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8 UNITED STATES DISTRICT COURT
9 SOUTHERN DISTRICT OF CALIFORNIA
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11 IPS GROUP, INC.,

12 Plaintiff,

13 v.

14 CIVICSMART, INC., DUNCAN
15 SOLUTIONS, INC. and DUNCAN
16 PARKING TECHNOLOGIES, INC.,

17 Defendants.

Case No.: 17-CV-632-CAB-(MDD)

CLAIM CONSTRUCTION ORDER

18 Plaintiff IPS Group, Inc. (“IPS”) alleges that defendants CivicSmart, Inc., Duncan
19 Solutions, Inc. and Duncan Parking Technologies (collectively “CivicSmart”) infringe
20 U.S. Patent No. 8,513,832 and U.S. Patent No. 9,391,474 for a “Power Supply Unit” and
21 U.S. Patent No. 8,749,403 and U.S. Patent No. 9,424,691 for “Parking Meter
22 Communications for Remote Payment with Updated Display.” [Doc. No. 23.] Before the
23 Court now are the claim terms and phrases of these patents that the parties contend require
24 construction. The parties briefed their claim construction positions in accordance with this
25 District’s patent local rules. [Doc. Nos. 108, 109, 111, 112.] The Court held a claim
26 construction hearing on September 5, 2018. [Doc Nos. 117, 118.] The Court requested
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1 and the parties filed supplemental briefing with regard to certain terms after the hearing.
2 [Doc. Nos. 120, 121, 122, 123.]

3 Having fully considered the initial and supplemental briefings of the parties and the
4 arguments of counsel, for the reasons set forth below and discussed more fully at the claim
5 construction hearing, the Court now enters this order construing the following terms and
6 phrases.

7 **A. The ‘832 and ‘474 Patents**

8 The ‘474 patent [Doc. No. 108-4] is a continuation of the ‘832 patent [Doc. No. 108-
9 3] and therefore has a common specification. These patents are directed at power supply
10 unit for a single bay parking meter. [*Id.*, Col. 1:10-12.]

11 **1. “battery”**

12 The Court construes “battery” for both the ‘832 patent and the ‘474 patent, as “one
13 or more energy storage cells used as a single source of power.”

14 **2. “housing that encloses”**

15 Claims 1 and 17 of the ‘832 patent claim a power supply unit that includes a “housing
16 that encloses the main battery, the back-up battery, the control unit, and the wireless
17 communication device.” [*Id.*, Col. 3:58-60; Col. 5:7-9.] The parties agreed that a
18 “housing” is a “shell or casing” and according to the plain language of the claims that
19 casing “encloses,” i.e., surrounds or contains, the four listed components. The claims
20 further require this casing that encloses the four component parts be received within the
21 parking meter, or the parking meter housing. [*Id.*, Col. 3:61-62; Col. 5:10-12.] The power
22 supply unit housing is therefore a structure containing the enumerated parts that is
23 independent of the meter, or the meter housing, such that it can be placed within the meter
24 structure. The Court construes the power supply unit “housing that encloses” as an
25 “independent shell or casing that surrounds or contains” the enumerated component parts.

1 **3. “received within the parking meter”**

2 Claim 1 of the ‘832 patent requires the housing of the power supply unit be “received
3 within the parking meter.” [*Id.*, Col. 3:61-62.] The Court construes this to mean “contained
4 inside the parking meter device.”

5 **4. “control unit”**

6 Claim 1 and claim 17 of the ‘832 patent and claim 18 of the ‘474 patent, all recite
7 “a control unit for controlling supply of power to the load primarily from the main battery
8 and secondarily from the backup battery.” [*Id.*, Col. 3:55-57; Col. 54-6; Doc. No. 108-4,
9 Col. 5:1-3.]

10 Defendants contend that the claim term “control unit” connotes no definite structure,
11 it simply recites a unit for controlling the supply of power. “Unit” is generally recognized
12 as a non-structural generic placeholder. MPEP § 2181(I)(A). Adding “control” as a
13 modifier of “unit” provides no further structural disclosure. Defendants further contend
14 that the claim language recites function without reciting sufficient structure for performing
15 the function. The words of the claim, a control unit to control the supply of power, does
16 not identify a definite structure to a person of skill in the art. Consequently, Defendants
17 contend that “control unit” should be construed as a means-plus-function element, pursuant
18 to 35 U.S.C. §112 ¶ 6. [Doc. No. 108-1, ¶¶ 25-37.]

