

PRISM MPX2-DUALDSP Dual Display Installation and Safety Instructions

www.telestream.net

071-3729-00A

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## Important compliance and safety information

## **United States of America Compliance Notices**

#### **Class A Interference Statement**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15, Subpart B of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **FCC Caution**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

#### Safety

UL 61010-1: 2012 R4.16: Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements.

#### Environmental

Perchlorate Materials: this product contains one or more type CR lithium batteries. According to the state of California, CR lithium batteries are classified as perchlorate materials and require special handling.

See <u>www.dtsc.ca.gov/hazardouswaste/perchlorate</u> for additional information.

### **Canada Compliance Notices**

#### **Department of Communications Radio Interference Regulations**

This digital apparatus does not exceed the Class A limits for radio-noise emissions from a digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications. This Class A digital apparatus complies with Canadian ICES-003.

#### Reglement sur le brouillage radioelectrique du Quadstere des Communications

Cet appareil numerique respecte les limites de bruits radioelectriques visant les appareils numeriques de classe A prescrites dans le Reglement sur le brouillage radioelectrique du Quadstere des Communications du Canada. Cet appareil numerique de la Classe A est conforme a la norme NMB-003 du Canada.

#### Safety

CAN/CSA-22.2 NO. 61010-1-12 + Gil + Gl2:: Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements.

#### Sécurité

CAN / CSA-22.2 NO. 61010-1-12 + Gil + Gl2 :: Exigences de sécurité pour l'électricité Matériel de mesure, de contrôle et d'utilisation en laboratoire - Partie 1: Généralités Exigences.

# European Union and European Free Trade Association (EFTA) Compliance Notices

This equipment may be operated in the countries that comprise the member countries of the European Union and the European Free Trade Association. These countries, listed in the following paragraph, are referred to as The European Community throughout this document: AUSTRIA, BELGIUM, BULGARIA, CYPRUS, CZECH REPUBLIC, DENMARK, ESTONIA, FINLAND, FRANCE, GERMANY, GREECE, HUNGARY, IRELAND, ITALY, LATVIA, LITHUANIA, LUXEMBOURG, MALTA, NETHERLANDS, POLAND, PORTUGAL, ROMANIA, SLOVAKIA, SLOVENIA, SPAIN, SWEDEN, UNITED KINGDOM, !CELANO, LICHTENSTEIN, NORWAY, SWITZERLAND

#### **Declaration of Conformity**

Marking by the "CE" symbol indicates compliance with the Essential Requirements of the EMC Directive of the European Union 2014/30/EU

This equipment meets the following conformance standards:

#### Safety

EN 61010-1: Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements Low Voltage Directive 2014/35/EU

#### Emissions

EN 55032: 2012 + AC: 2013, CISPR 32: 2015, EN 61000-3-2: 2014, EN 61000-3-3: 2013

#### Immunity

EN 55103-2: 2009, EN 61000-4-2: 2009, EN 61000-4-3: 2006 + AI: 2008 + A2: 2010, EN 61000-4-4: 2004 + AI: 2010, EN 61000-4-5: 2006, EN 61000-4-6: 2009, EN 61000-4-11: 2004 Environments: E2

#### Warnings

Warning! This is a Class A product. In a domestic environment, this product may cause radio interference, in which case, the user may be required to take appropriate measures.



Achtung! Dieses ist ein Gerat der Funkstorgrenzwertklasse A. In Wohnbereichen konnen bei Betrieb dieses Gerates Rundfunkstorungen auftreten, in welchen Fallen der Benutzer fur entsprechende Gegenmal3nahmen verantwortlich ist.



Attention! Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de creer des interferences radioelectriques, ii appartiendra alors a l?utilisateur de prendre les mesures specifiques appropriees.

Notes:

- 1. For Compliance with the EMC standards listed here, high quality shielded interface cables should be used.
- 2. Emissions which exceed the levels required by this standard may occur when this equipment is connected to a test object.

