

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

Please read this entire manual before you begin.

Do not unpack any contents until you verify all requirements on PAGE 3.

If you have any questions, visit MantelMount.com or call (800)-897-9755.

WARNING!

This product contains small parts that can be a choking hazard. Do not let children play with any of these small parts! Keep children away from the work area during installation.

A WARNING!

Do not let children operate, pull on, or hang from MantelMount.

Do not operate MantelMount when anyone is near or behind the mount. MantelMount is very strong and can result in crushing injuries.

A WARNING!

MantelMount must be installed to a wall or structure that is able to hold five times the combined weight of all equipment. If you are unsure about your structure, a contractor must evaluate your installation.

A WARNING!

Exceeding the weight capacity can result in serious personal injury or damage to equipment! The combined weight of all components must not exceed 125 lbs (57 kg).

IMPORTANT:

MantelMount has three different adjustments that must be made after the installation is complete in order to operate properly.

The side-to-side swivel stops are adjusted with two screws with locknuts so that the TV does not swivel into the mantel.

four screws behind the swivel mechanism. The TV should always be flat to the wall when stowed.

The bottom travel stop is adjusted with two screws and locknuts so the TV and mount do not lower all the way into the mantel.

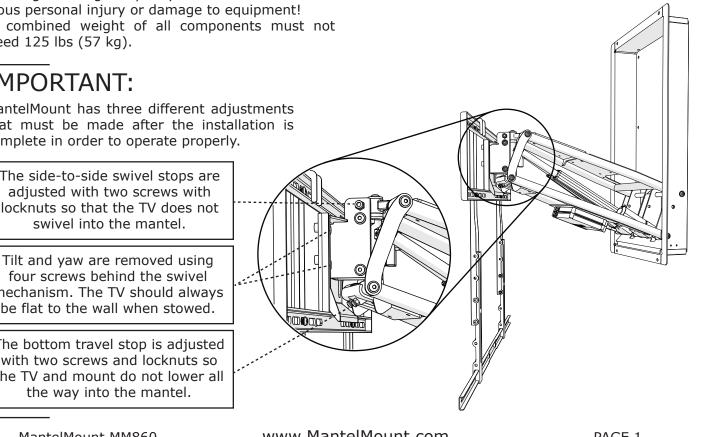
CAUTION:

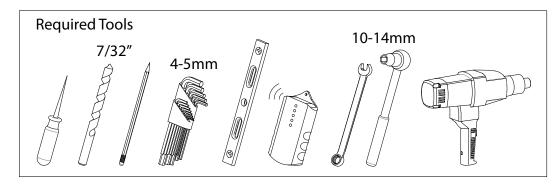
This product is intended to be installed by professional installation contractors, or persons familiar with the tools and methods required for this installation. If you are not sure about your ability to perform this installation, you must contact a professional. MantelMount is not responsible for damage or injury caused by incorrect installation or improper use.

ACAUTION:

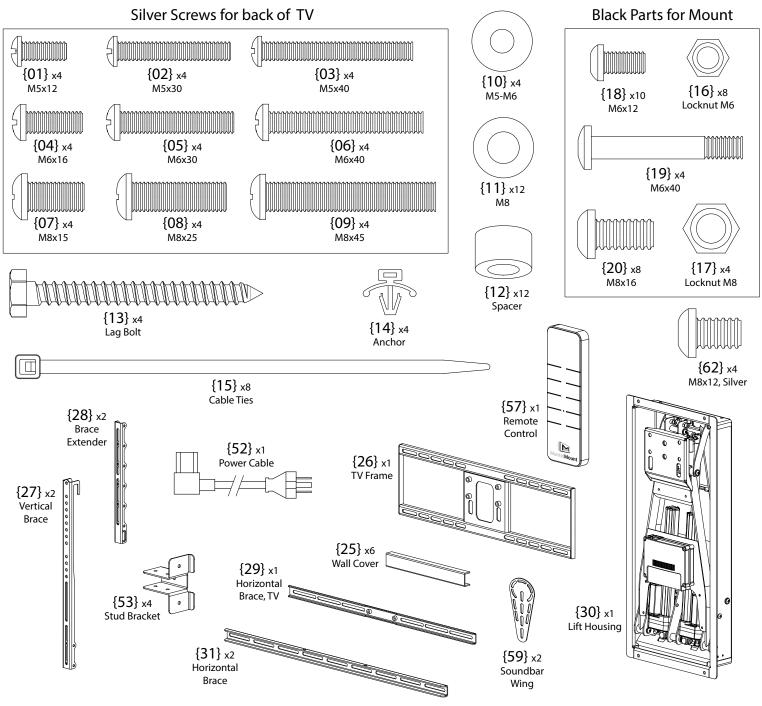
Do not use this product in any way, or for any purpose, that is not specifically described in these instructions. MantelMount is not responsible for damage or injury caused by incorrect installation or improper use.

U.S. Pat. No. 8,864,092 Other Patents Pending





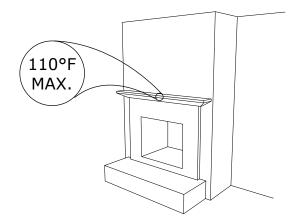
Before you begin, please verify that all components are included and undamaged. If any parts are missing or damaged, contact MantelMount. Never proceed with missing or damaged parts! Lay out all components and make sure you identify that each one has a match in the diagram. Some of the parts included will not be used during installation. Do not proceed if you do not understand and identify all of the components.



Please verify that your installation meets all of these CRITICAL requirements:

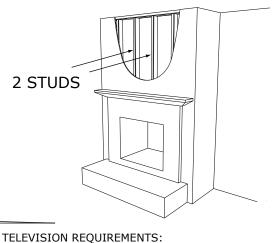


MantelMount is designed for use only with decorative fireplaces that are not the primary heat source for a house. Temperature at the front edge of mantle should never exceed 110° F.

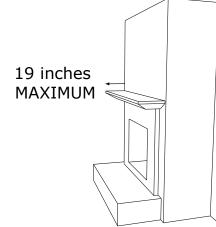


B Wall must be WOOD STUD FRAME only. There must be at least 2 studs available for mounting. Wall covering must not exceed 5/8 inch thick.

For other types of walls or other types of installations please visit the FAQ section at www.MantelMount.com.



 Mantle must not extend from mounting surface more than 19 inches (22 inches for non-recessed installations). MantelMount can not extend past a mantel larger than 19 inches. Larger mantels will also reduce the amount of side-to-side swivel.



- Weight must be below 125 pounds (56 Kg).
 Screen size larger than 50 diagonal inches.
 Mounting screw holes are VESA compliant.
 - For non-VESA hole patterns, please visit the FAQ section at www.MantelMount.com.





