

# EWDMX IP™

user manual

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## DOCUMENT VERSION



Please check [www.elationlighting.com](http://www.elationlighting.com) for the latest revision/update of this manual.

Date	Document Version	Notes
8/17/15	1	Updated manual format.

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## GENERAL INFORMATION

### INTRODUCTION

Congratulations, you have just purchased one of the most innovative and reliable wireless DMX IP rated devices on the market today! The device has been designed to perform reliably for years when the guidelines in this booklet are followed. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during use and maintenance.

**IP65**

### IP65 RATED

An IP rated device, which is commonly installed in outdoor environments and has been designed with an enclosure that effectively protects the ingress (entry) of external foreign objects such as dust and water. The **International Protection (IP)** rating system is commonly expressed as "**IP**" (Ingress Protection) followed by two numbers (i.e. IP65) where the numbers define the degree of protection. The first digit (Foreign Bodies Protection) indicates the extent of protection against particles entering the fixture and the second digit (Water Protection) indicates the extent of protection against water entering the fixture. An IP65 rated device such as the **EWDMX IP™** is one, which has been designed and tested to protect against the ingress of dust (6) and high-pressure water jets from any direction (5).



### MARINE/COASTAL ENVIRONMENT INSTALLATIONS!

Please note although this device is IP rated, the device is **NOT** suitable for marine and/or coastal environment installations. Installing this device in a marine and/or coastal environment may cause corrosion and/or excessive wear to the interior and/or exterior components of the fixture. Damages and/or performance issues resulting from installation in a marine and/or coastal environment will void the manufactures warranty and will **NOT** be subject to any warranty claims and/or repairs.



Ensure **ALL** connections and end caps are properly sealed with a non-conductive dielectric grease (available at most electrical suppliers) to prevent water ingress/condensation and/or corrosion.



### OPTIONAL CORROSION-RESISTANT COATING

Optional Corrosion-Resistant Coatings may be available for this device. Please consult your **Elation Professional** sales representative for details.

## UNPACKING

Every unit has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this unit to your dealer without first contacting customer support at the number listed below. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

## BOX CONTENTS

- (1) IP Rated Power Cable
- (1) IP Rated 3pin Male DMX Input Cable
- (1) Clamp Mounting Bracket & (2) Screws
- (1) Safety Cable
- Manual & Warranty Card

## CUSTOMER SUPPORT

Elation Professional® provides a customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at [www.elationlighting.com](http://www.elationlighting.com) for any comments or suggestions. For service related issue please contact Elation Professional®.

### **ELATION SERVICE USA - Monday - Friday 8:00am to 5:00pm PST**

**Voice: 323-582-3322**

**Fax: 323-832-9142**

E-mail: [support@elationlighting.com](mailto:support@elationlighting.com)

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E-mail: [support@elationlighting.eu](mailto:support@elationlighting.eu)

## WARRANTY REGISTRATION

Please complete and mail in the enclosed warranty card or register online: <http://www.elationlighting.com/Login.aspx> to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support.



### **IMPORTANT NOTICE!**

**There are no user serviceable parts inside this unit. Do not attempt any repairs yourself; doing so will void your manufactures warranty. Damages resulting from modifications to this fixture and/or the disregard of safety and general user instructions found in this user manual void the manufactures warranty and are not subject to any warranty claims and/or repairs.**

## LIMITED WARRANTY

A. Elation Professional® hereby warrants, to the original purchaser, Elation Professional® products to be free of manufacturing defects in material and workmanship for a period of two years (730 days), and Elation Professional® product rechargeable batteries to be free of manufacturing defects in material and workmanship for a period of six months (180 days), from the original date of purchase. This warranty excludes discharge lamps and all product accessories. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Elation Professional® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Elation Professional® will pay return shipping charges only to a designated point within the United States. If any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professional® shall have no liability what so ever for loss and/or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Elation Professional® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional® factory unless prior written authorization was issued to purchaser by Elation Professional®; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/or user manual.

D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Elation Professional® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professional® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional®. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.

E. Elation Professional® reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional® be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.

G. This warranty is the only written warranty applicable to Elation Professional® products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

## SAFETY INSTRUCTIONS



This device is an extremely sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow the guidelines in this manual. The manufacturer of this device will not accept responsibility for damages resulting from the misuse of this device due to the disregard of the information printed in this manual.



