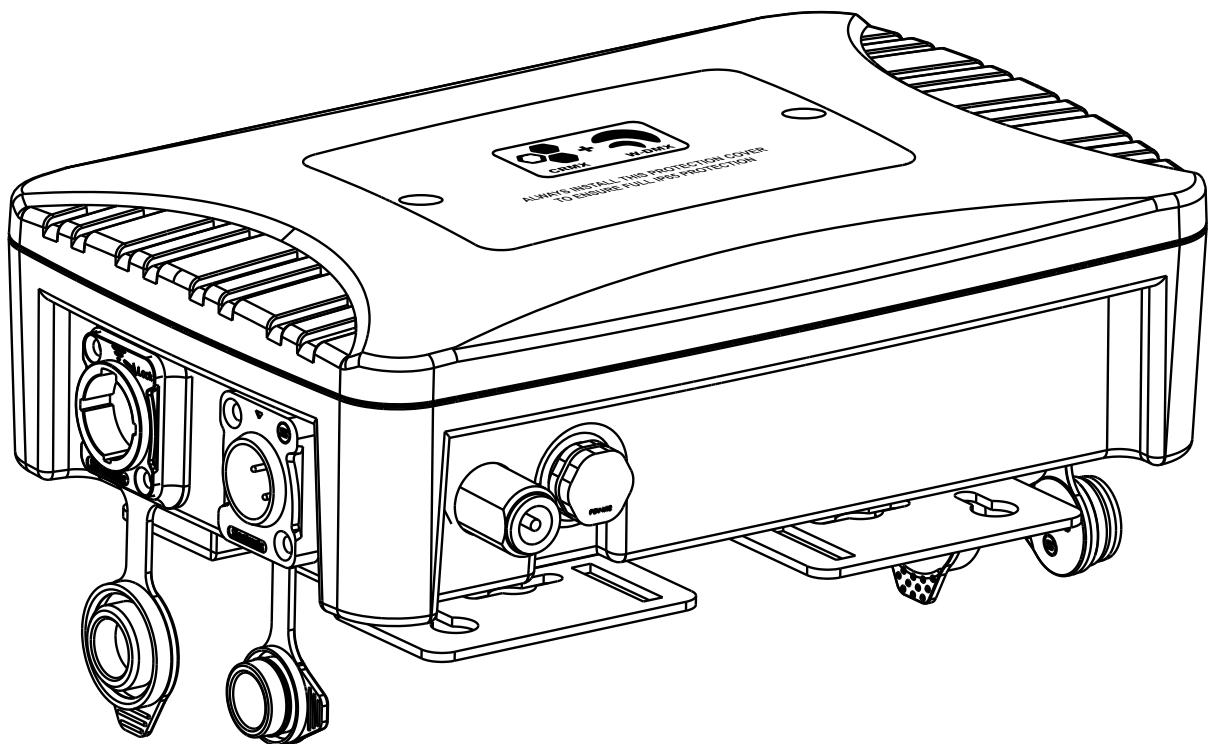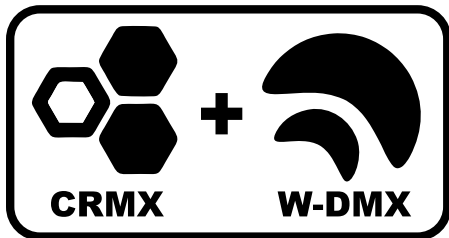# WTR-DMX TRANSCEIVER IP Mk2

CRMX + W-DMX

ENGLISH

Operation Manual

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

CE

Version: 1.0

BRITEQ®
LIGHT RESEARCH

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 pais.

