

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF INDIANA  
NEW ALBANY DIVISION**

**LAUTZENHISER TECHNOLOGIES, INC., )**

)

**Plaintiff, )**

)

vs. )

**Case No. 4:07-CV-0084-TWP-WGH**

)

**SUNRISE MEDICAL HHG., INC., et. al. )**

)

**Defendant. )**

)

**ENTRY ON MOTION FOR SUMMARY JUDGMENT ON ‘624 PATENT**

This matter is before the Court on Defendants’ Motion for Summary Judgment [Dkt. 149]. Plaintiff Lautzenhiser Technologies, LLC (“LT”) has brought suit for patent infringement against (1) Sunrise Medical HHG, Inc. *doing business as* Quickie Designs Inc. and Sunrise Medical Inc. (collectively, “Sunrise”); (2) PG Drives Technology, Inc. (“PG”); and (3) Delphi Medical Systems Corporation (“Delphi”). Collectively, Sunrise, PG, and Delphi are the Defendants (“Defendants”) in this matter. This motion is specifically directed at U.S. Patent No. 5,270,624, which is currently held by LT (“the ‘624 patent”). The ‘624 patent is entitled “Apparatus and Method for Enhancing Torque of Power Wheelchair.” As its name suggests, the ‘624 patent is designed to improve motor operation of powered wheelchairs through torque enhancement. Defendants argue that the ‘624 patent cannot cover any of their devices because the ‘624 patent expressly disclaimed a prior art technique known as IR Feedback, and IR Feedback is the very technique Defendants employ. For the reasons set forth below, the Court **DENIES** Defendants’ Motion for Summary Judgment [Dkt. 149].

## **I. BACKGROUND**

LT is the exclusive owner of multiple patents aimed at improved operation and control of powered wheelchairs. In its Second Amended Complaint, LT charges Defendants with infringement of five patents, all of which are directed to electronic features of power wheelchair controllers. Sunrise, which makes and sells power wheelchairs, is charged with direct infringement. PG and Delphi are charged with indirect infringement by virtue of supplying controllers for Sunrise's power wheelchairs that allegedly induce or contribute to Sunrise's direct infringement.

Defendants brought this Motion for Summary Judgment specifically attacking LT's count on the '624 patent. The '624 patent was issued on December 14, 1993, and was invented by John Lautzenhiser ("Mr. Lautzenhiser"), a trailblazer in the mobility industry who has received many patents covering mobility products. During the patent prosecution process, Mr. Lautzenhiser was represented before the Patent Office by Patent Agent Wendell E. Miller ("Agent Miller"). The abstract of the patent follows:

A power wheelchair includes wheels that are reversibly driven by electric motors included in respective ones of electric motor drives. The electric motor drives provide driving voltage pulses of a pulse-width-modulated driving voltage to respective ones of the motors, and the electric motor drives provide dynamic braking pulses that are interposed intermediate of respective ones of the driving voltage pulses. The maximum width of the driving voltage pulses is selectively adjusted by a removable speed control knob that is connected to a pair of ganged maximum speed potentiometers, thereby adjustably determining the maximum speed of the conveyance. The maximum torque of the power wheelchair is selectively adjusted by a removable torque control knob that is connected to a pair of ganged torque enhancement controls. Torque enhancement is achieved by sampling torque of each of the motor during a selected portion of constant time periods of the pulse-width-modulated driving voltage. Sampling of motor torque is done subsequent to a dynamic

braking pulse and prior to a driving voltage pulse in a delay for a portion of a constant time period. (emphasis added and numbers omitted).

As is customary, the '624 patent identified the existing prior art that is patently distinct from the invention. Specifically, the "Background of the Invention" section of the '624 patent discussed the prior art method of motor load/torque control, known as IR Feedback ("IR Feedback"). IR Feedback is characterized by three features at issue in this dispute: (1) sensing occurs continuously; (2) sensing is done by resistive components; and (3) the resistive components produce a sensing signal that is low, which must be filtered. In their respective depositions, Mr. Lautzenhiser and Agent Miller acknowledged that these features are found in the IR Feedback method. They also acknowledged that some of these features cause problems; specifically, both men testified that, under the IR Feedback technique, the sensing signal has a small strength, and is therefore susceptible to interference (i.e. "noise") from electrical components of the controller.