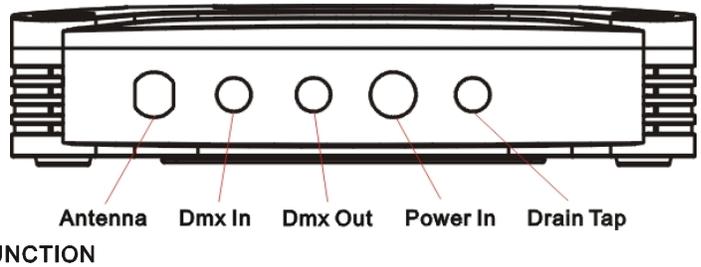
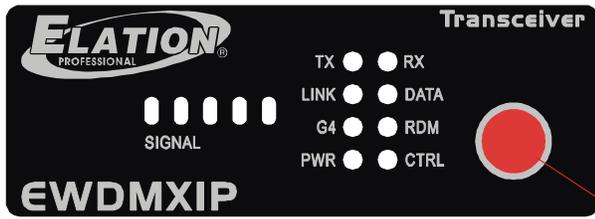
This device falls under **PROTECTION CLASS 1**. It's essential this device is grounded properly, and only qualified personnel perform all electrical connections.

- For proper operation, only qualified and certified personnel should perform installation of this device. Do not attempt installation and/or operation without proper knowledge how to do so. Any modifications to this device will void the original manufactures warranty and increase the risk of damage and/or personal injury.
- Always disconnect from main power source before performing any type of cleaning procedure and/or when this device is not in use. Only handle the power cord by the plug end, never pull out plug by tugging wire the cord.
- Do not operate device if the power cord has become frayed, crimped and/or damaged. If the power cord is damaged, replace it immediately with a new one of similar power rating.
- **DO NOT** operate device in locations **above 113°F (45°C) or below 14° F (-10° C)**.
- **DO NOT** operate device in areas subject to extreme vibrations or bumps.
- Please make sure there are **NO FLAMMABLE MATERIALS** close to this device while operating, to prevent any fire hazard.
- Do not permit operation by persons who are not qualified for operating this type of device. Most damages are the result of operations by nonprofessionals.
- Please use the original packaging and materials to transport this device in for service.

## GENERAL GUIDELINES

- Device must be installed in a location where the antenna is not blocked or hidden from view.
- **DO NOT** attempt installation and/or operation without knowledge how to do so.
- **DO NOT** allow persons to operate this type of device who are not qualified. Most damages are the result of operations by nonprofessionals.
- **DO NOT** shake device, avoid brute force when installing and/or operating.
- When installing device overhead in a suspended location, always install with an appropriate safety cable. When installing the fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm, also be sure the hardware is insert in the pre-arranged screw holes in the bracket of the fixture.
- Use the original packaging and materials to transport the device in for service.

## DEVICE OVERVIEW



### SIGNAL

In “**Receiver Mode**” - Indicates strength of receiving wireless signal.



In “**Transmitter Mode**” - Indicates Operating Mode (See page 14 for more details)

### TX/RX

Indicates current operating mode of the unit

**TX** = Transmitter Mode

**RX** = Receiver Mode

### LINK - TX (Transmitter) MODE LED INDICATOR

**ON:** Normal Operation

**FLASH:** Unlinking All Wireless Receivers

**RAPID FLASH:** Linking With All Wireless Receivers

### LINK - RX (Receiver) MODE LED INDICATOR

**ON:** Not Linked To A Wireless Transmitter

**FLASH:** Linked To A Wireless Transmitter

**RAPID FLASH:** Linking To A Wireless Transmitter

### DATA

Both modes (TX / RX) Indicates presence of a wireless DMX signal

### G4

Both Modes (TX / RX) Indicates G4 mode is active

### RDM

Both Modes (TX / RX) Indicates presence of RDM signal

### CTRL

Both Modes (TX / RX) Indicates Control mode is active

### POWER

Both Modes (TX / RX) Indicates device is receiving required AC power

### FUNCTION BUTTON

Used to activate modes as listed above

## DEVICE INSTALLATION



### FLAMMABLE MATERIAL WARNING

Keep fixture at least 5.0 ft (1.5m) away from any flammable materials, decorations, pyrotechnics, etc.