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

- The perfect solution when wireless DMX with maximum flexibility and reliability is needed!
- IP65 transceiver (sender or receiver mode) for both architectural and stage applications.
- Compatible with LumenRadio® CRMX and Wireless Solutions® W-DMX™ protocols:
  - **Transmitter mode:** CRMX classic + W-DMX™ G3 / G4S
  - **Receiver mode:** CRMX² / CRMX classic + W-DMX™ G3 / G4 / G4S / G5
- 5dBi antenna for better signal reception/transmitting!
- 2.4GHz band for worldwide license free use!
- RDM compatible (in RX-mode).
- Up to 150m of safe working distance!
- Robust black die-cast aluminum weatherproof housing for outdoor use.
- Lockable IP65 power input/output connectors (Neutrik PowerCON® TRUE1 compatible)
- Seetronic IP65 XLR 3pin in/out for easy daisy chaining. (5pin XLR in/out possible)
- Fully CE / RED certified!

BEFORE USE

Check the contents:
Check that the carton contains the following items:
- WTR-DMX TRANSCEIVER IP Mk2
- N-type 5dBi antenna
- N-type antenna 90° elbow
- "Omega base" hanging bracket
- A marking off template for hanging
- Power cable
- Short XLR-cable
- User manual

Some important instructions:
- Before you start using this unit, please check if there is 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 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 use or 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.
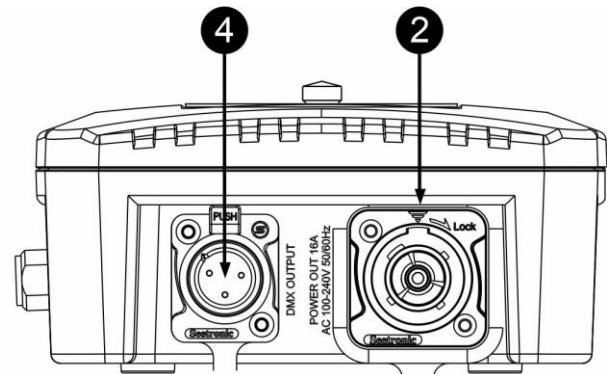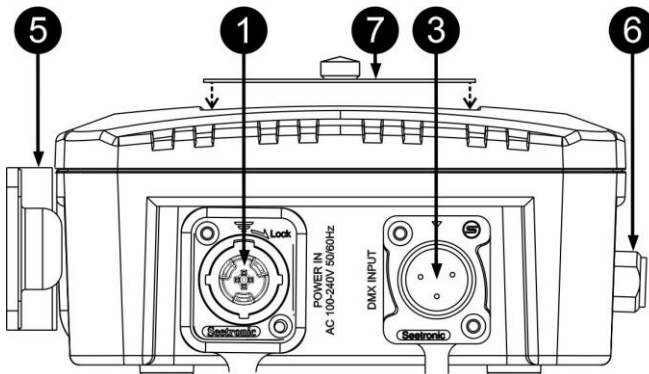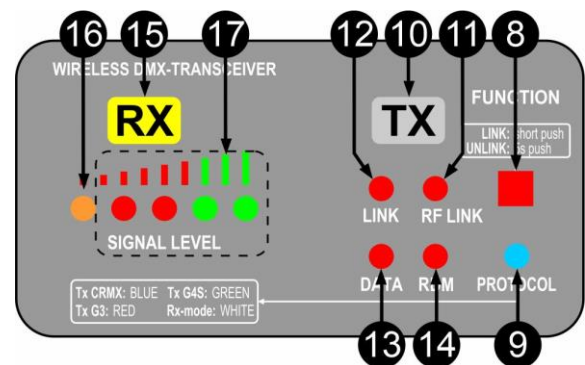
This symbol means: indoor use only

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 safe ambient temperature is 60°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 off the unit immediately 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 in order to 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.

