datavideo

Instruction Manual

Contents

Warnings and Precautions

1. Read all of these warnings and save them for later reference.

2. Follow all warnings and instructions marked on this unit.

3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this unit in or near water.

5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.

6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.

7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.

8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.

9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord rating.

10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.

11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.

12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.

13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:

    a. When the power cord is damaged or frayed;

    b. When liquid has spilled into the unit;

    c. When the product has been exposed to rain or water;

    d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;

    e. When the product has been dropped or the cabinet has been damaged;

    f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Standard Warranty

- Datavideo equipment is guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered by this warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- Cables & batteries are not covered under warranty.
- Warranty only valid within the country or region of purchase.
- Your statutory rights are not affected.

Two Year Warranty

- All Datavideo products purchased after 01-Oct.-2008 qualify for a free one year extension to the standard Warranty, providing the product is registered with Datavideo within 30 days of purchase. For information on how to register please visit www.datavideo.com or contact your local Datavideo office or authorized Distributors
- Certain parts with limited lifetime expectancy such as LCD Panels, DVD Drives, Hard Drives are only covered for the first 10,000 hours, or 1 year (whichever comes first).

Any second year warranty claims must be made to your local Datavideo office or one of its authorized Distributors before the extended warranty expires.

Disposal

For EU Customers only - WEEE Marking
This symbol on the product indicates that it should not be treated as household waste. It must be handed over to the applicable take-back scheme for the recycling of Waste Electrical and Electronic Equipment. For more detailed information about the recycling of this product, please contact your local Datavideo office.

1. Product Overview

The RMC-260 is a cost effective controller designed specifically for the SE-1200MU Digital Video Switcher. The RMC-260 interfaces with the SE-1200MU via an RS-232 interface.

The RMC-260 is designed to be a user switcher-style controller to allow easy & quick control SE-1200MU, with hard keys for the main switcher functions and on-screen menu controls for quick & easy adjustment of parameters in the field.

The RMC-260 can be used with or without the PC Control Software, although the PC Control software must still be used for Software Upgrades and Import/Export of UserMems, Stills, and Clips.

That's Datavideo, sharing the value!

1.1   Features

- A switcher style keyboard for SE-1200MU operation
- Clear key definitions
- Support Keyers enable and quick function assignment
- Save user behaviour to user memory keys for quick access
- Two keyers with two corresponding knobs for assignment of Keyer 1/2 sources
- XPT (Cross Point Assignment)
- Take button to switch between PVW and PGM views
- FTB button fades the PGM view to a black screen
- Still Grab function for capturing instantaneous video image
- RS-232 interface for communication between RMC-260 and SE-1200MU
- Bright LED lighting

2. Overview of Connections & Controls

2.1 Control Panel Overview
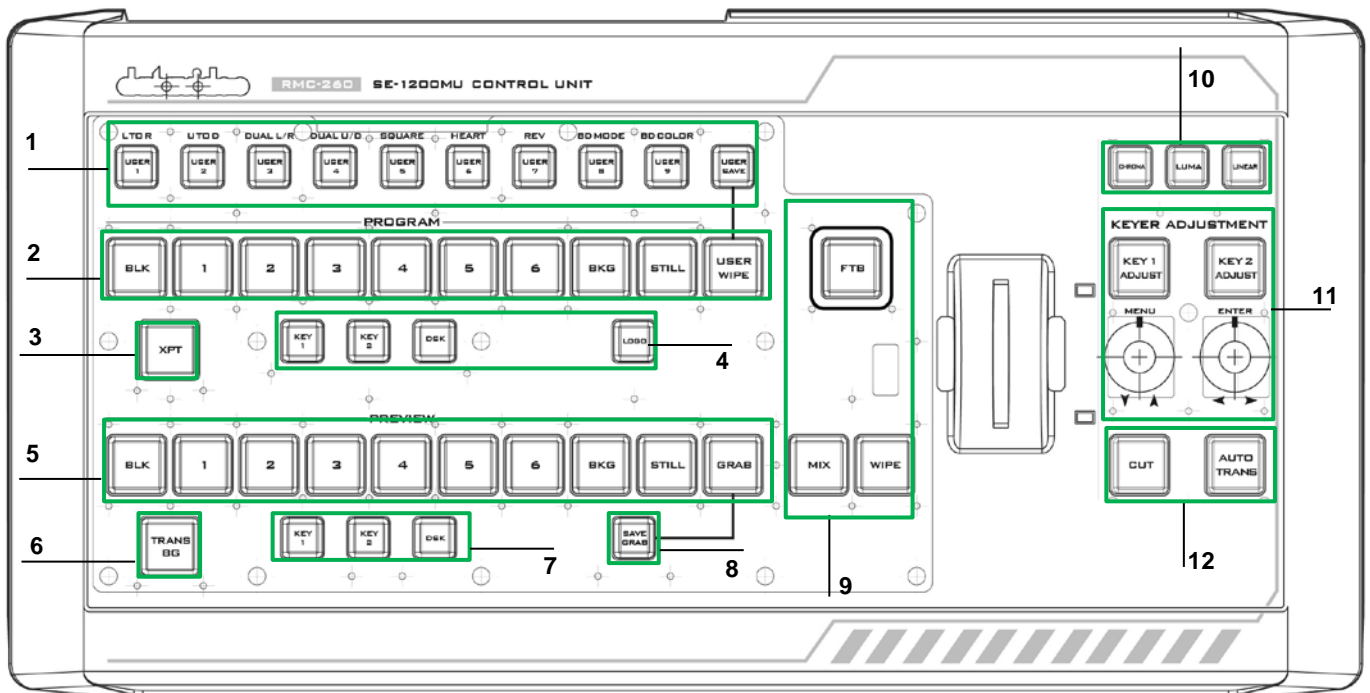
1	User Memory & WIPE Transition Selection	**7**	Keyers / DSK Function on PVW
2	Program Source Row	**8**	Save Grab Image
3	XPT Cross-Point Function	**9**	Transition Effect
4	Keyers / DSK Function on PGM	**10**	Keyer Assignment Button Row
5	Preview Source Row	**11**	Keyer Adjustment / Menu Control
6	Background Transition	**12**	Transition

