



TECHKNOW, INC

Techknow Leaderboard / Competition Ranking System

INSTALLATION MANUAL

Revision Date: Wednesday, May 24th, 2017
Version 1.0

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Techknow Leaderboard Installation Manual

1. System Description

The Techknow Leaderboard shows a given stores metrics along with other stores in the same market. By creating competition between stores, we aim to decrease drive thru times and increase the customer service experience.

2. Main Components

There are two main components to the Techknow Leaderboard:

- a. **Techknow Leaderboard NUC** – This is an Intel NUC mini-pc that runs off Linux. It's sole purpose is to display a webpage for the Leaderboard on the Monitor.

The screenshot displays the McDonald's Techknow Leaderboard for the time period 6:00 PM - 7:00 PM. The interface is divided into several sections: 'TOP 5 STORES', 'MY STORE', 'BOTTOM 5 STORES', and 'HOURLY WINNERS'. Each section lists store IDs, OEPE AVERAGE, OEPE PCT. ACHIEVED, and NUMBER OF CARS. The 'HOURLY WINNERS' section shows performance metrics for different time slots, with the current time slot (6:00 PM - 7:00 PM) highlighted in yellow.

	OEPE AVERAGE	OEPE PCT. ACHIEVED	NUMBER OF CARS
TOP 5 STORES	MCD 4014: 01:35	MCD 5014: 87%	MCD 4514: 156
	MCD 3923: 01:42	MCD 4323: 84%	MCD 3723: 148
	MCD 1179: 01:45	MCD 7779: 76%	MCD 3379: 136
	MCD 0894: 01:53	MCD 8994: 71%	MCD 2194: 131
	MCD 1125: 01:54	MCD 1525: 68%	MCD 1195: 128
MY STORE	MCD 1014: 02:12	MCD 1724: 56%	MCD 1124: 103
	MCD 1923: 02:22	MCD 1923: 52%	MCD 1923: 98
	MCD 1979: 02:31	MCD 1399: 51%	MCD 1929: 88
BOTTOM 5 STORES	MCD 1014: 02:45	MCD 1214: 32%	MCD 2214: 76
	MCD 5923: 02:51	MCD 1323: 28%	MCD 4423: 71
	MCD 9979: 03:35	MCD 1578: 24%	MCD 6679: 66
	MCD 1294: 03:48	MCD 1794: 17%	MCD 7794: 62
	MCD 1925: 04:02	MCD 1825: 15%	MCD 8895: 58

HOURLY WINNERS

- 1:00 PM - 2:00 PM: OEPE AVERAGE - MCD 4014, OEPE % ACHIEVED - MCD 3923, NUMBER OF CARS - MCD 1179
- 2:00 PM - 3:00 PM: OEPE AVERAGE - MCD 4014, OEPE % ACHIEVED - MCD 3923, NUMBER OF CARS - MCD 1179
- 3:00 PM - 4:00 PM: OEPE AVERAGE - MCD 4014, OEPE % ACHIEVED - MCD 3923, NUMBER OF CARS - MCD 1179
- 4:00 PM - 5:00 PM: OEPE AVERAGE - MCD 4014, OEPE % ACHIEVED - MCD 3923, NUMBER OF CARS - MCD 1179
- 5:00 PM - 6:00 PM: OEPE AVERAGE - MCD 4014, OEPE % ACHIEVED - MCD 3923, NUMBER OF CARS - MCD 1179
- 6:00 PM - 7:00 PM: OEPE AVERAGE - MCD 4014, OEPE % ACHIEVED - MCD 3923, NUMBER OF CARS - MCD 1179**

- b. **Monitor and Mount** – This is a standard HDMI compatible monitor and mount, used to display the Leaderboard webpage.

3. Basic Timer Installation

- Mount Monitor Mount
- Hang LCD monitor on Monitor Bracket
- Hang NUC on wall or on back of Monitor Mount
- Run HDMI cable from NUC to Monitor
- Run CAT6 cable from NUC to local network switch
- Connect Power Cables

4. Preparation for Installation

This section will inform you on everything that is required before you begin the installation of the Techknow timer.

NOTE: Please do not attempt to perform any work in which you may not be qualified. If needed, hire an electrician, contractor, or any other professional installer.

1. Please confirm that the power going to the NUC and Monitor is 115VAC.
2. The Cat-6 data cable must be run from the NUC to the Hub.

5. Time Required for Installation

The time required to install the Techknow Timer is normally 1 to 2 hours. Please try to be considerate to the store's needs and not disrupt drive thru or store operations during peak times.

6. Tool Required for Installation

The following tools described are used in a normal installation. All hardware required to complete the installation is supplied with the system. Any mounting hardware needed to mount the NUC and Monitor are the responsibility of the installer.