FUNCTIONS

1. **POWER INPUT:** Seetronic IP-POWER input connector, connect the included power cord here.
2. **POWER OUTPUT:** Seetronic IP-POWER output connector with 16A linking capacity.
3. **DMX INPUT:** 3p XLR male connector.
4. **DMX OUTPUT:** 3p XLR female connector for daisy chaining in the truss.
5. **OMEGA BASE:** removeable base that can be used while the unit is fixed in the truss.
6. **N-TYPE ANTENNA CONNECTOR:** connect the included 5dBi antenna here, with or without the ELBOW connector.
7. **COVER PLATE:** must be installed while used outdoor to protect against forces of nature.
8. **FUNCTION button:** to setup the desired mode (TX or RX), data protocol (CRMX, G3, G4/G4S) and pairing / unpairing: see next chapter for more information.
9. **PROTOCOL LED:** color changes with the selected transmitter protocol:
   - **Blue color:** LumenRadio® CRMX protocol
   - **Green:** W-DMX G4S protocol
   - **Red:** W-DMX G3 protocol
10. **TX-INDICATOR LED:** works in transmitter mode while lit.
11. **RF-LINK LED:** Indicates that there is an active wireless connection.
12. **LINK LED:** shows that the transmitter is trying to establish connection(s) with unpaired receivers
13. **DATA LED:** indicates that DMX data in sent / received.
14. **RDM LED:** indicates that RDM-data is received.
15. **RX-INDICATOR LED:** works in receiver mode while lit.
16. **ORANGE LED:** lit while negotiating the connection, turns dark when the connection is established
17. **SIGNAL LEVEL INDICATORS:** shows the strength of the received wireless DMX-signal.

MECHANICAL INSTALLATION

The WTR-DMX TRANSCEIVER IP Mk2 can be used for both architectural lighting and use on stage. In both applications you will install the device in a different way:
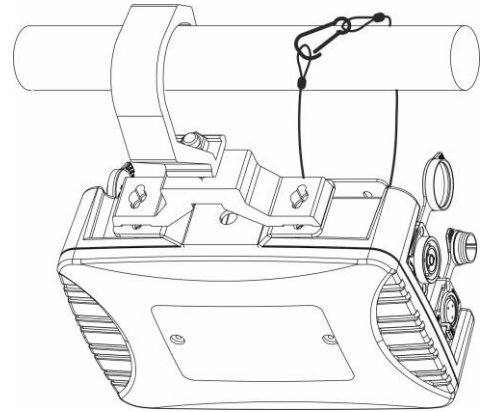- **Use on stage:** installation in truss (overhead rigging)
- **Architectural lighting:** installation again a wall

> **IMPORTANT FOR GOOD TRANSMISSION:**
> - **For horizontal transmission: always make sure that the antennas of both transmitter and receiver are always installed in VERTICAL position. If needed, please use the 90° elbow connector.**
> - **The best reception is achieved when the transmitter and receiver see each other, without any obstacles in between.**
> - **Avoid obstacles such as stone walls and especially reinforced concrete walls.**
> - **Try to place the antennas at least 1m above crowds and vegetation (bushes, trees, etc.).**
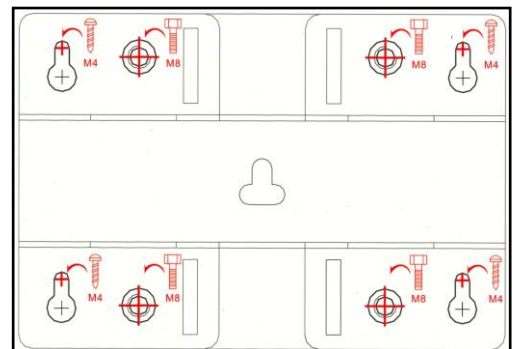
TRUSS INSTALLATION / OVERHEAD RIGGING

- **Important: The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should be used, the installed device should be inspected regularly for safety.**
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- Before rigging make sure that the installation area can hold a minimum point load of 10times the device's weight.
- Always use a certified safety cable that can hold 12 times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- The operator must make sure that the safety-relating and machine-technical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.

WALL INSTALLATION

In the packing you will find a marking off template for hanging the device against a wall. You can use this to easily drill the 4 holes in the wall at the exact locations. Next, use plugs and M4 round-headed screws (both not included) to attach the unit to the wall.

To avoid unnecessary warm-up, we recommend installing the unit in a place where there is little or no sunlight. To protect the control panel, the cover plate should always be mounted.