#### **Environmental Compliance**

This section provides information about the environmental impact of the product.

#### Product end-of-life handling

Observe the following guidelines when recycling an instrument or component:

#### Equipment recycling

Production of this equipment required the extraction and use of natural resources. The equipment may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. To avoid release of such substances into the environment and to reduce the use of natural resources, we encourage you to recycle this product in an appropriate system that will ensure that most of the materials are reused or recycled appropriately.



This symbol on the product or its packaging indicates that this product complies with the applicable European Union requirements according to Directives 2012/19/EU and 2006/66/EC on waste electrical and electronic - equipment (WEEE) and batteries.

It also indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste for recycling, please contact your local authority, or where you purchased your product.

#### Battery Recycling

This product may contain a rechargeable battery, which must be recycled or disposed of properly. Please properly dispose of or recycle the battery according to local government regulations.

#### Transporting Batteries or products with Batteries in them

The capacity of the lithium ion secondary battery shipped with this product is under 100 Wh. The lithium content of the installed primary battery is under 1 g. Each battery meets the applicable requirements of UN Manual of Tests and Criteria Part III Section 38.3. Battery quantity is under the limit for shipment according to Section II of the relevant Packing Instructions from the IATA Dangerous Goods Regulations. Consult your air carrier for applicability and determination of any special lithium battery transportation requirements.

Restriction of Hazardous Substances

This product is classified as an industrial monitoring and control instrument, and is not required to comply with the substance restrictions of the RoHS 3 Directives 2011 /65/EU and EU 2015/863 until July 22, 2021. This product does, however, comply with the RoHS 2 Directive 2011/65/EU.

### **Korea Compliance Statement**

사용자안내문

이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

### **Taiwan Compliance Statement**

警告使用者: 這是甲類的資訊產品,在居住的環境中使用時,可能會造成射頻 干擾,在這種情況下,使用者會被要求採取某些適當的對策。

This is a Class A product based on the standard of the Bureau of Standards, Metrology and Inspection (BSMI) CNS 13438, Class A. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

### Japan Compliance Statement

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用す ると電波妨害を引き起こすことがあります。この場合には使用者が適切な 対策を講ずるよう要求されることがあります。 VCCI-A

This is a Class A product based on the standard of the VCCI Council (VCCI 32: 2016). If this equipment is used in a domestic environment, radio interference may occur, in which case, the user may be required to take corrective actions.

### Important Compliance and Safety Information

This manual contains information and warnings that must be followed by the user for safe operation and to keep the product in a safe condition.

To safely perform service on this product, see the Service safety summary that follows the General safety summary.

#### **General Safety Summary**

Use the product only as specified. Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. Carefully read all instructions. Retain these instructions for future reference.

#### Comply with local and national safety codes.

For correct and safe operation of the product, it is essential that you follow generally accepted safety procedures in addition to the safety precautions specified in this manual.

#### The product is designed to be used by trained personnel only.

Only qualified personnel who are aware of the hazards involved should remove the cover for repair, maintenance, or adjustment.

Before use, always check the product with a known source to be sure it is operating correctly.

While using this product, you may need to access other parts of a larger system. Read the safety sections of the other component manuals for warnings and cautions related to operating the system.

When incorporating this equipment into a system, the safety of that system is the responsibility of the assembler of the system.

#### To Avoid Fire or Personal Injury

*Use proper power cord:* Use only the power cord specified for this product and certified for the country of use. Do not use the provided power cord for other products.

*Ground the product:* This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded. Do not disable the power cord grounding connection.

*Power disconnect:* The power cord disconnects the product from the power source. See instructions for the location. Do not position the equipment so that it is difficult to operate the power cord; it must remain accessible to the user at all times to allow for quick disconnection if needed.

Observe all terminal ratings: To avoid fire or shock hazard, observe all rating and markings on the product. Consult the product manual for further ratings information before making connections to the product. Do not apply a potential to any terminal, including the common terminal, that exceeds the maximum rating of that terminal.