2.2 Rear Panel Terminals
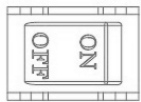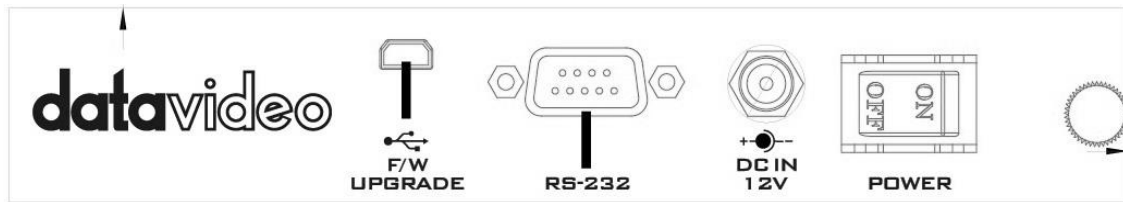
|		
	Power ON/OFF Switch	Switches the power ON/OFF
	DC In Socket	Connect the supplied 12V PSU to this socket. The connection can be secured by screwing the outer fastening ring of the DC-IN plug to the socket.
	USB Firmware Upgrade	For connection to PC during the firmware upgrade process
	RS-232 Interface	RS-232 interface for communication between RMC-260 and SE-1200MU **Note: It takes about 2-3 seconds for the RMC-260 indicator to be turned off after the RS-232 connection is removed.**
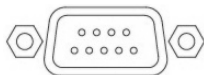
3. Keyboard Controls

3.1   User Memory & WIPE Transition Combination Keys

| LTO R | U TO D | DUAL L/R | DUAL U/D | SQUARE | HEART | REV | BD MODE | BD COLOR |
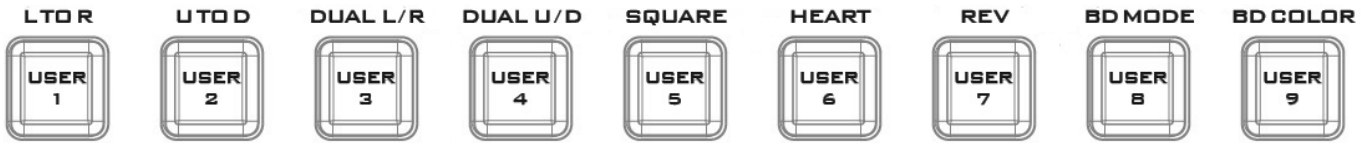
User Memory buttons 1-9: The User buttons are a shortcut way of loading previously saved user configurations, thus allowing the user to recall the last saved switcher settings.

USER SAVE

Pressing this button allows selection of the User Memory number from the User Memory button row for saving user defined settings.

After the **USER SAVE** button is pressed, the **USER SAVE** button LED will be turned on and the **USER 1-9** buttons will start flashing. Pick and press one USER button, all other USER buttons will be turned off except the selected USER button (**USER SAVE** button will remain ON). After the User settings are saved successfully, the selected USER button and the **USER SAVE** button will be turned off.

When the **USER SAVE** button and the **USER WIPE** button are OFF, the user defined settings may be recalled by pressing one of the USER buttons from the USER memory button row.

When the **USER SAVE** button and the **USER WIPE** button are ON at the same, the **USER SAVE** button will take precedence over the **USER WIPE** button.

WIPE Transition Selection: There are a total of 6 wipe transition types with details of each described in the table below.

L TO R

Wipe from left to right.

U TO D

Wipe from top to bottom.

DUAL L/R

Wipe from Left and Right sides to Centre.

DUAL U/D

Wipe from Top and Bottom to Centre.

SQUARE

Box Wipe from Centre to outside edges.

HEART

Heart Wipe from Centre to outside edges.

REV

When the REV button is ON then the selected transition will operate in the reverse direction only.

After the desired WIPE transition effect is selected, the user may turn on the WIPE border by pressing the **BD MODE** button and apply the border color by pressing the **BD COLOR** button.