SETUP FOR WIRELESS OPERATION

Each device is a wireless DMX transceiver, which means it can work as a transmitter or receiver, remember to check the working mode of each device first.
The WTR-DMX TRANSCEIVER IP Mk2 supports different wireless protocols: so first check which protocol to use. The protocol must be set only on the transmitter, the receiver recognizes the protocol used and adapts automatically.
To set up a wireless system for 1 DMX universe, you must first assign 1 or more receivers to a transmitter. Here we explain how to proceed.

CHANGING THE WIRELESS PROTOCOL

There are 3 protocols to choose from: if other devices (light effects, moving heads, …) with wireless DMX will be controlled, please check which Wireless DMX-protocol they support. Based on this information you can make the right choice for the adapted protocol on the transmitter.
- Press the FUNCTION button (8) 3 times in quick succession, immediately followed by a long press (+/-5 seconds) until the "PROTOCOL" LED (9) starts flashing.
- Release the FUNCTION button and now press it briefly to change the color of the flashing "PROTOCOL" LED (9):
    - **Blue color:**   LumenRadio® CRMX protocol
    - **Green:**   W-DMX G4S protocol
    - **Red:**   W-DMX G3 protocol
- Once the LED has the desired color, press the FUNCTION key again for +/-3sec until the flashing stops.
- The transmitter is now set to the desired protocol.

Important remarks
- **To avoid protocol problems, any existing wireless connection must be disconnected and re-established based on the newly selected protocol.**
- *If our WTR-DMX DONGLE (code: B04645) is the receiver → choose the G3 or G4S protocol.*
- *If the JB-Systems M-DMX TRANSCEIVER II (code: B05026) is the receiver → choose G3 protocol.*

SWITCH THE TRANSCEIVER TO TRANSMITTER MODE :
- First, power up the transceiver to check whether it is already in transmitter mode or not. When the TX INDICATOR LED (10) is lit, the WTR-DMX TRANSCEIVER IP MK2 is in transmitter mode.
  If the RX INDICATOR LED (15) is lit, perform the next 2 steps.
- Turn off the power from the WTR-DMX TRANSCEIVER IP MK2 by disconnecting the power input connector (1) from the mains.
- Press the FUNCTION button (8) during +/-5seconds while powering up the WTR-DMX TRANSCEIVER IP MK2. The TX INDICATOR LED (10) turns on.
- The unit is now in transmitter mode.

SWITCH THE TRANSCEIVER TO RECEIVER MODE :
- First, power up the transceiver to check whether it is already in transmitter mode or not. When the RX INDICATOR LED (15) is lit, the WTR-DMX TRANSCEIVER IP MK2 is in receiver mode.
  If the TX INDICATOR LED (10) is lit, perform the next 2 steps.
- Turn off the power from the WTR-DMX TRANSCEIVER IP MK2 by disconnecting the power input connector (1) from the mains.
- Press the FUNCTION button (8) during +/-5seconds while powering up the WTR-DMX TRANSCEIVER IP MK2. The RX INDICATOR LED (15) turns on.
- The unit is now in receiver mode.

CONNECTING ONE OR SEVERAL RECEIVERS TO A TRANSMITTER
To connect your receiver(s) to a specific transmitter:
  a) Make sure that the receiver(s) to be connected, is (are) not linked to another transmitter: the LINK / RF-LINK leds (12/11) on this (these) receiver(s) are OFF (not lit).
  b) Press the FUNCTION button (8) of the transmitter shortly; the LINK leds (12) on both the transmitter and receiver(s) lights up.
  c) After some seconds: the RF-LINK led (11) on the receiver(s) light up: the receiver(s) is/are linked.

DISCONNECTING RECEIVERS FROM A DMX UNIVERSE
To disconnect all the receivers from a DMX universe / transmitter:
- Press the FUNCTION button (8) of the transmitter for about 3 seconds until the RF-LINK LED (11) turns dark. The LINK / RF-LINK led(s) on the receiver(s) turn (turns) dark to indicate that they are disconnected.
- You can re-connect the receiver(s) again simply by pressing the FUNCTION button (8) on the transmitter shortly. The LINK / RF-LINK led(s) on the receiver(s) turn (turns) ON again.