*Do not operate without covers:* Do not operate this product with covers or panels removed, or with the case open. Hazardous voltage exposure is possible.

Avoid exposed circuitry: Do not touch exposed connections and components when power is present.

Do not operate with suspected failures: If you suspect that there is damage to this product, have it inspected by qualified service personnel.

*Disable the product if it is damaged.* Do not use the product if it is damaged or operates incorrectly. If in doubt about safety of the product, turn it off and disconnect the power cord. Clearly mark the product to prevent its further operation.

Before use, inspect voltage probes, test leads, and accessories for mechanical damage and replace when damaged. Do not use probes or test leads if they are damaged, if there is exposed metal, or if a wear indicator shows.

Examine the exterior of the product before you use it. Look for cracks or missing pieces.

#### Use only specified replacement parts.

Do not operate in wet/damp conditions: Be aware that condensation may occur if a unit is moved from a cold to a warm environment.

Do not operate in an explosive atmosphere.

Keep product surfaces clean and dry: Remove the input signals before you clean the product.

Provide proper ventilation: Refer to the manual's installation instructions for details on installing the product so it has proper ventilation.

Slots and openings are provided for ventilation and should never be covered or otherwise obstructed. Do not push objects into any of the openings.

Provide a safe working environment: Always place the product in a location convenient for viewing the display and indicators.

Be sure your work area meets applicable ergonomic standards. Consult with an ergonomics professional to avoid stress injuries.

Use only the Telestream rackmount hardware specified for this product.

#### Service Safety Summary

The Service safety summary section contains additional information required to safely perform service on the product. Only qualified personnel should perform service procedures. Read this Service safety summary and the General safety summary before performing any service procedures.

To avoid electric shock: Do not touch exposed connections.

*Do not service alone:* Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

*Disconnect power:* To avoid electric shock, switch off the product power and disconnect the power cord from the mains power before removing any covers or panels, or opening the case for servicing.

Use care when servicing with power on: Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

*Verify safety after repair:* Always recheck ground continuity and mains dielectric strength after performing a repair.

#### Terms in the Manual

These terms may appear in this manual:



WARNING. Warning statements identify conditions or practices that could result in injury or loss of life.



CAUTION. Caution statements identify conditions or practices that could result in damage to this product or other property.

#### **Terms on the Product**

These terms may appear on the product:

DANGER indicates an injury hazard immediately accessible as you read the marking.

WARNING indicates an injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property including the product.

#### Symbols on the Product

 $\wedge$ 

When this symbol is marked on the product, be sure to consult the manual to find out the nature of the potential hazards and any actions which have to be taken to avoid them. (This symbol may also be used to refer the user to ratings in the manual.)

The following symbol(s) may appear on the product:



## **General Safety Product Specific Statements**

Use the product only as specified. Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. Carefully read all instructions. Retain these instructions for future reference.

Comply with local and national safety codes.

For correct and safe operation of the product, it is essential that you follow generally accepted safety procedures in addition to the safety precautions specified in this manual. The product is designed to be used by trained personnel only.

Only qualified personnel who are aware of the hazards involved should remove the cover for repair, maintenance, or adjustment.

Before use, always check the product with a known source to be sure it is operating correctly.

This product is not intended for detection of hazardous voltages.

Use personal protective equipment to prevent shock and arc blast injury where hazardous live conductors are exposed.

When incorporating this equipment into a system, the safety of that system is the responsibility of the assembler of the system.



**WARNING.** To reduce the risk of fire and shock, ensure that the mains supply voltage fluctuations do not exceed 10% of the operating voltage range.



**WARNING.** In the module, only the line conductor is fused for over-current protection. The fuse is internal and not user replaceable. Do not attempt to replace the fuse. If you suspect the fuse has blown, return the unit to an authorized service center for repair.



**WARNING.** To prevent injury or death, power off the module and disconnect it from line voltage before cleaning.



**CAUTION.** Damage to the module can occur if this module is powered on at temperatures outside the specified temperature range.