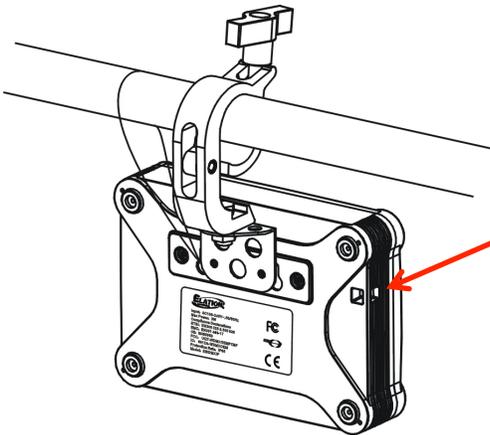
### ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.

## CAUTIONS

- For added protection, mount the device in areas outside walking paths, seating areas, or in areas where unauthorized personnel might reach the fixture.
- Before mounting the device to any surface, make sure the installation area can hold a minimum point load of 10 times the weight of the fixture.
- Device installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.
- Never stand directly below the device when mounting, removing or servicing.
- The applicable operating temperature for the device is between **-10°C to 45°C**. Do not use the device under or above this temperature range.
- **Ensure ALL connections and end caps are properly sealed with a dielectric grease (available at most electrical suppliers) to prevent water corrosion and/or electrical short circuit.**

### INSTALLATION VIA INCLUDED BRACKET



### TRUSS MOUNTING INSTALLATION

- 1) Insert the quick-lock fasteners of the included bracket into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
- 2) Loop the safety cable through the opening on the bottom of the base indicated by red arrow, and over trussing system or a safe fixation spot. Hook end of the safety cable on to the attached carabineer.

### PERMANENT INSTALLATION

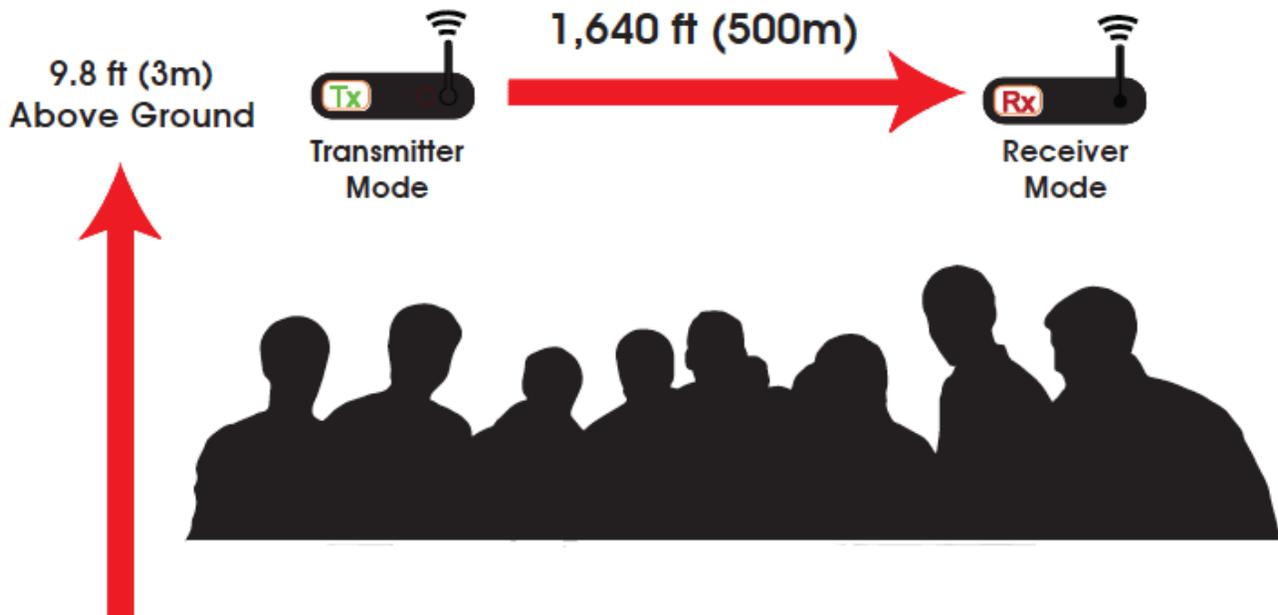
- 1) Remove attached mounting bracket and set on a flat surface or secure to a wall using the 2 slotted screw-mounting points.

