

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

APPLE, INC.,

Defendant.

Civil Action No. 13-2058-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

AT&T SERVICES, INC.,

Defendant.

Civil Action No. 13-2061-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

CHARTER COMMUNICATIONS, INC.,

Defendant.

Civil Action No. 13-2062-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

COMCAST CABLE COMMUNICATIONS,
LLC,

Defendant.

Civil Action No. 13-2063-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

COX COMMUNICATIONS, INC.,

Defendant.

Civil Action No. 13-2064-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

DIRECTTV LLC,

Defendant.

Civil Action No. 13-2065-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

TIME WARNER CABLE, INC,

Defendant.

Civil Action No. 13-2068-RGA

DRAGON INTELLECTUAL PROPERTY,
LLC,

Plaintiff,

v.

VERIZON COMMUNICATIONS, INC.,

Defendant.

Civil Action No. 13-2069-RGA

MEMORANDUM OPINION

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September 9, 2015


ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the issue of claim construction of multiple terms in U.S. Patent No. 5,930,444 (“the ’444 patent”). The Court has considered the Parties’ Joint Claim Construction Brief. (D.I. 78).¹ The Court heard oral argument on May 22, 2015. (D.I. 94).

I. BACKGROUND

On December 20, 2013, Plaintiff Dragon Intellectual Property, LLC filed ten related patent infringement lawsuits against Apple, Inc. (C.A. No. 13-2058), AT&T Services, Inc. (C.A. No. 13-2061), Charter Communications, Inc. (C.A. No. 13-2062), Comcast Cable Communications, LLC (C.A. No. 13-2063), Cox Communications, Inc. (C.A. No. 13-2064), DirecTV LLC (C.A. No. 13-2066), DISH Network, LLC (C.A. No. 13-2066), Sirius XM Radio, Inc. (C.A. No. 13-2067), Time Warner Cable, Inc. (C.A. No. 13-2068), and Verizon Communications, Inc. (C.A. No. 13-2069). On April 10, 2015, I stayed the action against DISH Network pending *inter partes* review. (D.I. 86). On May 13, 2015, I stayed the action against Sirius XM Radio. (C.A. 13-2067 D.I. 102).

II. LEGAL STANDARD

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324). When construing patent claims, a court considers the literal language of the

¹ Unless otherwise noted, citations to the docket are to C.A. 13-2058.

claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation marks and citations omitted).

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (internal quotation marks and citations omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314 (internal citations omitted).

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19 (internal quotation marks and citations omitted). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.*

Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

“A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (internal quotation marks and citation omitted).

III. THE ’444 PATENT

Claim 1 is representative and reads:

1. A recording and playback apparatus for the substantially immediate and seamless resumption of interrupted perception of broadcast program information based upon audio or video signals, or both, without missing the program information presented during the interruption, comprising:
 - means for powering the apparatus;
 - a keyboard having a record key and a playback key;
 - a control circuit coupled responsively to said keyboard;
 - a memory unit coupled responsively to said control circuit, said memory unit having a medium for storage of information, said storage medium having structure which enables substantially random access to information stored in said medium for retrieval of the stored information from said storage medium;
 - at least one input, said input being connected to a user’s audio/video program signal source and also being coupled to said memory unit so as to enable program information presented by the signal source to be transferred to and stored in said memory unit; and
 - at least one output, said output being connected to a user’s audio or video display device or both, said output further being connected to said memory unit so as to enable the transfer of program information from said memory unit to the user’s display device, said control circuit being configured so that substantially simultaneous recording and playback of program information is achieved when said record key is first actuated to begin a recording by initiating storage of the broadcast program information in said memory unit, and said playback key is subsequently and solely actuated to begin time delay playback of the recording from the beginning thereof by initiating retrieval of the stored program information in said memory unit, with the interval of the time delay being the same as the time

elapsed between the actuation of said record key and the subsequent actuation of said playback key.

(’444 patent, col. 8, ll. 28-64; Mar. 15, 2013 Certificate of Correction).