**CAUTION.** To prevent risk of fire, adequate airflow to instrument(s) and rack adapter must be maintained. Failure to provide adequate airflow to instrument(s) could cause an instrument to shut down.

## Preface

This manual describes how to install the PRISM MPX2-DUALDSP Dual Display module and provides basic safety and operating information. Detailed operating information is available in the user manual. A complete list of PRISM documentation is provided in this manual. (See *Documentation*.)

## **Product description**

The PRISM MPX2-DUALDSP provides a 3RU dual touch display unit for the PRISM family of waveform monitors to create fully integrated audio, video, and data monitoring suite. The PRISM Dual Display module is 19 inches wide with a shallow installation depth and comes with two sets of USB/Headphone connectors that can be mounted on each rack ear.



Figure i: PRISM MPX2-DUALDSP (rack ear USB/headphone connections not shown)

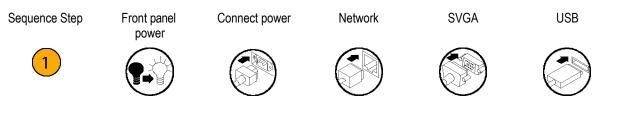
## Documentation

Table i: Product documentation

Document	Manual type	Telestream part number	Description	Availability	
				Print	Web
PRISM MPX2 Installation and Safety Instructions	User	071-3738-xx	Describes how to install the instrument and provides basic safety and operating information		
PRISM MPI2 and MPX2 User Manual	User	D00010021x	Provides detailed operating information for the PRISM waveform monitor		$\checkmark$
PRISM MPX2 Rackmount Slides and Rails Installation Instructions	Field Install Instructions	071-3706-xx	Describes how to install the MPX2 instrument in a 19" equipment rack	V	V

## Conventions used in this manual

These icons may be used throughout this manual.



## Installation

## **Initial product inspection**

Perform the product inspection procedure when you receive your Dual Display module:

- 1. Inspect the shipping carton for external damage, which may indicate damage to the module.
- 2. Remove the PRISM Dual Display module from the shipping carton, and then check that the module has not been damaged in transit. Prior to shipment the module is thoroughly inspected for mechanical defects. The exterior should not have any scratches or impact marks.

NOTE. Save the shipping carton and packaging materials for module repackaging in case shipment becomes necessary.

3. Verify that the shipping carton contains the module, the standard accessories, and any optional accessories that you ordered. (See Accessories.)

#### **Exterior cleaning**

The module exterior was inspected for debris when it was shipped. If necessary, you can clean the exterior of the module.



WARNING. To prevent injury or death, power off the module and disconnect it from line voltage before cleaning.

Clean the exterior surfaces of the chassis with a dry lint-free cloth or a soft-bristle brush. If any dirt remains, use a cloth or swab dipped in a 75% isopropyl alcohol solution. Use a swab to clean narrow spaces around controls and connectors. Do not use abrasive compounds on any part of the module that may be damaged by it.



**CAUTION.** Avoid the use of chemical cleaning agents that might damage the plastics used in the module. Use a 75% isopropyl alcohol solution as a cleaner and rinse with deionized water. Before using any other type of cleaner, consult your Telestream Service Center or representative.

## Accessories

**International power cords.** Your module was shipped with one of the power cord options. Power cords for use in North America are UL listed and CSA certified. Cords for use in areas other than North America are approved by at least one authority acceptable in the country to which the product is shipped.

- Opt. A0 North America power cord
- Opt. A1 Universal EUR power cord
- Opt. A2 United Kingdom power cord
- Opt. A3 Australia power cord
- Opt. A4 240 V, North America power cord
- Opt. A5 Switzerland power cord
- Opt. A6 Japan power cord
- Opt. A10 China power cord
- Opt. A11 India power cord
- Opt. A12 Brazil power cord
- Opt. A99 <sup>1</sup> No power cord
- <sup>1</sup> When ordering the A99 option, it is the responsibility of the end user to ensure that a certified power cord, for the country or region it is installed, is used with this module.

