TD | Touch Drive

TouchDrive
Configuration Guide

v03

ROSS

Document Information

- Ross Part Number: **4880DR-100-03**
- Release Date: August, 2024. Printed in Canada

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Contents

TouchDrive

Designed for Live!

TouchDrive builds on the Ross Video reputation for designing switcher control panels for live studios, trucks, and post-production. At the center of the action, it is important that the panel be powerful and versatile, yet maintain its ease of operation. This frees the operator to concentrate on the programming instead of the equipment, delivering a cleaner, more professional production.

TouchDrive improves on the highly popular Carbonite Black series of control panels by bringing integrated touchscreens, Linux® OS, and DashBoard control interface.

Designed for Linear!

The TouchDrive family of control panels continue to build on Ross® Video's reputation for setting the standard for multi-definition linear editing suites. The traditional layout and familiar controls of other Ross® control panels provide the power and ease of use you have come to expect.

Designed for You!

With Ross® Video products installed in well over 125 countries world-wide, our sales, demonstration, and training people get a lot of ongoing feedback from customers. This feedback is carefully tracked and considered in the design and feature-set development of our products. Key members of the design teams are part of an ongoing program in which they provide product demonstrations, assist with product installation, and train operators. As a result, the complete line of Ross Video products continues to offer our legendary combination of power and ease of use.

Experience Great Support!

Ross® has designed and manufactured production switchers for over 50 years, with significant year over year growth for the past 35 years. We believe that an important factor of our success is our focus on providing a superior customer experience. We continually benchmark our warranty and technical support to ensure that they are the best in the industry.

We hope that you join the many thousands of satisfied video professionals around the world that are proud owners of Ross® production switchers. Please do not hesitate to contact us with any questions or comments you have related to this Configuration Guide at Tel: +1-613-652-4886, Fax: +1-613-652-4425 or email us at *solutions@rossvideo.com*.

Product Comparison

Use the following table to compare the different control panels in the product line.

TouchDrive Control Panels

	TD1C	TD1	TD2	TD2S	TD3S	TD3	TD4	TDx3	TDx4
Control Panel									
Panel Source Buttons per Row	15	15	15	25	25	35	35	35	35
Number of User Assignable Buttons per Row	15	15	15	25	25	35	35	35	35
Number of Control Panel Rows	1	1	2	2	3	3	4	3	4
Dual Delegation Row	No							Yes	
DashBoard Interface	Yes								
Touchscreen Monitor	Optional								
Integrated Touchscreen Panel Displays	Yes								
Button Colors	Full HSL								
Mnemonic Colors	20 (background and text)								
Source Mnemonic Icons	Yes								
Legendary Ross Fader Handle with Lifetime Guarantee	Yes								
Positioner	Z Axis					Z Axis plus Flex Buttons			
Flex Control Module	No					1	2	1	2
On Panel Mini Menu	1 Touch Display with 3 Knobs					2 Touch Displays with 6 Knobs			
In Row Memory Keypad	No		Yes						
Engineering and Networking									
Redundant Power	Yes (optional)								
Ethernet Connectivity	1 × 2.5GigE								
USB	4 × USB 2.0, 1 × USB 3.0								

Standard System

Whether you have a demanding production environment, or a more modest one, selecting the TouchDrive control panel that is right for you should not be a complicated task.

TouchDrive Control Panel

Select the control panel that meets the needs of your production environment.

Option	Description
TD1C-PANEL	A compact rack-mountable panel with 15 source buttons, 15 user select buttons (plus 3 in the transition area), independent keyer and transitions areas, updated 3-knob menu interface, and an advanced z-axis positioner.
TD1-PANEL	The same features as the TD1C panel but in a standard panel row design.
TD2-PANEL	The same features as the TD1 panel, but with 2 panel rows.
TD2S-PANEL	The same features as the TD2 panel, but with 25 source buttons, 25 user select buttons (plus 3 in the transition area), and an Acuity® style memory area with keypad and rate buttons.
TD3S-PANEL	The same features as the TD2S panel, but with 3 panel rows.
TD3-PANEL	The same features as the TD3S panel, but with 35 source buttons and 35 user select buttons per row, a single Flex Control module, an advanced Positioner module, a stacked 3-knob menu with two displays, and a second Row Control display at the left end of the each row.
TD4-PANEL	The same features as the TD3 panel, but with 4 panel rows, and an additional Flex Control module.
TDx3-PANEL	The same features as the TD3 panel, but the single keyer row is replaced with a Dual Delegation keyer row providing two rows of buttons.
TDx4-PANEL	The same features as the TDx3 panel, but with 4 panel rows.

