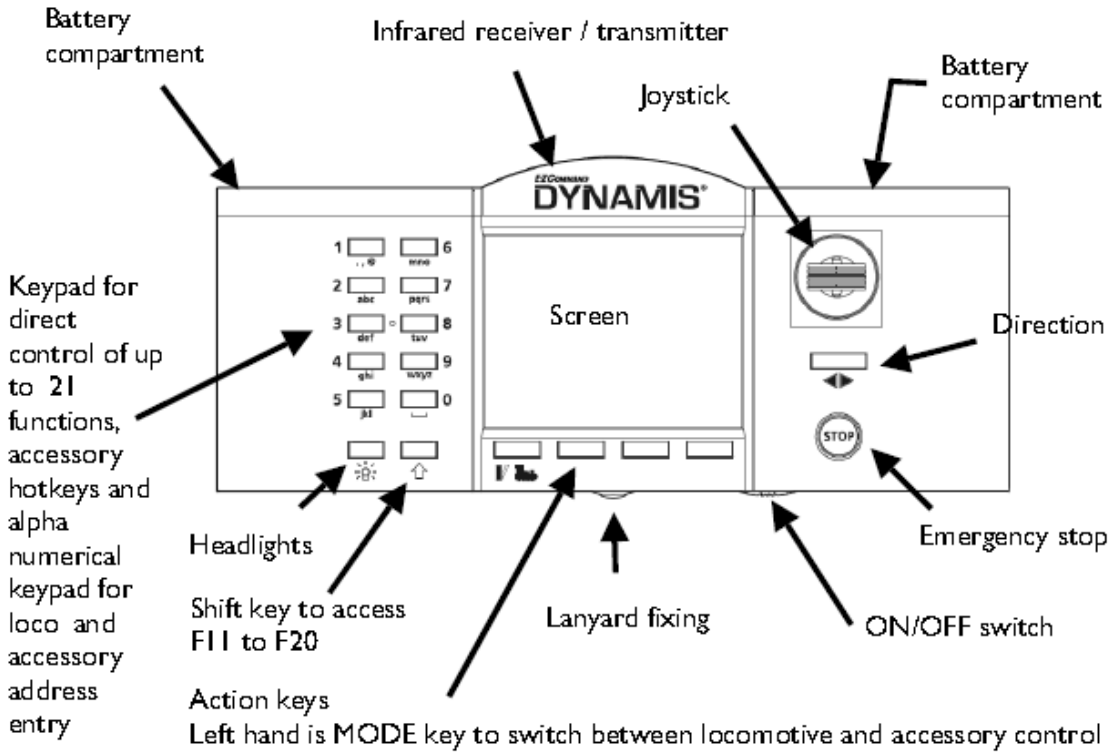


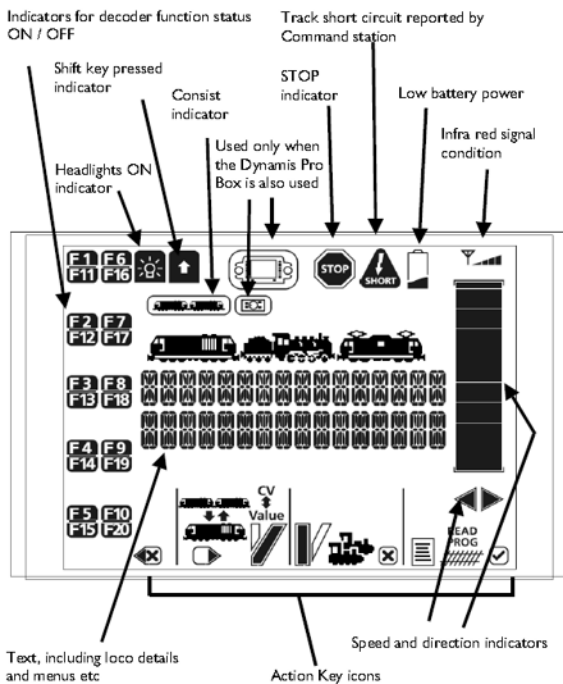
# Dynamis Ultima quick guide

## Handset features



## Screen details

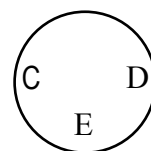
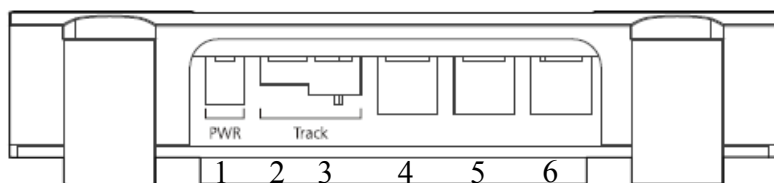
### Screen Reference



