FBT

DLM 26

**Digital
Loudspeaker
Management**

User Manual

DLM26 Digital Speaker Processor
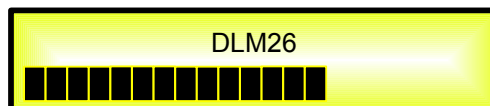
User Manual

Described below are the functions of the front panel control buttons and encoders for the DLM26.

- **Getting Started**

As soon as the DLM26 is turned ON the device model name will appear in the LCD screen:

```
        DLM26
   Speaker Management
```

and a status bar will show the progress of the DLM26 initialization process:

```
        DLM26
▐█████████████▌
```

The DLM26 has three factory pre-set working modes: "2x2 Ways Xover + Sub", "2x3 Ways Xover" and "6 Ways Xover".
After the initialization, the DLM26 will show on the LCD the first of the embedded preset working modes, or the last one selected prior to the unit being turned off.
First time activation will default to the first of the preset working modes.

```
        DLM26
   2x3  WAY  X-OVER
```

- **Encoders and ENTER, ESC buttons**

The DLM26 is equipped with 3 Relative Encoders, "NAV/Param.1", "Param.2" and "Param.3", These encoders allow you to navigate the user interface and edit sections of the processor. They allow the user to navigate within the screen for the selection of sub-menus, pages and parameters and to select the values to be assigned during the editing operations.

The "ENTER" and "ESC" buttons allow the user to confirm or NOT confirm the operations performed by the encoders.

- **UTILITY, A/B and 1/2/3/4/5/6 buttons**

The UTILITY button allows the User to enter the Sub-menus and set the general characteristics of the Processor. The A and B buttons allow the User to enter the Editing Menus of the Processor's Input Channels and buttons 1, 2, 3, 4, 5 and 6, allow the User to enter the Editing Menus of the Processor's Output Channels.

The A and B buttons as well as the 1, 2, 3, 4, 5 and 6 buttons have double functions dependent on the push and hold time.

When the A and B buttons are pushed and held for more than one second Input Channels A or B are either muted or unmuted. The red LED will illuminate when the Channel is muted. When the "MUTE" LED is OFF, then the related Input Channel is UN-MUTED.

A momentary push of the A and B buttons enters the Editing Mode for the Input Channels (see later for the Input Channel Editing details).
The blue "EDIT" LED will now be ON.

When the 1, 2, 3, 4 , 5 and 6 buttons are pushed and held for more than one second the Output Channels 1, 2, 3, 4 , 5 and 6 are either muted or unmuted. The red LED will illuminate when the Channel is muted. When the "MUTE" LED is OFF, then the related Output Channel is UN-MUTED.

A momentary push of the 1, 2, 3, 4 , 5 and 6 buttons enters the Editing Menu for the Output Channels (see later for the Output Channel Editing details). The blue "EDIT" LED will now be ON.

- **DLM26 Menu and Sub-Menu Structures**

As stated above, the start-up default screen is the following factory preset:

```
            DLM26
        2x3  WAY  X-OVER
```

From this point, sub-menus are accessed using the UTILITY", "A/B", "1/2/3/4/5/6", "ENTER" and "ESC" buttons and all parameters and values are navigated by the "NAV/Param.1", "Param.2" and "Param.3" encoders. Please refer to the following menu structures:

MENU "UTILITY MENU" [Access by pushing the "UTILITY" button]

NAV/Param.1 Encoder
[to navigate between menus]

Param.2 or Param.3 Encoder
[to chose option, then ENTER to load it;
 (*) indicates the selected option]

1 UTILITY MENU:......
<< System Utilities   >>

ENTER / ESC

1.1   SYSTEM UTILITY:
<< System Mode >>

ES / ENTER

System Mode
Mode: Standard *
Mode: Custom

1.2   SYSTEM UTILITY:
<< System Setup >>

ES / ENTER

System Setup [Standard Mode]	System Setup [Custom Mode]
Setup: 2x2 WA+ SUB *	Setup: 3 DCL *
Setup: 2x3 WAY XOVER	Setup: 2x2 DCL
Setup: 6 WAY XOVER	Setup: 4+1 DCL

1.3   SYSTEM UTILITY:
<<   Input Routing   >>

ES / ENTER

Input Routing
Source: Analog   *
Source: Digital

1.4   SYSTEM UTILITY:
<< Power-On Procedure >>

ES / ENTER

Power-On Procedure
Fade-In: On   *
Fade-In: Off

1.5   SYSTEM UTILITY:
<<   Delay Units   >>

ES / ENTER

Delay Units
Unit: Time(ms)   *
Unit: Distance (m)

1.6   SYSTEM UTILITY:
<<   Ramps on changes   >>

ES / ENTER

Ramps on changes
Ramps: Off   *
Ramps: On

1.7   SYSTEM UTILITY:
<<   Software Version   >>

ES / ENTER

Software Version
Version: V1.01   *

2 UTILITY MENU:......
<< Program Utilities   >>

ENTER / ESC

2.1   PROGRAM UTILITY:
<< Recall a Program   >>

ES / ENTER

Recall a Program
01: Preset 01
:   :
64: Preset 24

2.2   PROGRAM UTILITY:
<<   Save a Program   >>

ES / ENTER

Save a Program
01: Preset 01
:   :
64: Preset 24

2.3   PROGRAM UTILITY:
<< Delete a Program   >>

ES / ENTER

Delete a Program
01: Preset 01
:   :
64: Preset 24

3 UTILITY MENU:......
<< Interface Utilities >>

ENTER / ESC

3.1   INTERFACE UTILITY:
Interface Setup

ES / ENTER

Interface Setup
Source: USB
Source: RS485   *

4 UTILITY MENU:......
<< Security Utilities >>

ENTER / ESC

4.1   SECURITY UTILITY:
Show Parameter

ES / ENTER

Parameter will
be shown   *
not be shown

4.2   SECURITY UTILITY:
Lock Unit

ES / ENTER

Lock Unit
Lock: Off   *
Lock: On

4.3   SECURITY UTILITY:
User Password

ES / ENTER

User Password
[   ]

4.4   SECURITY UTILITY:
Enable Password

ES / ENTER

Enable Password
Password: Enable
Password: Disable   *

(For the details about the Password Setting/Enable and Unit Lock, , refer to the "Utility Menus Use" Section)

MENU "Input A/B" Input Channels Editing [Access by pushing the "A/B" buttons]

NAV/Param.1 Encoder	**NAV/Param.1 Enc.**	**Param.2 Enc.**
Param.3 Enc.		
[to navigate between menus]	[to chose values for the parameters, no need to confirm the chosen values, which are automatically loaded during the encoders use]	

1. Input A/B   Gain
    Gain = + 0.0 dB

ENTER ↓ ↑ ESC

   -> **Gain = + 0.0 dB**   Param.1 N/A   **-12 db**   **Same as PAR2**
                                                                  :
                                                                  +6 dB

2. Input A/B   Delay
    Delay =   0.000 ms

ENTER ↓ ↑ ESC

   -> **Delay =   0.000 ms**   Param.1 N/A   **000.0000mS**   **000.0000mS**
                                                                  [1 ms steps]   **[20.8 us steps]**
                                                                  848.0000mS   **000.9984mS**

3. Input A/B   EQ Byp
    EQ Bypass =   Off

ENTER ↓ ↑ ESC

   -> **EQ Bypass =   Off**   Param.1 N/A   **Off**   **Same as PAR2**
                                                                  :
                                                                  On

4. Input A/B   EQ-X (X from 1 to 5)
    Byp = Off   Type = Y (Y = Peaking_Eq, Hi-Shelv_1, Hi-Shelv_2, Hi-Shelv_Q, Lo-Shelv_1, Lo-Shelv_2, Lo-Shelv_Q,
                          Lo-Pass_1, Lo-Pass_2, Lo-Pass_Q, Hi-Pass_1, Hi-Pass_2, Hi-Pass_Q, All Pass_1, All Pass_2,
                          Band Pass, Notch Filt)

ENTER ↓ ↑ ESC

   -> **Byp = Off   Type = Y**   Param.1 N/A   **Off**   **Peaking_Eq**
                                                                  :   **:**
                                                                  On   **Notch Filt**

   Through the Param.2, it is possible to Byp the single selected filter.
   Through the Param.3, it is possible to select one of the 17 available
   filters' type.
   Once selected the filter Type and NOT in Byp mode, pressing
   again the ENTER button can be accessed the selected filter's editing page.

4.1 Input A/B   EQ-[x] (X from 1 to 5)
   -> **Byp = Off   Type = Y**

ENTER ↓ ↑ ESC

4.1a. If selected a Peaking_Eq filter, then the filter can be set by
    the following parameters
    Input A/B   EQ-[x] (up to 5 filters available)
       [Freq] [Gain]   [Q]
    -> **1000Hz +0.0dB   Q=1.00**   *[Freq.]* **20Hz**   *[Amp.]* **-15.0 dB**   *[Q]*   **0.30**
                                                     :   **:**   **:**
                                             20kHz   **+15.0 dB**   **20.00**

4.1b. If selected a Hi-Shelv_1 (first order High Shelving) filter,
    then the filter can be set by the following parameters
    Input A/B   EQ-[x] (up to 5 filters available)
       [Freq] [Gain]   [Q]
    -> **1000Hz +0.0dB   Q= ----**   *[Freq.]* **20Hz**   *[Amp.]* **-15.0 dB**   *[Q]*   **----**
                                                     :   **:**   **:**
                                             20kHz   **+15.0 dB**   **----**

4.1c. If selected a Hi-Shelv_2 (second order High Shelving) filter,
    then the filter can be set by the following parameters
    Input A/B   EQ-[x] (up to 5 filters available)
       [Freq] [Gain]   [Q]
    -> **1000Hz +0.0dB   Q= ----**   *[Freq.]* **20Hz**   *[Amp.]* **-15.0 dB**   *[Q]*   **----**
                                                     :   **:**   **:**
                                             20kHz   **+15.0 dB**   **----**

4.1d. If selected a Hi-Shelv_Q (variable Q High Shelving) filter,
    then the filter can be set by the following parameters
    Input A/B   EQ-[x] (up to 5 filters available)
       [Freq] [Gain]   [Q]
    -> **1000Hz +0.0dB   Q=1.00**   *[Freq.]* **20Hz**   *[Amp.]* **-15.0 dB**   *[Q]*   **0.30**
                                                     :   **:**   **:**
                                             20kHz   **+15.0 dB**   **20.00**

4.1e. **If selected a Lo-Shelv_1 (first order Low Shelving) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz +0.0dB   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-15.0 dB**	**----**
:	**:**	**:**
20kHz	**+15.0 dB**	**----**

4.1f. **If selected a Lo-Shelv_2 (second order Low Shelving) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz +0.0dB   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-15.0 dB**	**----**
:	**:**	**:**
20kHz	**+15.0 dB**	**----**

4.1g. **If selected a Lo-Shelv_Q (variable Q Low Shelving) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz +0.0dB   Q=1.00**

[Freq.]	[Amp.]	[Q]
20Hz	**-15.0 dB**	**0.30**
:	**:**	**:**
20kHz	**+15.0 dB**	**20.00**

4.1h. **If selected a Lo-Pass_1 (first order Low Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----dB   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**----**
:	**:**	**:**
20kHz	**-----**	**----**

4.1i. **If selected a Lo-Pass_2 (second order Low Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**----**
:	**:**	**:**
20kHz	**-----**	**----**

4.1l. **If selected a Lo-Pass_Q (variable Q Low Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----   Q=1.00**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**0.30**
:	**:**	**:**
20kHz	**-----**	**20.00**

4.1m. **If selected a Hi-Pass_1 (first order High Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----dB   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**----**
:	**:**	**:**
20kHz	**-----**	**----**

4.1n. **If selected a Hi-Pass_2 (second order High Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**----**
:	**:**	**:**
20kHz	**-----**	**----**

4.1o. **If selected a Hi-Pass_Q (variable Q High Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----   Q=1.00**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**0.30**
:	**:**	**:**
20kHz	**-----**	**20.00**

4.1p. **If selected an All-Pass_1 (first order All Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----dB   Q= ----**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**----**
:	**:**	**:**
20kHz	**-----**	**----**

4.1q. **If selected an All-Pass_2 (second order, variable Q All Pass) filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----   Q=1.00**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**0.30**
:	**:**	**:**
20kHz	**-----**	**20.00**

4.1r. **If selected a Band Pass filter, then the filter can be set by**
the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz +0.0dB   Q=1.00**

[Freq.]	[Amp.]	[Q]
20Hz	**-15.0 dB**	**0.30**
:	**:**	**:**
20kHz	**+15.0 dB**	**20.00**

4.1s. **If selected a Notch Filt filter,**
then the filter can be set by the following parameters
Input A/B   EQ-[x] (up to 5 filters available)
     [Freq]   [Gain]   [Q]
-> **1000Hz -----dB   Q=1.00**

[Freq.]	[Amp.]	[Q]
20Hz	**-----**	**0.30**
:	**:**	**:**
20kHz	**-----**	**20.00**

MENU "1/2/3/4/5/6 Output Channels Editing" [Access by pushing the "1/2/3/4/5/6" buttons]
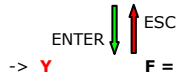
NAV/Param.1 Encoder
Param.3 Enc.
[to navigate between menus]

NAV/Param.1 Enc.

Param.2 Enc.
[to chose values for the parameters, no need to confirm the chosen values, which are automatically loaded during the encoders use]

1. Output[x]   [Name]   HPF
       Y   **F =**   **20.0 Hz** (Y = Bypass OR Filter Type/Order, where filter type can be Buttw_1st, Buttw_2nd, LRiley_2nd, Bessel_2nd, Buttw_3rd, Buttw_4th, Lriley_4th, Bessel_4th, Custom_2nd, Custom_3rd, Custom_4th)

ENTER ↓ ↑ ESC

-> **Y**   **F =**   **20.0 Hz**   **Freq Fast Selection**   [Filt Type] **Bypass**   [Freq.] **20Hz**
                                                                   ONLY in Freq Editing Mode   **:**   **:**
                                                                                                                                      Custom_4th   **20kHz**

   Through the Param.2, it is possible to Bypass the filter or to select one of the 11 available filters' type/orders, and through the Param.3 to set the HP cutting Frequency (quick fine tuning by 1Hz steps). Once selected the filter Type and pressing again the ENTER button can be accessed the selected filter's Fast Freq.Selection page.

1.1 Output[x]   [Name]   HPF
   -> **Y**   **F =**   **20.0 Hz**

ENTER ↓ ↑ ESC

1.1a. If selected a filter from Buttw_1st up to Bessel_4th, then
         the filter's Cutting Frequency can be set as follow:
         Output[x]   [Name]   HPF   **[Thousands Editor]**   **[Hundreds Editor]**   **[Units Editor]**
         -> **Edit Freq = 250Hz**   [Freq.] **1000Hz**   [Freq.] **100Hz**   [Freq.] **1Hz**
                                                                                :   **:**   **:**
                                                                           20000Hz   **900Hz**   **100Hz**

1.1b. If selected a Custom Filter (from 2nd up to 4th order), depending
         from the filter's order, the cascade of second order Cells building
         the filter are available for editing in their Freq and Q parameter,
         independently.
         For proceeding with the editing of a custom filter Cell, the Param.1 is
         here used for the Cell selection.
         So, a Custom Filter can be set in its parameters, as follow:

1.1b.1. If selected a Custom_2nd filter
         Output[x]   [Name]   HPF
         ->**Custom_2nd**   **F = 250Hz**   **[2nd order Cells selection]**

         → **Filt**x **F= 250Hz   Q = 0.3**   [2nd Ord Cell **x**] **x=1**   [Freq.] **20Hz**   [Q] **0.05**
                                                                                :   **:**   **:**
                                                                              x=1   **20kHz**   **10.00**

1.1b.2. If selected a Custom_3rd filter
         Output[x]   [Name]   HPF
         ->**Custom_3rd**   **F = 250Hz**

         → **Filt**x **F= 250Hz   Q = 0.3**   [2nd Ord Cell **x**] **x=1**   [Freq.] **20Hz**   [Q] **0.05**
                                                                                :   **:**   **:**
                                                                  [Q not available] **x=2**   **20kHz**   **10.00**

1.1b.3. If selected a Custom_4th filter
         Output[x]   [Name]   HPF
         ->**Custom_4th**   **F = 250Hz**

         → **Filt**x **F= 250Hz   Q = 0.3**   [2nd Ord Cell **x**] **x=1**   [Freq.] **20Hz**   [Q] **0.05**
                                                                                :   **:**   **:**
                                                                              x=2   **20kHz**   **10.00**

Once editing the Cells "Filtx", pressing the Enter Button can be accessed also for the Custom Filters the page for the fast frequency setting, as available for the NOT Custom Filters and which way of working is described at the point 1.1a.

