IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHER DISTRICT OF ILLINOIS
EASTERN DIVISION

THE CHAMBERLAIN GROUP, INC., **Plaintiff,** **v.** **TECHTRONIC INDUSTRIES CO., LTD., TECHTRONIC INDUSTRIES NORTH AMERICA, INC., ONE WORLD TECHNOLOGIES, INC., OWT INDUSTRIES, INC., ET TECHNOLOGY (WUXI) CO. LTD., and RYOBI TECHNOLOGIES, INC.,** **Defendants.**	**Case No. 16 C 6097** **Judge Harry D. Leinenweber**

MEMORANDUM OPINION AND ORDER

Plaintiff Chamberlain Group, Inc. ("Chamberlain") alleges in this suit that Defendants Techtronic Industries Co., Ltd., Techtronic Industries North America, Inc., One World Technologies, Inc., OWT Industries, Inc., Et Technology (WUXI) Co. Ltd., and Ryobi Technologies (collectively, the "Defendants") infringe U.S. Patent Nos. 7,224,275 ("the '275 patent") and 7,635,966 ("the '966 patent"), both of which it owns. The parties dispute the construction of eleven terms that appear throughout the claims of the asserted patents; they have briefed those disputes pursuant to Local Rule 4.2. This opinion sets forth the Court's construction of the contested claim language.

I. BACKGROUND

A. The '275 Patent

1. The Invention, Disputed Terms, and Asserted Claims

The '275 patent, titled "Movable Barrier Operators Status Condition Transception Apparatus and Method," recites a moveable barrier operator, such as a garage door opener ("GDO"), featuring a wireless status condition data transmitter that wirelessly relays status condition messages to one or more remote devices. The asserted claims of the '275 patent, with the six disputed terms in italics, are produced in full below. (Chamberlain is no longer asserting claims 2 or 21 against Defendants. (*See*, ECF No. 172 ("Pl.'s Opp. Br.") at 21; ECF No. 156; ECF No. 191 at 4.))

Claim	Term	Text
1	1	*A movable barrier operator comprising*:
1[a]	2	*a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states*;
1[b]	–	a movable barrier interface that is operably coupled to the controller;
1[c]	3	a wireless status condition data transmitter that is operably coupled to the controller, wherein the wireless status condition data transmitter transmits *a status condition signal that*:
1[c.i]	3	*corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states*;

Claim	Term	Text
1[c.ii]	4	and *comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator.*
14	–	A method comprising:
14[a]	–	at a movable barrier operator:
14[a.i]	5	*detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states, of the movable barrier operator;*
14[a.ii]	3	in response to detecting the at least one predetermined condition, automatically wirelessly transmitting *a status condition signal that*:
14[a.ii.1]	3	*represents the present operational status defined, at least in part, by the at least two operating states;* and
14[a.ii.2]	–	comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator.
24	–	An apparatus comprising:
24[a]	–	a movable barrier operator having:
24[a.i]	2	*a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states;* and
24[a.ii]	3	a wireless status condition transmitter operably coupled to the controller, wherein the wireless status condition data transmitter transmits *a status condition signal that*:
24[a.ii.1]	3	*corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states;* and

Claim	Term	Text
24[a.ii.2]	-	comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator;
24[b]	6	a *remote peripheral* having:
24[b.i]	-	a wireless receiver that is communicatively compatible with the wireless transmitter;
24[b.ii]	-	a peripheral controller that is operably coupled to the wireless receiver.

The specification of the '275 patent credits existing technology with providing "a motor or other motion-imparting mechanism" to move a barrier, which motor is typically controlled by a "movable barrier operator." ('275 patent at 1:21-25.) Users control these operators either "by indicating a selection via one or more control surfaces that are physically associated with the movable barrier operator" or "by the transmission of a wireless remote control signal to the movable barrier operator." (*Id.* at 1:25-30.) At the time of the '275 patent application, the capabilities of commercially available operators had expanded "to include actions other than merely opening and closing a corresponding movable barrier," including providing ambient lighting, sensing the presence of an obstacle in the path of the barrier, and facilitating different control strategies (such as vacation mode). (*Id.* at 1:31-47.)

The specification notes, however, that prior art movable barrier operators are often partially or wholly inadequate to suit present or developing needs of a given user or setting. For example, movable barrier operators manufactured with the ability to support a wide range of functionality require a physical interface to support "numerous potentially utilized peripheral devices (including but not limited to sensors, control surfaces, alarms, displays, ambient and/or spot lighting, and so forth)." ('275 patent at 1:48-60.) This physical interface can entail undesired additional cost when part of the interface goes unused in a given installation. Furthermore, even if all potentially supported peripherals are used, the physical installation itself often includes "a physical signaling path to couple the movable barrier operator to the various peripherals," which can "result in undesired exposed wiring and/or an undesired increase in installation time." (*Id.* at 1:64-2:3.) The specification ascribes a final shortcoming to existing devices: a tendency to "fail to permit compatible support of a given peripheral," which can thwart a user who wishes, for example, to support a relatively new function "not specifically supported by a given movable barrier operator." (*Id.* at 2:4-16.)

The ‘275 patent (says that it) solves these problems by incorporating into extant technology “a controller having a plurality of potential operational status conditions, a movable barrier interface that operably couples to the controller, and a wireless status condition data transmitter that is operably coupled to the controller as well.” (‘275 patent at 2:56-61.) In the preferred embodiment, the wireless status condition data transmitter relays a status condition signal corresponding to at least one of the potential operational status conditions, and a remote peripheral (such as a display, an alarm, or a lighting control unit) can receive and process this status condition information. (*Id.* at 2:56-3:9.) First, this invention gives a user the ability to set a movable barrier operator to transmit a wide variety of wireless messages containing information that “can then be utilized to compatibly support a wide range of presently desired and later-developed features and functionality.” (*Id.* at 3:16-20.) Second, “the overall cost of a given platform can be reduced as the need to over-design a physical peripheral interface becomes diminished.” (*Id.* at 3:20-23.) Finally, this platform “has an improved opportunity to remain compatible with evolving features and legal and/or regulatory requirements to thereby promote a longer useful service life.” (*Id.* at 3:23-26.)

2. Procedural Background

After an extensive hearing, the Court granted Chamberlain's Motion for a Preliminary Injunction and, on September 20, 2016, entered an order (the "PI Order") prohibiting Defendants from further making, using, selling, or offering to sell in the United States or importing into the United States any of their Ryobi GD200 garage door openers likely to infringe claims 1 and 5 of the '275 patent. Defendants appealed this decision to the Federal Circuit, arguing that the Court improperly construed claim 1 to require a self-aware controller – that is, a controller that does not rely upon any external sensors to obtain status conditions. The Federal Circuit agreed with Defendants and vacated the PI order, holding in relevant part:

> Claim 1 neither recites nor requires a 'self-aware controller.' The written description of the '275 patent makes clear that the controller can obtain the operational status conditions through self-awareness or through externally-developed information, *e.g.,* sensors.

The Chamberlain Group, Inc. v. Techtronic Industries North America et al., No. 2016-2713, slip op. at 9 (Fed. Cir. Jan. 25, 2017). Both the language of claims 1 and 2 as well as the written description of the '275 patent contemplate self-aware controllers and controllers that rely on sensors. *Id.* at 10. The Federal Circuit rejected Chamberlain's argument that "the use of the terms 'having' and 'potential' in claim 1 demonstrate

[sic] that the claim is directed to a self-aware controller." *Id.* at 11. It also found that the prosecution history of the '275 patent does not support Chamberlain's argument that sensor-based prior art was overcome during prosecution. *Id.* at 11. The Federal Circuit's findings are binding on this Court.

With the Federal Circuit decision in hand, the Patent Trial and Appeal Board (the "PTAB") denied Defendants' two petitions to institute *inter partes* review of the '275 patent. In those two decisions, the PTAB construed several of the claims at issue here. First, the PTAB construed "controller" to mean "any programmable platform, such as a microprocessor, microcontroller, programmable logic or gate array, or the like." *One World Techs., Inc., et al. v. The Chamberlain Grp., Inc.,* IPR2016-01772, Paper 9, at 8 (P.T.A.B. Feb. 21, 2017); *One World Techs., Inc., et al. v. The Chamberlain Grp., Inc.,* IPR2016-01774, Paper 8, at 7 (P.T.A.B. Feb. 21, 2017). It then construed the limitation "controller having a plurality of potential operational status conditions" in light of its "plain and ordinary meaning," which does not "require that the controller be 'self-aware' or [] prohibit the controller from 'rely[ing] upon any external sensors to obtain status conditions.'" IPR2016-01772 at 8-12; IPR2016-01774 at 8-11. Finally, the PTAB construed "a present operational status

condition" to mean "a present status condition of the controller's operation." IPR2016-01772 at 12-14; IPR2016-01774 at 11-14. In so doing, it noted that the specification "discloses that the status condition signal 'simply reflects the *actions being taken by the controller* 11 and/or the other *operational conditions being experienced by the controller* 11." IPR2016-01772 at 14; IPR2016-01774 at 13 (citing '275 patent at 5:33-36).

B. The '966 Patent

The '966 patent, titled "Barrier Movement Operator Battery Backup and Power Equipment Battery Charging Center," covers a GDO with a rechargeable, removable battery that can be used to power other equipment physically separate from the GDO. Unlike the '275 patent, Chamberlain does not practice the '966 patent. The asserted claims of the '966 patent, with the five disputed terms in italics, are produced below. (Chamberlain has indicated that it no longer intends to assert claim 19 against Defendants. (*See*, Pl.'s Op. Br. at 25 n.9.))