0 0 0 0

VESA Width: 200-600mm Height: 100-600mm

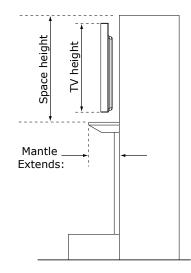
The space above the mantle must be taller than the TV. The required space depends on how far out the mantle extends. Refer to chart below and add this additional height to the TV height to determine if space is tall enough.

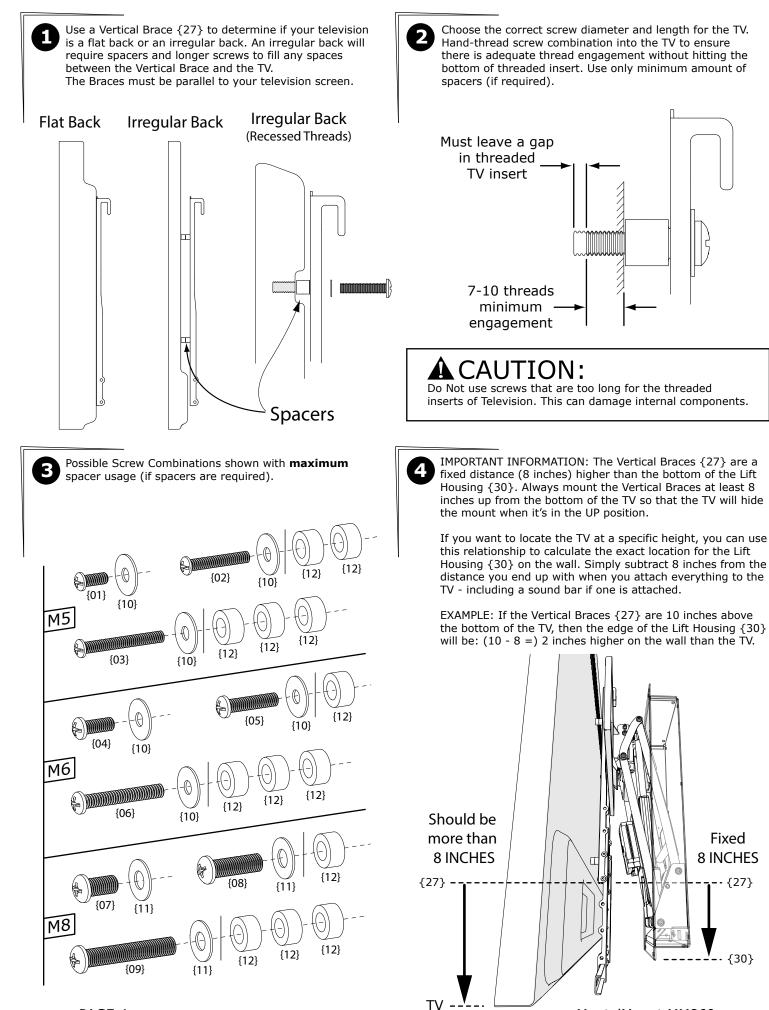
TV height must include the height of the Sound Bar if one is being used.

If mantle extends:

Required Clearance:

Less than 10 inches	Add 5 inches
10 - 12 inches	Add 6 inches
12 - 14 inches	Add 8 inches
14 - 17 inches	Add 11 inches
17 - 19 inches	Add 14 inches

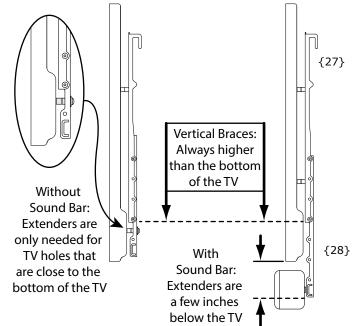




The Vertical Braces {27} are always mounted higher than the bottom of the TV. However, the Brace Extenders {28} will be mounted one of two ways:

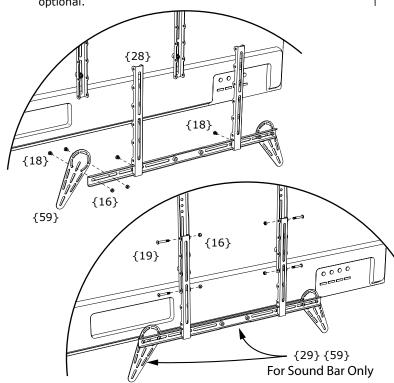
Without a Sound Bar, if needed - The Brace Extenders are installed slightly **above** the bottom of the TV. Use the Extenders for holes that are low on the TV.

With a Sound Bar - The Brace Extenders are installed **below** the TV with enough room to install the Sound Bar onto Horizontal Brace {29}. Or use Sound Bar Wings {59}.



Attach the TV Horizontal Brace {29} with Screws {18} if a Sound Bar is used. Each Extender {28} must be slid onto the Brace from the outer ends because there are thread inserts blocking the center of the Brace.

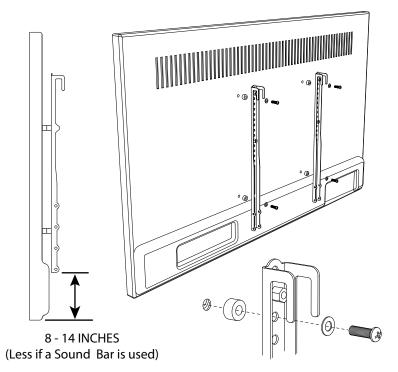
Attach the Extenders to the Vertical Braces using Screws $\{19\}$ and Nuts $\{16\}$. Sound Bar Wings $\{59\}$ are optional.





Attach the Vertical Braces $\{27\}$ to the TV so the bottoms of the Vertical Braces are at least eight inches higher than the bottom of the TV (so that the TV hides the mount housing).

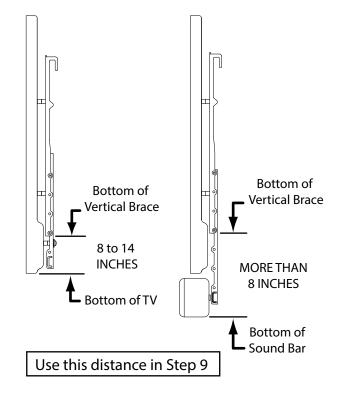
NOTE: If all the screws for the back of the TV can fit into the TV Vertical Braces {27}, and a Sound Bar is not being used, then the Brace Extenders {28} do not need to be installed.

