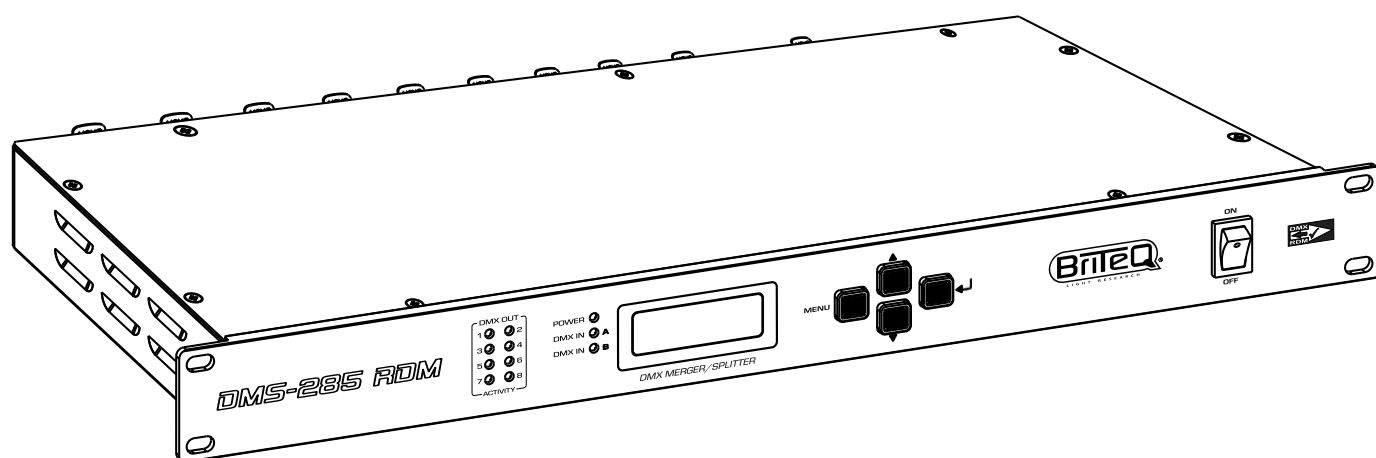


DMS-283 RDM

DMS-285 RDM

DMX MERGER/SPLITTER



ENGLISH

Operation Manual

Other languages can be downloaded from:
WWW.BRITEQ-LIGHTING.COM



Version: 1.0





EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su país.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this BRITEQ® product. To take full advantage of all possibilities, please read these operating instructions very carefully.

FEATURES

- This DMX merger + splitter + Booster is the perfect all-in-one solution to secure your DMX-installations: 100% electrical isolation between all in/outputs!
- 2 DMX-inputs + 8 DMX-outputs, each equipped with:
 - **DMS-283 RDM** → 3pin XLR-connectors
 - **DMS-285 RDM** → 5pin XLR-connectors
- Different port modes to combine 2 DMX signals (on inputs A & B) in different ways:
 - **HTP**: the highest value of 2 identical channels from 2 DMX-signals has priority.
 - **LTP**: the last changed value of 2 identical channels from 2 DMX-signals has priority.
 - **Backup**: when the DMX-signal on input A fails, the DMX-signal on input B takes over immediately.
 - **A→1-4 / B→5-8**: DMX-signal on input A assigned to outputs 1 to 4, input B assigned to outputs 5-8.
- The splitter function distributes the DMX-signal(s) from the A/B input(s) over 8 identical outputs.
- **Full electric isolation**: all inputs and outputs are 100% isolated from each other: problems that occur on any in/output will not influence the other in/outputs!
- **RDM filtering**: RDM on both inputs can be filtered to prevent unexpected behavior of DMX equipment.
- The timing of the DMX-outputs can be adapted from 20Hz (slow) to 40Hz (fast) for increased compatibility while connecting “slow” DMX-devices to “fast” DMX-controllers.
- Output behavior can be selected when suddenly both DMX-inputs fail:
 - **No DMX**: no DMX signal on the outputs
 - **HOLD**: keep the last DMX values on the outputs.
 - **ZERO**: set the DMX values on all outputs to zero.
- Easy setup via graphic OLED display

BEFORE USE

Check the contents:

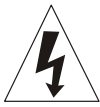
Check that the carton contains the following items:

- DMS-283 RDM or DMS-285 RDM
- Mains cable.
- User manual

Some important instructions:

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important**: This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.
- To protect the environment, please try to recycle the packing material as much as possible.

