

“Dynalite” Comms Task Format

IMPORTANT COMPATABILITY NOTES:
Hardware: The Dynalite Comms Task can only be used in Type 2 (CE) Control Module Hardware or later.
Firmware: V4.91 Firmware or later should be used.

This communication format allows the 3000/4000 system to connect to a Dynalite Lighting Controller via an RS232 Serial connection.

AUTOMATION (DYNALITE) AUXILIARIES:

1) V4.5 Firmware or later:
The Control Module supports Automation (Dynalite) Auxiliaries as follows:
512k (4MBit): Up to 64 depending on memory configuration chosen.
128k (1MBit): Up to 16 depending on memory configuration chosen.
32k NO Automation Auxiliaries provided.

The connection between the UART Port and the Dynalite Lighting Controller is made using the Model 3000/Access 4000 Dynalite Interface; P/N: 993032. (The interface consists of the Model 3000/Access 4000 Modem Cable and an RS232 - RS485 Converter cable)
The Rx, Tx, RTS and Gnd connections are utilized in the Modem Cable. (RTS is used to control DE on the RS485)

Any time a Dynalite command needs to be sent, the 3000/Access 4000 system will send it within 200mS.

In addition to the Comms Task, Dynalite Auxiliaries must also be programmed to establish the association between 3000/4000 Auxiliaries and Dynalite Areas, and the operations required. See “Dynalite Auxiliaries”, MENU, 7, 5, 9,2.

A Dynalite Auxiliary provides for a nominated Dynalite Area to turn on or off over a timed period as defined 3000/Access 4000 Auxiliaries turn on or off.

CT002 Idle ->
Dynalite

Programming options are found by pressing HELP, “9” at this screen.

CT002 Port ->
to use: 1

This screen allows the Installer to define the UART Port which is to be connected to the Dynalite interface. Depending on the version of UART Expander fitted to the Control Module, a Port number from 1 to 4 may be used. The Port number is selected by scrolling through the available options using the right arrow key.

CT002 Baud ->
Rate: 9600

This screen allows selection of the Baud Rate (Data speed) at which the UART will communicate. The Baud Rate is selected by scrolling through the available options using the right arrow key.
A setting of 9600 Baud must be used for Dynalite.
See “Comms Task Baud Rates” in Comms Task Programming [MENU 7,3,1]

Program the Dynalite options by pressing HELP, “9” from the “Port to Use” screen or return to the first Dynalite screen by pressing HELP, “0” and toggle the Comms task On and Off by pressing the “9” Key. (Dynalite options are found by pressing HELP, “9” twice at the first Dynalite screen.)

CT002 Dyna Panic
Zone: C01:Z01

This screen allows any unused Zone Input in the 3000/Access 4000 system to be used to indicate changes in the status of the Dynalite "Panic" mode.

This Zone Input can then be programmed in the same manner as a normal Zone Input to generate the type of message and/or alarm required.

Seal = Dynalite Panic mode is not activated.

Alarm = Dynalite Panic mode is activated.

If a Zone Input is assigned, the "I"gnore Physical Zone option must be set to Yes in the programming options for that Zone Input.

See "Input programming". MENU 7, 0.

CT002 Dyna Ok
Zone: C01:Z01

This screen allows any unused Zone Input in the 3000/Access 4000 system to be used to indicate changes in the status of the Dynalite communications.

This Zone Input can then be programmed in the same manner as a normal Zone Input to generate the type of message and/or alarm required.

Seal = Dynalite communications is considered operational.

Alarm = Dynalite communications is considered failed.

If a Zone Input is assigned, the "I"gnore Physical Zone option must be set to Yes in the programming options for that Zone Input.

See "Input programming". MENU 7, 0.

CT001 . . R.
Status -> nnnn
Diagnostics

Pressing the ON Key whilst the Active/Idle screen is displayed will display the UART Port status screen. This screen can be cleared when desired by pressing the OFF Key. The following table explains the flags:

. Spare

R Retry

A "Y" under this flag means the receive fifo (16 bytes) has overflowed and at least one character has been lost. This will normally cause a retry of some kind.

. Spare

. Spare

The "R" flag may be monitored after communications via this port. In the event that the system places a "Y" flag under the "R", the Status screen should be reset and monitored further. Should a "Y" flag appear under the "R" with some regularity, a potential cause would be the baud rate at which the port is attempting to communicate. In such a case the Installer should reduce the baud rate and monitor the effect via the status screen.

In the event that lower baud rates do not solve the problem, assistance should be sought from the manufacturer's Service Technician.

Dynalite Auxiliaries

A Dynalite Lighting Controller can be connected to a serial UART Port on the Control Module.

IMPORTANT NOTES:

1) Dynalite Auxiliaries are only available in Type 2 (CE) Control Module Hardware and V4.50 Firmware or later.

The Control Module provides Automation (Dynalite) Auxiliaries as follows:
512k (4MBit): Up to 64 depending on memory configuration chosen.
128k (1MBit): Up to 16 depending on memory configuration chosen.
32k NO Automation Auxiliaries provided.

