

# Spine M.T.S.™



**Merit**  
INDUSTRIES, INC.®

PM0404-02



## Vibe Spire Installation Instructions

### CONTENTS:

QTY	PART #	DESCRIPTION
1	SB0367-02	KIOSK ASSEMBLY
28	HW3031-02	#10 - 24 SCREW INSERTS
28	HW4488	10 - 24 x .75 PAN HEAD SCREWS
1	HW9888-01	ALLEN WRENCH
1	HW9350	CIRCULAR LEVEL
2	EC0072-04	5' ETHERNET CABLE
1	CN4453-01	COUPLER, CROSSOVER, RJ45, 10BT

Before beginning the installation, determine how many Vibes you will be installing. If you are installing 2 units, the terminals can be mounted on opposite sides and therefore can be mounted directly to the Spire. If you are installing units at 90 degrees to one another, the terminals must be mounted using the swivel bracket. The swivel bracket and the hardware to mount it are available in a separate kit from your distributor (KAV-109-002-XX).

The Spire should be located on a sturdy, level surface. The unit has leg levelers on the bottom to make any necessary adjustments to keep the unit level and stable.

### Mounting the Vibe Terminals

- Using the pilot holes in the Spire as a guide, drill the four 1/4" holes needed for direct mount or the six 1/4" holes needed for mounting the swivel bracket. Then, using the supplied Allen wrench, install one of the supplied #10-24 screw inserts into each hole. See Figure 1 for pilot hole location.
- Swivel Bracket Mount only:* Attach the wall bracket to the Spire by installing the 6 supplied pan head machine screws (10 - 24 x 3/4) into the inserts, as shown in Figure 1.
- Direct Mount only:* Unlock the terminal and push down on the lock release while carefully opening the front of the terminal. (*Vibes with coin only:* Remove the coin mech assembly from the game by removing the three screws securing the coin mech assembly and pushing in the coin return. Refer to the Vibe Owner's manual for instruction.) Attach the terminal to the Spire by installing the 4 supplied pan head machine screws (10 - 24 x 3/4) through the terminal and into the inserts, as shown in Figure 1. Continue with step 12.
- Using Figures 2A and 2B, determine which swivel bracket you are installing. The Vibe with bill bracket has the smaller terminal bracket and the universal bracket has the long terminal bracket. Follow the steps for the swivel bracket you are installing.
- Universal wall bracket only:* Attach the terminal bracket to the wall bracket by installing the machine screw (1/4 - 20 x 1/2 L) and 2 washers (.75 T x 1/2 ID x 7/8 OD and .83 T x 7/16 ID x 7/8 OD) up through the hole in the wall bracket and then through the tab in the terminal bracket as shown in Figure 2B. The washer with the larger inside diameter must be closest to the bracket. Make sure that the washers are centered and then loosely tighten the screw. Install the hexnut to secure the bracket, and then fully tighten the screw and hexnut.