Claim	Term	Text
1	2	A system for providing a rechargeable battery backup for a *barrier movement operator*, comprising:
1[a]	2	a *barrier movement operator* for controlling the movement of a moveable barrier,
1[a.i]	2	the *barrier movement operator* having a head unit to command the moveable barrier to perform

Claim	Term	Text
		moveable barrier functions,
1[a.i.1]	-	wherein the head unit is supplied power by a power source;
1[b]	1	a *battery charging station* in electrical communication with at least one rechargeable battery and in electrical communication with the head unit to supply power to the at least one rechargeable battery;
1[c]	-	circuitry electrically connected to the battery charging station to supply power from the at least one rechargeable battery to the head unit; and
1[d]	1	electrically powered equipment other than and physically separate or separable from the *barrier movement operator* comprising
1[d.i]	3	an *apparatus for receiving the at least one rechargeable battery* and to be powered by the at least one rechargeable battery to perform a predetermined function.
2	-	The system of claim 1,
2[a]	4	wherein the rechargeable battery is *removably connectable* to the electrically powered equipment.
3	-	The system of claim 1,
3[a]	1	wherein the head unit is in communication with the *battery charging station* via a cord.
4	-	The system of claim 1, further comprising
4[a]	-	an indication element to notify a user in response to at least one of:
4[a.i]	1	the at least one rechargeable battery being removed from the *battery charging station*, and
4[a.ii]	-	the stored power of the at least one rechargeable battery being below a threshold amount.
6	-	The system of claim 1,
6[a]	2	wherein the *barrier movement operator* is selected from the group consisting of: a garage

Claim	Term	Text
		door operator, a gate operator, and a commercial door operator.
9	-	A battery charging apparatus, comprising:
9[a]	1,2	a *battery charging station* in electrical communication with a rechargeable battery and in electrical communication with a head unit of a *barrier movement operator* for supplying power to at least one rechargeable battery,
9[a.i]	4,2	the at least one rechargeable battery being *removably connectable* to electrically powered equipment other than and separate or separable from the *barrier movement operator* to provide power to the electrically powered equipment; and
9[b]	1	circuitry electrically connected to the *battery charging station* to supply power from the at least one rechargeable battery to the head unit.
10	-	The battery charging apparatus of claim 9,
10[a]	1	wherein the head unit is in communication with the *battery charging station* via a cord.
11	-	The battery charging apparatus of claim 9, further comprising
11[a]	-	an indication element to notify a user in response to at least one of:
11[a.i]	1	the at least one rechargeable battery being removed from the *battery charging station*;
11[a.ii]	-	and the stored power of the at least one rechargeable battery being below the threshold amount.
15	5	*A method of power flow between at least one rechargeable battery, a barrier movement operator, electrically powered equipment other than and physically separate or separable from the barrier movement operator*, the method comprising:
15[a]	1	detecting whether the at least one rechargeable battery is in electrical communication with a

Claim	Term	Text
		battery charging station;
15[b]	1	providing power from a power source to the at least one rechargeable battery via the *battery charging station*;
15[c]	1	providing stored power from the at least one rechargeable battery to the head unit via the *battery charging station* to perform movable barrier functions; and
15[d]	–	providing power from the at least one rechargeable battery to the electrically powered equipment in response to the at least one rechargeable battery being electrically connected to the electrically powered equipment.
16	–	The method of claim 15, further comprising
16[a]	–	notifying a user in response to at least one of:
16[a.i]	1	the at least one rechargeable battery being removed from the *battery charging station*, and
16[a.ii]	–	the stored power of the at least one rechargeable battery being below the threshold amount.
22	–	The kit of claim 19, further comprising
22[a]	2	the electrically powered equipment other than and physically separate or separable from the *barrier movement operator*.

Surveying existing technology, the '966 patent notes the availability of "[v]arious remotely controllable access control mechanisms," including barrier movement operators for garage doors, which "are often powered via an electrical outlet." ('966 patent at 1:15-25.) In the event of a power outage, such devices are unable to open or close a garage door, and a user

must manually open or close it. (*Id.* at 1:25-30.) While "[s]ome current barrier movement operators can be powered via a backup battery," they receive power from "battery backups that are independent items . . . typically used only for operating the barrier movement operator." (*Id.* at 1:31-39.) The background section then briefly surveys cordless power tools, which also require batteries and charging systems. (*Id.* at 1:42-44.) Such batteries are often plug-in devices that are charged in a separate cradle capable only of recharging that battery. (*See, id.* at 1:44-47.) According to the specification, then, the chief shortcoming in prior art devices is the inconvenience and expense they leave intact: a user must charge her barrier movement operator backup battery and cordless power tool battery pack separately in separate charging cradles, and the two are not interchangeable.

Seeking to remedy the problem, the '966 patent invention provides a rechargeable battery backup for use with a barrier movement operator which, in the event of a power outage, may provide power to the barrier movement operator to permit opening or closing of the barrier. A battery charging station connected to the head unit of the movable barrier operator charges the rechargeable battery backup, which may be removed and inserted into other equipment – such as garden tools, saws, drills,

lights, and the like - to supply electric power. Because the battery charging station is connected via circuitry to the head unit (which is itself connected to a power supply), the battery backup may supply power to the head unit or vice versa. (*See,* '966 patent at 3:19-56, 6:46-7:15.) Thus, a user can conserve cost and space by minimizing the number of batteries needed on hand, and can use a single battery charging station "instead of two separate battery charging stations or cradles as is required according to current system." (*Id.* at 7:16-25.)

II. LEGAL STANDARD

"A court hearing a patent infringement suit must construe the patent's claims, both to settle disputes about their scope and to translate technical terms into concise definitions that jurors can understand." *Cascades Streaming Techs., LLC v. Big Ten Network, LLC,* No. 13 C 1455, 2016 WL 2344578, at *6 (N.D. Ill. May 4, 2016) (citations omitted). A district court is not required to construe every limitation present in a patent's asserted claims, only those terms "that are in controversy, and only to the extent necessary to resolve the controversy." *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.,* 200 F.3d 795, 803 (Fed. Cir. 1999); *see also, O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.,* 521 F.3d 1351, 1362 (Fed. Cir. 2008). Claim construction is a question of law that involves "determining the

meaning and scope of the patent claims asserted to be infringed." *Markman v. Westview Instruments, Inc.,* 52 F.3d 967, 970 (Fed. Cir. 1995).

Claim construction begins with the language of the claims themselves. *Imaginal Systematic, LLC v. Leggett & Platt, Inc.,* 805 F.3d 1102, 1008 (Fed. Cir. 2015). The 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 at the time of the invention." *Id.* at 1108-09. Sometimes, "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." *Phillips v. AWH Corp.,* 415 F.3d 1303, 1314 (Fed. Cir. 2005) (*en banc*); *see also, Brown v. 3M,* 265 F.3d 1349, 1352 (Fed. Cir. 2001) (noting that "elaborate interpretation" is generally unnecessary for terms that "are not technical terms of art").

A person of ordinary skill in the art "is deemed to read the claim term . . . in the context of the entire patent, including the specification." *Phillips,* 415 F.3d at 1314. For this reason, a court interpreting the claim language also considers the intrinsic record, including the specification and

prosecution history. *Kaneka Corp. v. Xiamen Kingdomway Grp. Co.,* 790 F.3d 1298, 1304 (Fed. Cir. 2015). Intrinsic evidence is the most important evidence of a term's ordinary meaning. *See, e.g., Power-One, Inc. v. Artesyn Techs., In.,* 599 F.3d 1343, 1348 (Fed. Cir. 2010) ("When construing claims . . . the intrinsic evidence and particularly the claim language are the primary resources."); *MBO Labs., Inc. v. Becton, Dickinson & Co.,* 474 F.3d 1323, 1329 (Fed. Cir. 2007) ("Extrinsic evidence . . . may be helpful but is less significant than the intrinsic record in determining the legally operative meaning of claim language.") (internal quotation marks omitted). Within the intrinsic record, the specification is more important than the prosecution history. *See, Ethicon Endo-Surgery, Inc. v. Covidien, Inc.,* 796 F.3d 1312, 1324 (Fed. Cir. 2015) ("Claim language must be viewed in light of the specification, which is the single best guide to the meaning of a disputed term.") (internal quotation marks omitted). Courts must take care, however, to avoid importing limitations from the specification into the claim. *Phillips,* 415 F.3d at 1323; *Hill-Rom Servs., Inc. v. Stryker Corp.,* 755 F.3d 1367, 1371 (Fed. Cir. 2014) ("While we read claims in view of the specification, of which they are a part, we do not read limitations from the embodiments in the specification into the claims.").

Extrinsic evidence, on the other hand, derives from outside the intrinsic record and includes "expert and inventor testimony, dictionaries, and learned treatises." *Phillips,* 415 F.3d at 1317 (noting that extrinsic evidence is "less significant than the intrinsic record") (internal quotation marks omitted); *see also, Netcraft Corp. v. eBay, Inc.,* 549 F.3d 1394, 1396 (Fed. Cir. 2008). The Federal Circuit frames the order of operations thusly: "[a]fter considering intrinsic evidence, a court may also seek guidance from extrinsic evidence. . . ." *H-W Tech., L.C. v. Overstock.com, Inc.,* 758 F.3d 1329, 1332 (Fed. Cir. 2014). A court relying on extrinsic evidence may need to decide, for example, what a person of ordinary skill in the art would have understood a term of art to mean at the time of the invention. *Teva Pharms. USA, Inc. v. Sandoz, Inc.,* 135 S.Ct. 831, 841 (2015) (discussing "subsidiary factual findings"). Once a court makes such a determination of fact, however, it must decide the further legal question of what the term means "*in the context of the specific patent claim under review*." *Ibid.* (emphasis in original).

Finally, if the plain and ordinary meaning of a claim term is evident on its face, there are two exceptions to construing it as such. First, the specification may define a claim term in a manner that conflicts with the meaning it would otherwise

possess. *Phillips,* 415 F.3d at 1316. Known as "lexicography," this exception to the general plain meaning rule reflects the fact that a patentee is entitled to redefine terms. *Hill-Rom,* 755 F.3d at 1371. In this situation, "the patentee's lexicography must govern the claim construction analysis." *Braintree Labs., Inc. v. Novel Labs., Inc.,* 749 F.3d 1349, 1356 (Fed. Cir. 2014). Second, the specification or the prosecution history may evidence "disavowal" or "disclaimer" if the Applicant disclaims the patent's application to certain technology - even if the claim limitations would, if interpreted consonant with their ordinary meaning, cover that technology. *See, e.g., Pacing Techs., LLC v. Garmin Int'l, Inc.,* 778 F.3d 1021, 1025 (Fed. Cir. 2015) (finding clear and unmistakable disavowal in the specification); *GE Lighting Sol'ns, LLC v. AgiLight, Inc.,* 750 F.3d 1304, 1309 (Fed. Cir. 2014) ("There are certainly cases where we have found disavowal or disclaimer based on clear and unmistakable statements by the patentee that limit the claims."); *Computer Docking Station Corp. v. Dell, Inc.,* 519 F.3d 1366, 1379 (Fed. Cir. 2008) ("[T]he sum of the patentees' statements during prosecution would lead a competitor to believe that the patentee had disavowed coverage of laptops."). A statement only constitutes a disavowal if it demonstrates "clear and unambiguous" intent to disavow claim

scope. *Saffran v. Johnson & Johnson,* 712 F.3d 549, 559 (Fed. Cir. 2013) (internal quotation marks omitted).

III. ANALYSIS

A. The '275 Patent

1. "A movable barrier operator comprising" (Claim 1)

The Court construes "a movable barrier operator comprising" to mean "an operator that controls movement of the movable barrier and may contain additional functionality, comprising."

First, the Court notes that this preamble requires construction to the same extent as the balance of the claim. A claim preamble constitutes a limitation "when the claim(s) depend on it for antecedent basis, or when it is essential to understand limitations or terms in the claim body." *C.W. Zumbiel Co. v. Kappos,* 702 F.3d 1371, 1385 (Fed. Cir. 2012). A preamble limits its claim if it is "necessary to give life, meaning, and vitality" to the claim. *Am. Medical Sys., Inc. and Laserscope v. Biolitec, Inc.,* 618 F.3d 1354, 1358 (Fed. Cir. 2010) (internal quotation marks omitted). Here, the preamble is necessary to give life and meaning to claim 1 and its limitations; it "is not merely a statement describing the invention's intended field of use." *Metraflex Co. v. Flex-Hose Co., Inc.,* No. 10 C 302, 2011 WL 4001144, at *3 (N.D. Ill. Sept. 8, 2011). Absent the preamble, the ensuing limitations

recite mere components without situating them within the operator. Further, language in the body of claim 1 relies upon the preamble for antecedent basis. (*See, e.g.,* '275 patent at 8:11-19 ("[T]he wireless status condition data transmitter transmits a status condition signal that: . . . comprises an identifier that is at least relatively unique to the *movable barrier operator*") (emphasis added).) Thus, the preamble must be construed as if in the balance of the claim.

