

Dynamo DART Address Programmer: Operator's Manual

1. INTRODUCTION

This documentation describes the address programmer for the Dynamo DART pager. The address programmer is intended for Dynamo DART customers for setting the pagers' configuration.

Following this section there are five sections:

- Section 2 describes the equipment you need to set up the address programmer
- Section 3 details the set up procedure
- Section 4 illustrates how to use the address programmer
- Section 5 documents the features and technical information of the address programmer software
- Section 6 provides solution to common problems

This documentation assumes the knowledge of normal Dynamo DART operation and the technical knowledge of the product.

2. EQUIPMENT

2.1 Checklist

The address programmer package consists of the following items:

- Dynamo DART address programmer
- A cable for connecting your PC and the address programmer
- A power supply for the address programmer
- Address programmer software on a 3.5" floppy disk
- This manual

2.2 System Requirements

The Dynamo DART address programmer requires the following system:

- an IBM PC compatible computer with at least 640 kb memory and a RS-232C communication port
- an EGA, VGA or SVGA display adapter and display
- optional hard drive (C:)
- DOS 3.3 or higher

3. SETTING UP

3.1 Setting up hardware

Please follow these steps to set up the address programmer.

1. Shut down your computer.
2. Connect the end with a 25-pin connector of the supplied cable to either COM1 or COM2 port at the rear of your computer.
3. Connect the other end of the cable to the address programmer's 9-pin connector. (Figure 1)
4. Check the settings of address programmer's power supply, make sure it has the following settings:
 - Input voltage: 220-240 VAC
 - Output voltage: 9 VDC
 - DC polarity: positive

Warning: failing to set the power supply correctly may permanently damage the power supply and the address programmer. It also voids your warranty.

5. Make sure the address programmer is turn off. (Figure 2)
6. Plug the DC output of the power supply into the DC input of the address programmer.
7. Plug the AC input of the power supply into an AC source.
8. Turn on the address programmer. The LED on it should now lighted up indicating it is ready. (Figure 3)

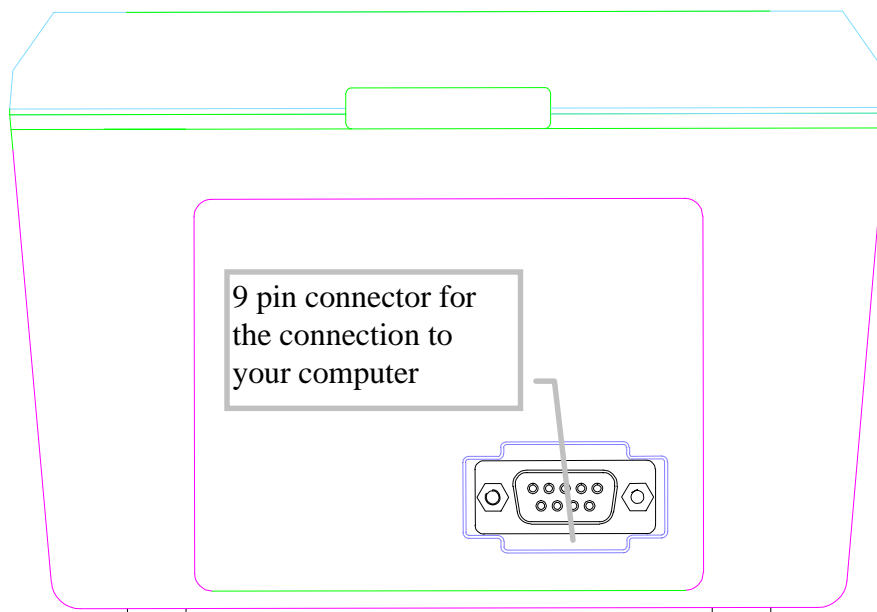


Figure 1: Dynamo DART Address Programmer (Front View)