Action key icons	Description of action	Description of key in User Guide
	Add loco to / remove from Consist	[CONSIST]
	Select locomotive by address	[LOCO]
	Turnout / accessory operation - turnouts left / right or accessories on / off	[DIVERGE] or [STRAIGHT]
	Access the menu	[MENU]
	Accept Cancel	[ACCEPT] [CANCEL]
	Scroll left or right	[SCROLL]
	Move between CV selection and value for CV in the programming menus	[CV<>] [<>VALUE]
	Write value to CV / read from CV	[READ] [PROG]
	Backspace in text entry	[BKSP]

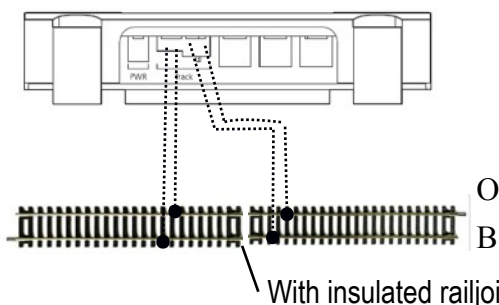
Full instructions for the use of Dynamis are contained in the accompanying User Guide

## Making connections to the Dynamis



Booster pins seen from rear of plug

- |   |                   |   |
|---|-------------------|---|
| 1 | Power in          | use only the power supply supplied with your Dynamis Ultima   |
| 2 | Programming track | connect to a length of track for service track programming using the red lead   |
| 3 | Main track        | connect wires to the main running tracks of the layout using the green block  |
| 4 | ECoSlink          | connect to an ECoS controller with appropriate lead   |
| 5 | Booster           | connect a standalone DCC booster using "CDE" connections using 3 pin mini DIN lead (please refer to booster instructions) |
| 6 | USB               | connect to a PC using a USB lead  |



Connecting to the track - ensure that O and B from both outputs are connected to the same rail

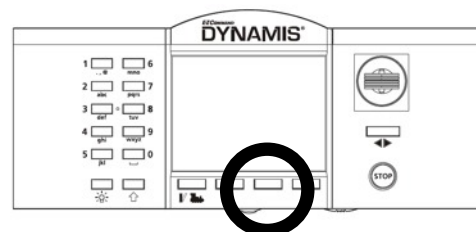
**ALWAYS ENSURE THAT THE STOP INDICATOR IS NOT SHOWING ON THE HANDSET - PRESS THE STOP KEY TO CLEAR IT FOR RUNNING**

## How to select a locomotive to run

Press the locos key, enter the address of the locomotive you wish to run with the numeric keypad and press [tick]

SELECT LOC  
ADDRESS 0

- If the address is in the roster, the stored details are displayed
- If the address is not in the roster, a roster entry is created with default settings that can be configured to use requirements. The maximum number of roster entries is 40
- Or Scroll though the roster by pushing the joystick from side to side
- Once one loco is running, another can be selected and they can be moved between with the side to side movement of the joystick



# Dynamis Ultima and decoder programming

## How to write an address to a decoder

Use the WRITE ADDRESS ON SERVICETRACK option

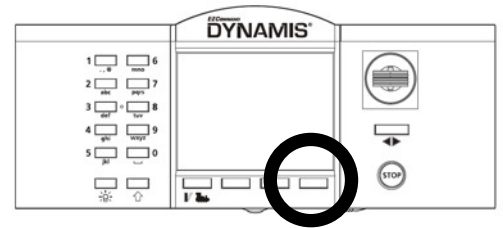
Place the locomotive on the service track. On the handset select:

MENU → PROGRAM → WRITE ADDRESS ON SERVICETRACK [tick]

