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NSM Music is proud to present the **BackGround Music** system. A one stop solution for all your music requirements. Designed to make music selection in your venue easy and suited to your every requirement. This manual will demonstrate each module of the system and will explain how they work together to bring you your ideal music selection. The Interface to the system has two parts to it;

- **The Player**
  - Adheres to the criteria set in the control panel. Also has play controls HUD.

- **The Control Panel**
  - Enables you to select music and is responsible for everything that the system plays.

### 1.2 Setup

1. Remove the BGM unit from its packaging.

2. Plug in speaker cables. Hold open cable retainers, enter cables into their corresponding coloured channel.

3. Plug in remote control Infra Red Receiver.
4. Plug in Display. (Optional)

5. Plug in Keyboard and Mouse (Optional)

6. Plug in network connection to broadband modem or router.
This will allow your BGM to be updated via the internet.

7. Plug in Video Output (optional)

8. Plug in the power lead.

**Power Up**

Now the unit can be powered up.
Press the power button the green LCD display will illuminate, the unit will take approximately 2 minutes to initiate. The Player will start to play music randomly from its database shortly after initiation.

1.3 The Player

The Player is the interface that is used whilst music is playing. There is a temporary menu that is accessed by clicking/touching anywhere on the screen during playback. The menu will only remain live whilst it is being used. The screen will revert back to its previous state after 10 seconds of inactivity.

The Player comprises of 3 sections (see fig 1.2)

- The control Buttons
- Listings Buttons
- Selection Buttons

QUICK START

⚠️ The player is pre programmed with 26 Play Rules, dividing the music into decades, tempo and genres. When the player has initialised click/press in the centre of the screen to display the menu.

Then press the Play Rules button, the play rules will be listed. Select the desired Play Rule from the listing and select it to start playing
The Control Buttons

There are 8 basic control buttons on the player.

The **Play** button will start the next track in the queue. Normally used if music has been paused or stopped.

The **Stop** button will stop the current track.

The **Pause** button will pause a track whilst it is playing. On resume the track will continue from the point it was stopped.

The **Previous** button will start playing the previous track.

The **Next** button will skip the track that is currently playing and start playing the next track in the queue.
The **Control Panel** button will stop all music being played and launch the Control Panel interface.

The **Manual Download** button will force a check for newer tracks that might be available. If it finds any it will initiate an update (online systems only – not available for systems that receive updates by CD/DVD).

The **Close** button will close the player menu and revert back to the previous display.

**The Selection Buttons**

There are 3 selection buttons:

- The **Special Tracks** button will display the 10 special tracks setup in the Control Panel.

- The **Play Rules** button will display all that have been set in the Control Panel.

- The **Custom Playlists** button will display all custom play lists that have been established via the Control Panel.

**The Listings Buttons**

The listing buttons are dynamic. They will change depending on which of the three selection buttons have been pressed.

When **Special Tracks** is selected the buttons will display specific tracks to play. On pressing a button, the track will play instantly. This will stop the current track that is playing, play the selected track and when complete will resume normal play automatically.

When either **Play Rules** or **Custom Playlists** are selected, the listings buttons show all available playlists or play rules. Selecting one of these buttons will override the current track pool, and use the selected playlist or rule to build a new track pool.
1.4 Remote Control

The 12 button remote control has a host of features that enable direct interaction to the Player remotely.

Infra Red Receiver

The first thing to be aware of is the remote control’s Infra Red receiver which is attached by cable to the BGM system. This needs to be in visible range of the remote control.

Fig 3.11 shows the Infra Red receiver unit

Remote Control Handset

The handset has 2 basic sections:
- Play Controls
- Selection Controls
Selection Controls

At the top of the remote control there are 4 selection buttons.

- **Channel 1 Selection**
  Press Channel 1 selection, the light will illuminate to indicate selection. The **Selection Increase** and **Selection Decrease** buttons will increase and decrease the volume output on that channel. Note. Channel 1 and Channel 2 can both be selected at the same time.