6. *Vibe with bill wall bracket only:* Attach the terminal bracket to the wall bracket by installing the machine screw (1/4 - 20 x 1/2 L) and washers (1/2 ID x 7/8 OD and 9/32 ID x 1 OD) up through the hole in the wall bracket and then through the tab in the terminal bracket as shown in Figure 2A.
7. Unlock the terminal and push down on the lock release while carefully opening the front of the terminal.
8. *Vibes with coin only:* Remove the coin mech assembly from the game by removing the three screws securing the coin mech assembly and pushing in the coin return.
9. *Universal wall bracket only:* Attach the terminal to the terminal bracket using the 4 supplied machine screws (8 - 32 x 1/2 L) as shown in Figure 2B.
10. *Vibe with bill wall bracket only:* Attach the terminal to the terminal bracket using the 3 supplied machine screws as shown in Figure 2A. The single pan head screw (10 - 32 x 1/2 L) should be installed in the center hole, and the 2 flat screws (10 - 32 x 1/2 L) should be installed in the outer holes.
11. Secure the bottom of the terminal to the bracket by installing the truss head screw (3/8 - 16 x 3/4 L) and flat washer (.083 T x 7/16 ID x 7/8 OD) through the terminal and into the pivot on the wall bracket as shown in Figure 2A for Vibe with bill wall brackets and 2B for universal wall brackets.
12. *Vibes with coin only:* Replace the coin mech assembly and secure it with the three screws.
13. Close and lock the terminal.
14. Unlock and open the door on the Spire.
15. Reaching up through the door, push the knock out plug from the inside of the Spire to remove it from the unit. See Figure 1.
16. Feed the wires from the terminal through the hole in the Spire where the knock out plug was removed and route the wires down towards the bottom of the Spire.
17. Repeat steps 1-16 for each terminal you are installing.
18. Place the provided circular level in the center of the Spire to ensure that the unit is level. If any adjustments are necessary to keep the unit level and stable, loosen the nut on the leg leveler, raise or lower the leg and then retighten the nut.
19. Install the shelves in the Spire. The larger shelf should be on the bottom ledge and the middle shelf on the middle ledge.
20. Continue with "Connecting the Terminal and Processor."

