

Expanding or Extending Pointmaker USB

We receive numerous inquiries from customers asking how to either increase the number of drawing devices attached to their Pointmaker video marker, or how to extend the distances from the Pointmaker to the drawing device. This white paper describes the products we have tested that allow you to accomplish these tasks. It also includes several common configurations and a diagram for connecting the maximum 10 drawing devices within its 15 virtual ports. We offer these products as Pointmaker accessories.



Products

1.) 4 port hub, IOGEAR model GUH274



2.) USB Extender with integrated 4 port hub, model EXT-USB-4PORT

This product extends the USB signal from the base unit to the remote unit using CAT-5 cable with RJ-45 connectors. It supports lengths up to 150 feet. The remote unit incorporates a 4 port USB hub. The CAT-5 cable and connectors are not included.



remote unit

3.) USB Extender for 1 device, model EXT-USB-1PORT

This product extends the USB signal from the base unit to the remote unit using CAT-5 cable with RJ-45 connectors. It supports lengths up to 150 feet. The CAT-5 cable and connectors are not included.



remote unit

base unit

Some Basic Rules

- 1.) The Pointmaker video marker is always powered up **last**, so it can “see” what is connected to it.
- 2.) Configure, connect and power up all hubs, extenders and USB drawing devices first.
 - The Pointmaker supports a maximum of 10 USB drawing devices within its 15 virtual ports.
 - The Pointmaker can recognize a maximum of 4 connected 4-port hubs or extenders. The two USB ports on the Pointmaker are seen as one hub, using up one of the virtual ports.
 - No single hub can have more than 7 ports.