BD MODE

Border width increment / decrement

BD COLOR

Optional color border applied

3.2 Program Source Row

The Program row of buttons is for control of the program output, which is the live output. You can switch or CUT from one video source to another directly on the Program row. You will see the PGM output changes as you press different keys along this top row of buttons.

Buttons 1, 2, 3, 4, 5 and 6: Video source buttons.

BLK button: Black background for use on the Program row.

BKG button: Background button that assigns a background color or color bars for use on the Program row.

STILL button: Press this button to cycle through Live Video, Freeze and Still.

USER WIPE: Press this button to swap between User Memory function and WIPE transition function. WIPE is enabled after **USER WIPE** button is ON. When the **USER SAVE** button and the **USER WIPE** button are ON at the same time, the **USER SAVE** button will take precedence over the **USER WIPE** button.

STILL: Press to cycle through Live Video/Freeze/Still of PGM
Note: If you are not sure what you are seeing is Freeze or Still, please enable the Multiview label info.

PGM XPT

Video source and channel assignments in accordance with the user's preference.
1. First press the **XPT** button. Buttons of Program and Preview rows will flash.
2. Press an output button on the Program row and the selected output button will turn red.
3. Press an input button on the Preview row and the selected input button will turn green.
4. At this point, the selected input on the Preview row is assigned to the corresponding output on the Program row.
5. The user may continue the assignment by pressing another output button on the program row or press the **XPT** button to complete the assignment.

PGM KEY 1

Enable / Disable Keyer 1

PGM KEY 2

Enable / Disable Keyer 2

PGM DSK

Pressing **DSK** places logo or animations on the program view. Before placing the DSK on the program view, make sure it is correct on the PVW screen first.

PGM LOGO

Display of pre-selected logo on the Preview and Program outputs

3.3   Preview Source Row

The Preview row of buttons is for control of the Preview window. The Preview row sets the next transitioned program by pressing the corresponding key to select the source.

Buttons 1, 2, 3, 4, 5 and 6: Video source buttons.

BLK button: Black background for use on the Preview row.

BKG button: Background button that assigns a background color or color bars for use on the Preview row.

STILL button: Press this button to cycle through Live Video, Freeze and Still.
Note: If you are not sure what you are seeing is Freeze or Still, please enable the Multiview label info.

GRAB button: Pressing the **GRAB** button will capture a frame of video.

PVW TRANS BG

Background transition, **TRANS BG** specifies that the Background will be "transitioned" from the Program source to the Preview Source.

PVW KEY 1

Press to Enable / Disable Keyer 1 on Multiview and PVW Output or display keyer type.
Press and hold this button allows the user to select the desired keyer function from the KEYER ASSIGNMENT ROW (labelled number 10 in the Control Panel Overview section). As soon as Chroma/Luma/Linear buttons flash, press the corresponding button once to select the desired keyer.

PVW KEY 2

Press to Enable / Disable Keyer 2 on Multiview and PVW Output or display keyer type.
Press and hold this button allows the user to select the desired keyer function from the KEYER ASSIGNMENT ROW (labelled number 10 in the Control Panel Overview section). As soon as Chroma/Luma/Linear buttons flash, press the corresponding button once to select the desired keyer.

PVW DSK

Enable / Disable DSK on Multiview and PVW Output.
Press and hold this button allows the user to select the desired keyer function from the KEYER ASSIGNMENT ROW (labelled number 10 in the Control Panel Overview section). As soon as Chroma/Luma/Linear buttons flash, press the corresponding button once to select the desired keyer.
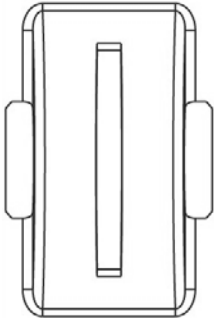
SAVE GRAB

Pressing the **SAVE GRAB** button to save the grabbed picture to storage media

3.4   Transition and Transition Effect

The Transition Control controls what the "next" transition (mix, wipe, cut, Auto TRANS or the **T-bar**) will do, i.e. they specify what is "in the transition."

T-Bar

This performs a manually controlled transition from the current program source to the selected Preview source. When the **T-Bar** has travelled as far as it can go, the transition between sources is complete.

CUT Button

The **CUT** button is used to instantaneously switch between the currently selected Program and a Preview source.

AUTO TRANS Button

Instead of using the manually operated **T-Bar,** the **Auto TRANS** button is used to automatically transition between the selected Program and a Preview source over a set period.

FTB

Fade To Black, this button fades the current video program source to black. When pressed again it acts in reverse from complete black to the currently selected program video source.

MIX Button

The **MIX** button is selected when a dissolve transition between the selected Program and a Preview source is required. This **Mix** transition is generated by moving the **T-Bar** manually or Pressing the **Auto TRANS** button.

WIPE Button

The **WIPE** button is selected when a wipe effect transition between the selected Program and a Preview source is required. This WIPE effect is generated by moving the **T-Bar** manually or by pressing the **Auto** button. **Clip transition mode** is activated when **MIX/WIPE** buttons are enabled simultaneously.