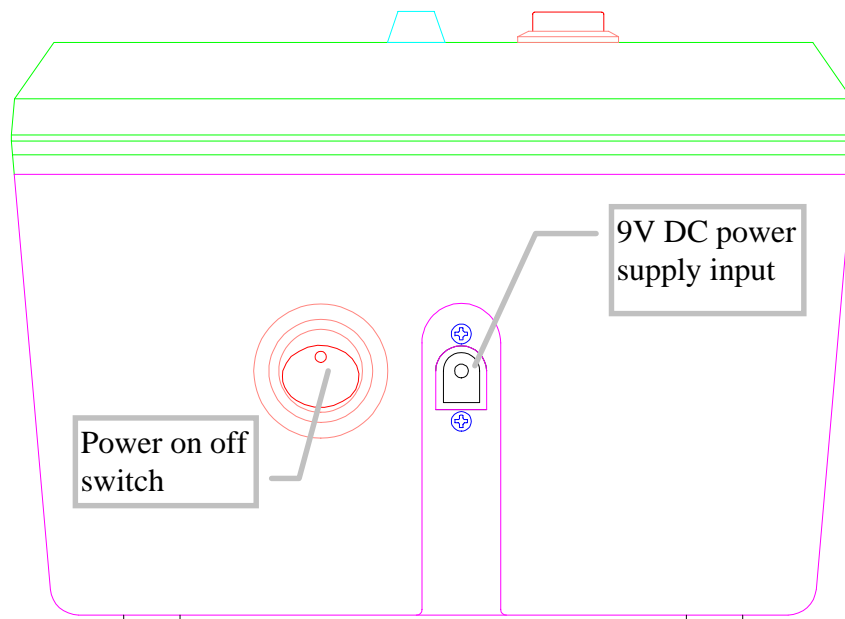


Figure 2: Dynamo DART Address Programmer (Rear View)

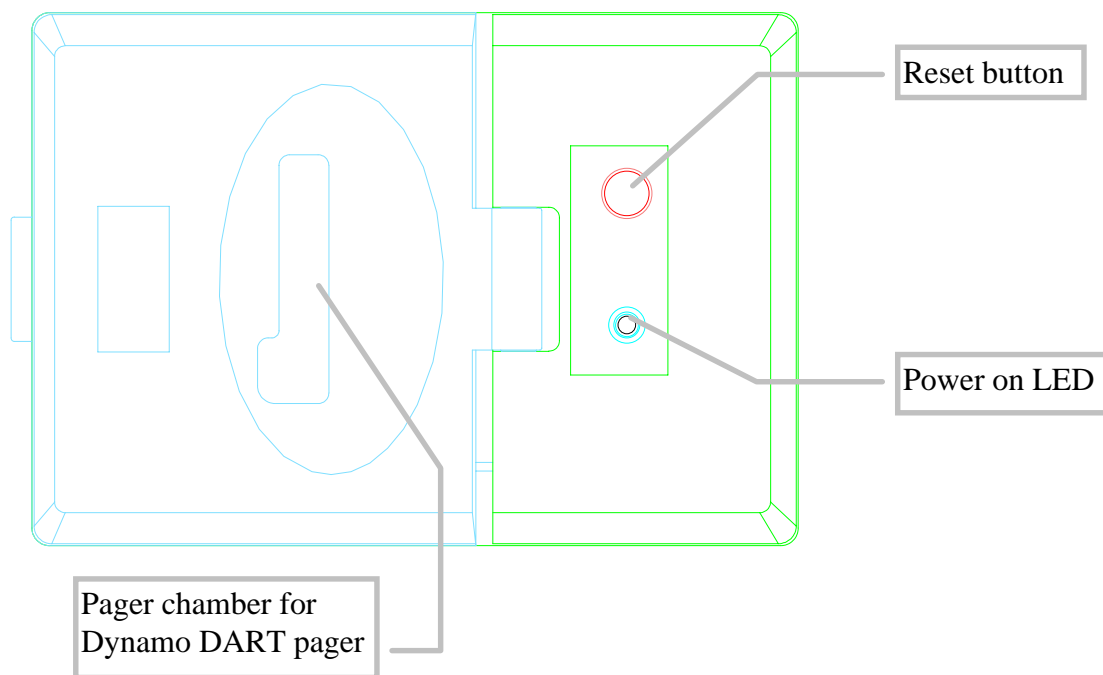


Figure 3: Dynamo DART Address Programmer (Top View)

3.2 Installing software

If you wish to run the software from the floppy disk, you can skip the followings. However, it is recommended to install the software on your computer's hard drive.

Please follow these steps to set up the software.

1. Turn on the computer.
2. In DOS, insert software disk into drive A.
3. Type **A:\INSTALL** to install all necessary software into the hard drive (C:)
The address programmer software are installed into C:\DART.
4. Follow the instructions on the screen and it is done.