2. Output[x]   [Name]   LPF
       Y   **F =**   **20.0 Hz** (Y = Bypass OR Filter Type/Order, where filter type can be Buttw_1st, Buttw_2nd, LRiley_2nd, Bessel_2nd, Buttw_3rd, Buttw_4th, Lriley_4th, Bessel_4th, Custom_2nd, Custom_3rd, Custom_4th)

ENTER ↓ ↑ ESC

-> **Y**   **F =**   **20.0 Hz**   **Freq Fast Selection**   [Filt Type] **Bypass**   [Freq.] **20Hz**
                                                                   ONLY in Freq Editing Mode   **:**   **:**
                                                                                                                                      Custom_4th   **20kHz**

   Through the Param.2, it is possible to Bypass the filter or to select one of the 11 available filters' type/orders, and through the Param.3 to set the HP cutting Frequency (quick fine tuning by 1Hz steps). Once selected the filter Type and pressing again the ENTER button can be accessed the selected filter's Fast Freq.Selection page.

2.1 Output[x]   [Name]   LPF
     -> Y   F =   20.0 Hz

                              ENTER | **ESC**

2.1a. If selected a filter from Buttw_1st up to Bessel_4th, then
      the filter's Cutting Frequency can be set as follow:
        Output[x]   [Name]   LPF
        -> Edit Freq = 250Hz

[Thousands Editor]	**[Hundreds Editor]**	**[Units Editor]**
[Freq.] **1000Hz**	*[Freq.]* **100Hz**	*[Freq.]* **1Hz**
:	:	:
20000Hz	**900Hz**	**100Hz**

2.1b. If selected a Custom Filter (from 2nd up to 4th order), depending
      from the filter's order, the cascade of second order Cells building
      the filter are available for editing in their Freq and Q parameter,
      independently.
      For proceeding with the editing of a custom filter Cell, the Param.1 is
      here used for the Cell selection.
      So, a Custom Filter can be set in its parameters, as follow:

2.1b.1. If selected a Custom_2nd filter
       Output[x]   [Name]   LPF
       ->Custom_2nd   F = 250Hz   **[2nd order Cells selection]**

       → Filtx F= 250Hz   Q = 0.3

[2nd Ord Cell x] **x=1**	*[Freq.]* **20Hz**	*[Q]* **0.05**
:	:	:
x=1	**20kHz**	**10.00**

2.1b.2. If selected a Custom_3rd filter
       Output[x]   [Name]   LPF
       ->Custom_3rd   F = 250Hz

       → Filtx F= 250Hz   Q = 0.3

[2nd Ord Cell x] **x=1**	*[Freq.]* **20Hz**	*[Q]* **0.05**
:	:	:
[Q not available] x=2	**20kHz**	**10.00**

2.1b.3. If selected a Custom_4th filter
       Output[x]   [Name]   LPF
       ->Custom_4th   F = 250Hz

       → Filtx F= 250Hz   Q = 0.3

[2nd Ord Cell x] **x=1**	*[Freq.]* **20Hz**	*[Q]* **0.05**
:	:	:
x=2	**20kHz**	**10.00**

Once editing the Cells "Filtx", pressing the Enter Button can be accessed also for the Custom Filters the page for the fast frequency setting, as available for the NOT Custom Filters and which way of working is described at the point 1.1a.

3. Out-[x]   EQ-[x] (X from 1 to 5)
       Byp = Off   Type = Y (Y = Peaking_Eq, Hi-Shelv_1, Hi-Shelv_2, Hi-Shelv_Q, Lo-Shelv_1, Lo-Shelv_2, Lo-Shelv_Q,
                            Lo-Pass_1, Lo-Pass_2, Lo-Pass_Q, Hi-Pass_1, Hi-Pass_2, Hi-Pass_Q, All Pass_1, All Pass_2,
                            Band Pass, Notch Filt)

                              ENTER | **ESC**

   -> Byp = Off   Type = Y

Param.1 N/A	**Off**	**Peaking_Eq**
	:	:
	On	**Notch Filt**

       Through the Param.2, it is possible to Byp the single selected filter.
       Through the Param.3, it is possible to select one of the 17 available
       filters' type.
       Once selected the filter Type and NOT in Byp mode, pressing
       again the ENTER button can be accessed the selected filter's editing page.

3.1 Out-[x]   EQ-[x] (X from 1 to 5)
     -> Byp = Off   Type = Y

                              ENTER | **ESC**

3.1a. If selected a Peaking_Eq filter, then the filter can be set by
      the following parameters
      Out-[x]   EQ-[x] (up to 5 filters available)
        [Freq]   [Gain]   [Q]
        -> 1000Hz +0.0dB   Q=1.00

[Freq.] **20Hz**	*[Amp.]* **-15.0 dB**	*[Q]* **0.30**
:	:	:
20kHz	**+15.0 dB**	**20.00**

3.1b. If selected a Hi-Shelv_1 (first order High Shelving) filter,
      then the filter can be set by the following parameters
      Out-[x]   EQ-[x] (up to 5 filters available)
        [Freq]   [Gain]   [Q]
        -> 1000Hz +0.0dB   Q= ----

[Freq.] **20Hz**	*[Amp.]* **-15.0 dB**	*[Q]* **----**
:	:	:
20kHz	**+15.0 dB**	**----**

3.1c. If selected a Hi-Shelv_2 (second order High Shelving) filter,
      then the filter can be set by the following parameters
      Out-[x]   EQ-[x] (up to 5 filters available)
        [Freq]   [Gain]   [Q]
        -> 1000Hz +0.0dB   Q= ----

[Freq.] **20Hz**	*[Amp.]* **-15.0 dB**	*[Q]* **----**
:	:	:
20kHz	**+15.0 dB**	**----**

3.1d. If selected a Hi-Shelv_Q (variable Q High Shelving) filter,
      then the filter can be set by the following parameters
      Out-[x]   EQ-[x] (up to 5 filters available)
        [Freq]   [Gain]   [Q]
        -> 1000Hz +0.0dB   Q=1.00

[Freq.] **20Hz**	*[Amp.]* **-15.0 dB**	*[Q]* **0.30**
:	:	:
20kHz	**+15.0 dB**	**20.00**

3.1e. If selected a Lo-Shelv_1 (first order Low Shelving) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz +0.0dB   Q= ----   [Freq.] 20Hz   [Amp.] -15.0 dB   [Q]   ----
                                                                 :   :   :
                                                          20kHz   +15.0 dB   ----

3.1f. If selected a Lo-Shelv_2 (second order Low Shelving) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz +0.0dB   Q= ----   [Freq.] 20Hz   [Amp.] -15.0 dB   [Q]   ----
                                                                 :   :   :
                                                          20kHz   +15.0 dB   ----

3.1g. If selected a Lo-Shelv_Q (variable Q Low Shelving) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz +0.0dB   Q=1.00   [Freq.] 20Hz   [Amp.] -15.0 dB   [Q]   0.30
                                                                 :   :   :
                                                          20kHz   +15.0 dB   20.00

3.1h. If selected a Lo-Pass_1 (first order Low Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----dB   Q= ----   [Freq.] 20Hz   [Amp.]   -----   [Q]   ----
                                                                 :   :   :
                                                          20kHz   -----   ----

3.1i. If selected a Lo-Pass_2 (second order Low Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----   Q= ----   [Freq.] 20Hz   [Amp.]   -----   [Q]   ----
                                                                 :   :   :
                                                          20kHz   -----   ----

3.1l. If selected a Lo-Pass_Q (variable Q Low Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----   Q=1.00   [Freq.] 20Hz   [Amp.]   -----   [Q]   0.30
                                                                 :   :   :
                                                          20kHz   -----   20.00

3.1m. If selected a Hi-Pass_1 (first order High Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----dB   Q= ----   [Freq.] 20Hz   [Amp.]   -----   [Q]   ----
                                                                 :   :   :
                                                          20kHz   -----   ----

3.1n. If selected a Hi-Pass_2 (second order High Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----   Q= ----   [Freq.] 20Hz   [Amp.]   -----   [Q]   ----
                                                                 :   :   :
                                                          20kHz   -----   ----

3.1o. If selected a Hi-Pass_Q (variable Q High Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----   Q=1.00   [Freq.] 20Hz   [Amp.]   -----   [Q]   0.30
                                                                 :   :   :
                                                          20kHz   -----   20.00

3.1p. If selected an All-Pass_1 (first order All Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----dB   Q= ----   [Freq.] 20Hz   [Amp.]   -----   [Q]   ----
                                                                 :   :   :
                                                          20kHz   -----   ----

3.1q. If selected an All-Pass_2 (second order, variable Q All Pass) filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz -----   Q=1.00   [Freq.] 20Hz   [Amp.]   -----   [Q]   0.30
                                                                 :   :   :
                                                          20kHz   -----   20.00

3.1r. If selected a Band Pass filter, then the filter can be set by
the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz +0.0dB   Q=1.00   [Freq.] 20Hz   [Amp.] -15.0 dB   [Q]   0.30
                                                                 :   :   :
                                                          20kHz   +15.0 dB   20.00

3.1s. If selected a Notch Filt filter,
then the filter can be set by the following parameters
Out-[x]   EQ-[x] (up to 5 filters available)
   [Freq] [Gain]   [Q]
-> 1000Hz ----- dB   Q=1.00   [Freq.] 20Hz   [Amp.]   -----   [Q]   0.30
                                                                 :   :   :
                                                          20kHz   -----   20.00

4. Output*[x]*   ***[Name]*** **Vu-Meter**
    Vu-Meter = *Level*

      ENTER ↓ ↑ ESC

-> **Vu-Meter = *Level***   Param.1 N/A   **Level**   **Same as PAR2**
                                                                           Limiter Act.
                                                                           RMS Cmp Act.

5. Output*[x]*   ***[Name]*** **Name**
    Name = *[Name]*

      ENTER ↓ ↑ ESC

  -> **Name = _**   *(For Editing the Device's Name, refer to the Details on the"Utility Menus Use" Section)*

6. Output*[x]*   ***[Name]*** **Source**
    Source = InA

      ENTER ↓ ↑ ESC

  -> **Source = InA**   Param.1 N/A.   **InA (Channel A)**   **Same as PAR2**
                                                                           InB (Channel B)
                                                                           InA+InB (Channel A+ Channel B)

7. Output*[x]*   ***[Name]*** **Gain**
    Gain = + 0.0 dB

      ENTER ↓ ↑ ESC

  -> **Gain = + 0.0 dB**   Param.1 N/A   **-12 db**   **Same as PAR2**
                                                                           :
                                                                           +6 dB

8. Output*[x]*   ***[Name]*** ***RMS Cmp***
    Thr: +12.0dBu   Rto: 1:1

      ENTER ↓ ↑ ESC

  -> **Thr: +12.0dBu   Rto: 1:1**   Param.1 N/A   *[Threshold]* **+20.0dBu**   *[Ratio]*   **1:1**
                                                                               :   **:**
                                                                           -10.0dBu   **32:1**

9. Output*[x]*   ***[Name]*** ***RMS Cmp***
    A: 5ms   R: 0.2s   Kn= 2%

      ENTER ↓ ↑ ESC

  -> **A: 5ms   R: 0.2s   Kn= 2%**   *[Atk time]* **10ms**   *[Rel time]* **0.1s**   *[Knee.]* **Hard (00%)**
                                                          :   **:**   **:**
                                                     4s   **3.0s**   **Soft (100%)**

10. Output*[x]*   ***[Name]*** **Limiter**
     A: 5ms   R: 0.2s   +20dB

      ENTER ↓ ↑ ESC

  -> **A: 5ms   R: 0.2s   +20dB**   *[Atk time]* **2ms**   *[Rel time]* **20ms**   *[Amp.]* **-10.0 dB**
                                                              :   **:**   **:**
+20.0dB (OFF)   **50ms**   **200ms**

11. Output*[x]*   ***[Name]*** **Delay**
     Delay =   0.000 ms

      ENTER ↓ ↑ ESC

  -> **Delay =   0.000 ms**   Param.1 N/A   **000.0000mS**   **000.0000mS**
                                                                           [1 ms steps]   **[20.8 us steps]**
                                                                           848.0000mS   **000.9984mS**

12. Output*[x]*   ***[Name]*** **Polarity**
     Polarity = Normal

      ENTER ↓ ↑ ESC

  -> **Polarity = Normal**   Param.1 N/A   **Normal**   **Same as PAR2**
                                                                           Invert

● **Menu "UTILITY" [access by pushing the "UTILITY" button]**

From the "Default Screen", it is possible access the "UTILITY" menu pushing the "UTILITY" button and the Sub-Menus pages can be selected just rotating clockwise and counter-clockwise the "NAV/Param.1" encoder.

Once selected the sub-menu page, using the "ENTER" button can be accessed the Sub-Menus pages, again "scrollable" using the "NAV/Param.1" encoder and accessible for the parameters' editing pushing again the "ENTER' button.

Through the "ESC" button, it is any time possible to go back to the action and page preceding the "ENTER" button use.

Once inside the Sub-Menus pages, the several options can be scrolled and using the Param.2 or Param.3 encoders and selected/confirmed pushing the "ENTER" button.

Note: In every Sub-Menu the option currently selected/running will have an **asterisk** "*****" showing to the right of the description on the LCD screen.

Options that are not selected/running will be displayed with NO Asterisk.

Pushing the ENTER button on an unselected option will mean an asterisk will then appear and this option will now take over as the currently selected/running option.

System Utilities Sub-menu – this sub-menu allows to access several operations related to the DLM26 Start Up and General Configuration:

```
UTILITY MENU
--     System Utilities     --
```

From the "System Utilities Sub-menu", pushing "ENTER" and then using the "NAV/Param.1" encoder for scrolling will give access to the following pages:

– **System Mode:** this page allows the selection of the operating mode of the DLM26:

```
SYSTEM UTILITY
--     System Mode     --
```
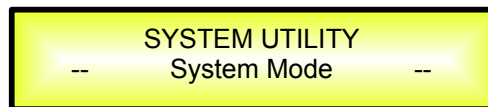
This is very important page, allowing to select between to completely different ways of operate of the DLM26, so to configure it as Standard 2x6 Channels Speaker Management System featuring on each output channel ONE RMS Compressor and ONE Peak Limiter, or as up to 2x3 Channels Speaker Management System where on each Output of 3 available the device is featuring a 2 Band RMS Compressor and a 2 Band Peak Limiter.

By pressing ENTER on the System Mode page and rotating the "Param.2" or "Param.3" encoder, it is possible to select the desired Mode of operating.

When the "Standard Mode" is selected, i.e., the "System Mode" page will appear as follows:
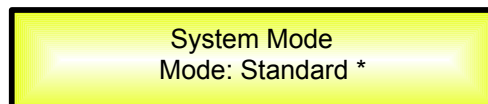
```
System Mode
Mode: Standard *
```

To change the desired operating mode for the DLM26, the screen must reflect the Mode required and then simply pressing the "ENTER" button will bring up the following screen asking for confirmation to load the selected operating mode:

```
New Mode
[ENTER] to confirm
```

If confirmed by pressing ENTER the selected mode will load. While the device is configuring the Xover for the chosen Mode, the following screen will be appear:

```
Please Wait .....
Changing Mode
```

The new operative Mode will now be shown with an asterisk.

- **System Setup:** this page allows the selection of the operating setup of the DLM26:

```
SYSTEM UTILITY
--      System Setup        --
```

Entering this page, will allow to chose between 3 available operative Modes (if previously selected the "Custom" option within the System mode Page, or 3 available operating Setups.