19 Plaintiff contends that in light of the function and the specification, the claimed term
20 “control unit” would be readily recognized by a person of skill in the art to be circuitry,
21 and optionally software, capable of regulating power. [Doc. No. 109-1, ¶¶ 39-42.] The
22 specification identifies a conventional linear, low dropout regulator, “known in the trade
23 as the Linear Technology model LT1529-5” as the control unit that controls the supply of
24 power to the load from the main battery and the backup battery. [Doc No. 108-3, Col.
25 2:41-45.] Figure 4 of the patent depicts a “circuit diagram of the power supply unit” [*id.*,
26 Col. 2:13] and the control unit in that diagram is depicted using a diode symbol with
27 connections to the back-up battery, the main battery and the communications device,
28 although there is no further explanation in the specification regarding this arrangement or

1 how it operates. [*Id.*, Fig. 4.] Plaintiff contends that a person of skill in the art would
2 therefore know from the disclosure and the diagram that the claim term control unit means
3 circuitry capable of regulating the supply of power, and would further understand the
4 LT1529-5 low dropout regulator to be an example of such circuitry.¹ Plaintiff provides no
5 reference to the specification to support its assertion that a person of skill in the art would
6 also understand the control unit to include software. [Doc. No. 109-1, ¶42.]

7 In determining whether to apply 112 ¶ 6 to a claim term, the standard is whether the
8 words of the claim are understood by persons of skill in the art to have a sufficiently definite
9 structure. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). The
10 Court finds that “control unit” is a non-structural placeholder identified only by its
11 function, “controlling supply of power to the load primarily from the main battery and
12 secondarily from the backup battery,” and is therefore subject to a means-plus-function
13 analysis. Applying 112 ¶ 6, the Court must determine what structure, if any, disclosed in
14 the specification corresponds to the claimed function. *Williamson*, 792 F.3d at 1351.

15 The specification clearly identifies the Linear Technology model LT1529-5 low
16 dropout regulator as the structure that provides the function of controlling the supply of
17 power to the load primarily from the main battery and secondarily from the backup battery.
18 [Doc. No. 108-3, Col. 2:41-46, Col. 2:64 - Col. 3:- 64.] Figure 4 of the specification, a
19 circuit diagram of the power supply unit, identifies the control unit only as a box with diode
20 symbol and connections to the back-up battery, the main battery and the communications
21 device. This circuitry configuration is acknowledged by both parties to be different than
22 the operation of the LT1529-5 low dropout regulator.

23 The Court therefore concludes that the specification discloses both the specific
24 example of the LT1529-5 low dropout regulator as a structure that will control the supply
25 of power to the load primarily from the main battery and secondarily from the backup
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28 ¹ Defendants’ Motion to Exclude Undisclosed Documents and Portions of Plaintiff’s Expert Declaration
submitted in support of this argument as untimely is **denied**. [Doc. No. 113.]

1 battery, as well as informing a person of skill in the art that circuitry as depicted in Fig. 4
2 could also provide this function. The Court however finds no support in the specification
3 for the Plaintiff’s assertion that software is also disclosed to perform this function. [Doc.
4 No. 109-1, ¶ 42.] Although a person of skill in the art may have implemented software to
5 achieve this function, or the multiple other functions of the control unit, discussed below,
6 the patent does not disclose the use of software. *Medical Instrumentation and Diagnostics*
7 *v. Elekta*, 344 F.3d 1205, 1212 (Fed. Cir. 2003) (the correct inquiry is to look at the
8 disclosure of the patent and determine if one of skill in the art would have understood the
9 specification itself to disclose the structure, not simply whether that person would be
10 capable of implementing that structure.) “It is not proper to look to the knowledge of one
11 skilled in the art apart from and unconnected to the disclosure of the patent.” *Id.*

12 The Court finds “control unit” limited to the disclosed structures, the LT1529-5 low
13 dropout regulator and the circuitry as depicted in Fig. 4.

14 The parties dispute whether these disclosed structures can actually perform the
15 claimed function. Defendants assert that the LT1529-5 is incapable of performing the
16 claimed function and therefore claims 1 and 17 of the ‘832 patent and claim 18 of the ‘474
17 are indefinite. Plaintiff asserts that this regulator, as well as other regulators that are
18 disclosed by the circuit diagram would be readily configurable by a person of skill in the
19 art to perform this function. The Court finds material facts in dispute and therefore declines
20 to reach the indefiniteness challenge as to these claims at this time.