- **Channel 2 Selection**
  Press Channel 2 selection, the light will illuminate to indicate selection. The **Selection Increase** and **Selection Decrease** buttons will increase and decrease the volume output on that channel. Note. Channel 1 and Channel 2 can both be selected at the same time.

- **Mic Selection**
  Press Mic selection, the light will illuminate to indicate selection. The **Selection Increase** and **Selection Decrease** buttons will increase and decrease the volume of the Microphone.

- **List Selection**
  Press List Selection Once, the LCD display on the BGM system will show the **Special Tracks** available. The **Selection Increase** and **Selection Decrease** buttons will increase and decrease the volume of the Microphone.
Decrease buttons will now scroll through the Special Tracks on the LCD display. Press the Play button to start.

Press List Selection again, the LCD display on the BGM system will show the Play Rules available. The Selection Increase and Selection Decrease buttons will now scroll through the Play Rules on the LCD display. Press the Play button to start.

Press List Selection again, the LCD display on the BGM system will show the Play Lists available. The Selection Increase and Selection Decrease buttons will now scroll through the Play Lists on the LCD display. Press the Play button to start.

Note. If you action a Special Track, Play Rule or Play List via the remote control you can resume scheduled play by pressing the List Selection Button until it reads Back to Schedule.
1.5 Login

When this button is selected from the Player the music will stop and a Login prompt will be displayed. A valid username and password must be entered to login to the box.

⚠️ The default username and password are;

Username: nsm
Password: nsm

Fig 1.3
Before looking deeper into the modules it is well worth familiarising yourself with the **Menubar**. This is the backbone of the Control Panel. The **Menubar** runs across the top of every screen in the Control Panel and allows easy navigation of the modules. The **Menubar** typically looks like this (fig 1.4)

Fig 1.4

The **Menubar** comprises of 13 buttons. Each button will take you to a different module of the Control Panel. As you press each button you will notice the lower portion of the screen changes to reflect the chosen module, and the selected menubar button is ringed to signify its selection. In fig 1.4 you can see that ‘Custom Playlists’ is selected.
1.7 The Concept

This section will explain the concept of the BGM music selection mechanism. Each BGM system comes with a large collection of music stored in its database. This collection of tracks is very broad and only a percentage of the music stored may be applicable to your venue. The needs of the user may also change depending on time, day or date so the ability to be able to set different selections at different times is essential. Fig 1.51 shows the 3 basic stages involved with selecting a specific pool of tracks.

![Fig 1.51](image)

***ALL MUSIC***

**Stage 1**
- **Play Lists** are the manual method of selecting a pool of tracks.
- **Play Rules** are the automatic method of selecting a pool of tracks.

**Stage 2**
- **Schedules** define a Track Pool to a specific time period in a day.

**Stage 3**
- **Allocation** will then set a Schedule to a day of the week or a specific date. *By default it will play everyday*

The music will now play as per the criteria above. For example.

**Rock play List** will play between 8 pm and 10pm on Friday and Saturday.
2.0 The Modules

Many of the buttons you will come across in the various Control Centre Modules have similar functions from module to module, and it is worth explaining some of these before going further.

Record Selection Screens

Fig 2.0 shows an example of the buttons that appear in the majority of the modules. Each set of buttons (copy, edit and delete) represents the controls for a “record” – which could be a play rule or a playlist or a message. Irrespective of the type of record, fundamentally the buttons behave the same way.

- **New**
  - This button normally appears once on each screen. Click it to make a new record in that particular module.

- **Copy**
  - This button will appear on every record that is created. This will generate another record identical to it.

- **Edit**
  - This button will appear on every record that is created. This will load that record and allow changes to be made.

- **Delete**
  - This button will appear on every record that is created. This will allow deletion of that record.

Note. *Not all the modules are record based, some may only have one screen.*
Navigation Buttons

The navigation pane is a collection of buttons that allows navigation through a large set of information that is too large to fit on screen.