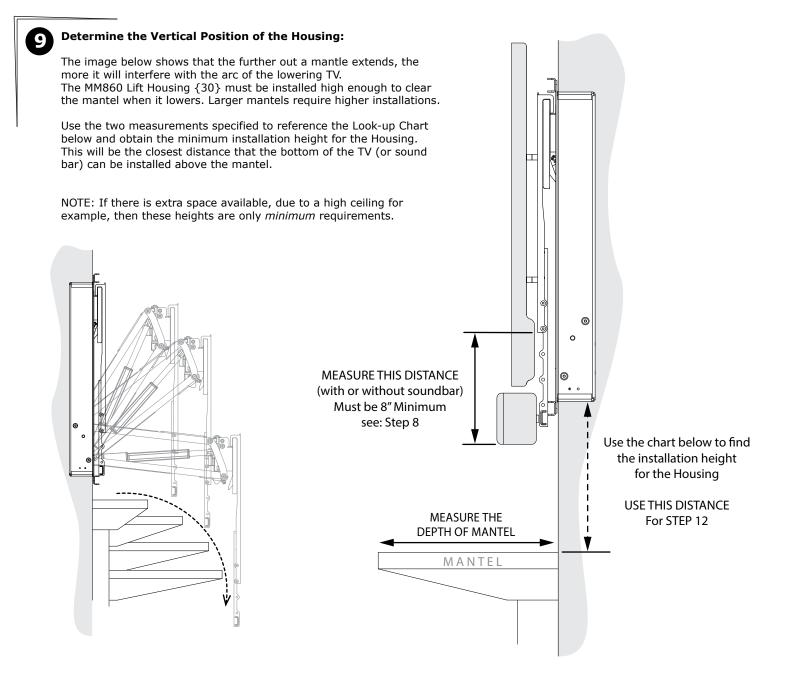




Measure the distance from the bottom of the Vertical Braces {27} (not the Extenders) to the bottom of television or Sound Bar.

Write down this distance to use in Step 9.





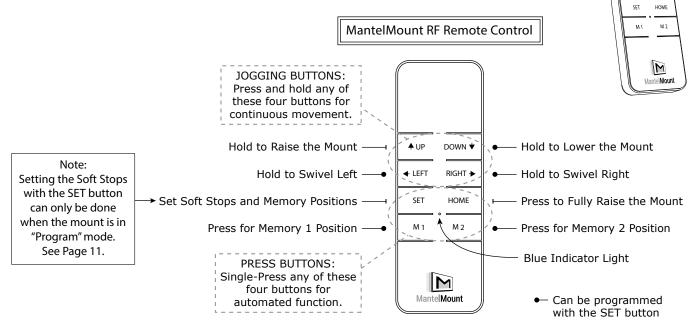
DEPTH OF MANTEL	

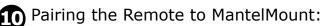
		8" OR LESS	9″	10″	11"	12"	13"	14"	15"	16"	17"	18"	19"
DISTANCE	8"	4.00″	4.25	4.75	5.25	5.75	6.50	7.50	8.50	9.50	11.00	12.50	14.50
From STEP 8:	9"	5.00″	5.25	5.75	6.25	6.75	7.50	8.50	9.50	10.50	12.00	13.50	15.50
	10"	6.00″	6.25	6.75	7.25	7.75	8.50	9.50	10.50	11.50	13.00	14.50	16.50
	11"	7.00″	7.25	7.75	8.25	8.75	9.50	10.50	11.50	12.50	14.00	15.50	17.50
	12"	8.00″	8.25	8.75	9.25	9.75	10.50	11.50	12.50	13.50	15.00	16.50	18.50
	13"	9.00″	9.25	9.75	10.25	10.75	11.50	12.50	13.50	14.50	16.00	17.50	19.50
♦	14"	10.00″	10.25	10.75	11.25	11.75	12.50	13.50	14.50	15.50	17.00	18.50	20.50
·	15"	11.00″	11.25	11.75	12.25	12.75	13.50	14.50	15.50	16.50	18.00	19.50	21.50

A CAUTION:

MantelMount MM860 comes with an RF Remote Control. This Remote does not need to be pointing at the mount in order to control the mount; in fact, the Remote will send commands to the mount even from other rooms in the house. It is very important to operate the Remote only when the mount is in sight. Otherwise, always store the Remote in a safe place away from children.

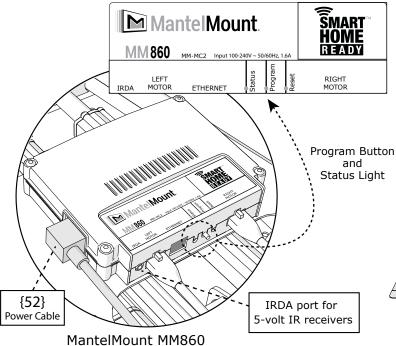
* Press any button to immediately stop mount movement *





To start using the MantelMount MM860, the Remote Control must be linked to the mount. This process is called "Pair". To pair the Remote, follow these steps:

- a. Press any button on the Remote to verify the blue light works.
- b. Attach Power Cable {52} to the mount and plug into wall outlet.
- c. On the bottom of the electronics housing, press the "Program" Button for 3 seconds until the green Status light rapid blinks.
- d. Press and release the SET button on the remote. Pairing is complete and is confirmed if the Status light stops blinking.

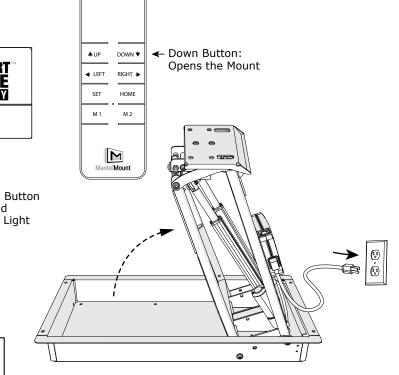




Lay MantelMount on a flat, stable surface. Press and hold the DOWN button on the Remote until the arm is perpendicular to the Housing. Operate the LEFT and RIGHT buttons to verify the swivel operation. Return the arm to the HOME position before installation.

AUP DOWN

♦ LEFT BIGHT #



OPTIONAL:

Auto Lowering Power Sensor (ALPS):

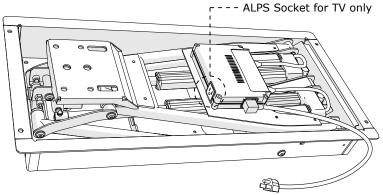
This unique MantelMount feature will allow the mount to lower to the the Memory 1 position whenever the TV is turned on, and return home when the TV is turned off. The mount will do this automatically without needing to use the Remote Control.

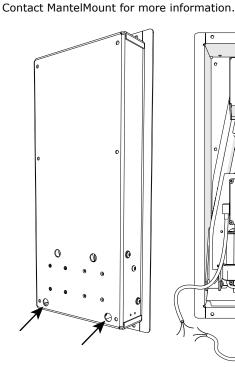
If the TV is plugged into the socket located onboard the MM860 instead of a wall outlet, MantelMount can monitor the power to the TV and determine when the TV is turned on or off.

If this feature is not desired, simply plug the TV into a wall outlet and operate the MM860 with the Remote Control.