Chamberlain argues that the preamble is readily understandable on the basis of its plain and ordinary meaning and that, if a construction is necessary, the preamble should be construed as: "An operator that controls the movement of a moveable barrier and may have other functionality." Defendants counter by proposing the construction: "A set of components that controls the movement of a movable barrier." The Court finds fault with both proposed constructions to the extent they implicitly cabin a movable barrier operator's function to moving the barrier. While true that a movable barrier operator controls the motion-imparting mechanism of the barrier, the specification unequivocally discloses greater capabilities than just barrier motion control. Replacing "operator" with "a set of components that controls the movement" defines the operator solely with reference to controlling the barrier's movement and

gives the impression that the operator's function is limited to moving the barrier.

The same rationale also undergirds the Court's rejection of Chamberlain's construction that the operator "may have *other* functionality." From the plain language of the term, a movable barrier operator must be capable of operating (*i.e.,* moving) the moveable barrier. And the specification makes clear that even movable barrier operators capable of more than mere barrier movement can nonetheless still move the barrier. (*See,* '275 patent at 1:31-34 ("Over time, the capabilities of and features supported by such movable barrier operators has *[sic] expanded to include actions other than merely opening and closing a corresponding movable barrier*." (emphasis added).) On its own, Chamberlain's proposed "other functionality" - instead of, for example, "additional functionality" – is ambiguous as to whether a movable barrier operator could, *instead* of moving the barrier, do something else entirely and still remain within claim 1.

Finally, the parties agree that a movable barrier operator does not include "remote components," such as smart phones. The specification is in accord, contrasting movable barrier operator uses involving physical association with other, physically separate "remote" control strategies. (*See, e.g.,* '275 patent at 1:25-30 ("In some cases a user may control the movable

barrier operator by indicating a selection via one or more control surfaces that are physically associated with the movable barrier operator. In other cases such control can be effected by the transmission of a wireless remote control signal to the movable barrier operator."); *id.* at FIG. 2 (depicting "remote components" as physically separate from the moveable barrier operator).) This explains the Court's rejection of Chamberlain's proposed construction "may *have* other functionality" in favor of "may *contain* additional functionality," which more clearly indicates that any added functionality derives from architecture within the operator itself. (In addition, construing "operator" to mean "a set of components" merely replaces what Defendants allege is an unclear term, "operator," with an equally nebulous epithet, "a set of components." Separately, adopting this construction also makes it conceptually more difficult for a jury to exclude remote components.)

2. "a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states" (Claims 1 & 24)

The Court construes this term to mean "a programmable platform (such as, for example, a microprocessor, a microcontroller, a programmable logic or gate array, or the like), that can obtain, though self-awareness or through

externally developed information (*e.g.,* from sensors), two or more potential operational status conditions defined, at least in part, by two or more operational conditions being experienced by the controller [programmable platform]."

The chief disputes over this term are threefold. First, Chamberlain and Defendants dispute how best to incorporate the Federal Circuit's guidance. Second, the parties disagree on the proper construction of "potential operational status conditions." Third, they dispute whether "defined, at least in part, by a plurality of operating states" should be construed to require two actions performed at a single time.

a. "a controller having"

As an initial matter, the Court finds that the term "a controller" should be construed beyond its plain language to mean "a programmable platform (such as, for example, a microprocessor, a microcontroller, a programmable logic or gate array, or the like)." The specification supports this construction by disclosing that "the controller 11 will preferably comprise a programmable platform (such as, for example, a microprocessor, a microcontroller, a programmable logic or gate array, or the like)." ('275 patent at 3:31-33.) Although this disclosure is worded in the nature of a preferred embodiment, none of the intrinsic evidence suggests an

embodiment comprising a different controller. Presumably, it was for this reason that the PTAB also construed the term this way. *See, e.g.,* IPR2016-01772 at 8; IPR2016-01774 at 7.

With respect to the first bone of contention, there is no dispute that the Federal Circuit's opinion vacating the preliminary injunction spoke directly to this limitation of claim 1: "Claim 1 neither recites nor requires a 'self-aware controller.' The written description of the '275 patent makes clear that the controller can obtain the operational status conditions through self-awareness or through externally-developed information, *e.g.,* sensors. *Chamberlain Grp.,* slip op. at 9 (citing '275 patent at 2:56-64, 4:52-59, 6:33-36). Both parties therefore agree that the controller itself need not be "self-aware" of its operational status conditions. Defendants seek to construe the word "having" as "that can obtain, through self-awareness or through externally-developed information, *e.g.,* sensors." Chamberlain, on the other hand, contends that no construction of "having" is necessary and instead addresses the Federal Circuit's opinion by adding to the end of its construction of the entire limitation the following language: "where the controller can be self-aware of such operational status conditions or the controller can be provided with externally developed information regarding the condition."

In keeping with Defendants' proposal, the Court construes "having" to mean "that can obtain, though self-awareness or through externally developed information (*e.g.,* from sensors)." The Court will not depart from the Federal Circuit's construction by replacing that court's language, as Chamberlain advocates, with a corresponding quote from the specification. The Court acknowledges the concern that the status conditions are associated with the controller itself, as the PTAB emphasized when it adopted the plain language of "having" over Defendants' proposed construction of "having" as "knowing." *See,* IPR2016-01772 at 8-12; IPR2016-01774 at 8-11. In fact, it is this distinction that militates against *Chamberlain's* construction, because its use of passive language from the specification – namely, its retention of "having" and addition of "the controller can be provided with externally developed information regarding the condition" – raises the specter of confusion regarding whether the status condition is *of the controller itself*.

Besides a clarifying punctuation edit, the only change the Court makes to Defendants' construction is the addition of the word "from." This is intended to avoid any confusion attending Defendants' (and the Federal Circuit's) apparently inadvertent equation of "sensors" with "externally developed information."

Rather than constituting the externally developed information, the external sensors are the media through which this external information is detected and provided to the controller.

b. "a plurality of potential operational status conditions"

The parties' second point of dispute concerns "a plurality of potential operational status conditions." (The parties do not appear to dispute construction of the word "plurality," and the Court notes that a patent's usage of the term "plurality" is routinely determined to mean "two or more." *See, e.g., Dayco Prods., Inc. v. Total Containment, Inc.,* 258 F.3d 1317, 1327-28 (Fed. Cir. 2001). As such, the Court construes "a plurality of" to mean "two or more.") Defendants construe "potential operational status conditions" to mean "potential status conditions of the controller's operation," whereas Chamberlain argues that the term requires no construction because its plain meaning conveys as much.

Because an operational status condition "is a condition that the controller has" and because it did not believe "operational status condition" was clear on its face, the PTAB construed "present *operational status condition*" to mean "a present *status condition of the controller's operation*." IPR2016-01772 at 14 (emphasis added); IPR2016-01774 at 13-14. (Neither "present" nor "potential" requires construction, and

the other claim terms are identical. *See, e.g., Omega Eng'g, Inc. v. Raytek Corp.,* 334 F.3d 1314, 1334 (Fed. Cir. 2003) ("[T]he same claim term in the same patent . . . carries the same construed meaning.").) Similarly, the claim language and the specification make clear that "operational status condition" refers to a status condition of the controller's operation. The specification explains that the controller sources a status condition signal to "reflect[] the actions being taken by the controller 11 and/or the other operational conditions being experienced by the controller 11." ('275 patent at 5:27-36.) It further defines an operational status condition to be "of the controller 11." (*Id.* at 4:64-67.) In addition, it notes that "the controller 11 will have a plurality of potential operational status conditions" and, for example, "might have two or more of the following potential operational status conditions," each one representing an action taken or a condition experienced by the controller. (*Id.* at 4:6-45.)

However, the Court does not need to construe this term because the parties do not appear to dispute its meaning. Chamberlain claims that the plain meaning of the term refers to operational status conditions *of the controller*. Defendants claim that the term needs to be construed to give it this meaning. The Court is confident that its full construction of

Term 2 and its other claim constructions establish in context that the status condition is of the controller's operation. It thus declines to construe this sub-term, finding it to be redundant in the context of its construction of "having," *supra*, and its construction of "defined, at least in part, by a plurality of operating states," *infra.*

c. "defined, at least in part, by a plurality of operating states"

The final dispute over Term 2 concerns how to construe "defined, at least in part, by a plurality of operating states." Defendants propose "defined by at least two actions that can be performed by the controller at a particular time." Chamberlain counters that Defendants' construction is an ill-founded attempt to rewrite "operating states" and that the plain meaning of the words should govern. Neither side proposes to construe "defined."

Claim 5, for example, recites "the movable barrier operator of claim 1 wherein the plurality of operating states includes at least one of" certain enumerated actions, which Defendants argue are necessarily actions of the controller. Language in the PTAB decisions supports this interpretation. (*See,* IPR2016-01772 at 20; IPR2016-01774 at 20.) In addition, the PTAB held that the specification "discloses that a status condition signal reflects 'the actions being taken by the controller and/or the other

operational conditions being experienced by the controller.'" (*Id.* at 20 (quoting '275 patent at 5:33-36).) It also noted that "the door's position (*e.g.,* open or closed) indicates the status of the *door*. By contrast, *moving* the door *towards* an open or closed position identifies an action being taken by the controller." (*Id.* at 19-20 (emphases in original).) Hence Defendants' construction of "operating states" as "actions that can be performed by the controller at a particular time." In contrast to the PTAB, this Court has been asked explicitly to construe "operating states" with respect to the first limitation of claim 1 and to do so in the face of proposed constructions that were not before the PTAB. (*See, e.g.,* IPR2016-01772 at 19 (opting to construe "present operational status condition" as a "present status condition of the controller's operation"; rejecting Defendants' construction of the wireless transmitter status condition limitation as the "status of *any operation* that has two or more potential operating states") (emphasis in original).)

The Court does not believe that the "operating states" recited in dependent claim 5 can be read as uniformly or as broadly as Defendants suggest, particularly in view of the specification. The Court does not credit the facile statement that all the limitations of claim 5 are actions the controller

takes, even if the PTAB indicated as much when it construed a separate limitation of claim 1. For example, the only example the specification gives of "a vacation mode status change" is "when a user effects this change via a switch provided for this purpose." ('275 patent at 4:36-37.) This "operating state" is user-initiated. Similarly, "detecting the identification of a proximal vehicle," although taking gerund form, is not something the specification defines as "an action being taken by the controller." Rather, the specification notes that such detecting occurs "when, for example, the vehicle or some corresponding agent device transmits an identifying signal." ('275 patent at 4:39-41.) (Indeed, as mentioned with respect to Term 5, *infra*, the plain meaning of "detecting" brooks no causation but instead is silent as to the underlying action.) Similarly, three of the other operating states recited in claim 5 involve the controller passively "receiving" signals from remote components. Read in light of the specification, claim 5 does not unambiguously define "operating states" as actions taken by the controller.