CAUTION. To reduce risk of fire and shock, use the certified power cord provided with the product.

## **Operating requirements**

This section provides the environmental and power operating requirements for the module.

#### **Environmental operating requirements**

Check that the location of your installation has the proper operating environment as listed in Table 1.



**CAUTION.** Damage to the module can occur if this module is powered on at temperatures outside the specified temperature range.

Parameter		Description
Temperature	Operating	0 °C to +40 °C
	Non Operating	–20 °C to +60 °C
Humidity	Operating	20% to 80% relative humidity (% RH) at up to +40 °C, non-condensing
	Non Operating	5% to 90% relative humidity (% RH) at up to 40 °C and derated linearly to 45% RH at 60 °C, non-condensing
Altitude	Operating	To 3,000 m (10,000 feet)
		Maximum operating temperature decreases 1 °C each 300 m above 1.5 km
	Non Operating	To 12,000 m (40,000 feet)
Cooling		Internal fans provide forced air circulation. Do not block ventilation openings.
	Bare Instrument	To ensure proper airflow, there must be at least 2 inches of clearance on both sides of the instrument, at least 2 inches of clearance from the rear of the instrument, and at least a 1/2 inch of clearance from the top of the instrument.

#### **Table 1: Environmental requirements**

#### **Electrical power requirements**

The module operates from an AC power input. Check that your location provides the proper electrical power requirements as listed in Tables 2 and 3.

**AC line power.** Use the proper power cord with the module. (See *International power cords*.) Table 2 lists the power requirements for the module.

#### Table 2: AC line power requirements

Parameter	Description
Line voltage range	100 - 240 VAC
	WARNING. To reduce the risk of fire and shock, ensure that the mains supply voltage fluctuations do not exceed 10% of the operating voltage range.
Line frequency	50/60 Hz
Maximum power	1.5 A



**WARNING.** In the module, only the line conductor is fused for over-current protection. The fuse is internal and not user replaceable. Do not attempt to replace the fuse. If you suspect the fuse has blown, return the unit to an authorized service center for repair.

#### **Physical characteristics**

Table 3 lists the physical characteristics of the Dual Display.

#### **Table 3: Physical characteristics**

Parameter	Description
Dimensions	
Height	13.28 cm (5.23 in.)
Width	48.26 cm (19 in.)
Depth	7.62 cm (3 in.)
Weight	
Net	2.73 kg (6.02 lbs.)
Shipping	Typically 4.54 kg (10 lbs.)

## **Rear-panel connectors**

Figure 1 shows the external connections to the rear panel of the Dual Display module. A description of each connector is provided in the table.



Figure 1: PRISM MPX2-DUALDSP rear panel connectors

ltem number (See Figure 1.)	Description
1	AC power input. Connector for AC power source.
2	<b>DisplayPort (DP).</b> One DisplayPort input for each display. The maximum resolution of each display is 1920x1080.
3	<b>USB B ports.</b> A USB 3.0 port on each display for connecting to a PRISM waveform monitor.
4	<b>USB A ports.</b> Two USB 3.0 ports that are intended to be used with the rack ear accessories included with the product. From these ports you can connect a mouse and keyboard, import/export instrument presets, upgrade instrument firmware, and save screen or stream captures.
5	<b>Headphone jack.</b> One ¼-inch headphone jack on each display that are intended to be used with the rack ear accessories included with the product.
6	Cable post. Four plastic posts used for cable management.

## **Dual Display installation**

The Dual Display mounts into a standard 19-inch equipment rack and connects to the MPX2 instrument and two rack ear USB/headphone connectors (optional).



**CAUTION.** To prevent risk of fire, adequate airflow to instrument(s) and rack adapter must be maintained. Failure to provide adequate airflow to instrument(s) could cause an instrument to shut down.