If selected the "**Standard Mode**" within the System Mode page, the operating Setup can be chosen from a selection of 3 X-overs options:

2x2 WAY + SUB........... in this setup, the DLM26 is performing a 2 Input to 4 Outputs X-Over, plus a SUB configuration, where the 2 Inputs are automatically assigned to the Outputs as follows:
- Input A to Outputs 1/3 [Out1=Low-A and Out3=High-A]
  - Input B to Outputs 2/4 [Out2=Low-B and Out4=High-B]
  - Input A + Input B to Outputs 5/6 [Out5=Sub-A and Out6=Sub-B]

2x3 WAY..XOVER......... in this setup, the DLM26 is performing a 2 Input to 6 Outputs X-Over, where the 2 Inputs are automatically assigned to the Outputs as follows:
- Input A to Outputs 1/3/5 [Out1=Low-A , Out3=Mid-A and Out5=High-A]
  - Input B to Outputs 2/4/6 [Out2=Low-B , Out4=Mid-B and Out6=High-B]

6 WAY ..XOVER....... in this setup, the DLM26 is performing a Mono Input to 6 Outputs X-Over, where the Input A is automatically assigned to the Outputs as follow:
- Input A to Outputs 1/2/3/4/5/6 [Out1=Near-1, Out2=Near-2, Out3=Mid-1 and Out4=Mid-2, Out5=Far-1, Out6=Far-2]

By pressing ENTER on the System Setup page and rotating the "Param.2" or "Param.3" encoder, it is possible to select all the available X-Over preset setups.

When the "2x3 WAY XOVER" is selected, the "System Setup" page will appear as follows:

```
System Setup
Setup: 2x3 WAY XOVER        *
```
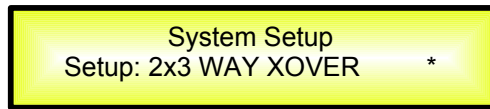
To change the desired operating mode for the DLM26, the screen must reflect the X-over required and then simply pressing the "ENTER" button will bring up the following screen asking for confirmation to load the selected operating setup:

```
New Xover
[ENTER] to confirm
```

If confirmed by pressing ENTER the selected preset mode will load. While the device is configuring the Xover the following screen will be appear:

```
Please Wait .....
Changing Xover
```
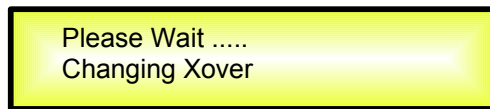
The new preset setup will now be shown with an asterisk.

If selected the "**Custom Mode**" within the System Mode page, the operating Mode can be chosen from a selection of 3 options:

3 DCL*...........* in this operating mode, the DLM26 is performing a 2 Input to 3 "Full Band" configuration, where the 3 available Outputs (Ch1/Ch3/Ch5) are mono output but each one performing a 2 bands Rms Compressor and Peak Limiter, where the splitting frequency of the 2 bands can be custom selected:
−   Outputs 1 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
        −   Outputs 3 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
        −   Outputs 5 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
        −   Outputs 2/4/6 [Muted]

2x2 DCL*.........* in this operating mode, the DLM26 is performing a 2 Input to 4 Outputs X-Over configuration, where 2 of the available Outputs (Ch1/Ch3) are "Full Band" Mono output but each one performing a 2 bands Rms Compressor and Peak Limiter, where the splitting frequency of the 2 bands can be custom selected.
The Outputs of the Channels 5/6 are performing as in Standard Mode:
−   Outputs 1 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
        −   Outputs 3 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
        −   Outputs 5/6 [5 Bands Eq +Rms Compressor + Peak Limiter]
        −   Outputs 2/4 [Muted]

4+1 DCL......... in this operating mode, the DLM26 is performing a 2 Input to 5 Outputs X-Over configuration, where 1 of the available Outputs (Ch1) is "Full Band" Mono output but performing a 2 bands Rms Compressor and Peak Limiter, where the splitting frequency of the 2 bands can be custom selected.

The Outputs of the Channels 3/4/5/6 are performing as in Standard Mode:

− Outputs 1 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]

      − Outputs 3/4/5/6 [5 Bands Eq +Rms Compressor + Peak Limiter]

   −Outputs 2 [Muted]

When the "3 DCL" is selected, the "System Setup" page will appear as follows:
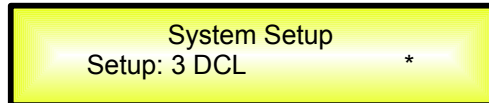
```
      System Setup
   Setup: 3 DCL              *
```

To change the desired operating mode for the DLM26, the screen must reflect the mode required and then simply pressing the "ENTER" button will bring up the following screen asking for confirmation to load the selected operating mode:

```
 New Xover
 [ENTER] to confirm
```

If confirmed by pressing ENTER the selected preset mode will load. While the device is configuring the Xover the following screen will be appear:

```
 Please Wait .....
 Changing Xover
```
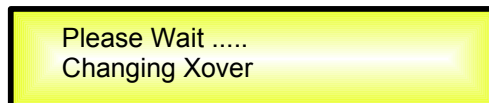
The new preset mode will now be shown with an asterisk.

‒ **Input Routing:** the DLM26 Processor is equipped with 2 Analog Inputs (Balanced Female XLR) and a stereo S/PDIF Digital Input (RCA connector).
The "Routing Options" page allows you to select the desired Input type:

```
         SYSTEM UTILITY
   --    Input Routing     --
```
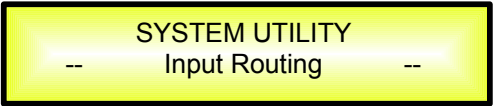
By pressing ENTER on Input Routing and then rotating the "Param.2" or "Param.3" encoders, it is possible to select the Main Inputs for the DLM26, allowing the User to choose between Analog or S/PDIF Digital.
The selection can be confirmed by pressing the "ENTER" button.
The following screen shows that the Analog Input has been selected:

```
          Input Routing
       Source:  Analog     *
```
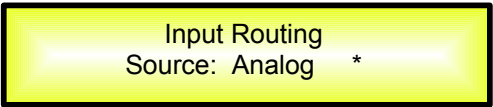
‒ **Power-On Procedure:** this gives you the ability to select the option that will apply when the DLM26 powers up after being switched on:

```
         SYSTEM UTILITY
   --   Power-On Procedure    --
```
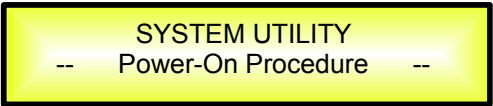
By pressing ENTER and rotating the "Param.2" or "Param.3" encoder, it is possible to choose between two options: "Fade In On" or "Fade In Off".
The currently running option will be displayed with an asterisk to the right of the option description.
To change the option simply ENTER on the option not displaying the Asterisk and that option will become active and an Asterisk will now appear to the right of the option description.
The following two options are available:
 FADE-In = Off*...* when the DLM26 is turned on all Outputs regard of their status before the Unit was switched off, will be MUTED or UNMUTED automatically, meaning the DLM26 will have no active Outputs or active Outputs, during the start-up process, depending from the Outputs' previous status.
 FADE-In = On*...* when the DLM26 is turned on all Outputs not previously muted before the Unit was switched off will be active, meaning the DLM26 outputs will be controlled by a volume ramp to avoid any sudden sound.
If the option "Fade-In=On" is selected, the screen will show the following:

```
        Power-On Procedure
        Fade-In:   On       *
```

–   **Delay Time/Distance:** this page allows you to select the measurement unit to be used for the Delays: **Time** (in milliseconds "ms") or **Distance** (in meters "m"):

```
              SYSTEM UTILITY
          --     Delay Units     --
```
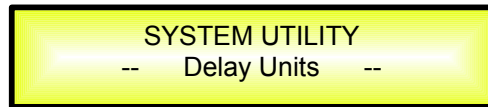
By pressing ENTER and rotating the "Param.2" or "Param.3" encoder, it is possible to select the measurement unit to be used for the delay, which will be confirmed by pushing the ENTER button.
The following screen shows the selected delay measurement is Time (milliseconds)

```
              Delay Units
          Unit :  Time (ms)          *
```
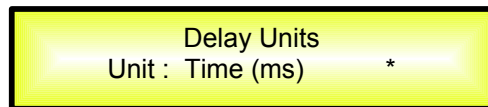
–   **Ramps on changes:** this page allows you to activate or de-activate Fading-in and Fading-out ramps on the input/output volumes when any parameter changes:

```
              SYSTEM UTILITY
          --     Ramps on Changes     --
```
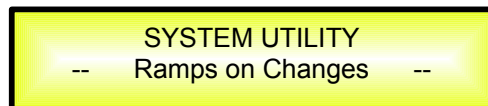
When connected to the DLM26 by the PC remote control software, it is possible to request sudden parameter changes where the difference between the old parameter and the new one can cause unwanted "click" noises (big differences in volume changes) or "bumps" (big differences in Hp/Lp filters cutting frequency values) as the DSP reconfigures.
The Fading-In and Fading-Out ramps eliminate any potential clicks and bumps.
This function can be de-activated when the unit needs to be used in "live" conditions and small parameter adjustments are requested "on the fly" during live performance.
The following screen shows the Fading ramps function is Off and therefore de-activated:

```
              Ramps on changes
          Ramps :   Off          *
```
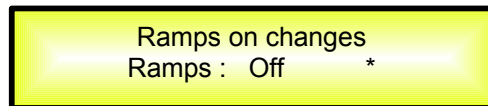
–   **Software Version:** this page allows you to confirm the Software Version running on the DLM26:

```
              SYSTEM UTILITY
          --     Software Version     --
```

The correct Software Version is "V1.00"

Program Utilities Sub-menu – this sub-menu allows you to access several options related to the DLM26 operating mode and to manage the presets stored and recallable within the Unit:

```
           UTILITY MENU
      --   Program Utilities   --
```

By pressing the ENTER button and then using the "NAV/Param.1" encoder the following pages can be accessed:

– **Recall a Program:** this page allows the Loading of a preset program. You can store up to 64 presets in the DLM26 memory:
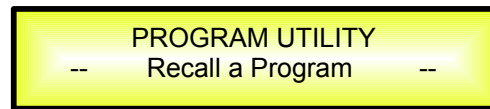
```
          PROGRAM UTILITY
      --    Recall a Program    --
```

By pressing ENTER and rotating the "Param.2" or "Param.3" encoders, it is possible to scroll through all current available user presets.
If NO USER PRESETS are stored yet, the screen will show the following:

```
          Recall a Program
          No Stored Xovers.
```
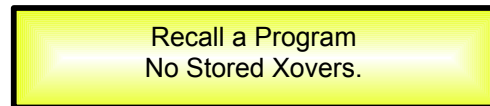
If presets have previously been stored by the user, anyone of them can be recalled:

```
          [ENTER] to Recall.
          01:   PRESET 1
```

By using the "Param.2" or "Param.3" encoder it is possible to scroll through the stored presets. Once the desired preset appears on the screen select it by pressing the "ENTER" button and this will force the DLM26 to begin to load this selected preset and the following transitory screen will appear:

```
       Loading New Program ......
          01:   PRESET 1
```

Once loaded the DLM26 will exit to the "Recall a Program" screen automatically and the above screen will disappear:

```
          PROGRAM UTILITY
      --    Recall a Program    --
```

Note: at any time it is possible to quit the recall action by pressing the "ESC" button.

– **Save a Program:** this page allows you to store a new preset in the DLM26's memory:

```
            PROGRAM UTILITY
        --    Save a Program      --
```

By pressing the ENTER button and rotating the "Param.2" or "Param.3" encoder, it is possible to scroll through the previously saved presets and the available empty locations (identified by "Empty Memory").
If no user presets are stored, the "Save a Program" screen will show empty memory locations for all 1-64 presets as shown in the example below for location 10:

```
              Save a Program
             10:   Empty Memory
```

When storing an edited configuration for the DLM26, select the location for a preset from the **64 available** by using the "Param.2" or "Param.3" encoders.
Once the desired location appears on the screen press ENTER again to reach the "**Set Program Name**" page.
In this page the User can enter a Preset Name (**up to 16 Characters**) by using the "Param.2" or "Param.3" encoder to choose a character and the "NAV/Param.1" encoder to move between the 16 available locations for the character's positioning.
The current position of the cursor is shown by a "blinking underscore".

The following is an example of a screen while entering the preset name "Stage 1 2x2" in location 10:

```
             Set Program Name.
           10:   Stage 1 2x2          ?
```
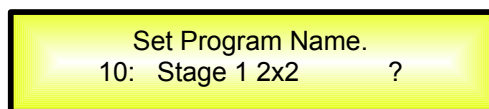
To store the Preset Name press the "ENTER" button again.
The above action will take you to the "**Enter to Save**" page showing the selected location for the preset and the final edited name:

```
               [Enter] to Save
           10:   Stage 1 2x2          ?
```
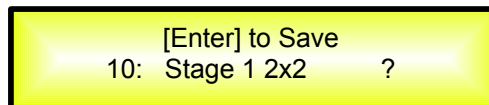
Pressing "ENTER" again, will store the preset in the selected location with the chosen name and the following transitory screen will appear on the LCD:

```
            Saving to Memory.....
           10:   Stage 1 2x2
```

Once the preset is stored, the above screen will disappear returning to the following screen:

```
      PROGRAM UTILITY
  --     Save a Program      --
```
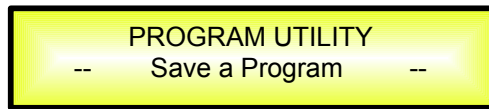
If during the Preset Storing process you want to overwrite an existing memory location select this location in the "**Save a Program**" page, then ENTER and you will be asked if you want to overwrite this preset with the following "**[ENTER] to Overwrite**" screen displaying the currently stored preset and location:

```
      [Enter] to Overwrite
  10:   Stage 1 2x2          ?
```
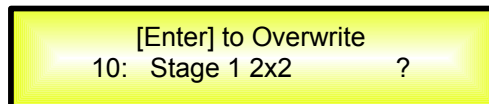
If you wish to proceed press "ENTER" again and the DLM26 will go ahead with the "**Set Program Name**" page and the subsequent overwrite on completion of the previously described storing process..

Note: at any time it is possible to quit the storing action by pressing the "ESC" button.

- **Delete a Program:** this page allows you to delete a preset already stored in the DLM26 memory:

```
      PROGRAM UTILITY
  --     Delete a Program     --
```

By pressing the ENTER button and rotating the "Param.2" or "Param.3" encoder, it is possible to scroll through the previously saved presets and the available empty locations (identified by "Empty Memory").
If no user presets are stored, the "Delete a Program" screen will show empty memory locations for all 1-64 presets as shown in the example below for location 10:

```
      Delete a Program
  10:   Empty Memory
```

If Presets are available they will be shown in the "Delete a Program" page as follows:

```
      Delete a Program
  10:   Stage 1 2x2
```

By using the "Param.2" or "Param.3" encoder it is possible to select a preset to be deleted.

Pressing the "ENTER" button on a selected preset will bring up the "**[Enter] to Delete.**" page showing the selected preset.

For example, if we want to delete the preset 10, "Stage 1 2x2", the screen will be the following:

```
┌─────────────────────────────────┐
│         [ENTER] to Delete.      │
│         10:   Stage 1 2x2       │
└─────────────────────────────────┘
```

Confirming the deletion by pressing "ENTER" again, will force the DLM26 to erase the selected preset and the following transitory screen will appear:

```
┌─────────────────────────────────┐
│       Erasing Xover Memory……    │
│         10:   Stage 1 2x2       │
└─────────────────────────────────┘
```

Once the preset is deleted, the above screen will disappear returning to the following screen:

```
┌─────────────────────────────────┐
│         PROGRAM UTILITY         │
│    --    Delete a Program    -- │
└─────────────────────────────────┘
```

Note: At any time it is possible to quit the deleting action by pressing the "ESC" button.
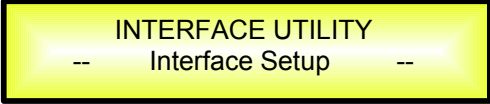
Interface Utilities Sub-menu – this sub-menu allows you to define the remote control interface [USB or RS485] to be used for controlling the DLM26 :

```
┌─────────────────────────────────┐
│          UTILITY MENU           │
│    --    Interface Utilities  --│
└─────────────────────────────────┘
```

.
From "Interface Utilities", press "ENTER" to access the Interface Setup.