IV. CONSTRUCTION OF DISPUTED TERMS

1. “broadcast program information”
 - a. *Plaintiff’s proposed construction*: no construction necessary
 - b. *Defendants’ proposed construction*: “programming information carried by the input signal source” (proposal of Apple, Charter, Comcast, Cox, DirecTV, Time Warner, and Verizon); “programming information transmitted to all users and carried by the input signal source” (proposal of AT&T)
 - c. *Court’s construction*: programming information transmitted to all users
2. “the broadcast program information”
 - a. *Plaintiff’s proposed construction*: the broadcast program information presented after the record key is actuated and before the playback key is actuated
 - b. *Defendants’ proposed construction*: Defendants assert that all instances of “broadcast program information” in the claims have the same meaning
 - c. *Court’s construction*: all instances of “broadcast program information” in the claims have the same meaning

Plaintiff argues that “the broadcast program information” appearing in the body of the claim refers to a particular portion of “broadcast program information.” (D.I. 94 at 62).

Specifically, Plaintiff argues that “the broadcast program information” is the portion of broadcast program information presented after the user presses the record key and before the user presses the playback key. (*Id.*). Plaintiff maintains that “the broadcast program information” must refer to a specific portion of broadcast program information in order to give meaning to the word “the.” (*Id.* at 65).

Plaintiff further argues that the surrounding claim language demonstrates that “the broadcast program information” refers to a specific segment of broadcast program information.

(D.I. 78 at pp. 62-63). The claim recites that the record key is actuated “to begin a recording by initiating storage of the broadcast program information in said memory unit.” (’444 patent, col. 8, ll. 55-57). Plaintiff maintains that “the broadcast program information” is therefore the specific program information whose storage is initiated upon actuation of the record key. (D.I. 78 at p. 64).

Defendants respond that “broadcast program information” should have the same meaning throughout the claim. (*Id.* at p. 19). Defendants note that “the same terms appearing in different portions of the claims should be given the same meaning.” (*Id.* at p. 20 (quoting *Fin Control Systems Pty, Ltd. v. OAM, Inc.*, 265 F.3d 1311, 1318 (Fed. Cir. 2001))). Defendants argue that, if “the broadcast program information” were not the same as “broadcast program information” in the preamble, then “the broadcast program information” would lack an antecedent basis. (*Id.*) Defendants maintain that the prosecution history supports that the two uses of the terms have the same meaning. (*Id.* at p. 21). Defendants note that Plaintiff requested a certificate of correction to add “broadcast” to the preamble. (*Id.*) Defendants maintain Plaintiff did so to fix the lack of antecedent basis for “the broadcast program information.” (*Id.*)

Defendants further argue that Plaintiff’s proposed construction seeks to recapture continuous recording systems, which applicants disclaimed during prosecution. (*Id.* at p. 22). Defendants maintain that Plaintiff’s construction would include devices that record content before the record key is actuated. (D.I. 94 at 77). Defendants argue that the applicants repeatedly disclaimed such systems to overcome a prior art rejection. (*Id.* at 77-78).

Defendants offer two different constructions. AT&T argues that broadcast program information is “transmitted to all users.” (D.I. 78 at p. 24). AT&T introduced a technical dictionary from the relevant period defining “broadcast message” as a “message from one user

sent to all users.” (D.I. 79 at 59). Another technical dictionary defines “broadcast” as a “television or radio transmission intended for public reception.” (*Id.* at 55).

The other Defendants argue that programming information is “carried by the input signal source.” (D.I. 78 at p. 17). Defendants argue that the surrounding claim language makes clear that the programming information is carried by the input source. (*Id.* at pp. 21-22).

I agree with Defendants that all uses of “broadcast program information” should have the same meaning. Plaintiff has not provided a good reason to depart from this well-established presumption. Plaintiff contends that Defendants are operating under the “mistaken idea” that “the broadcast program information” refers back to the preamble. (D.I. 78 at p. 66). I do not think that idea is mistaken. If “the broadcast program information” did not refer back to the preamble, it would lack an antecedent basis.