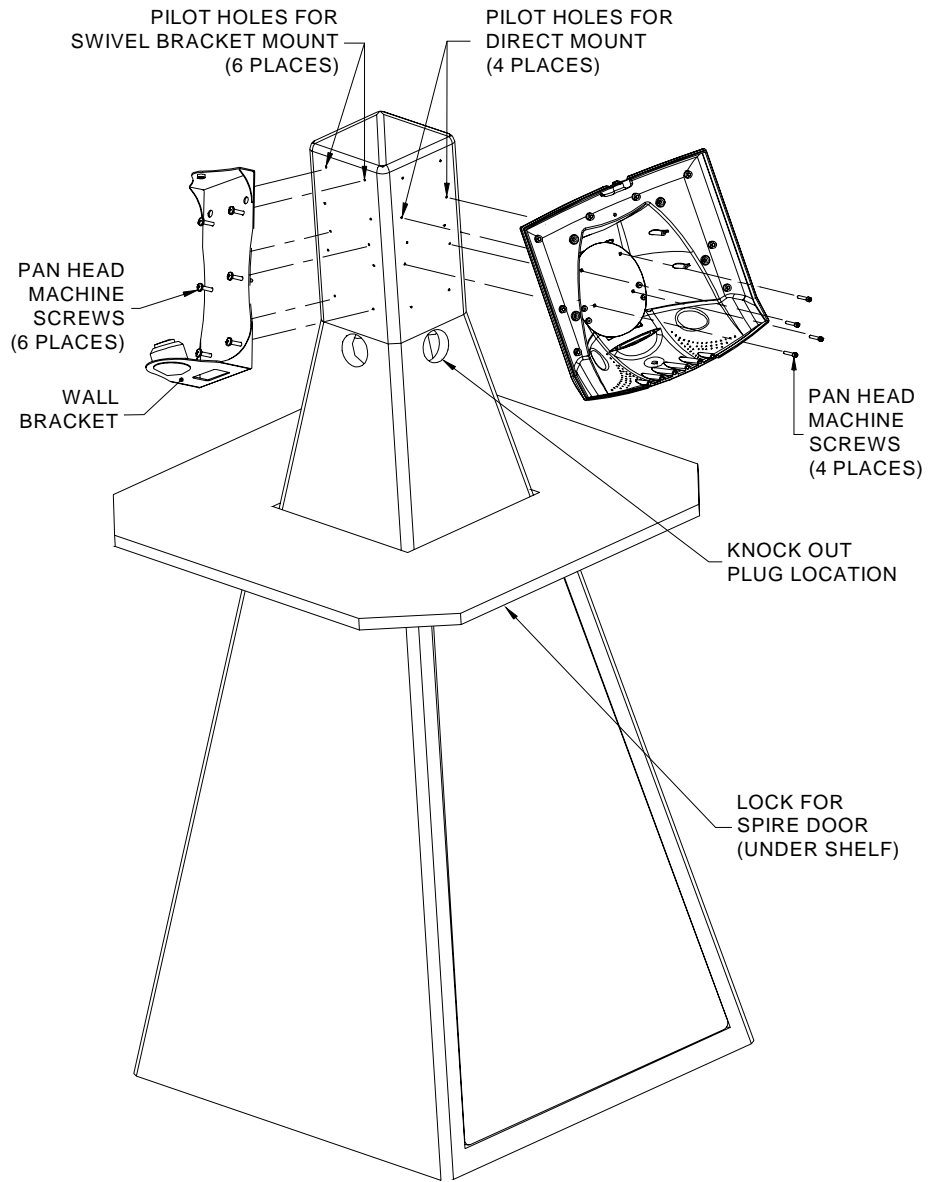


FIGURE 1 - VIBE SPIRE WITH SWIVEL BRACKET MOUNT AND DIRECT MOUNT

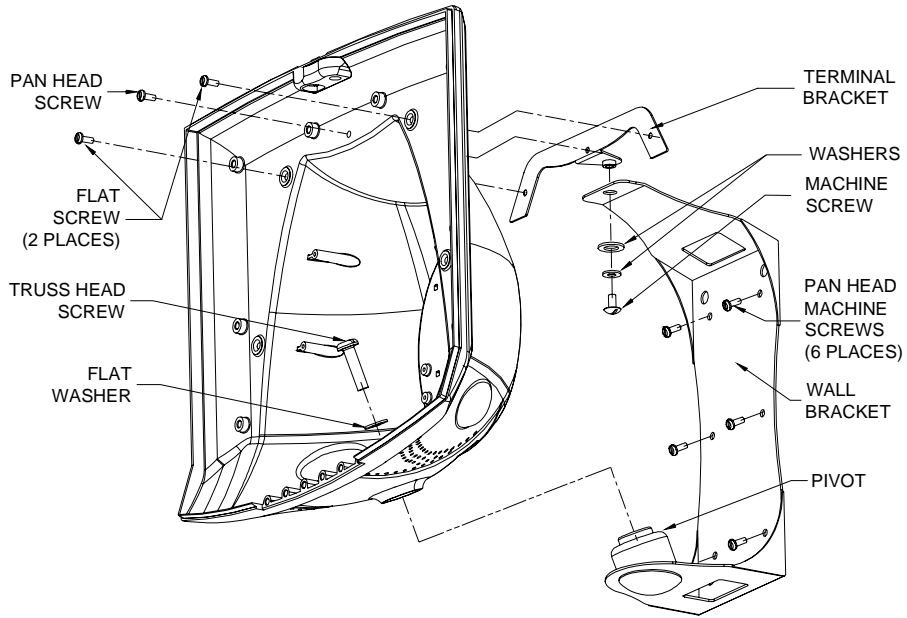


FIGURE 2A - VIBE WITH BILL SWIVEL BRACKET MOUNT

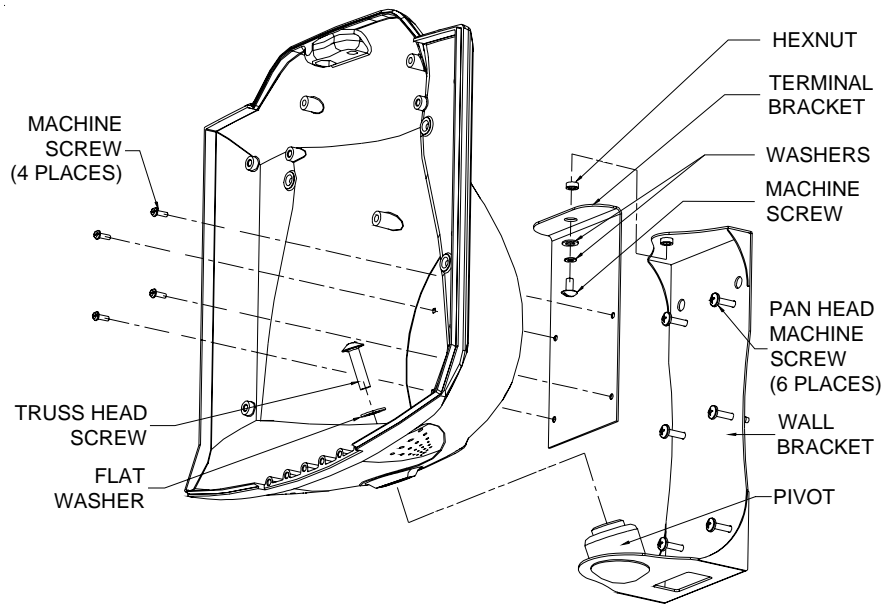


FIGURE 2B - UNIVERSAL SWIVEL BRACKET MOUNT

## Connecting the Terminal and Processor

1. Before connecting any cables, make sure that the processor is turned off and disconnected from any power source.
2. Unscrew the 2 thumbscrews on the connector side of the processor and remove the front cover plate. See Figure 3A for Vibes with bill and 3B for Vibes with coin.
3. Place the processor on one of the two lower shelves inside the Spire. If you are installing more than 2 units, the processors can be stacked. If you are connecting a MegaTunes unit, place it directly on the shelf and stack any Vibe processors on top of the MegaTunes.
4. Route the 9-pin serial cable from the terminal through the connector access cutout on the processor and connect it to the mating connector labeled "touchscreen controller" in Figure 4.
5. Route the 15-pin (high density DB, 3 rows of pins) VGA monitor signal cable from the terminal through the connector access cutout on the processor and connect it to the mating connector labeled "video" in Figure 4.
6. Replace the front cover plate, routing the cables through the cutouts on the cover plate, and tighten the thumbscrews to secure the cover plate.
7. Connect the 15-pin (standard DB, 2 rows of pins) connector from the terminal to the mating connector on the outside of the processor and tighten the screws on the connector to secure it. See Figure 3A for Vibes with bill and 3B for Vibes with coin. (This cable is easily identified as it has braided sleeving covering it.)
8. *Vibes with coin only:* Connect the 9-pin (standard DB, 2 rows of pins) connector from the terminal to the mating connector on the outside of the processor and tighten the screws on the connector to secure it. See Figure 3B. (This cable is easily identified as it has braided sleeving covering it.)
9. *Vibes with bill only:* Connect the AC power cord from the terminal to the processor as shown in Figure 3A and tighten the screws on the connector to secure it.
10. Connect the AC power cord from the terminal to the processor as shown in Figures 3A and 3B and tighten the screws on the connector to secure it.
11. Route the AC power cord from the processor (and MegaTunes units, if you have installed them) through the hole in the bottom of the Spire. Connect it to an outlet and turn on the power. See Figures 3A and 3B for power switch location.
12. Repeat steps 1-11 for each Vibe you have installed, then continue with "Linking the Vibes".