– **Interface Setup:** this screen allows you to choose the remote control protocol for the DLM26.

```
┌─────────────────────────────────┐
│         INTERFACE UTILITY       │
│    --    Interface Setup     -- │
└─────────────────────────────────┘
```

By pressing "ENTER" and then using the Param.2 or Param.3 encoders you can choose between the two possible interfaces (USB or RS485) for the DLM26.
Pressing ENTER on a selected source will make an asterisk appear to the right of the description on the LCD as in the following example which shows the selected interface as USB.

```
┌─────────────────────────────────┐
│         Interface Setup         │
│       Source: USB        *      │
└─────────────────────────────────┘
```

Security Sub-menu – this sub-menu allows the User to set the parameters shown, lock the DLM26 and set a Password therefore limiting the unit's functions and controls to those who have access to the appropriate Password.

```
          UTILITY MENU
  --    Security Utilities     --
```

Press ENTER and then use the NAV/Param.1 to scroll between options.

– **Show Parameter:** Pressing ENTER from the above menu will access the "Show Parameter" Sub Menu

```
         SECURITY UTILITY
  --     Show Parameter      --
```

Press ENTER again and use the Param.2 or Param.3 encoders to scroll between the "be shown" and "not be shown" options. An asterisk will highlight which option is selected.
Choosing the "be shown" option means that once the unit is locked, you cannot access parameter editing features, but they will be displayed on the LCD screen.
Choosing the "not be shown" option means that once the unit is locked, the parameters will not be shown at all.   With this option, when trying to access a parameter, the following screen message will appear:

```
           Parameter will
          not be shown      *
```
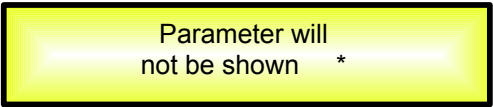
– **Lock Unit:** this sub-menu allows the user to lock the device so no parameters can be edited or modified.

```
         SECURITY UTILITY
    --      Lock Unit      --
```

When the Unit is in an unlocked condition, all parameters will be available for editing. When you select On, all parameters will be locked and are not available for editing.

```
            Lock Unit
          Lock :  On         *
```

When you select lock from the menu, the unit will be locked and the lock menu automatically exited. The screen will revert to the "Default" showing the current XOVER configuration and the preset selected and beside the preset's name a "keylock" icon indicating that the DLM26 is locked.

− **User Password:** from the "User Password" sub-menu:

```
┌─────────────────────────────────┐
│        SECURITY UTILITY         │
│     --    User Password    --   │
└─────────────────────────────────┘
```

Press "ENTER" to access the "**User Password**" page:

```
┌─────────────────────────────────┐
│          User Password          │
│            [        ]           │
└─────────────────────────────────┘
```
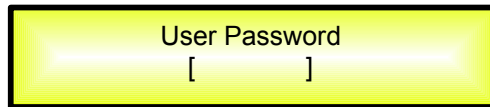
Using the Param.2 or Param.3 encoders to choose a character and the NAV/Param.1" encoder to move between available locations you can enter a **6 Character** Password Name.
The current position of the cursor for the characters to be entered is shown by a "blinking underscore".
During this editing phase, the display is as follows if we were using "DLM26X" as the password:

```
┌─────────────────────────────────┐
│          User Password          │
│            [DLM26X]             │
└─────────────────────────────────┘
```
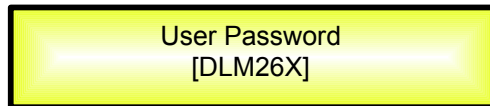
The DLM26 will exit the "Unit Lock" sub-menu and jump to the "User Password" sub-menu page screen:

```
┌─────────────────────────────────┐
│        SECURITY UTILITY         │
│     --    Insert Password    -- │
└─────────────────────────────────┘
```

If the password entered in the "Confirm Password" page matches the one entered in the "Enter Password" page, the following screen will appear.

```
┌─────────────────────────────────┐
│         Confirm Password        │
│            [DLM26X]             │
└─────────────────────────────────┘
```
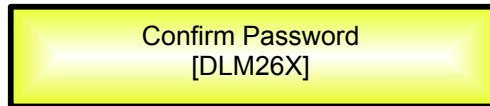
The Password is now configured and held in the device's memory.

The user can now decide to "lock" the DLM26 by Password, inhibiting the access to ALL processor functions depending on the setting of the parameter "Password Enable/Disable, explained in the following paragraph

Note: originally the DLM26 is initialized with a default Password which value is "**000000**", value that can be anytime reset with a "Factory Reset" (see "Factory Reset" procedure)

– **Enable Password:** from the "Enable Password" sub-menu:

```
          SECURITY UTILITY
     --     User Password      --
```

Press "ENTER" to gain access to the "**Enable Password**" screen:

```
          Enable Password
        Password: Disable      *
```
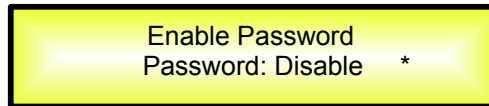
Once a Password has been entered into the DLM26 through the steps described in the previous paragraph, it is possible to "Enable" or "Disable" the password function and therefore lock the DLM26 restricting access to all functions.

When a password has been entered you will be able to select the "Enable" option from the menu and the unit will not be accessible for editing. In "**Locked by Password Status"**, all DLM26 functions are inhibited to the User, including the use of the Mute A/B and MUTE 1/2/3/4/5/6 buttons.

The only access available is to the parameters of the input/output channels (accessible by pressing the edit button), ONLY to READ the values (no editing possible) if the "be shown" flag in the "Show Parameter" Sub-Menu has been selected.

Once "Locked by Password" the "keylock" icon will appear on the default LCD screen and no menu pages will be accessible, with the exception of the "User Password" option.

To regain access to the full operation of the DLM26 ENTER to the "User Password" screen and press the UTILITY Button to access the following screen to enable the correct password to be entered:

```
          User Password
            [          ]
```
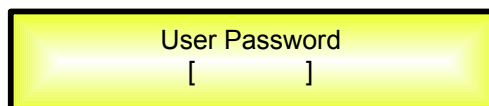
After the correct password has been entered, you will be able to access the full functionality of the DLM26, the "lock Icon" will disappear from the "Default Screen" and automatically the "Enable Password" page will be back to the "Disable" condition:

```
          Enable Password
        Password: Disable      *
```
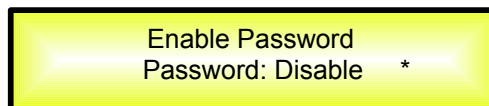
If no Password has been set within the DLM26, as described in the previous paragraphs, the DLM26 will not allow you to enable any Password, and the choice in the "Enable Password" will be limited to only the "Disable" option.

- **Menu "Input A/B" Input Channels Editing [access by pushing the "A/B" buttons]**

From the "Default Screen", it is possible to access the "Input A/B" menu by pushing the "A" or "B" button. Once the button is pressed the related blue "EDIT" LED will turn ON. The Sub-Menu pages can now be scrolled through by rotating clockwise and counter-clockwise the "NAV/Param.1" encoder.
For parameter editing it is necessary to press ENTER and an arrow will appear on the left of the screen "**->**". Then use the "Param.2" and "Param.3" encoders for selecting and setting the parameter values. On some parameters that have three independent values, you will also need to use the NAV/Param.1 encoder, eg filter parameter settings.

Note: All parameter editing can be done using the "NAV/Param.1", "Param.2", and "Param.3" encoders and the current shown value of the selected option is AUTOMATICALLY loaded during the encoders' use and stored as the current value once leaving the page is AUTOMATICALLY loaded during the encoders' use and stored as current value once left the page.

Note1: once the desired options have been selected using the 3 encoders, they are automatically saved as current and stored in the DLM26 system status once leaving the page.
Note2: to exit this page, push the "ESC" button.

Audio Signal Input (A/B) Path Block Scheme
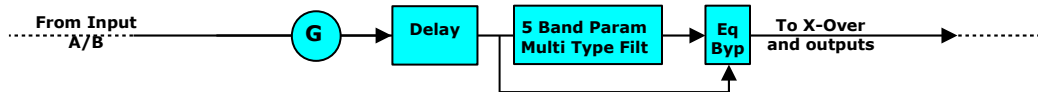
Gain page – from this screen it is possible to set the Input Channels Level from -12dB to +6dB, press ENTER an arrow will appear on the left of the screen "**->**"   then use the "Param.2" or "Param.3" buttons.
The value set on this screen will only affect the input level of the selected Channel A or B.
The following is an example screen for the "Gain" page that has set the Gain of Input Channel A to +0.0dB:


```
Input-A               Gain
-> Gain  =  +  0.0dB
```
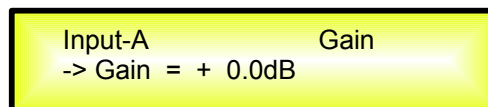
Delay page – from this page it is possible to set the Input Channels Delay Time from 000.0000mS up to 848.9984mS, by steps of 1mS or 20.8uS.
To set the Delay time press ENTER, an arrow will appear on the left of the screen "**->**".   then use the "Param.2" encoder to set the Delay Time in steps of 1mS and the "Param.3" for setting the "fine" Delay Time in steps of 20.8 microseconds.
The following is an example screen for the "Delay" page where the Delay Time of Input Channel A is set to 160.1872mS:


```
Input-A               Delay
-> Delay  =  160.1872mS
```

EQ Byp page – from this sub-menu it is possible to Bypass or to make active the 5 Bands Equalizer placed on the Input Signal Path.
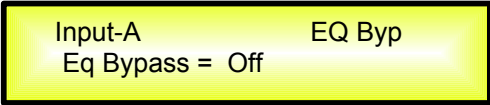
```
Input-A              EQ Byp
   Eq Bypass =  Off
```

When Bypassed the 5 Bands Equalizer, its current setting will not be lost.

EQ: [x] sub-menu – from this sub-menu it is possible to set the Input Channels five available Multi-Type Filters.
Anyone of the 5 filters of the Eq can be selected choosing from the following list of filter types:

1. **Peaking_Eq**: Peaking (Bell) filters, adjustable as Center Frequency, Gain and Q
   The DLM26 Peaking filters are at constant Q, so with Q not depending from the selected Gain value.
2. **Hi-Shelv_1**: High Shelving filters of the 1st order.
   These Shelving filter present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 6dB/Oct.
3. **Hi-Shelv_2**: High Shelving filters of the 2nd order.
   These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 12dB/Oct.
4. **Hi-Shelv_Q**: Symmetrical High Shelving filters with Variable Q.
   These Shelving filters present ½ level of the selected Gain/Attenuation at the selected cutting frequency, and a slope that is depending from the chosen Q value.
5. **Lo-Shelv_1**: Low Shelving filters of the 1st order.
   These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 6dB/Oct.
6. **Lo-Shelv_2**: Low Shelving filter of the 2nd order.
   These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 12dB/Oct.
7. **Lo-Shelv_Q**: Symmetrical Low Shelving filters with Variable Q.
   These Shelving filters present ½ level of the selected Gain/Attenuation at the selected cutting frequency, and a slope that is depending from the chosen Q value.
8. **Low Pass_1**: Low Pass filters of the 1st order, with -3dB attenuation at the cutting frequency and a slope of 6dB/Oct.
9. **Low Pass_2**: Low Pass filters of the 2nd order, with -3dB attenuation at the cutting frequency and a slope of 12dB/Oct.
10. **Low Pass_Q**: Low Pass filters with Variable Q.
11. **High Pass_1**: High Pass filters of the 1st order, with -3dB attenuation at the cutting frequency and a slope of 6dB/Oct.
12. **High Pass_2**: High Pass filters of the 2nd order, with -3dB attenuation at the cutting frequency and a slope of 12dB/Oct.
13. **High Pass_Q**: High Pass filters with Variable Q.
14. **All Pass_1**: Filters allowing a FLAT Amplitude response and adding a 90 Degree Phase rotation at the selected Frequency.
15. **All Pass_2**: Filters allowing a FLAT Amplitude response and adding a 180 Degree Phase rotation at the selected Frequency.
16. **Band Pass**: Filters allowing to pass the band "around" the selected frequency.
    The amount of passing band is decided by the Q value
17. **Notch Filt**: Filters canceling the band "around" the selected frequency.
    The amount of canceled band is decided by the Q value

More, the DLM26 Is giving the possibility to "Bypass" any single filter of the 5 available in the Equalizer section; Once in the editing page of the single filter, a "Byp" field is available for making the single filter active or not

```
Input-A              EQ-X
   Byp=Off   Type=Peaking_Eq
```

Pushing the Enter Button, the above window will allow the access to the "Byp" and "Type" fields.

```
Input-A                    EQ-X
  ->Byp=Off    Type=Peaking_Eq
```

Using the Param.2 encoder, the selected Filter can be activated or bypassed.

The DLM26 allows the user to select anyone of the filter's type listed above and assign them independently using the 5 available filters.
In order to select the filter's type, it is necessary to use the Param.3 encoder, rotate it "clockwise" or "counter-clockwise" to select the desired filter.
So, in order to define the filter type for the filter number 1 ("x"=1), it is necessary from the above screen, to select the filter, which name will appear on the screen.
If selected a Peaking_Eq filter, then the display will be as follow:

```
Input-A                    EQ-1
  ->Byp=Off    Type=Peaking_Eq
```

Once selected the desired Filter Type, its parameters can be accessed for editing just pressing again the ENTER Button.
Once pressed the ENTER Button, the editing page of the selected filter type will be accessed ONLY if the selected filter it is not set in Bypass mode.
Depending from the selected filter, the related parameters will be available for editing

Peaking_Eq Filter: Peaking filters are at constant Q, so with Q not depending from the selected Gain value
If we selected a Peaking_Eq filter within EQ-1, then the Q has to be set at a desired value of say 1.00 using the Param.3 encoder, the GAIN at say +3dB using the Param.2 encoder and the center Frequency at say 1.00KHz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                    EQ-1
 ->1.00kHz    +3.0dB    Q=1.00
```

Once in the Peaking_Eq Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's Center Frequency, Gain and Q:
"**Center Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.
"**Gain**": the selectable Gain range is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.
"**Q**": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.
When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                    EQ-1
 ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Hi_Shelv_1/2 Filter: These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

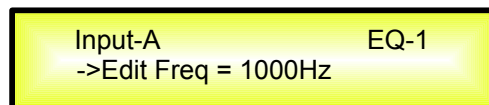If we selected a High Shelving filter of the 1st/2nd order within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder and the Lo Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                 EQ-1
  ->1000Hz   +3.0dB    Q=----
```

Once in the Hi-Shelv_1/2 Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.2" encoders for editing the Filter's Low Cut Frequency and Gain:

"*Low Cut Frequency*": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"*Gain*": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                 EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Hi_Shelv_Q Filter: These Symmetrical Shelving filters present ½ level of the selected Gain/Attenuation at the selected cutting frequency, and a slope that is depending from the chosen Q value.

If we selected a High Shelving filter with variable Q within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder, the Q at 3.5 and the Lo Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                 EQ-1
  ->1000Hz   +3.0dB    Q= 3.5
```

Once in the Hi-Shelv_Q Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's Low Cut Frequency, Gain and Q:

"*Low Cut Frequency*": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.
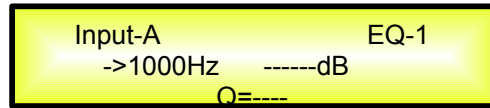
"*Gain*": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"*Q*": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:
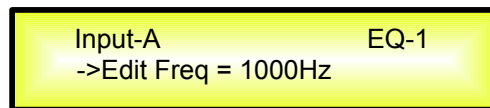
```
Input-A                 EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Lo_Shelv_1/2 Filter: These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a Low Shelving filter of the 1st/2nd order within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder and the High Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                    EQ-1
  ->1000Hz    +3.0dB    Q=----
```

Once in the Lo-Shelv_1/2 Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.2" encoders for editing the Filter's High Cut Frequency and Gain:

"**High Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Gain**": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                    EQ-1
  ->Edit Freq = 1000Hz
```
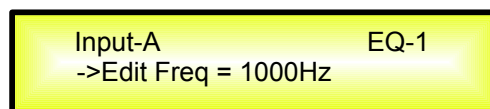
Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Lo_Shelv_Q Filter: These Symmetrical Shelving filters present ½ level of the selected Gain/Attenuation at the selected cutting frequency, and a slope depending from the chosen Q value.