Other disclosures in the specification should not be ignored either. Notwithstanding the indeterminacy of "actions" in claim 5, the '275 patent did not craft the term "operating states" from whole cloth. For example, the background of the

patent includes the following description: "[S]ome movable barrier[] [operators] have a *plurality of operating modes* to facilitate differing control strategies (for example, many movable barrier operators have a so-called vacation mode that prompts use of a differing set of *operational states* when the user leaves the movable barrier operator for an extended period of time. . . ." ('275 patent at 1:38-47.) As understood in the background section, prior art "vacation mode" was an "operating mode" of a movable barrier operator that, when selected, prompted a different set of "operational states." Although "plurality of operating modes" and "operational states" may not precisely mirror "plurality of operating states," the Applicant chose in claim 5 to recite "a vacation mode status change" as among its plurality of operating states. Reading the claims in light of the specification thus casts doubt on whether claim 5's "plurality of operating states" is even an instance of lexicography at all.

Because the proper construction of "operating states" is nebulous on the basis of the specification and the claims, the Court avails itself of the prosecution history. The term "operating states" appears throughout the '275 patent's file history in ways that suggest indebtedness not to actions *taken* by the controller but *provided* to the controller:

- Examiner's initial rejection of the application: "The *operating states* and the predetermined action as defined in these claims would not involve patentable invention in view of the teachings of Suman, see figures 4, 7, 9, and 10, and columns 5 and 6. It would have been obvious to one having ordinary skill in the art to provide *the conventional operating states* and the predetermined actions in the movable barrier system of Doyle because the specific use and advantage of such is suggested by Suman." (JA 0189 (Mar. 16, 2005 Office Action at 3) (emphases added).)

- Applicant's response to the Suman/Doyle rejection: "As shown, the transmitted RF signal from the RF transmitter unit 20 of Doyle, at its most reasonable broadest interpretation, provides a single position of the garage door 22. In contrast, claims 1 and 25 require a wireless condition data transmitter to transmit a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states and claim 15 requires automatically wirelessly transmitting a status condition signal that represents the present operational status defined, at least in part, by the at least two operating states in response to detecting the at least one predetermined condition." (JA 0183 (June 15, 2005 Office Action Response at 12) (emphases in original).)

- Examiner's subsequent rejection: "Morris shows the movable barrier operator 112 that includes *a controller 18 having a plurality of potential operational status conditions, defined at least in part by a plurality of operating states 12, 14, 16, 48*; . . . Chang shows the movable barrier operator comprising *a controller having plural operating states as defined by the movable barrier interface sensor 20* wherein a wireless transmitter 51 transmits the status signals to a remotely located receiver, see figure 5. *Plural operating states are defined by angle sensor 20*, see col. 2, lines 53-65." (JA 0122 (Feb. 15, 2006 Office Action at 3).)

- Applicant's response: "The *operating states of Chang (i.e., door ¼ open, door ½ open, etc.)* do not also contain a substantially unique identifier with at least one, but not all of the operating states that identifies *[sic]* the unit it is transmitted from. . . . Chang utilizes an electronic angle sensor 20 that is attached to the door and outputs signals to the controller that transmits the door's position, but does not serve to cause the door to move. Applicant's movable barrier interface is controlled by the controller and operates to open the door; the electronic sensor 20 does not serve such a function." (JA at 0112 (Apr. 20, 2006 Office Action Response at 12).)

- Examiner's final rejection of the application: "Morris shows the identifier (status condition signal that corresponds to at least one of the two operating states) as a unique identifier that identifies *the state (open/close) of the garage door*, col. 3, lines 1-14, 45-49, col. 4, lines 5-44). . . . Chang further discloses an identifier (status condition signal that corresponds to at least one of the two operating states) as a unique indicator that identifies the position of the garage door, col. 1, lines 50-65, col. 2, lines 1-10, table in col. 4. . . . Morris and Chang clearly shows *[sic]* a controller that interfaces a movable barrier in the form of a garage door and *monitors the operational status (open or close of garage door)* as well as another parameter such as battery in Chang and smoke in Morris, wherein the controller in response to an operational status signal of the movable barrier (garage door) operates a radio transmitter to wirelessly transmit the status signal to a receiver which receiver clearly indicates at least *one of two operating states (open and close position of the garage door) from the plurality of operating states*, *the plurality of operating states shown as 12, 14, 48 in figure 1 of Morris and the plural operating states as defined by the angle sensor* 20 *of Chang*." (JA 0082 July 10, 2006 Office Action Response at 6) (emphases added).)

These excerpts show that the Applicant distinguished over the "operating states" disclosed by the asserted prior art,

including Chang and Doyle, based on the understanding that these states could relate to other components (such as the door) so long as they were provided to the controller (for example, via sensors). The clear understanding during prosecution was that the Morris prior art reference disclosed "a controller 18 having a plurality of potential operational status conditions, defined at least in part by a plurality of operating states" and that the Chang prior art reference disclosed "a controller having plural operating states." Such is precisely the language at issue here. That the controller *has* status conditions defined by those operating states does not mean that the operating states themselves are actions solely within the purview of the controller. The Court notes the consistency of this understanding with the Federal Circuit's rejection of Chamberlain's argument that claim 1's controller, by virtue of "having" operational status conditions, could not obtain them by externally-developed information from sensors. *See,* slip op. at 9-10.

Chamberlain made no argument during prosecution to distinguish the operating states recited in the '275 patent from the sensor-based operating states attributed to the prior art. (*See, e.g.,* JA 0112 (Apr. 20, 2006 Office Action Response at 12) ("Chang utilizes an electronic angle sensor 20 that is attached

to the door and outputs signals to the controller that transmits *[sic]* the door's position, but does not serve to *cause* the door to move. Applicant's movable barrier interface is controlled by the controller and operates to open the door; the electronic sensor 20 does not serve such a function.") (emphasis in original).) Indeed, in Defendants' words, the Federal Circuit "rejected CGI and Dr. Rhyne's argument that CGI overcame sensor-based prior art during prosecution." (ECF No. 286 ("Defs.' Suppl. Br.") at 4.) Nor did Chamberlain make any statement disavowing relevant claim scope. Rather, Chamberlain traversed the claim rejections by amending the "unique identifier" transmission limitation of claim 1 (and the patent's other similar independent claims) and arguing that Chang and Morris operate "wholly apart and independent of any movable barrier operator" without any suggestion that their teachings "might be usefully applied in conjunction with such a movable barrier operator." (*See, e.g.,* JA 0066-69 (Oct. 24, 2006 Office Action Response at 11-14).) The notice of allowance issued on January 19, 2007, indicating that it was "responsive to communication filed 10-24-06." (JA 0032 (Not. of Allow.).) Thus, the file history clearly indicates that a controller's *having* status conditions does not mean that the controller itself is responsible for performing an action corresponding to

each underlying operating state. That the status conditions are of the controller does not mean that they correspond only to actions taken by the controller.

The Court considers reasoning to the contrary to come dangerously close to flouting the Federal Circuit's opinion in this case. For example, the Federal Circuit rejected Chamberlain's argument that, by dint of the claim term "a controller having," the "potential operational status conditions" are internal conditions of the controller itself. *See,* slip op. at 8-10. This would seem to apply with equal force to attempts to construe the claims to mandate that operating states and/or operational status conditions can *only* be actions of the controller itself (and not actions executed or states detected by other components in communication with the controller). This is all the more so in light of the Examiner's persistent citations of prior art sensors against the '275 patent application's claims to a controller having operational status conditions defined by a plurality of operating states. Put simply, the Federal Circuit abjured interpretations of claim 1's "a controller having . . . status conditions" that require a controller to be self-aware of these status conditions without input from external sensors. The Court believes this directive has purchase here, where Defendants seek to construe

the “operating states” defining the status conditions as actions only the controller itself takes (*i.e.,* without the aid of remote components, such as sensors).

Looking to the prosecution history reveals that “operating states” defining status conditions “of the controller” can refer to states of or actions taken by non-controller components of the system, so long as the controller assimilates them by self-awareness or is provided them by, for example, external sensors. Thus, the Court rejects Defendants’ attempt to construe “operating states” as “actions that can be performed by the controller at a particular time.” Instead, the Court construes “operating states” to mean “operational conditions being experienced by the controller,” which is a phrase from the specification (‘275 patent at 5:27-36) broad enough to capture a person of ordinary skill in the art’s understanding of “operating states.” Such a person at the time of the invention would have understood the term to encompass: actions the controller directly takes, actions the controller itself may not take but of which it is made aware, and states of system components that are provided to the controller (either through self-awareness or external sensors). This construction seeks to harmonize the specification’s and claims’ predominantly (but not exclusively) active-voice descriptions of “operating states”

with the prevailing contemporaneous understanding of the term – an understanding that the Applicant did not clearly disclaim or redefine.

Even if Chamberlain itself is estopped from advocating for this position because it is contrary to the position it successfully took in the IPR proceedings, the Court "has an independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties." *Exxon Chem. Patents, Inc. v. Lubrizol Corp.,* 64 F.3d 1553, 1555 (Fed. Cir. 1995); *see also, Praxair, Inc. v. ATMI, Inc.,* 543 F.3d 1306, 1323-24 (Fed. Cir. 2008) ("Because the court has an independent obligation to construe the terms of a patent, we need not accept the constructions proposed by either party."). (The Court notes that Chamberlain has not proposed this construction of "operating states" and has instead maintained that the term should be given its plain meaning.)

***3. "a status condition signal that: corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states"* (Claims 1 & 24)**

***"a status condition signal that: represents the present operational status defined, at least in part, by the at least two operating states"* (Claim 14)**

The Court construes "a status condition signal that: corresponds to a present operational status condition defined, at least in part, by two operating states from the plurality of

operating states" to mean "a status condition signal that: corresponds to a present operational status condition defined, at least in part, by at least two from the two or more operational conditions being experienced by the controller [programmable platform]." It construes "a status condition signal that: represents the present operational status defined, at least in part, by the at least two operating states" to mean "a status condition signal that: represents the present operational status condition defined, at least in part, by the at least two operational conditions being experienced by the controller [programmable platform]."

Advancing virtually the same arguments as with respect to Term 2, Defendants propose the following construction for Term 3: "a status condition signal containing information reflecting a present status condition of the controller's operation, where the present status condition is defined by at least two actions being performed by the controller at the present time." Chamberlain, on the other hand, argues that no construction beyond the plan language of the term is necessary. (The parties both seek to clarify that claim 14 involves the movable barrier operator instead of the controller. The Court notes that its construction of Term 5, which is an antecedent limitation of claim 14, makes clear that claim 14's present

operational status – and thus the transmitted status condition signal of Term 3 - is of the movable barrier operator.)

In addition to the considerations explored with respect to Term 2, the Court notes that additional problems infect Defendants' construction of Term 3. First, Defendants do not explain why relevant punctuation (the semicolon following "that") should be done away with, nor why "corresponds to" or "represents" should be construed as "containing information reflecting." The omission of punctuation obfuscates the relationship between the various limitations of claim 1 and risks jury confusion. Similarly, Defendants have not argued that "corresponds to" or "represents" are amenable to multiple reasonable constructions, or pinpointed how their radically different construction (*i.e.,* "containing information reflecting") is supported by intrinsic evidence.