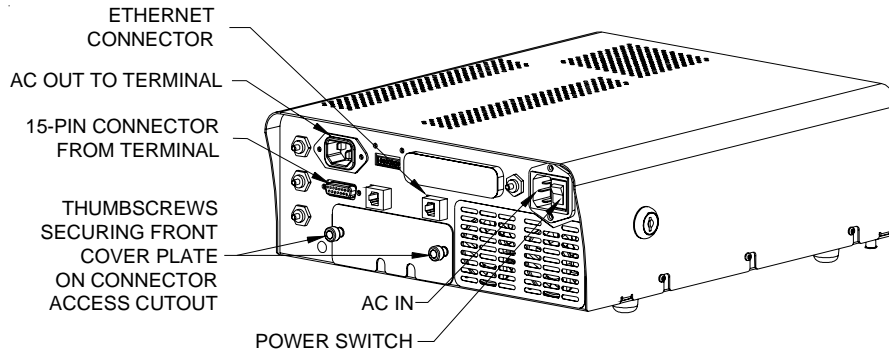


FIGURE 3A - VIBE (WITH BILL) PROCESSOR - EXTERNAL CONNECTION LOCATIONS

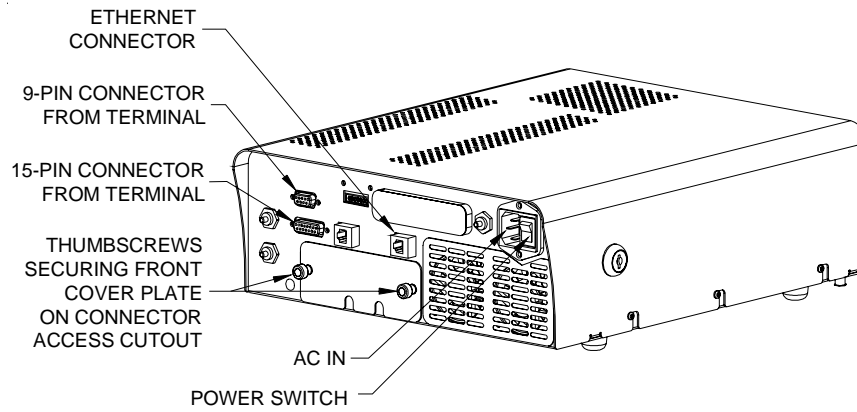
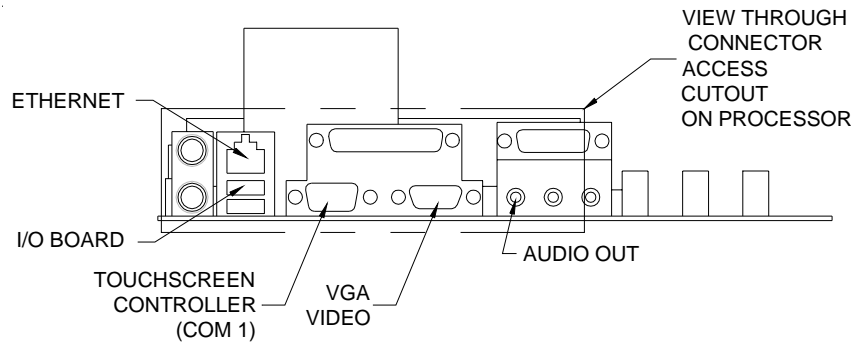


FIGURE 3B - VIBE (WITH COIN) PROCESSOR - EXTERNAL CONNECTION LOCATIONS



CONNECTOR SIDE VIEW OF MOTHERBOARD

FIGURE 4 - MOTHERBOARD CONNECTIONS AS SEEN THROUGH CUTOUT IN PROCESSOR



## Linking The Vibes

### Linking two games or linking one game and a MegaTunes unit:

1. Turn off and unplug the games.
2. Connect one end of the supplied 5' Ethernet cable to the Ethernet connector on the outside of the processor. See Figure 3 for location. (If you are linking a MegaTunes unit, the Ethernet ports are located on the Ethernet hub mounted to the single board computer (SBC). The 4 ports on the right are all for Ethernet, the port on the left is for connecting a hub only. Loosen the 2 thumbnuts securing the front access panel. Connect the Ethernet cable to one of the Ethernet ports and route the cable through the slots at the bottom of the access panel.)
3. Connect the second 5' Ethernet cable to the Ethernet connector on the outside of the second processor.
4. Plug the free ends of both the 5' Ethernet cables into the coupler crossover. See Figure 5.
5. Plug in the games and turn on the power. If installation was successful, you will see a Mega-Link® button displayed on the screen of the games after the menu appears.