Select the address you wish to use, deleting characters if necessary with [bksp] and using the numeric keypad to enter the address

- you can use a short or long address according to decoder specification

The maximum number of roster entries is 40



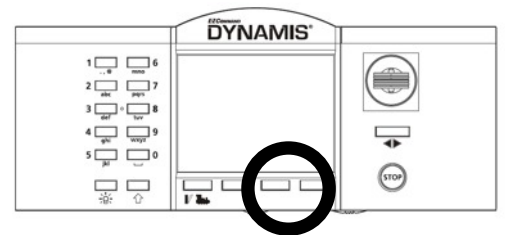
## How to read a decoder address

### Read address on Servicetrack

- reads the address of the decoder - long or short as set

MENU → PROGRAM → READ ADDRESS ON SERVICETRACK [tick]

GET ADDRESS [READ]



## How to read decoder CV values

### On the Service track with any decoder

- programs the locomotive(s) placed on the Service track

MENU → PROGRAM → PROGRAM ON SERVICETRACK [tick]

Enter the number of the CV you wish to read (refer to decoder instructions)

PRESS READ - the value is read from the decoder and displayed

If necessary, add a programming method to those in use (page 4)

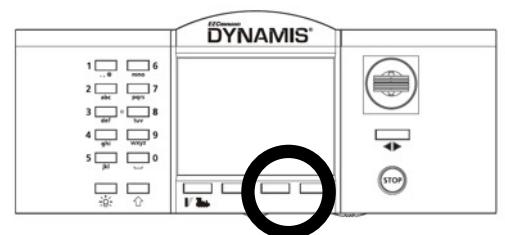
### On the Maintrack if decoder supports RailCom

- reads from the decoder on the main track and currently selected on the handset

MENU → PROGRAM → PROGRAM ON MAINTRACK [tick]

Enter the number of the CV you wish to read (refer to decoder instructions)

PRESS READ - the value is read from the decoder and displayed



## How to write a value to a decoder

### Servicetrack

- programs the locomotive(s) placed on the Service track

Place the loco on the section of track connected to the service track output of Dynamis Ultima

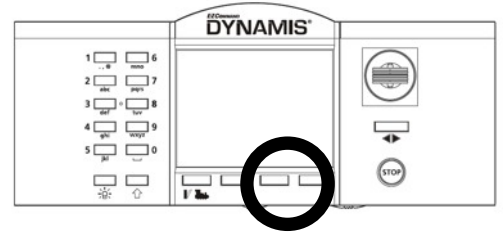
MENU → PROGRAM → PROGRAM ON SERVICETRACK [tick]

Enter the number of the CV you wish to program

Press VAL

Enter the value to be programmed to that CV

If necessary, add a programming method EDIT SERVICETRACK



### Maintrack

- programs the selected locomotive running on the layout

MENU → PROGRAM → PROGRAM ON MAIN TRACK

## How to add service track programming methods

The default service track programming method (CV mode with power down) works for most decoders. If required by a decoder other methods can be added from the system menu of the handset

MENU → SYSTEM MENU → EDIT SRV TRK PROG

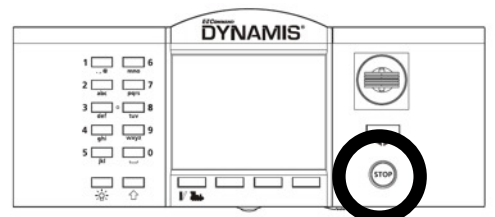
<b>EDIT SRV TRK PROG</b>	SET SRV TRK PROG	SCROLL: CV Powerdown
	Select Service Track programming methods to use	

## How to set STOP MODE

You can set the press of the STOP KEY to be either

**POWER OFF** -                      cuts power and all trains are stopped  
 (recommended for beginners)

**ESTOP LOCOMOTIVE** - controlled locomotive only is stopped. Hold key down to cut power



## How to set roster details

You can set a locomotive name, speed steps and icon and function key features. Press TICK to enter the sub menu

**MENU** → **EDIT NAME** select a name to describe the loco

Press the numeric keypad the appropriate number of times to enter the letters of the name. Use BKSP to delete