The connection between the UART Port and the Dynalite Lighting Controller is made using the Model 3000/Access 4000 Dynalite Interface Kit (P/N: 993032).

The Rx, Tx, RTS and Gnd connections are utilized in the Cable set. (RTS is used to control DE on the RS485)

A “Dynalite” Comms Task must be programmed to establish communications between the Control Module and the Dynalite Controller.
See Comms Task programming, MENU, 7, 3, 1
and Comms Task Formats: Comms 26 - Dynalite.

A Dynalite Auxiliary provides for a nominated Dynalite Area to turn on or off over a timed period as defined 3000/Access 4000 Auxiliaries turn on or off.

Each Dynalite Entry allows a single 3000/Access 4000 Auxiliary to be defined and programmed as to how it will operate in conjunction with the Dynalite system.

Dynalite Entry
to alter: DN001

This screen allows a Dynalite Entry to be selected for programming.

DN001 R
Opts -> nnnnnnnn

This screen allows various Dynalite options to be selected:

R Re-send.

If set to “Y”es, the Re-send option causes the On/Off commands assigned to this Dynalite Entry to be sent even if the Auxiliary does not change state. e.g. If an Auxiliary is already On and a 3000/Access 4000 operation attempts to turn on the Auxiliary again, the On command will be re-sent to the Dynalite network.

DN001 Auxiliary
— :X

This screen allows the Installer to select which Auxiliary is going to be associated with this Dynalite Entry. Any valid Auxiliary from within the 3000/4000 system can be chosen.

**DN001 On Area
Address: 000**

This screen defines which Dynalite Area the Auxiliary “ON” Command will control. The Area Address is programmable from 000 to 255.

See the Dynalite product documentation for more information on Area addresses.

**DN001 On
Preset: 000**

This screen sets the Dynalite Preset that will be operated by the Auxiliary “ON” command. The Preset is programmable from 000 to 255.

Note that the Preset value programmed here does not correspond to the actual Dynalite Preset value.

See the table on page 3 for details of the programmed and actual Presets.

See the Dynalite product documentation for more information on Presets.

**DN001 On Fade
Rate: 00000**

This screen sets the period of time the Dynalite Controller will take to reach the “On” Preset level defined above.

This value is programmed between 00000 and 65535 in 20 milliSecond increments. e.g. A programmed value of 100 = 2000 milliSeconds = 2 Seconds.

See the table on Page 3 for more examples of Fade rate periods.

**DN001 Off Area
Address: 000**

This screen defines which Dynalite Area the Auxiliary “OFF” Command will control. The Area Address is programmable from 000 to 255.

See the Dynalite product documentation for more information on Area addresses.

**DN001 Off
Preset: 000**

This screen sets the Dynalite Preset that will be operated by the Auxiliary “OFF” command. The Preset is programmable from 000 to 255.

Note that the Preset value programmed here does not correspond to the actual Dynalite Preset value.

See the table on page 3 for details of the programmed and actual Presets.

See the Dynalite product documentation for more information on Presets.

**DN001 Off Fade
Rate: 00000**

This screen sets the period of time the Dynalite Controller will take to reach the “Off” Preset level defined above.

This value is programmed between 00000 and 65535 in 20 milliSecond increments. e.g. A programmed value of 100 = 2000 milliSeconds = 2 Seconds.

See the table on Page 3 for more examples of Fade rate periods.

Presets

The programmed Preset does not correspond directly to the actual Dynalite Preset Value.
This table shows the Value to be programmed for the actual Dynalite Preset required.

Actual Preset	Programmed Preset		Actual Preset	Programmed Preset		Actual Preset	Programmed Preset
1	0		23	50		45	37
2	8		24	58		46	45
3	16		25	3		47	53
4	24		26	11		48	61
5	32		27	19		49	6
6	40		28	27		50	14
7	48		29	35		51	22
8	56		30	43		52	30
9	1		31	51		53	38
10	9		32	59		54	46
11	17		33	4		55	54
12	25		34	12		56	62
13	33		35	20		57	7
14	41		36	28		58	15
15	49		37	36		59	23
16	57		38	44		60	31
17	2		39	52		61	39
18	10		40	60		62	47
19	18		41	5		63	55
20	26		42	13		64	63
21	34		43	21			
22	42		44	29			

Fade Rates

This table shows some useful examples of the value to be programmed for various Fade Rate periods.

Fade Rate	Programmed Value		Fade Rate	Programmed Value		Fade Rate	Programmed Value
00	00000		1.5Sec	00075		12Sec	00600
20mS	00001		2Sec	00100		15Sec	00750
100mS	00005		2.5Sec	00125		20Sec	01000
240mS	00012		3Sec	00150		30Sec	01500
300mS	00015		4Sec	00200		1Min	03000
500mS	00025		5Sec	00250		2Min	06000
720mS	00036		7.5Sec	00375		5Min	15000
1Sec	00050		10Sec	00500		10Min	30000