## INSTALLATION LOCATION GUIDELINES

Wireless DMX signal can penetrate walls, glass, metal, and most objects. However there are many factors that can affect and/or interrupt the wireless DMX signal, one of which is people. Therefore it is highly recommended to position the wireless antenna a minimum of 9.8 ft. (3m) above audiences and/or above ground level. Careful planning and testing of the selected installation location is critical to ensure optimum and reliable wireless DMX operation.

The maximum wireless DMX range is up to **1,640 ft. (500m)**, based on general testing of the **EWDMX IP™** in an outdoor urban area with normal interference, installed in a location **9.8 ft. (3m) ABOVE AUDIENCES and/or GROUND LEVEL**, with a **DIRECT LINE OF SIGHT (Tx Antenna to Rx Antenna)**, and with **80%** or greater signal strength.

(See diagram below)



# OPERATION GUIDE

## SYNCRONIZING RECEIVERS TO A TRANSMITTER

 **Note:** You can add receivers at any time, even during operation.

1. Power on the **RECEIVER** unit(s) and ensure that they are not linked with any other **TRANSMITTER** (LINK indicators should be OFF and RX indicator should be ON). If the units are linked, follow the instructions in the next section to unlink receivers.
2. On the **TRANSMITTER** unit, press and release the **RED FUNCTION** button quickly. The **TRANSMITTER** will scan for all unlinked **RECEIVERS** for a period of ten seconds - the LINK indicator will flash rapidly.

If successful, each **RECEIVER's** LINK and SIGNAL indicators will go ON. If failed (i.e. the LINK indicator fails to go solid after 10 seconds on the **RECEIVER**), check if the **RECEIVER** is in range and repeat the procedure.

## CLEARING A RECEIVER LINK TO A TRANSMITTER

On the **TRANSMITTER** unit, press the **RED FUNCTION** button and hold for 3 seconds. All display LEDs will go out, and the LINK LED will be blinking slowly. Release the **RED FUNCTION** button at this point, and all connected **RECEIVERS** will be unlinked.

## TO UNLINK AN INDIVIDUAL RECEIVER

On the **RECEIVER**, press and hold the **RED FUNCTION** button until the LINK indicator goes OFF except for POWER and RX indicators. The **RECEIVER** is now unlinked.

## SWITCHING BETWEEN TX AND RX MODES

The **EWDMX IP™** can switch between transmit and receive modes, allowing the unit to be used as a TRANSMITTER or a RECEIVER.

1. Remove power from the unit by disconnecting the power cable
2. Push and hold the **RED FUNCTION** button
3. Reconnect power while still holding the **RED FUNCTION** button
4. Release the **RED FUNCTION** button
5. The TX (TRANSMITTER) or RX (RECEIVER) LEDs indicate the mode of the unit.

## G3/G4 MODES, & RDM OPERATION

**EWDMX IP™** can change between **Generation 3** protocol (compatibility for older units), and the new **Generation 4** protocol, which supports **Invisiwire, Datasafe and RDM (Remote Device Management)**. **G4** receivers automatically detect the mode the transmitter is in, so you only need to change the mode of the transmitter to change the mode of the entire system. When the protocol mode has been changed, receivers need to be re-connected to their respective transmitters.

### TO CHANGE MODES

1. Hold down the **RED FUNCTION** button for over 10 seconds. Initially, you will see the LINK light blink slowly. Do not release the **RED FUNCTION** button at this point, as this will disconnect all RECEIVERS. Wait until you see the ALL of the LEDs light up, then the RED CTL light illuminate, before releasing the **RED FUNCTION** button.
2. Press and release the **RED FUNCTION** button to change between the (3) modes. Note that each time the **RED FUNCTION** is pressed, the unit will toggle between all the different modes.
3. Once the desired mode is set, power cycle the unit to begin use in that mode.

### The Following Modes Can Be Set:

- **G4 2.4GHz** (First green SIGNAL indicator on the left and G4 Light is static on).
- **G4 RDM** (First green SIGNAL indicator on the left is off but G4 Light is static on).
- **G3 2.4GHz** (First green SIGNAL indicator on the left is static on but G4 Light is off).



**Note: Units ship standard as G3, 2.4GHz for backward compatibility reasons**

## SWITCHING RDM MODE

1. On the **TRANSMITTER**, enter G4 RDM mode.
2. Press the **RED FUNCTION** button to enter the control mode (TX / LINK / DATA / G4 / RDM / PWR and three middle SIGNAL indicators are static ON).
3. On the **RECEIVER**, RX and PWR indicators are static ON. If not, please unlink the individual **RECEIVER**.
4. If all LED indicators above light formally, press the **RED FUNCTION** button on the TRANSMITTER quickly, LINK lights on TRANSMITTER and RECEIVER will blink. Successfully switch to RDM mode if RX / LINK / DATA / G4 / RDM / PWR and SIGNAL indicators are static ON.