Note: *The TouchDrive control panels do not come with power supplies. You must pick either a standard brick power supply (CUF-PSU), or a rack power option (CUF-RACKPWR) to provide power for the control panel.*

TouchScreen Display

A 15.6-inch 1920×1080 touchscreen monitor that connects directly to the TouchDrive control panel for power, DashBoard interface, and touch-control.

Note: *A separate VESA®-100 (VESA® MIS-D, 100, C) mounting arm is required for the display.*

Tip: *The Touchscreen Display gets power directly from the control panel and uses the panel redundant power.*

Option	Description
TD-TOUCHSCREEN	The 15.6-inch touchscreen monitor.

Note: *Third party touchscreens are not supported. If you want to use a different display with the TouchDrive control panel, it must be a standard display used in conjunction with a mouse and keyboard.*

Power Supplies

Note: *The TouchDrive control panel does not come with a power supply. You must pick either a standard brick power supply (CUF-PSU), or a rack power option (CUF-RACKPWR) to provide power for the control panel.*

The redundant power supply options provides protection against AC power failure. It allows two external power supplies to receive power from independent power sources. Complete failure of one source, or power supply, will not affect standard operations. If the main AC power fails, power is drawn from the remaining source. The transition from one power source to the other is totally transparent and has no effect on operations; a critical feature should one power source fail during an on-air broadcast.

Tip: *You can order a second CUF-PSU option to provide redundant power for the control panel.*

Option	Description
CUF-PSU	Adds a brick power supply for the control panel.
CUF-RACKPWR	Adds the Ultripower rack power supply for the control panel.

Table 1: Number of Required Power Supplies

Panel	Primary Power	Full Redundant Power
TD1	1	2 (1+1)
TD1C	1	2 (1+1)

Panel	Primary Power	Full Redundant Power
TD2	1	2 (1+1)
TD2S	1	2 (1+1)
TD3S	1	2 (1+1)
TD3	2	4 (2+2)
TD4	2	4 (2+2)
TDx3	2	4 (2+2)
TDx4	2	4 (2+2)

Extended Warranty

This extends the standard one-year warranty on your control panel by one year. Additional years can be purchased if required.

Option	Description
TD1C-PANEL-HM	Adds an additional year of warranty to the TD1C control panel.
TD1-PANEL-HM	Adds an additional year of warranty to the TD1 control panel.
TD2-PANEL-HM	Adds an additional year of warranty to the TD2 control panel.
TD2S-PANEL-HM	Adds an additional year of warranty to the TD2S control panel.
TD3S-PANEL-HM	Adds an additional year of warranty to the TD3S control panel.
TD3-PANEL-HM	Adds an additional year of warranty to the TD3 control panel.
TD4-PANEL-HM	Adds an additional year of warranty to the TD4 control panel.
TDx3-PANEL-HM	Adds an additional year of warranty to the TDx3 control panel.
TDx4-PANEL-HM	Adds an additional year of warranty to the TDx4 control panel.
TD-TOUCHSCREEN-HM	Adds an additional year of warranty to the touchscreen display.

Specifications

Switcher resources, video specifications, power rating, and port pinouts.

Hardware Weights

Hardware	Weight
TouchDrive Panels	
TD1C Panel	10 lbs (4.5 kg)
TD1 Panel	14 lbs (6.4 kg)
TD2 Panel	21 lbs (9.5 kg)
TD2S Panel	27 lbs (12.3 kg)
TD3S Panel	54 lbs (24.5 kg)
TD3 Panel	51 lbs (23.1 kg)
TDx3 Panel	51 lbs (23.1 kg)
TD4 Panel	64 lbs (29.0 kg)
TDx4 Panel	64 lbs (29.0 kg)
TouchScreen Display	5.5 lbs (2.5 kg)

Environmental Characteristics

	All Switchers
Ambient Temperature Range	Operating: 0 - 40°C (32 - 104°F) Storage: -20 - 70°C (-4 - 158°F)

Max Power Consumption — Panel

Input Voltage — 100 - 120V~, 220 - 240V~, 47-63Hz

Table 2: TouchDrive Control Panels

Panel	Max Power	
	HW Rev 01-02 (Qseven®)	HW Rev 03, 4882AR (AMD Ryzen™)
TD1C	50W 3.33A 15V	97W 6.4A 15V
TD1	73W 4.87A 15V	102W 6.8A 15V
TD2	85W 5.67A 15V	123W 8.2A 15V
TD2S	107W 7.13A 15V	138W 9.2A 15V
TD3S	165W 11A 15V	173W 11.53A 15V
TD3	n/a	220W 14.66A 15V
TDx3	n/a	220W 14.66A 15V
TD4	n/a	250W 16.66A 15V
TDx4	n/a	260W 17.33A 15V

Option Codes

Refer to the individual sections for more detailed information on each option.