- Drill with (2) ¼" bits. 1 for masonry and 1 for wood.
- Wire strippers/cutters
- RJ-45 Crimp tool
- Flat head and Phillips head screw drivers- Assorted Sizes
- Dikes- Medium Size Pair
- Bag of cable ties
- Conical wall anchors- ¼ size

7. Cable Connections

The Techknow Leaderboard only requires 2 types of cables to operate:

- **HDMI Cable** that runs from the LCD screen to the Timer
- **LAN (Local Area Network) Cable** - This is a RG-45 cable that runs from local switch to the Techknow Leaderboard NUC. This cable allows the Leaderboard to communicate with our server. Normally we connect to their switch that is already connected to their network.

8. Hardware Installation – NUC on Wall w/ Standard Mount

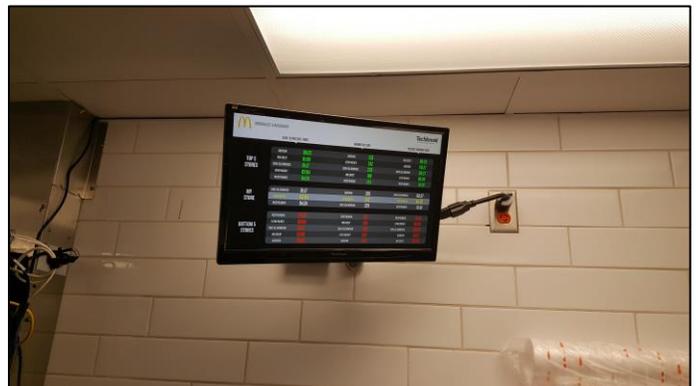
1. Install Monitor Mount on stable surface in drive thru area. Check with pre-installation information and with store contact to ensure mounting at the correct location. The screen should be visible to key staff during their regular shift duties.



2. Monitor Mount is connected with the 2 enclosed screws to the wall. Make sure mount is secure and stable, able to withstand the weight of the monitor plus approximately 50 lbs.
3. Connect Monitor to mount using the 4 monitor screws.
4. Connect NUC mount to wall behind the monitor. Be sure the monitor will hide the NUC from view.



5. Slide the NUC onto the mount.
6. Run CAT6 cable from hub to NUC and connect both ends.
7. Run HDMI cable from NUC to monitor.
8. Connect power cables for NUC and monitor.
9. Hide all cables with cable ties.



9. Hardware Installation – NUC on Monitor Mount w/ HLZ Mount

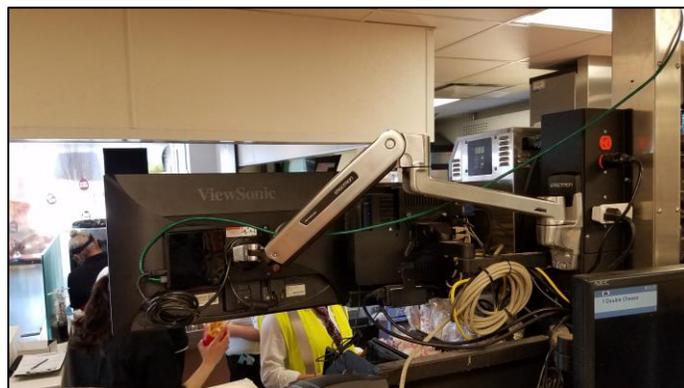
1. Install Monitor Mount just as in section 8 steps 1 and 2.
2. Attach the NUC mount to the monitor mount using the two screws on the left, which also hold the monitor.



3. Slide the NUC into the NUC mount.

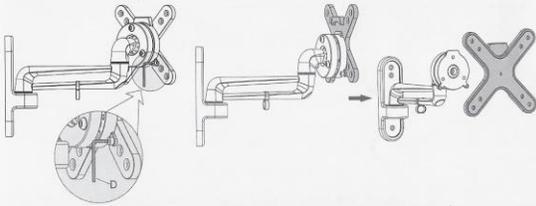


4. Run CAT6 cable from hub to NUC and connect both ends.
5. Run HDMI cable from NUC to monitor.
6. Connect power cables for NUC and monitor.
7. Hide all cables with cable ties