ALPS WILL NOT WORK IF ANY OTHER DEVICES OR POWER STRIPS ARE PLUGGED INTO THE ALPS SOCKET.

See STEP 27:





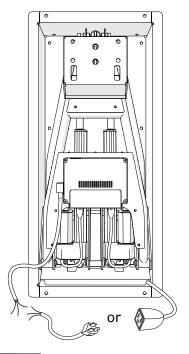
OPTIONAL:

Hard Wire Conduit Access:

MM860 has rear access holes that accept standard knock-out

fittings for 1/2" aluminum conduit. A licensed electrician can

hard wire an AC power socket or splice into the power cord.

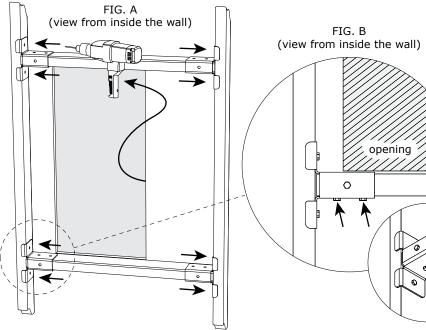


OPTIONAL: Adapter Brackets for 2x4 bracing:

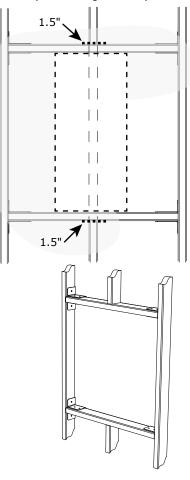
MM860 includes brackets that make it easier to install horizontal 2x4 bracing inside the wall. This is because all the attachment holes in the brackets can be reached for drilling and screwing through the opening that is cut for the Lift Housing $\{30\}$, see FIG. A.

Notes: If the bracket is near the cutout opening, make sure to orient the attaching hardware away from the opening so they do not interfere with the Housing. This hardware is attached before the braces are installed into the wall, see FIG. B.

When cutting a center stud, measure 1.5" above and below the template mark before the opening is cut out. Plunge cut through the stud at both locations and attach the cut ends to the cross braces when they are installed, see FIG. C.







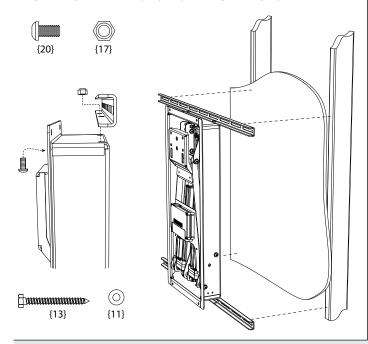
Installation Options:

SURFACE MOUNT (non-recessed) installation using the Horizontal Braces $\{31\}$ to attach to existing wall studs:

The Horizontal Braces can reach studs that are up to 34 inches (875mm) apart. They attach flush to the back of the Lift Housing {30}.

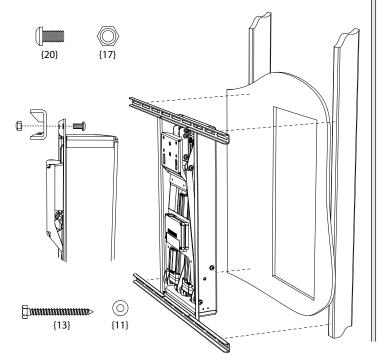
ACAUTION:

Do Not overtighten Lag Bolts $\{13\}$. Tighten only until the washers are firmly against the wall plate. Damage due to overtightening can cause property damage or injury.



RECESSED installation using the Horizontal Braces $\{31\}$ to attach to existing wall studs:

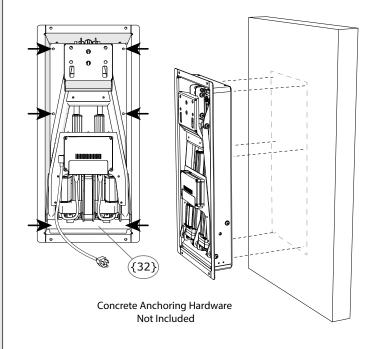
The Horizontal Braces attach to the flange on the front of the Lift Housing {30}. Use the included Template to mark the location to cut the drywall. This installation is easiest when there is no center stud that needs to be cut to make room.



SURFACE MOUNT (non-recessed) installation onto stone or concrete walls using the six holes in the back of the Recess Frame {30}. The lower Access Cover {32} must be removed to access the lower holes.

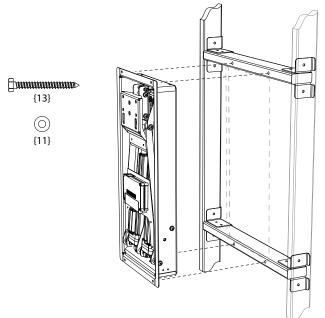
The wall must be solid stone or concrete that can hold five times the weight of all combined equipment. This surface must not be a facade or non-structural material.

Use concrete anchors (not included) to attach mount to surface.



RECESSED installation using the included 2x4 Stud Brackets {53}.

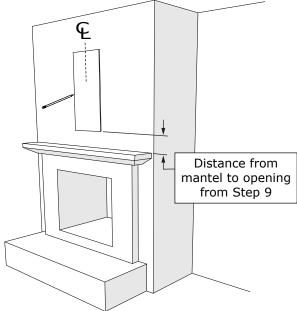
When studs are far apart, when a center stud needs to be cut, or when the cleanest look is desired, sections of horizontal 2x4 can be installed through the cutout. They provide a solid structure for the mount without the need for the Horizontal Braces. The mount is attached with Lag Bolts through the holes in the front flange of the Lift Housing $\{30\}$. Any studs that were cut can be reattached to the new sections of 2x4.



Install the Lift Housing {30}

RECESSED: Trace the Cardboard Template vertically onto the wall about the centerline at the correct height from Step 9. Use a level to ensure the cutout is plumb.

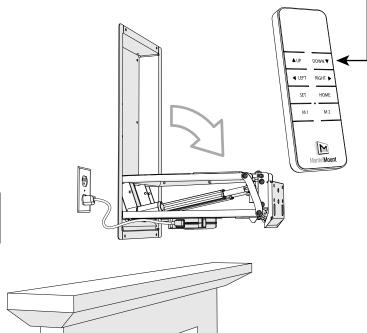
NON-RECESSED: Use the Cardboard Template to mark the location of the Housing. MantelMount is located in the same spot for all installations.





After the Lift Housing is installed and power is connected, press and hold the DOWN button on the Remote to lower the Arm to horizontal. DO NOT lower past horizontal in order to avoid hitting the mantel.