3.5   Keyer Assignment and Adjustment
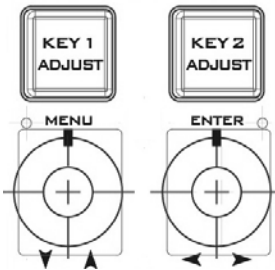
CHROMA
Press to select Chroma Keyer

LUMA
Press to select Luma Keyer

LINEAR
Press to select Linear Keyer

KEYER ADJUSTMENT
Press **KEY 1/2 ADJUST** buttons to activate the adjustment of the keyer type assigned to **KEY 1/2**. The knob is designed for the user to fine-tune the keyer.

OSD MENU
- Press the left knob (MENU label) to open the OSD menu.
- To browse through the menu, simply rotate the left knob to move up/down the Main Menu Options
- Press the right knob (ENTER label) to select an option on the Menu and rotate the right knob to move left/right across the Sub-Menu Options.
- Press the right knob (ENTER label) to select a Sub-Menu Option and rotate the right knob to adjust the parameter values.
- To exit a particular sub-menu option, press the left knob.

MENU RESET
Long-pressing the menu knob for 2-3 seconds resets the MENU to their factory defaults.

4.1 Enter Configuration and Debug Mode

While SE-1200MU is not connected (all LEDs are white), simultaneously press **USER 1** and **USER SAVE** buttons and all button LEDs will flash; wait till all buttons return to white color and once the **USER 1** button turns red, the device is in the Configuration and Debug Mode.
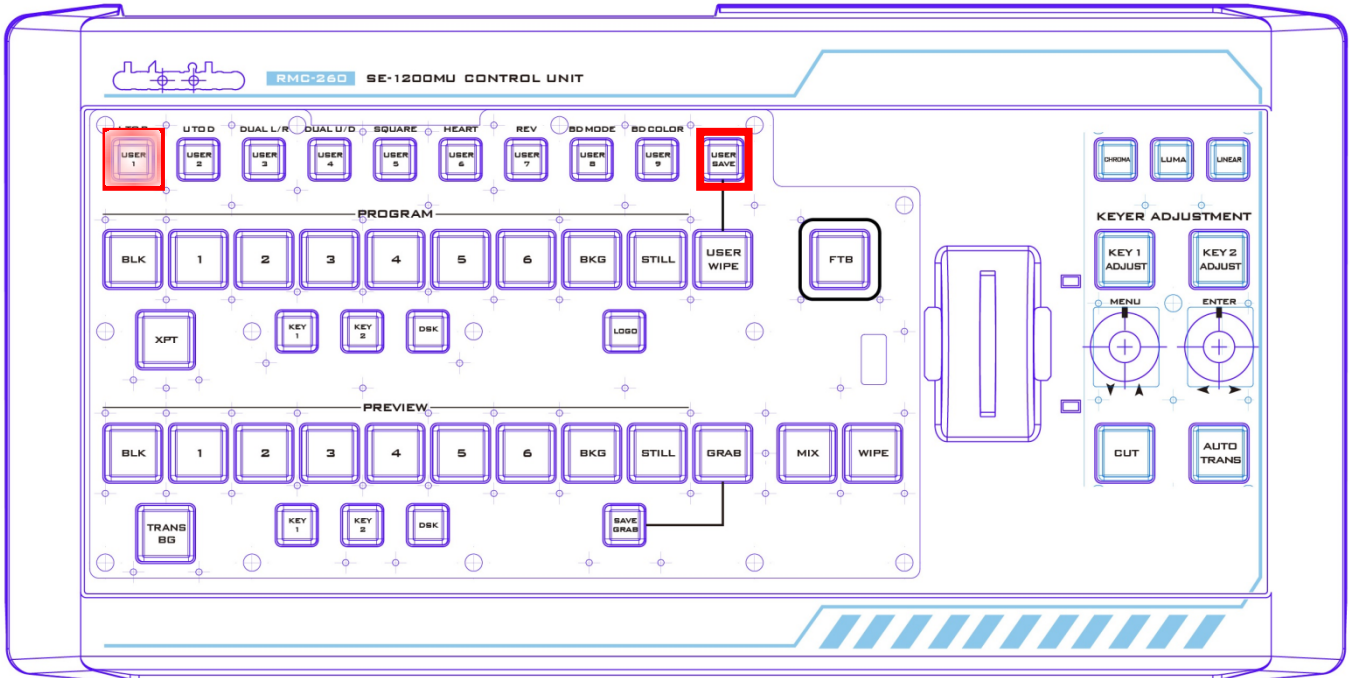
## 4.2 Selection of Configuration and Debug Mode Functions

Rotate the **MENU** knob below the **KEY1 ADJUST** button to cycle through **USER 1-5** (F1-F5) and as you rotate the **MENU** knob, you will see the **USER 1-5** buttons turn red one at a time.

To enter a particular menu function, simply press the **MENU** knob.

To exit, press the **MENU** knob again.