Inadequate airflow includes placing instrument(s) and rack adapter in any small, enclosed room that lacks a ventilation system, such as a closet. If the airflow is restricted or blocked and the instrument(s) do not shut down, the risk of fire is increased and the instrument(s) could be permanently damaged.

The MPX2 instrument has specific cooling and clearance requirements. Make sure that the clearance requirements for proper airflow are met for both the Dual Display and the instrument. See the *PRISM MPX2 Installation and Safety Instructions* manual for information about the environmental operating requirements for the instrument.

#### **Recommended tool list**

#### Table 4: Recommended tool list

Name	Description
Screwdriver handle	Torque driver handle. Accepts 1/4-in. hex-head driver tips
#2 Phillips tips or PoziDriv tip	Phillips or PoziDriv-driver tip for #2 size screw heads
T-8 TORX tip	Used for removing instrument screws. TORX-driver bit for T-8 size screw heads.

#### Supplied hardware

Table 5 lists the hardware supplied with the rack cabinet. The installation instructions refer to these parts by the item numbers.

#### Table 5: Hardware kit 016-1133-XX

Telestream part number	Description	Quantity
381-0251-XX	NUT BAR; 10-32 X 3.0 X 0.375 X 0.120	4
212-0577-XX	SCREW, MACHINE; 10-32 X 0.625, TRH, ZINC PLATED STEEL, PHIL	8
211-0511-XX	SCREW, MACHINE; 6-32 X 0.5, PNH, STEEL, ZINC PLATED, T15 TORX	8
210-1061-XX	WASHER, FLAT; 0.203 ID X 0.625 OD X 0.062, ZINC PLATED STEEL	4
210-1298-XX	WASHER; SHOULDER & RETAINER, 0.195 ID X 0.195 THK, PLASTIC, TV GRAY, 6.575 OD	4
212-0591-XX	SCREW, MACHINE; 10-32 X 0.750 OVAL HEAD, POZI	4

#### Install the USB/headphone connectors (optional)

If desired, install the USB/headphone connectors on right and left rack ears. The USB/headphone connectors are not required for Dual Display operation. You have the option to install one, two, or none of the connectors to the rack ears.

- 1. Remove the four screws on the top and bottom of the rack ear cover plates. Put the screws aside for use in step 4.
- 2. Remove the cover plate from the front of each rack ear.

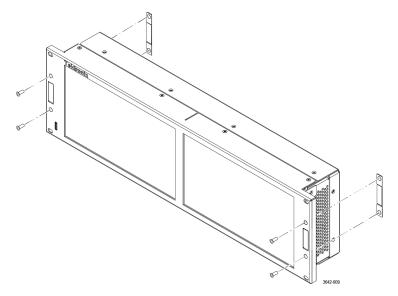


Figure 2: Remove the rack ear screws and cover plate

- 3. Guide the USB/headphone cables through the front of each rack ear.
- 4. Use the four screws from step 1 to secure the USB/headphone connector from the back of each rack ear.

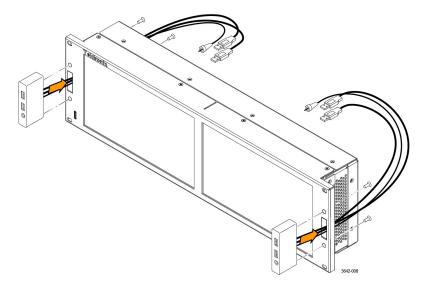


Figure 3: Guide the connections through the rack ears and secure with screws

#### Install the Dual Display in a equipment rack

Use the supplied hardware kit (016-1133-XX) to install the Dual Display into a standard 19-inch equipment rack. If you are also installing an MPX2, refer to the *PRISM MPX2 Rackmount Slides and Rails Installation Instructions* for information about installing the MPX2 instrument (not included) into a rack.



**CAUTION.** To prevent the USB and headphone cables from being damaged, make sure the cables are not in the way as you install the Dual Display into the rack.

