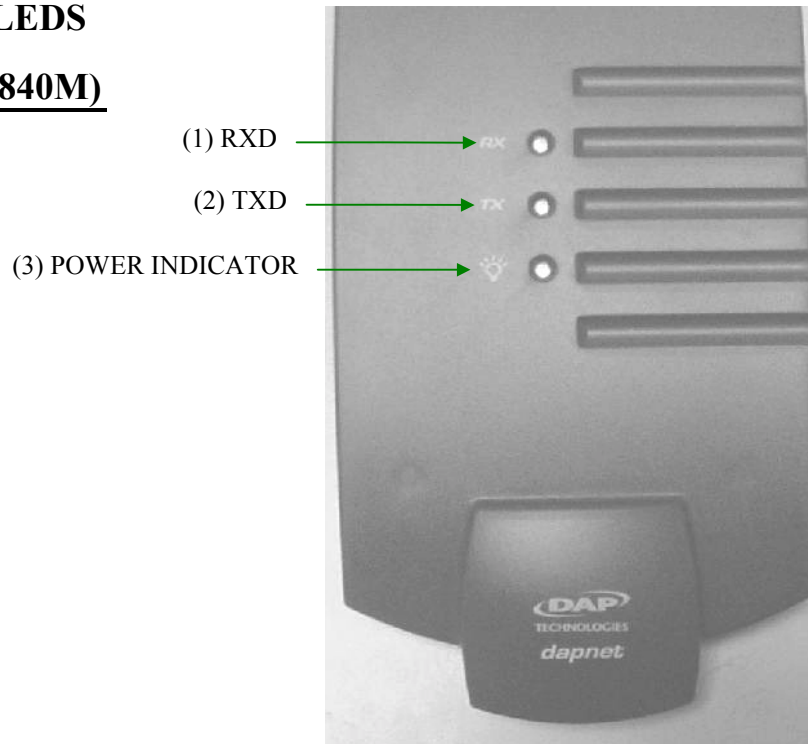
(1) RXD

Character-reception indicator LED

This LED lights up to show that characters are being received by the DAPNET master unit from the host computer. The characters come from the 9-pin connector at the top of the master unit and are sent to the DAPNET network.

(2) TXD

Character-transmission indicator LED

This LED lights up to show that characters are being transmitted by the DAPNET master unit to the host computer. The characters come from the DAPNET network and are sent to the host computer through the DB-9 connector at the top of the master unit.

(3) POWER INDICATOR

This LED lights up to indicate that the DAPNET master unit is powered.

> **Refer to the PC9800 technical guide for complete information about this product**

CONNECTORS ON THE DAPNET MASTER (DN840M)

RS-232 Connector
(male DB-9) from
computer.

Power Line Input
(Maximum Voltage: 20V)
DAP Charger Models:
CS810, CS820, CS512 or
CS512SCH

DAPNET
Connectors (RJ-11)
to UC840

# IN-VEHICLE CRADLE

INSERTION / REMOVAL OF THE UNIT

The Vehicle Mounted Series (CBCE540V and CBCE540VC) has a cradle with a latch to hold the hand-held computer in place.

To insert the hand-held computer, push down the latch, install the hand-held on the surface of the cradle then slide it into place. When the hand-held computer is correctly inserted, the battery status indicator should TURN ON if the cradle is powered.
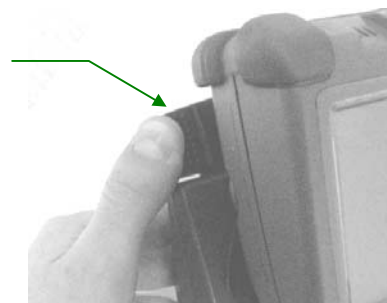
Insertion of the hand-held