TouchDrive Control Panel Options

	TD1C	TD1	TD2	TD2S	TD3S	TD3	TD4	TDx3	TDx4
Control Panels									
Panel	TD1C-PANEL	TD1-PANEL	TD2-PANEL	TD2S-PANEL	TD3S-PANEL	TD3-PANEL	TD4-PANEL	TDx3-PANEL	TDx4-PANEL
Brick Power Supply (Power + Redundant)	CUF-PSU (1+1)					CUF-PSU (2+2)			
Ultripower Rack Power Supply	CUF-RACKPWR								
Extended Warranty, Panel	TD1C-PANEL -HM	TD1-PANEL -HM	TD2-PANEL -HM	TD2S-PANEL -HM	TD3S-PANEL -HM	TD3-PANEL -HM	TD4-PANEL -HM	TDx3-PANEL -HM	TDx4-PANEL -HM
TouchScreen Display									
Display	TD-TOUCHSCREEN								
Extended Warranty, Display	TD-TOUCHSCREEN-HM								

Panel Dimensions

> ⓘ **Important:** *These dimensions are provided as a guide only. Scale DXF/CAD drawings of the control panels are available from the Ross Video website.*

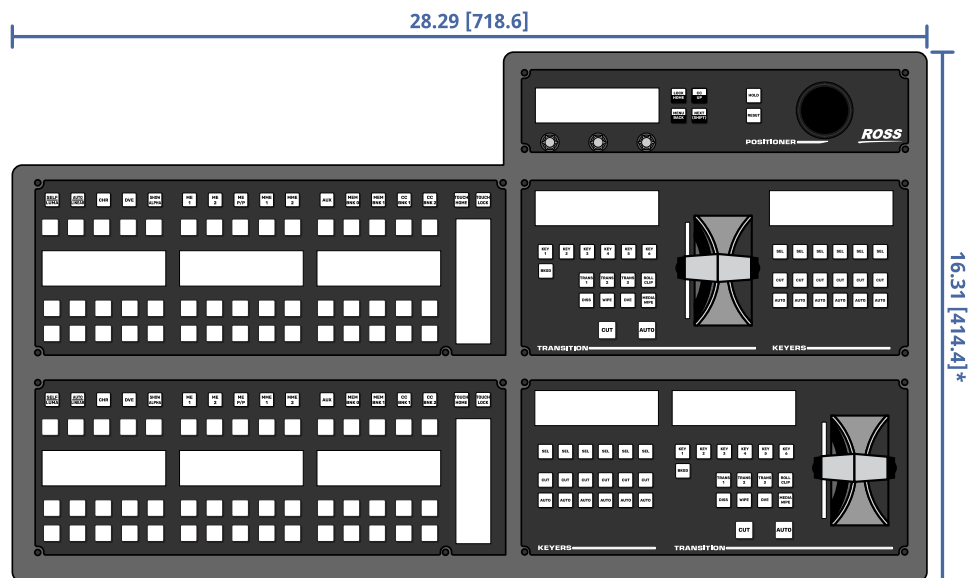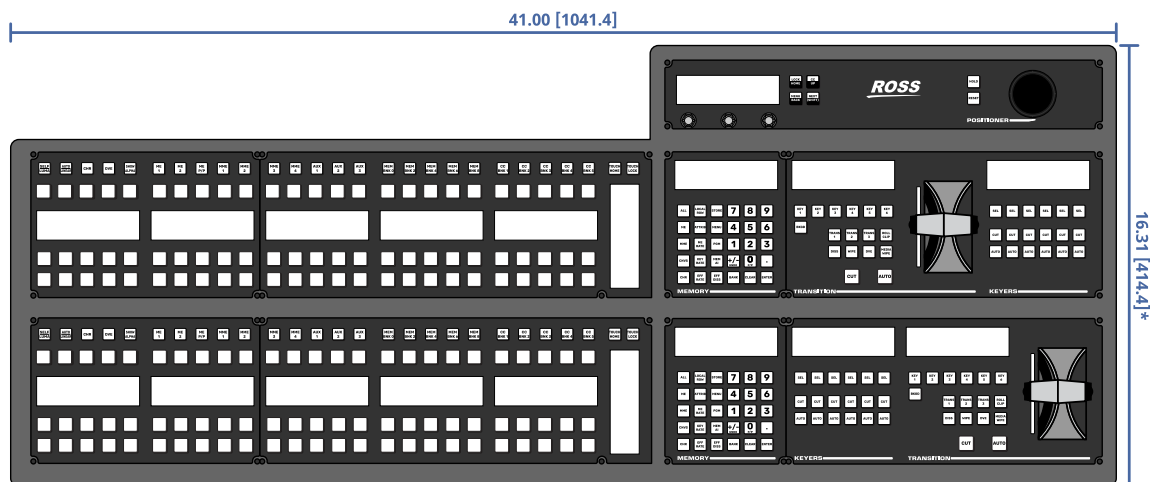Dimensions are in inches with metric dimensions shown in brackets [mm].