Fig 2.01

Fig 2.01 shows the navigation pane. The navigation pane contains 4 paging buttons.

The Skip Page Back button moves through a list (n) pages at a time in reverse order. Currently n = 5

The Previous button moves page by page in reverse order.

The Next button moves forward by a single page.

The Skip Page Forward button moves forward through a list (n) pages at a time. Currently n = 5.

The Keyboard

The keyboard is a fully functional on-screen keyboard designed to allow touch-screen users and mouse users alike to enter text where required. The keyboard is present on any forms that require text input.

Fig 2.02

Fig 2.03
The keyboard has two modes: lowercase with numbers (fig 2.02) and uppercase with symbols (fig 2.03). Switch between the two modes by toggling the **Caps Lock** button. Alternatively, pressing the **Shift** button will allow a single press in uppercase mode before reverting back to lowercase mode.

The **Backspace** button allows for a single character to be deleted from the end of the text box.

### Text Boxes

Text boxes will appear on screens that require text input. To be able to type into a text box it must first be selected. To do this you must touch/click on the unselected text box. A selected textbox can be identified by the bold border surrounding it:

![Fig 2.04](image1.png) ![Fig 2.05](image2.png)

Fig 2.04 shows an unselected text box. Fig 2.05 shows a selected text box. Textboxes must be like this before they accept text from the onscreen keyboard or a normal peripheral keyboard.

### Copy Screens

Copy buttons occur on all Selection screens. These buttons are to allow you to copy a record. This would usually be useful if you have made a complicated item and would like similar entries. Copying and amending is sometimes more efficient than doing it again.

![Fig 2.06](image3.png)

Fig 2.06 shows an example of a copy screen.
2.1 Custom Play Lists

A Custom Play list is a selection of tracks from the music store in the BGM system. This list can then be saved and used in conjunction with other modules. There is an unlimited amount of Custom Play lists that can be created. A Custom Playlist can be loaded and edited at any time.

First select Custom Playlists from the Menubar.

**Fig 2.11**

![Custom Playlists](image)

**New Custom Playlists**

Select New Playlist, it will open the new playlist screen (fig 2.12)
Searching

With a large amount of tracks at your disposal you may need to search for a specific track or narrow your search. This can be done in a number of ways.

- **Limiting Tracks by Genre.**
  The track list will only show tracks by the selected genre. Do this by selecting a genre from the bottom right. Alternatively click all.

  - Select All to see all genres.
  - Select a single genre to display only specific genre tracks.
  - Use the paging controls see other genres.
• **Searching By Word.**
  
  By typing in a keyword into the search box and selecting search the track list will update only showing tracks / artists containing the keyword.

  ![Search Bar](image)

  Type search queries here  
  Press reset to clear the search  
  Click search when a keyword has been typed in.

• **Ordering By Column.**
  
  This is done by clicking on the buttons at the top of each column. The tracks will then be sorted by that column.

  ![Column Buttons](image)

  Track  
  Artist  
  BPM  
  Release Date  
  Chart  
  Rating  
  Advisory  
  Audio / Video

---

**Selection**

When the screen is first opened all the tracks will be listed in the left column. The objective being to find the track desired and to move it into the right column. The right column is the playlist that will be played through the player.

![Select Button](image)

The **Select** button Will add the track to the **Playlist**

![Unselect Button](image)

The **Unselect** button will remove the track from the **Playlist**
Saving

When the playlist is complete it then has to be saved to the system’s database. This is done in one of two ways.

- **Save & New**  
  *This will make another playlist immediately after the one that is being saved. Everything is reset for another list.*

- **Save & List**  
  *This will save the playlist and then will exit back to the record selection list.*

2.2 Play Rules

**Play rules** are a very easy way of selecting a specific kind of music that is required. Define what is required via the criteria set on the Play Rules screen. The system checks that criteria against the music stored on the BGM system and loads the tracks into a playlist that can be saved and used by itself or in conjunction with other modules. The **Play Rules** can be loaded and edited at any time.