- 1. Locate four 10-32 X 0.750 oval head screws from the hardware kit (016-1133-XX).
- 2. Use a screwdriver with a PoziDriv tip to secure the Dual Display in the rack with two screws on each rack ear.

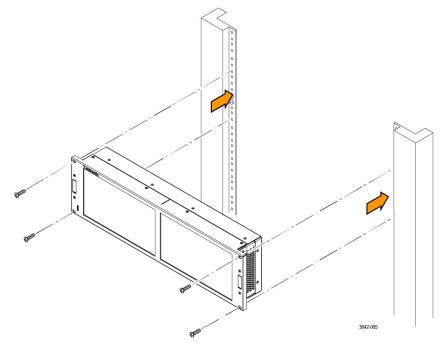


Figure 4: Secure the Dual Display to the rack

3. Connect the cables from the USB port and headphone jack on each rack ear to the rear of the Dual Display.

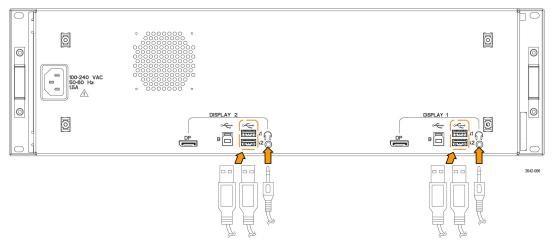


Figure 5: Connect USB and headphone connections (optional)

4. Connect the power cable to the Dual Display. (See Power cord installation.)

#### Connect the Dual Display to the instrument

After the Dual Display has been installed in the rack, connect it to the MPX2 instrument.

**NOTE**. When connecting the Dual Display to two MPX2 instruments, connect one MPX2 to Display 1 and the other MPX2 to Display 2. Do not enable the Extended display mode on either MPX2 instrument. If you connect the Dual Display to a source other than the MPX2 instrument, be aware that the Dual Display has only been extensively tested with 1920x1080 video sources.

- 1. Connect DisplayPort1 on the MPX2 to the DisplayPort connector on Display 1.
- 2. Connect any USB port on the MPX2 to the USB B port on Display 1.

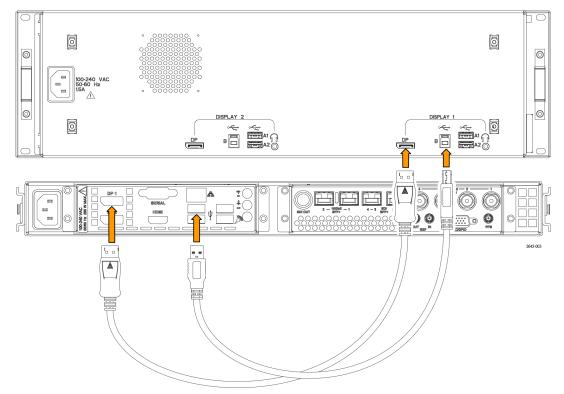


Figure 6: Connect the MPX2 to Display 1 (primary)

- 3. Connect DisplayPort2 on the MPX2 to the DisplayPort connector on Display 2.
- 4. Connect any USB port on the MPX2 to the USB B port on Display 2.

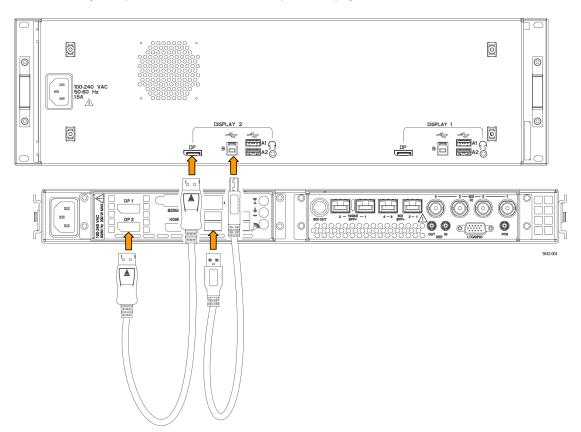


Figure 7: Connect the MPX2 to Display 2 (extended)

## Power-on and power-off procedures

This section describes how to apply power to the module and how to power-on and power-off the Dual Display.