TD1C
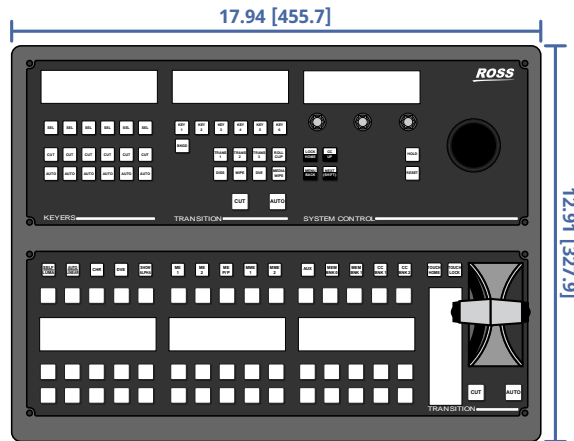
TD1
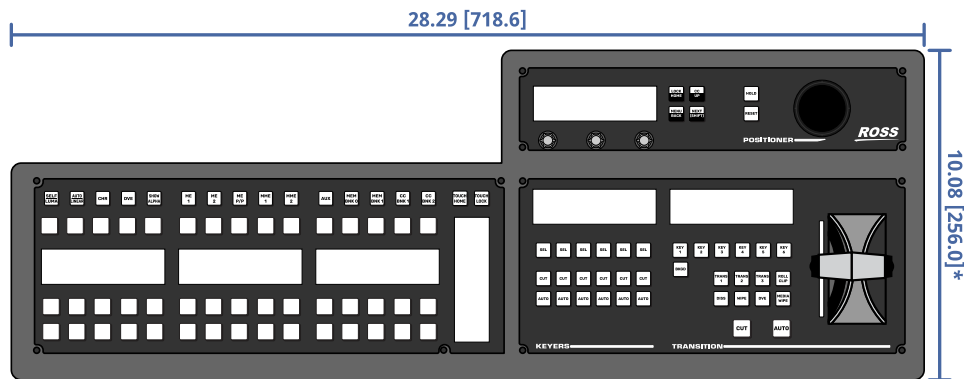
> **Note:** *Because the TouchDrive control panel is curved, the depth measurement is only approximate.*
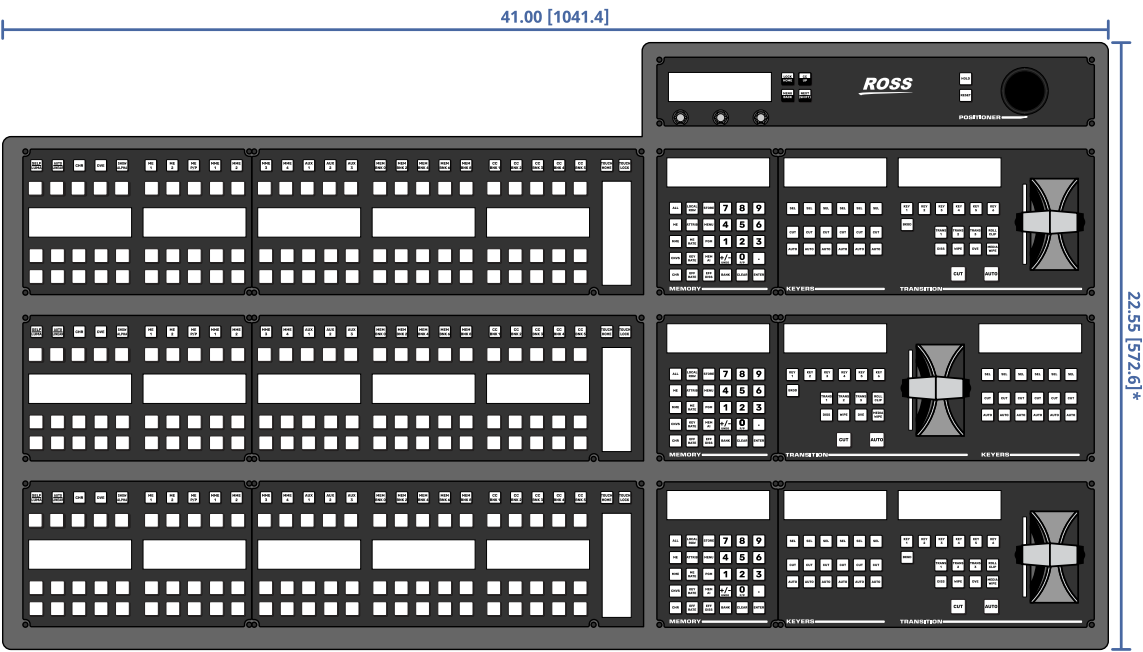
TD2