First select Custom Play Rules from the Menubar.
On the Play Rule selection window there is an additional button available for each record. A Play Rule will automatically generate a track list and this additional button allows you to preview the list it has generated.
New Play Rule

Select New **Play Rule**, it will open the new **Play Rule** screen (fig 2.12)

**Fig 2.22**

![Image of Play Rule screen](image)

**Building Rules**

When creating **Play Rules** there are 3 main criteria sections highlighted in (fig 2.22)

- **By Genre.**

  Adding genres to Play Rules is done through the genre section of the Play Rule screen by selecting single genres, a selection of genres or all of the genres.

  The **Select all** and **Deselect all** buttons will add every genre to the **Play Rule**.

  Each Genre has a **Select** button next to it. When selected it will move into the right hand column and be included in the **Play Rule**.

  Paging buttons will show more genres.
• **By Artist.**  
Adding artists to Play Rules is done through the artists section of the Play Rule screen by selecting single artists, a selection of artists or by all artists.

The **Select all** and **Deselect all** buttons will add every artist to the Play Rule.

Each Artist has a **Select** button next to it. When selected it will move into the right hand column and be included in the Play Rule.

Paging buttons will show more Artists.

You can also type a search in for artists.

• **By Track Criteria**  
There are a variety of criteria that you can define to select a specific range of tracks.

Media Type sets the type of media you wish to include in the rule.

Adding a range of dates to the rule can focus the rule to a specific period in time. There are also a max and min date buttons to select all possible dates.

Adding a range of **Beats Per Minute** (BPM) can determine the speed and pace of the music in the list of tracks generated by the Play Rule.

Adding a chart position will allow only tracks that were that number or higher in the charts.
Saving Rules

To save a rule simply type the name of the completed rule into the save text box and click the disk icon (2.23)

Fig 2.23

2.3 Delivery Schedule

The Delivery Schedule is how the Custom Play lists and Play Rules get applied to a specific time window. The time windows can have a single Play Rule or Custom Play List or a combination of both. Each Time window will have a start and end time and within that time the applied Play Rules and Custom Play Lists will play.

First select Delivery Schedule from the Menubar.

Fig 2.31
New Delivery Schedule

Click **New Time Window**, this will add the time window to the screen. Set the time you wish to apply music to with the **Start Time** and the **End Time** with the arrow buttons provided.

![Warning icon]

Note. A time window is valid for a period of 24 hours. No time windows can overlap.

**Fig 2.32**

Select the Edit button for the time window.
Fig 2.33

Applying Play Rules and Custom Play lists.

Click the Select buttons to select the Play Lists and Play Rules to the selected Column. Use the Unselect button to remove it from the list.

Select  Unselect

To apply a content rating to the time window use the left and right arrow buttons to select the advisory rating to the selection.

0 = Good
10 = Bad

Once done click the Save + List button

The system will now return to the Time window list. Either more time windows can be added or alternatively just save the Schedule.

Saving the Schedule

Type the name of the schedule into the box and click the save icon.

The schedule is then complete.
2.4 Allocate Schedule

Allocate Schedules is primarily for assigning delivery schedules to specific days or dates. Due to days and dates being able to conflict with one another a priority order has been set.

1. A Date  A date will take highest priority.
2. A Day  A day will take priority over all days.
3. All Days  All days will take the lowest priority.

First Select Allocate Schedule from the menu bar

Fig 2.41

Chose when to apply delivery schedule.

- **By Days**
  Select a specific day or alternatively All the days

Select the tab with the specific day of the week that is required.

Select the tab All Days to play the schedule on every day of the week.
• **By Date**

Select a specific date by selecting the **choose date** tab.

A calendar will appear in the space below.

Move forward and backwards through the months by selecting the months in the top left and right hand corners.

Select the date you require by selecting it. The one that is selected will be highlighted.

---

**Applying a Delivery Schedule.**

Applying a schedule is exactly the same whether it be for a Day, Date or All Days.