Second, Defendants do not account for embodiments that their construction would clearly preclude. For example, the specification describes an embodiment where the GDO sends a status condition signal to a lighting peripheral to identify that the GDO performed the single action of turning its lights on or the single action of turning them off. (*See,* '275 patent at 5:59-6:3.) It also describes an embodiment using a "single data field" to provide information about a single "monitored

condition." (*See, id.* at 6:46-51.) It is unclear how such embodiments could meet the claims as Defendants construe them – that is, if a present operational status condition signal must contain information reflecting multiple actions taken by the controller at the same time.

4. "a status condition signal that: . . . comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator (Claim 1)

The Court construes this term to mean "a status condition signal that: . . . comprises an identifier that is sufficiently unique to allow identification of the movable barrier operator [operator that controls movement of the movable barrier and may contain additional functionality] that sent the signal."

Although they propose different constructions, the parties appear to agree in the main that the signal must contain information representing an identifier that is "sufficiently unique" to identify as a recognized operator the movable barrier operator that sent the signal. Defendants propose the following construction: "a signal relating to a condition of the movable barrier operator that contains information representing an identifier that is sufficiently unique to allow identification of the movable barrier operator that sent the signal." Chamberlain advocates for the plain meaning, maintains the

original punctuation, and does not add the words "information representing."

Because the claims provide no further guidance, the specification is the best resource for construing Term 4. It discloses a status condition signal that identifies "the movable barrier operator." (*See, e.g.,* '275 patent at 6:39-46 ("[T]his message can be formed to include an identifier for the movable barrier operator. . . . [S]uch a message 40 can include a first field 41 that includes a specific identification number that is at least relatively unique to a *given* movable barrier operator. . . ."") (emphasis added).) The specification goes on to note that a remote peripheral, upon receipt of such a message, "can use the identifying information to determine whether the received information corresponds to a relevant movable barrier operator (*i.e.,* to a movable barrier operator with which the remote peripheral has been previously associated)." (*Id.* at 6:58-63.) When information "from an unrecognized movable barrier operator is received for whatever reason or due to whatever circumstance, the remote peripheral can choose to simply ignore the information and thereby avoid taking a potentially inappropriate action." (*Id.* at 6:63-67.) Based on an identifier included in the signal, the remote peripheral must be able at least to distinguish the movable

barrier operator that sent the signal from other movable barrier operators that *could* have potentially sent the signal.

The prosecution history bears out this understanding of the "identifier" and also confirms the specification's disclosure that the identifier must occupy its own data field within the message packet. First, the "at least relatively unique" identifier of the specification is included within the wireless status condition signal as a separate data field. (*See, e.g.,* '275 patent at FIG. 4 & 2:35-37 ("FIG. 4 comprises a schematic view of a message packet as configured in accordance with various embodiments of the invention[.]"); *id.* at 6:41-48 ("[S]uch a message 40 can include a first field 41 that includes a specific identification number that is at least relatively unique to a given movable barrier operator and that also includes one or more additional data fields. A single data field can be used if desired to contain information that corresponds to the specified status condition.").) The only wrinkle is whether the claims *require* such an approach – something the specification introduces uncertainty about by describing it as "optional." (*Id.* at 6:40.) However, the Court finds that the Applicant amended the claims in relevant part and unequivocally disavowed any other approach during prosecution. Despite these amendments, this "optional" language from the

application was never changed in the specification. (*Compare,* JA 0233, line 14 ('275 patent application at 10:14); *with* '275 patent at 6:40.)

The Examiner issued multiple anticipation rejections of claims reciting a prior incarnation of claim 1's "identifier" limitation: that "at least one, but not all, of the at least two operating states," which define the present operational status condition transmitted via signal, "substantially uniquely identifies the movable barrier." In particular, the Examiner read the Morris and Chang references' disclosure of a "status condition signal that corresponds to at least one of the two operating states" "as a unique identifier" that permitted "unique identification (visual) of the position (open/close) of the garage door." (JA 0082-83 (July 6, 2006 Office Action at 6-7.).) The Applicant amended the claims to recite as a separate limitation that the status condition signal "comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator." (JA 0057, 0060, 0063 (Oct. 24, 2006 Office Action Response at 2, 5, 8).) In the Applicant's words, Morris and Chang made "no teachings or suggestion regarding the provision of an identifier of any kind to *accompany* [their] transmissions," meaning that "a

receiver that receives information from two such monitoring systems will be unable to differentiate between them." (JA 0067-68 (emphasis added).) As the Applicant noted, the amended claims teach "a substantially unique identifier that the movable barrier operator provides *in conjunction with its status information* to permit a receiver to differentiate this information for *[sic]* other similar information as might be received by another such movable barrier operator (as when, for example, a given garage has two garage doors controlled by separate movable barrier operators)." (JA 0069 (emphasis added).) Chamberlain thus disavowed during prosecution any claim to identifying the movable barrier operator based on the transmitted status condition information. Rather, the identifier is a separate data packet "accompanying," or transmitted in "conjunction with," the status condition information.

Separately, the intrinsic evidence confirms that "unique" and "uniquely" are directed to identifying the movable barrier operator from which the status condition signal issued. The identifier need not permit *absolute* identification of a movable barrier operator, particularly if it is an unrecognized one. Instead, the identifier must permit the remote peripheral to determine, first, whether it recognizes the transmitting movable

barrier operator and, if so, which operator among the recognized ones sent the signal ("differentiation," in the Applicant's words during prosecution).

The Court does not believe that the plain and ordinary meaning of the awkward claim language imparts this meaning. Indeed, the claim's phrasing - "an identifier that is at least relatively unique . . . such that the status condition signal substantially uniquely identifies" – invites jury confusion. So too does deletion of the original punctuation and addition of the words "contains information representing." As such, the Court adopts Defendants' construction in part but maintains the original punctuation of the claim limitation and declines to add the proposed "contains information representing."

***5. "detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states, of the movable barrier operator"* (Claim 14)**

The Court construes this term to mean "detecting at least one predetermined condition as corresponds to a present operational status of the movable barrier operator [operator that controls movement of the movable barrier and may contain additional functionality], which status is defined, at least in part, by at least two operational conditions being experienced by the controller [programmable platform]."

This disputed term contains two constituent parts: first, "detecting at least one predetermined condition as corresponds to"; and second, "a present operational status condition defined, at least in part, by at least two operating states, of the movable barrier operator." Defendants contend that the construction of the second part should correspond with the construction of similar language in Term 3. Chamberlain argues that this sub-included phrase from Term 3 is wrong for the same reasons already explored. (There is consensus that no meaningful distinction exists between "operational status" and "operational status condition.") The Court finds agreement among the parties and in the case law that the construction of Term 3 should be replicated here, the key difference being the modification of present operational status (condition) by "of the movable barrier operator." The placement of the comma after "operating states" and before "of the movable barrier operator" indicates that the latter modifies "present operational status." *See, e.g., BorgWarner, Inc. v. New Venture Gear, Inc.,* 237 F.Supp.2d 919, 944-45 (N.D. Ill. 2002) (construing elements of the same limitation separated by a comma "as separate items" that do not modify one another; "It would certainly have been simple enough to suggest otherwise, by claiming [them] without a comma separating the elements."); *cf., 3form, Inc. v. Lumicor, Inc.,*

No. 2016-1535, 2017 WL 443652, at *3 (Fed. Cir. Feb. 2, 2017) ("Because there is no comma separating 'otherwise' and 'compresses,' those terms must be taken together."). This inference is bolstered by further contrasts between claim 1 and claim 14, such as the former's recitation of "a controller having a plurality of potential operational status conditions" and the latter's method step of "detecting at least one predetermined condition." Thus, the Court construes the second part as follows: "a present operational status of the movable barrier operator, which status is defined, at least in part, by at least two operational conditions being experienced by the controller."

What remains is proper construction of the first part, "detecting at least one predetermined condition as corresponds to." Defendants propose the following construction: "determining when stored information representing a condition of the movable barrier operator matches information reflecting a present status of the movable barrier operator's operation." Chamberlain believes that no construction beyond the plain meaning of the claim's words is necessary.

First, the Court rejects substitution of "determining when" for "detecting." The content of these words is quite different: unlike the active word "determining," there is no definition of

"detecting" that implicates causation. Rather, it describes the act of discerning and identifying. And the Court has been directed to nothing in the claims, specification, or prosecution history that supports an equivalence between the two words. Because replacing "detecting" with "determining" impermissibly changes the scope of the claimed method without justification in the intrinsic record, the Court declines to do so.

Second, the claim language does not require any sort of "match," only that the at least one detected predetermined condition "correspond[] to" a present operational status. Because the claim does not use "match" and because "matching" is a subset of the much broader term "corresponding," Defendants bear a heavy burden to justify construing this term so narrowly. They fail to carry it. First, the specification uses the word "corresponds" at relevant times when making clear that "the controller 11 detects at least one predetermined condition, which predetermined condition preferably, but not necessarily, corresponds to the present operational status being reported via the transmission." ('275 patent at 5:2-5.) Second, it militates against narrowing "corresponds" to "matches," noting that "[u]pon detecting such a [predetermined operational status] condition, the process 30 then forms 32 a message that includes content to relate, reflect, or otherwise correspond to the

detected status condition." (*Id.* at 6:37-39.) Thus, while the specification provides some support for construing "as corresponds to" to mean "as relates to" or "as reflects," it does not contemplate the narrower "matches." The claim language as written is thus consistent with the specification, and the Court declines to re-write "as corresponds to" in the narrower form Defendants propose ("matches information reflecting").

Third, the claim language does not support limiting "at least one predetermined condition" to "stored information representing a condition." Nor does the specification, which makes clear that "the controller 11 detects at least one predetermined condition, which predetermined condition preferably, but not necessarily, corresponds to the present operational status being reported via the transmission." ('275 patent at 5:2-5.) While the movable barrier operator may as a definitional matter need to rely on some stored data for it to "know" what conditions are predetermined, it does not follow that the predetermined condition is otherwise equivalent to the stored information. On a final note, Defendants' proposed construction does away with the words "at least," significantly and without justification narrowing the scope of the limitation.

6. "remote peripheral" (Claim 24)

The Court construes "remote peripheral" to mean "a device that is separate from the movable barrier operator [operator that controls movement of the movable barrier and may contain additional functionality] and receives and processes transmissions from the movable barrier operator [same]."

The specification discloses that a remote peripheral is a device that receives the wireless signals transmitted by the movable barrier operator's wireless status condition data transmitter. (*See, e.g.,* '275 patent at 5:39-43.) It is a broad term that refers to a number of different types of devices and platforms, "including but certainly not limited to an informational display, a remote access interface, a light fixture, a timer apparatus, an alarm unit, and so forth." (*Id.* at 5:43-47.) Defendants, however, seek to add language that the remote peripheral "receives transmissions . . . and performs actions, based on the transmissions" and that the remote peripheral operates "without user input."