The available functions are listed as follows:

USER 1 – Version information display
USER 2 – LED brightness adjustment and memory
USER 3 – Button functional check
USER 4 – T-Bar and knob functional check
**USER 5** – Exit configuration and debug mode
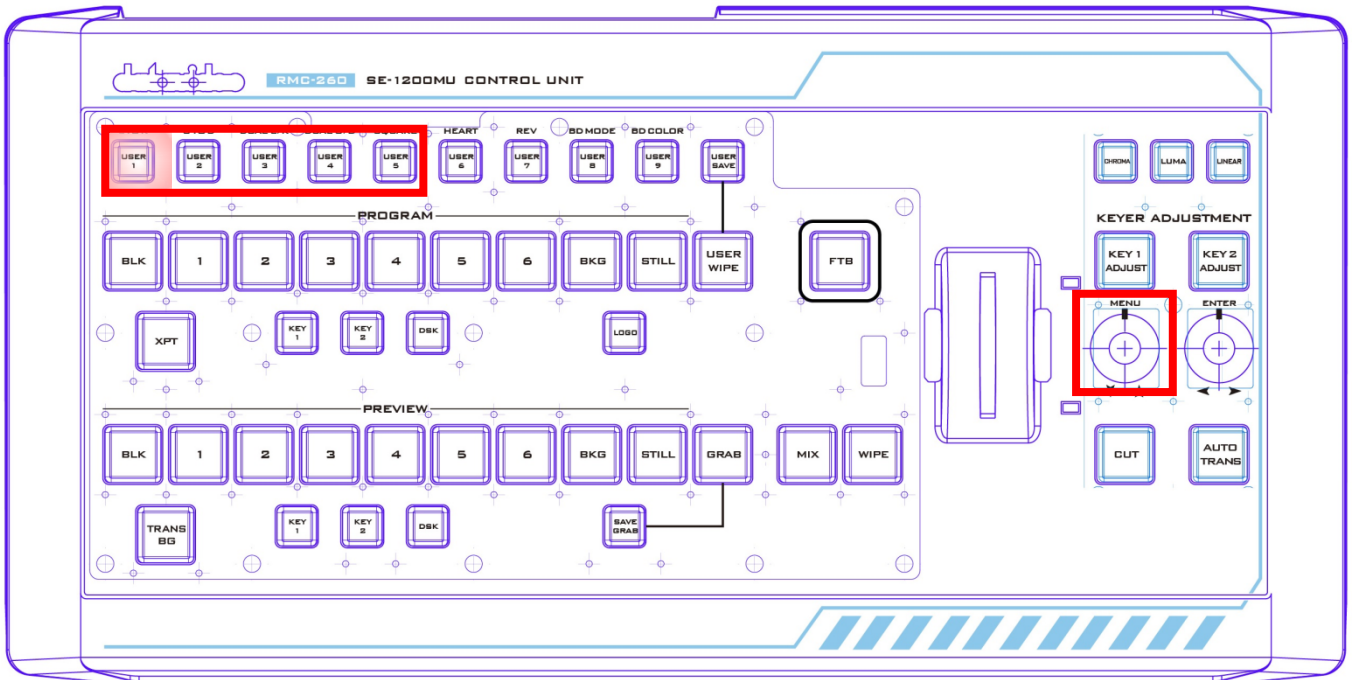
4.3   USER 1 – Version Display

Once the **USER 1** button is selected after pressing the **MENU** knob, the user will immediately see some buttons on the **PROGRAM** row turn red and some buttons on the **PREVIEW** row turn green, which represent the current firmware version loaded on the device.

VERSION is displayed in HEX format. PROGRAM row indicates Major version digits, and PRESET row indicates Minor version digits. **BLK** is the most significant bit and **BKG** is the least significant bit.