Press the **Select Schedule** button and it will assign that schedule on the selected tab.

To select another day Select the **Save** button and then the reset button.
2.5 **Message Lists**

Message lists is the section which allows personalisation of the **Player**. The amount of messages that can be entered is unlimited and can each be customised differently to be visually varied. Each of the messages will scroll across the bottom of the screen whenever the **Player** is functioning.

First Select **Message List** from the menu bar

**Fig 2.51**

<table>
<thead>
<tr>
<th>Message List</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>sddsagasdg</td>
<td>Comic - Medium - Bold - Fast</td>
</tr>
<tr>
<td>Test 10</td>
<td>Comic - Medium - Bold - Fast</td>
</tr>
<tr>
<td>Test 11</td>
<td>Comic - Medium - Bold - Fast</td>
</tr>
<tr>
<td>Test 14</td>
<td>Comic - Medium - Bold - Fast</td>
</tr>
<tr>
<td>Test 15</td>
<td>CARY JACOMINHIE NOWHER NOWH necessities</td>
</tr>
<tr>
<td>Test 17</td>
<td>Running out of fuel</td>
</tr>
<tr>
<td>Test 18</td>
<td>Small - Swear - Bold - Dark</td>
</tr>
<tr>
<td>Test 2</td>
<td>Acid - Large - Bold - White - Fast</td>
</tr>
<tr>
<td>Test 3</td>
<td>Acid - Bold - White - Underlined - Large - Fast - White</td>
</tr>
</tbody>
</table>

**New Message**

Select the **New Message** button, it will open the new message window (see Fig 2.52).
Messages

- **Enter Text Message and Select Font.**

  First select the message text box. Then enter your required text via the onscreen keyboard or a peripheral keyboard.

  To select a font select one of the tabs beneath the message window. In (fig 2.52) the font has been selected to comic

  Changes to the font will take effect immediately so you can preview each font before use.

- **Format the Text Message**

  All formatting takes effect immediately and can preview it in the message window.

This setting determines how fast the message will scroll across the screen. There are three different speeds to choose from.

- **I** = Slow
- **II** = Medium
- **III** = Fast

---

**Saving the Message**

To save the message select the **Save** textbox, enter a name for your message and select either **Save + New** or **Save + List**.

---

**2.6 Special Tracks**

Special tracks is a list of tracks that can be instantly played from the Player. These are normally reserved for tracks that need to be played quickly and easily. There can only be a maximum of ten tracks.

First Select **Special Tracks** from the menu bar.

---

![Special Tracks](image)
Searching

- **Limiting Tracks by Genre.**
  The track list will only show tracks by the selected genre. Do this by selecting a genre from the bottom right. Alternatively click all.

- **Searching By Word.**
  By typing in a keyword into the search box and selecting search the track list will update only showing tracks / artist containing the keyword.

- **Ordering By Column.**
  This is done by clicking on the buttons at the top of each column. The tracks will then be sorted by that column.
Selection

When the screen is first opened all the tracks will be listed in the left column. The objective being to find the track desired and to move it into the right column. The right column is the playlist that will be played through the player.

The **Select** button Will add the track to the **Playlist**

The **Unselect** button will remove the track from the **Playlist**

Saving

When complete select the Save button.
2.7 Advisory Content

Advisory Content is a way of controlling tracks that maybe not suitable for certain demographics. This facility allows the user to add a number between 0 and 10 on every track. These numbers indicate how strong the advisory content is.

First Select **Advisory Content** from the menu bar.

Assigning a Content Rating

To apply a content rating use the left and right arrow buttons to select the advisory rating to the selection.

0 = Good
10 = Bad
• **Limiting Tracks by Genre.**
  The track list will only show tracks by the selected genre. Do this by selecting a genre from the bottom right. Alternatively click all.

  ![Genre Selection]

  - Select All to see all genres.
  - Select a single genre to display only specific genre tracks.
  - Use the paging controls see other genres.