- Push the latch
- Slide the unit down
- The hooks, the holding pins and the alignment pins at the bottom of the cradle should be inserted in the unit
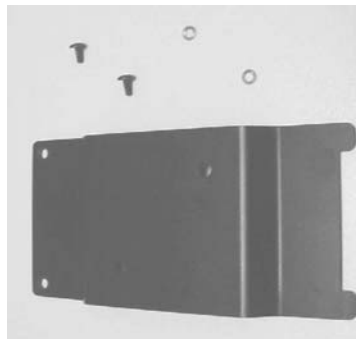
Hook and holding pins
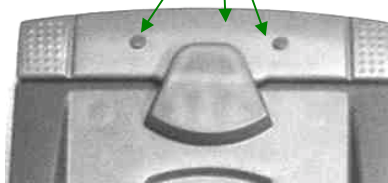
To remove the hand-held computer from the cradle, push down the latch and then slide the hand-held upwards.

The latch has to be push down to remove the hand-held

INSTALLATION

The cradle comes with a plate and two screws with lock nuts.

The cradle does not come with a pedestal (DC813). You may order a DC813 option to fix the unit in a vehicle.

If you want to look at different "mounting system", log on to the Ram-Mount company website at http://www.ram-mount.com/index.htm. The model use by DAP Technologies is the RAM-U-101 kit.

Installing the cradle with pedestal (DC813)

*The DC813 option comes with the following item:*

2 screws and 2 lock nuts

1 Socket arm with handle
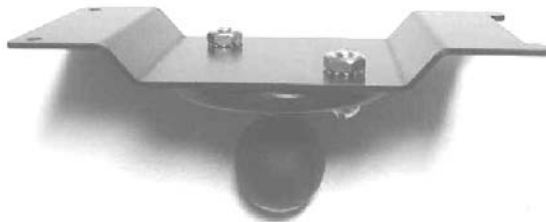RAM-B-201

2 anti-vibration balls
RAM-B-202
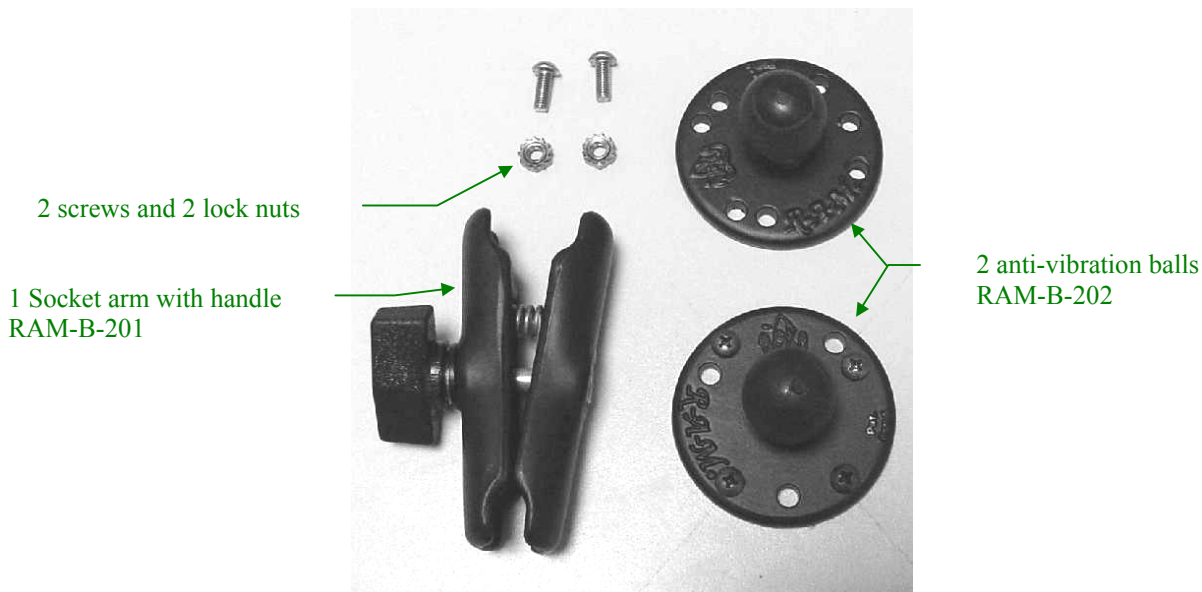
* DAP Technologies cannot be held responsible for any damage cause by improper installation of the DC813. We supply this option as is. Customers must refer themselves to the RAM-Mount manual or website for more details.