In light of these problems, the '624 patent sought to, using Agent Miller's own words, create a "completely different system" that would avoid and solve IR Feedback's purported pitfalls. To that end, the '624 patent includes at least three features that differentiate it from IR Feedback. First, instead of sensing continuously like IR Feedback, the '624 patent senses at specific times only – between pulses of driving voltage. Second, instead of using a low-strength signal like IR Feedback, the signal used in the '624 patent is of much greater magnitude, which prevents "noise" interference and lessens the need to filter "noise." Third, unlike IR Feedback, the '624 patent senses without the use of a resistive component. The parties do not dispute that IR Feedback and the '624 patent represent two entirely different systems; LT's opposition brief

concedes that the IR Feedback technique is “distinguishable from the invention and admittedly not covered by the patent.” [Dkt. 194 at 2].

## **II. LEGAL STANDARD**

As in any other case, summary judgment is appropriate in a patent case “when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law.” *Nike Inc. v. Wolverine World Wide, Inc.*, 43 F.3d 644, 646 (Fed. Cir. 1994) (citations omitted). A genuine issue of material fact precluding summary judgment exists where the non-movant presents evidence such that, if the trial record were the same as the summary judgment record, the fact finder could reasonably find in non-movant’s favor. *Hall v. Aqua Queen Mfg., Inc.*, 93 F.3d 1548, 1553, n. 3 (Fed. Cir. 1996) (citation omitted).

The party moving for summary judgment bears the burden of demonstrating that no genuine issues of material fact exist. *Meyers v. ASICS Corp.*, 974 F.2d 1304, 1306-07 (Fed. Cir. 1992) (citation omitted). The movant also bears the responsibility of informing the court of the basis for the motion and identifying those portions of the record that establish the absence of a genuine issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). When a motion for summary judgment is properly made and supported, an opposing party may not rely merely on allegations or denials, but instead must “set out specific facts showing a genuine issue for trial.” Fed. R. Civ. P. 56(e). “If the opposing party does not so respond, summary judgment should, if appropriate, be entered against that party.” *Id.* Finally, “On summary judgment the inferences to be drawn from the underlying facts contained in [affidavits, attached exhibits, and

depositions submitted] must be viewed in the light most favorable to the party opposing the motion.” *United States v. Diebold, Inc.*, 369 U.S. 654, 655 (1962).

### **III. DISCUSSION**

The undisputed facts establish that the ‘624 patent disclaimed the prior art method known as IR Feedback, meaning that if Defendants only use IR Feedback, the ‘624 patent cannot cover their devices. Thus, this current dispute centers on whether Defendants’ controllers employ only the prior art known as IR Feedback – or whether they employ a different technique. For the reasons set forth below, the Court believes that summary judgment is inappropriate. Drawing all reasonable inferences in LT’s favor, the evidence suggests strong factual disputes on whether Defendants’ products employ more than the mere prior art.

#### **A. Defendants’ Argument**

##### ***1. Patent ‘624 Cannot Embrace What it Expressly Disclaimed***

The thrust of Defendants’ argument is relatively straightforward: In essence, “we are only doing precisely what the ‘624 patent expressly disclaimed.” Defendants frame their argument as follows: (1) the ‘624 patent is directed to controlling motor load/torque in a manner different than the prior art method known as IR Feedback; (2) the ‘624 patent expressly disclaimed IR Feedback; (3) PG and Delphi, and thus Sunrise, employ the disclaimed IR Feedback method in their controllers; and inescapably, (4) as a matter of law, the ‘624 patent cannot cover the controller on Sunrise’s wheelchairs. In other words, because a valid patent cannot cover prior art, Defendants cannot infringe on the ‘624 patent because they employ the very prior art that the ‘624 patent expressly disclaimed.

It is self-evident that when subject matter has been disclaimed from a patent, that patent's claims cannot include the disclaimed subject matter. *See, e.g., SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341-42 (Fed. Cir. 2001); *O.I. Corp. v. Tekmar Co., Inc.*, 115 F.3d 1576, 1581 (Fed. Cir. 1997) (patent-in-suit did not cover accused device because the written description of the patent "expressly distinguishes over prior art," and the prior art was the very structure used in the accused device). The '624 patent went to great lengths to distinguish itself from IR Feedback and to tout the advantages of its unique technique. Thus, if Defendants only use IR Feedback, LT cannot reverse course and bring suit against companies for merely using the disclaimed prior art. *See Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998) ("There is nothing in the '589 specification to suggest that shapes other than conical are necessarily a part of the disclosure. Indeed, as discussed above, the specification clearly suggests the contrary by asserting advantages of the conical shape over prior art shapes.").