# TECHNICAL SPECIFICATIONS

## FEATURES

- IP65 Wireless DMX Transceiver with 2dbi Outdoor Antenna
- Up To 1,640 ft. (500m) Wireless DMX Range\* (\*See page 12 for more information)
- FHSS (Frequency Hoping Spread Spectrum) 1,800 tps
- Datasafe Tech - Wireless Fidelity and Error Correction
- Invisi-wire High-Fidelity Tech - Output Matches Input
- Easy-To-Use Single Push Button Function Control
- RDM (Remote Device Management) Support
- 2.4GHz Radio – License Free Worldwide
- TDMA (Time Division Multiple Access)
- W-DMX G4 Protocol Support
- Rugged Hard Plastic Case
- Single DMX-512 Universe

## CONTROL / CONNECTIONS

- Multi-Function Single Push Button
- Antenna Port
- IP Rated 3pin Male + 3pin Female Attached DMX In/Out Cables
- IP Rated 3pin Attached Power In Cable

## SIZE / WEIGHT

- Length: 9.4" (240mm)
- Width: 6.7" (170mm)
- Vertical Height: 2.2" (56.5mm)
- Weight: 4.6 lbs. (2.1kg)

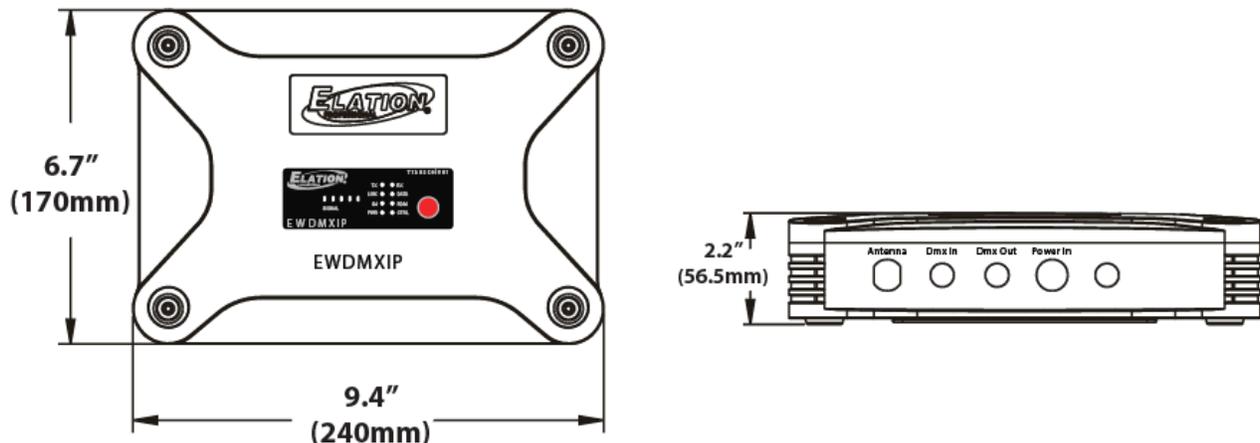
## ELECTRICAL / THERMAL

- AC 100-240V - 50/60Hz
- 3W Max Power Consumption
- 14°F (-10°C) to 113°F (45°C)

## APPROVALS / RATINGS

CE | IP65

## DIMENSIONAL DRAWINGS



Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

## OPTIONAL ACCESSORIES

<b>ORDER CODE</b>	<b>ITEM</b>
TRIGGER CLAMP	Heavy Duty Wrap Around Hook Style Clamp
804090301390	3pin IP to Edison Plug Power Cable
804090301370	10 ft. (3m) IP Power Extension Cable
804090301770	32.8 ft. (10m) IP Power Extension Cable
804090301470	3pin Female DMX to 3pin Male IP Cable
804090301480	3pin Male DMX to 3pin Female IP Cable
804090301380	10 ft. (3m) 3pin Female IP to 3pinMale IP Data Extension Cable
804090301780	32.8 ft. (10m) 3pin Female IP to 3pin Male IP Data Extension Cable