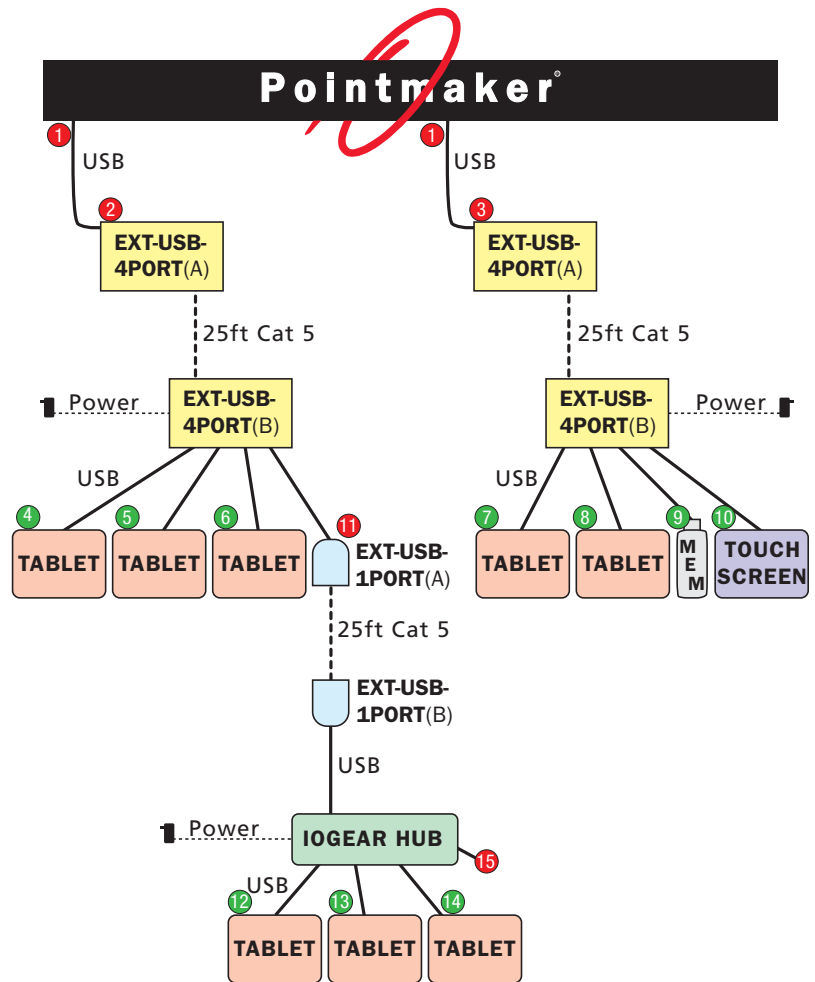
Configurations

We've diagrammed four configurations out of many. You can mix and match them as desired, as long as you work within the Basic Rules given above. We'll start with a configuration that maximizes the number of devices the Pointmaker can handle. The other three configurations use simplified versions of the device symbols found in this diagram. Refer back to it if needed.

#1 One way to max out the system:

Green colored items show up in the Pointmaker menu system under USB INPUT DEVICES. Red items do not.

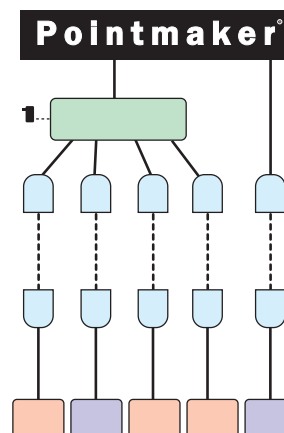
- 1.) 2 USB port on the Pointmaker
- 2.) 1st EXT-USB-4PORT
- 3.) 2nd EXT-USB-4PORT
- 4.) tablet
- 5.) tablet
- 6.) tablet
- 7.) tablet
- 8.) tablet
- 9.) USB stick
- 10.) touch screen
- 11.) EXT-USB-1PORT
- 12.) tablet
- 13.) tablet
- 14.) tablet
- 15.) last port on IOGEAR



#2 Five drawing devices, each distant from the Pointmaker:

This configuration would allow each drawing device to be up to 150 feet in different directions from the Pointmaker. This could be used in a courtroom, where each drawing device would be at a different station.

The diagram shows a 4-port USB hub connected to the Pointmaker. Each USB port on the hub is connected to a single port USB extender. One additional single port USB extender is connected directly to the Pointmaker. Drawing devices are connected to each extender.

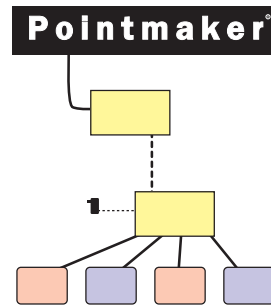


#3 A group of four drawing devices, distant from the Pointmaker:

This configuration supports a group of four drawing devices, distant from the Pointmaker but fairly close to each other. This configuration might be used in a training center, boardroom, etc. The drawing devices might be at a long table or in side-by-side cubicles.

This diagram shows the USB extender with 4-port hub connected to the Pointmaker.

Drawing devices are connected to the 4-port hub.

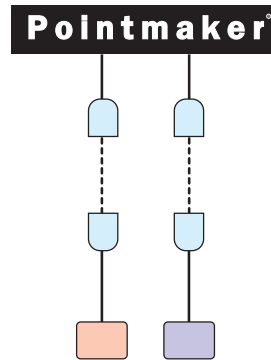


#4 Two drawing devices, distant from the Pointmaker:

This configuration supports two drawing devices, distant from the Pointmaker. A television station might use this configuration to have one device in the control room and one in the studio.

This diagram shows two single port USB extenders, each plugged directly into the Pointmaker.

Drawing devices are connected to each extender.



Note to programmers:

If you wish to send commands to a particular drawing device, the virtual port number for each device is displayed to the left of its name in the USB INPUT DEVICES dialog. Because plugging and unplugging of devices, hubs and extenders can cause virtual port numbers to change, it is **strongly** recommended to settle on a configuration, then reboot the Pointmaker before referencing the virtual port assignments. From then on, if the configuration is not altered, the Pointmaker will remember the assignments, even through reboots. Users should be cautioned against making changes to the configuration.