Moreover, Defendants argue that patent '624's unequivocal disclaimer of IR Feedback obviates the need for the Court to engage in "Markman proceedings," which are hearings to construe claims in order to determine their scope and meaning. Indeed, courts are vested with broad discretion in construing claims, and can do so in the context of dispositive motions. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980-81 (Fed. Cir. *en banc* 1995) *aff'd* 517 U.S. 370 (1996). Finally, Defendants maintain that the doctrine of equivalents cannot be invoked to include IR Feedback because patent '624 expressly disclaimed IR Feedback. *See, e.g., Dolly, Inc. v. Spalding & Evenflo Cos., Inc.*, 16 F.3d 394, 400 (Fed. Cir. 1994) ("In short, the concept of equivalency cannot embrace a structure that is specifically excluded from the scope of the claims."); *Moore USA, Inc. v. Standard Register Co.*, 229 F.3d 1091, 1106 (Fed.

Cir. 2000) (“[I]t would defy logic to conclude that a minority – the very antithesis of a majority – could be insubstantially different from a claim limitation requiring a majority, and no reasonable juror could find otherwise.”).

## 2. *Features of Defendants’ Controllers*

To bolster their argument, Defendants highlight evidence indicating that their controllers employ nothing more than the prior art IR Feedback. By extension, Defendants argue, patent ‘624 cannot cover PG or Delphi’s controllers, and LT cannot make out a claim of infringement under the ‘624 patent against any Sunrise power wheelchair using a PG or Delphi controller. Thus, to assess LT’s claim of infringement, the Court must look to the unique characteristics of PG and Delphi’s respective controllers.

To support its position, PG includes, among other items, an affidavit from Jolyon Crane, PG’s Technical Director. The crux of Mr. Crane’s affidavit is that “all [PG] controllers employ the well-known technique known as ‘IR Feedback’ . . . to control the torque/load delivered to an electric motor which supplies power to the driving wheels of a power wheelchair, and done so since . . . 1987.”<sup>1</sup> More specifically, the affidavit describes three key differences between PG’s

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<sup>1</sup>To shore up their argument, Defendants note that PG has used the same circuitry architecture in the United States since 1987 – long before the advent of the ‘624 patent – making it prior art at the time of the ‘624 patent application. Defendants state that this fact necessarily dooms LT’s case: Either patent ‘624 is invalid or it is not infringed. However, this contention ignores the essence of LT’s argument – that is, PG’s products have evolved considerably over time, and eventually, this evolution resulted in infringement of the ‘624 patent. As LT notes, PG’s “post-‘624 products are not the same as their pre-‘624 products.” [Dkt. 194 at 9]. On this point, Mr. Crane’s own affidavit is arguably telling. He states, “In PG Drives’ more recent and current controller models (PG8, Pilot, Pilot+, VR2, VSI, and R-Net), while the motor load/feedback current VR is sensed continuously, for control purposes the value of VR is sampled periodically (typically every 400 milliseconds).” (emphasis added). Obviously, at some point in time, PG’s controllers began to employ periodic sampling. According to LT, and contrary to Defendants contentions, this fact lies at the heart of the parties’ present dispute.

controllers and the '624 patent. In his affidavit, Mr. Crane cites his own deposition testimony confirming that PG controllers: (1) use a resistive element to sense; (2) resistive elements produce a sensing signal that is low, making it susceptible to “noise” from electrical components of the controller; and (3) continuous sensing occurs.

Delphi contends that its controllers are even more dissimilar to the '624 patent. This claim is backed by an affidavit from Paschal Romano, a Senior Project Engineer from Delphi, which states, “To control the speed of the motors, Delphi’s controllers employ the well-known technique known as ‘IR Feedback.’” In effect, Delphi’s controllers share the same three features described in Mr. Crane’s affidavit – all of which the '624 patent expressly eschewed. What is more, Delphi controllers do not monitor or adjust torque; rather, they only monitor and adjust speed. For these reasons, Delphi argues, its controllers, and any wheelchairs that use its controllers, cannot infringe the '624 patent.