The prosecution history further supports a construction that does not limit “the broadcast program information” to the specific portion of programming between when the user presses the record and playback keys. Plaintiff’s construction would include continuous recording devices (*i.e.*, devices that are always recording content and storage is never initiated or stopped). Plaintiff criticizes Defendants for attempting to litigate prosecution history estoppel at the claim construction stage. (*Id.* at p. 16). That argument misses the mark, however, because Defendants are arguing prosecution disclaimer, not prosecution history estoppel. Prosecution disclaimer is a core canon of claim construction. “The doctrine of prosecution disclaimer is well established in Supreme Court precedent, precluding patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003).

In this case, the applicants clearly and unequivocally disclaimed continuous recording devices. I have only once seen a clearer case of prosecution disclaimer.² The Patent and Trademark Office rejected the patent six times based on U.S. Patent No. 5,134,499 (“Sata”). (D.I. 94 at 27). Sata teaches a recording device that “continuously records the video data concerning the television program of the channel tuned by the television tuner 1.” (’499 patent, col. 6, ll. 47-49). The applicants repeatedly distinguished Sata on the basis that Sata records continuously, and the claimed device does not begin recording until the user actuates the record key. (D.I. 78 at pp. 7-8, 52-54, 58, 77).

The applicants amended the claim from “said record key is first actuated to initiate storage of the program information” to “said record key is first actuated to begin a recording by initiating storage of the program information.” (C.A. 13-2062 D.I. 79-3 at p. 292). The applicants explained the amendment: “Claim 1 has been further amended to recite how the structure of the instant invention begins a recording upon a first actuation of the record key Accordingly, the instant invention as claimed is further distinguished from the structure of Sata, wherein recording . . . is continuous, and never initiated or stopped” (*Id.* at p. 294). The prosecution history is replete with such disclaimers. (*See, e.g., id.* at pp. 296-97; C.A. 13-2062 D.I. 79 at p. 243; C.A. 13-2062 D.I. 79-2 at pp. 248, 271). Plaintiff cannot now use claim construction to recapture continuous recording devices.

I also agree with AT&T’s additional argument that broadcast program information is “transmitted to all users.” I find as a fact, based on the technical dictionaries AT&T introduced, that “broadcast” information is information “transmitted to all users.” AT&T’s construction gives meaning to “broadcast.” I do not think it is necessary to construe “broadcast program

² *Vehicle Operation Technologies LLC v. Am. Honda Motor Co. Inc.*, 67 F. Supp. 3d 637, 650-51 & n.6 (D. Del. 2014).

information” as being carried by the input source. As Defendants note, the surrounding claim language adds that requirement. It does not need to be repeated in the construction of this term.

I will therefore construe “broadcast program information” as “programming information transmitted to all users.” I will not further construe “the broadcast program information,” as I find that all instances of “broadcast program information” have the same meaning.

3. “means for powering the apparatus”

- a. *Plaintiff’s proposed construction:* Function: powering the apparatus. Structure: AC power source, or alternative power sources such as DC power sources or batteries.
- b. *Defendants’ proposed construction:* Function: powering the apparatus. Structure: AC power source.
- c. *Court’s construction:* Function: powering the apparatus. Structure: AC power source.

The parties agree that the function of this means-plus-function term is “powering the apparatus.” They also agree that the following section of the specification discloses the structure: “It should be noted that the power source contemplated for remote control unit 46 is batteries, as opposed to AC power source contemplated for recorder 10, however alternative power sources may be applied to the instant invention without departure from the spirit or scope thereof.” (’444 patent, col. 6, ll. 19-23). The dispute centers on whether the structure is limited to an “AC power source” or can also include “alternative power sources such as DC power sources or batteries.”

Plaintiff argues that the specification states that “alternative power sources” can be used. (D.I. 78 at p. 39). Dr. Goldberg, Plaintiff’s expert, reported that one of ordinary skill in the art would understand DC power sources and batteries to be “alternative power sources.” (*Id.* at pp. 39-40). Plaintiff argues that those sources are therefore also corresponding structure.

Defendants respond that corresponding structure must be clearly linked to the claimed function. (*Id.* at p. 40 (citing *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003))). Though DC power sources and batteries are disclosed in the patent, they are not linked to the function at issue. (*Id.* at p. 42).