A) Preparing the cradle

1. Remove the two screws and lock nuts from the plate located on the back of the cradle

Screws to remove from the plate
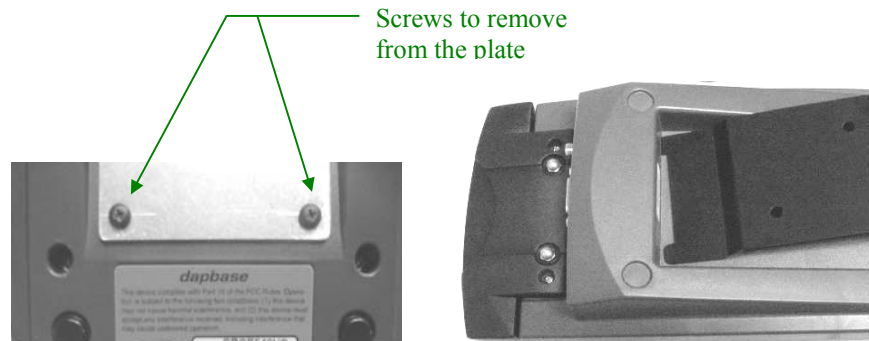
2. Install the ball using the two screws and lock nuts supplied with the DC813 option

3. Re-install the plate on the cradle with the two screws and lock nuts

B) Preparing the vehicle

Fix the second RAM-B-202 with 4 screws anywhere in the vehicle, where there is a solid fixation.

> **For security reasons, we suggest that the in-vehicle cradle be installed at a level below the head of the driver and/or is passenger.**

C) Assembling the parts

Using the side handle on the socket arm, fix the two balls together, adjust the cradle to the desired angle, for most common use, and firmly tighten all the parts.

Socket arm with the ball fix on the cradle
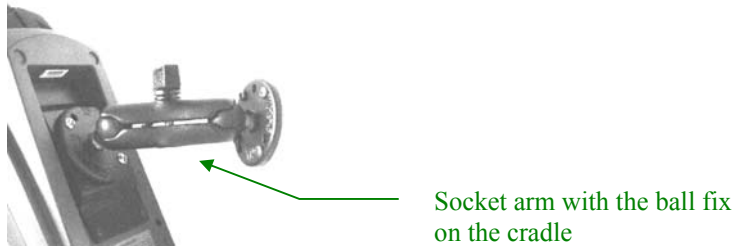
**** You may use the plate to install your own attachment kit ****

> ## <u>Note about the in-vehicle charging cradle</u>
>
> DAP Technologies cannot be held responsible for injuries caused by the in-vehicle cradle or hand-held computer in case of collisions.
>
> The in-vehicle cradle has been designed to hold the hand-held computer in place during normal bumps and vibrations that can occur when traveling. It has not been designed to secure the hand-held in case of collisions.

## DC-DC CONVERTER USED WITH 24VDC

A DC-DC converter must be used to power the CBCE540V and CBCE540VC when used under 24 Volts DC.

The DC-DC converter should have a regulated 12 Volts DC output (needed by the in-vehicle cradle) and be able to supply up to 2.0 amps. You can use other company converter models if they meet the specific voltage/current needed by the in-vehicle cradle

Install your DC-DC converter where it has some protection against dust and/or water. Choose wire gages that are compatible and secure for the specific output current of the DC-DC converter and variable wire length that you will use to connect with the cradle. **Refer to the manufacturer's manual before installing the new power supply**.

