

## **CAPTIONING FOR A CHURCH USING TELEVISION SCREENS**

On a recent visit to Memorial Park Church in Pittsburgh, Pa., their very knowledgeable technical person, Edgar Payne, showed us their setup, and gave us some very helpful tips to pass on. Edgar shares the following:

Captioning of the 11:00 a.m. Sunday service at Memorial Park Church is performed using technology identical to the procedures employed by television networks. A stenocaptioner listens to the audio of the service and inputs the text into a stenograph machine. The steno machine's output is fed into a computer with software that translates the steno data into readable text, formatted to drive a caption encoder. The encoder's output is connected to television screens for viewing by the hearing impaired audience. It is not necessary for the stenocaptioner to be on site, however there is additional equipment and the need for two telephone lines if the stenocaptioner is remote.

Ideally, the captioner should be near the caption display area with the captioner having a visual site line to the service's presentation area. It may be advantageous for the captioner to have access to the program's audio feed via headphones. Memorial Park has an assistive listening system with wireless receivers and headsets for those who require it. The captioner, when on site, utilizes this system to provide a disturbance free program audio source. It is easy to be distracted by the sounds of restless children or coughing from those nearby. The stenocaptioner area should be located such as to not block an

aisle while allowing access to the associated computer display, keyboard and steno machine.

**Equipment required for on-site captioning:**

§ Computer, minimum requirements determined by (real-time) captioning software package to be used. The machine must have available two RS-232 serial ports. One is for the steno machine's data input, the other for caption data out to the encoder.

§ Real-time, captioning software and tech support for same if deemed necessary.

§ Caption Encoder or Caption Character Generator. A Character Generator (EEG model DE-241 CG) will suffice if only on-site captioning is planned.

§ Video Source to display captions over. This is simply the blue screen output of a consumer VHS Video-cassette recorder. If the service is already televised, the feed from the camera provides the background video.

§ Video display device mounted for comfortable viewing by the audience. Memorial Park has a 32-inch consumer television mounted in a commercial mounting yoke. The TV is suspended from the wall between the sanctuary and a side annex. It is important to carefully position the television so the look angle is not too high to cause neck strain, while allowing for the maximum number of viewers. Reflections and glare from lights and windows need to be considered. The television must be positioned so the lower edges of the cabinet do not pose a problem for people walking through the area. A 32-inch television typically weighs around 100 pounds, so I cannot overemphasize the need to ensure the bracket is adequate for the weight and the method of securing the bracket assembly to the building is sound. Threaded rods going completely through a structural

wall or long lag bolts into support studs must be employed. It may be necessary to reinforce the area where the television is to be mounted. The cost of this may vary widely depending on the situation. Power and signal cables need to be routed to the television and concealed as necessary. The wiring for the AC power outlet should be performed by a licensed electrician. Taping an extension cord to the wall for an installation such as this may represent a code violation.

### **Hardware cost analysis (Prices in U.S. dollars)**

Keep in mind that this information is based on estimates and will vary depending on your situation. It's recommended that the computer to be used for captioning be dedicated to that task. The potential for problems is greatly reduced if there are no other programs running on the system. The computer and associated monitor/keyboard will require some sort of desk unit and a place to reside. These factors should be considered in the overall cost analysis.

- Computer System: Monitor, keyboard, CD-ROM for loading software. Software purchased will dictate memory requirements. Estimate budget: \$ 1,000.00
- Real-time Captioning Software: Typically in the \$ 3,000.00 range.
- VHS Video Cassette Recorder: For generating video source to overlay captions onto. \$ 100.00.
- Caption Encoder or Caption Character Generator: If all captioning is to be on site the Character Generator, EEG model DE-352 CD, is less expensive costing around \$ 1,200.00
- Display Device, Television: This must be sufficiently large to allow good viewing by the audience and have a composite video input. In some situations more than one

screen may be required. The addition of multiple screens may require a video distribution amplifier. The mounting system for the televisions must also be considered. A commercial quality bracket to support the television can cost upwards of three hundred dollars. Television costs can vary widely as well as the quality of the image. Televisions with the flat face screen typically have lower glare from incident light sources. I recommend that a name brand set be purchased. Estimate \$ 400.00 to \$ 700.00.

The above is a condensed version of what we received. If you would like more information on how to caption for your church, including Edgar's full article, please email us at: [plgardiner@hotmail.com](mailto:plgardiner@hotmail.com)

**Suggested Outlines**

Aquila	A/KWEUL/A	Goliath	TKPWOL/AO*EUT
Corinth	KOR/*EUPBT	Judea	SKWRUD/KWRA
Ephesus	EF/SUS	Messiah	PHES/KWRA
furlong	TPUR/HROPBG	Messianic	PHES/KWRAPB/EUBG
Galatia	TKPWAL/AEURB/KWRA	Moab	PHOE/AB
genealogy	SKWRAOEPB/OLG	Priscilla	PREUS/EUL/A
doxology	TKOBGS/OLG	Samaria	SAPH/AIR/KWRA
Galilee	TKPWAL/HRAOE	<i>Pat Gardiner</i>	
Golgotha	TKPWOL/TKPWO*T/A		