If we selected a Low Shelving filter with variable Q within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder, the Q at 3.5 using the Param.3 and the Hi Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                    EQ-1
  ->1000Hz    +3.0dB    Q= 3.5
```

Once in the Lo-Shelv_Q Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's High Cut Frequency, Gain and Q:

"**High Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Gain**": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"**Q**": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                    EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Low Pass_1/2 Filter: These Low Pass filters present -3dB at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a Low Pass filter of the 1st/2nd order within EQ-1, then High Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                 EQ-1
->1000Hz    ------dB     Q=----
```

Once in the Low Pass_1/2 Filter's edit screen, the "NAV/Param.1" encoder can be used for editing/modifying the Filter's High Cut Frequency:

"***High Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                 EQ-1
->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Low Pass_Q Filter: The Gain of these Low Pass filters can be modified at their cutting frequency corner depending from the value assigned to the Q parameter.

If we selected a Low Pass filter with variable Q within EQ-1, then High Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder and the Q at 3.5 using the Param.3 encoder; the EQ sub-menu screen will show the following:

```
Input-A                 EQ-1
->1000Hz    ------dB     Q= 3.5
```

Once in the Low Pass_Q Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's High Cut Frequency and Q:

"***High Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"***Q***": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                 EQ-1
->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.
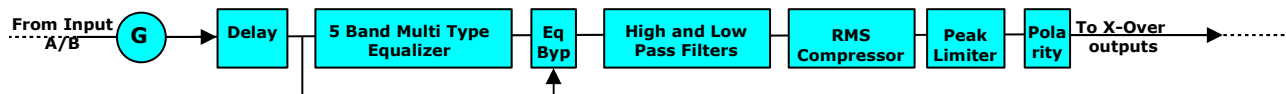
High Pass_1/2 Filter: These High Pass filters present -3dB at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a High Pass filter of the 1st/2nd order within EQ-1, then Low Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                 EQ-1
->1000Hz    ------dB    Q=----
```

Once in the High Pass_1/2 Filter's edit screen, the "NAV/Param.1" encoder can be used for editing/modifying the Filter's Low Cut Frequency:

"***Low Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                 EQ-1
->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

High Pass_Q Filter: The Gain of these High Pass filters can be modified at their cutting frequency corner depending from the value assigned to the Q parameter.

If we selected a High Pass filter with variable Q within EQ-1, then Low Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder and the Q at 3.5 using the Param.3 encoder; the EQ sub-menu screen will show the following:

```
Input-A                 EQ-1
->1000Hz   ------dB    Q= 3.5
```

Once in the High Pass_Q Filter's edit screen all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's Low Cut Frequency and Q:

"***Low Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"***Q***": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                 EQ-1
->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

All Pass_1 Filter: Filters allowing a FLAT Amplitude response and adding a 90 Degree Phase rotation at the selected Frequency.

If we selected a All Pass filter of the 1st order within EQ-1, then Phase Rotation Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                    EQ-1
   ->1000Hz     ------dB
              Q=----
```

Once in the All Pass_1 Filter's edit screen, the "NAV/Param.1" encoder can be used for editing/modifying the Filter's Phase Rotation Frequency:

"**Phase Rotation Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                    EQ-1
   ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

All Pass_2 Filter: Filters allowing a FLAT Amplitude response and adding a 180 Degree Phase rotation at the selected Frequency.

If we selected a All Pass_2 filter, with variable Q, within EQ-1, then Phase Rotation Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder and the Q at 3.5 using the Param.3 encoder; the EQ sub-menu screen will show the following:

```
Input-A                    EQ-1
   ->1000Hz     ------dB     Q= 3.5
```

Once in the All Pass_2 Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's Phase Rotation Frequency and Q:

"**Phase Rotation Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Q**": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                    EQ-1
   ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Band Pass Filter: Filters allowing to pass the band "around" the selected frequency; the amount of passing band is decided by the Q value

If we selected a Band Pass filter within EQ-1, then the Q has to be set at a desired value of say 1.00 using the Param.3 encoder, the GAIN at say +3dB using the Param.2 encoder and the center Frequency at say 1.00KHz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                      EQ-1
 ->1.00kHz    +3.0dB    Q=1.00
```

Once in the Band Pass Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's Center Frequency, Gain and Q:

"***Center Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"***Gain***": the selectable Gain range is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"***Q***": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                      EQ-1
 ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Notch Filt Filter: Filters canceling the band "around" the selected frequency; the amount of canceled band is decided by the Q value

If we selected a Notch Filt filter within EQ-1, then the Q has to be set at a desired value of say 1.00 using the Param.3 encoder and the Notch Frequency at say 1.00KHz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Input-A                      EQ-1
 ->1.00kHz    -----dB    Q=1.00
```

Once in the Notch Filt Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's Notch Frequency and Q:

"***Notch Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"***Q***": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Input-A                      EQ-1
 ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

- **Menu "Output 1/2/3/4/5/6" Output Channels Editing in "Standard" mode [access by pushing the "1/2/3/4/5/6" buttons]**

From the "Default Screen", it is possible to access the "Output Channel" menu by pressing the "1" or "2" or "3" or "4" or "5" or "6" button. Once pressed, the related blue "EDIT" LED will turn ON.
The Sub-Menus pages can now be scrolled through by rotating clockwise and counter-clockwise the "NAV/Param.1" encoder.
For parameter editing it is necessary to press ENTER and an arrow will appear on the left of the screen "**->**". Then use the "Param.2" and "Param.3" encoders for selecting and setting the parameter values. On some parameters that have three independent values, you will also need to use the NAV/Param.1 encoder, for example for the filter's parameter setting.

Note: All parameter editing can be done using the "NAV/Param.1", "Param.2", and "Param.3" encoders and the current shown value of the selected option is AUTOMATICALLY loaded during the encoders' use and stored as the current value once leaving the page.

Audio Signal Output (1/2/3/4/5/6) Path Block Scheme

HPF sub-menu – from this sub-menu it is possible to set the Output Channels High Pass Filter. Once on the HPF page
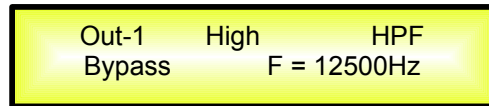
```
Out-1      High            HPF
 Bypass            F = 12500Hz
```

Pressing the ENTER Button, the filter type fields and the Cutting frequency fields, become accessible for the filter's type selection and the Cutting Frequency "fine" setting

```
Out-1      High            HPF
 ->Bypass          F = 12500Hz
```

The available shapes and orders for the High Pass Filter, that are accessible by rotating the "Param.2" encoder, are listed below:

- **Bypass**   (High Pass Filter Bypassed)
- **Buttw_1st**   (Butterworth Filter 6dB/Oct Slope)
- **Buttw_2nd**   (Butterworth Filter 12dB/Oct Slope)
- **LRiley_2nd**   (Linkwitz/Riley Filter 12dB/Oct Slope)
- **Bessel_2nd**   (Bessel Filter 12dB/Oct Slope)
- **Buttw_3rd**   (Butterworth Filter 18dB/Oct Slope)
- **Buttw_4th**   (Butterworth Filter 24dB/Oct Slope)
- **LRiley_4th**   (Linkwitz/Riley Filter 24dB/Oct Slope)
- **Bessel_4th**   (Bessel Filter 24dB/Oct Slope)
- **Custom_2nd**   (IInd Order Filter Cell with editable Cutting Frequency and Q)
- **Custom_3rd**   (Cascade of 2 IInd Order Filter Cells with editable Cutting Frequency on both and Q on the second one)
- **Custom_4th**   (Cascade of 2 IInd Order Filter Cells with editable Cutting Frequency and Q on both of them)

HPF sub-menu [Standard Filters]– from the sub-menu page, using the Param.2 encoder, it is possible to set the HPF in **Bypass** or as one of the 8 Standard Filters: *Buttw_1st, Buttw_2nd, LRiley_2nd, Bessel_2nd, Buttw_3rd, Buttw_4th, LRiley_4th, Bessel_4th.*

The following is an example of a HPF sub-menu screen with the filter set at 400Hz as 24dB Linkwitz/Riley on Output1... using the name "High" (see later for assigning a Name to the outputs):

```
Out-1       High          HPF
 ->LRiley_4th      F =  400Hz
```

The filter's Frequency can be set already within this editing page using the Param.3 encoder, but here is for Frequency "fine tuning" being the Frequency increment/decrement done by 1Hz steps. For a quick Low Cut Frequency setting, need to press the ENTER Button for accessing the **Low Cut Frequency Fast Setting** Page.

```
Out-1       High          HPF
 ->Edit Freq =  400Hz
```

"**Low Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz.
Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

HPF sub-menu [Custom Filters]– from the sub-menu page, using the Param.2 encoder, it is also possible to set the HPF as "Custom Filter", where this means that the HPF is builded as cascade of IInd Order Cells, which number is depending from the filter's order and where for each Cell can be set independently the Low Cut frequency and the Q.
More precisely, the available independent parameters for setting are the following:

1. Custom_2nd: builded using 1 IInd order Cell, where Low Cut Frequency and Q can be set
2. Custom_3rd: builded using 2 IInd order Cell, where Low Cut Frequency can be set on both the cascaded Cells and the Q on the second one
3. Custom_4th: builded using 2 IInd order Cell, where Low Cut Frequency and the Q be set on both the cascaded Cells.

The following is an example of a HPF sub-menu screen with the filter set at 400Hz as Custom_4th on Output1... using the name "High" (see later for assigning a Name to the outputs):

```
Out-1       High          HPF
 ->Custom_4th      F =  400Hz
```

From this Page, to access the cascaded IInd order Cells, it is necessary to rotate the NAV/Param.1 encoder Clockwise or Counterclockwise.
The number of accessible IInd order Cells is depending from the Custom Filter order: Custom_2nd will allow the editing of just one IInd order Cell, Custom_3rd and Custom_4th, the access to 2 IInd order Cells.

In the previous example, rotating Clockwise the NAV/Param.1 encoder, we can access the Filt1 (Cell1) and Filt2 (Cell2) pages, for the Cells Low Cut Frequency and Q settings.
When within the Filt1 editing Page, in example:

```
Out-1        High          HPF
  ->Filt1   F =  400Hz    Q = 0.7
```

And we can chose a different setting within the Filt2 page:

```
Out-1        High          HPF
  ->Filt2   F =  400Hz    Q = 1.5
```

The filter's Frequency can be set already within these editing pages using the Param.2 encoder, but here is for Frequency "fine tuning" being the Frequency increment/decrement done by 1Hz steps.
For a quick Low Cut Frequency setting, need to press the ENTER Button for accessing the **Low Cut Frequency Fast Setting** Page.

```
Out-1        High          HPF
  ->Edit Freq =  400Hz
```

"***Low Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz.
Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

LPF sub-menu – from this sub-menu it is possible to set the Output Channels Low Pass Filter. Once on the LPF page

```
Out-1     Low          LPF
  Bypass        F = 12500Hz
```

Pressing the ENTER Button, the filter type fields and the Cutting frequency fields, become accessible for the filter's type selection and the Cutting Frequency "fine" setting

```
Out-1     Low          LPF
 ->Bypass        F = 12500Hz
```

The available shapes and orders for the Low Pass Filter, that are accessible by rotating the "Param.2" encoder, are listed below:

- **Bypass**   (Low Pass Filter Bypassed)
- **Buttw_1st**   (Butterworth Filter 6dB/Oct Slope)
- **Buttw_2nd**   (Butterworth Filter 12dB/Oct Slope)
- **LRiley_2nd**   (Linkwitz/Riley Filter 12dB/Oct Slope)
- **Bessel_2nd**   (Bessel Filter 12dB/Oct Slope)
- **Buttw_3rd**   (Butterworth Filter 18dB/Oct Slope)
- **Buttw_4th**   (Butterworth Filter 24dB/Oct Slope)
- **LRiley_4th**   (Linkwitz/Riley Filter 24dB/Oct Slope)
- **Bessel_4th**   (Bessel Filter 24dB/Oct Slope)
- **Custom_2nd**   (IInd Order Filter Cell with editable Cutting Frequency and Q)
- **Custom_3rd**   (Cascade of 2 IInd Order Filter Cells with editable Cutting Frequency on both and Q on the second one)
- **Custom_4th**   (Cascade of 2 IInd Order Filter Cells with editable Cutting Frequency and Q on both of them)

LPF sub-menu [Standard Filters]– from the sub-menu page, using the Param.2 encoder, it is possible to set the LPF in **Bypass** or as one of the 8 Standard Filters: *Buttw_1st, Buttw_2nd, LRiley_2nd, Bessel_2nd, Buttw_3rd, Buttw_4th, LRiley_4th, Bessel_4th.*

The following is an example of a LPF sub-menu screen with the filter set at 400Hz as 24dB Linkwitz/Riley on Output1... using the name "Low" (see later for assigning a Name to the outputs):

```
Out-1     Low          LPF
 ->LRiley_4th      F =  400Hz
```

The filter's Frequency can be set already within this editing page using the Param.3 encoder, but here is for Frequency "fine tuning" being the Frequency increment/decrement done by 1Hz steps. For a quick High Cut Frequency setting, need to press the ENTER Button for accessing the **High Cut Frequency Fast Setting** Page.

```
Out-1     Low          LPF
 ->Edit Freq =  400Hz
```

"**High Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz.
Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

LPF sub-menu [Custom Filters]– from the sub-menu page, using the Param.2 encoder, it is also possible to set the LPF as "Custom Filter", where this means that the LPF is builded as cascade of IInd Order Cells, which number is depending from the filter's order and where for each Cell can be set independently the High Cut frequency and the Q.
More precisely, the available independent parameters for setting are the following:

1. Custom_2nd: builded using 1 IInd order Cell, where High Cut Frequency and Q can be set
2. Custom_3rd: builded using 2 IInd order Cell, where High Cut Frequency can be set on both the cascaded Cells and the Q on the second one
3. Custom_4th: builded using 2 IInd order Cell, where High Cut Frequency and the Q be set on both the cascaded Cells.

The following is an example of a LPF sub-menu screen with the filter set at 400Hz as Custom_4th on Output1... using the name "Low" (see later for assigning a Name to the outputs):

```
Out-1     Low            LPF
->Custom_4th      F =  400Hz
```

From this Page, to access the cascaded IInd order Cells, it is necessary to rotate the NAV/Param.1 encoder Clockwise or Counterclockwise.
The number of accessible IInd order Cells is depending from the Custom Filter order: Custom_2nd will allow the editing of just one IInd order Cell, Custom_3rd and Custom_4th, the access to 2 IInd order Cells.
In the previous example, rotating Clockwise the NAV/Param.1 encoder, we can access the Filt1 (Cell1) and Filt2 (Cell2) pages, for the Cells High Cut Frequency and Q settings.
When within the Filt1 editing Page, in example:

```
Out-1     Low            LPF
->Filt1   F =  400Hz    Q = 0.7
```

And we can chose a different setting within the Filt2 page:

```
Out-1     Low            LPF
->Filt2   F =  400Hz    Q = 1.5
```

The filter's Frequency can be set already within these editing pages using the Param.2 encoder, but here is for Frequency "fine tuning" being the Frequency increment/decrement done by 1Hz steps.
For a quick High Cut Frequency setting, need to press the ENTER Button for accessing the **High Cut Frequency Fast Setting** Page.

```
Out-1     Low            LPF
->Edit Freq =  400Hz
```

"***High Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz.
Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Note1: once the desired options have been selected using the 2 encoders, they are automatically saved as current and stored in the DLM26 system status once leaving the page.
Note2: to exit this page, push the "ESC" button.

EQ Byp page – from this sub-menu it is possible to Bypass or to make active the 5 Bands Equalizer placed on the Output Signal Path.

```
Out-1      Name          EQ Byp
  Eq Bypass =  Off
```

When Bypassed the 5 Bands Equalizer, its current setting will not be lost.