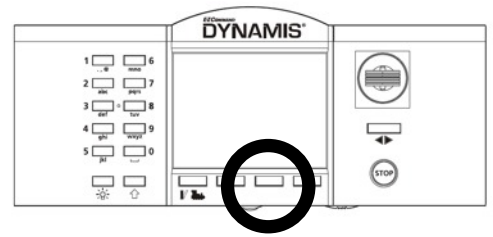
**MENU** → → **EDIT SYMBOL** select an symbol for loco type . Choose Diesel, steam, electric or none

**MENU** → → → **EDIT SPEED**

Set to either 28 or 128: we recommend the obsolete 14 speed step setting is not used

**MENU** → → → → **EDIT FX MODE**

Select whether each function is set to trigger (on for duration of press) or latch (on until pressed again to turn off)



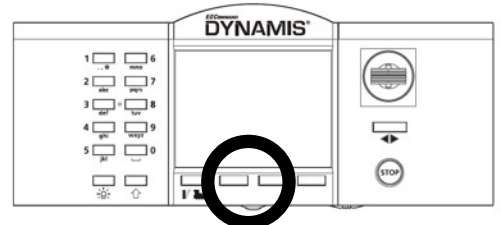
## How to delete an entry from the roster

Select the address to be deleted

Press **MENU** key

Scroll to Delete LOC or CON press tick

Confirm by pressing tic



## How to add a locomotive to a consist

A consist enables two or more locomotives to be run together as one.

UNIVERSAL - supported by all controllers

ADVANCED - if supported by the decoder (CV19 is present on the decoder)

Press **CONSIST** key

Add the current loco to the consist - enter ID of the consist. If the address already exists it's not possible to create a consist with that address

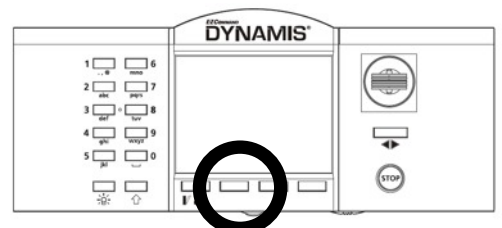
Select UNIVERSAL - supported by all controllers

ADVANCED - if supported by the decoder (CV19)

- A roster entry for the consist is created showing UNI or ADV

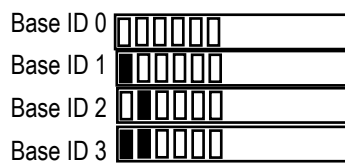
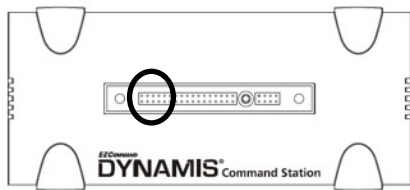
- The IN CONSIST icon shows on the details of a loco in a consist

The maximum number of roster entries - including consists - is 40



## Using more than one Dynamis Ultima in the location:

Each system must be set to a different BASE ID - the handset by setting the BASE ID and the basestation with a jumper placed on the 7-way pin connector



Change the BASE ID

Add jumper to pins under the IR Receiver and set the handset to be the same

EDIT BASE ID

Enter number

SET BASE ID

✓ to accept

✗ to cancel

## Setting up extra handsets

Additional handsets must each be given their own REMOTE ID

MENU -> EDIT REMOTE ID

SET REMOTE ID Enter number

✓ to accept

✗ to cancel

The locomotive roster is stored on every unit in the system (Dynamis Ultima and up to 4 Handsets), which must be synchronized.

Synchronisation will normally automatically be done in the background and can last up to 1 minute per unit. The system can be used during synchronisation with slightly reduced reactivity, but the locomotive roster should not be modified. **Handsets or Basestation must not be switched off during synchronization**

When the Dynamis Ultima detects a new Handset it has to determine which locomotive roster to use, either the one the Dynamis Ultima already holds or the roster from the newly detected Handset. In some cases the Dynamis Ultima will do this automatically.

If the Dynamis Ultima cannot determine which locomotive roster to use the user will be asked on the Handset which to use:

### OK TO RESET INT LOCOMOTIVE LIST?



the locomotive roster of the Handset will be erased and the one on the Dynamis Ultima will be used and automatically synchronized with the Handset.