> DOWN Button: Lowers the Mount





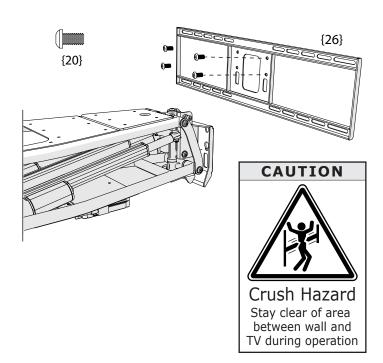
DO NOT put hands into Lifting Mechanism while operating the mount with the Remote Control.

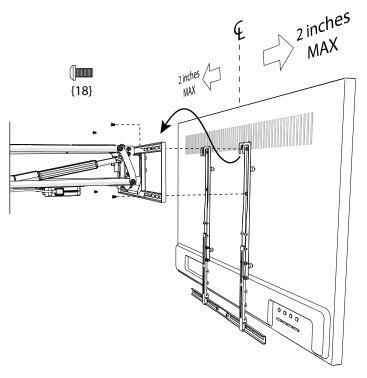
Install the TV Frame {26} by partially inserting Screws {20} into the TV Frame and then hanging the TV Frame onto the Lift Arm. These screws can also be used to fine tune level the TV. Always remember to tighten.



Hang the TV onto the TV Frame. Some older TVs are not weight balanced. If the TV is much heavier on one side, slide the TV slightly sideways to balance and level the TV.

Attach with 4 Screws {18}.





Adjusting the Downward Hard and Soft Travel Stops - FIRST:

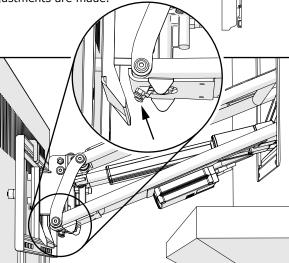


Adjusting the HARD Bottom Stop Position:

Jog the mount to the maximum safe downward position. Do not swivel the mount sideways. The mount may stop on its own due to the internal limit.

Loosen the Locknuts and adjust the Bottom Stop screws to this position.

Tighten both locknuts after the adjustments are made.

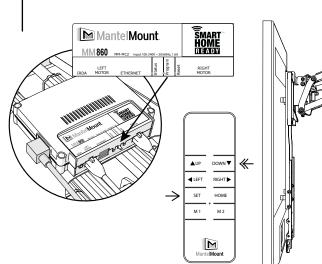


Adjusting the SOFT Bottom Stop Position:

a. Once the hard stop is set, jog the mount up slightly from the Hard Stop. This will ensure the mount never hits the Hard Stop. DO NOT JOG THE MOUNT INTO THE HARD STOP!

b. On the Electronics Housing, quick-press the "Program" Button and verify that the Status light slow blinks.

c. On the Remote, Press the "SET" button and then within 2 seconds press the "DOWN" button. The Soft Stop should be set. Repeat step (c) if the SET button exceeds the 2 second timeout.
d. Press the Program Button again to exit Program Mode.



Adjusting the Side Swivel Hard and Soft Travel Stops - SECOND:

18

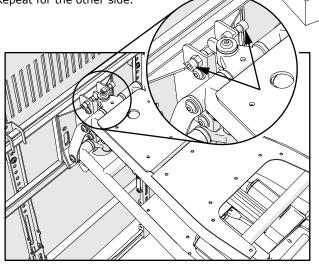
Adjusting the HARD Side Swivel Stop Positions:

Jog the mount to the maximum safe RIGHT side position. Do not raise or lower the mount.

Loosen the Locknut and adjust the Swivel Stop screw to the desired stopping position. Note: The locknut can be moved to the other side of the Swivel Bracket to increase the thread length.

Proceed to Step 19 to set the Soft Stop.

Repeat for the other side.





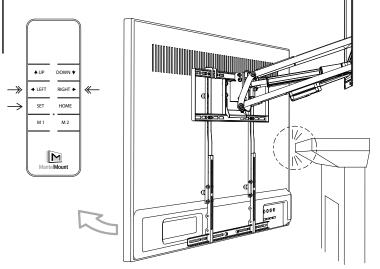
a. Once the RIGHT hard stop is set, jog the mount slightly inward from the Hard Stop. This will ensure the mount never hits the Hard Stop.

DO NOT JOG THE MOUNT INTO THE HARD STOP!

b. On the Electronics Housing, quick-press the "Program" Button and verify that the Status light slow blinks.

c. On the Remote, Press the "SET" button and then within 2 seconds press the "RIGHT" button. The RIGHT Soft Stop should be set. Return to STEP 18 for other side.

d. Press the Program Button after the Soft Stops are set in order to exit Program Mode.



Adjusting the TV parallel to the wall:

20

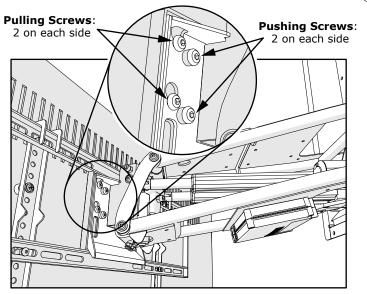
22

In the HOME position the TV should be fairly parallel and flat to the wall vertically and horizontally. If an adjustment is needed to flatten the TV:

Install the four silver "pushing" screws $\{62\}$ into the back of the Swivel Plate $\{61\}$.

Slightly loosen the four "pulling" screws that attach the TV Frame {26} in STEP 14. Loosen more as needed. Adjust any of the four "pushing" screws to push out the TV Frame until it is flat as desired.

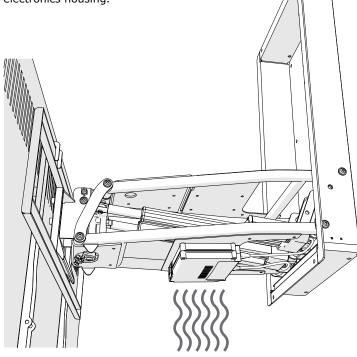
Tighten the four "pulling" screws to lock the TV Frame.



Auto Raising Heat Monitor (ARHM):

This unique safety feature of the MantelMount MM860 will monitor the temperature above your fireplace at all times and raise the mount automatically if the heat behind the TV rises above $130^{\circ}F$ (54°C).

The thermocouple sensor is located inside the electronics housing.



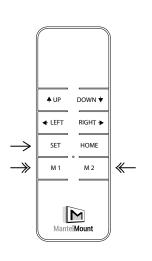
Setting the Memory Positions:

a. Setting the Memory Positions *does not* require entering Program Mode.

b. Once all of the Hard Stops and Soft Stops are set, jog the mount to the first desired viewing position.

 $\pmb{c}.$ On the Remote, Press the "SET" button and then within 2 seconds press the "M1" button. The Memory One position should be set.

d. Repeat for Memory Two position using the M2 button.