EQ: [x] sub-menu – from this sub-menu it is possible to set the Output Channels five available Multi-Type Filters.
Anyone of the 5 filters of the Eq can be selected hosing from the list of filter types shown already at the "Input Path" section **[Peaking_Eq, Hi-Shelv_1, Hi-Shelv_2, Hi-Shelv_Q, Lo-Shelv_1, Lo-Shelv_2, Lo-Shelv_Q, Low Pass_1, Low Pass_2, Low Pass_Q, High Pass_1, High Pass_2, High Pass_Q, All Pass_1, All Pass_2, Band Pass, Notch Filt]**

More, the DLM26 Is giving the possibility to "Bypass" any single filter of the 5 available in the Equalizer section; Once in the editing page of the single filter, a "Byp" field is available for making the single filter active or not

```
Out-1        Name        EQ-X
  Byp=Off   Type=Peaking_Eq
```

Pushing the Enter Button, the above window will allow the access to the "Byp" and "Type" fields.

```
Out-1        Name        EQ-X
  ->Byp=Off    Type=Peaking_Eq
```

Using the Param.2 encoder, the selected Filter can be activated or bypassed.

The DLM26 allows the user to select anyone of the filter's type listed above and assign them independently using the 5 available filters.
In order to select the filter's type, it is necessary to use the Param.3 encoder, rotate it "clockwise" or "counter-clockwise" to select the desired filter.
So, in order to define the filter type for the filter number 1 ("x"=1), it is necessary from the above screen, to select the filter, which name will appear on the screen.
If selected a Peaking_Eq filter, then the display will be as follow:

```
Out-1        Name        EQ-1
  ->Byp=Off    Type=Peaking_Eq
```

Once selected the desired Filter Type, its parameters can be accessed for editing just pressing again the ENTER Button.
Once pressed the ENTER Button, the editing page of the selected filter type will be accessed ONLY if the selected filter it is not set in Bypass mode.
Depending from the selected filter, the related parameters will be available for editing

Peaking_Eq Filter: Peaking filters are at constant Q, so with Q not depending from the selected Gain value

If we selected a Peaking_Eq filter within EQ-1, then the Q has to be set at a desired value of say 1.00 using the Param.3 encoder, the GAIN at say +3dB using the Param.2 encoder and the center Frequency at say 1.00KHz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name         EQ-1
  ->1.00kHz   +3.0dB    Q=1.00
```

Once in the Peaking_Eq Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's Center Frequency, Gain and Q:

"**Center Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Gain**": the selectable Gain range is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"**Q**": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name         EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Hi_Shelv_1/2 Filter: These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a High Shelving filter of the 1st/2nd order within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder and the Lo Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name         EQ-1
  ->1000Hz    +3.0dB    Q=----
```

Once in the Hi-Shelv_1/2 Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.2" encoders for editing the Filter's Low Cut Frequency and Gain:

"**Low Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Gain**": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name         EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Hi_Shelv_Q Filter: These Symmetrical Shelving filters present ½ level of the selected Gain/Attenuation at the selected cutting frequency, and a slope that is depending from the chosen Q value.

If we selected a High Shelving filter with variable Q within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder, the Q at 3.5 and the Lo Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1      Name        EQ-1
 ->1000Hz   +3.0dB    Q= 3.5
```

Once in the Hi-Shelv_Q Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's Low Cut Frequency, Gain and Q:

"*Low Cut Frequency*": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"*Gain*": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"*Q*": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1      Name        EQ-1
 ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Lo_Shelv_1/2 Filter: These Shelving filters present 3dB less than the selected Gain, or 3dB more than the selected Attenuation, at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a Low Shelving filter of the 1st/2nd order within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder and the High Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1      Name        EQ-1
 ->1000Hz   +3.0dB    Q=----
```

Once in the Lo-Shelv_1/2 Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.2" encoders for editing the Filter's High Cut Frequency and Gain:

"*High Cut Frequency*": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"*Gain*": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1      Name        EQ-1
 ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Lo_Shelv_Q Filter: These Symmetrical Shelving filters present ½ level of the selected Gain/Attenuation at the selected cutting frequency, and a slope depending from the chosen Q value.

If we selected a Low Shelving filter with variable Q within EQ-1, then the GAIN has to be set at a desired value of say +3dB using the Param.2 encoder, the Q at 3.5 using the Param.3 and the Hi Cut Frequency at say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
IOut-1        Name         EQ-1
  ->1000Hz   +3.0dB    Q= 3.5
```

Once in the Lo-Shelv_Q Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's High Cut Frequency, Gain and Q:

"**High Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Gain**": the selectable range of the Gain is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"**Q**": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1         Name         EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Low Pass_1/2 Filter: These Low Pass filters present -3dB at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a Low Pass filter of the 1st/2nd order within EQ-1, then High Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1         Name         EQ-1
  ->1000Hz    ------dB     Q=----
```

Once in the Low Pass_1/2 Filter's edit screen, the "NAV/Param.1" encoder can be used for editing/modifying the Filter's High Cut Frequency:

"**High Cut Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1         Name         EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Low Pass_Q Filter: The Gain of these Low Pass filters can be modified at their cutting frequency corner depending from the value assigned to the Q parameter.

If we selected a Low Pass filter with variable Q within EQ-1, then High Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder and the Q at 3.5 using the Param.3 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name          EQ-1
  ->1000Hz    ------dB      Q= 3.5
```

Once in the Low Pass_Q Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's High Cut Frequency and Q:

"***High Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"***Q***": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name          EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

High Pass_1/2 Filter: These High Pass filters present -3dB at the selected cutting frequency, and a slope of 6dB/Oct-12dB/Oct.

If we selected a High Pass filter of the 1st/2nd order within EQ-1, then Low Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name          EQ-1
  ->1000Hz    ------dB      Q=----
```

Once in the High Pass_1/2 Filter's edit screen, the "NAV/Param.1" encoder can be used for editing/modifying the Filter's Low Cut Frequency:

"***Low Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name          EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

High Pass_Q Filter: The Gain of these High Pass filters can be modified at their cutting frequency corner depending from the value assigned to the Q parameter.

If we selected a High Pass filter with variable Q within EQ-1, then Low Cut Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder and the Q at 3.5 using the Param.3 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name         EQ-1
 ->1000Hz    ------dB      Q= 3.5
```

Once in the High Pass_Q Filter's edit screen all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's Low Cut Frequency and Q:

"***Low Cut Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"***Q***": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name         EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

All Pass_1 Filter: Filters allowing a FLAT Amplitude response and adding a 90 Degree Phase rotation at the selected Frequency.

If we selected a All Pass filter of the 1st order within EQ-1, then Phase Rotation Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name         EQ-1
  ->1000Hz      ------dB
               Q=----
```

Once in the All Pass_1 Filter's edit screen, the "NAV/Param.1" encoder can be used for editing/modifying the Filter's Phase Rotation Frequency:

"***Phase Rotation Frequency***": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name         EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

All Pass_2 Filter: Filters allowing a FLAT Amplitude response and adding a 180 Degree Phase rotation at the selected Frequency.

If we selected a All Pass_2 filter, with variable Q, within EQ-1, then Phase Rotation Frequency has to be set at a desired value of say 1000Hz with the NAV/Param.1 encoder and the Q at 3.5 using the Param.3 encoder; the EQ sub-menu screen will show the following:

```
Out-1       Name        EQ-1
->1000Hz    ------dB     Q= 3.5
```

Once in the All Pass_2 Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's Phase Rotation Frequency and Q:

"*Phase Rotation Frequency*": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"*Q*": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name         EQ-1
   ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Band Pass Filter: Filters allowing to pass the band "around" the selected frequency; the amount of passing band is decided by the Q value

If we selected a Band Pass filter within EQ-1, then the Q has to be set at a desired value of say 1.00 using the Param.3 encoder, the GAIN at say +3dB using the Param.2 encoder and the center Frequency at say 1.00KHz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name         EQ-1
->1.00kHz    +3.0dB     Q=1.00
```

Once in the Band Pass Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Filter's Center Frequency, Gain and Q:

"*Center Frequency*": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"*Gain*": the selectable Gain range is from -15dB to +15dB in steps of 0.5 dB and can be adjusted by rotating the "Param.2" encoder.

"*Q*": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name         EQ-1
   ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Notch Filt Filter: Filters canceling the band "around" the selected frequency; the amount of canceled band is decided by the Q value

If we selected a Notch Filt filter within EQ-1, then the Q has to be set at a desired value of say 1.00 using the Param.3 encoder and the Notch Frequency at say 1.00KHz with the NAV/Param.1 encoder; the EQ sub-menu screen will show the following:

```
Out-1        Name          EQ-1
  ->1.00kHz    -----dB    Q=1.00
```

Once in the Notch Filt Filter's edit screen, all the filter's parameters can be modified using the "NAV/Param.1" and "Param.3" encoders for editing the Filter's Notch Frequency and Q:

"**Notch Frequency**": the selectable frequencies range is from 20Hz to 20kHz in steps of 1Hz and can be adjusted by rotating the "NAV/Param.1" encoder.

"**Q**": the selectable Q range is from 0.3 up to 20.0 in steps of 0.1 and can be adjusted by rotating the "Param.3" encoder.

When in the Parameters Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name          EQ-1
  ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Note1: once the desired options have been selected using the 3 encoders, they are automatically saved as current and stored in the DLM26 system status once leaving the page.

Note2: to exit this page, push the "ESC" button.

Vu-Meter page – from this page it is possible to select what is shown on the Output LED meters, by using the "Param.2" or "Param.3" encoders.

The outputs' LED meters can show the Output signal LEVEL, the Output RMS Compressor's activity or the Output Peak Limiters' activity.

When the Output signal Level is selected, the LED meters will show, from bottom up, the Level of the signal:

```
Out-1       Name        Vu-Meter
-> Vu-Meter  =   Level
```

When the RMS Compressor's activity is selected, the LED meters will show, from top down, the activity of the RMS Compressor Limiter on the output

```
Out-1        Name        Vu-Meter
-> Vu-Meter  =   RMS Cmp Act
```

When the Peak Limiter's activity is selected, the LED meters will show, from top down, the activity of the Peak Limiter on the output

```
Out-1        Name        Vu-Meter
-> Vu-Meter  =   Limiter Act
```

Name page – from this screen it is possible to assign a 6 character name to the Output Channel. The following is an example screen for a "Name" page labeled "Low" for Output Channel 1:

```
Out-1        Low          Name
    Name  =  Low
```

To Edit press ENTER on the Name Page and the entering arrow will appear as in the example below:

```
Out-1        Low          Name
-> Name  =  Low
```

The first letter position will be blinking.
Select the Character position from the 6 available by rotating the "NAV/Param.1" encoder, then by using the "Param.2" or 'Param.3" encoder it is possible to select the desired character.
Once you are happy with your name selection, press "ENTER" to confirm the edited Name. The new name will be stored. The following example shows "Sub" replacing our previous name of "Low":

```
Out-1        Sub          Name
    Name  =  Sub
```

Source page – from this page it is possible to assign one of the following Inputs to any Output Channel:

1. Input A
2. Input B
3. Sum of Input A/2 + Input B/2

The following is an example screen for the "Source" where Input A is assigned to Output Channel 1:

```
Out-1        Name        Source
    Source  =  InA
```

After pressing ENTER an arrow will appear on the left of the screen "**->**" the Input can be selected by rotating either the "Param.2" or "Param.3" encoders.

Gain page – from this screen it is possible to set the Output Channels Level from -12dB to +6dB, press ENTER an arrow will appear on the left of the screen "**->**" then use the "Param.2" or "Param.3" buttons.
The value set on this screen will only affect the input level of the selected Channel 1/2/3/4/5/6.
The following is an example screen for the "Gain" page where the Gain of the Output Channel 1 is set to +0.0dB

```
Out-1      Name        Gain
-> Gain  =  +  0.0dB
```

RMS Cmp sub-menu [1/2] – from this page it is possible to set the Threshold and Ratio parameters of the Output Channels RMS Compressor.
The following is an example screen for the RMS Compressor [1/2] page where the Threshold of the RMS Compressor is set at +5dBu and the Ratio at 2:1

```
Out-1      Name      RMS Cmp
   Thr:  +5dBu        Rto: 2:1
```

Once pushing ENTER the RMS Compressor's parameters can be modified using the "Param.2" and "Param.3" encoders for editing the Threshold and the Ratio.

Once pushing ENTER the above screen will change as follows:

```
Out-1      Name      RMS Cmp
  ->Thr:  +5dBu         Rto: 2:1
```

As said, the Threshold and Ratio can be edited using the "Param.2" and "Param.3" encoders.

"***Threshold***": the selectable range of the RMS Compressor's Threshold is from +20dBu (OFF) to -10dBu in steps of 0.2dBu
The Threshold can be adjusted by rotating the "Param.2" encoder.
"***Ratio***": the selectable range of the RMS Compressor's Ratio is from 1:1 (Off) up to 32:1 (Lim) in steps of 1 and can be adjusted by rotating the "Param.3" encoder.

Note: The RMS Compressor Threshold is defined in dBu, due to the fact that with both, Sinusoid and Squared wave testing signals, the DLM26 compressed output dBu (RMS) Level is the same and matching the selected one.

RMS Cmp sub-menu [2/2] – from this page it is possible to set the Attack Time. Release Time and "Knee" type of the Output Channels RMS Compressor.

The following is an example screen for the Limiter page where the Attack Time of the RMS Compressor is set at 10ms, the Release Time is set at 0.2Sec and the Knee type is at the 50% between the HARD (000%) and the SOFT (100%) one:

```
Out-1      Name      RMS Cmp
 A:  10ms   R: 0.2s    Kn=50%
```

Once pushing ENTER the RMS Compressor's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the RMS Compressor's Attack Time [A]., Release Time [R] and Knee type.

Once pushing ENTER the above screen will change as follows:

```
Out-1      Name      RMS Cmp
->A:   5ms   R: 0.2s   Kn=50%
```

The Attack Time [A] can be edited using the "NAV/Param.1" encoder, the Release Time [R] the "Param.2" encoder and the Knee type the "Param.3" encoder.

"***Attack Time [A]***": the selectable range of the RMS Compressor's Attack Time is from 10ms to 4s.
The Limiter's Attack Time can be adjusted by rotating the "NAV/Param.1" encoder.
"***Release Time [R]***": the selectable range of the RMS Compressor's Release Time is from 0.1s to 3s in steps of 0.1s and can be adjusted by rotating the "Param.2" encoder.
"**Hard/Soft Knee**": the selectable range of the RMS Compressor's Knee type is from 000% (Hard) up to 100% (Soft) and can be adjusted by rotating the "Param.3" encoder.

Peak Limiter sub-menu – from this page it is possible to set the Output Channels Peak Limiter.
The following is an example screen for the Peak Limiter page where the Attack Time of the Peak Limiter is set at 5ms, the Release Time is set at 0.2Sec and the Peak Limiter Active Threshold is set at +15dB:

```
Out-1       Name       Limiter
 A:   5ms    R: 0.2s   +15.0dB
```

Once pushing ENTER the Peak Limiter's parameters can be modified using the "NAV/Param.1", "Param.2" and "Param.3" encoders for editing the Peak Limiter's Attack Time [A]., Release Time [R] and Active Threshold.

Once pushing ENTER the above screen will change as follows:

```
Out-1       Name       Limiter
-> A:   5ms    R: 0.2s   +15.0dB
```

The Attack Time [A] can be edited using the "NAV/Param.1" encoder, the Release Time [R] the "Param.2" encoder and the Peak Limiter Active Threshold the "Param.3" encoder.

"*Attack Time [A]*": the selectable range of the Peak Limiter's Attack Time is from 2ms to 50ms. The Limiter's Attack Time can be adjusted by rotating the "NAV/Param.1" encoder.
"*Release Time [R]*": the selectable range of the Peak Limiter's Release Time is from 20ms to 200ms in steps of 0.1s and can be adjusted by rotating the "Param.2" encoder.
"**Limiter Active *Threshold***": the selectable range of the Peak Limiter's Threshold is from +20dB (Limiter not active) to -10.0dB in steps of 0.2 dB and can be adjusted by rotating the "Param.3" encoder.

Note: The Peak limiter Threshold is defined in Vp, due to the fact that with both, Sinusoid and Squared wave testing signals, the DLM26 Peak Limited output Vp (Peak-Peak) Level is the same and matching the selected one.

Note1: once the desired options have been selected using the 3 encoders, they are automatically saved as current and stored in the DLM26 system status once leaving the page.
Note2: to exit this page, push the "ESC" button.

Delay page – from this page it is possible to set the Output Channels Delay Time from 000.0000mS up to 848.9984mS, by steps of 1mS or 20.8uS.
To set the Delay time press ENTER an arrow will appear on the left of the screen "**->**". then use the "Param.2" encoder to set the Delay Time in steps of 1mS and the "Param.3", for setting the "fine" Delay Time in steps of 20.8 microseconds.
The following is an example screen for the "Delay" page where the Delay Time of Output Channel 1 is set to 160.1872mS:

```
Out-1        Name         Delay
-> Delay  =  160.1872mS
```

Polarity page – from this page it is possible to set the Output Channels Polarity, by using the "Param.2" or "Param.3" encoders.
The polarity can be "Normal" or "Inverted" (which means rotated of 180 Degrees).
The following is an example of a "Polarity" screen where the Polarity of Output Channel 1 is set to "Normal"

```
Out-1        Name         Polarity
-> Polarity  =   Normal
```

- **Menu "Output 1/2/3/4/5/6" Output Channels Editing in "Custom" mode [access by pushing the "1/2/3/4/5/6" buttons]**

When operating in Custom mode, depending from the chosen mode, a couple of Odd and Even Outputs (as Ch1/Ch2 or/and Ch3/Ch4 or/and Ch5/Ch6) are "coupled" so to get a single "Full Band" MONO output on the Odd channel of the couple, and for this output a 2 bands Rms compressor and Peak Limiter is available.

The available configurations in Custom Mode are the following:

3 DCL............ where 3 Outputs are available (Ch1/Ch3/Ch5), each one "Full Band" and performing a 2 bands Rms Compressor and Peak Limiter, where the splitting frequency of the 2 bands can be custom selected:
  − Outputs 1 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
       − Outputs 3 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
       − Outputs 5 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
       − Outputs 2/4/6 [Muted]

2x2 DCL......... where 2 of the available Outputs (Ch1/Ch3) are each one "Full Band" and performing a 2 bands Rms Compressor and Peak Limiter, where the splitting frequency of the 2 bands can be custom selected.
The Outputs of the Channels 5/6 are performing as in Standard Mode:
  − Outputs 1 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
       − Outputs 3 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
       − Outputs 5/6 [5 Bands Eq +Rms Compressor + Peak Limiter]
       − Outputs 2/4 [Muted]

4+1 DCL......... where 1 of the available Outputs (Ch1) is "Full Band" and performing a 2 bands Rms Compressor and Peak Limiter, where the splitting frequency of the 2 bands can be custom selected.
The Outputs of the Channels 3/4/5/6 are performing as in Standard Mode:
  − Outputs 1 [5 Bands Eq +2Bands Rms Compressor + 2 bands Peak Limiter]
       − Outputs 3/4/5/6 [5 Bands Eq +Rms Compressor + Peak Limiter]
    −Outputs 2 [Muted]

From the "Default Screen", it is possible to access the Standard "Output Channels" menu by pressing the "1" or "2" or "3" or "4" or "5" or "6" button (depending from the selected operative mode). Once pressed, the related blue "EDIT" LED will turn ON.
The Sub-Menus pages can now be scrolled through by rotating clockwise and counter-clockwise the "NAV/Param.1" encoder.
For parameter editing it is necessary to press ENTER and an arrow will appear on the left of the screen "**->**". Then use the "Param.2" and "Param.3" encoders for selecting and setting the parameter values. On some parameters that have three independent values, you will also need to use the NAV/Param.1 encoder, for example for the filter's parameter setting.

Note: All parameter editing can be done using the "NAV/Param.1", "Param.2", and "Param.3" encoders and the current shown value of the selected option is AUTOMATICALLY loaded during the encoders' use and stored as the current value once leaving the page.

The channels working in Standard mode, are featuring exactly as described in the previous session dedicated to the Standard mode.

Audio Signal Output Path Block Scheme for the coupled Custom Channels

When working in Custom Mode, 2 channels (one odd and one even) are coupled in order to provide one "Full Band" output on the odd channel and to use the resources of 2 channels for featuring the 2 bands compressor and limiter.
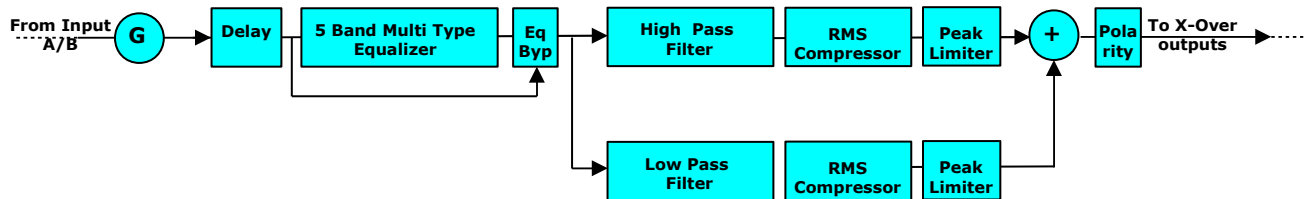
The editing of the all parameters of the Coupled Channel, can be done using the buttons of both coupled channels.

Particularly, accessing the editing pages of the ODD channel of the couple, just pressing the related EDIT button and turning on the related Blue LED, the all available parameters of the Standard mode will be accessible with the exception of the ones referring to the RMS compressor and PEAK Limiter.

Accessing the editing pages of the EVEN channel of the couple, just pressing the related EDIT button and turning on the related Blue LED, the all available parameters referring to the 2 bands Rms Compressor and 2 Bands Peak Limiter will be accessible.

"ODD" Channel Editable Parameters

EQ Byp page – from this sub-menu it is possible to Bypass or to make active the 5 Bands Equalizer placed on the Output Signal Path.

```
Out-1     Name         EQ Byp
  Eq Bypass =  Off
```

When Bypassed the 5 Bands Equalizer, its current setting will not be lost.

EQ: [x] sub-menu – from this sub-menu it is possible to set the Output Channels five available Multi-Type Filters.

Anyone of the 5 filters of the Eq can be selected choosing from the list of filter types shown already at the "Input Path" section **[Peaking_Eq, Hi-Shelv_1, Hi-Shelv_2, Hi-Shelv_Q, Lo-Shelv_1, Lo-Shelv_2, Lo-Shelv_Q, Low Pass_1, Low Pass_2, Low Pass_Q, High Pass_1, High Pass_2, High Pass_Q, All Pass_1, All Pass_2, Band Pass, Notch Filt]**

More, the DLM26 Is giving the possibility to "Bypass" any single filter of the 5 available in the Equalizer section; Once in the editing page of the single filter, a "Byp" field is available for making the single filter active or not.

Name page – from this screen it is possible to assign a 6 character name to the Output Channel. The following is an example screen for a "Name" page labeled "Low" for Output Channel 1:

```
Out-1      Low        Name
  Name  = Low
```

To Edit press ENTER on the Name Page and the entering arrow will appear as in the example below:

```
Out-1        Low          Name
-> Name  =  Low
```

The first letter position will be blinking.
Select the Character position from the 6 available by rotating the "NAV/Param.1" encoder, then by using the "Param.2" or 'Param.3" encoder it is possible to select the desired character.
Once you are happy with your name selection, press "ENTER" to confirm the edited Name. The new name will be stored. The following example shows "Sub" replacing our previous name of "Low":

```
Out-1        Sub          Name
     Name  =  Sub
```

Source page – from this page it is possible to assign one of the following Inputs to any Output Channel:

4. Input A
5. Input B
6. Sum of Input A/2 + Input B/2

The following is an example screen for the "Source" where Input A is assigned to Output Channel 1:

```
Out-1        Name         Source
     Source  =  InA
```

After pressing ENTER an arrow will appear on the left of the screen "**->**" the Input can be selected by rotating either the "Param.2" or "Param.3" encoders.

Delay page – from this page it is possible to set the Output Channels Delay Time from 000.0000mS up to 848.9984mS, by steps of 1mS or 20.8uS.

To set the Delay time press ENTER an arrow will appear on the left of the screen "**->**". then use the "Param.2" encoder to set the Delay Time in steps of 1mS and the "Param.3", for setting the "fine" Delay Time in steps of 20.8 microseconds.

The following is an example screen for the "Delay" page where the Delay Time of Output Channel 1 is set to 160.1872mS:

```
Out-1        Name        Delay
-> Delay  =  160.1872mS
```

"EVEN" Channel Editable Parameters

X-Over F page – from this screen it is possible to set the X-Over Splitting Frequency, creating the Low and High Bands where the RMS 2 bands compressor and Peak Limiters will operate.

On the Low Band will operate the "Lo Cmp" and "Lo Lim", on the higher one, instead will operate the "Hi Cmp" and Hi Lim".

The following is an example screen for the "X-Over" page where the Splitting Frequency is set to 400Hz

```
Out-1        Name      X-Over F
-> Split Band  F  =     400Hz
```

Rotating the Param. 2 or Param. 3 encoders, the frequency can be modified by steps of 1Hz.

When in the Parameter's Editing Page, pushing once more the ENTER Button, it is possible to access the page of the **Frequency Fast Setting**:

```
Out-1        Name          EQ-1
 ->Edit Freq = 1000Hz
```

Here, the NAV/Param.1" encoder will increment/decrement the Frequency value by step of one thousand Hz, the Param.2 by steps of one hundred Hz and the Param.3 by steps of one Hz.

Lo Cmp sub-menu [1/2] – from this page it is possible to set the Threshold and Ratio parameters of the RMS Low Compressor.

Note: The RMS Low Compressor Threshold is defined in dBu, due to the fact that with both, Sinusoid and Squared wave testing signals, the DLM26 compressed output dBu (RMS) Level is the same and matching the selected one.

Lo Cmp sub-menu [2/2] – from this page it is possible to set the Attack Time. Release Time and "Knee" type of the RMS Lo Compressor.

Lo Limiter sub-menu – from this page it is possible to set the Peak Low Limiter.

Note: The Peak Low limiter Threshold is defined in Vp, due to the fact that with both, Sinusoid and Squared wave testing signals, the DLM26 Peak Low Limited output Vp (Peak-Peak) Level is the same and matching the selected one.

Note1: once the desired options have been selected using the 3 encoders, they are automatically saved as current and stored in the DLM26 system status once leaving the page.
Note2: to exit this page, push the "ESC" button.

Lo Gain page – from this screen it is possible to set the Output Level of the Rms Low Compressor + Peak Low Limiter cascade from -12dB to +6dB, press ENTER an arrow will appear on the left of the screen "**->**" then use the "Param.2" or "Param.3" buttons.
The value set on this screen will only affect the output level of the selected Rms Low Compressor + Peak Low Limiter cascade.
The following is an example screen for the "Lo Gain" page where the Lo Gain is set to +0.0dB

```
Out-1      Name       Lo Gain
-> Gain  =  +  0.0dB
```

Lo Phase page – from this page it is possible to set the Output Polarity of the Rms Low Compressor + Peak Low Limiter cascade, by using the "Param.2" or "Param.3" encoders.
The polarity can be "Normal" or "Inverted" (which means rotated of 180 Degrees).
The following is an example of a "Lo Phase" screen where the Polarity of Output Channel 1 is set to "Normal"

```
Out-1       Name       Lo Phase
-> Polarity  =  Normal
```

Lo Vu-Meter page – from this page it is possible to select what is shown on the Output LED meters of the coupled channels, by using the "Param.2" or "Param.3" encoders.
The outputs' LED meters can show the Output signal LEVEL (same on both coupled channels), the Output RMS Compressors activity (Low Compressor's Activity on the ODD channel's led) or the Output Peak Limiters' activity (Low Limiter's Activity on the ODD channel's led).
When the Output signal Level is selected, the LED meters will show, from bottom up, the Level of the signal:

```
Out-1      Name    Lo Vu-Meter
-> Vu-Meter  =   Level
```

When the RMS Low Compressor's activity is selected, the LED meters will show, from top to down, the activity of the RMS low Compressor on the output

```
Out-1      Name    Lo Vu-Meter
-> Vu-Meter  =   RMS Cmp Act
```

When the Peak Low Limiter's activity is selected, the LED meters will show, from top to down, the activity of the Peak Low Limiter on the output

```
Out-1      Name    Lo Vu-Meter
-> Vu-Meter  =   Limiter Act
```

Hi Cmp sub-menu [1/2] – from this page it is possible to set the Threshold and Ratio parameters of the RMS High Compressor.

Note: The RMS High Compressor Threshold is defined in dBu, due to the fact that with both, Sinusoid and Squared wave testing signals, the DLM26 compressed output dBu (RMS) Level is the same and matching the selected one.

Hi Cmp sub-menu [2/2] – from this page it is possible to set the Attack Time. Release Time and "Knee" type of the RMS Hi Compressor.

Hi Limiter sub-menu – from this page it is possible to set the Peak High Limiter.

Note: The Peak High limiter Threshold is defined in Vp, due to the fact that with both, Sinusoid and Squared wave testing signals, the DLM26 Peak High Limited output Vp (Peak-Peak) Level is the same and matching the selected one.

Note1: once the desired options have been selected using the 3 encoders, they are automatically saved as current and stored in the DLM26 system status once leaving the page.
Note2: to exit this page, push the "ESC" button.

Hi Gain page – from this screen it is possible to set the Output Level of the Rms High Compressor + Peak High Limiter cascade from -12dB to +6dB, press ENTER an arrow will appear on the left of the screen "**->**" then use the "Param.2" or "Param.3" buttons.
The value set on this screen will only affect the output level of the selected Rms High Compressor + Peak High Limiter cascade.
The following is an example screen for the "Hi Gain" page where the Hi Gain is set to +0.0dB

```
Out-1       Name       Hi Gain
-> Gain  =  +  0.0dB
```

Hi Phase page – from this page it is possible to set the Output Polarity of the Rms High Compressor + Peak High Limiter cascade, by using the "Param.2" or "Param.3" encoders.
The polarity can be "Normal" or "Inverted" (which means rotated of 180 Degrees).
The following is an example of a "Hi Phase" screen where the Polarity of Output Channel 1 is set to "Normal"

```
Out-1       Name       Hi Phase
-> Polarity  =   Normal
```

Hi Vu-Meter page – from this page it is possible to select what is shown on the Output LED meters of the coupled channels, by using the "Param.2" or "Param.3" encoders.
The outputs' LED meters can show the Output signal LEVEL (same on both coupled channels), the Output RMS Compressors activity (High Compressor's Activity on the ODD channel's led) or the Output Peak Limiters' activity (High Limiter's Activity on the ODD channel's led).
When the Output signal Level is selected, the LED meters will show, from bottom up, the Level of the signal:

```
Out-1       Name    Hi Vu-Meter
-> Vu-Meter  =   Level
```

When the RMS High Compressor's activity is selected, the LED meters will show, from top to down, the activity of the RMS High Compressor on the output

```
Out-1       Name    Hi Vu-Meter
-> Vu-Meter  =   RMS Cmp Act
```

When the Peak High Limiter's activity is selected, the LED meters will show, from top to down, the activity of the Peak High Limiter on the output