The specification explains that a remote peripheral may, but need not, "perform actions" based on the transmissions it receives. (*See, e.g.,* '275 patent at 3:9-15 ("*If desired*, although the *status condition information does not comprise a control signal as such* (meaning that the status condition

information *does not comprise an instructional signal* but rather presents only informational content) the remote peripheral *can be configured* to process the data content to thereby nevertheless effect a desired corresponding action.") (emphases added).) While the specification contains numerous such statements about the ability of a remote peripheral to perform an action related to the movable barrier operator, it never *requires* that the remote peripheral perform such actions based on received transmissions. In addition, Figure 5 of the patent, in which a remote peripheral is shown via flow diagram to effect a corresponding predetermined action, is expressly described as "an embodiment of the invention." (*Id.* at 2:33-40.) The Court will not read into claim 24 a requirement that its remote peripheral "perform actions" based on transmissions received. *See, e.g., Decisioning.com, Inc. v. Federated Dept. Stores, Inc.,* 527 F.3d 1300, 1313-14 (Fed. Cir. 2008) ("The description of a preferred embodiment, in the absence of clear intention to limit claim scope, is an insufficient basis on which to narrow the claims.") (citation omitted).

Similarly, the specification appears to contemplate user input where a remote peripheral *is* used to effect actions. One illuminating passage from the specification reads as follows:

> So configured, the remote peripheral 20, upon receiving status condition information from the

> movable barrier operator 10 via the wireless transmissions being sourced by the latter, *can process that information in accord with* a desired end result. For example, *the remote peripheral 20 can serve to simply further communicate such status information via a display* such as an alphanumeric display, a graphic images display, one or more signal lights and/or corresponding indicative audible sounds, and so forth. As another example, *the remote peripheral 20 can process such status information to then itself ascertain a particular resultant course of activity*. To illustrate,. . . . [u]pon receiving a status condition signal from the movable barrier operator 10 indicating that the movable barrier operator 10 has switched on its own lights, the remote peripheral 20 can then itself determine to also switch on its own lights.

('275 patent at 5:47-56 (emphases added).) The specification contemplates the peripheral's mere display of the status condition information to the user further to "a desired end result." But if a user does not interact with the peripheral's display or take some action, then there is no "desired end result" – only the mere display of information. The immediately subsequent "example" of processing information "in accord with a desired end result" involves the peripheral "ascertain[ing] a particular resultant course of activity" and then, for example, "switch[ing] on its own lights." The inescapable conclusion is that the remote peripheral can display the status condition information to a user for subsequent user action, or it can itself effect an end result based on the status condition information. It is thus capable of receiving user input to

effect an action, of simply processing and displaying information without an end result or action, or of itself taking an action without user input. Defendants' construction that forecloses user input and vaguely requires that the peripheral "perform actions" is inappropriate. It either reads out of the invention a disclosed embodiment in which the user actively participates or opens the door to jury confusion about whether "performing actions" embraces only end results or includes, for example, mere repetition or display of information.

The Court agrees, however, that the remote peripheral is in every disclosure separate from the movable barrier operator. The Court also agrees that the remote peripheral (at least) must receive transmissions from the movable barrier operator and process them in some fashion. As such, the Court adopts Defendants' proposed construction in part, adding the further capability of "processing" to accord with the specification's disclosures. (*See, e.g.,* '275 patent at 3:3-15 ("Such an identifier can serve to permit *a receiving device to process as appropriate the status condition information*. Such status condition information can be *received and processed*, in a preferred embodiment, by a remote peripheral device (such as, but not limited to, a display, an alarm, a lighting control unit, and so forth).") (emphases added).) The Court notes that

claim 24 precisely mirrors this disclosure, reciting the "identifier" limitation immediately prior to the remote peripheral limitation. If Defendants' desired addition to Term 6 of "perform actions" is meant to impart a narrower sense of "actions" – that is, to require only some internal function besides mere receipt of a transmission – the Court believes that "processes" imparts such functionality to the extent contemplated by the specification.

B. The '966 Patent

1. "battery charging station" (Claims 1, 3, 4, 9-11, 15, 16)

The Court finds that no construction of "battery charging station" is necessary beyond its plain and ordinary meaning.

The claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using "words or expressions of manifest exclusion or restriction." *Liebel-Flarsheim Co. v. Medrad, Inc.,* 358 F.3d 898, 906 (Fed. Cir. 2004). Disavowal applies when the patentee makes statements such as "the present invention requires," "the present invention is," or "all embodiments of the present invention are." *Hill-Rom Servs.,* 755 F.3d at 1372 (internal quotations omitted). It can also apply when the patent repeatedly disparages an embodiment or if, in describing a preferred embodiment, the specification disparages

alternatives to that feature. *See, e.g., Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC,* 677 F.3d 1361, 1372 (Fed. Cir. 2012); *Inpro II Licensing, SARL v. T-Mobile USA Inc.,* 450 F.3d 1350, 1354-55 (Fed. Cir. 2006).

Here, Defendants claim that several words or indicia in the intrinsic record amount to a "manifest exclusion or restriction" of the battery charging station to a component separate and apart from the barrier movement operator. These are:

- "The battery charging station 82 may be utilized to recharge one removable rechargeable battery, or multiple removable rechargeable batteries, depending on the application. . . . Alternatively, the removable rechargeable battery may be charged by the head unit 24, which itself is powered by the power supply 76." ('966 patent at 4:38-44.)

- A statement describing Figure 3 that "circuitry 84 may control the flow of power . . . between the battery charging station 82 and the head unit 24 of the barrier movement operator." ('966 patent at 4:61-65.)

- A statement in the background of the invention describing methods for recharging that are "either built into the operator" or employ "an additional power supply for battery charging," which Defendants interpret as a battery charging station.

- Depictions in Figures 1 and 3 of the battery charging station as a component separate from the head unit and other operator components.

- Exclusion of the battery charging station from the "major electrical systems" of the operator in Figure 2.

- Depiction in Figure 7 of the battery charging station as a separate component when incorporated into the kit of claim 19, which recites a "set of instructions for the connecting of the circuitry and the battery charging station" and "may include assembly instructions regarding how to connect the barrier movement operator 184, the battery charging station 186, and the circuitry 190." ('966 patent at claim 19.)

- Statements in the prosecution history discussing the claimed battery charging station separately from the head unit and the other components of the barrier movement operator. (*See, e.g.,* JA0300-02 (Nov. 4, 2008 Office Action Response at 7-9).)

The Court does not find that any of these indicate a "manifest exclusion or restriction" that would support Defendants' construction. With respect to the first statement from the written description, Defendants omit the intervening sentence disclosing that "[t]he battery charging station 82 may receive power to charge the removable rechargeable battery directly from the power supply 76, which may comprise an electrical outlet." ('966 patent at 4:38-41.) Thus, rather than indicating disclaimer of a physically integrated battery charging station, the specification merely discloses that the claims equally encapsulate two means of recharging the rechargeable battery: through power supplied directly by the electrical power supply, or through power supplied from the head unit. That the rechargeable battery may receive power from the head unit through circuitry means only that the battery charging

station is *wired* separately from the power-transmitting architecture of the head unit, not that it is *physically* separate from, external to, or unintegrated with the barrier movement operator (*i.e.,* located on a wall, as Defendants seem to suggest). The second proffered statement from the specification is merely in accord: the circuitry is such that it may control power flow to and from the battery charging station, whether the power originates from the power supply directly or indirectly (*i.e.,* from the head unit).

Defendants saddle the statement in the background section of the '966 patent with more weight than it can bear. While the patent might disparage or expressly depart from certain features of the prior art – *i.e.,* the need for manual opening or closing of prior art garage doors in a power outage, that battery backups are independent items capable of use only for the operator, the expense and inconvenience of maintaining separate batteries and charging cradles for power tools – it does not disparage or expressly depart from prior art systems' need for a recharging method "built into the operator or as an additional power supply for battery charging." The same is true for many other statements in the background section that are consistent with the invention. (*See, e.g.,* '966 patent at 1:24-25 ("Barrier movement operators, such as garage door openers, are often

powered via an electrical outlet."); *id.* at 1:31-36 ("[Current] barrier movement operators receive power from the backup battery in the event of a power disruption from the electrical outlet and can be operated as long as the backup battery has a sufficient amount of electrical power stored.").) Nothing in the written description indicates that the invention seeks to improve upon this particular feature of prior art devices. (*See, e.g., id.* at 6:47-7:25 (summarizing the present invention's improvements over the prior art); *supra* Section II.B.) If anything, the specification's emphasis on "conserv[ing] available space" (*id.* at 7:23-25) suggests an implicit preference for a battery charging station physically integrated with a movable barrier operator.

Next, the Court rejects Defendants' attempt to read into the claims illustrations in certain figures of the '966 patent; they represent mere embodiments of the invention. Figures 3 and 7, for example, expressly state that they illustrate "at least one embodiment," not requirements of the invention or "all embodiments of the present invention." *Hill-Rom Servs.,* 755 F.3d at 1372 (internal quotation marks omitted). The embodiment illustrated in Figure 7, in which the battery charging station is a separate part of claim 19's kit, would not be rendered inoperable by a physically integrated charging station. As

Chamberlain argues, the "set of instructions" in the kit could instruct the user to connect the circuitry and attach the battery charging station to the head unit. User-friendly assembly methods are hardly required for patentability – as anyone who has forayed into home improvement can attest.

With respect to Figure 2, its depiction of "the relationship between major electrical systems" is limited to those systems "of a portion of the garage door operator shown in FIG. 1." ('966 patent at 2:58-60.) Figure 1, while depicting the battery charging station on a wall separate from the head unit, is not sufficient by itself to limit claims whose language otherwise sweeps more broadly. Drawings in a patent need not illustrate the full scope of the invention. *See, e.g., MBO Labs., Inc. v. Boston, Dickinson & Co.,* 474 F.3d 1323, 1333 (Fed. Cir. 2007) ("[P]atent coverage is not necessarily limited to inventions that look like the ones in the figures."); *Gart v. Logitech, Inc.,* 254 F.3d 1334, 1342 (Fed. Cir. 2001) ("These drawings are not meant to represent 'the' invention or to limit the scope of coverage defined by the words used in the claims themselves."). Absent is language explicitly limiting the claim scope, which absence is felt all the more profoundly where the patentee clearly knew how to claim a battery charging station separate from the movable barrier operator. Indeed, as a

separate limitation in several of the claims where Term 1 appears, the patentee claimed "electrically powered equipment other than and physically separate or separable from the barrier movement operator." ('966 patent at 7:48-53.) Use of a disputed limitation elsewhere in the specification – let alone in the claims themselves – "suggests that the patentees knew how to restrict their claim coverage" such that "a different term that implies a broader scope" was a conscious choice. *Acumed LLC v. Stryker Corp.,* 483 F.3d 800, 807-08 (Fed. Cir. 2007). If anything, the written description permits "a wide variety of modifications. . . . [that] are to be viewed as being within the ambit of the inventive concept." ('966 patent at 7:26-31.)