I agree that an AC power source is the only structure that is clearly linked to the function of “powering the apparatus.” Where a patent says alternative structures may be used but does not identify them, the structure is limited to the example disclosed. *Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1551-52 (Fed. Cir. 1997) (“Although [the specification] states that other wave forms may be used, it fails to specifically identify those wave forms. Thus, under section 112, ¶ 6, claim 12 is limited to use of a generic gradient wave form and its equivalents.”); *see also Atmel Corp. v. Info. Storage Devices, Inc.*, 997 F. Supp. 1210, 1215 (N.D. Cal. 1998) (“A specification that merely mentions the possibility of alternative structures without specifically identifying them is not sufficient to expand the scope of the claim beyond the example used.”). An AC power source is the only example disclosed. The structure of “means for powering the apparatus” is therefore limited to an “AC power source.”

4. “a keyboard having a record key and a playback key”

- a. *Plaintiff’s proposed construction*: Plain meaning. Alternatively, “a keyboard that has one or more keys that function as a record key and a playback key.”
- b. *Defendants’ proposed construction*: a keyboard having a record key and a separate playback key
- c. *Court’s construction*: a keyboard that has one or more keys that function as a record key and a playback key

Defendants argue that the specification and figures consistently depict the record key and playback key as separate keys. (D.I. 78 at p. 46). Defendants argue that the “and” in the disputed term supports finding that the keys are separate. (*Id.* at p. 45). Plaintiff argues that

requiring the record and playback keys to be separate is an unjustified restriction. (*Id.* at p. 44). Plaintiff maintains that there is no reason that a single key could not operate as both the record key and the playback key. (*Id.* at p. 44).

It is correct that the specification refers to the keys as separate, but it is the claims that govern the scope of the invention. There is no basis for importing a limitation requiring the keys to be separate. I think that a single key with multiple functions would fall within the scope of the claim language. I will therefore construe “a keyboard having a record key and a playback key” as “a keyboard that has one or more keys that function as a record key and a playback key.”

5. “record key”

- a. *Plaintiff’s proposed construction*: Plain meaning. Alternatively, “key that, when actuated, signals the control circuit to initiate storage of program information in the memory unit of the device.”
- b. *Defendants’ proposed construction*: “key that, when actuated, turns on a recording function of the apparatus to initiate recording” (proposal of Charter, Comcast, Cox, DirecTV, Time Warner, and Verizon); “key that controls a recording function” (proposal of Apple and AT&T)
- c. *Court’s construction*: key that, when actuated, begins the recording process

Plaintiff argues that its proposed construction is consistent with the context of the claim language. (D.I. 78 at pp. 48-49). Plaintiff maintains that Defendants are attempting to replace a noun—“begins a recording”—with a verb—“begins recording.” (*Id.* at p. 56). Plaintiff argues that nothing in the claim language speaks to turning on or controlling a recording function. (*Id.*). Plaintiff contends that there is no need to look beyond the language of the claim. (*Id.* at p. 55).

Defendants argue that the specification and prosecution history make clear that the device does not begin recording until the user actuates the record key. (*Id.* at p. 58). The specification states, “Basic operation of the instant invention begins with . . . recorder 10 off.” (’444 patent, col. 5, ll. 19-21). Defendants note that descriptions of “the instant invention” can serve to limit

claims. (D.I. 78 at p. 58 (citing *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007))). Defendants note that the purpose of the invention is user control over recording. (*Id.*). The summary of the invention recites “user selective initiation and termination of recording.” (’444 patent, col. 3, ll. 19-20).

Defendants further argue that the applicants repeatedly distinguished Sata on the basis that it lacked a controllable record function. (D.I. 78 at pp. 52-54, 58 (collecting examples)). For example, the applicants argued, “Where a reference teaches a device that explicitly records continuously and all the time, it would not be obvious to add a record key to control a function for which no control scenario is provided.” (C.A. 13-2062 D.I. 79-1 at pp. 244-45). The applicants therefore distinguished the invention by arguing that the record key controlled the recording function. (*Id.*).

I agree with Defendants that the record key begins the recording process. The specification makes clear that the recorder (or recording function) is off before the record key is actuated. I do not agree with Plaintiff that Defendants are improperly reading in limitations from the specification. When a specification describes “the instant invention,” it is describing the invention as a whole and can serve to limit claim scope. This is especially true where the prosecution history repeatedly confirms that description. The applicants repeatedly distinguished Sata on the grounds that the user did not control recording with the keyboard.