• **Searching By Word.**
  By typing in a keyword into the search box and selecting search the track list will update only showing tracks / artist containing the keyword.

  ![Search Box]

  - Type search queries here
  - Press reset to clear the search
  - Click search when a keyword has been typed in.

• **Ordering By Column.**
  This is done by clicking on the buttons at the top of each column. The tracks will then be sorted by that column.
Manage Users is a way of controlling what functions each user can do. There are three levels of access to the system.

- **Service Mode User**
  *Just settings.*

- **Configuration User**
  *Everything except Commission (and settings unless service mode is chosen as well)*

- **Operator**
  *All access.*

Select **Manage Users** from the menu bar.

Fig 2.81
New Users

Fig 2.82

- Add a username to the username test box. 
  Assure it is unique.
- Add a password in Password and re-enter password text boxes. 
  Ensure the two passwords are the same.

Then Select Save.
2.9 Music Settings

Music Settings is the section that allows you to control the settings. The settings directly affect the way the hardware works with the software in the unit.

Select **Music Settings** from the menu bar.

Music Settings is divided into seven sections. (fig 2.91)

- **Mic Gain**
  Sets the mic gain.

- **Communication Test**
  *This provides a test with the update servers.*

- **Music Output**
  *This changes the music output between mono and stereo.*

- **Music Controls**
  *This section is responsible for a number of controls.*

  1. **Bass**
     Controls the level of the Bass.
  2. **Treble**
     Controls the level of the treble.
  3. **Volume 1 & 2**
     Controls the volume level on each channel.
  4. **Max Volume 1 & 2**
     Allows a volume ceiling on each channel.
  5. **Mic Attenuation**
     The level at which the music drops when mic is detected.

- **AGC Control**
  *Auto Gain Control automatically adjusts the volume of tracks to keep them balanced.*

- **Amp Mode**
  Bridge mode allows the 2 channels to be doubled up as 1 output.

- **Aux Behaviour**
  Controls the Aux and how it works under different setups.
2.10 Restore

Restore is how we load saved Rules, Playlists and Schedules back onto the system. This may occur when there is a system failure or to simply revert back to a previous saved setup.

Plug in a USB memory device containing Rules, Playlists and Schedules

Select Restore from the menu bar.

Fig 2.101

The Rules, Playlists and Schedules will be displayed in the left column select them and they will appear in the right column, simply click the save button when selection is complete.

The Select button Will add the item to be restored.

The Unselect button will remove the item from being restored.

Note. There is a clear USB Memory Device button on the screen. This will clear all saved items from the device
2.11 Save

Save is how the system saves Rules, Playlists and Schedules off of the system onto. This allows backups in the event of a system failure.

Plug in a USB memory.

Select Save from the menu bar.

Fig 1.111

The left column are the Rules, Playlists and Schedules that are available to be saved, select them and they will appear in the right column. Click the Save button when the selection is complete.

The Select button Will add the item to be saved.

The Unselect button will remove the item from being saved.
2.12 Commission

OPERATORS ONLY SECTION

Commission is to be used when you want the box activating. Activation means the box will communicate with NSM music servers and will allow music updates to be sent to your BGM system. This can be done in two ways

- Online Updates
  Your BGM will connect to the internet via a broadband internet connection. All updates will be delivered directly to your BGM system automatically.

- CD Updates
  Your BGM system will be updated by CD

Select **Commission Box** from the menu bar.

*Fig 2.121*

![Commission Box Interface](image)

Select the method of updating you require. Then select the commission button
The code that is displayed on your BGM needs to be noted and registered on NSM servers by an operator before it can start receiving updates.

**Commission an Online Update System**

The code that is displayed on your BGM needs to be noted and registered on NSM servers by an operator before it can start receiving updates.
On selection it will prompt for a Username and Password. Enter a valid operator username and password.

The system will request information about the BGM system. Fill these in details and select save.

The BGM is now commissioned and ready to use.

2.13 Logout

By selecting this you will leave the Control Panel and return to the Player.