```
Out-1       Name    Hi Vu-Meter
-> Vu-Meter  =   Limiter Act
```

- **Input and Output Channels Last Edited Parameter Return Function**

Once you have escaped out of parameter editing within the individual Input or Output channels the DLM26 will remember this last editing action on that Channel. When you return for your next editing action pressing the EDIT button on that channel will immediately return you to the screen related to this last editing action.

This function makes fine tuning or modifying easier when it is necessary to make a number of adjustments to the same parameter in a short time sequence.

- **Input Channels and output Channels LINK Function**

The DLM26 is able to perform a unique LINK MODE between Input Channels as well as a link between Output Channels to enable quick and immediate editing (you cannot link output to input channels).

To link channels when editing, you will need to select a "Master" channel that will be the one to be edited and have it's parameters displayed on the LCD screen. You can then select and link other channels (Slaves) that you wish to apply the same changes to.

To enter a link mode session, select the Master channel Edit mode, then link the Slaves by pressing their related Edit buttons.
All Linked channels will be selected ready for adjustment when their "Blue" LED is lit in the Editing mode.
Now all Slave channels and only those selected will modify their parameters accordingly as you edit the Master channel.
All other existing parameters will stay the same within the Slave Channels unless edited by this link with the Master channel.

Note: The LINK function is NOT a COPY function.

If we want to edit the limiter of the Output channels 1/2/4, we can enter the editing mode of Output Channel 1 by pressing the related Edit button and turning on the Blue LED below the Output Channel 1 LED meters. This assigns the "role" of Master and displays this channel's parameters on the LCD:

```
Out-1      Name       Limiter
    A:   5ms   R: 0.2s  +5.0dB
```

Then press the Edit button of Output Channels 2/4, turning on their related "Blue" LED's. Now all parameters edited on Output Channel 1, will also be applied to channels 2 and 4.
If we want to remove one of the linked channels from the Link, press the related Edit button.
Exiting the editing of the Master channel during a Link session will automatically terminate that session. The Link will also be automatically terminated if, during the editing of Output Channels you jump across to begin editing an Input channel or vice avers.

- **Factory Reset**

In the event of the password being lost or any other reason the user may require the unit to be reset to the original factory settings, a "Factory Reset" that will clear all settings of the DLM26 and return the device to the original factory setting, is available to the user.

Note: Continuing with this process will mean the DLM26 will re-initialize to the original factory settings and any previously stored information and changed parameters will be permanently lost.

Note1: Together with the all information, also the current password will be lost after a "Factory Reset" and will be replaced with the Factory one: "**000000**".
In case the customer forgot the password and need to reinitialize it, can use the "Factory Reset" to put the Password at its original "**000000**" value.

– **Use the following procedure to perform the factory reset:**

1. While the DLM26 is switched OFF, simultaneously press the ENTER+ESC+UTILITY buttons on the front panel.
2. Maintain pressure on all three buttons as you turn the power switch to On and the following LCD screen appears on the DLM26:

<div style="text-align:center">

Please Wait……
Memory Reset

</div>
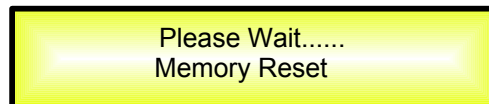
3. Release the buttons and wait for the DLM26 to re-initialize.

Once completed, the DLM26 will resume regular operation as though it was a new unit from the factory and no previously programmed parameters will be available for use.

- **GND and USB/RS485 LIFT switches**

The DLM26 on its back panel is providing a couple of switches allowing to connect or left unconnected the power Supply Main GND and the USB'RS485 connectors GND to the chassis.

MAIN "LIFT/GND" Switch - Actually can happen that sometime it is necessary to NOT connect the Main Ground to the Chassis in order to avoid GND loops.
This is possible using the "MAIN" GND/LIFT switch.
When the switch is positioned on GND, the Main Power Supply GND is connected to the Chassis.

USB/RS485 "LIFT/GND" Switch – When using a USB or RS485 remote control connection, can be that the GND of the USB or RS485 cable it is not connected to the remote controller GND.
In this case it is necessary to provide it from the processor's side, and this can be done selecting the GND position with the USB/RS485 switch.
On the other hand, if the GND of the USB/RS485 cable is already connected to the remote controller GND, to connect the same ground also to the GND of the processor could create GND loops or generate GND noises.
In this case, the switch on the position "Lift" will leave the cable GND not connected to the chassis of the DLM26

- **USB/RS485 Remote Control protocol for Presets Changing and Gain/Volume controls**

The following is the HEX Code for controlling the DLM26 recall presets and master volume control:

Preset Changing:

CMD_RECALL_PRESET: CMD=1BH

A. The User has to send the following Command, including the number of the preset to load on the unit:

TX:

STX	ID_M	ID_N	CMD	D0	D1	D2	D3	D4	D5	D6	D7	ETX
F0H	C3H	XX	1BH	NPreset	00H	00H	00H	00H	00H	00H	00H	F7H

XX = 0,..,31 (ID device)
Npreset=0,…,64 Preset number

The DLM26's microcontroller will check if the Preset is initialized (available or not yet created...)

B. If YES, then the microcontroller will send back to the User (eg Crestron/AMX Remote Control..) the same frame used by the command

RX:

STX	ID_M	ID_N	CMD	D0	D1	D2	D3	D4	D5	D6	D7	ETX
F0H	C3H	XX	1BH	NPreset	00H	00H	00H	00H	00H	00H	00H	F7H

So in this case, if the user gets back EXACTLY what was sent, the preset is existing and loaded on the unit.

C. If the preset that the user wanted to load is NOT YET INITIALIZED (not yet created, so not available...). the microcontroller will notify that to the user, sending back the following frame:

RX:

STX	ID_M	ID_N	CMD	D0	D1	D2	D3	D4	D5	D6	D7	ETX
F0H	C3H	XX	1BH	**FFH**	00H	00H	00H	00H	00H	00H	00H	F7H

Input Gain and Output Volume Control:

UPDATE GAINS-PHASE: CMD=01H

A. The User has to send the following Command, including the value to be assigned to "Vol", for modifying the Input Gain (Chn = 0, 1) or the Output Volume (Chn = 2, 3, 4, 5, 6, 7).
Also the Output signal Phase can be modified:

TX:

STX	ID_M	ID_N	CMD	D0	D1	D2	D3	D4	D5	D6	D7	ETX
F0H	C3H	XX	01H	Chn	00H	00H	00H	00H	00H	Phs	Vol	F7H

XX = 0,..,31 (ID device)
Chn=0,...,7: Channel selected, 0, 1=In1, In2; 2,...,7=Out1,..,Out6; when Channel 0, 1 selected, then Vol=Input Gain, when Channel 2, 3, 4, 5, 6, 7 selected, then Vol= Output Vol.
Phs= Phase only if the Chn>1; Value=0, 1 where 0=direct, 1=inverse (180')
Vol= Gains from 0 to 180 (-12dB/ +6dB step 0.1dB)

B. If the command has been properly executed and the Gain/Volume modified, then the microcontroller will send back to the User (eg Crestron/AMX Remote Control..) the same frame used by the command:

RX:

STX	ID_M	ID_N	CMD	D0	D1	D2	D3	D4	D5	D6	D7	ETX
F0H	C3H	XX	01H	Chn	00H	00H	00H	00H	00H	Phs	Vol	F7H

More About Passwords....

We remind here the main points of the Password management form the Stand alone device, so to let e4asier to access the further information related to an added Password Level accessible ONLY through Pc Sw.

DLM26 -Stand Alone Password Management

–   On the DLM26 the only available Password is the "User Password" (set as "000000" as default) and is allowing to lock or less the parameters' editing.
    When the DLM26 is in "Lock" mode, then if the **"Show parameter"** option is set on **"be shown"** the user can "see" the parameters' value but to modify it.
    If the the option is set on **"not be shown"**, then the user can not see event eh parameters' set value.

–   The user can set as he likes the Password, using the options of the "User Password". Where to access it need to first provide the currently set Password.
    If not Password had been set previously, then the "000000" default Password will be the "current" one.

–   If a "Super User" created presets through the Pc Sw and made them not accessible to the User setting a "Super User" Password, then the final User will never be able to know the content those presets if not having available the "Super-Password" (see below...).

DLM26 – Remote Control by Pc Sw Password Management

On the Remote Control Sw, several types of Passwords are available.
After "clicked" on the Key button, shown in the figure here below:

The Remote Control Sw will show the following screen:

Here depending from the provided Password, the User functions can be accessed or the Super-User ones.
So, at the above screen, 2 Password can be provided:

–   Password User
–   Password Super User

1. **Password User (default = "000000")**

Once entered the **Password User**, click on the "OK" button and the following window will open

Then select the Lock or Unlock position and Confirm the choice through the "Confirm" button.
If the button is set on Lock, after confirming the sw will lock the all parameters both of Input and Output channels.
If the button is set on Unlock, after confirming the sw will allow the access to the all parameters both of Input and Output channels.
Same function is offered by the following button

but here it is not necessary to set any Password and it is available for a quick Lock/Unlock when operating by Remote Control Pc Sw and it is not affecting the Pc setting when back to the Stand Alone mode.

The Lock/Unlock mode set by the use of the Password, will be operative on the Stand Alone device also when not operating through the Remote Control Pc Sw.

2. **Password SuperUser (Fix = "Suser1")**

Once entered the **Password SuperUser**, click on the "OK" button and the following window will open

Then select the Enable or Disable position and Confirm the choice through the "Confirm" button.
If the button is set on Disable, after confirming the sw will not allow the "Lock/Unlock" function on the parameters of single processes (in Super User mode, there is the possibility to Lock/Unlock the access to the parameters of single processes...).
If the button is set on Enable, after confirming the sw will show a "lock" on top of the all processes which parameters can be accessed or less (depending form the chosen Lock/Unlock status), and this "focused" Lock/Unlock function is available ONLY on the Output channels.
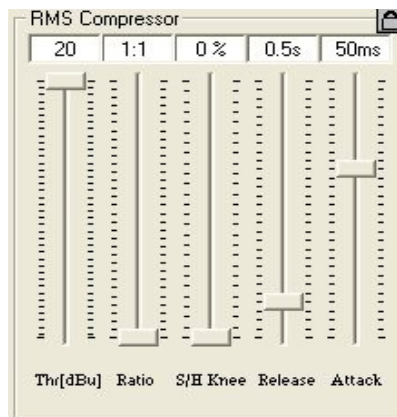
The processes, which parameters can be Locked/Unlocked, are the following:

1. Hp,Lp or BandSplit (in Custom mode)
2. Peak Limiter
3. Rms Compressor
4. EQ filter1,...EQ filter5
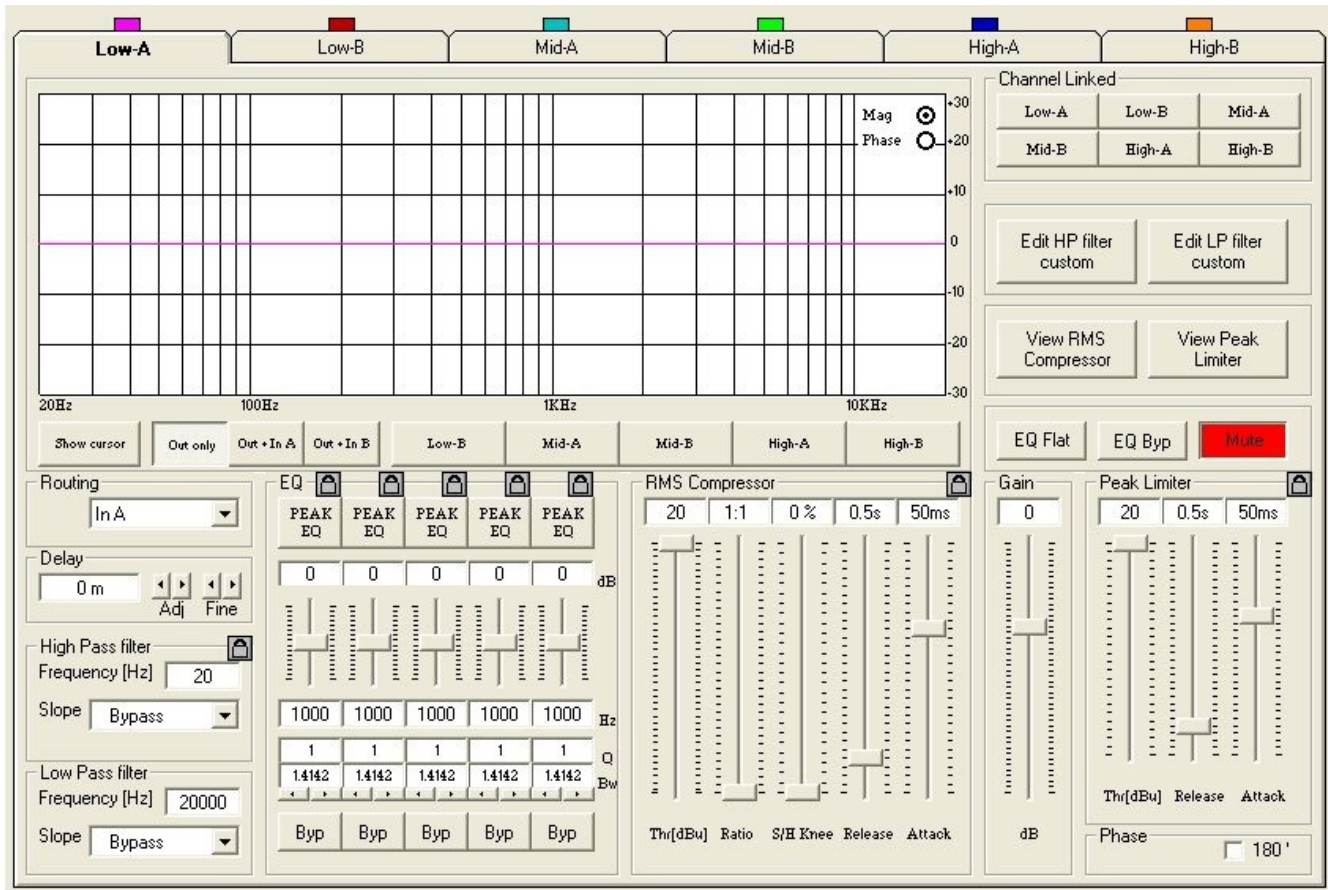
Clicking on the Icon the parameters of the related process will become hidden (if previously visible), or visible (if previously hidden)

If , in example, the compressor's parameters are visible

after clicked on the Icon the screen showing the compressor's parameters will become blank, hiding the compressor's parameters themselves.

The same will be for the all parameters of the Lockable/Unlockable processes.

The all above setting can be stored as part of the presets, so being recalled once a preset is loaded.
If the preset is containing parameters "locked" through the use of the Super User functions, these parameters will be loaded ...locked.

When the Sw is launched, the Super Password mode is automatically disabled, so the final User, unless knowing the Super User Password, will not be able to see/access the locked parameters coming with the recalled presets.
The final User having Only the User Password will be able to lock/unlock just the "visible" parameters and the ones left available by the Super User.

Because each Output channel can have a different number of locked parameters, if trying to link a locked parameter with an Unlocked one (when using the Link Channels function), then the Pc Sw will not allow the Link between the 2 parameters.
The Link Function is ONLY available when the DLM26 is operating in Standard Mode.

- **DLM26 Technical Specifications**

The DLM26 Digital Speaker Processor is based on a powerful analog and digital DSP platforms having the following specifications

Analog Input Signal:	ChA/ChB,	Bal. Female XLR
Maximum Input Level:	+20dBu	
Analog Output Signal:	Ch1/Ch2/Ch3/Ch4/Ch5/Ch6	Bal. Male XLR
Maximum Output Level:	+20dBu	
Digital Processing (DSP):	SAM3716, 24bits (data) x 96 bits (coeff.)	
A/D Converters:	AKM5392, 24bits	
D/A Converters:	AKM4396, 24bits	
Sampling Frequency:	48kHz	
S/PDIF Stereo Digital Input:	32kHz, 44.1kHz and 48kHz Sources Accepted	
S/N:	110dBA	
THD+N:	0.005%	
Frequency Response (Bypass):	20Hz – 20kHz (+- 1 dB)	
Power Supply:	Switching Power Supply	
Remote Control:	USB, RS485	

WARNING: Where affixed on the equipment or package, the barred waste bin sign indicates that the product must be separated from other waste at the end of its working life for disposal. At the end of use, the user must deliver the product to a suitable recycling centre or return it to the dealer when purchasing a new product. Adequate disposal of the decommissioned equipment for recycling, treatment and environmentally compatible disposal contributes in preventing potentially negative effects on the environment and health and promotes the reuse and/or recycling of equipment materials. Abusive product disposal by the user is punishable by law with administrative sanctions.