I will construe “record key” as “a key that, when actuated, begins the recording process.” Although this is not the exact language Defendants propose, I think it is a simpler way of saying the same thing.

6. “control circuit”

This was a disputed term, but the parties have agreed to adopt the plain and ordinary meaning. (D.I. 78 at p. 62).

7. “to begin a recording by initiating storage of the broadcast program information in said memory unit”
 - a. *Plaintiff’s proposed construction*: to initiate storage of the broadcast program information in the memory unit such that the information can be retrieved from the beginning and without missing any of the program information broadcast during the interruption
 - b. *Defendants’ proposed construction*: to begin a recording by causing the storage of broadcast program information that otherwise would not have been stored in said memory unit
 - c. *Court’s construction*: to begin a recording by causing the storage of broadcast program information that otherwise would not have been stored in said memory unit

As discussed above, the applicants disclaimed continuous recording devices during prosecution. Defendants’ construction clarifies that continuous recording devices are not within the scope of the claim. Plaintiff’s construction eliminates “to begin a recording” and instead focuses on retrieval of information. That aspect of the device is addressed later in the claim and does not need to be included in this term. I will therefore construe “to begin a recording by initiating storage of the broadcast program information in said memory unit” as “to begin a recording by causing the storage of broadcast program information that otherwise would not have been stored in said memory unit.”

8. “to begin time delay playback of the recording from the beginning thereof”

At oral argument, the parties agreed that the plain and ordinary meaning applies. (D.I. 94 at 126-128).

9. “means for wireless communication between said remote control unit and said control circuit”

- a. *Plaintiff's proposed construction:* Function: providing wireless communication between said remote control unit and said control circuit. Structure: A receiver and transmitter interposed between the control circuit and keyboard for communication there between so as to enable [a] keyboard to be placed within a discrete remote control housing
- b. *Defendants' proposed construction:* Function: providing wireless communication between said remote control unit and said control circuit. Structure: infrared light emitting diode and infrared photo detector.
- c. *Court's construction:* Function: providing wireless communication between said remote control unit and said control circuit. Structure: infrared light emitting diode and infrared photo detector.

The parties agree on the function of this means-plus-function term. (D.I. 78 at p. 88).

They also agree on the portion of the specification that discloses the associated structure:

Turning now to FIGS. 3 and 4, a further embodiment of the instant invention is shown. Therein, receiver 42 and transmitter 44 are interposed between control circuit 14 and keyboard 16 for communication therebetween so as to enable keyboard 16 to be placed within a discrete remote control housing 46. Although a wide variety of remote control systems may be applied to the present invention without departure from the spirit or scope thereof, the preferred arrangement applies infra red light emitting diode 48 to transmitter 44 and infra red photo detector 50 to receiver 42 to achieve wireless communication between the two.

('444 patent, col. 6, ll. 7-18).

Plaintiff argues that Defendants are limiting the structure to the preferred embodiment.

(D.I. 78 at p. 89). The specification states that "a wide variety of remote control systems may be applied to the present invention without departure from the spirit or scope thereof." ('444 patent, col. 6, ll. 12-14). Plaintiff maintains that it is therefore improper to limit the structure as Defendants request. (D.I. 78 at p. 89). In addition, Plaintiff argues that dependent claim 4 specifically claims an infrared wireless communication means. (*Id.*). Plaintiff maintains that claim differentiation therefore supports its construction. (*Id.*).

Defendants respond that an infared means of wireless communication is the only structure clearly linked to performing the function. (*Id.* at p. 90). Defendants further argue that

statements of additional, undisclosed alternatives are insufficient to disclose structure. (*Id.* at pp. 90-91).

As discussed above, where a patent says alternative structures may be used but does not identify them, the structure is limited to the example disclosed. *Fonar*, 107 F.3d at 1551-52. The only example disclosed is an infrared light emitting diode and infrared photo detector. In addition, Plaintiff's claim differentiation argument is unpersuasive. The Federal Circuit has "long held that a patentee cannot rely on claim differentiation to broaden a means-plus-function limitation beyond those structures specifically disclosed in the specification." *Saffran v. Johnson & Johnson*, 712 F.3d 549, 563 (Fed. Cir. 2013), *cert. denied*, 134 S. Ct. 1023 (2014).