**USE THE ROSTER THAT EXISTS ON THE Dynamis Ultima AND TRANSFER IT TO THIS HANDSET**



the locomotive roster of the Dynamis Ultima and all other Handsets in the network will be erased and the locomotive roster of *this Handset* will be synchronized to all other units in the network.

**USE THE ROSTER FROM THIS HANDSET AND TRANSFER TO THE Dynamis Ultima AND ALL OTHER HANDSETS**

**Do not press cancel on more than one Handset at the same time.**

There are cases where synchronization between the Handset and the Dynamis Ultima can be lost:

- Disconnection during transmission
- Editing the locomotive roster without connection to Pro Box (offline usage)
- another Handset disconnected whilst editing the locomotive roster
- Connecting the Handset to a different Dynamis Ultima Basestation
- Switching the unit off during data transmission

Merging of locomotive rosters is not possible although it is possible to copy a roster from one Dynamis Ultima to another via a Handset.

If a Handset is switched off or put it out of range from the Pro Box, the Dynamis Ultima will remove the Handset after some time. When the Handset gets back in range it will automatically be reconnected to the network, but it may have to be resynchronized.

# Dynamis Menu Reference 1

Press [MENU] and scroll the menu with [SCROLL] or the joystick Press [CANCEL] to move back up the menu

Option	Choices	Action
<b>EDIT NAME</b>	SET NAME KEY: up to 16 characters free text Set 16 character name for locomotive or consist	✓ to accept ✗ to cancel
<b>EDIT SYMBOL</b>	SET SYMBOL SCROLL: Diesel / Steam / Electric / None Choose indicative symbol for locomotive or consist	✓ to accept ✗ to cancel
<b>EDIT SPEED</b>	SET SPEEDSTEPS SCROLL: 14 / 28 / 128 Sets speed steps decoder is operating at	✓ to accept ✗ to cancel
<b>EDIT FX MODE</b>	SET FUNCTIONS TO LATCHING SELECT: F0 / F1 / F2 / F3 / F4 / F5 / F6 / F7 F8 / F9 / F10 / F11 F12 / F13 F14 / F15 / F16 / F17 / F18 / F19 / F20 Sets individual functions to latch or trigger	✓ to accept ✗ to cancel
<b>DELETE LOCO or CONSIST</b>	CONFIRM DELETE Deletes the current locomotive or consist record from roster	✓ to accept ✗ to cancel
<b>PROGRAM</b>	WRITE ADDR ON MAINTRACK Writes a locomotive address using Programming on Main / Ops Mode   WRITE ADDR ON SERVICETRACK Writes a locomotive address using Service Mode* READ ADDR ON SERVICETRACK Reads address using Service Track (Function operates with DYNAMIS PRO box only)   PROGRAM ON SERVICE TRACK POS CV number VAL value   PROGRAM [CURRENT LOCO]ON MAINTRACK POM CV number VAL value	
<b>SYSTEM MENU</b>		
<b>EDIT BASE ID</b>	SET BASE ID Enter number Default = 0 Range 0-3	✓ to accept ✗ to cancel
<b>EDIT REMOTE ID</b>	SET REMOTE ID Enter number	✓ to accept ✗ to cancel
<b>SYSTEM INFO -----</b>		
<b>EDIT BASE NAME</b>	SET BASE NAME Enter name	✓ to accept ✗ to cancel
<b>BASE SERIAL NUMBER</b>	U00000000	✓ to accept ✗ to cancel
<b>BASE INFO_0</b>	version number Read Only	✗ to cancel
<b>EDIT REMOTE NAME</b>	SET REMOTE NAME Enter name Default: Dynamis Remote	✓ to accept ✗ to cancel
<b>REMOTE INFO</b>	version number Read Only	✗ to cancel
<b>EDIT JOYSTICK SPEED DELAY</b>	SET JOYSTICK SPEED DELAY Enter value Default = 8Range 0 - 63 sets the delay before the increase of speed with the joystick	✓ to accept ✗ to cancel
<b>EDIT JOYSTICK SPEED REPEAT</b>	SET JOYSTICK SPEED REPEAT Enter value Default = 12 Range 0 - 63 sets the speed of the increase of speed with the joystick	✓ to accept ✗ to cancel
<b>EDIT JOYSTICK MENU DELAY</b>	SET JOYSTICK MENU DELAY Enter value	✓ to accept