Finally, the challenged statements from the prosecution history do not amount to disavowal of a battery charging station integrated with the barrier movement operator. The Applicant distinguished the Wojciak reference, as relevant, on the grounds that it "does not disclose a battery charging station." (JA 0301 (Nov. 4, 2008 Office Action Response at 8) ("Wojciak fails to teach or suggest that elements 70, 72, and 74 have anything to do with a battery.").) There was no discussion of whether Wojciak disclosed a *physically separate* battery charging station, because the reference did not disclose a battery charging station at all: there was no need to argue at such a

granular level of generality. With respect to the Kirkland reference, the Applicant argued that it did not teach "a rechargeable battery or a battery used to power an operator head unit." (JA 0302 (*id.* at 9).) The Applicant distinguished Kirkland by arguing that its inclusion of a battery internal to a "receiver" made it incapable of powering the barrier movement operator, not based on its lack of a battery charging station "separate" from the operator. (*See, id*. ("[T]hat a battery in a receiver is a self-contained battery power supply . . . and that the battery is an internal battery . . . suggest that the battery is not rechargeable. Also, because the battery of Kirkland is disposed in a receiver, it cannot provide power to a barrier movement operator head unit.").)

The Court finds that "battery charging station" should be construed consistent with its plain and ordinary meaning. There is no specter of jury confusion, and Defendants have not sufficiently demonstrated disavowal to justify construing the term more narrowly. Nothing in the intrinsic evidence requires that the claimed battery charging station be physically separate from or unintegrated with the barrier movement operator.

***2. "barrier movement operator"* (Claims 1, 6, 9, 15, 22)**

In keeping with its construction of the equivalent term in the '275 patent, the Court construes "barrier movement operator"

to mean "an operator that controls movement of the movable barrier and may contain additional functionality."

As with the '275 patent, the '966 patent expressly defines both the prior art's and its own barrier movement operator as capable of controlling movement of the barrier. (*See, e.g.,* '966 patent at 1:19-25 ("In general, each [access control] system includes a primary barrier control mechanism. The latter couples in an appropriate way to a corresponding barrier and causes the barrier to move (typically between closed and opened positions). Barrier movement operators, such as garage door openers, are often powered via an electrical outlet."); *id.* at claim 1 ("a barrier movement operator for controlling the movement of a movable barrier").)

Similarly, the '966 patent contemplates added functionality of the barrier movement operator beyond merely moving the barrier. (*See, e.g.,* '966 patent at 4:1-15 (disclosing the ability of the radio frequency receiver within the head unit to "receiv[e] coded radio frequency transmissions"); *id.* at 4:24-27 ("[T]he garage door operator 10 includes an obstacle detector 78 which optically or via an infrared pulsed beam detects when the garage door opening 22 is blocked and signals the microcontroller 56 of the blockage.").)

While construing movable barrier operator in the singular may not eradicate the specter of "misidentify[ing] the barrier movement operator as a single component, *e.g.,* just the head unit" (ECF No. 151 ("Defs.' Op. Br.") at 26), Defendants' proposed construction has at least a comparable potential to mislead the jury. (*See,* Section III.A.2 *supra*.) And it is not clear that adopting Defendants' proposed construction would even solve the problem; indeed, Defendants appear to have read "barrier movement operator" as "head unit" when construing Term 1 of the '966 patent. (*See, e.g.,* Pl.'s Op. Br. at 24.) It suffices to note that the balance of each independent claim at issue conceptually separates barrier movement operator from head unit. (*See, e.g.,* claim 1 ("the barrier movement operator having a head unit"); claim 9 ("a head unit of a barrier movement operator"); claim 15 (reciting "a barrier movement operator" in the preamble and "providing stored power from the at least one rechargeable battery to the head unit" in the third limitation).)

3. "apparatus for receiving the at least one rechargeable battery" (Claim 1)

The Court construes this term as a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. The function is "receiving the at least one rechargeable battery." The corresponding structure

is “battery receptacle 142” at col. 5, line 51 through col. 6, line 3 and at Figure 5.

Means-plus-function claiming occurs when a claim term is drafted in a manner that invokes 35 U.S.C. § 112, ¶ 6 (now 35 U.S.C. § 112(f)):

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

In making the assessment of whether the limitation in question is a means-plus-function term, “the essential inquiry is not merely the presence or absence of the word ‘means’ but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson v. Citrix Online, LLC,* 792 F.3d 1339, 1348 (Fed. Cir. 2015) (*en banc*) (citation omitted). When a claim term lacks the word “means,” § 112, ¶ 6 will apply if the challenger demonstrates that the claim term fails to “recite sufficiently definite structure” or else recites “function without reciting sufficient structure for performing that function.” *Id.* at 1349 (internal quotation marks omitted). Although it is no longer a “strong” presumption, there is a rebuttable presumption that a limitation absent the word “means”

does not invoke § 112, ¶ 6. *See, Williamson,* 792 F.3d at 1348-49.

First, "apparatus" is a nonce word that can operate as a substitute for "means" in the context of § 112, ¶ 6. Such a word, tantamount to other words such as "mechanism," "element," "device," and "module," reflects nothing more than a verbal construct and typically does not connote sufficiently definite structure. *See, e.g., Williamson,* 792 F.3d at 1350; *Welker Bearing Co., v. PHD, Inc.,* 550 F.3d 1090, 1096 (Fed. Cir. 2008); *Massachusetts Inst. of Tech. v. Abacus Software,* 462 F.3d 1344, 1354 (Fed. Cir. 2006); *Personalized Media Comm'ns, LLC v. ITC,* 161 F.3d 696, 704 (Fed. Cir. 1998); *Mas-Hamilton Group v. LaGard, Inc.,* 156 F.3d 1206, 1214-1215, (Fed. Cir. 1998). The word "apparatus" does not provide any indication of structure "because it sets forth the same black box recitation of structure for providing the same specified function as if the term 'means' had been used." *Williamson,* 792 F.3d at 1350. Nor is it preceded by any structural modifier. *See, e.g., Greenberg v. Ethicon Endo-Surgery, Inc.,* 91 F.3d 1580, 1583 (Fed. Cir. 1996).

Second, the term "apparatus" is modified by functional language within the same limitation. The suffix "for receiving the at least one rechargeable battery" does not impart structure

into the term "apparatus." Instead, it modifies the term "apparatus" with purely functional language, linking it to a specific desired function. *See, e.g.,* MPEP § 2181.I.B ("Typically, the claim limitation will use the linking word 'for' to associate 'means' or a generic placeholder with the function."); *cf. York Prod., Inc. v. Central Tractor Farm & Family Ctr.,* 99 F.3d 1568, 1574 (Fed. Cir. 1996) (holding that a claim limitation does not invoke § 112, ¶6 if it does not link the generic term to a specific function).

Third, the term "apparatus" is not modified by sufficient structure, material, or acts for achieving the specified function. The surrounding claim language ("and to be powered by the at least one rechargeable battery to perform a predetermined function") merely recites intended use of the electrically powered equipment once the receiving function is consummated. It does not recite any structure, material, or acts for achieving the function of "receiving the at least one rechargeable battery." Recitations of intended use "do[] not impact or clarify the claim's meaning." *IP Innovation LLC v. Lexmark Int'l, Inc.,* 424 F.Supp.2d 1078, 1084 (N.D. Ill. 2006) (citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.,* 182 F.3d 1298, 1305 (Fed. Cir. 1999) (explaining that statements of intended use "cannot be said to constitute or explain a claim

limitation")); *see also, In re Schreiber,* 128 F.3d 1473, 1477 (Fed. Cir. 1997). Indeed, the Court notes that this surrounding claim language is not even directed to the "apparatus," but instead to the antecedent "electrically powered equipment." Both the claim language and the specification make clear that the rechargeable battery does not power the "apparatus for receiving the at least one rechargeable battery," but instead the equipment, to perform a predetermined function. (*See, e.g.,* '966 patent at 2:1-3 ("The electrically powered equipment is adapted to be powered by the at least one rechargeable battery to perform a predetermined function.").)

Chamberlain introduces extrinsic evidence that one of ordinary skill in the art would understand Term 3 to connote sufficiently definite structure. According to Chamberlain's expert, the prevalence of devices, such as garage door opener remotes, that are capable of being powered by rechargeable batteries means that a person of ordinary skill in the art at the time would have been familiar with the claimed apparatus for receiving at least one rechargeable battery. This extrinsic evidence is insufficient to avoid § 112, ¶6 treatment because it merely relates to familiarity with devices that perform the recited *function*. As in *Williamson,* this testimony "fails to describe how the [apparatus], by its interaction with other

components in the [claimed system], is understood as the name for *structure*." *Williamson,* 792 F.3d at 1351 (emphasis added). The fact that one of skill in the art, such as Dr. Rhyne, would have known how to achieve "the recited functions cannot create structure where none otherwise is disclosed." *Function Media, LLC v. Google, Inc.,* 708 F.3d 1310, 1319 (Fed. Cir. 2013). In the absence of other evidence that Term 3 denotes structure, the Court finds that means-plus-function treatment is appropriate.

Because the Court has identified the claimed function associated with the "apparatus," the question becomes whether the written description contains sufficient structure that corresponds to this claimed function. *See, e.g., Williamson,* 792 F.3d at 1351-52 (citing *Noah Sys., Inc. v. Inuit Inc.,* 675 F.3d 1302, 1311 (Fed. Cir. 2012)). Structure disclosed in the specification qualifies as "corresponding structure" if the intrinsic evidence clearly links or associates that structure to the function recited in the claim. *Id.* (citation omitted). "[I]f a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite." *Id*. at 1352 (citations omitted).

The Court finds that the specification discloses sufficient structure corresponding to the claimed function, and thus that

the limitation in question is not indefinite. The structure corresponding to the claimed "receiving" function is battery receptacle 142, as depicted in Figure 5 and described in col. 5, line 51 through col. 6, line 3. That portion of the specification discloses that "the electrically powered equipment 140 includes a battery receptacle 142 for receiving a removable rechargeable battery 144, such as the first removable rechargeable battery 104 or the second removable rechargeable battery 108." ('966 patent at 5:55-60.) It further provides that the user, once finished with the electrically powered equipment, "may remove the removable rechargeable battery 144 from the battery receptacle 142." (*Id.* at 5:66-6:3.) This structure is clearly linked with the claimed function ("apparatus for receiving the at least one rechargeable battery"). As further depicted in Figure 5, this structure actually performs the claimed function and is not, for example, a bare statement that known techniques or methods can be used. *See, e.g., Biomedino, LLC v. Waters Tech. Corp.,* 490 F.3d 946, 952 (Fed. Cir. 2007); *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.,* 296 F.3d 1106, 115-18 (Fed. Cir. 2002).

Defendants spill considerable ink reserving their right to challenge the definiteness of this means-plus-function term. Should Defendants wish to do so at summary judgment or via a

motion to reconsider, they may. *See, e.g., ePlus, Inc. v. Lawson Software, Inc.,* 700 F.3d 509, 517 (Fed. Cir. 2012) ("To begin with, indefiniteness is a question of law and in effect part of claim construction."); *Saso Golf, Inc. v. Nike, Inc.,* No. 08 C 1110, 2013 WL 4804835, at *3 (N.D. Ill. Sept. 9, 2013) ("In the context of claim construction, a motion for reconsideration may be raised at any stage of the case.").

***4. "removably connectable"* (Claims 2, 9)**

The Court construes this term to mean "configured to allow a user to insert, plug in, or otherwise manually attach and detach."