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
BLK	1	2	3	4	5	6	BKG
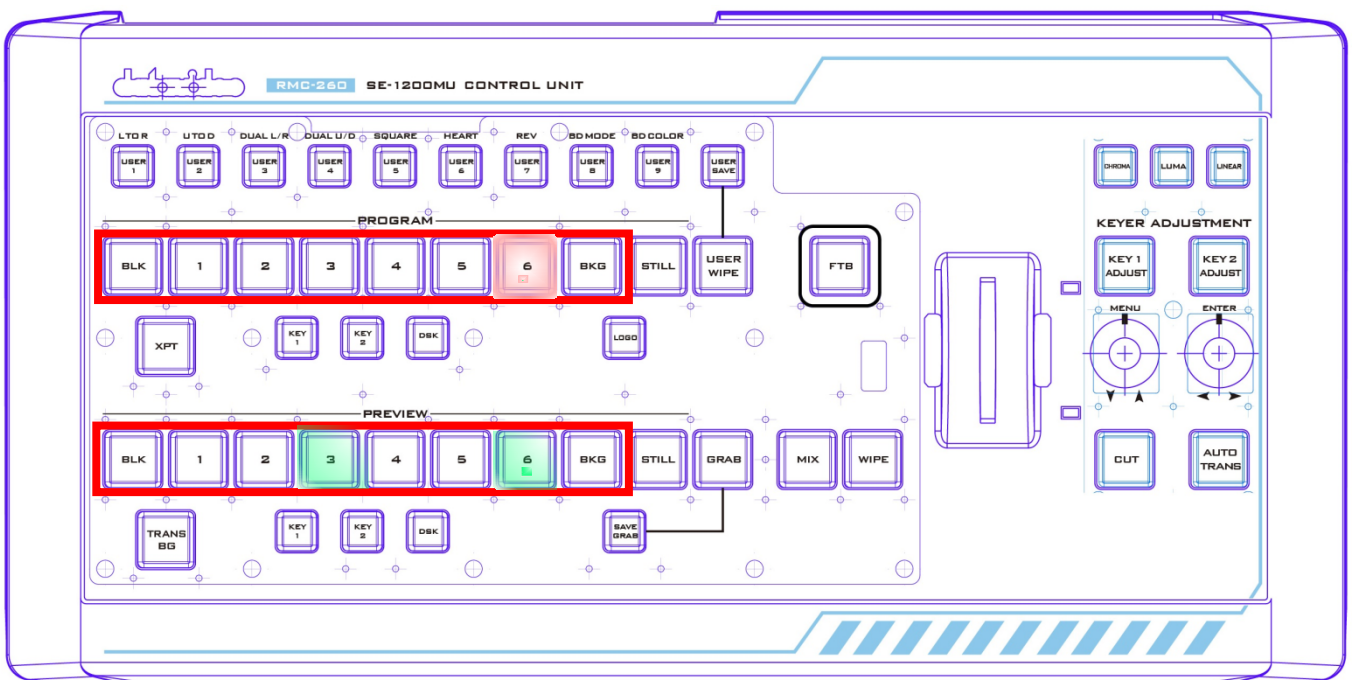
4.4   USER 2 – LED Brightness Adjustment and Memory

To adjust the button LED brightness, simply press the MENU knob to select **USER 2** button. Immediately after the **USER 2** button is selected, the user will see some or all of buttons BLK/1/2/3/4 turn red along the PROGRAM row depending on the previous brightness setting.

- **MENU Knob** – Rotate left and right to adjust the LED brightness
- **ENTER Knob** – Press to save the current brightness setting and upon the knob press, **KEY 2 ADJUST** button will start flashing red. After the new setting is saved, **KEY 2 ADJUST** button will remain constant red.
- **DSK 2 Button** – Flashing red indicates the SAVE is in progress and constant red indicates that brightness level is successfully saved.
- **Buttons BLK/1/2/3/4** along the PROGRAM row indicate the current LED brightness level.
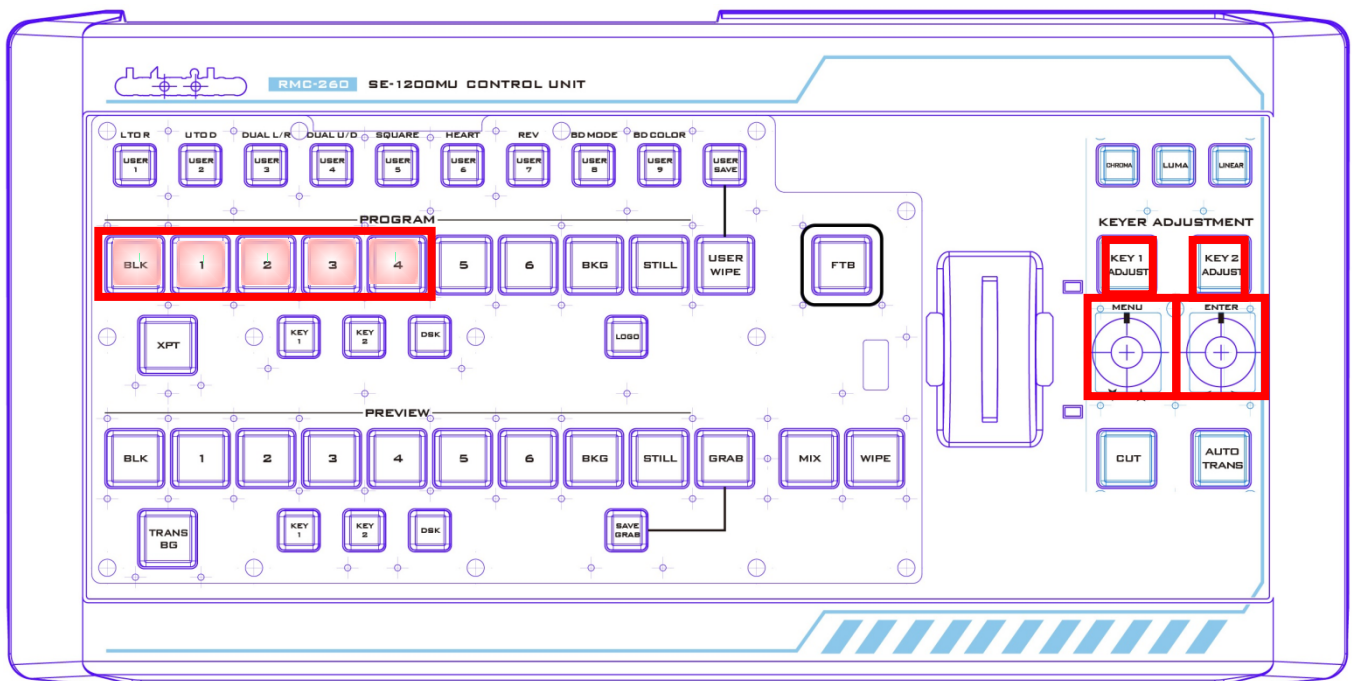
## 4.5   USER 3 – Button Functional Check

Press the **MENU** knob to select **USER 3** button to perform button functional check and press the **MENU** knob to exit.