SAFETY INSTRUCTIONS:

**CAUTION**

RISK OF ELECTRIC SHOCK
DO NOT OPEN



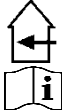
CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.



This symbol means: indoor use only



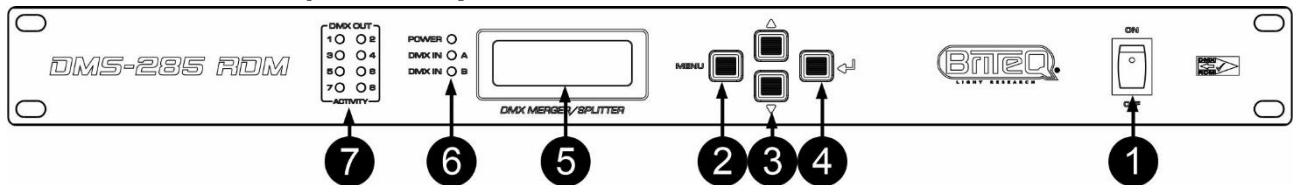
This symbol means: Read instructions

- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. No objects filled with liquids, such as vases, shall be placed on this appliance. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- No naked flame sources, such as lighted candles, should be placed on the appliance.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum save ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Always unplug the unit when it is not used for a longer time or before you start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the rear panel of the unit.
- The socket inlet shall remain operable for disconnection from the mains.
- The power cord should always be in perfect condition: switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard
- Never let the power-cord come into contact with other cables!
- This appliance must be earthed to in order comply with safety regulations.
- In order to prevent electric shock, do not open the cover. Apart from the mains fuse there are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the appliance and contact your dealer immediately.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

MAINTENANCE

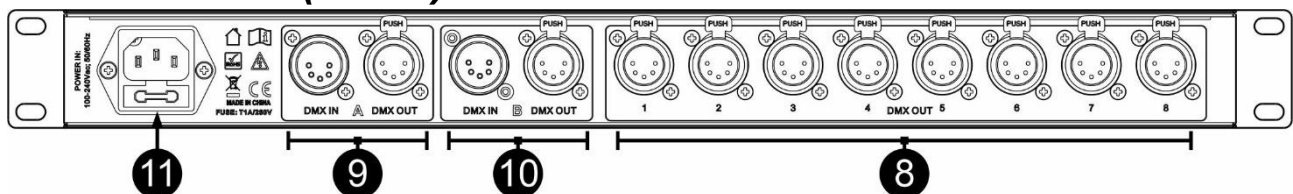
Clean by wiping with a polished cloth slightly dipped with water. Avoid getting water inside the unit. Do not use volatile liquids such as benzene or thinner which will damage the unit.

FUNCTIONS (FRONT)



1. **POWER SWITCH:** used to switch the unit on/off. The last settings are preserved.
2. **MENU BUTTON:** used to browse the main menu for the different options. Press this button 2 seconds to save your choice permanently and return to the standard display. See chapter "HOW TO USE" to learn how to use the unit"
3. **UP/DOWN BUTTONS:** used to change values or browse the different options in the sub menus.
4. **ENTER BUTTON:** used to confirm your choice. However please note that you should press the MENU button (2) for two seconds to save your choice permanently!
5. **DISPLAY:** Multifunctional OLED-display, shows the current working mode and helps selecting different functions.
6. **DMX IN A/B leds:** blinks when a DMX-signal is connected (input A: red color * input B: orange color).
7. **DMX OUT leds:** switched on when a DMX-signal is on the output. When an output is blown (for example due over voltage) the corresponding led stays dark.

FUNCTIONS (REAR)



8. **DMX OUTPUTS:** the unit has 8 identical but completely isolated DMX-outputs: when a problem occurs on one of the outputs (short circuits, overvoltage, ...) the other outputs and the 2 inputs will be protected and stay fully functional. All outputs have 3pin XLR (DMS-283 RDM) or 5pin XLR (DMS-285 RDM) connectors. (pin1 = ground/shield ; pin2 = data- ; pin3 = data+ ; pins 4/5 = not used)
9. **DMX INPUT A:** the unit has 2inputs. Input A (called the "main input") is the used when only 1 controller is attached. See chapter "HOW TO USE" to learn how to use the unit". The in/output is connected so you can daisy chain with other DMX-equipment.
10. **DMX INPUT B:** input B (called the "backup input") is used to connect a second controller. See chapter "HOW TO USE" to learn how to use the unit". The in/output is connected so you can daisy chain with other DMX-equipment.
11. **MAINS INPUT:** with IEC socket and integrated fuse holder, connect the supplied mains cable here.