#### **B. LT’s Counter Argument**

LT argues that Defendants’ formulation of this dispute, while perhaps appealing in its simplicity, is facile and runs contrary to the facts. In reality, according to LT, Defendants’ “products do not merely practice old art but rather employ the very improvements claimed and covered by the '624 patent.” [Dkt.194 at 2]. LT implies that Defendants contention that they merely practice the prior art of IR Feedback is a thinly-veiled attempt to circumvent the rigors of claim construction. Indeed, “It is the *claims* that measure the invention.” *SRI Int’l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (citation omitted). Ultimately, LT contends that Defendants simply cannot definitively show that their products employ only the prior art.

LT's most persuasive argument is premised on the view that although Defendants' products may sense on a continuous basis, "it is what is done with the sensed signal or how that information is collected and processed that is critical." [Dkt.194 at 9]. In other words, Defendants' products do not merely practice the prior art because they sample (i.e. read and measure) information at particular times – not all of the time. Thus, Defendants cannot employ only the prior art IR Feedback because their products collect and process information in a way that goes beyond prior art, potentially encroaching on the '624 patent's territory.

**1. PG Controllers**

LT points to numerous pieces of evidence to buttress its claim that PG controllers employ more than the prior art, including:

- ! Deposition testimony from Mr. Crane suggesting that PG Drives' controllers underwent substantial and even "radical" changes from the release of pre-microcontroller-based products through the advent of microcontroller-based products.
- ! Documents that, according to LT, support the idea that PG controllers, in particular the Pilot+ microcontroller, call for collecting sensed values at particular points in time by a routine called *start\_ad*.
- ! Deposition testimony from Mr. Crane and documents indicating that the microcontroller handles, by execution of code, the collecting, reading, and processing of the analog inputs at *precise points in time*.
- ! A document related to PG's PG8 controller, which states, "The feedback function is called every 400 us by a timer interrupt. It collects four readings from the analog-to-digital converter and copies them into a buffer array. The speed of each motor is controlled by executing a digital compensation algorithm."

LT claims that PG's own documents and testimony suffice to create genuine issues of material fact precluding summary judgment.

The Court is persuaded. PG's products have clearly undergone dramatic changes since 1987, and more importantly, some of these changes relate to the way the controllers collect and process information. In paragraph 10 of his own affidavit, Mr. Crane states, "In PG Drives' more recent and current controller models (PG8, Pilot, Pilot+, VR2, VSI, and R-Net), while the motor load/feedback current VR is sensed continuously, for control purposes the value of VR is sampled periodically (typically every 400 milliseconds)." Similarly, in his deposition, Mr. Crane testified, "Typically we would pass the signals through a multiplexor and pass it to the microcontroller, which would have an A to D converter. . . And then every typically 400 microseconds a reading will be taken with the A to D converter, but the frequency of this would be dependent on the. . . requirements of the control loop." These statements raise the specter that PG's controllers employ more than the prior art IR Feedback, even if they do share many of IR Feedback's characteristics.

In the same paragraph of his affidavit, Mr. Crane adds the caveat, "The time when VR is sampled is not timed to occur between driving and braking pulses delivered by the controller to the motor as taught in the '624 Patent." Without more, however, the Court cannot find that this disparity in timing is sufficient to grant summary judgment. Drawing all reasonable inferences in LT's favor, the Court finds that genuine issues of material fact exist as to whether PG's controller merely practice the prior art or whether they do something more. Given that this is the linchpin of Defendants' argument, summary judgment with respect to PG controllers is inappropriate.