28.29 [718.6]

16.31 [414.4]*

Note: ***** *Because the TouchDrive control panel is curved, the depth measurement is only approximate.*

TD2S

41.00 [1041.4]

16.31 [414.4]*

Note: ***** *Because the TouchDrive control panel is curved, the depth measurement is only approximate.*

TD3S

41.00 [1041.4]

22.55 [572.6]*

Note: * Because the TouchDrive control panel is curved, the depth measurement is only approximate.

TD3/TDx3

58.39 [1482.3]

20.22 [513.6]*
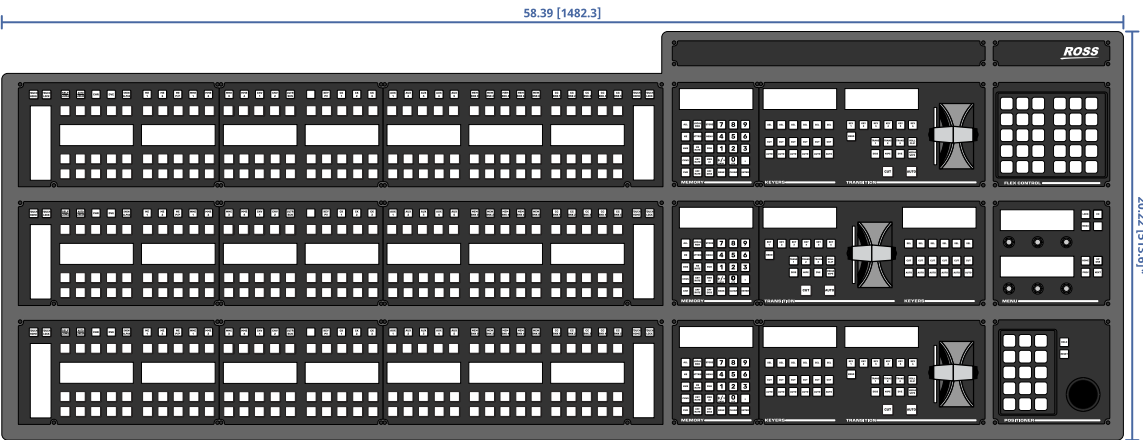
Note: * Because the TouchDrive control panel is curved, the depth measurement is only approximate.