HOW TO USE

The main menu contains sub menu's, below we explain each option in detail and how you should use it:

Important: to save your settings permanently, always press the MENU button (2) for 2 seconds!

PORT MODE 1/ HTP

In **HTP-mode** (**H**ighest **T**akes **P**recedence) two controllers are connected to the inputs A and B (9/10). Both controllers work simultaneously so both A/B INPUT (6) indicators are blinking. The DMX-values of both controllers are sent to the 8 outputs but for corresponding channels, the channel with the highest DMX-value will be routed to the outputs.

Example:

Controller A: ch1=102 + ch2=088 + ch3=246 + ch4=000

Controller B: ch1=105 + ch2=186 + ch3=101 + ch4=005

➔ Outputs: ch1=105 + ch2=186 + ch3=246 + ch4=005

PORT MODE 2/ LTP

In **LTP**-mode (**L**ast **T**akes **P**recedence) two controllers are connected to the inputs A and B (9/10). Both controllers work simultaneously so both A/B INPUT (6) indicators are blinking. DMX values from both controllers are sent to the 8 outputs, but for corresponding channels, the channel with the last modified DMX value is routed to the outputs.

PORT MODE 3/ BACKUP

In **BACKUP**-mode two controllers will be connected to the inputs A and B (9/10). The controller connected to input A is the main controller that will be routed to the outputs. If, for any reason, controller A fails, the backup controller, connected to input B, takes over immediately. On the A/B INPUT LEDs (6) you can always check which controller is in command! When both controllers fail, you can decide how the outputs should react: see "Port State option" below.

PORT MODE 4/ A=1-4 / B=5-8

In this mode the inputs A and B are completely separated in 2 independent 4-port splitters:

- **A=1-4:** the DMX-signal at input A is sent to outputs 1 to 4.
- **B=5-8:** the DMX-signal at input B is sent to outputs 5 to 8.

PORT STATE

When no DMX is detected on both inputs A and B (9/10), you can choose how the outputs should react. Three options are available:

- **1/ ZERO:** set the DMX values on all outputs to zero (all projectors will go to "blackout")
- **2/ HOLD DATA:** keep the last DMX values on the outputs (avoids a general "blackout" on stage)
- **3/ NO DMX OUT:** no DMX signal on the outputs (some DMX-equipment will start working in standalone mode)

Just choose the behavior that suits best for the job.

RDM FILTER

Quite a lot of DMX equipment does not work 100% correctly when RDM messages are sent on the DMX line. Sometimes this results in unpredictable behavior. To avoid these problems, it is possible to filter RDM communication on the DMX line.

- **1/ A+B = RDM ON:** no filtering of RDM communication.
- **2/ A+B = NO RDM:** all RDM communication is filtered.
- **3/ A = NO RDM:** only the RDM communication on input A is filtered.
- **4/ B = NO RDM:** only the RDM communication on input B is filtered.

DMX TIMING

Modern "high speed" DMX-controllers send a full 512ch package with a refresh rate of max. 44Hz (or 23ms). Most common the refresh rate is set to 40Hz (25ms). Some low-cost Chinese DMX-equipment is not able to work at these high refresh rates, as a result data is lost and all kinds of unpredictable behavior occurs. To solve this problem the splitter can adapt the refresh rate in a range from fast (40Hz) to slow (20Hz)" for increased compatibility between DMX-units.

- **1/ NO CHANGE:** the timing of the incoming DMX signal is NOT adapted. (see note below!)
- **2/ SLOW 20Hz:** the timing of the incoming DMX signal is adapted to 50ms: used when the connected DMX-equipment cannot follow the DMX-speed of the controller or while the DMX-line is very long.
- **3/ MED 30Hz:** the timing of the incoming DMX signal is adapted to 33ms: most DMX-equipment can deal with this DMX-speed.
- **4/ FAST 40Hz:** the timing of the incoming DMX signal is adapted to 25ms: the best setting when fast reaction times are needed.

Important note: to avoid timing problems while RDM packets are sent, the DMX-timing can only be changed while no RDM is used.

MENU	SUBMENU
1. Port Mode	1. HTP 2. LTP 3. BACKUP 4. A=1-4 / B=5-8
2. Port State	1. ZERO 2. HOLD DATA 3. NO DMX OUT
3. RDM Filter	1. A+B = RDM ON 2. A+B = NO RDM 3. A = NO RDM 4. B = NO RDM
4. DMX Timing	1. NO CHANGE 2. SLOW 20Hz 3. MED 30Hz 4. FAST 40Hz
5. Back Light	1. ON 2. OFF
6. LOCK Panel	1. LOCK ON 2. LOCK OFF
7. Version	

BACK LIGHT

Used to switch the display on or off:

- **1/ ON:** the display is always visible for easy monitoring.
- **2/ OFF:** after a short time the display turns dark when no buttons are pressed. As soon as a button is pressed, the display is lit.