The primary point of dispute concerns whether the term "removably connectable" should be construed to allow for manual attachment and detachment, as Chamberlain argues, or for "non-permanent electrical connection," as Defendants maintain. Because the words themselves and the claims do not read on this dispute, other intrinsic evidence must be consulted. Chamberlain points to several disclosures in the specification that support its construction of "removably connectable" as "configured to allow a user to insert, plug-in or otherwise manually attach and detach." The background states that, in the context of power tools ("electrically powered equipment" in the parlance of the patent), "[u]sually the battery is a plug-in

device." ('966 patent at 1:44-46.) In addition, "the user may remove a removable rechargeable battery 144 from the battery charging station 82 and insert it into the battery receptacle 142." (*Id.* at 5:62-66.) Once finished using the electrically powered equipment, "the user may remove the removable rechargeable battery 144 from the battery receptacle 142 and place it back in the battery charging station 82 to be recharged." (*Id.* at 5:66-6:3.) Thus, against the backdrop of power tools with plug-in batteries, the specification discloses that a rechargeable battery, readily connectable and removable, can be used with a barrier movement operator and electrically powered equipment.

On the other hand, Defendants hone in on Figure 6 of the '966 patent, which depicts a decision tree. Prompt 168 of the tree reads, "Is removable rechargeable battery in electrical communication with an electrically powered equipment?" If the answer is "Yes," then the battery "provide[s] stored power to the electrically powered equipment." If the answer is "No," then the very first prompt is triggered: "Is removable rechargeable battery in electrical communication with battery charging station?" According to the written description, "[t]he method illustrated in Figure 6 may be implemented by logic or the processor within the circuitry 84." ('966 patent at 6:29-

31.) Thus, Defendants argue that, if the battery could be manually attached and detached, then an embodiment would be foreclosed: the circuitry 84 would be unable to execute the logic at prompt 168 "because it would have no way of determining the battery status after the battery had been disconnected." (Defs.' Op Br. at 29.)

The Court does not believe that Figure 6 and its corresponding written description can fairly be read, consistent with the written description, to require that the logic or processor within the circuitry implement every step through some form of electrical communication with the battery. Rather, the fairer implication is that the logic or processor performs many of the recited steps but "decides" prompt 168 based purely on whether the removable rechargeable battery is in electrical communication with the battery charging station. If not, then processing restarts at prompt 160 and proceeds through prompt 166; if so, operation 170 ("provide stored power to the electrically powered equipment") is performed *by the battery*. (It is worth noting that, if Defendants' reading of Figure 6 were credited, then the logic or circuitry within the processor would presumably also control operation 170, "provid[ing] stored power" to "electrically powered equipment physically separate or separable from the barrier movement operator.")

More fundamentally, the Court cannot conceive how Defendants' reading of Figure 6 supports their preferred construction, given the specification's disclosures. If the argument is that the logic or processor within the circuitry must be able to determine whether the battery is supplying power to the electrically powered equipment when the battery is disconnected from the battery charging station, then the electrically powered equipment must possess some special architecture that facilitates a reporting relationship vis-à-vis the logic or processor. But nothing in the patent attributes to the prior art or purports to claim such equipment. In fact, the electrically powered equipment is repeatedly described as "a saw, drill, light, garden tool, or any other equipment or tool which is capable of being powered by a battery." ('966 patent at 5:52-55, 7:6-9.) (And Defendants' construction cannot rely on the battery itself supplying this "smart" functionality. Without even connecting to the electrically powered equipment, such a battery could nonetheless indicate to the logic or processor that it is not supplying power.)

Defendants might object that the Court's construction concedes some degree of sloppy drafting and renders superfluous prompt 168 of Figure 5. If the answer to prompt 160 is "No," then why would Figure 6 not simply proceed straight to operation

170? While not an illegitimate gripe, it would have more purchase if the *claim language* itself was sloppy or rested on nothing but sloppy written description. *See, e.g., 3M Innovative Props. Co. v. Tredegar Corp.,* 725 F.3d 1315, 1335-36 (Fed. Cir. 2013) (Plager, J., concurring) (construing an ambiguous claim term against the drafter where the ambiguity was "the result of sloppy drafting" and construction required a "crystal ball"); *Cannon Rubber Ltd. v. First Years, Inc.,* No. 03 C 4918, 2004 WL 2095669, at *5 (N.D. Ill. Sept. 17, 2004) ("[Plaintiff] explains that the word 'valve' was a mere 'vestigal' remnant of a prior version of the claim that had an entirely different meaning and was 'inadvertently' left in the claim during prosecution. . . . The Court will not reward [Plaintiff's] sloppy claim drafting by disregarding 'inadvertent' claim language.").

The problem for Defendants is that their construction sacrifices other (well-drafted) portions of the written description at the altar of Figure 6. For example, in summarizing all the patent's "various embodiments," the specification discloses that "[t]he rechargeable battery backup may be *manually removed from the battery charging station and inserted into the electrically powered equipment*. After the electrically powered equipment has been utilized, the

rechargeable battery backup may be *removed from the electrically powered equipment and reinserted into the battery backup station*." ('966 patent at 6:47, 7:9-15 (emphases added).) No mention is made of any analogous electrical connection divorced from a mechanical remove/insert connection. Making Figure 6 more cogent, without more, is not a compelling enough justification to depart from these disclosures that contemplate *only* manual/mechanical attachment and detachment of the rechargeable battery - both with respect to the battery charging station *and* the electrically powered equipment. While "non-permanent electrical connection" might conceptually encompass manual removal and insertion of the battery, and therefore not *exclude* disclosed embodiments, it generates confusion and ambiguity where the specification is otherwise clear.

***5. "A method of power flow between at least one rechargeable battery, a barrier movement operator, electrically powered equipment other than and physically separate or separable from the barrier movement operator"* (Claim 15)**

The Court finds that this term is readily understandable on the basis of its plain meaning (although, to be consistent with the Court's earlier constructions, "a barrier movement operator" should be construed as "an operator that controls movement of the movable barrier and may contain additional functionality").

First, Term 5 is the preamble to claim 15 but, because it is limiting, it must be construed as if it were in the balance of the claim. As explored above with respect to Term 1 of the '275 patent, the preamble here gives life and meaning to the limitations of claim 15. What is more, subsequent limitations depend on it for antecedent basis, including "the at least one rechargeable battery" and "the electrically powered equipment." *See, e.g., Zumbiel,* 702 F.3d at 1385.

Defendants seek to construe "a method of" as "automatically controlling" based on Figure 6 and the corresponding disclosure that its method "may be implemented by logic or the processor within the circuitry 84." This is improper because, as discussed above with respect to Term 4, while many of the method's steps are amenable to such implementation, nothing in the specification supports the notion that provision of power from the rechargeable battery to the (physically separate) electrically powered equipment is executed by the logic or processor. In any event, Defendants conceded when construing Term 4 that Figure 6's logic- or processor-based control was just one embodiment of the invention "along with some embodiments disclosing a physical interconnection between the battery and electrically powered equipment." (ECF No. 188 ("Defs.' Reply Br.") at 16.) The specification is in accord,

classifying Figure 6 as "a method of utilizing the removable rechargeable battery 144 according to *an embodiment* of the invention." ('966 patent at 6:4-6 (emphasis added).) Therefore, at the very least, a construction of Term 5 that requires "automatically controlling" impermissibly limits the claim to one disclosed embodiment and reads out other embodiments. *See, e.g., Unwired Planet, LLC v. Apple Inc.,* 829 F.3d 1353, 1358-59 (Fed. Cir. 2016) ("We do not read the specification as clearly and unmistakably requiring that voice signals be transmitted exclusively over voice channels. And we will thus not import any such limitation into the claims at issue.").

The plain meanings of the words "method" and "power flow," on the other hand, are readily understandable. Term 5 is referring to a method of electrical power flowing between a rechargeable battery, a barrier movement operator, and electrically powered equipment other than and physically separate or separable from a barrier movement operator. There is no prospect of jury confusion and no impermissible restriction of the claims: this construction permits logic- or processor-based "automatic control" of the first prompts and operations of the method as well as "manual" implementation of the final step of "providing power from the at least one rechargeable battery to the electrically powered equipment"

(*i.e.,* the battery, once connected to the equipment, transmits its stored charge without involvement of the logic or processor.)

IV. CONCLUSION

For the reasons stated herein, the Court construes the six disputed terms of the '275 patent to mean the following:

1. The Court construes "A movable barrier operator comprising" to mean "An operator that controls movement of the movable barrier and may contain additional functionality, comprising."

2. The Court construes "a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states" to mean "a programmable platform (such as, for example, a microprocessor, a microcontroller, a programmable logic or gate array, or the like), that can obtain, though self-awareness or through externally developed information (*e.g.,* from sensors), two or more potential operational status conditions defined, at least in part, by two or more operational conditions being experienced by the controller [programmable platform]."

3. The Court construes "a status condition signal that: corresponds to a present operational status condition defined, at least in part, by two operating states from the plurality of

operating states" to mean "a status condition signal that: corresponds to a present operational status condition defined, at least in part, by at least two from the two or more operational conditions being experienced by the controller [programmable platform]." It construes "a status condition signal that: represents the present operational status defined, at least in part, by the at least two operating states" to mean "a status condition signal that: represents the present operational status condition defined, at least in part, by the at least two operational conditions being experienced by the controller [programmable platform]."

4. The Court construes "a status condition signal that: . . . comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator" to mean "a status condition signal that: . . . comprises an identifier that is sufficiently unique to allow identification of the movable barrier operator [operator that controls movement of the movable barrier and may contain additional functionality] that sent the signal."

5. The Court construes "detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating

states, of the movable barrier operator" to mean "detecting at least one predetermined condition as corresponds to a present operational status of the movable barrier operator [operator that controls movement of the movable barrier and may contain additional functionality], which status is defined, at least in part, by at least two operational conditions being experienced by the controller [programmable platform]."

6. The Court construes "remote peripheral" to mean "a device that is separate from the movable barrier operator [operator that controls movement of the movable barrier and may contain additional functionality] and receives and processes transmissions from the movable barrier operator [same]."

For the above reasons stated herein, the Court construes the five disputed terms of the '966 patent to mean the following:

1. The Court finds that no construction of "battery charging station" is necessary beyond its plain and ordinary meaning.

2. The Court construes "barrier movement operator" to mean "an operator that controls movement of the movable barrier and may contain additional functionality."

3. The Court construes "apparatus for receiving the at least one rechargeable battery" as a means-plus-function term

subject to 35 U.S.C. § 112, ¶ 6. The function is "receiving the at least one rechargeable battery." The corresponding structure is "battery receptacle 142" at col. 5, line 51 through col. 6, line 3 and at Figure 5, and its equivalents.

4. The Court construes "removably connectable" to mean "configured to allow a user to insert, plug in, or otherwise manually attach and detach."

5. The Court construes "A method of power flow between at least one rechargeable battery, a barrier movement operator, electrically powered equipment other than and physically separate or separable from the barrier movement operator" in line with its plain and ordinary meaning, with the caveat that "a barrier movement operator" should be construed as "an operator that controls movement of the movable barrier and may contain additional functionality."

IT IS SO ORDERED.

Harry D. Leinenweber, Judge
United States District Court

Dated: April 7, 2017