TD4/TDx4
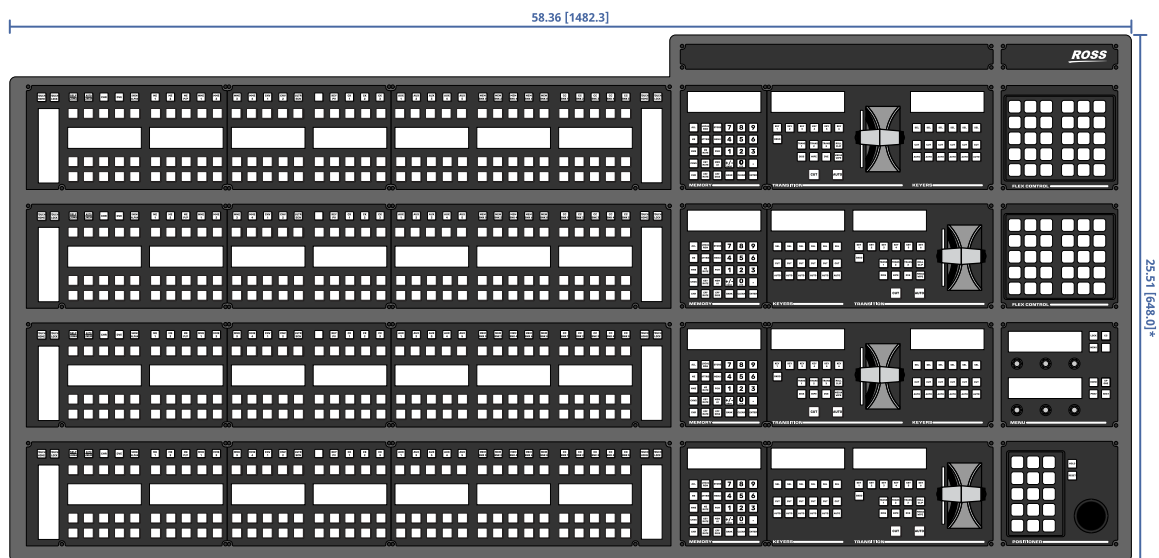
Note: * Because the TouchDrive control panel is curved, the depth measurement is only approximate.

TouchDrive Desk Cutouts

Important: *These dimensions are provided as a guide only. Scale DXF/CAD drawings of the control panels are available from the Ross Video website that should be used as a template for a desk cutout.*

Dimensions are in inches with metric dimensions shown in brackets [mm].