Regulated output voltage for in-vehicle cradle
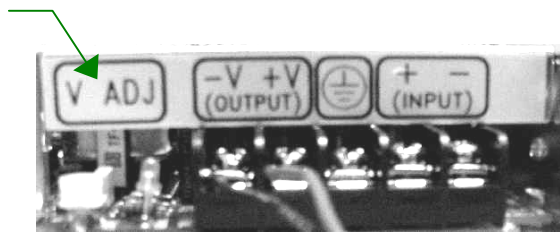
The model number **SD-25B-12** from Mean Well has been tested by **DAP Technologies.**

It can be ordered from the Mean Well company or you may contact DAP for more information at sales@qbc.daptech.com

For further information about the product, data sheet, order form and/or specific questions, contact MeanWell at this web address: http://www.meanwellusa.com

UNIVERSAL CRADLE IN DAPNET MODE & COM.EXE

This product requires a configuration specific to your application before being used

Refer to the manual "PC9800 Technical Guide and Development Tools", chapter F and G, for complete information about installing and configuring this product.

When using a universal cradle in DAPNET mode, start COM with one of the following parameters:

```
COM N0 <enter>      to set the cradle for speed of 300 to 38400 BPS.
COM N1 <enter>      to set the cradle for speed of 58 400 BPS
COM N2 <enter>      to set the cradle for speed of 115 200 BPS
```

USE OF THE ETHERNET CRADLE

To activate the Ethernet cradle

1) Connect a charger to the cradle, either model CS810, CS820 or CS512.

2) Connect the RJ-45 network cable to the cradle

3) Slide down unit into cradle

RJ-45 Cable

Power Supply CS810, CS812 CS512SCH or CS512

The CE5000 unit must have the Ethernet option installed. To validate that the current unit has this option check the bottom of the CE5000 Series, it should look like this:

When the unit is inserted in the cradle, an icon should appear in the taskbar located at the bottom of the screen. This icon informs the user about the network controller and connection status.

2/27/01 10:21 AM
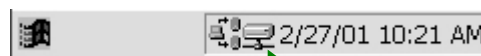
The Ethernet On-Board Adapter is activated and linked to a network, ready to be used by the user or by a Windows application.

5/31/01 5:21 PM
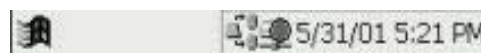
- Blinking icon -
Connection is established with the network and data is being transferred.

If neither of these two icons / appear in the taskbar, one of these conditions must be true:

- The Ethernet On-Board Adapter is activated but **no network cable is connected** on the back of the cradle
- The Ethernet On-Board Adapter is activated but **the cable used is defective or not connected to the Network.**
- **The Ethernet On-Board Adapter is in power save mode or not activated.**
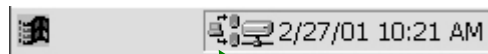
FTP Server running. By default, server starts automatically when a network connection is established.

For more information about the configuration of the Ethernet driver, please refer to the CE5000 Technical Guide.

FIRST USE OF THE UC840 / CBCE540V WITH A CE5000

Before using the cradle, it must be configured in such way that the CE5000 unit will be able to recognize and use this cradle to establish a serial link between a desktop computer and the CE5000 unit.

The configuration of the cradle is made using the BaseCE application found under the \Windows folder. You must be in supervisor mode to access the BaseCE application.

If you do not know how to change to supervisor mode, contact your technical support or refer to CE5000 Technical Guide on DocuDAP.

CONFIGURATION OF THE CRADLE

To proceed with the configuration of the base, follows these steps:

1. Change to supervisor mode and go under folder \Windows

2. Double tap on the icon BaseCe.exe

3. Under the FILE menu, select SetBase.

If no problem occurs, you should see the indicator led change from 00 to CE

The display will return to 00 if you remove the power from the cradle but the cradle will still remain configured.

When configuring the cradle using BaseCE, be sure that the base is not connected to any computer or peripheral otherwise, the cradle could show an error 6 and refuse to be configured.