	sets the delay before the move within a menu with the joystick	
<b>EDIT JOYSTICK MENU REPEAT</b>	SET JOYSTICK MENU REPEAT Enter value Default = 63 Range 0 - 63	✓ to accept ✗ to cancel
	sets the speed of the movement within a menu with the joystick	
<b>EDIT BACKLIGHT BRIGHTNESS</b>	SET BACKLIGHT BRIGHTNESS Enter value Default = 6 Range 0 - 8	✓ to accept ✗ to cancel
<b>EDIT BACKLIGHT DURATION</b>	SET BACKLIGHT DURATION Enter value Default = 60 Range 0 - 255	✓ to accept ✗ to cancel
<b>EDIT STOPMODE</b>	SET STOPMODE SCROLL: POWER OFF / ESTOP LOCOMOTIVE Sets action on use of STOP button Default = Power off	✓ to accept ✗ to cancel
<b>EDIT SRV TRK PROG</b>	SET SRV TRK PROG SCROLL: CV Powerdown Select Service Track programming methods to use Various combinations of Register Mode, CV Mode, Paged mode with or without powerdown Default = CV Powerdown	✓ to accept ✗ to cancel
<b>EDIT TRK TIMEOUT</b>	SET TRK TIMEOUT SCROLL: No timeout / 7.5 sec / 15 sec / 30 sec Sets time without handset / basestation connection before power off Default = 30 sec	✓ to accept ✗ to cancel
<b>FACTORY RESET</b>	ARE YOU SURE ? Reset the default values	✓ to accept ✗ to cancel

Please refer to the full DCC instructions available at [www.bachmann.co.uk](http://www.bachmann.co.uk)

### USB settings - baud rate

If required the USB baud rate can be slowed to 9600 with a jumper in



### RailCom settings



### Selecting track voltage via control on power supply

N	14V
HO / OO	16V to 18V
O	18V
G	21V



## Common errors and likely causes

7	Cannot Add Loc	- roster of handset is full (40 items)
8	Cannot Add Consist	- roster of handset is full (40 items)
9	No MainTrackRead	- decoder does not support RailCom
10	No ServiceTrackRead	-
11	Reading Error	- error in reading from decoder -
12	Writing Error	- error in writing to decoder

## Dynamis Ultima Warranty

The Dynamis Ultima product that this certificate is enclosed with has a Warranty for 24 months from the date of purchase against faulty materials or workmanship subject to the following conditions. During this period such defects that occur will be repaired or defective parts replaced free of charge.

1. This Warranty applies only if the item was purchased from an authorised retailer of Bachmann Europe plc ('Bachmann') within the European Union / EEA. This Warranty does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. The Warranty is offered as an additional benefit and does not affect your statutory rights as a consumer.
2. For claims under this Warranty, the product must be returned to Bachmann at the owners expense and risk directly to Bachmann Europe plc, Moat Way, Barwell, Leicestershire LE9 8EY with evidence of the purchase date in form of retailer receipt /invoice accompanied by a letter or Service Request form setting out the date and place of purchase, giving a brief explanation of the problem that has led to the claim. It is essential that the claim reach the above address on or before the last day of this Warranty period. Late claims will not be considered.
3. The benefits of this Warranty are available only to the initial retail purchaser of the product for the time of ownership of the product or expiry of the warranty period whichever should come first and are not in any way transferable to another.
4. The Warranty does not extend to cover damage resulting from misuse or careless handling, accidental damage, wear and tear, or use on a voltage supply other than that stamped on the product as appropriate.
5. The Warranty may be considered void if repairs have been attempted other than by Bachmann staff.
6. The Warranty is on the original product in its entirety and does not extend to individual components removed from the product. In respect of train sets the warranty applies to motorised units and controllers only
7. In the event that Bachmann chooses to replace a product it will be with the nearest appropriate model of its choice.
8. Bachmann's liability under this Warranty will in no case exceed the price paid for the product as originally manufactured.
9. It is essential that a retailer receipt / invoice showing the item as purchased is enclosed: please ensure this is obtained from the retailer at time of purchase and kept should Warranty Service be required.