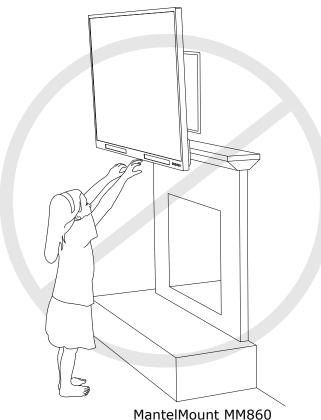


The MM860 will recalibrate itself each time it is sent to the home position.

If the mount ever becomes "lost" it will move unpredictably. The mount must be manually jogged back to the home position to regain calibration.

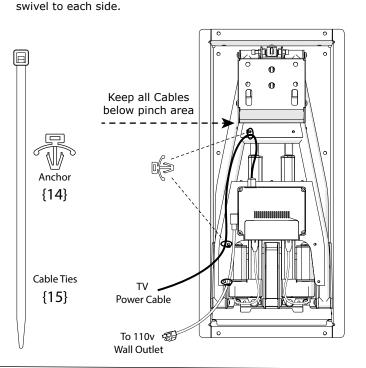
A CAUTION:

Never allow children to play around, hang from, or operate MantelMount. Property damage or personal injury can occur.



Attaching the TV Power Cable:

If the Auto Lowering Power Sensor (ALPS) feature is used, attach the TV Power Cable as shown. Do not plug other devices into the ALPS socket because the power will not read accurately. Loop the TV power cable down away from the pinching area of the TV Frame and the swivel portion of the mount. The cable should then be looped again toward the TV with enough extra play to allow full



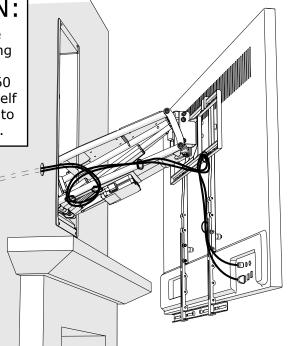
Reference Only: This is one possible configuration for the signal cables. Each segment of the cables has extra length so that the cables are not stressed or kinked when the mount is moved.

Ensure that cables do not get pulled or pinched between brackets when the mount is raised.

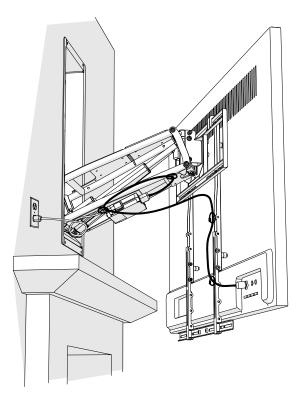
ACAUTION:

24

DO NOT block the mount from reaching the upper home position. The MM860 must recalibrate itself each time it is sent to the home position.



TV Power Cable using ALPS:

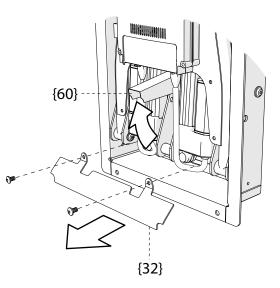


Covers to assist with cable routing:

These covers can be used to hide cables that are routed through the Housing.

Cable Cover {60} simply pulls open.

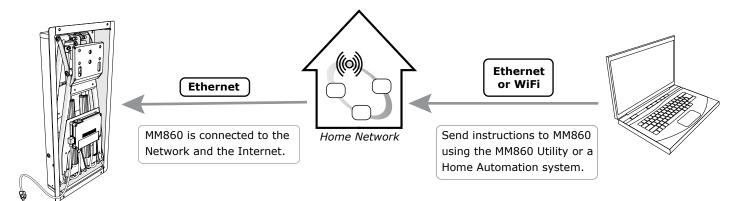
Access Cover {32} requires removing two screws {18}.



Determine how the MantelMount MM860 will be used:

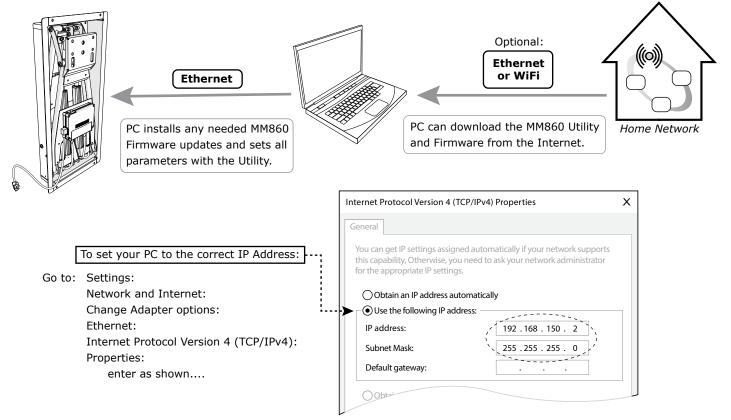
MantelMount MM860 is connected to a home network (LAN):

- Home network will automatically assign an IP Address to MM860 via DHCP MM860 can be manually assigned a Static IP Address for home automation systems
- MM860 will automatically check online for Firmware updates
- MM860 can be configured with a PC or home automation system over the network
- The MM860 Utility must be loaded onto the PC or Laptop (Windows OS) before Installation



MantelMount MM860 is not connected to a network:

- PC (or laptop) is temporarily connected to the MM860 directly via Ethernet cable PC must be set to the correct IP Address 192.168.150. 2 (see below:)
- PC or laptop can manually upload the latest Firmware to the MM860 if needed
- MM860 can be configured in a web browser using the default IP Address 192.168.150.111
- The MM860 Utility and latest firmware must be loaded onto the PC or Laptop before Installation