## 2. *Delphi Controllers*

In a similar fashion, LT argues that genuine issues of material fact exist as to Delphi controllers because, in part, “Like the PG Drives controller, the Delphi controller is software based and executes routines within the microcontroller by calling for collected sensed values at particular times.” [Dkt.194 at 15-16] (emphasis added).<sup>2</sup> Defendants effectively confirm this statement in their reply brief, conceding that even though Delphi’s controllers sense continuously, they only read and measure current every 5 milliseconds. [Dkt. 200 at 10]. To further fortify its position, LT points to a broad swath of highly technical documents in attempt to create genuine issues of material fact. Although many of these documents are written in a nearly indecipherable lexicon – at least from the Court’s vantage point – the Court believes that LT has pointed to sufficient evidence indicating that Delphi controllers collect and process information at particular times, in a manner different than the prior art. In other words, even

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<sup>2</sup>Defendants describe this argument as nothing more than an argument that the disclaimed IR Feedback cannot be performed by a controller that is microprocessor-based, which both PG and Delphi’s controllers currently are. [Dkt. 200 at 9]. Defendants further contend that this argument is debunked by U.S. Patent No. 4,361,788 issued to Melocik in 1982 (“Melocik ‘788 patent”). The ‘624 patent specifically cited the Melocik ‘788 patent as “typical” of the disclaimed IR Feedback method. Significantly, at Column 5, lines 23-24, the Melocik ‘788 patent states that, “Controller 42 . . . may be a properly programmed microprocessor.” (emphasis added). According to Defendants, this statement is fatal to LT’s microprocessor argument. The Court respectfully disagrees. In the Court’s view, LT does not argue that Defendants infringe simply by virtue of using a microprocessor-based controller. Instead, the focus is on how the microprocessor executes and whether sampling occurs. Drawing all reasonable inferences in favor of LT, the Court does not believe that this argument carries the day, at least at this time.

though Delphi's controllers do not monitor or adjust torque *per se*, they appear to sample in a way that the prior art does not.<sup>3</sup>

Defendants's response – that LT has done nothing more than rely on attorney argument – is well-taken. As Defendants recognize, “Unsubstantiated attorney argument regarding the meaning of technical evidence is no substitute for competent, substantiated expert testimony. It does not, and cannot, support [a party's] burden on summary judgment.” *Invitrogen Corp. v. Clontech Labs., Inc.*, 429 F.3d 1052, 1068 (Fed. Cir. 2005); *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1353 (Fed. Cir. 2001) (“It is well settled that a conclusory statement on the ultimate issue does not create a genuine issue of fact” and “[i]t is not the trial judge's burden to search through lengthy technologic documents for possible evidence.”) (citations and internal quotations omitted). Indeed, LT's opposition brief tiptoes around the outer edges of this well-settled principle, at times inviting the Court to slog aimlessly through a record rife with jargon-filled documents.<sup>4</sup> While this is a close call, the Court believes that even if it jettisoned LT's attorney argument from the computations, genuine issues of material fact would still exist with respect to Delphi's controllers.

Drawing all reasonable inferences in favor of LT, the Court believes that the evidence is

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<sup>3</sup>Defendants argue that Delphi controllers cannot infringe because they do not monitor or adjust torque – only speed. Even so, however, Defendants also argue that Delphi controllers employ IR Feedback. Common sense would suggest that because the '624 patent and IR Feedback carry out similar functions – albeit in different ways – Delphi could employ the '624 patent. This would constitute infringement, even though Delphi controllers only monitor and adjust speed. As it stands, the Court does not believe that this argument carries the day, at least for now.

<sup>4</sup> However, the Court also appreciates that LT has been saddled with the designation of many Delphi documents as “Attorneys Eyes Only.”

sufficient to create genuine issues of material fact because, like PG controllers, Delphi controllers arguably go beyond the prior art, even if they do share many of IR Feedback's features.<sup>5</sup> Specifically, Defendants' products may *sense* continuously like the prior art, but they also appear to *sample*. As the abstract of the '624 patent states, "Torque enhancement is achieved by sampling torque of each of the motor during a selected portion of constant time periods." At bottom, the Court believes that summary judgment is premature, as the '624 patent's claims have yet to be construed. And the Court declines to do so at this time, given the parties limited substantive briefing on the issue of claim construction.

#### **IV. CONCLUSION**

For the reasons set forth below, the Court **DENIES** Defendants' Motion for Summary Judgment [**Dkt. 149**] on the '624 patent claims.

SO ORDERED: 11/08/2010

  
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Hon. Tanya Walton Pratt, Judge  
United States District Court  
Southern District of Indiana

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<sup>5</sup>In light of the Court's denial of summary judgment, it need not assess LT's other arguments, such as its argument related to discrete resistive elements. Also, at this time, the Court need not assess the applicability of the doctrine of equivalents, which was curiously and conspicuously absent from LT's opposition brief.

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