Note: *The Desk Mounting option is required to properly secure the panel to a desk.*
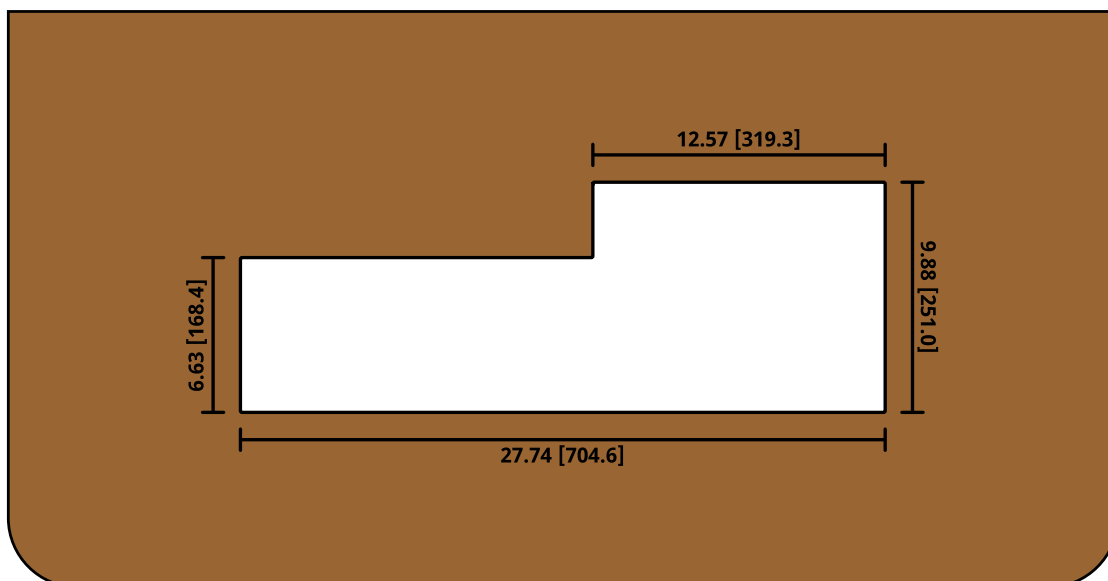
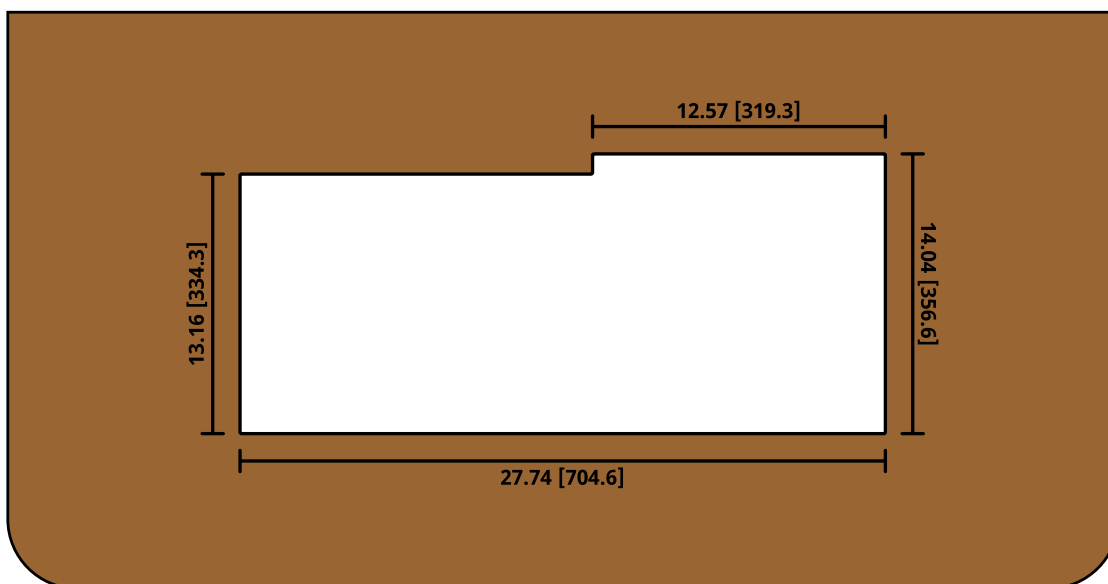*Note:* *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD1C
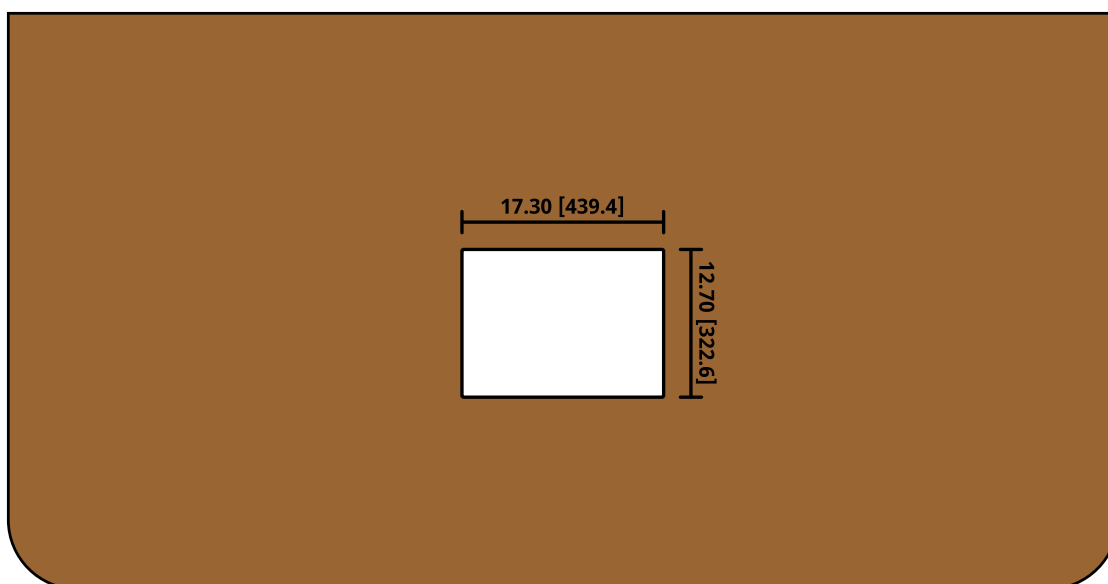
17.30 [439.4]

12.70 [322.6]

Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD1

12.57 [319.3]	
6.63 [168.4]	9.88 [251.0]
27.74 [704.6]	

Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD2

12.57 [319.3]	
13.16 [334.3]	14.04 [356.6]
27.74 [704.6]	

Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD2S

16.82 [427.2]

14.04 [356.6]

13.16 [334.3]

40.49 [1028.4]

Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD3S

14.38 [365.3]