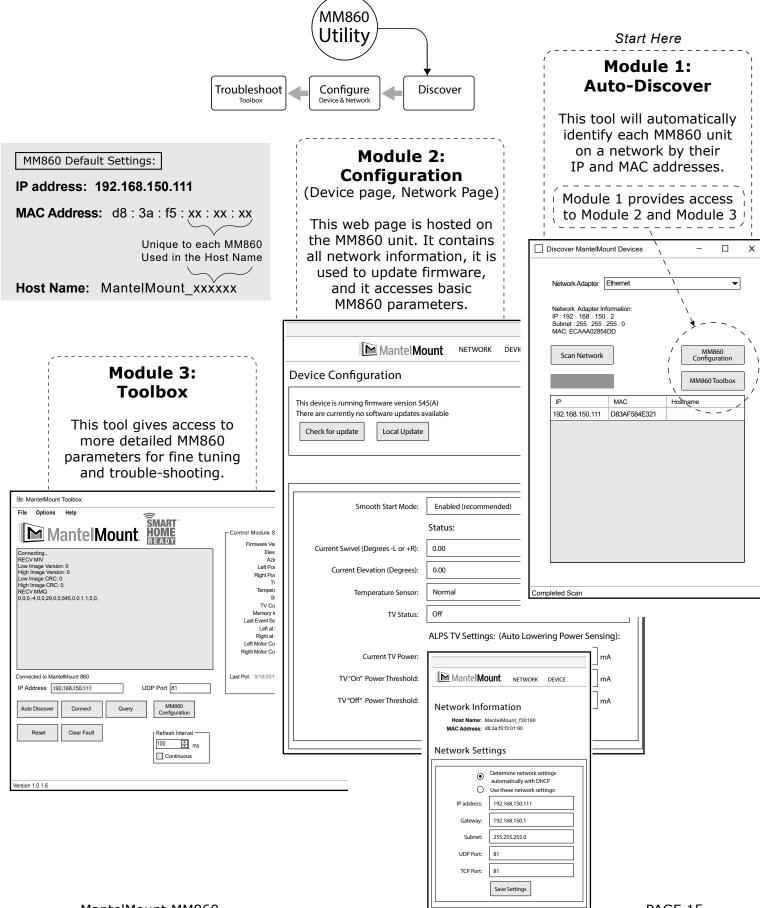


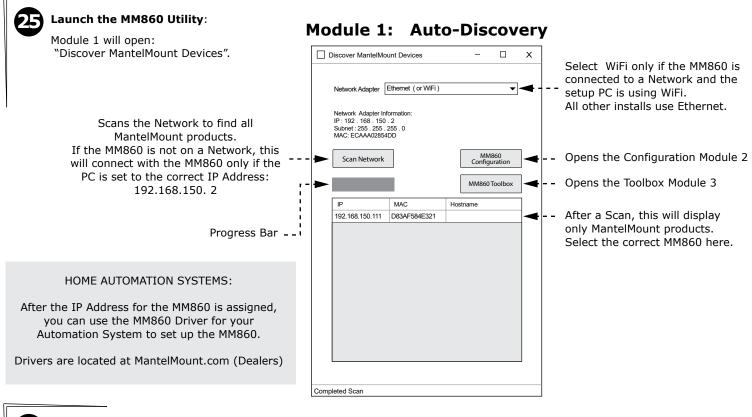
also has an IRDA port for 5-volt IR receivers (receiver not included)

MantelMount MM860

MantelMount MM860 Utility Software Package (3 Modules):

This utility must be loaded onto a PC or laptop in order to configure the MantelMount MM860 The MM860 Utility and MM860 Firmware are available for download at MantelMount.com - (Dealer)





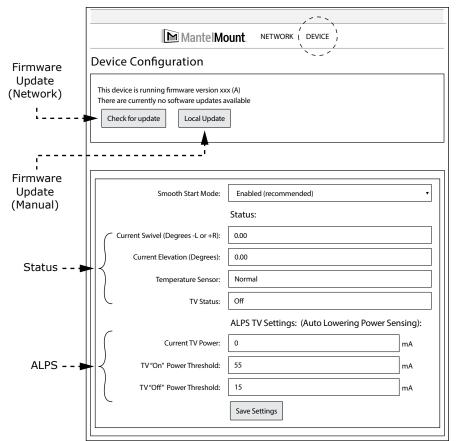
Open the Configuration Module:

26

Use the "Device" Page to adjust the MM860 parameters if needed. These settings are stored onboard the MM860.

Module 2: MM860 Configuration

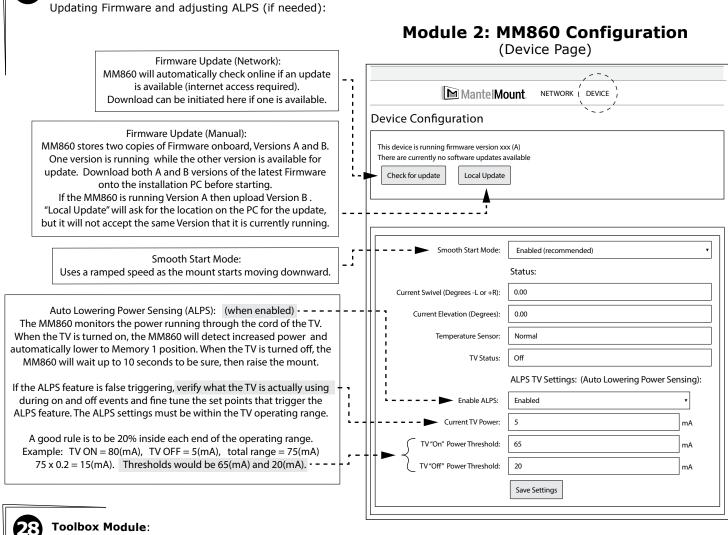
(Device Page)



Module 2:

(Network Page)

Host Name: M MAC Address: d	fantelMount_f30190 8:3a:f5:f3:01:90
Network Sett	tings
● ● ● ● ● ●	Determine network settings automatically with DHCP Use these network settings:
IP address:	192.168.150.111
Gateway:	192.168.150.1
Subnet:	255.255.255.0
UDP Port:	81
TCP Port:	81
	Save Settings

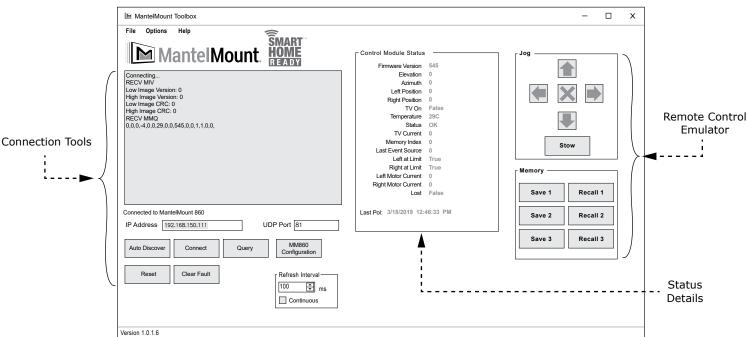


Toolbox Module:

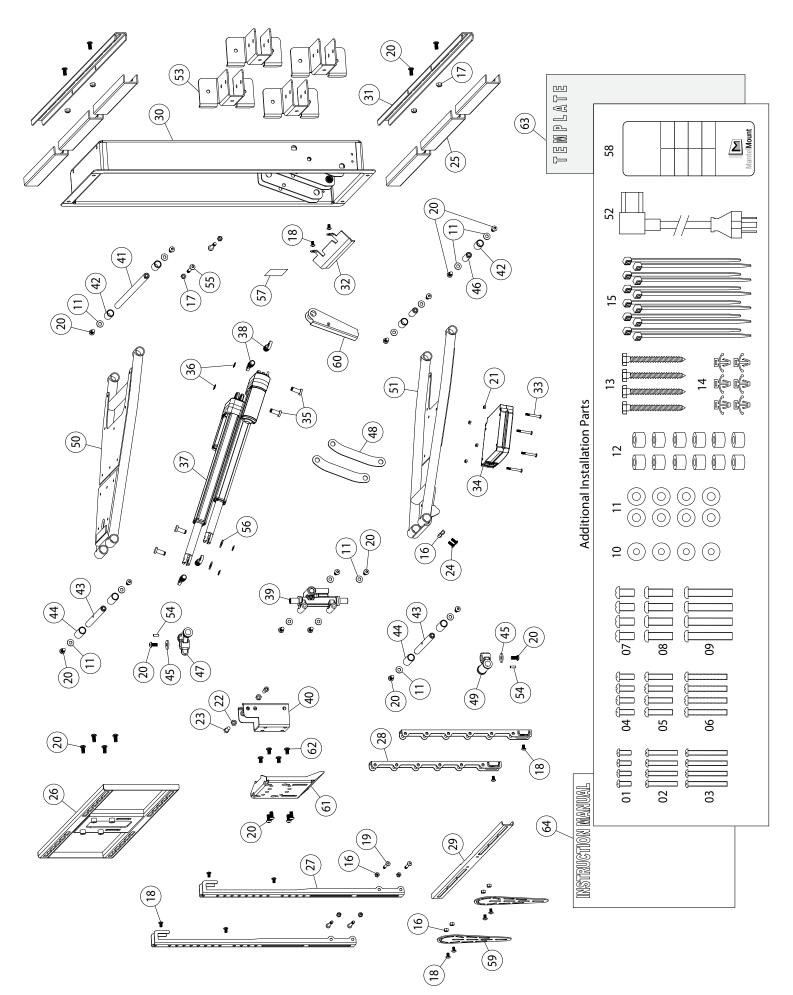
This module is only needed for troubleshooting or verifying that the MM860 is operating correctly.

Configuration Module (continued):

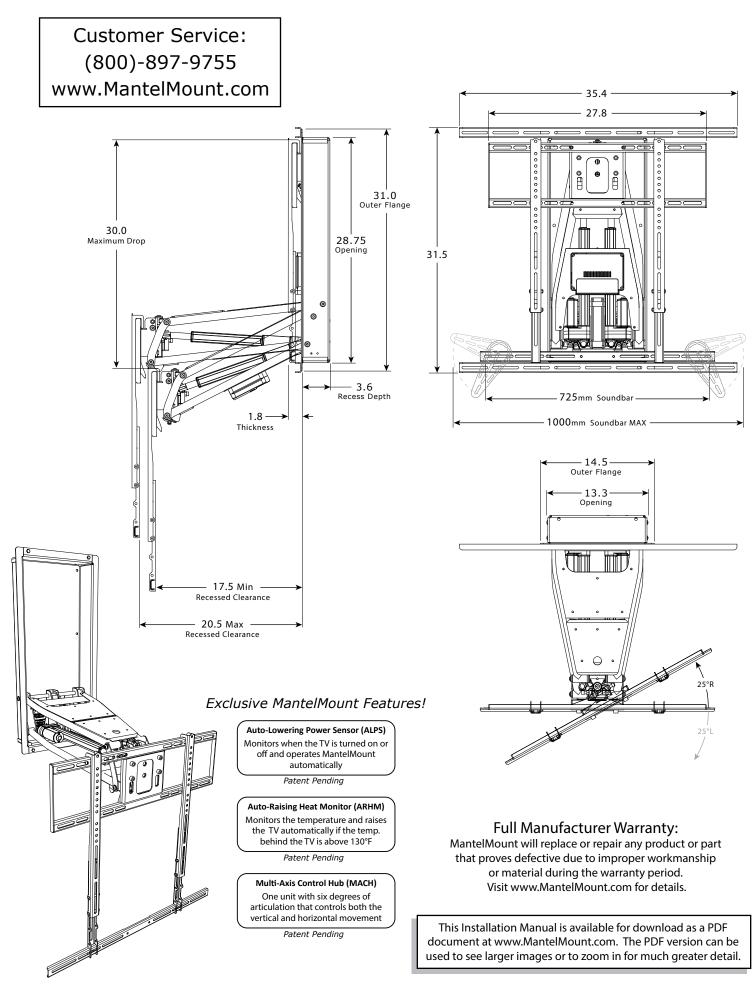
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Module 3: MM860 Toolbox



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	12189	M5 x 12	4	33	21188	Round Screw M5 x 40	4
2	12190	M5 x 30	4	34	21230	Command Module	-
e	12191	M5 x 40	4	35	21170	Pivot Shaft	4
4	12193	M6 x 16	4	36	21168	Clip	4
5	12194	M6 x 30	4	37	21151	Actuator	2
6	12195	M6 x 40	4	38	21165	Anchor, Actuator	4
7	12197	M8 x 15	4	39	21060	Swivel	-
8	12198	M8 x 25	4	40	21073	Swivel Bracket	-
6	12199	M8 x 45	4	41	21033	Axle	1
10	12166	Washer M6	4	42	21119	Bushing	4
11	14126	Washer M8 x 2	22	43	21037	Axle	2
12	12122	Spacer	12	44	21121	Bushing	4
13	14137	Lag Bolt M8 x 60	4	45	21092	Washer M8 x 3 x 24	2
14	14110	Cable Tie Anchor	9	46	21035	Axle	2
15	12162	Cable Tie	12	47	21054	Top Pivot	1
16	12183	Locknut M6	10	48	21041	Connector Brace	2
17	12187	Locknut M8	6	49	21063	Bottom Pivot	1
18	12178	Round Screw M6 x 10	12	50	21018	Upper Arm, Welded	1
19	12255	Round Screw M6 x 40	4	51	21081	Lower Arm, Welded	1
20	12176	Round Screw M8 x 16	28	52	21228	Power Cable, NEMA, U.S.	1
21	21191	Locknut M5	4	53	15023	Stud Bracket	4
22	12186	Nut M8	2	54	21163	Set Screw M5 x 15	2
23	21088	Socket Cap Screw M8 x 25	2	55	21185	Round Screw M8 x 50	2
24	21178	Round Screw M6 x 15	2	56	21147	Washer M10	2
25	21140	Wall Cover	9	57	21211	Warning Sticker	1
26	21050	TV Frame, Welded	1	58	21200	Remote Control	1
27	14038	Vertical Brace	2	59	15010	Soundbar Wing	2
28	14056	Brace Extender	2	60	21158	Cable Cover	1
29	14060	TV Horizontal Brace	-	61	21074	Swivel Adjustment Plate	-
30	21015	Recess Frame, Welded	-	62	21182	Round Screw, Silver, M8 x 12	4
31	21039	Horizontal Brace	2	63	21190	Cardboard Template 735 x 335mm	-
32	21160	Access Cover	-	64	MM860M	Instruction Manual	-



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18Nov2019