4.6   USER 4 – T-Bar and Knob Functional Check

Press the **MENU** knob to select **USER 4** button to perform T-Bar and knob functional check.

PROGRAM row (**BLK/1/2/3/4/5/6/BKG/STILL/USER WIPE**) indicates **T-Bar** position, so moving **T-Bar** will turn on/off the corresponding button LEDs along the PGM row.

KEY 1 ADJUST / **KEY 2 ADJUST** button LEDs indicate knob functionality. Rotate the knob right and the **KEY 2 ADJUST** button will turn red and the **KEY 1 ADJUST** button remains white; rotate the knob left and the **KEY 1 ADJUST** button will turn red and **KEY 2 ADJUST** button remains white.
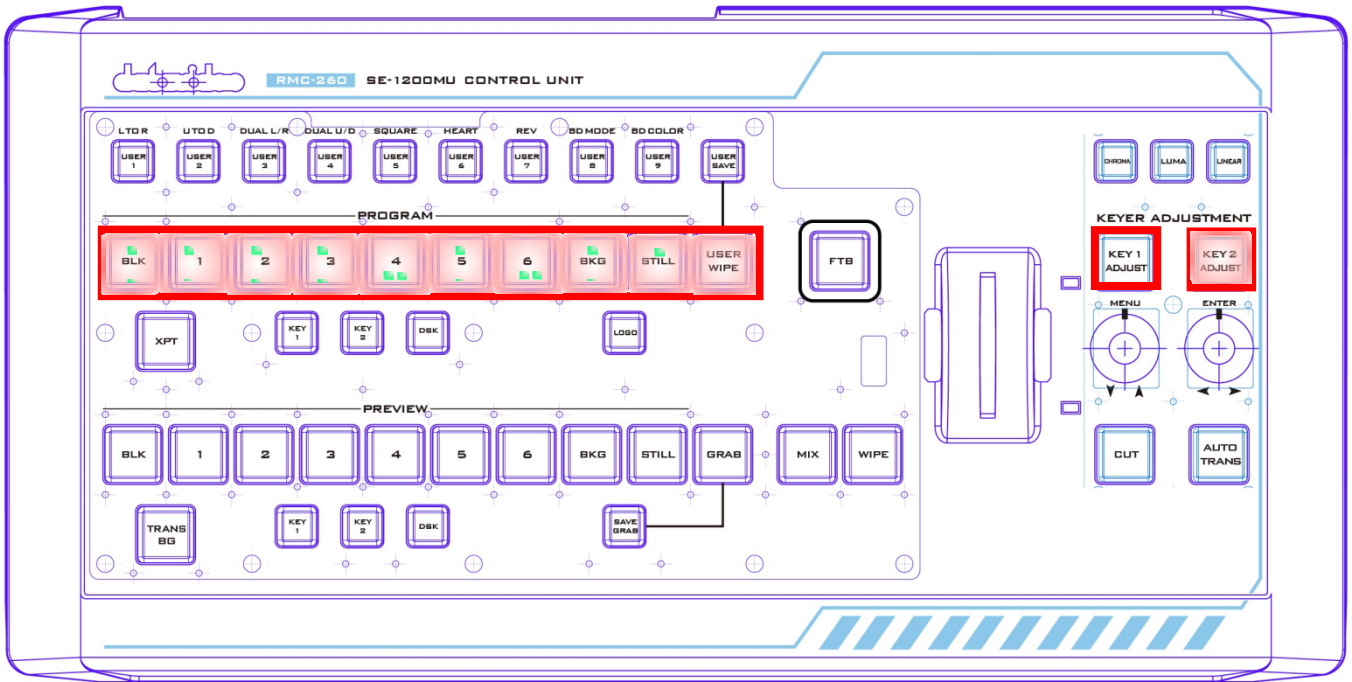
4.7   USER 5 – Exit Configuration and Debug Mode

To exit the configuration and debug mode, press the **MENU** knob to select the **USER 5** button.
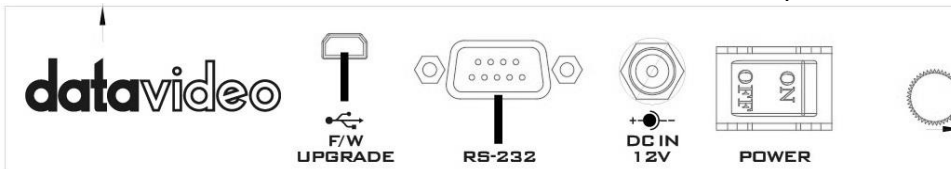
5. Firmware Update

From time to time, Datavideo may release new firmware to either add new features or to fix reported bugs in the current RMC-260 firmware. Customers can update the firmware themselves if they wish or they can contact their local dealer or reseller for assistance should they prefer this method.