**NOTE:** The Mega-Link® icon will appear on the game only when 2 or more games are linked.

**NOTE:** If a MegaTunes unit has been linked to a game, the music will be downloaded to the game. This download time will vary depending on the amount of music being downloaded.

6. Close and lock the door on the Spire.

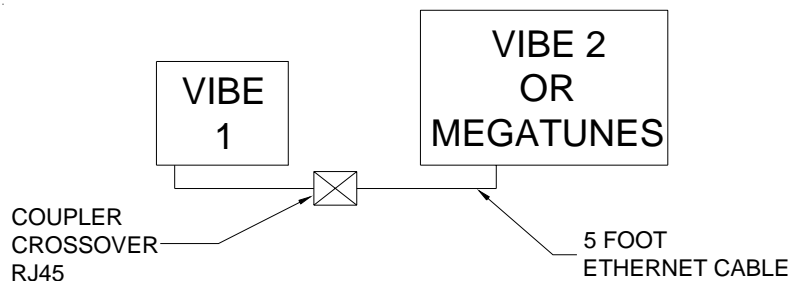


FIGURE 5 - LINKING TWO GAMES

### Linking more than two games:

**NOTE:** Linking more than two games requires the use of a 10 BASE-T Ethernet hub (available from your distributor as a separate part (EC0030-01), or at your local computer store).

One Ethernet cable is required for each game you are linking. Additional Cat-5 UTP RJ45 Ethernet cables can be purchased at your local computer store.

1. Turn off and unplug the games.
2. Connect one end of the supplied 5' Ethernet cable to the Ethernet connector on the outside of the processor. See Figure 3 for location. (If you are linking a MegaTunes unit, the port for linking a hub is located on the Ethernet hub mounted to the single board computer (SBC). The port on the left is for connecting a hub, the other 4 ports on the right are all for Ethernet. Loosen the 2 thumbnuts securing the front access panel. Connect the Ethernet cable to the hub port and route the cable through the slots at the bottom of the access panel.) Repeat for all games that you are linking.
3. Plug the free ends of the Ethernet cables into a 10 BASE-T Ethernet hub.
4. Place the hub on top of the processors inside the Spire. Tie wrap any excess cabling.
5. Plug in the games and turn on the power. If installation was successful, you will see a Mega-Link® button displayed on the screen of the games after the menu appears.
6. Close and lock the door on the Spire.

**NOTE:** The Mega-Link® icon will appear on the game only when 2 or more games are linked.

**NOTE:** If a MegaTunes unit has been linked to a game, the music will be downloaded to the game. This download time will vary depending on the amount of music being downloaded.

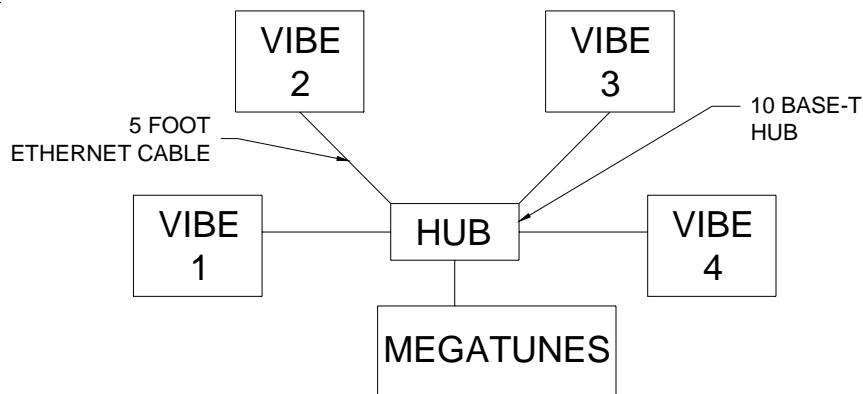


FIGURE 6 - LINKING MORE THAN TWO GAMES



VIBE SPIRE INSTALLATION INSTRUCTIONS  
PM0404-02