I will therefore construe the structure associated with "means for wireless communication between said remote control unit and said control circuit" as "infrared light emitting diode and infrared photo detector."

10. "key means for enabling user control of the rate or sequence or both of transfer of program information from said memory unit to the user's display device"
 - a. *Plaintiff's proposed construction:* Function: enabling the user to control the rate or sequence, or both, of the transfer of program information from the memory unit to the user's display device. Structure: keys on the keyboard that, when actuated, cause the control circuit to vary the rate or sequence, or both, of the transfer of program information from the memory unit to the user's display device.
 - b. *Defendants' proposed construction:* Function: enable user control of the rate or sequence or both of transfer of program information from said memory unit to the user's display device. Structure: a discrete remote control with fast forward, reverse, pause and frame advance keys.
 - c. *Court's construction:* Function: enabling the user to control the rate or sequence, or both, of the transfer of program information from the memory unit to the user's display device. Structure: a discrete remote control with fast forward, reverse, pause, and frame advance keys.

The parties generally agree on the function, with only a few minor differences in wording. The dispute centers on the associated structure. The parties agree that the structure of “key means” is disclosed in the following section of the specification:

Turning now to FIG. 5, a more elaborate variation of remote control unit 46 is shown, which like the remote control of FIG. 4, is contemplated for use in conjunction with a receiver equipped recorder as shown in FIG. 3. The enhanced remote control has additional function keys intended for use during time delay playback by recorder 10, as described above and initiated by user actuation of playback key 20. These additional function keys include fast forward 52 and reverse 54, pause 56, and frame advance 58. Control circuit 14 is adapted to respond to user actuation of these keys by controlling the rate and sequence with which stored information retrieved from memory unit 12 is transferred to outputs 24 for display.

(’444 patent, col. 6, ll. 24-37).

Plaintiff contends that Defendants are improperly limiting the structure to a discrete remote control. (D.I. 78 at p. 93). Plaintiff argues that “remote control” does not appear in the claim language. (*Id.*). Plaintiff maintains that its construction is properly tied to the function. (*Id.* at p. 95).

Defendants contend that the only keys clearly linked to the recited function are fast forward, reverse, pause, and frame advance keys. (*Id.* at p. 94). Defendants note that the specification states that the function keys are on a remote control: “The enhanced remote control has additional function keys . . . includ[ing] fast forward 52 and reverse 54, pause 56, and frame advance 58.” (*Id.* (quoting ’444 patent, col. 6, ll. 24-33)). Defendants argue that it is irrelevant that the claim language does not reference a remote control or the specific keys. (*Id.* at p. 97). It notes that the structure of a means-plus-function terms is that which the specification clearly links to the recited function. (*Id.*).

Plaintiff’s proposed construction is essentially anything that performs the recited function. It runs afoul of the well-established principle that the structure of a means-plus-

function claim must be clearly linked to the recited function. *See Med. Instrumentation*, 344 F.3d at 1211. The only function keys recited in the specification are fast forward, reverse, pause, and frame advance keys. ('444 patent, col. 6, ll. 32-33). The structure is therefore limited to the keys disclosed.

In addition, I agree with Defendants that the remote control is a discrete unit. The specification describes Figure 5—which the parties agree discloses the structure—as “a more elaborate variation of remote control unit 46.” (*Id.* col. 6, ll. 24-25). The remote control is described earlier in the specification as “a discrete remote control housing 46.” (*Id.* col. 6, ll. 11-12). Therefore, the only structure that is linked to the recited function is a discrete remote control.

I will therefore construe the function of “key means for enabling user control of the rate or sequence or both of transfer of program information from said memory unit to the user’s display device” as “enabling the user to control the rate or sequence, or both, of the transfer of program information from the memory unit to the user’s display device.” I will construe the corresponding structure as “a discrete remote control with fast forward, reverse, pause and frame advance keys.”

V. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion suitable for submission to the jury.