4. USING THE ADDRESS PROGRAMMER

First of all, switch on the address programmer. At DOS prompt, change the working drive and directory to where the address programmer software resides (e.g. C:\DART), type **DART2ADR** and hit the **Enter** key. The address programmer software will use COM1: as the default port to talk to the address programmer hardware. To use COM2:, press **F7** to change.

The software will display the copyright screen. Hit a key to dismiss it. The first of the two configuration screens will be displayed. The pager options are grouped into two sections.

You can navigate through the screens using **Page Up** and **Page Down** keys. To modify a field, first move the cursor to it using the **↑** and **↓** keys and use the **space-bar** to cycle through choices. To modify a numeric field, move the cursor onto it, type in the new number and hit **Enter** (Do not use the number keys on the keypad). You can use the following keys on the keypad to change capcodes A and B.

	4	5	6
Capcode B	+1	-1	+8
	1	2	3
Capcode A	+1	-1	+8

To reset all fields to default, press **F8**. Details about available options can be found in Section 5.1 to 5.3.

To read or write pager configurations, first turn on the pager. Place it in the pager chamber of the address programmer and close the chamber door.

Press **F5** to put the pager into service mode. The address programmer software will display a wait message. It normally takes a few seconds. The message will be cleared as soon as the pager entered service mode successfully. You should see the words, "SYS. SERVICE," and its software version number on the pager's LCD screen.

Warning: putting a pager into service mode will destroy the pager's memory content immediately.

Press **F3** to read values from the pager.

Press **F4** to write values to the pager.

When programming is completed, press **F6** to put the pager back to normal operation.

When finished with the software, hit the **Esc** key to leave.

5. ADDRESS PROGRAMMER PAGER OPTIONS REFERENCE

5.1 Key Reference

Key	Function
↑ and ↓	Move the cursor up or down
Page Up	Previous screen
Page Down	Next screen
Space-bar	Cycle through choices available to a field, except numeric fields
0 to 9	Enter new values for numeric fields
0 to 9, A to F	Enter new values for hexadecimal fields
Esc	Exit to DOS
F1	Load pager configuration from disk
F2	Save current pager configuration to disk
F3	Read configuration from pager
F4	Write configuration from pager
F5	Put pager into service mode
F6	Put pager back into normal operation
F7	Change between the serial ports COM1: and COM2:
F8	Reset configurations to default, except capcodes

5.2 Pager Settings (1)

- **Capcodes** define the kind of messages the pager accepts. The pager has three capcodes: A, B and C.

Name	Options
Capcode	8 to 2,097,151 To disable a capcode, enter a value same to the previous one. For example, entering the same value for capcodes B and C disables capcode C. Capcode A can never be disabled.

All capcodes share a common frame value. The frame value is equal to: Capcode-value modulo 8. It is displayed inside brackets after the capcodes on the pager settings screen.

The following keys on the numeric keypad, when Num Lock is on, assists the changing of capcodes:

Key	Function
1	Increase capcode A by 1
2	Decrease capcode A by 1
3	Increase capcode A by 8
4	Increase capcode B by 1
5	Decrease capcode B by 1
6	Increase capcode B by 8

- **Capcode transmission protocol** defines the way the pager decode messages. Numeric pages have a maximum length of 24 characters; alphanumeric pages have a maximum length of 144 characters.

Default: Alphanumeric

Options: Numeric (standard: 0123456789_U][-) and numeric (optional: 0123456789ABCDE)

Note: the on-air news disabling protocol requires both capcodes A and C in alphanumeric mode.

- **Transmission data rate selection** defines the data rate the pager is going to receive paging signals.

Default: 1200 bps

Options: 512 bps

- **News reception** determines whether to place a news message into the news bank or not. If set to disable, no news message can be read.

Default: Disable

Options: Enable

- **Unread message reminder** defines whether to put up an alert every N minutes if there is unread user or group message in the message bank. N is specified by the **Unread message reminder timer** (section 5.3).

Default: Disable

Options: Enable

- **Electronic Security ID (ESID)** is part of the on-air news disabling protocol. Press **space-bar** to enter edit mode. Press **F1** to generate a new ESID for the pager, press **Esc** when done.

Default: None

- **Security command selection** defines the command prefix for the on-air news disabling protocol. The prefix is a hexadecimal number.