To disconnect an individual receiver from a DMX universe / transmitter:
- Press the FUNCTION button (8) of the receiver for about 3 seconds until the LINK / RF-LINK leds (12/11) turn dark.
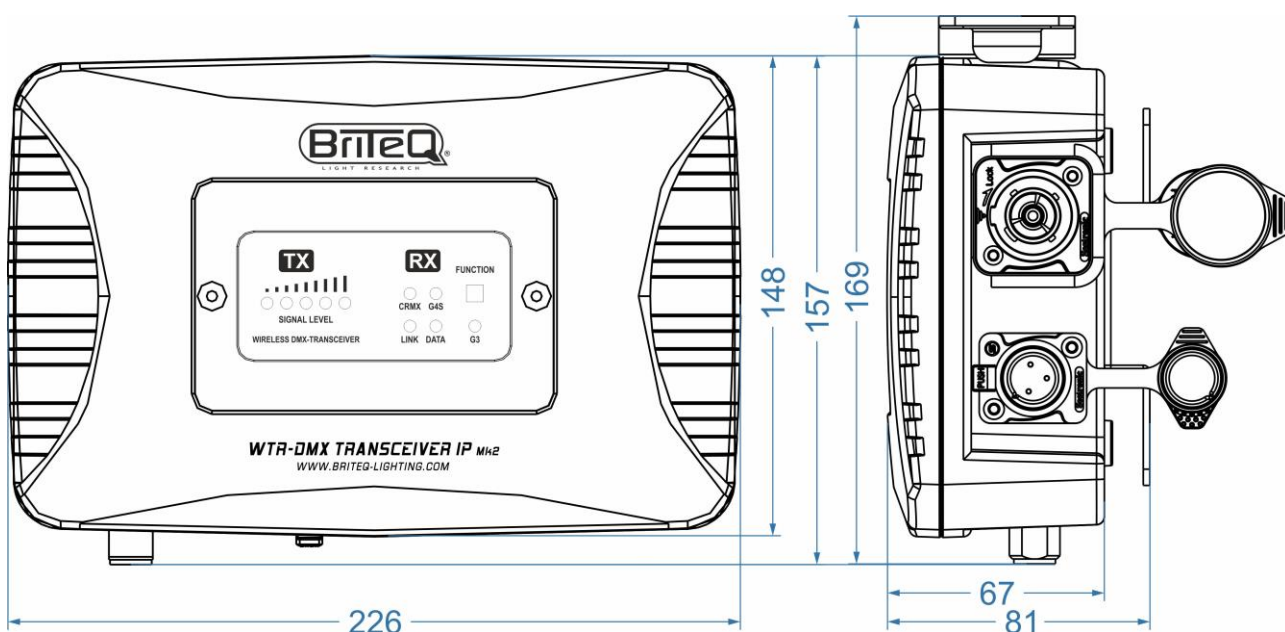- This receiver is now disconnected from the transmitter (DMX universe).

MAINTENANCE
- No special maintenance is needed but we advise to regularly check the cabling and watertightness of the enclosure.
- Switch off the unit and unplug the mains cable before opening the enclosure.
- Always check if the sealing rubbers are in perfect condition and in the correct position before closing the unit.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.

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: AC 100V-240V, 50Hz
Power connectors: Seetronic IP-POWER connectors
DMX connectors:
   • **DMX input:**   Seetronic® IP-XLR 3pin
   • **DMX output:**   Seetronic® IP-XLR 3pin
Ambient Temperature: -20 → +60°C
Frequency range: 2402 → 2480MHz
Protocol support transmitter mode: CRMX classic + W-DMX™ G3 / G4S
Protocol support receiver mode: CRMX² / CRMX classic + W-DMX™ G3 / G4 / G4S / G5
RDM support: in receiver mode, following the E1.20 standard.
Antenna: 5dBi with N-Type connector
Size: 226 x 157 x 81mm
Weight: 2kg

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!

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