40.49 [1028.4]
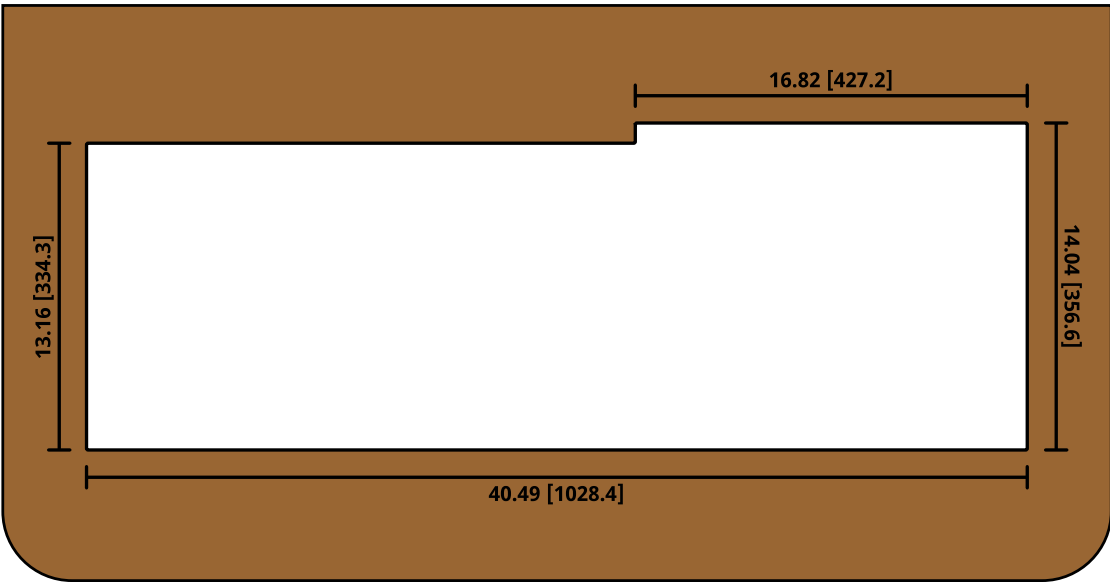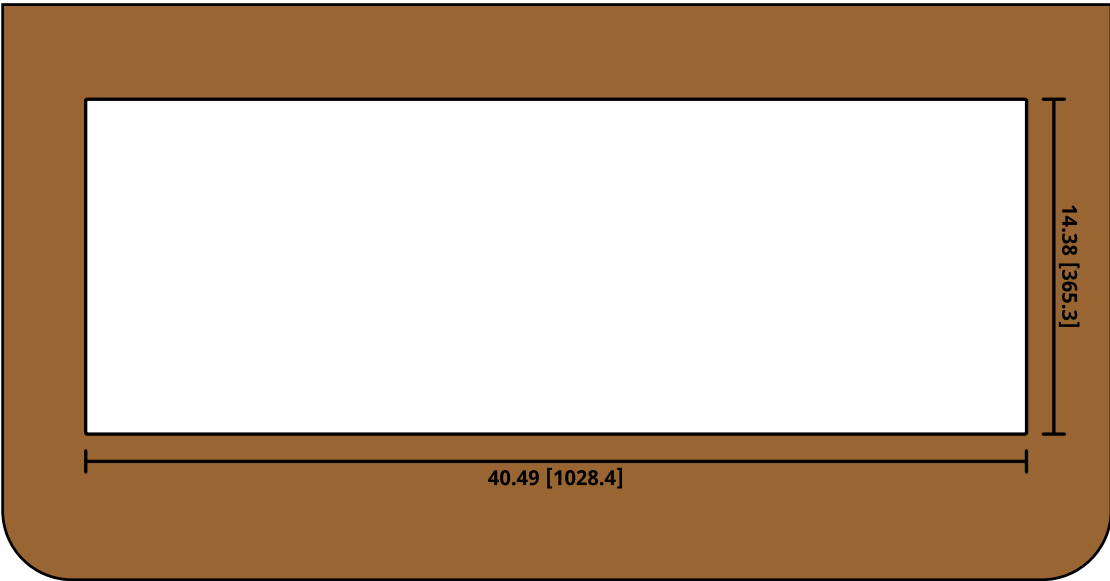
Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD3/TDx3

14.38 [365.3]

57.80 [1468.1]

Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*

TD4/TDx4

14.38 [365.3]

57.80 [1468.1]

Note: *Remove the on-desk legs from the bottom of the control panel to mount it in a desk.*