LOCK PANEL

Used to lock the buttons for unwanted altering of the settings.

- **1/ LOCK ON:** the buttons are automatically locked after a short time. As soon as a button is pressed, the display shows "LOCKED".
To unlock the unit, press these buttons in the correct order: ▲ + ▼ + ▲ + ▼ + ENTER
- **2/ LOCK OFF:** no buttons will be locked.

VERSION

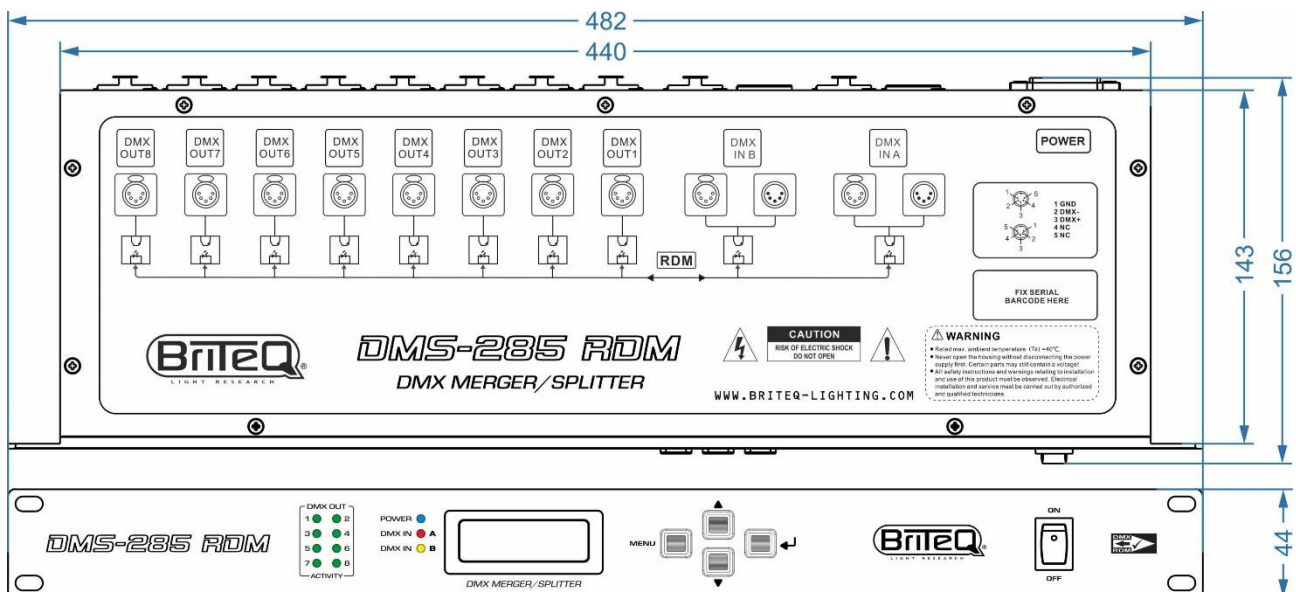
Shows the current software version.

Note: Please check the product page on our website to see if there is any new software available. If so, the software can be downloaded from the website and updated using the optional "firmware updater" (order code: B04319).

SPECIFICATIONS

This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

Power Input: 100 - 240V_{ac} 50/60Hz.
DMX in/outputs: XLR 3pin (DMS-283 RDM) or XLR 5pin (DMS-285 RDM)
 2 inputs → 8 outputs
Size: 482 x 44 x 156mm (19"/1U)
Weight: 2,0kg



Every information is subject to change without prior notice

You can download the latest version of this user manual on our website: www.briteq-lighting.com



MAILING LIST

EN: Subscribe today to our mailing list for the latest product news!

FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!

NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!

DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!

ES: Suscríbete hoy a nuestra lista de correo para recibir las últimas noticias!

PT: Inscreva-se hoje na nossa mailing list para estar a par das últimas notícias!

WWW.BRITEQ-LIGHTING.COM

Copyright © 2025 by BEGLEC NV

't Hofveld 2C ~ B1702 Groot-Bijgaarden ~ Belgium

Reproduction or publication of the content in any manner, without express permission of the publisher, is prohibited.