#### Power cord installation

The Dual Display is powered by an AC power source. Connect the power cord to the power connector on the rear panel of the Dual Display. The power connector is keyed to be directional, with the flat portion of the power cord housing against the left of the Dual Display (as viewed from the rear). When fully inserted, the power cord housing latches onto the Dual Display power connector.

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**CAUTION.** To minimize the risk of damage to the Dual Display, it is strongly recommended that the power cord be connected to the Dual Display before the power cord is connected to the AC power source.

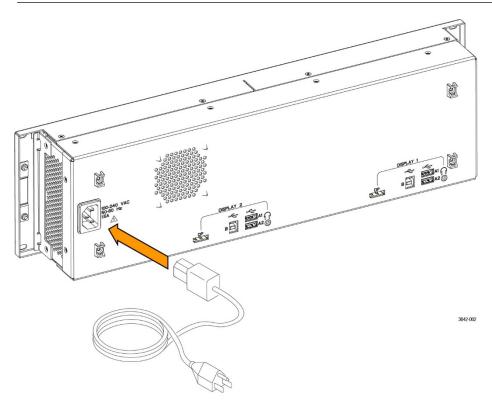


Figure 8: Connect the power cord to the display

#### **Power-on procedure**

- 1. Apply power to the display. (See Power cord installation.)
- 2. Press the Power/Standby button on the display front panel to turn the display on. (See Figure 9)



Figure 9: Front panel with Power/Standby button marked

#### Power-off procedure

- 1. Press the Power/Standby button on the display front panel to turn the instrument off.
- 2. To completely remove power from the display, disconnect the power cord from the Dual Display. The power cord has a locking mechanism to keep it attached to the Dual Display. Push the button on the cord housing to release the locking mechanism.

## Operation

## Configure the MPX2-DUALDSP Dual Display

When the Dual Display is connected to a MPX2 instrument, you have the option to extend the Primary display on the MPX2 to an Extended display. Extending the display increases the number of application tiles in your workspace. Using the Extended display function requires software option MP2-EXTNDSP, otherwise the Primary display is mirrored onto the Extended display.

- 1. Make sure the MPX2 and Dual Display products are powered off.
- 2. Connect the MPX2 to the Dual Display and power on both products. (See Connect the Dual Display to the instrument.)
- 3. When software option MP2-EXTNDSP is present, go to the Settings > Display menu.
- 4. In the EXTENDED DISPLAY setting, enable Extended Display Mode. If the Extended Display Mode setting is turned off, then the second display will mirror the Primary display.

NOTE. When Extended Display Mode is turned on, the HDMI video port on the MPX2 will not be available.

- 5. When you first configure the extended display, you must run a short process to identify the two touchscreens to use. To identify the touchscreens, press the **Start** button in the **Identify Touchscreen** setting.
- Follow the on-screen instructions. When instructed to touch the Primary and Extended displays, make sure to use a touch gesture on the touchscreens and not with a mouse. The touchscreens will not be properly identified if you use a mouse or if you configure remotely, such as with VNC.

**NOTE.** The process to identify the touchscreens can be performed again at any time. When the process completes successfully, it is not necessary to perform it again unless you change the touchscreen configuration. For example, if you change the USB port connections on the back of the MPX2 instrument.

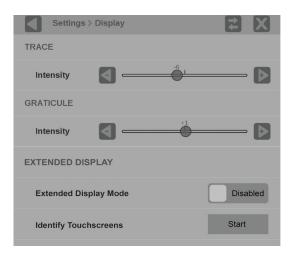


Figure 10: Extended display mode configuration

**NOTE.** When you connect an MPX2-DUALDSP to an MPX2-10 or -25 the first time, the second display might be blank until an application is selected from the press-and-hold menu.