This section describes the firmware update process and it should take *approximately few minutes to complete*. Once started, *the update process should not be interrupted in any way* as this could result in a non-responsive unit.

Requirement

- Latest firmware update files (bootloader and application firmware)
- A USB cable not longer than 2 meters
- A Windows PC with USB 2.0 ports

1. Connect the PC to the F/W UPGRADE connector on the rear panel of the RMC-260 via a USB cable.


2. Connect the power and switch on the device.
3. The PC will automatically detect the RMC-260 device.
4. Remove firmware.bin file from the device.
5. Copy the latest firmware version file to the device.
6. Firmware update is complete after the firmware file is copied to the device.
7. Safely remove the USB device.
8. Switch off the RMC-260 power.
9. Remove the USB cable connection between the RMC-260 and the PC.

6. Frequently-Asked Questions

This section describes problems that you may encounter while using the RMC-260. If you have questions, please refer to related sections and follow all the suggested solutions. If problem still exists, please contact your distributor or the service center.

1. My PC Control Panel UI cannot work with the RMC-260.
   The RMC-260 has to work with the PC Control Panel UI of the version SE-1200MU V1.2.0.7 or above.

2. While SE-1200MU is ON, loss of connection between SE-1200MU and RMC-260 is experienced after hot plugging RS-232 connection repeatedly.
   Loss of connection does not usually occur when hot plugging RS-232 connection repeatedly, however, after 5 to 6 times, connection might be lost; wait for approximately 72 seconds, the connection will be re-established.

7. Dimensions
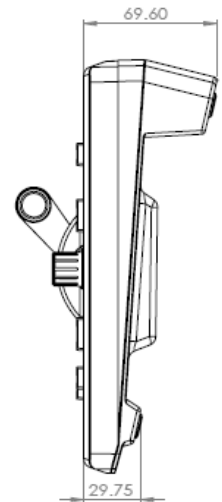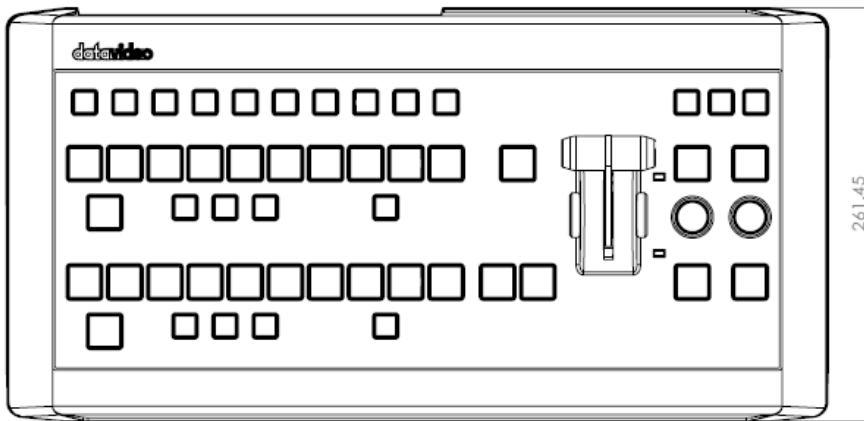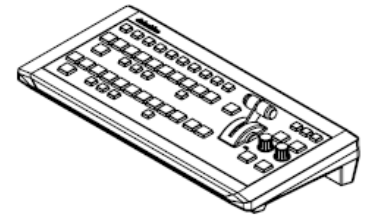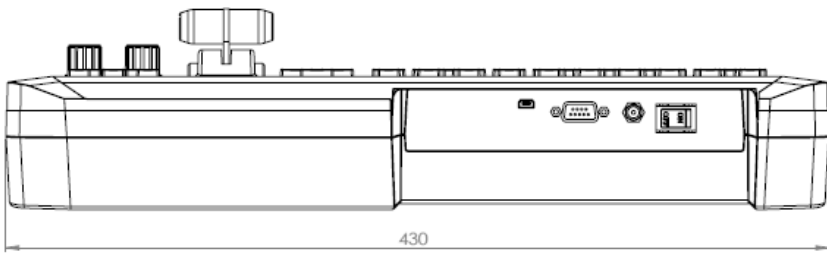
All measurements in millimetres (mm)

8. Specifications

Communication Interface	RS-232
Baud Rate	19200 ODD
Firmware Update	USB
Power Supply	Input AC 100 ~ 240 V Switching Adapter Output DC 12V
Power Consumption	5W
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Humidity	10% to 90% (non condensing)
Dimension (mm)	430.0 x 216.5 x 69.6
Net Weight	1.28 Kg
Certification	CE, FCC

Service & Support

It is our goal to make owning and using Datavideo products a satisfying experience. Our support staff is available to assist you to set up and operate your system. Contact your local office for specific support requests. Plus, please visit www.datavideo.com to access our FAQ section.

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Please refer to our website for update the latest version manual.
www.datavideo.com/Mixer+-+Switchers/RMC-260

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