Default: 12 (Hexadecimal)

Options: 1 to 7E (Hexadecimal)

5.3 Pager Settings (2)

- **Customer name** is the string displayed when the pager is being turned on.
- **User name** is the string displayed before the screen is blanked.

To change any of the fields listed above, move the cursor to that field and press **space-bar**. Up to 16 printable characters are allowed in each name. Use the following keys to move the cursor and edit the name string:

Key	Function
F3	Clear the name
F4	Reset the field to the software's default setting
Enter	Commit the change
Esc	Cancel the change
←	Move the cursor one character to the left
→	Move the cursor one character to the right
Home	Move the cursor to the far left
End	Move the cursor to the far right
Backspace	Delete the character on the left
Delete	Delete the character on the cursor

Note: the name edit function does not support character insertion. Pressing the **Insert** key will not alter the way characters are entered.

- **Data polarity** defines the polarity of the paging signals.

Default: Normal

Options: Inverted

- **Tone alert for news reception** defines whether the pager sound a tone alert when is received.

Default: Disable

Options: Enable

- **Error in news** determines whether or not to accept a news message that contains transmission error(s). When set to receive, the pager will place any received news messages into the news bank. Otherwise, the pager will discard those news contain unrecoverable transmission errors.

Default: Receive

Options: Reject

- **Time-out for in-range indication** defines how long the in-range indicator (the antenna symbol) is displayed in standby mode after a page message is received.

Default: 4 minutes

Options: Always off, Simultaneous, 1 minute, 2 minutes, 8 minutes or Always on

- **Unread message reminder timeout** describes how frequent the pager puts up the unread message reminder when the function is enabled.

Default: 2 minutes

Options: 4 minutes, 6 minutes or 8 minutes

- **Page scroll delay** describes how long the pager delays before displaying the next screen of a message.

Default: 8 seconds

Options: 2 seconds, 4 seconds or 10 seconds

- **Alert tone duration** defines how long a user/group message reception alert last for.

Default: 8 seconds

Options: 4 seconds, 6 seconds or 10 seconds

6. TROUBLESHOOTING

If you experience problems when using the address programmer, the following solutions might help.

Problem: The LED of the address programmer is dark.

Solution: The Address Programmer power supply is off. Turn it on.
The Address Programmer's AC power is not connected properly. Turn it off. Check the connection and turn it on again.

Problem: The pager cannot be turned on.

Solution: The battery in the pager is dead or the battery holder is empty. Insert a new battery.

Problem: A beep sound is emitted when trying to modify a field.

Solution: The field is not changeable.
If it is a numeric field, type in the new value using number keys. Do not use those on the keypad.

Problem: The message "*Time out of receiving SYN word*" is displayed.

Solution: The Address Programmer has not been turned on. Turn it on.
The connection between the computer and the Address Programmer is loose. Make sure the connection is tight.
The wrong communication port is used. You can change the port to use by pressing **F7**.

Problem: The message "*The pager is not in service mode. Please put it into service mode and retry*" is displayed.

Solution: You attempted to read or write the pager's configuration without putting it into service mode. Press **F5** to put the pager into service mode.

Problem: The message "*Time out of receiving ACK/NAK*" is displayed.

Solution: No pager is in the Address Programmer's chamber. Put one into it.
The pager was off. Turn on the pager and put it back into the chamber.
The chamber was not locked properly. Check the lock.
The 3 metal pins in the chamber are dirty. Clean the pins and remove any debris in the chamber. The chamber should be kept clean at all times.
The Address Programmer has a problem. Press the reset button on it to fix it.

Problem: The message "*Error in serial communication.*" is displayed.

Solution: The Address Programmer has a problem. Press the reset button on it to fix it.

Problem: The pager cannot be operated normally. Instead, the words "SYS. SERVICE..." stays on the screen.

Solution: The pager is still in service mode. Put it back into the Address Programmer. In the Address Programmer software, press **F6** to put the pager back to normal operation mode.

Problem: The message "*Cannot open file: ...*" is displayed when attempting to load a file.

Solution: The filename you supplied was not valid. Find out the correct filename on disk and try again.

Problem: The message "*Cannot create file: ...*" is displayed when attempting to save a file.

Solution: The filename you supplied was not valid. Try save again.
The disk is full. Try another disk.
The disk is bad. Try another disk.