21 Claim 1 of the ‘474 patent, which also claims the control unit, however is not
22 supported by the specification. Claim 1 of the ‘474 patent claims;

23 A method for controlling the supply of power to a parking meter comprising:

- 24 a) **monitoring, by a control unit**, a status of a main battery which is rechargeable
25 and a back-up battery which is non-rechargeable;
- 26 b) **charging at least partially, by the control unit**, the main battery via one or more
27 charging sources;
- 28 c) **supplying power, by the control unit**, to the parking meter primarily from the
main battery;

- 1 d) **switching the supply of power, by the control unit**, to come from the back-up
2 battery when the voltage across the main battery falls below a predetermined
3 level;
4 e) **supplementing the supply of power during a peak power demand, by the**
5 **control unit** , to the main battery by utilizing at least one capacitor; and
6 f) **signaling, by the control unit**, a wireless communication device to communicate
7 a status message to a control system external to the parking meter regarding the
8 status of the main battery and the back-up battery;

9 wherein the main battery, the back-up battery, the at least one capacitor, the wireless
10 communications device, and the control unit are received within the parking meter.

11 [*Id.*, Col. 3:53 – 4:7 (emphasis added).]

12 The specification identifies no structure that corresponds to all these claimed
13 functions. The only structures disclosed as a control unit are the Linear Technology model
14 LT1529-5 low dropout regulator and a circuit depicted in Figure 4, a box with diode symbol
15 and connections to the back-up battery, the main battery and the communications device,
16 described as providing the function of controlling the supply of power. The patent is
17 entirely devoid of any explanation as to how these structures achieve all the above listed
18 functions.

19 Plaintiff never addresses directly what structures are disclosed to provide all this
20 functionality and simply argues that one of skill in the art would know to use more
21 sophisticated circuitry elements including software to achieve these functions. Although a
22 person of skill in the art may have the knowledge to conceive a circuit or other structure to
23 accomplish these steps, it would be unconnected to the patent disclosure.

24 “If a person of ordinary skill in the art would be unable to recognize the structure in
25 the specification and associate it with the corresponding function in the claim, a means-
26 plus-function clause is indefinite.” *Williamson*, 792 F.3d at 1352. Finding no structure
27 disclosed in the patent as a control unit that performs all the functions set forth in claim 1
28 of the ‘474 patent, the Court finds that claim invalid for indefiniteness.

1 **B. The ‘403 and ‘691 Patents**

2 The ‘691 patent [Doc. No. 108-6] is a continuation of the ‘403 patent [Doc. No. 108-
3 5] and therefore has a common specification. These patents are directed at parking meter
4 communications for remote payment, with updated displays and the capability to power
5 down and wake up portions of the communications subsystem in relation to expiration and
6 payments. [*Id.*, Col. 3:51-63.]

7 **1. controller module**

8 The Court construes “controller module” to be a means-plus-function element and
9 identified the corresponding structures at Col. 8:30-48 of the ‘403 patent. [Doc. No. 108-
10 5.]

11 **2. configured to wake up the powered down portion of the communication**
12 **subsystem upon determining that the [first] amount of time remaining is**
13 **below a threshold time prior to the expiration of the parking session**

14 The Court construes “upon” in the claim limitation as “immediately and because of.”

15 **3. control the communications subsystem to transmit a message to a remote**
16 **management system or to a wireless device of the registered user; control**
17 **the communications subsystem to transmit the identification information to**
18 **the remote management system**

19 The Court found these claim phrases unambiguous and declined any further
20 construction.

21 **4. receiving time information from the management system indicating a set**
22 **time for a current parking session and initiating a count-down of the set time**
23 **toward zero, and then deactivating at least a portion of the communication**
24 **circuitry**

25 The Court found this claim phrase unambiguous and declined any further
26 construction.

27 **5. activating the communication circuitry [the deactivated portion of the**
28 **communication circuitry] and initiating a communication session with the**
 management system at a predetermined time prior to the expiration of the
 parking session set time

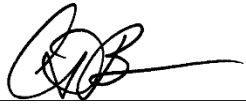
1 The Court found this claim phrase unambiguous and declined any further
2 construction.

3 **6. wherein upon initiating the communication session, transmitting a message**
4 **to the management system or to a wireless devise of the registered user**

5 The Court construes “upon” in the claim limitation as “immediately and because of.”

6 It is **SO ORDERED.**

7 Dated: December 13, 2018

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10 Hon. Cathy Ann Bencivengo
11 United States District Judge
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