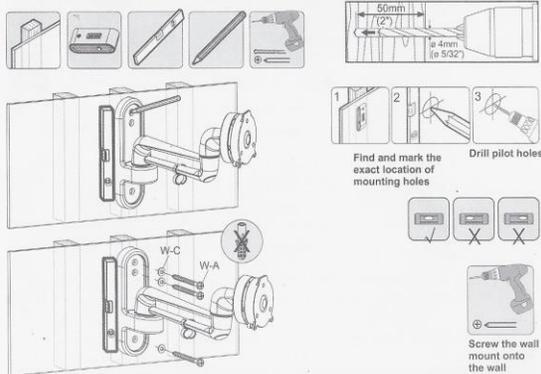


Appendix A – Standard Mount Instructions

1. Separate the VESA Plate from the Wall Mount



2a. For Wood Stud Wall Mounting

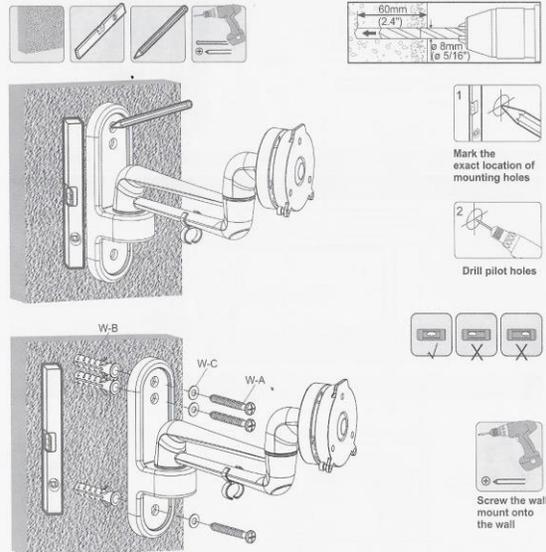


WARNING

- Make sure that the mounting screws are anchored into the center of the studs. The use of a stud finder is highly recommended.
- Installers are responsible for providing any hardware needed for other types of mounting situations.
- Installers must verify that the supporting surface will safely support the combined weight of the equipment and all attached hardware and components.

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2b. Concrete Mounting

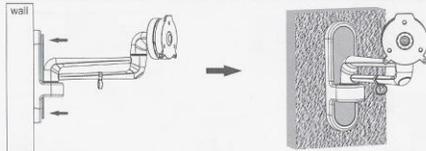


WARNING

Installers must verify that the supporting surface will safely support the combined weight of the equipment and all attached hardware and components.

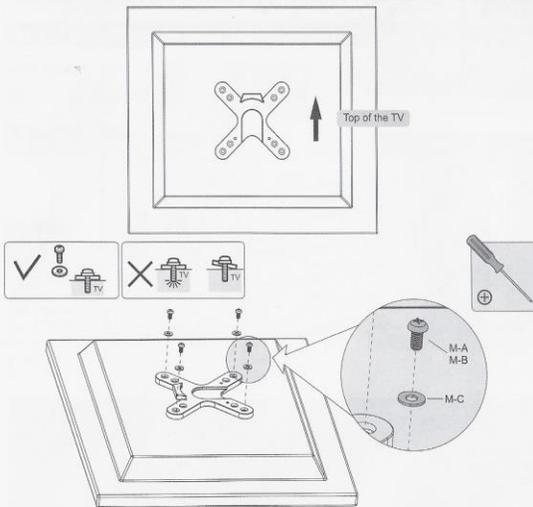
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3. Installing the Decorative Covers



Install the decorative covers along the wall plate rail until they fit snugly onto the wall plate.

4. Installing the VESA Plate

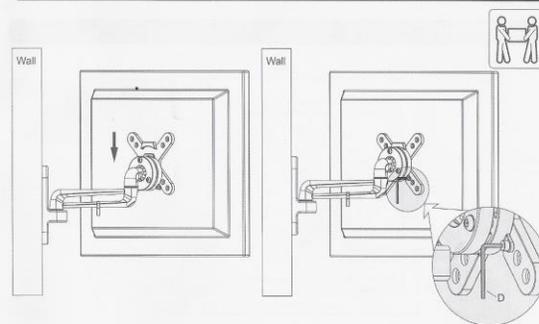


Screw the VESA plate onto the TV.

Tighten all screws but do not over tighten.

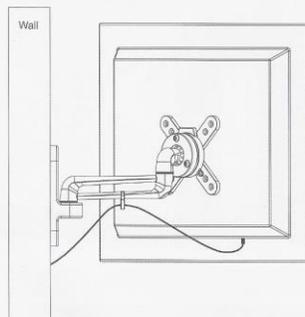
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5. Hooking the TV onto the Wall Mount



Carefully lift your TV and hook the VESA plate onto the mount head. Tighten the screws, which were previously removed, to secure the TV to the wall mount.

6. Cable Management



Connect the cables to your TV and route them through the cable clip on the mount arm.
Note: Leave some slack in the cables to allow for full movement of the mount and display.

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